

- SEPARABLE CONNECTORS
- CABLE JOINTS
- TERMINATIONS
- SURGE ARRESTERS
- FUSES
- LOADBREAK SWITCHES



This is the Home Page (page 1). Use this as the starting point to access product information. You may also search by product number using the viewer. If you need help, scroll down for diagram and additional instructions.

Scroll list and select pages by clicking **O** or **P**

O for Overview Page

P for Product Number Page

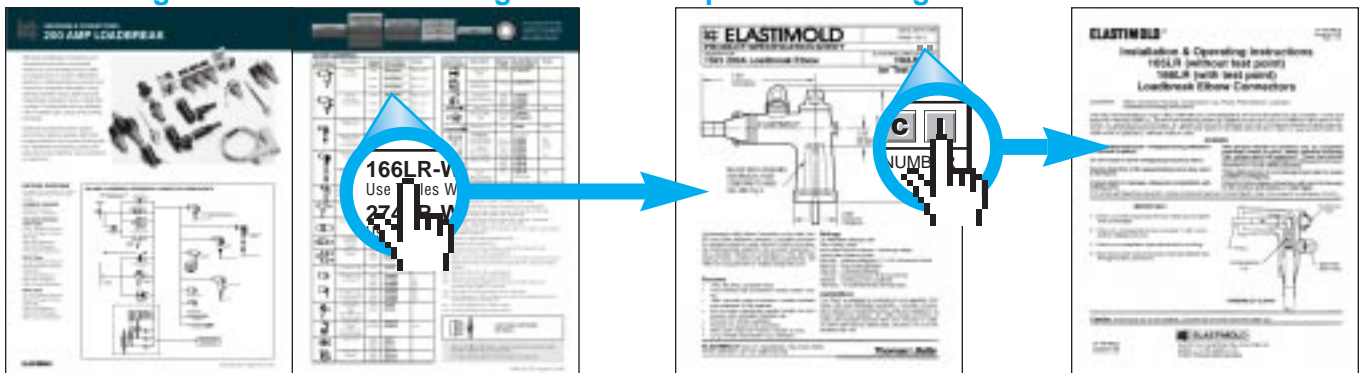
• Introductory Product Information	O	
• Component Application & Selection Help ..	O	
• Certified Tests & Performance	O	
• Separable Connector Interfaces	O	
• 200 Amp Loadbreak Connectors	O	P
• 200 Amp Deadbreak Connectors	O	P
• 600 Series Deadbreak Connectors	O	P
• 600 Series Deadbreak Connectors – Cam-Op, Link-Op	O	P
• 600 Series Deadbreak Connectors – Stick-Op, Window-Op	O	P
• 600 Series Deadbreak Cable Joints	O	P
• PCJ Cable Joints	O	P
• Cable Terminations	O	P
• Surge Arresters	O	P
• Shield Adapters, Grounding Kits & Jacket Seals	O	P
• How to specify size-sensitive products	O	
• WX Size Tables	O	
• AEIC Cable Insulation Diameter Reference..	O	
• Cable Conductor Diameter Reference	O	
• Equipment Bushings	O	
• Loadbreak Switches, Molded Current Limiting Fuses, Molded Power Fuses & Transmission Class products	O	

Overview Page

Product Number Page

Product Specification Page

Product Instruction Sheet



To view **Product Specification Page(s)**, choose a product by clicking directly on the product number in the table on the Product Number Page. To view **Instruction Sheet**, click on the Instruction Sheet button **I** in the upper right-hand corner. To view **Crimp Chart** click on the Crimp Chart button. **C**



CERTIFIED TESTS AND PERFORMANCE

Elastimold Separable Connectors, Cable Joints, Cable Terminators, Surge Arresters, Fused Elbows and other cable accessory products have been designed and tested per applicable portions of IEEE, ANSI, NEMA and other industry standards including:

- IEEE 386 Standard For Separable Connectors
- IEEE 404 Standard For Cable Joints and Splices
- IEEE 48 Standard For Cable Terminations

- IEEE C62.11 Standard For Metal Oxide Surge Arresters
- ANSI C37.41 Standard For Current Limiting Fuses
- IEEE 592 Standard For Exposed Semiconducting Shields
- ANSI C119.4 Standard For Copper and Aluminum Conductor Connectors
- AEIC CS5 and CS6 Standards For XLP and EPR Insulated Cables

CABLE JOINTS, TERMINATIONS AND ARRESTER RATINGS

Refer to the pages listed below for rating information:

- PCJ Cable Joints, page 20.
- Cable Terminations, page 22
- Surge Arresters, page 26.

SEPARABLE CONNECTOR RATINGS

Table 1 shows voltage and current ratings which apply to all Separable Connectors including 200 AMP Loadbreak, 200 AMP Deadbreak and 600 Series Deadbreak products. Table 2 shows switching and fault close ratings which only apply to 200 AMP Loadbreak Connectors.

TABLE 1	15kV Class Ratings	25kV Class Ratings	35kV Class Ratings
<ul style="list-style-type: none"> • OPERATING VOLTAGE Maximum line-to-ground (See Application Info Note 1) 	8.3kV	15.2kV	21.1kV
<ul style="list-style-type: none"> • BIL Impulse withstand 1.2 x 50 microsecond wave 	95kV	125kV	150kV
<ul style="list-style-type: none"> • WITHSTAND VOLTAGE AC One Minute DC Fifteen Minute 	34kV 53kV	40kV 78kV	50kV 103kV
<ul style="list-style-type: none"> • CORONA EXTINGUISHMENT LEVEL @ 3pC Sensitivity 	11kV	19kV	26kV
200 AMP Products Continuous Current: Symmetrical Momentary Current: 600 Series Products Continuous Current: Symmetrical Momentary Current:	200 AMP* 10kA sym, 10 cycle duration 600 and 900 AMP* 25kA sym, 10 cycle duration * Designed for 90° C maximum continuous operating temperature		

TABLE 2	LOADMAKE/LOADBREAK SWITCHING	FAULT CLOSE
15kV Class Ratings	<ul style="list-style-type: none"> • 1ϕ and 3ϕ circuits 8.3kV line to ground, 14.4kV max. across open contacts. • 10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor. 	1 fault close operation at 8.3kV or 14.4kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)
25kV Class Ratings	<ul style="list-style-type: none"> • 1ϕ and 3ϕ circuits 15.2kV line to ground, 26.3kV max. across open contacts. • 10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor. 	1 fault close operation at 15.2kV or 26.3kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)
35kV Class Ratings	<ul style="list-style-type: none"> • 1ϕ and 3ϕ circuits 21.1kV line to ground, 36.6kV max. across open contacts. • 10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor. 	1 fault close operation at 21.1kV or 36.6kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)

Application Information:

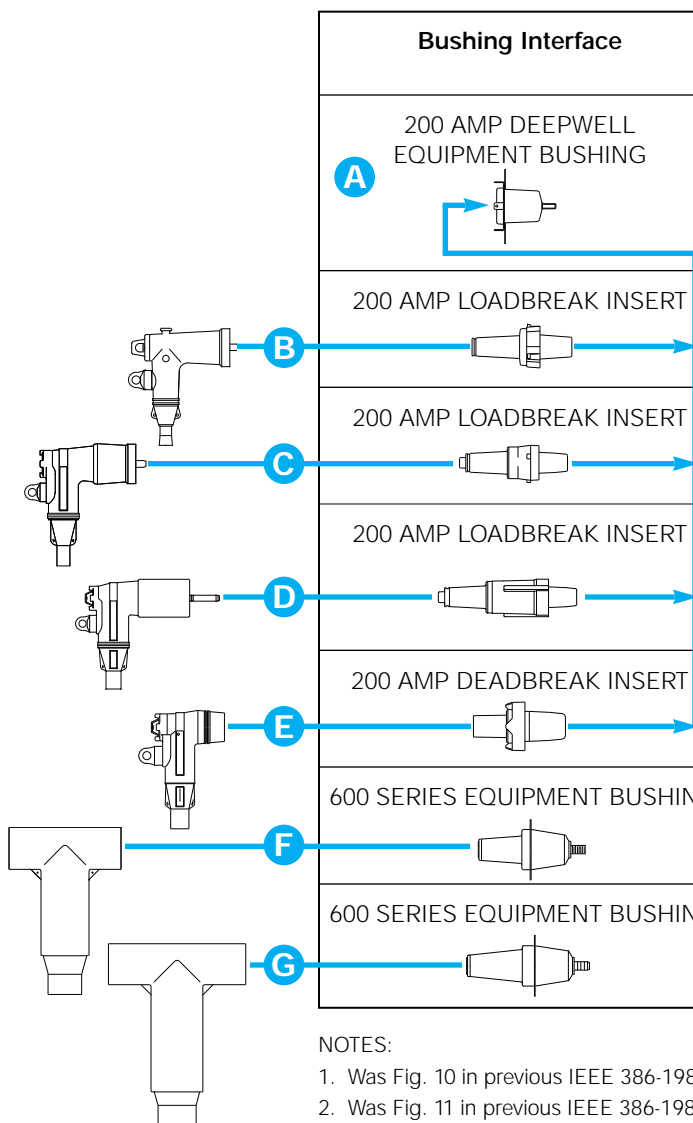
1. Loadbreak connectors are designed and rated for use on grounded WYE systems. For application on ungrounded WYE or delta systems, the next higher voltage class product is recommended. Examples: 5kV ungrounded: use 15kV class products; 15kV ungrounded: use 25kV class products; 25kV ungrounded: use 35kV class products; 35kV ungrounded: contact factory.
2. Products are designed and constructed for all applications including padmount, subsurface, vault, indoor, outdoor, direct sunlight, direct buried and continuously submerged in water.
3. Products are designed and rated for ambient temperatures of -40° C to + 65° C. It is recommended that loadbreak connectors be hotstick operated at -20° C to + 65° C ambient temperature range and at altitudes not exceeding 6000 feet.

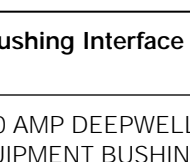


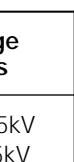

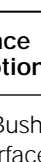

SEPARABLE CONNECTOR INTERFACES

STANDARD INTERFACES FOR SEPARABLE CONNECTORS, COMPONENTS AND EQUIPMENT BUSHINGS

ANSI/IEEE Standard 386 defines the specific interface dimensions that 200 Amp and 600 Series elbows, inserts, junctions, equipment bushings and any mating components must conform to insure interchangeability. The table

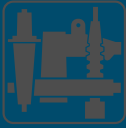
below provides information concerning the types of interfaces supplied by Elastimold for various applications and is useful to assure proper matching of components.



Bushing Interface	Voltage Class	Interface Description	Standard No Figure No.
A 200 AMP DEEPWELL EQUIPMENT BUSHING 	15kV, 25kV and 35kV	200 AMP Bushing Well Interface 8.3kV, 15.2kV, 21.1kV	A IEEE 386-1995 Fig. 3
B 200 AMP LOADBREAK INSERT 	15kV	200 AMP Loadbreak 8.3kV and 8.3kV/14.4kV	B IEEE 386-1995 Fig. 5
C 200 AMP LOADBREAK INSERT 	25kV	200 AMP Loadbreak 15.2kV and 15.2kV/26.3kV	C IEEE 386-1995 Fig. 7, Note 3
D 200 AMP LOADBREAK INSERT 	35kV	200 AMP Loadbreak Interface No. 2 21.1kV and 21.1kV/36.6kV	D IEEE 386-1995 Fig. 7, Note 3
E 200 AMP DEADBREAK INSERT 	15kV and 25kV	200 AMP Deadbreak 8.3kV and 15.2kV	E IEEE 386-1985 Fig. 4
F 600 SERIES EQUIPMENT BUSHING 	15kV and 25kV	600 AMP Deadbreak Interface No.1 8.3kV and 15.2kV	F IEEE 386-1995 Fig.11, Note 1
G 600 SERIES EQUIPMENT BUSHING 	35kV	600 AMP Deadbreak Interface No.1 21.1kV	G IEEE 386-1995 Fig.13, Note 2

NOTES:

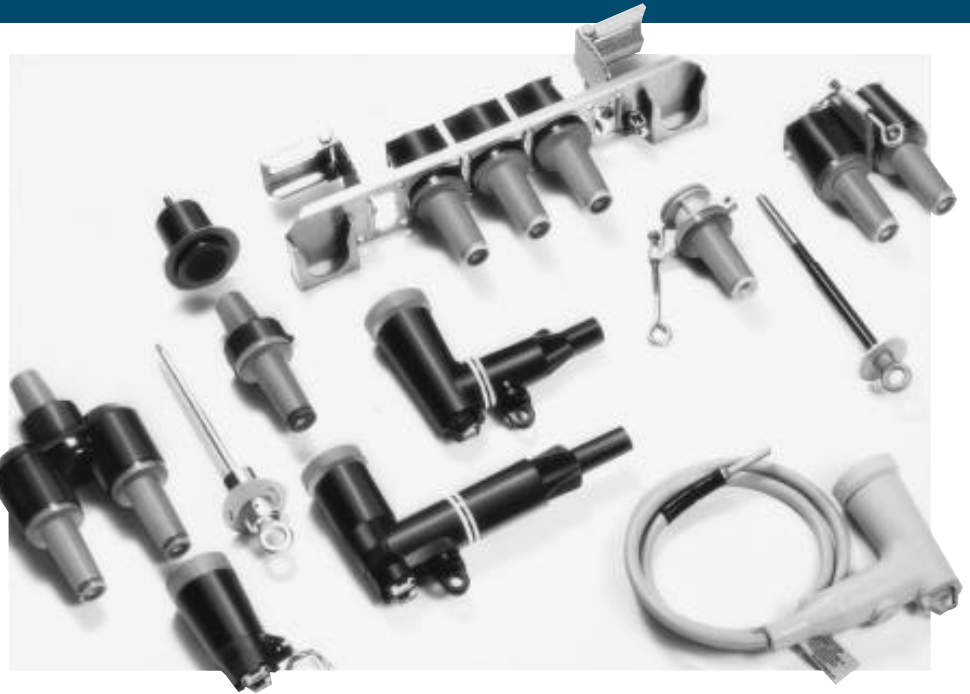
1. Was Fig. 10 in previous IEEE 386-1985 publication.
2. Was Fig. 11 in previous IEEE 386-1985 publication.
3. Elastimold uses Fig. 7 interface for both 25 and 35kV applications.



SEPARABLE CONNECTORS 200 AMP LOADBREAK

200 Amp loadbreak connectors and accessories provide a convenient method to connect/disconnect cable and equipment on power distribution systems. Loadbreak elbows include provisions for energized operation using standard hotstick tools, allowing load-make/break operation and a visible disconnect. Components can be isolated with insulated caps, plugs and parking bushings.

Optional accessories allow system grounding, testing, bypass, lightning surge protection and current limiting fusing. Additional connecting points and taps can be provided by use of junctions or feed-thrus.



RATINGS OVERVIEW

See page 2 for complete information including switching and fault close ratings.

CURRENT RATINGS

200A Continuous
10kA sym. 10 Cycles

VOLTAGE RATINGS

15kV Class
8.3kV Phase-to-Ground
14.4kV Phase-to-Phase
95kV BIL
34kV AC Withstand
53kV DC Withstand
11kV Corona Extinction

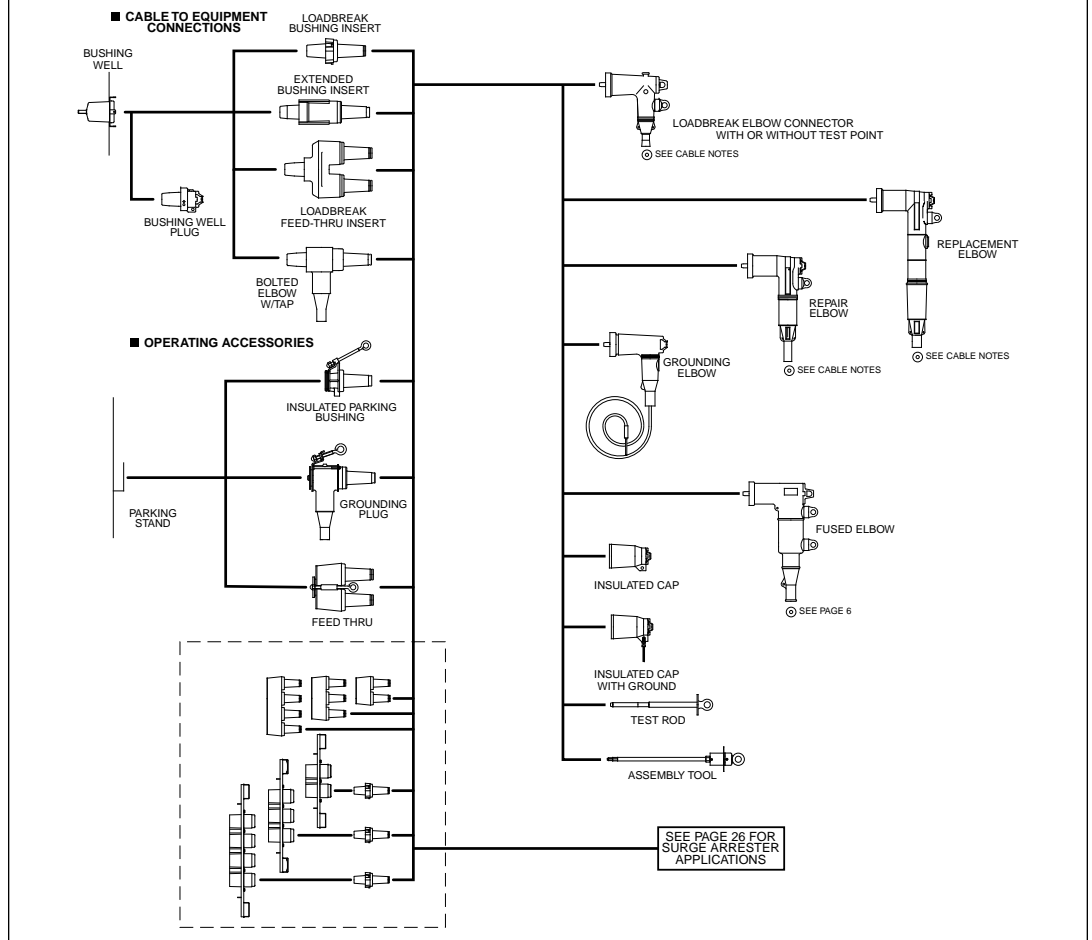
25kV Class

15.2kV Phase-to-Ground
26.3kV Phase-to-Phase
125kV BIL
40kV AC Withstand
78kV DC Withstand
19kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground
36.6kV Phase-to-Phase
150kV BIL
50kV AC Withstand
103kV DC Withstand
26kV Corona Extinction

200 AMP LOADBREAK SEPARABLE CONNECTOR COMPONENTS



DEADFRONT	SEPARABLE CONNECTORS	200 AMP LOADBREAK	5-15kV	PART #	
LIVEFRONT	FUSED ELBOWS	200 AMP DEADBREAK	25kV		
	CABLE JOINTS	600 SERIES DEADBREAK	35kV		
	TERMINATIONS				
	SURGE ARRESTERS				

Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

200 AMP LOADBREAK

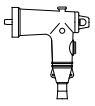
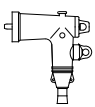
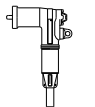

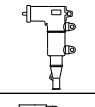










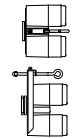




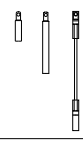



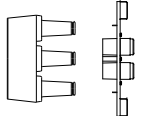
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes	
	Elbow Connector	15kV	165LR-WX Use Tables W1 and X1	N2,3,4,5	
		25kV	273LR-WX Use Tables W2 and X1	N2,3,4,5	
		35kV	375LR-WX Use Tables W3 and X2	N2,3,5	
	Elbow Connector w/ Test Point	15kV	166LR-WX Use Tables W1 and X1	N2,3,4,5	
		25kV	274LR-WX Use Tables W2 and X1	N2,3,4,5	
		35kV	376LR-WX Use Tables W3 and X2	N2,3,5	
	Repair Elbow Connector	15kV	167ELR-WX Use Tables W5 and X1	N5,10,18	
		25kV	273ELR-WX Use Tables W5 and X1	N5,10,18	
	Repair Elbow Connector w/ Test Point	15kV	168ELR-WX Use Tables W5 and X1	N5,10,18	
		25kV	274ELR-WX Use Tables W5 and X1	N5,10,18	
	Replacement Elbow	15kV	167RLR-WX Use Tables W4 and X1	N5,11,13	
		25kV	273RLR-WX Use Tables W2 and X1	N5,11,13	
	Replacement Elbow w/ Test Point	15kV	168RLR-WX Use Tables W4 and X1	N5,11,13	
		25kV	274RLR-WX Use Tables W2 and X1	N5,11,13	
	Fused Elbow (General Purpose Current Limiting)	15kV	166FLR-WX Use W and X Tables on Page 6	N5,15	
	Bolted Elbow w/ Tap	15kV	167LRT-WX Use Tables W4 and X1	N17	
	Bushing Insert	15kV	1601A4	N4,8	
		25kV	2701A4	N4,8	
		35kV	3701A4	N6	
		35kV	3701A3	N8	
	Extended Bushing Insert	15kV	1601EA4	N8	
		25kV	2701EA4	N8	
	Feed-Thru Insert	15kV	1602A3R	N16	
		25kV	2702A1	N16	
		35kV	3702A1	N6,16	
	Insulated Cap	15kV	160DR		
		Insulated Cap w/ Ground	15kV	160DRG	N7
			25kV	167DRG	N7
		25kV	273DRG	N7	
		35kV	375DRG	N7	
	Insulated Cap w/ Ground and Test Point	15kV	168DRG	N7	
		25kV	274DRG	N7	
		35kV	376DRG	N7	
	Grounding Plug (1/0 AWG x 6' Ground Lead)	15kV	161GP		
		25kV	272GP		
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV 25/35kV	160GLR 370GLR	N12	
	Feed-Thru	15kV	164FT		
		25kV	274FT		
		35kV	373FT		
	Feed-Thru Vertical	15kV	164FTV		
		25kV	274FTV		
		35kV	373FTV		

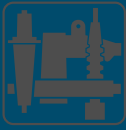
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Feed-Thru Well	15/25kV	K1601WFT	
	Feed-Thru Well Vertical	15/25kV	K1601WFTV	
	Insulated Parking Bushing	15kV 25kV 35kV	161SOP 272SOP 372SOP	
	Test Rod	ALL	370TR	N9
	Bushing Well Plug	15/25kV 35kV	276BWP M276BWP	
	Assembly Tool	ALL	200AT	N8,9
	Contacts: Long Bi-Metal ELR Bi-Metal Copper LRT Contact RLR Contact	ALL	Use Table X1 02500X	N9
		15/25kV	02509X	N10
		ALL	02702X	N1,9
		15kV	02800X	
	RLR Contact	15/25kV	00400X	N11
	Elbow Probe	15kV 25kV 35kV	166LRF 274LRF 376LRF	
	Elbow Cable Entrance Insulating Plug	ALL	10EP-W Use Table W6	N9
	Cable Size Adapter	15kV	160CA-W Use Table W6 EB-FA Only	N14

- N1. Copper lug for use on COPPER CONDUCTOR ONLY.
- N2. Includes 02500X long bi-metal compression lug as standard.
- N3. Also available as housing only. Specify: 165BLR-W; 273BLR-W; 375BLR-W; 166BLR-W; 274BLR-W; 376BLR-W.
- N4. Also available as elbow/insert combination. Specify: 165A4-WX; 273A4-WX; 166A4-WX; 274A4-WX; 274A4-WX.
- N5. Also available with jacket seal included. Add - "S" suffix to part number. See 200ECS page 28.
- N6. Rated for single-phase applications only.
- N7. Equipped with insulated cuff.
- N8. Includes internal torquing feature using 200AT Assembly Tool.
- N9. Rated for 15kV thru 35kV applications.
- N10. Repair elbow has extended length (3-1/4") contact and elbow housing.
- N11. Replacement elbow has extended length (9-7/8") contact and elbow housing.
- N12. Rated for 25kV thru 35kV applications.
- N13. Includes long bi-metal contact 00400X.
- N14. 160CA Cable Size Adapter can only be used with elbow part numbers 165LR/166LR C size only.
- N15. See page 6 for WX size tables and for fuse sizes.
- N16. Fully rotatable for 360° positioning. Includes bail assembly to secure feed-thru insert to bushing well.
- N17. Includes 02800X long bi-metal contact.
- N18. Includes 02509X long bi-metal contact.



**JUNCTIONS CONTINUED
ON PAGE 6.**

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.
For cable shield adapters and jacket seals, see page 28.



SEPARABLE CONNECTORS

200 AMP LOADBREAK

Cont'd from Pg. 5

RATINGS OVERVIEW

See page 2 for complete information including switching and fault close ratings.

CURRENT RATINGS

200A Continuous
10kA sym. 10 Cycles

VOLTAGE RATINGS

15kV Class

8.3kV Phase-to-Ground
14.4kV Phase-to-Phase
95kV BIL
34kV AC Withstand
53kV DC Withstand
11kV Corona Extinction

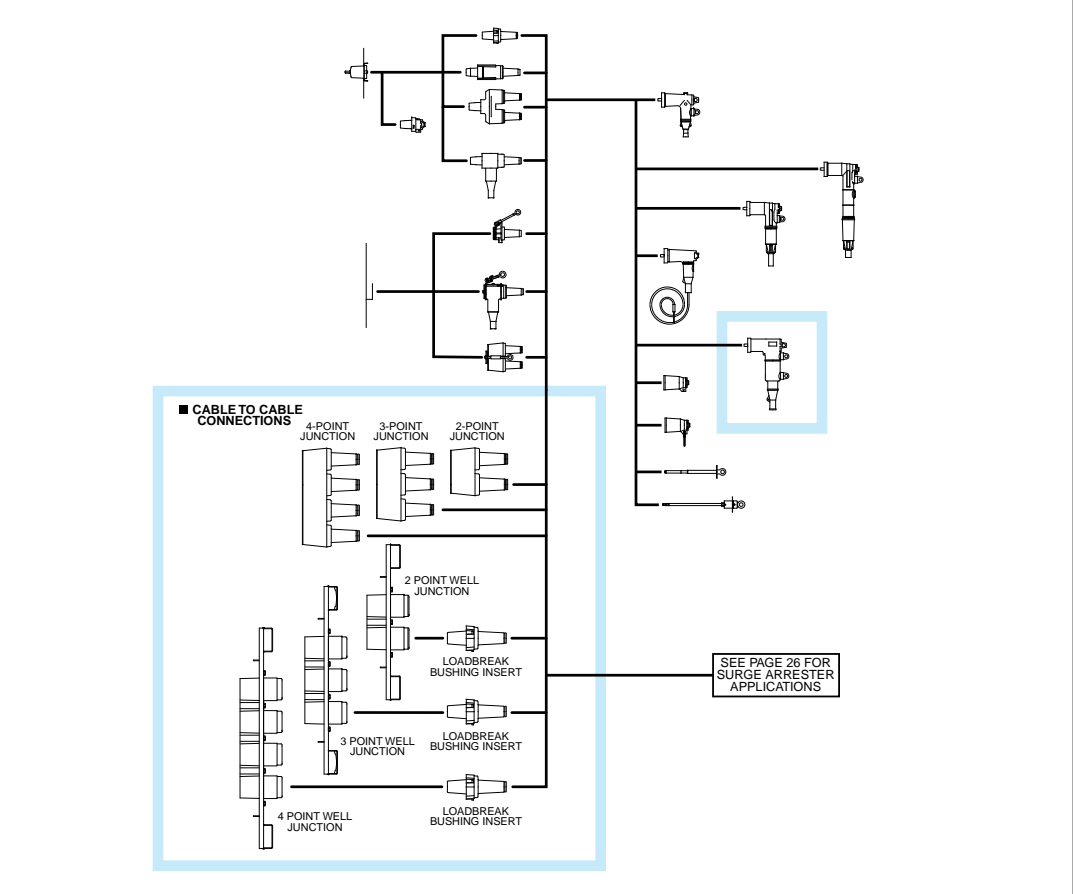
25kV Class

15.2kV Phase-to-Ground
26.3kV Phase-to-Phase
125kV BIL
40kV AC Withstand
78kV DC Withstand
19kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground
36.6kV Phase-to-Phase
150kV BIL
50kV AC Withstand
103kV DC Withstand
26kV Corona Extinction

200 AMP LOADBREAK SEPARABLE CONNECTOR COMPONENTS



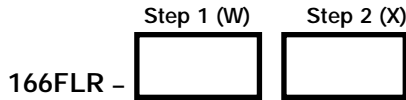
FUSED ELBOW ORDERING INSTRUCTIONS

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper connector code according to the conductor size. Insert code into the catalog number after the insulation code.



Cable Insulation Diameter Range Inches	Symbol For W
.610 - .735	FAB
.675 - .785	FB
.725 - .835	FG
.775 - .885	GA
.825 - .935	GAB

Conductor Size* (AWG)	Symbol For X	
	Stranded/Compr.	Solid/Compact
2	0220	0210
1	0230	0220
1/0	0240	0230
2/0	0250	0240
3/0	—	0250

*Cu or Al Conductor

ORDERING INSTRUCTIONS FOR FUSE KIT (to be ordered separately)

Determine the ampere rating required. Insert rating into the catalog number below.

166PF8 -

Voltage (kV)	Ampere Rating
8.3	5
	8
	12
	18
	30

The Fused Elbow kit contains the following:

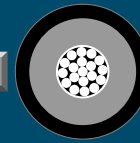
- 1 - Upper elbow half
- 1 - Lower elbow half
- 1 - Upper connector
- 1 - Lower connector
- 1 - Probe
- 1 - Torque-limiting wrench
- 1 - Lubricant
- 1 - Instruction sheet

The Fuse Kit includes the following:

- 1 - Current limiting fuse
- 1 - Allen wrench
- 1 - Air vent rod
- 1 - Instruction sheet

To order replacement parts, specify the following:

- For an upper elbow half, specify 166BFLR-T
- For a lower elbow half, specify 166BFLR-W
- For an upper connector, specify 166-88
- For a lower connector, specify 02600X
- For a probe, specify 166LRF



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

200 AMP LOADBREAK

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	2-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ2	N2
	2-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ2-5	N1, N2
	3-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ3	N2
	3-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ3-5	N1, N2
	4-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ4	N2
	4-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ4-5	N1, N2
	2-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J2 274J2 373J2	
	2-Point Junction w/"U"-straps	15kV 25kV 35kV	164J2-5 274J2-5 373J2-5	N1 N1 N1
	3-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J3 274J3 373J3	
	3-Point Junction w/"U"-straps	15kV 25kV 35kV	164J3-5 274J3-5 373J3-5	N1 N1 N1
	4-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J4 274J4 373J4	
	4-Point Junction w/"U"-straps	15kV 25kV 35kV	164J4-5 274J4-5 373J4-5	N1 N1 N1

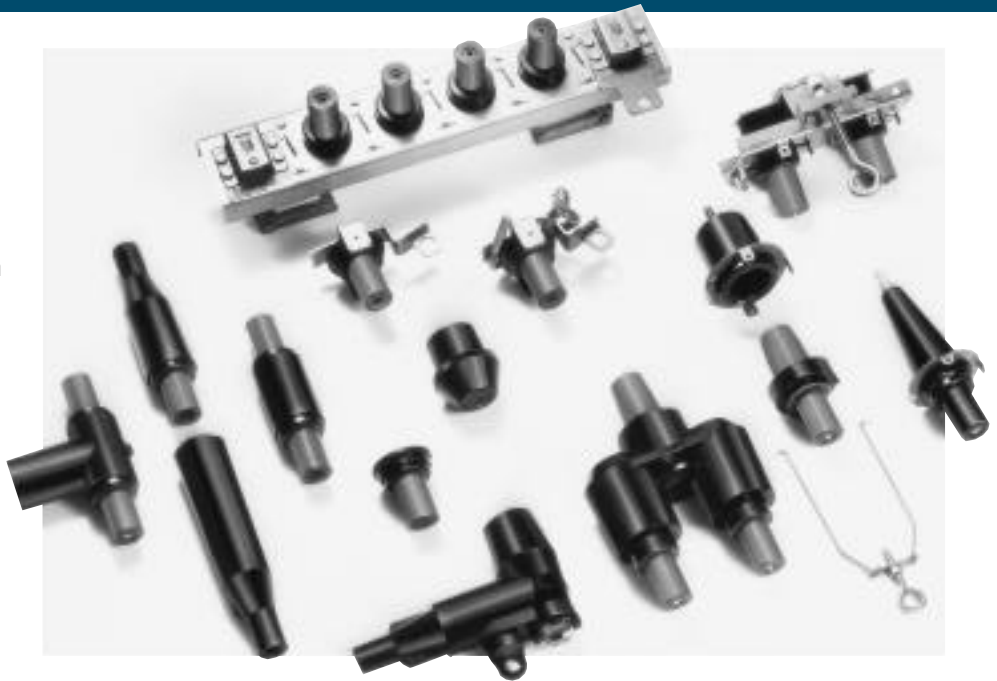
- N1. Also available without straps. Specify suffix "-4" in place of "-5" in the part number.
- N2. Supplied with replaceable stud. Replacement stud available separately. Specify 1601RS.



SEPARABLE CONNECTORS 200 AMP DEADBREAK

200 Amp deadbreak connectors and accessories provide a quick disconnect feature for cable and equipment connections on power distribution systems. All deadbreak connectors must be DE-ENERGIZED before operating and must be mechanically secured with balls when connected. Components can be isolated with insulated caps, plugs and parking bushings.

All deadbreak elbows are equipped with test points as standard. Optional accessories allow system grounding, bypass and lightning surge protection. Additional connecting points and taps can be provided by use of junctions or feed-thrus.



RATINGS OVERVIEW

See page 2 for complete information.

CURRENT RATINGS

200A Continuous
10kA sym. 10 Cycles

VOLTAGE RATINGS

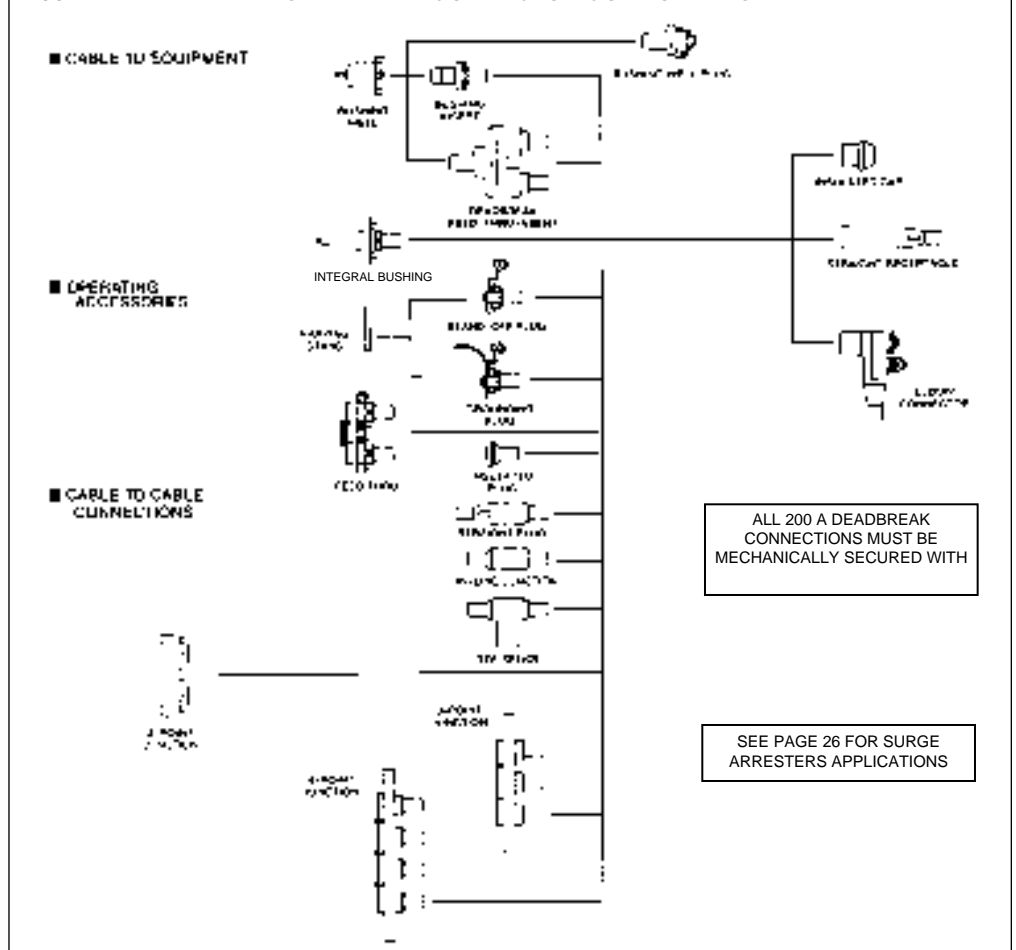
15kV Class

8.3kV Phase-to-Ground
14.4kV Phase-to-Phase
95kV BIL
34kV AC Withstand
53kV DC Withstand
11kV Corona Extinction

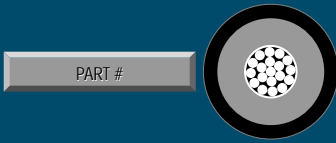
25kV Class

15.2kV Phase-to-Ground
26.3kV Phase-to-Ground
125kV BIL
40kV AC Withstand
78kV DC Withstand
19kV Corona Extinction

200 AMP DEADBREAK SEPARABLE CONNECTOR COMPONENTS



	SEPARABLE CONNECTORS		
DEADFRONT	FUSED ELBOWS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	CABLE JOINTS	200 AMP DEADBREAK	25kV
	TERMINATIONS	600 SERIES DEADBREAK	35kV
	SURGE ARRESTERS		



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

200 AMP DEADBREAK

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Elbow Connector w/ Test Point	15/25kV	156LR-WX Use Tables W4 and X1	N1,2
	Bail Assembly for 156LR Elbow	15/25kV	150BA	
	Bushing Insert	15/25kV	K1501A1	N3
	Feed-thru Insert	15/25kV	K1502A1	N3,4
	Insulated Plug	15/25kV	K150DP	N3
	Insulated Cap	15/25kV	K150DR	N3
	Insulated Parking Bushing	15/25kV	K150SOP	N3
	Grounding Plug	15/25kV	151GP	N3
	Feed-Thru	15/25kV	K1501FT	N3,6
	2-Point Junction	15/25kV	K1501J2-U	N3,6
	3-Point Junction	15/25kV	K1501J3-U	N3,6,7
	4-Point Junction	15/25kV	K1501J4-U	N3,6,7
	Elbow Probe	15/25kV	156LRF	
	Straight Receptacle	15/25kV	K151SR-WX Use Tables W6 and X5	N3,12
	Straight Plug	15/25kV	K151SP-WX Use Tables W6 and X5	N3,12
	Tee Splice	15/25kV	K150T	N3
	In-Line Junction	15/25kV	K150S	N3
	Locking Splice	15/25kV	K151LS-WX Use Tables W6 and X8	N8,9
	Locking "Y" Splice	15/25kV	K151LY-WX Use Tables W6 and X8	N8,9
	BAIL	15/25kV	150TB1	N5
	BAIL	15/25kV	150TB2	N5
	BAIL	15/25kV	150TB3	N5

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	BAIL	15/25kV	150TB4	N5
	BAIL	15/25kV	150TB5	N5
	Contacts: Long Bi-Metal Copper	15/25kV 15/25kV	02500X 02702X	N7
	Elbow Cable Entrance Insulating Plug	15/25kV	10EP-W Use Table W6	N10
	Cable Entrance Insulating Plug	15/25kV	152EA-W Use Table W6	N11

- N1. Includes bail assembly.
- N2. Includes 02500X long, bi-metal compression lug as standard.
- N3. Bails are required but not included. Order separately. Consult factory for bails not listed for a specific application.
- N4. Fully rotatable for 360° positioning. Includes bail assembly to secure feed-thru insert to bushing well.
- N5. Refer to general catalog for application details.
- N6. Center-to-center spacing equals 4 inches.
- N7. Copper lug for copper cable only.
- N8. To order cable legs for different cable sizes, list each leg size "W" and "X". Example: K151LY-FB240-FB240-FAB220. See Tables W6 and X8 for sizes.
- N9. To order locking contacts for K151LS and K151LY, order 01401X (Al) or 01402X (Cu) for plug contact. Order 01301X (Al) or 01302X (Cu) for receptacle. See Table X8 for sizes.
- N10. For use with 156LR elbows.
- N11. For use with K151SR, K151SP, K151LS, K151LY receptacles, plugs and splices.
- N12. Also available as housing only. Specify K151SPH-W or K151SRH-W.

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.
For cable shield adapters and jacket seals, see page 28.



SEPARABLE CONNECTORS 600 SERIES DEADBREAK

600 Series deadbreak elbows, straight receptacles, vault stretchers and accessories are used to connect equipment and cable on primary feeder and network circuits. Designs accommodate large conductors and feature bolted connections and deadfront modular construction for maximum reliability, performance and versatility.

DE-ENERGIZED connectors can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Optional accessories allow visible external separation, by-pass, isolation, dead-ending, grounding, and testing as well as adding taps, surge arresters and circuit protection.

Hot-stick operable and separable joint systems are shown on pages 14 thru 19.



RATINGS OVERVIEW

See page 2 for complete information.

CURRENT RATINGS

(Prefixes: 650, K650, K655, K656, 750, 755, 756 & 03700)

600 Amp Continuous
25kA sym., 10 cycles

(Prefixes 675, K675, K676, 775, 776 & 03702)

900 Amp Continuous
25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

VOLTAGE RATINGS

15/25kV Class (5kV thru 28kV)

16.2kV Phase-to-Ground

28kV Phase-to-Phase

140kV BIL

45kV AC Withstand

84kV DC Withstand

21.5kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground

36.6kV Phase-to-Phase

150kV BIL

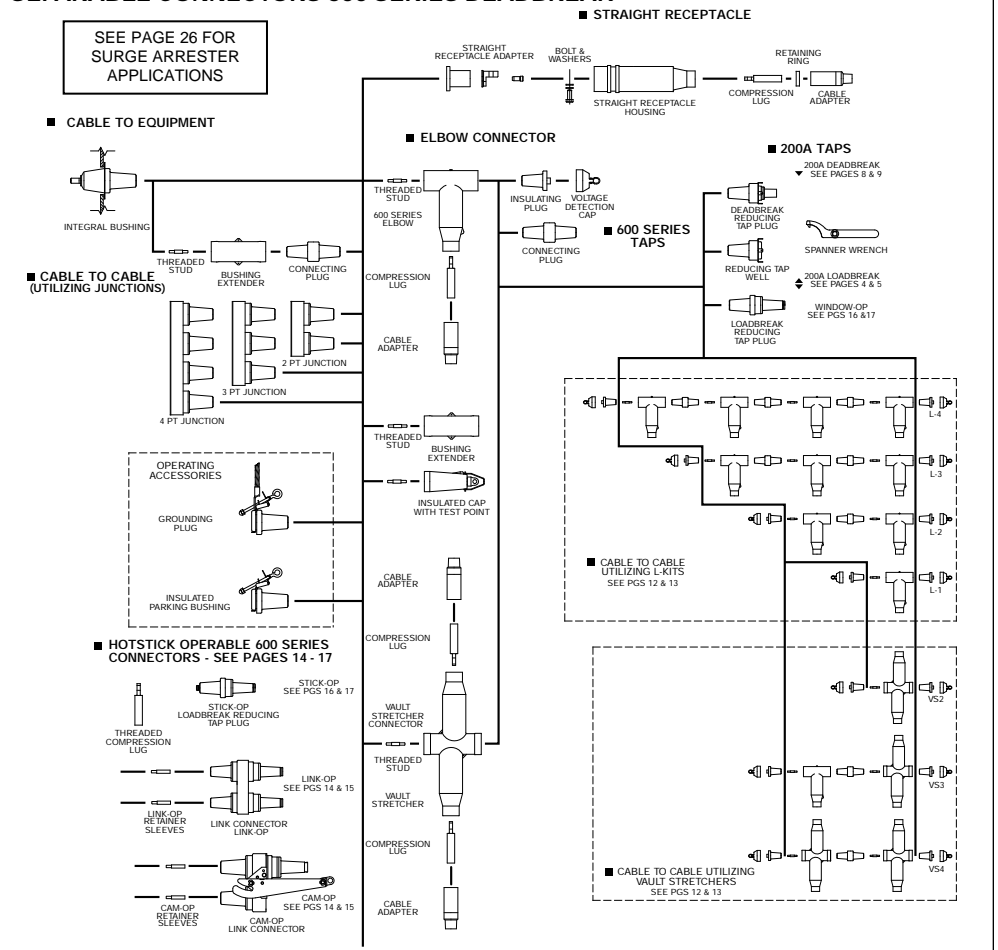
50kV AC Withstand

103kV DC Withstand

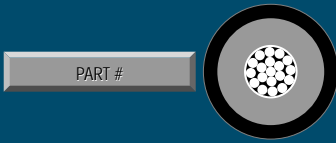
26kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.

SEPARABLE CONNECTORS 600 SERIES DEADBREAK



	SEPARABLE CONNECTORS		
DEADFRONT	FUSED ELBOWS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	CABLE JOINTS	200 AMP DEADBREAK	25kV
	TERMINATIONS	600 SERIES DEADBREAK	35kV
	SURGE ARRESTERS		



Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

600 SERIES DEADBREAK

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	600 Series Elbow (w/ Insul. Plug, Cap, Stud, Lug & Cable Adapter)	15/25kV 35kV	K655LR-W0X Use Tables W7 and X6 755LR-W0X Use Tables W9 and X6	N1,2 N1,2
	600 Series Elbow w/ Test Point (w/ Insul. Plug, Cap, Stud, Lug & Cable Adapter)	15/25kV 35kV	K656LR-W0X Use Tables W7 and X6 756LR-W0X Use Tables W9 and X6	N1,2 N1,2
	600 Series Elbow Housing only (w/ Stud)	15/25kV 35kV	K655BLR 755BLR	N1,3 N1,3
	600 Series Elbow w/ Test Point (Housing only w/ Stud)	15/25kV 35kV	K656BLR 756BLR	N1,3 N1,3
	600 Series Straight Receptacle (w/Cable Adapter, Lug & Retaining Ring)	15/25kV	K655SR-W0X Use Tables W7 and X6	N1,2,12
	600 Series Straight Receptacle Housing (Lug & Cable Adapter not included)	15/25kV	K655BSR	N1,12
	Straight Receptacle Adapter	15/25kV	K650SRA	N1,4
	600 Series Vault Stretcher (Housing only w/ Stud)	15/25kV	K655BVS	N1,9
	Cable Size Adapter	15/25kV 35kV	655CA-W Use Table W7 755CA-W Use Table W9	
	Compression Lug	ALL	03700X Use Table X6 03702X Use Table X6	N5 N6
	600 Series Elbow Size Sensitive Kit (Cable Adapter & Lug)	15/25kV 35kV	655CK-W0X Use Tables W7 and X6 755CK-W0X Use Tables W9 and X6	N2 N2
	Adapter Retaining Ring	ALL	650ARR-X Use Table X6	
	600 Series Straight Receptacle Size Sensitive Kit (Cable Adapter, Retaining Ring & Lug)	15/25kV 35kV	655CK-W0X-ARR Use Tables W7 and X6 755CK-W0X-ARR Use Tables W9 and X6	N2 N2
	Bushing Extender (w/ Stud)	15/25kV 35kV	K655BE 755BE	N1,3 N1,3
	Insulated Cap w/ Test Point (w/ Stud)	15/25kV	K656DR	N3,7
	Insulating Plug (w/ Cap)	15/25kV 35kV	K650BIP 750BIP	N1,7,8 N1,7,8
	Grounding Plug (Ground Lead 2/0 AWG x 30")	15/25kV 35kV	650GP 750GP	N1,7,8 N1,7,8
	Insulated Parking Bushing	15/25kV 35kV	K650SOP 750SOP	N7,8 N7,8
	Connecting Plug	15/25kV 35kV	K650CP 750CP	N1,7,8,9 N1,7,8,9

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Deadbreak Reducing Tap Plug	15/25kV	K650RTP	N1,7,8,9
	Reducing Tap Well	15/25kV	K650RTW	N1,7,8,9
	Loadbreak Reducing Tap Plug	15kV 25kV 35kV	650ETP K650ETP 750ETP	N1,7,8,10,13 N1,7,8,10,13 N1,7,8,10,13
	Vault Stretcher Threaded Stud	15/25kV	650VSA	N1
	600 Series Elbow Threaded Stud	15/25kV 35kV	650SA 750SA	N1 N1
	Assembly Tool	ALL	600AT	N10
	Spanner Wrench	ALL	600SW	N9
	2-Point Junction	15/25kV 35kV	K650J2 750J2	N1,11 N1,11
	3-Point Junction	15/25kV 35kV	K650J3 750J3	N1,11 N1,11
	4-Point Junction	15/25kV 35kV	K650J4 750J4	N1,11 N1,11

N1. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.

N2. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.

N3. Available without the stud by adding "N" to the part number.

N4. Straight Receptacle Adapter is used to connect Straight Receptacles K655YBSR and K655YSR-W0X (Pg.14) to equipment bushings.

N5. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.

N6. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute threaded 03602X lug.

N7. Available with the stud factory-assembled by adding "SP" to the part number.

N8. Available with a loose stud by adding suffix "S" to the part number.

N9. 600SW spanner wrench is recommended for installation of connecting plugs, deadbreak reducing tap plugs and reducing tap wells..

N10. 600AT assembly tool is required for installation of loadbreak reducing tap plugs.

N11. Rubber junction with stainless steel mounting plate and back plate. Add "-U" for rubber junction with stainless steel mounting plate, back plate and adjustable bracket.

Add "-4" for rubber junction only.
Add "-5" for rubber junction, stainless steel U-straps and back plate.

N12. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.

N13. See page 17 for Window-Op Connector Kit.

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

For cable shield adapters and jacket seals, see page 28.

SEPARABLE CONNECTORS

600 SERIES DEADBREAK Cont'd from Pg. 11

600 Series deadbreak elbows, straight receptacles, vault stretchers and accessories are used to connect equipment and cable on primary feeder and network circuits. Designs accommodate large conductors and feature bolted connections and deadfront modular construction for maximum reliability, performance and versatility.

DE-ENERGIZED connectors can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Optional accessories allow visible external separation, by-pass, isolation, dead-ending, grounding, and testing as well as adding taps, surge arresters and circuit protection.

Hot-stick operable and separable joint systems are shown on pages 14 thru 19.



RATINGS OVERVIEW

See page 2 for complete information.

CURRENT RATINGS

(Prefixes: **650, K650, K655, K656, 750, 755, 756 & 03700**)

600 Amp Continuous
25kA sym., 10 cycles

(Prefixes **675, K675, K676, 775, 776 & 03702**)

900 Amp Continuous
25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

VOLTAGE RATINGS

15/25kV Class (5kV thru 28kV)

16.2kV Phase-to-Ground
28kV Phase-to-Phase
140kV BIL

45kV AC Withstand
84kV DC Withstand
21.5kV Corona Extinction

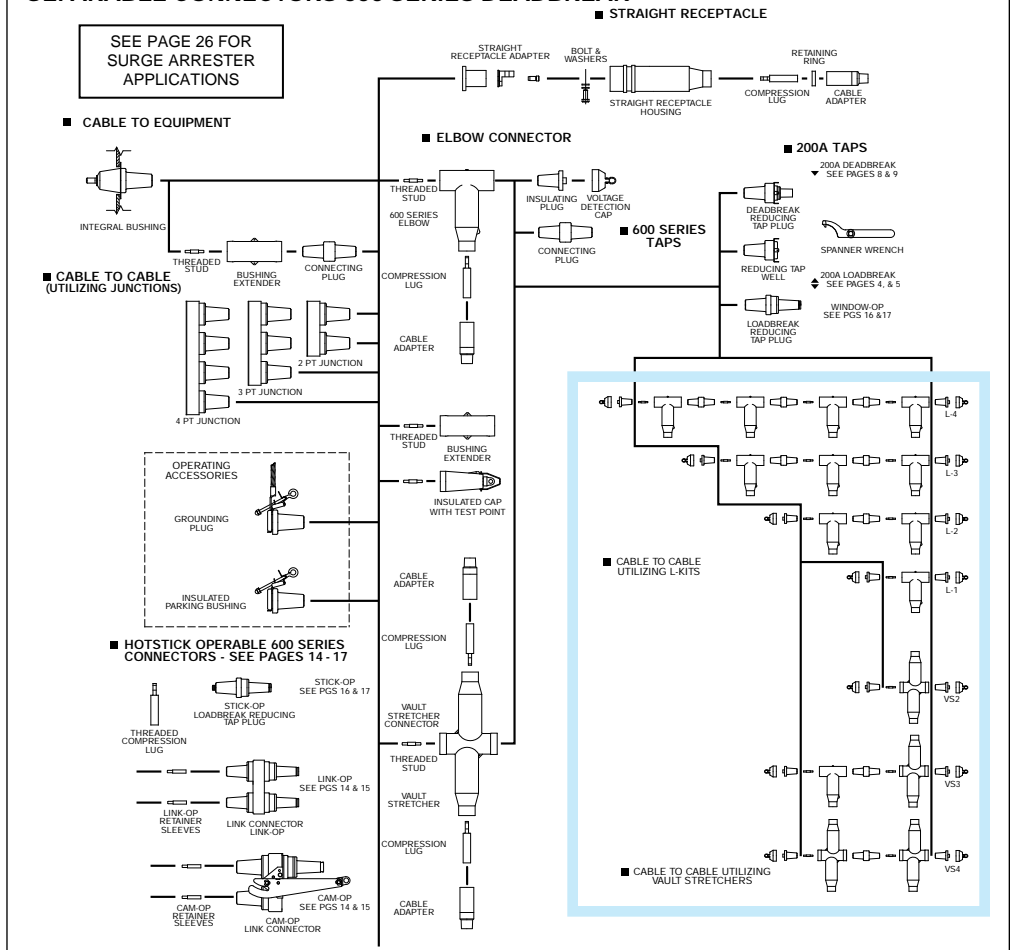
35kV Class

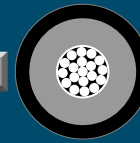
21.1kV Phase-to-Ground
36.6kV Phase-to-Phase
150kV BIL

50kV AC Withstand
103kV DC Withstand
26kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.

SEPARABLE CONNECTORS 600 SERIES DEADBREAK





Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

600 SERIES DEADBREAK

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	1-way L-Kit	15/25kV 35kV	K655L1 755L1	N1,2,3,4 N1,2,3,4
	2-way L-Kit	15/25kV 35kV	K655L2 755L2	N1,2,3,4 N1,2,3,4
	2-way VS-Kit	15/25kV	K655VS2	N1,2,3
	3-way L-Kit	15/25kV 35kV	K655L3 755L3	N1,2,3,4 N1,2,3,4
	3-Way VS Kit	15/25kV	K655VS3	N1,2,3
	4-Way L-Kit	15/25kV 35kV	K655L4 755L4	N1,2,3,4 N1,2,3,4
	4-Way VS-Kit	15/25kV	K655VS4	N1,2,3
	Spanner Wrench	ALL	600SW	N2

- N1. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N2. 600SW spanner wrench is recommended for installation of connecting plugs, deadbreak reducing tap plugs and reducing tap wells.
- N3. L-Kits and VS-Kits do not include cable adapters, compression lugs or adapter retaining rings. These items must be ordered separately.
- N4. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.



VAULT STRETCHER

Provides an alternate method of splicing and joining various types and styles of cables using standard 600 Series components.

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

For cable shield adapters and jacket seals, see page 28.



SEPARABLE CONNECTORS CAM-OP, LINK-OP 600 SERIES DEADBREAK

Elastimold's 600 Series Cam-Op™, and Link-Op™ deadbreak connector systems incorporate provisions for hotstick operation of DE-ENERGIZED primary feeder or network circuits. Configurations allow external visible break, testing, grounding and isolation. Retrofit kits allow upgrading existing equipment.

Cam-Op systems utilize pin and socket connectors. Link-Op connectors are bolted and installed using torque controlled tools. Either system can be retrofitted to existing equipment.

The Cam-Op and Link-Op connectors are unique, allowing all hotstick operations to be completed without moving the cable, an important consideration when large, stiff cables prohibit movement.

The Cam-Op connector is easily installed or removed by hotstick operation of the cam action disconnect lever.



RATINGS OVERVIEW

See page 2 for complete information.

CURRENT RATINGS

600 & 900 Amp Continuous
25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

CONTINUOUS VOLTAGE RATINGS

15kV Class

8.3kV Phase-to-Ground
14.4kV Phase-to-Phase
95kV BIL

34kV AC Withstand
53kV DC Withstand
11kV Corona Extinction

25kV Class

15.2kV Phase-to-Ground
26.3kV Phase-to-Phase
125kV BIL

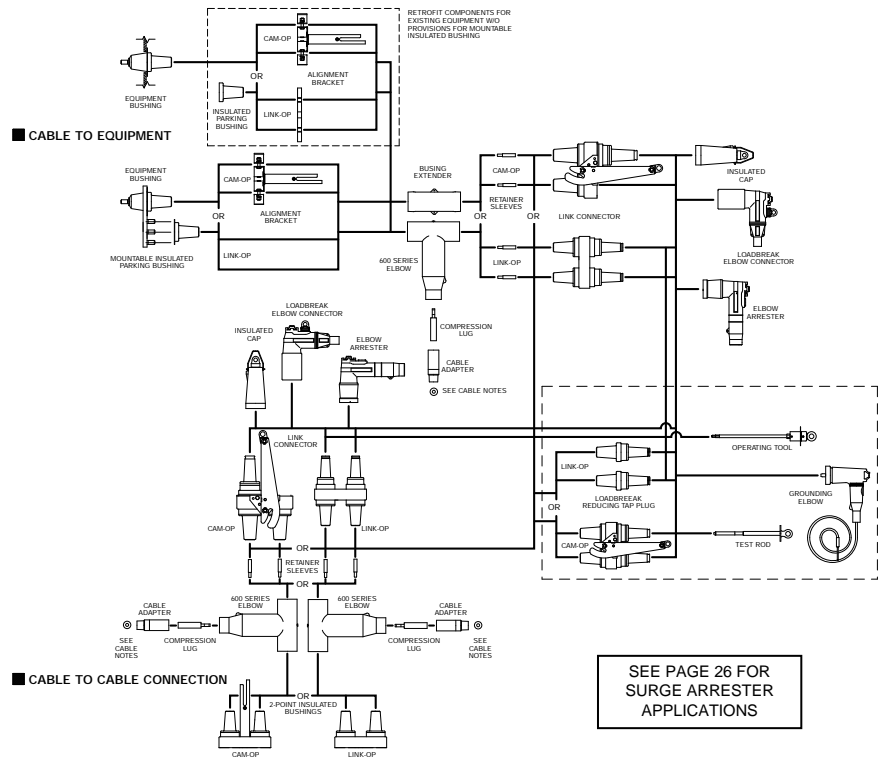
40kV AC Withstand
78kV DC Withstand
19kV Corona Extinction

35kV Class

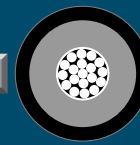
21.1kV Phase-to-Ground
36.6kV Phase-to-Phase
150kV BIL

50kV AC Withstand
103kV DC Withstand
26kV Corona Extinction

CAM-OP & LINK-OP SYSTEM – 600 SERIES DEADBREAK



DEADFRONT	SEPARABLE CONNECTORS	200 AMP LOADBREAK	5-15kV	PART #
LIVEFRONT	FUSED ELBOWS	200 AMP DEADBREAK	25kV	
	CABLE JOINTS	600 SERIES DEADBREAK	35kV	
	TERMINATIONS			
	SURGE ARRESTERS			



Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

CAM-OP™ & LINK-OP™

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	CAM-OP CONNECTOR KIT	15kV 25kV 35kV	655LINK-C-LR-WOX-B-DRG Use Tables W7 and X6 K655LINK-C-LR-WOX-B-DRG Use Tables W7 and X6 755LINK-C-LR-WOX-B-DRG Use Tables W9 and X6	N1,3,11, 13,14,18 N1,3,11, 13,14,18 N1,3,11, 13,14,18
	LINK-OP CONNECTOR KIT	15kV 25kV 35kV	655LINK-B-LR-WOX-B-DRG Use Tables W7 and X6 K655LINK-B-LR-WOX-B-DRG Use Tables W7 and X6 755LINK-B-LR-WOX-B-DRG Use Tables W9 and X6	N2,3,11,12 13,14,18 N2,3,11, 13,14,18 N2,3,11, 13,14,18
	Mountable Insulated Bushing	25kV 35kV	K650LBM-3 750LBM-3	N3 N3
	RETROFIT CAM-OP CONNECTOR KIT	15kV 25kV 35kV	655LINK-C-LR-WOX-A-DRG Use Tables W7 and X6 K655LINK-C-LR-WOX-A-DRG Use Tables W7 and X6 755LINK-C-LR-WOX-A-DRG Use Tables W9 and X6	N5,11,13 14,18 N5,11,13 14,18 N5,11,13 14,18
	RETROFIT LINK-OP CONNECTOR KIT	15kV 25kV 35kV	655LINK-B-LR-WOX-A-DRG Use Tables W7 and X6 K655LINK-B-LR-WOX-A-DRG Use Tables W7 and X6 755LINK-B-LR-WOX-A-DRG Use Tables W9 and X6	N6,11,12, 13,14,18 N6,11,12, 13,14,18 N6,11,12, 13,14,18
	Insulating Plug	25kV 35kV	K650LB 750LB	N4 N4
	CAM-OP Alignment Bracket	15kV 25kV 35kV	650CAB K650CAB 750CAB	
	LINK-OP Alignment Bracket (Retrofit LINK-OP Only)	ALL ALL	650AB 650ABV	N15 N15
	Compression Lug	ALL ALL	03700X Use Table X6 03702X Use Table X6	N7 N8
	CAM-OP & LINK-OP Size Sensitive Kit (Cable Adapter & Lug)	15/25kV 35kV	655CK-WOX Use Tables W7 and X6 755CK-WOX Use Tables W9 and X6	N13 N13
	CAM-OP Retaining Sleeve	ALL	650RSC	N11
	LINK-OP Retaining Sleeve	ALL	650RS	N11
	CAM-OP CABLE JOINT KIT	15kV 25kV 35kV	655BI-LINK-C-LR-WOX-DRG Use Tables W7 and X6 K655BI-LINK-C-LR-WOX-DRG Use Tables W7 and X6 755BI-LINK-C-LR-WOX-DRG Use Tables W9 and X6	N9,11,13 14,18 N9,11,13 14,18 N9,11,13 14,18
	LINK-OP CABLE JOINT KIT	15kV 25kV 35kV	655BI-LINK-B-LR-WOX-DRG Use Tables W7 and X6 K655BI-LINK-B-LR-WOX-DRG Use Tables W7 and X6 755BI-LINK-B-LR-WOX-DRG Use Tables W9 and X6	N10,11,12, 13,14,18 N10,11,12, 13,14,18 N10,11,12, 13,14,18
	CAM-OP Loadbreak Reducing Tap Plugs (Visi-Break)	15kV 25kV 35kV	650LK-C-VB K650LK-C-VB 750LK-C-VB	
	LINK-OP Loadbreak Reducing Tap Plug	15kV 25kV 35kV	650LT-B K650LT-B 750LT-B	N11

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV 25kV 35kV	160GLR 370GLR 370GLR	N19 N19
	Test Rod	ALL	370TR	
	Assembly Tool	ALL	600AT	N11
	CAM-OP OPERATING KIT	15kV 25kV 35kV	650CAM-OK K650CAM-OK 750CAM-OK	N16 N16 N16
	LINK-OP OPERATING KIT	15kV 25kV 35kV	650LINK-OK K650LINK-OK 750LINK-OK	N17 N17 N17

- N1. Cam-Op connector kit includes: 1- Cam-Op link; 1- elbow housing; 1- cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 1- insulated cap; 1- mountable insulated bushing and 1- alignment bracket.
- N2. Link-Op connector kit includes: 1- Link-Op link; 1- elbow housing; 1- cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 2- insulated caps; and 1- mountable insulated bushing.
- N3. Mountable insulated bushing included with Cam-Op and Link-Op connector kit. Requires 3 threaded studs on equipment faceplate for installation.
- N4. Use with the Retrofit Cam-Op and Retrofit Link-Op connector kit.
- N5. Retrofit Cam-Op connector kit includes: 1- link; 1- elbow housing; 1- cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 1- insulated cap; 1- insulating plug; and 1- alignment bracket.
- N6. Retrofit Link-Op connector kit includes: 1- link; 1- elbow housing; 1- cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 2- insulated caps; 1- insulating plug; and 1- alignment bracket.
- N7. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N8. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute 03602X threaded lug.
- N9. Cam-Op Cable Joint Kit includes: 1- Cam-Op link; 1- Cam-Op BI-SOP; 2- elbow housings; 2- cable adapters; 2- 0370 style lugs; 2- retainer sleeves; 1- insulated cap.
- N10. Link-Op Cable Joint Kit includes: 1- Link-Op link; 1- Link-Op BI-SOP; 2- elbow housings; 2- cable adapters; 2- 0370 style lugs; 2- retainer sleeves; 2- insulated caps.
- N11. 600AT assembly tool required for operation and/or installation.
- N12. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N13. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N14. To add elbows or arresters instead of insulating caps, replace the "DRG" with "LR-WX" for elbows (with test point) or "ESA" for elbow arresters.
- N15. The 650ABV is required when the bushing horizontal spacing on the equipment or junctions is less than 5".
- N16. Cam-Op operating kit includes accessories that enable visible break, testing, isolation and grounding functions to be performed. Kit includes: 3- Cam-Op loadbreak reducing tap plugs; 3- grounding elbows; 1- assembly tool; 1- test rod; 1- carry case; 1- lubricant; 1- instructions.
- N17. Link-Op operating kit includes accessories that enable visible break, testing, isolation and grounding functions to be performed. Kit includes: 6- Link-Op loadbreak reducing tap plugs; 3- grounding elbows; 1- assembly tool; 1- test rod; 1- carry case; 1- lubricant; 1- instructions.
- N18. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.
- N19. Rated for both 25kV and 35kV applications.

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

For cable shield adapters and jacket seals, see page 28.



SEPARABLE CONNECTORS STICK-OP, WINDOW-OP 600 SERIES DEADBREAK

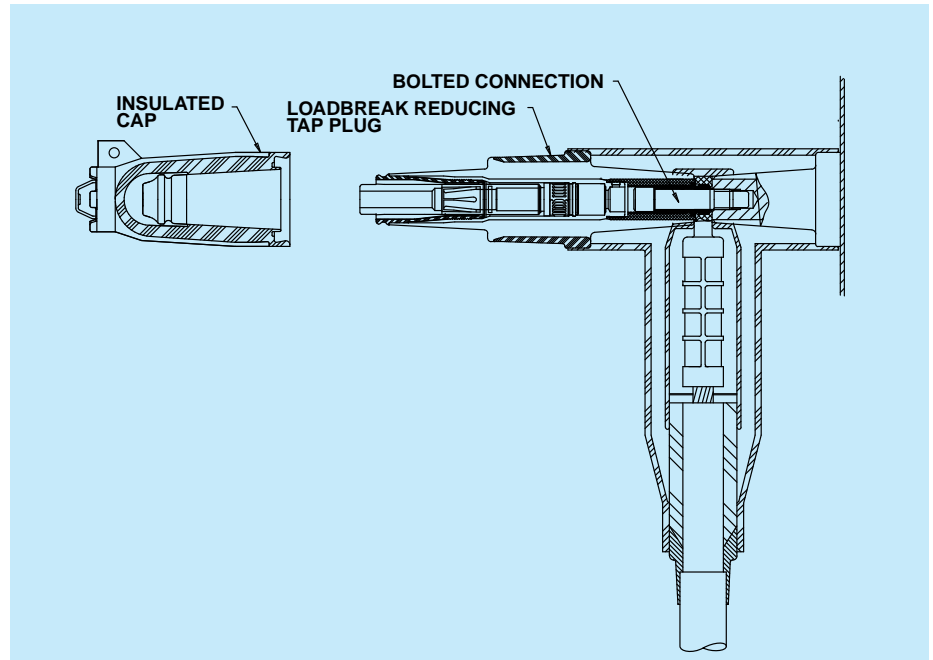
Elastimold's 600 Series Window-Op™ and Stick-Op™ deadbreak connector systems incorporate provisions for hotstick operation of DE-ENERGIZED primary feeder or network circuits.

The Window-Op and Stick-Op connectors allow direct testing and grounding with no required cable movement.

Window-Op is ideal for equipment applications which include viewing windows to provide an internal visible break that does not require hot stick removal of the elbows.

Stick-Op provides an external visible break by hot stick removal of the elbow.

Window-Op and Stick-Op connectors are bolted and installed using torque controlled tools.



RATINGS OVERVIEW

See page 2 for complete information.

CURRENT RATINGS

600 & 900 Amp Continuous
25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

CONTINUOUS VOLTAGE RATINGS

15kV Class

8.3kV Phase-to-Ground
14.4kV Phase-to-Phase
95kV BIL
34kV AC Withstand
53kV DC Withstand
11kV Corona Extinction

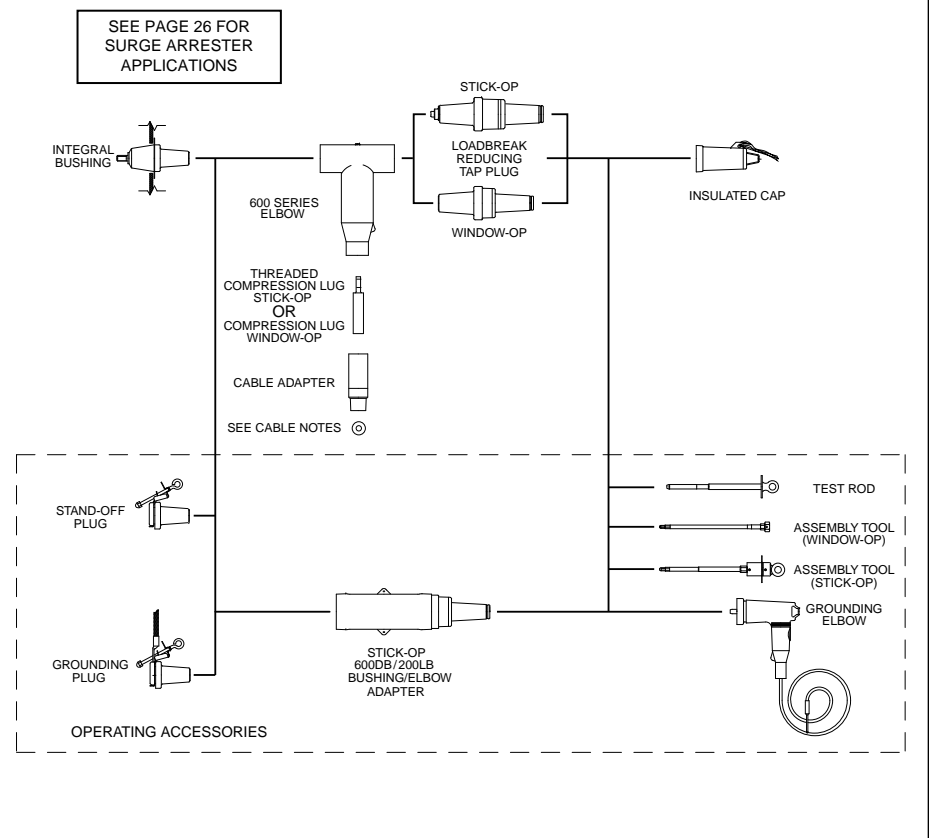
25kV Class

15.2kV Phase-to-Ground
26.3kV Phase-to-Phase
125kV BIL
40kV AC Withstand
78kV DC Withstand
19kV Corona Extinction

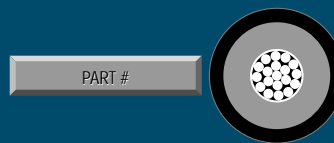
35kV Class

21.1kV Phase-to-Ground
36.6kV Phase-to-Phase
150kV BIL
50kV AC Withstand
103kV DC Withstand
26kV Corona Extinction

STICK-OP & WINDOW-OP SYSTEM – 600 SERIES DEADBREAK



	SEPARABLE CONNECTORS		
DEADFRONT	FUSED ELBOWS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	CABLE JOINTS	200 AMP DEADBREAK	25kV
	TERMINATIONS	600 SERIES DEADBREAK	35kV
	SURGE ARRESTERS		



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

STICK-OP™ & WINDOW-OP™

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	WINDOW-OP CONNECTOR KIT	15kV 25kV 35kV	655ETP-W0X-DRG Use Tables W7 and X6 K655ETP-W0X-DRG Use Tables W7 and X6 755ETP-W0X-DRG Use Tables W9 and X6	N1,3,4,5,6,13
	STICK-OP CONNECTOR KIT	15kV 25kV 35kV	655LRTP-W0X-DRG Use Tables W7 and X6 K655LRTP-W0X-DRG Use Tables W7 and X6 755LRTP-W0X-DRG Use Tables W9 and X6	N2,3,4,5,8,13
	WINDOW-OP Loadbreak Reducing Tap Plug	15kV 25kV 35kV	650ETP K650ETP 750ETP	N4,15 N4,15 N4,15
	STICK-OP Loadbreak Reducing Tap Plug	15kV 25kV 35kV	650LRTPA3 K650LRTPA2 750LRTPA2	N3,4
	STICK-OP Bushing Adapter	15kV 25kV 35kV	650BEA3 K650BEA2 750BEA2	N3,4
	Compression Lug	ALL	03700X Use Tables X6	N6
	Threaded Compression Lug	ALL	03600X Use Tables X6	N8
	WINDOW-OP Size Sensitive Kit (Cable Adapter & Lug)	15/25kV 35kV	655CK-W0X Use Tables W7 and X6 755CK-W0X Use Tables W9 and X6	N5 N5
	STICK-OP Size Sensitive Kit (Cable Adapter & Threaded Lug)	15/25kV 35kV	655TCK-W0X Use Tables W7 and X6 755TCK-W0X Use Tables W9 and X6	N5 N5
	Extraction Tool	ALL	600ET	N3,10
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV 25kV 35kV	160GLR 370GLR 370GLR	N14 N14
	Test Rod	ALL	370TR	
	Assembly Tool (Stick-Op)	ALL	600AT	N3
	Assembly Tool (Window-Op)	ALL	600ATM	N15
	STICK-OP OPERATING KIT	15kV 25kV 35kV	650STICK-OK K650STICK-OK 750STICK-OK	N11 N11 N11
	WINDOW-OP OPERATING KIT	15kV 25kV 35kV	650WINDOW-OK K650WINDOW-OK 750WINDOW-OK	N12 N12 N12

- N1. Window-Op Kit includes: insulated cap; Window-Op reducing tap plug; 600 Series elbow housing; cable adapter; and 0370 style compression lug.
- N2. Stick-Op Kit includes insulated cap; Stick-Op Loadbreak reducing tap plug; 600A Elbow Housing; cable adapter; and threaded 0360 style compression lug.
- N3. 600AT assembly tool required for operation and/or installation.
- N4. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N5. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N6. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N7. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute 03602X threaded lug.
- N8. Threaded aluminum lug (Stick-Op only) for use on copper or aluminum conductors. DO NOT substitute unthreaded 03700X lugs. DO NOT use with 675, 676, K675, K676, 775 or 776 part numbers.
- N9. Threaded copper lug (Stick-Op only) for use on copper conductors only. DO NOT substitute unthreaded 03702X lugs.
- N10. Required to disassemble Stick-Op loadbreak reducing tap plug from the threaded compression lug and 600 Series elbow after the shear-pin is broken during assembly.
- N11. Stick-Op Operating Kit includes accessories that enable visible break direct testing, isolation, and grounding functions to be performed. Kit includes: 3-insulated parking bushings; 3-grounding elbows; 3-600DB/200LB bushing/elbow adapters; 1-assembly tool; 1-test rod; 1-carry case; 1-lubricant; 1-instructions.
- N12. Window-Op Operating Kit includes accessories that enable visible grounding and direct testing functions to be performed. Kit includes: 3-grounding elbows; 1-test rod; 1-carry case; 1-lubricant; 1-instructions.
- N13. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.
- N14. Rated for both 25kV and 35kV applications.
- N15. 600ATM assembly tool required for Window-Op assembly.

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

For cable shield adapters and jacket seals, see page 28.



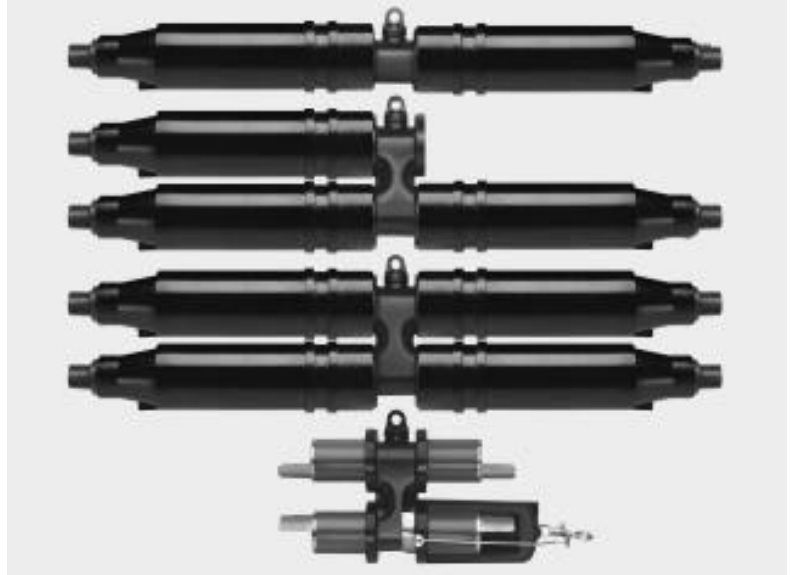
SEPARABLE CONNECTORS CABLE JOINTS

600 SERIES DEADBREAK

600 Series Separable Cable Joints are available in 2, 3 and 4-way versions and include a capacitive test point as standard. Units are interchangeable, featuring bolted connections. Designs are compact and ideally suited for small vaults and manholes.

DE-ENERGIZED joints can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Bus bars can be changed to add or remove cables from the joint.

Optional accessories include insulating and grounding caps and plugs which allow visible external separation, by-pass, isolation, dead-ending, grounding and testing.



RATINGS OVERVIEW

See page 2 for complete information

CURRENT RATINGS

(Prefixes: 650, K650, K655, K656 & 03700)

600 Amp Continuous
25kA sym., 10 cycles

(Prefixes: 675, K675, K676 & 03702)

900 Amp Continuous
25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

VOLTAGE RATINGS

15/25kV Class (5kV thru 28kV)

16.2kV Phase-to-Ground

28kV Phase-to-Phase

140kV BIL

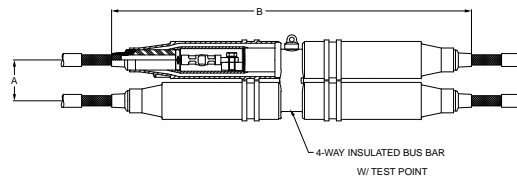
45kV AC Withstand

84kV DC Withstand

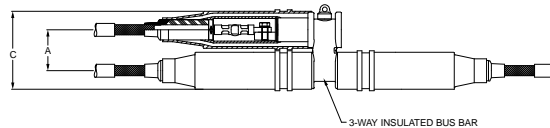
21.5kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.

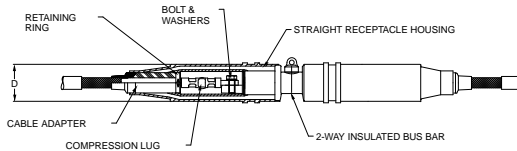
SEPARABLE CABLE JOINTS – 600 SERIES DEADBREAK



SEPARABLE
H-JOINT
(4-WAY)

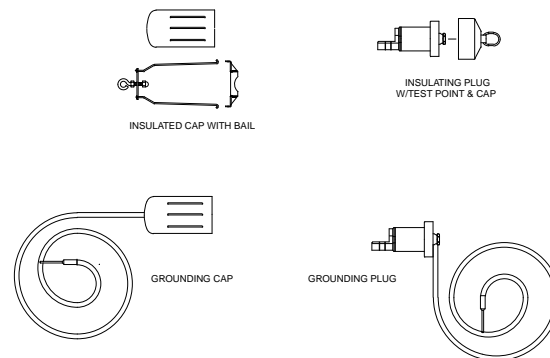


SEPARABLE
WYE-JOINT
(3-WAY)



SEPARABLE
STRAIGHT JOINT
(2-WAY)

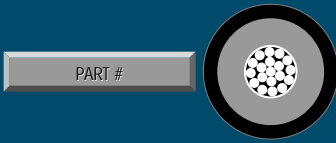
OPERATING ACCESSORIES



Note: The separable cable joints shown here use a special "Y" interface that may not be interchangeable with other 600 Series interfaces.

DIMENSION	INCHES
A	4 1/4
B	37 1/8
C	8 1/8
D	3 7/8

DEADFRONT	SEPARABLE CONNECTORS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	FUSED ELBOWS	200 AMP DEADBREAK	25kV
	CABLE JOINTS	600 SERIES DEADBREAK	35kV
	TERMINATIONS		
	SURGE ARRESTERS		



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

600 SERIES DEADBREAK

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Separable Straight Joint Pkg. (2-way) w/ Test Point	15/25kV	K6561-W0X Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. Straight Joint w/ Test Point	15/25kV	K6561-HP	N2,6
	Separable Wye Joint Pkg. (3-Way) w/ Test Point	15/25kV	K656CY-W0X Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. Wye Joint w/ Test point	15/25kV	K656CY-HP	N2,6
	Separable "H" Joint Pkg. (4-Way) w/ Test Point	15/25kV	K656CH-W0X Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. "H" Joint w/ Test Point	15/25kV	K656CH-HP	N2,6
	2-Way Insulated Bus Bar w/Test Point	15/25kV	K6561-BUS	N3,6
	3-Way Insulated Bus Bar w/Test Point	15/25kV	K656CY-BUS	N3,6
	4-Way Insulated Bus Bar w/Test Point	15/25kV	K656CH-BUS	N3,6
	Straight Receptacle	15/25kV	K655YSR-W0X Use Tables W7 and X6	N4,6,8
	Straight Receptacle Housing Only	15/25kV	K655YBSR	N5,6,10
	Insulated Cap w/ Bail	15/25kV	K655YDR	
	Bail Only	15/25kV	650BA	
	Cable Adapter	15/25kV	655CA-W Use Table W7	
	Adapter Retaining Ring	15/25kV	650ARR-X Use Table X6	
	Compression Lug	15/25kV 15/25kV	03700X 03702X Use Table X6	N6,7 N6,9
	600 Series Straight Receptacle Size Sensitive Kit (Cable Adapter, Retaining Ring & Lug)	15/25kV	655CK-W0X Use Tables W7 and X6	N8
	Assembly/ Disassembly Tool	15/25kV	600YADT	

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Insulating Plug w/ Test Point & Cap	15/25kV	K650YBIP	
	Grounding Plug (4/0 AWG x 6' Ground Lead)	15/25kV	650YGP	
	Grounding Cap (4/0 AWG x 6' Ground Lead)	15/25kV	650YGDR	
	Aluminum Bolt & Washers	15/25kV	650BAW	N6
	Brass Bolt & Washers	15/25kV	675BAW	N6

- N1. Complete Joint Packages consisting of: insulated bus bar; straight receptacle housings, retaining rings, cable size adapters, lugs, bolts and washers.
- N2. Housing Packages consisting of the following non-size sensitive components of the joint: insulated bus bar, straight receptacle housings, bolts and washers.
- N3. Insulated bus bar only.
- N4. Straight Receptacle consisting of: straight receptacle housing, retaining ring, cable adapter, lug, bolt and washers.
- N5. Straight receptacle housing consisting of: straight receptacle housing, bolt and washers.
- N6. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N7. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N8. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N9. Copper lug for use with COPPER CONDUCTOR ONLY. DO NOT substitute threaded 03602X lug.
- N10. Available without the bolt & washers by adding "N" to the part number.

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.
For cable shield adapters and jacket seals, see page 28.



PCJ CABLE JOINTS

PCJ™ Power Cable Joints utilize permanently crimped connectors. PCJ Housings are fully insulated, shielded and sealed for direct buried, vault, submersible and other severe service applications. Units have been designed and tested per IEEE Standard 404 to assure system matched performance and ratings equal to the cable to which the splice will be installed.

PCJ Power Cable Joints are available in 2 styles:

Style 1 uses a single piece housing that is sized to accommodate a specific range of cable. Style 1 units are ideally suited for straight splicing of the same or similar cable.

Style 2 designs incorporate a universal housing with separate cable adapters to allow transition splices of different types and sizes of cable.



ELECTRICAL RATINGS SUMMARY

The follow ratings summary is based on **IEEE Std. 404** and applies to all Elastimold PCJ Power Cable Joints.

VOLTAGE

- A. 15kV Class (8.7kV Phase-to-Ground)
- B. 25kV Class (14.4kV Phase-to-Ground)
- C. 35kV Class (20.2kV Phase-to-Ground)

- **Impulse Withstand:** A= 110kV, B= 150kV, C= 200kV BIL, 1.2 x 50 microsecond wave.
- **Corona Extinction Voltage:** A= 13kV, B= 22kV, C= 31kV minimum, 3pC sensitivity.
- **DC Withstand:** During installation: A= 56kV, B= 80kV, C= 100kV (Reference AEIC CS5 and CS6, Section L.1.)
- **DC Withstand:**
After installation and in service for the first 5 years:
A= 18kV, B= 25kV, C= 31kV for XLPE Insulated Cables
and A= 45kV, B= 64kV, C= 80kV for EPR Insulated Cables.
(Reference AEIC CS5 and CS6, Section L.2.)

CURRENT

- Continuous rating equal to the rating of the cable.
- Short-Time rating equal to the rating of the cable.

SHIELD DESIGN

- Meets IEEE standard 592 for Exposed Semiconducting Shields on Premolded High Voltage Cable Joints and Separable Insulated Connectors.

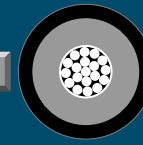
Production tests include 100% tests of the premolded joints to assure:

- **Corona Extinction Voltage:** A= 13kV, B= 22kV, C= 31kV minimum, 3pC sensitivity.
- **AC Withstand:** A= 35kV, B= 52kV, C= 69kV, 60 Hz, 1 minute.

Design tests on production joints demonstrate compliance with IEEE 404 including:

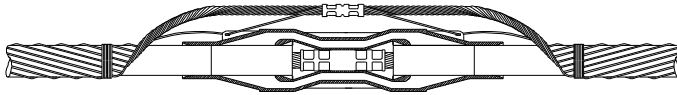
- **Corona Extinction Voltage:** A= 13.0kV, B= 21.6kV, C= 30.3kV minimum, 3pC sensitivity.
- **AC Withstand:** A= 35kV, B= 52kV, C= 69kV, 60 Hz 1 minute.
- **DC Withstand:** A= 70kV, B= 100kV, C= 125kV negative polarity, 15 minutes.
- **Impulse Withstand (BIL):** A= 110kV, B= 150kV, C= 200kV, 10 positive and 10 negative, 1.2 x 50 microsecond wave, at conductor temperatures of 20° and 130°C, nominal.
- **Short-Time Current:** magnitude equal to cable.
- **Cyclic Aging:** 30 days at: A= 26.1kV, B= 43.2kV, C= 60.2kV AC continuous, load current for 8 hours per day providing 130° conductor temperature. Joints then subjected to: A= 35kV, B= 52kV, C= 69kV for 5 hours followed by: A= 53kV, B= 78kV, C= 104kV for 1 hour.
- **Load Cycle:** Connectors meet thermal and mechanical requirements of ANSI C119.4, Class A heat cycle, Class 2 partial tension.

DEADFRONT	SEPARABLE CONNECTORS	200 AMP LOADBREAK	5-15kV	PART #
LIVEFRONT	FUSED ELBOWS	200 AMP DEADBREAK	25kV	
	CABLE JOINTS	600 SERIES DEADBREAK	35kV	
	TERMINATIONS			
	SURGE ARRESTERS			

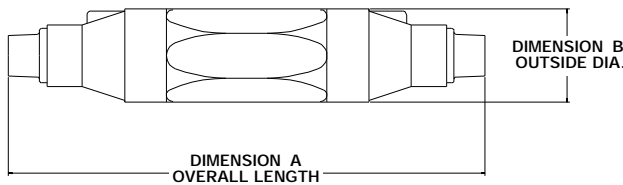
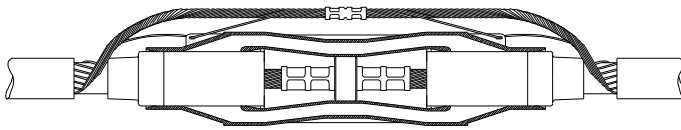


Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

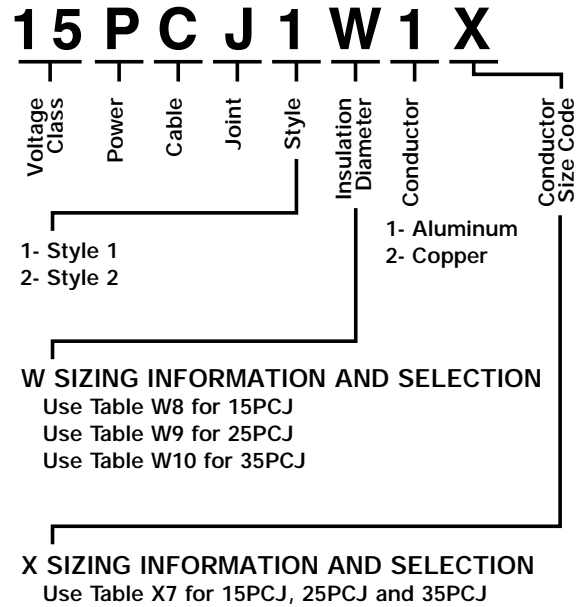
PCJ Style 1 with single-piece housing



PCJ Style 2 with universal housing and separate cable adapters that can be varied with the cable application.



ORDERING INFORMATION



DIMENSIONAL DATA

STYLE 1 PART NUMBER	A	B
	inches	inches
15PCJ1FX	10 1/4"	1 3/4"
15PCJ1GX	10 1/4"	1 3/4"
25PCJ1GX	14 3/8"	2 7/16"
15/25/35PCJ1HX	14 3/8"	2 7/16"
15/25/35PCJ1JX	14 3/8"	2 7/16"
15/25/35PCJ1KX	14 3/8"	2 25/32"
15/25/35PCJ1LX	14 3/8"	2 25/32"
15/25/35PCJ1LMX	14 3/8"	2 25/32"
15/25/35PCJ1MX	14 3/8"	2 25/32"
15/25/35PCJ1NX	15 3/4"	3 3/16"
15/25/35PCJ1PX	15 3/4"	3 3/16"
15/25/35PCJ1QX	15 3/4"	3 3/16"

STYLE 2 PART NUMBER	A	B
	inches	inches
15PCJ2EX	16 3/8"	2 25/32"
15PCJ2FX	16 3/8"	2 25/32"
15/25PCJ2GX	16 3/8"	2 25/32"
15/25/35PCJ2HX	16 3/8"	2 25/32"
15/25/35PCJ2JX	16 3/8"	2 25/32"
15/25/35PCJ2KX	21"	3 3/4"
15/25/35PCJ2LX	21"	3 3/4"
15/25/35PCJ2MX	21"	3 3/4"
15/25/35PCJ2NX	21"	3 3/4"
15/25/35PCJ2PX	21"	3 3/4"
15/25/35PCJ2QX	21"	3 3/4"

Description	Voltage Class	ELASTIMOLD Part Number	Notes
Power Cable Joint Style 1	15kV	15PCJ1W1X	N1
	15kV	15PCJ1W2X	N2
	25kV	25PCJ1W1X	N1
	25kV	25PCJ1W2X	N2
	35kV	35PCJ1W1X	N1
	35kV	35PCJ1W2X	N2
Power Cable Joint Style 2	15kV	15PCJ2W1X	N1
	15kV	15PCJ2W2X	N2
	25kV	25PCJ2W1X	N1
	25kV	25PCJ2W2X	N2
	35kV	35PCJ2W1X	N1
	35kV	35PCJ2W2X	N2

- Kit includes aluminum compression connector suitable for splicing aluminum conductor to aluminum conductor or aluminum conductor to copper conductor.
- Kit includes copper compression connector suitable for splicing copper conductor to copper conductor only.

Refer to the W and X tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

For cable shield adapters and jacket seals, see page 28.



CABLE TERMINATIONS

Elastimold cable terminations are available in single piece or modular designs. Terminators allow connection and transition from shielded, underground cable to bare overhead conductors and live-front equipment. Units are designed and rated per IEEE Standard 48 for riser pole, padmount, indoor and outdoor applications. PCT1, PCT2, 16THG and 35MTG terminators provide sufficient creep, strike and weather sealing for class 1 outdoor service. PCT1 and PCT2 also include an integral cable jacket seal. The 35MTGI terminators and 35MSC stress cones are rated for class 2 and class 3 indoor service respectively. Optional mounting brackets, aerial lugs and equipment connectors are available as required.



ELECTRICAL RATINGS SUMMARY

The following ratings summary is based on IEEE Std. 48 and applies to all the terminations on page 22 thru 25. Elastimold terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems.

VOLTAGE RATINGS

15kV Class

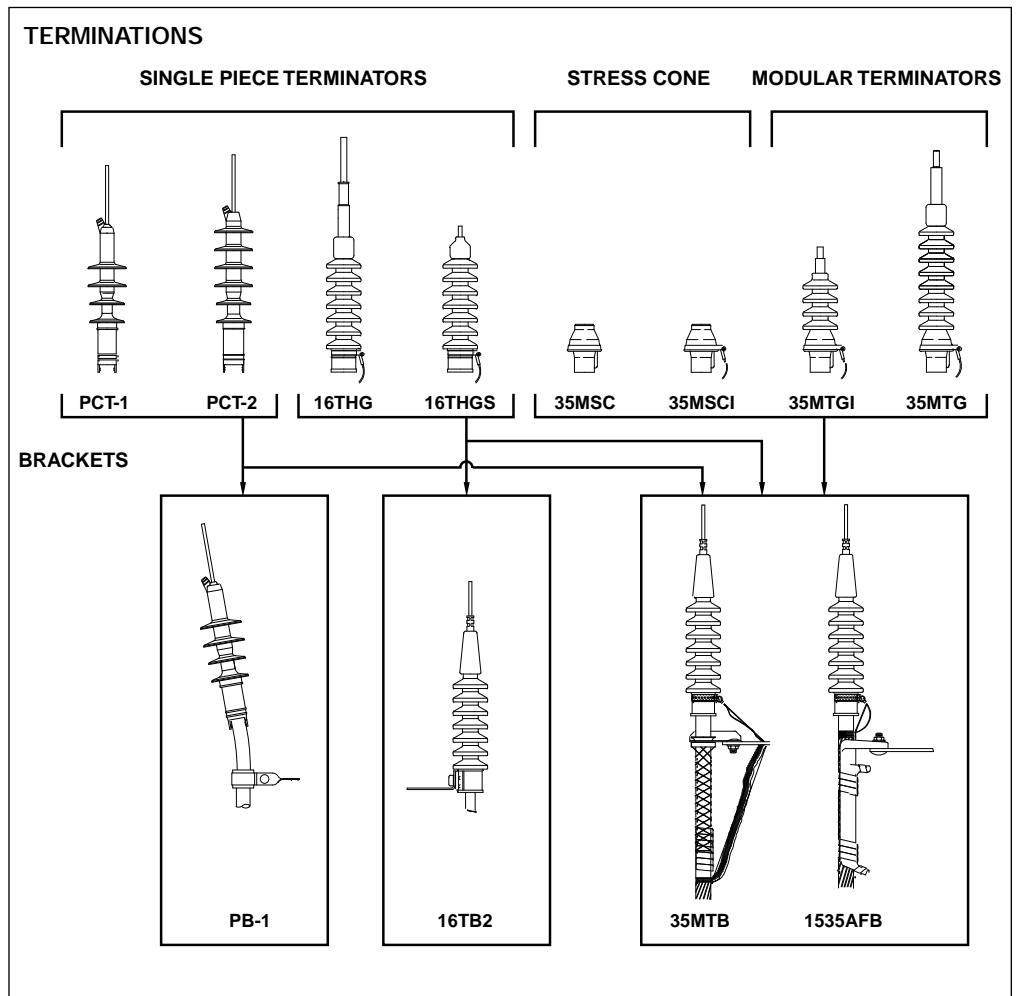
9.5kV Phase-to-Ground
 110kV BIL 1.2 x 50 microsecond wave
 AC Withstand:
 50kV 1 min. – dry
 35kV 6 hr. – dry
 45kV 10 sec. – wet
 13kV Corona Extinction

25kV Class

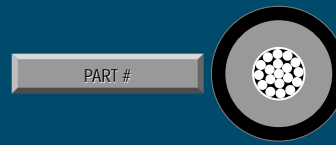
16kV Phase-to-Ground
 150kV BIL 1.2 x 50 microsecond wave
 AC Withstand:
 65kV 1 min. – dry
 55kV 6 hr. – dry
 60kV 10 sec. – wet
 21.5kV Corona Extinction

35kV Class

22kV Phase-to-Ground
 200kV BIL 1.2 x 50 microsecond wave
 AC Withstand:
 90kV 1 min. – dry
 75kV 6 hr. – dry
 80kV 10 sec. – wet
 30kV Corona Extinction



	SEPARABLE CONNECTORS		
DEADFRONT	FUSED ELBOWS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	CABLE JOINTS	200 AMP DEADBREAK	25kV
	TERMINATIONS	600 SERIES DEADBREAK	35kV
	SURGE ARRESTERS		



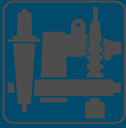
Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

TERMINATIONS

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Single-Piece Terminator (Class 1)	15kV 25kV	PCT1-X-4 Use Table X9 PCT2-X-4 Use Table X9	N12,14, 15, 22 N12,14, 15, 23
	Housing only	15kV 25kV	PCT1-4 PCT2-4	N13, 22 N13, 23
	Single-Piece Terminator (Class 1)	15/25kV	16THG-WX-4 Use Tables W12 and X8	N2,14 15
	Housing only	15/25kV	16THGH-W Use Table W12	
	Single-Piece Terminator for solid conductor only (Class 1)	15/25kV	16THGS-WX Use Tables W12 and X4	N3
	Stress Cone (Class 3)	ALL	35MSC-W Use Table W11	N17
	w/Grd. Strap	ALL	35MSCI-W Use Table W11	N17
	Modules only	ALL	35MG-W Use Table W13	N11,16
	Modular Terminator (Class 1)	15kV	35MTG-WX-4-CA Use Tables W13 and X3	N2,11
		25kV	35MTG-WX-8-CA Use Tables W13 and X3	N2,5,11
		35kV	35MTG-WX-10-CA Use Tables W13 and X3	N2,6,11
	Modular Terminator (Class 2) w/o Rain Cap	15kV	35MTGI-W-4 Use Table W13	N11
		25kV	35MTGI-W-6 Use Table W13	N11
		35kV	35MTGI-W-8 Use Table W13	N7,11
	Rod Contact for PCT	15/25kV	0070X Use Table X9	N1
	Rod Contact for 16THG	15/25kV	16TCA-X Use Table X8	N2, 8
	Solid Conductor Package for 16THGS	15/25kV	16CAS-X Use Table X4	N3, 9
	3/4"-16 Threaded Rod for MTG	ALL	35MTGA-WX-1 Use Tables W13 and X3	N2,10,11 18, 25
	1"-14 Threaded Rod for MTG	ALL	35MTGA-WX-2 Use Tables W13 and X3	N2,10,11 19, 25
	Two-Hole Spade for MTG	ALL	35MTGA-WX-3 Use Tables W13 and X3	N4,10,11 20, 25
	Two-Hole Spade for PCT	ALL	0100X Use Table X9	N1
	One-Hole Spade for PCT	ALL	0110X Use Table X9	N1
	Universal Rod for MTG	ALL	35MTCGA-WX-4 Use Tables W13 and X3	N2,10,11 21, 25
	Aerial Lugs for MTG Threaded Rod (Two-hole spade or bare wire)	ALL	35AL-A	N10, 24

- N1. Use with PCT1 or PCT2 Terminators.
- N2. Includes contact rod, ground strap and rain cap.
- N3. Includes crimp ring, ground strap and rain cap.
- N4. Includes spade contact, ground strap and rain cap.
- N5. For KA thru PB sizes use 35MTG-WX-6-CA.
- N6. For KA thru PB sizes use 35MTG-WX-8-CA.
- N7. For KA thru PB sizes use 35MTGI-W-6.
- N8. Use with 16THG Terminators.
- N9. Use with 16THGS Terminators.
- N10. Use with 35MTG Terminators.
- N11. Refer to page 24 for detailed ordering instructions.
- N12. Includes rod contact as standard. Specify suffix "-3" in place of "-4" for two-hole spade lug. Specify suffix "-5" in place of "-4" for one-hole spade lug.
- N13. Specify suffix "-3" or "-5" in place of "-4" for two-hole spade lug housing or one-hole spade style housing.
- N14. Use 1X for rod contact for aluminum conductors only.
- N15. Use 0X for rod contact for aluminum or copper conductors.
- N16. Available in sizes from GA thru PB.
- N17. Available in sizes EB thru PB.
- N18. For conductors from 1/0 thru 350 kcmil.
- N19. For conductors from 400 kcmil thru 1000 kcmil.
- N20. For conductors from #2 to 1000 kcmil.
- N21. For conductors from #6 thru 4/0.
- N22. Use for insulation dia. range from .640" thru 1.070".
- N23. Use for insulation dia. range from .830" thru 1.180".
- N24. Select symbol for "A" from aerial lug ordering information on page 24.
- N25. W13 Table provides sizing for rain cap
X10 Table provides sizing for connectors.

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.
For cable shield adapters and jacket seals, see page 28.



CABLE TERMINATIONS cont'd

ORDERING INSTRUCTIONS FOR MODULAR TERMINATORS

35MTG - W X - N - C A

I = Indoor
Blank = Outdoor

Use Table W13, below

Use Table X3, below

NOTE: Sizes are limited depending upon connector style selection. See notes 8 thru 11 on page 25.

Recommended Number of Modules

	GA-JB	KA-PB
15kV	4	4
25kV	8	6
35kV	10	8

Connector Style

Description	Available for Conductor Sizes	Symbol	Note
3/4"-16 Threaded Rod	1/0 thru 350 kcmil	-1	N8
1"-14 Threaded Rod	400 thru 1000 kcmil	-2	N9
2-Hole Spade	#2 thru 1000 kcmil	-3	N10
Universal Rod	#6 thru 4/0	-4	N11

Aerial Lugs for Threaded Rod Connectors Only

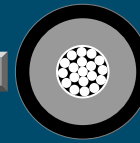
Type	Connector	Symbol
Bare Wire	3/4"-16 Rod	-11
2-Hole Spade	3/4"-16 Rod	-12
Bare Wire	1"-14 Rod	-21
2-Hole Spade	1"-14 Rod	-22

Table W13 USE FOR FOLLOWING PRODUCTS 35MTG 35MTGI	Cable Insulation Diameter in Inches		Symbol for W
	MIN.	MAX.	
	.775	.885	GA
	.825	.935	GAB
	.875	.985	GB
	.930	1.040	GH
	.980	1.115	HA
	1.040	1.175	HAB
	1.095	1.240	HB
	1.160	1.305	HJ
	1.220	1.375	JA
	1.285	1.395	JAB
	1.355	1.520	JB
	1.485	1.595	KA
	1.530	1.640	KAB
	1.575	1.685	KB
	1.665	1.785	PA
	1.755	1.875	PB

Table X3 USE FOR FOLLOWING PRODUCT 35MTG	Conductor SIZE AWG or kcmil	Symbol for X	
		Strand./ Compr.	Compt./ Solid.
	#6	3	-
	#5	3	-
	#4	2	3
	#3	2	-
	#2	1	2
	#1	0	1
	1/0	10	0
	2/0	20	10
	3/0	30	20
	4/0	40	30
	250	250	40
	300	300	250
	350	350	300
	400	400	350
	450	450	400
	500	500	450
	550	550	500
	600	600	500
	650-700	550	550
	750	750	600
	800	800	550
	900	900	750
	1000	1000	900

	SEPARABLE CONNECTORS		
DEADFRONT	FUSED ELBOWS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	CABLE JOINTS	200 AMP DEADBREAK	25kV
	TERMINATIONS	600 SERIES DEADBREAK	35kV
	SURGE ARRESTERS		

PART #



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

TERMINATIONS

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	PCT Positioning Bracket	ALL	PB-1	N1,12
	16THG Bracket	ALL	16TB-2	N6
	Bracket for crossarm mounting 16THG	ALL	16TB-3	N6
	Bracket for riser pole mounting 16THG	ALL	16TB-4	N6
	Bracket for tri-mounting 16THG	ALL	16TB-5	N6
	KELLUMS GRIP Bracket	ALL ALL ALL ALL	35MTB1-A 35MTB1-B 35MTB1-C 35MTB1-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	KELLUMS Bracket for crossarm mounting	ALL ALL ALL ALL	35MTB3-A 35MTB3-B 35MTB3-C 35MTB3-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	Bracket (for riser pole mounting)	ALL ALL ALL ALL	35MTB4-A 35MTB4-B 35MTB4-C 35MTB4-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	KELLUMS Bracket for tri-mounting	ALL ALL ALL ALL	35MTB5-A 35MTB5-B 35MTB5-C 35MTB5-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	ALUMA FORM Bracket	ALL	1535AFB-1	N1,6,7
	ALUMA FORM Bracket for Crossarm mounting	ALL	1535AFB-3	N1,6,7
	ALUMA FORM Bracket for riser-pole mounting	ALL	1535AFB-4	N1,6,7
	ALUMA FORM Bracket for tri-mounting	ALL	1535AFB-5	N1,6,7

- N1. Use with PCT-1 or PCT-2 Terminators.
- N2. Fits overall cable O.D. from 1.195" to 1.625".
- N3. Fits overall cable O.D. from .925" to 1.335".
- N4. Fits overall cable O.D. from .890" to 1.185".
- N5. Fits overall cable O.D. from 1.500" to 2.000".
- N6. Use with 16THG & 16THGS Terminators.
- N7. Use with MTG, MTG1 & MSC Terminators.
- N8. For conductors from 1/0 thru 350 kcmil.
- N9. For conductors from 400 kcmil thru 1000 kcmil.
- N10. For conductors from #2 to 1000 kcmil.
- N11. For conductors from #6 thru 4/0.
- N12. Fits overall cable O.D. from .750" to 1.625"

Refer to the **W** and **X** tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

For cable shield adapters and jacket seals, see page 28.



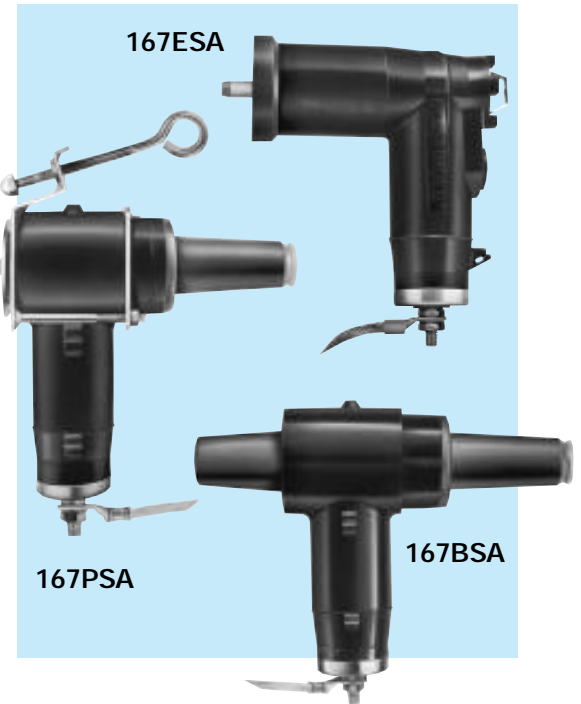
SURGE ARRESTERS

ELASTIMOLD Metal Oxide Varistor (MOV) surge arresters are fully-shielded, fully-submersible and are equipped with IEEE 386 interfaces for convenient energized connection with other 200 Amp loadbreak components. Units are compact, allowing installation in existing cabinetry. For application ease, arresters are available in 3 styles: Elbow (ESA), Parking Stand (PSA) and Bushing (BSA). The PSA and BSA arresters permit direct connection eliminating the need for additional accessories.

Elastimold arresters provide high voltage lightning and switching surge protection of transformers, cable, equipment and other components typically located on underground power distribution systems. Proper placement, voltage selection and coordination with riser pole arresters minimizes damaging surge voltages by improving protective margins.

Typical applications include installing an arrester at the end of a radial system or at both ends of an open point on a loop system. Additional arresters can be added at strategic locations upstream from the end point for optimum protection. Request Form 2068 (Surge Protection Options For Underground Distribution) and Form 2069 (Arrester Applications – Underground Electrical Systems) for additional application and margin of protection information.

ESA Elbow Arresters are also available with a 200 Amp Deadbreak interface for mating with other Deadbreak accessories.



ELECTRICAL RATINGS & PROTECTIVE CHARACTERISTICS

Performance:

High Current Short Duration - All MOV Arresters withstand two discharges of 40kA crest.
 Low Current Long Duration - All MOV Arresters withstand 20 surges of 75 amperes/2000 microsecond duration.

Duty Cycle Test - All MOV Arresters withstand 22 operations of 5kA crest at 8 x 20 microsecond duration while energized at rated voltage for the initial 20 operations and at maximum continuous operating voltage (MCOV) for the final two operations.

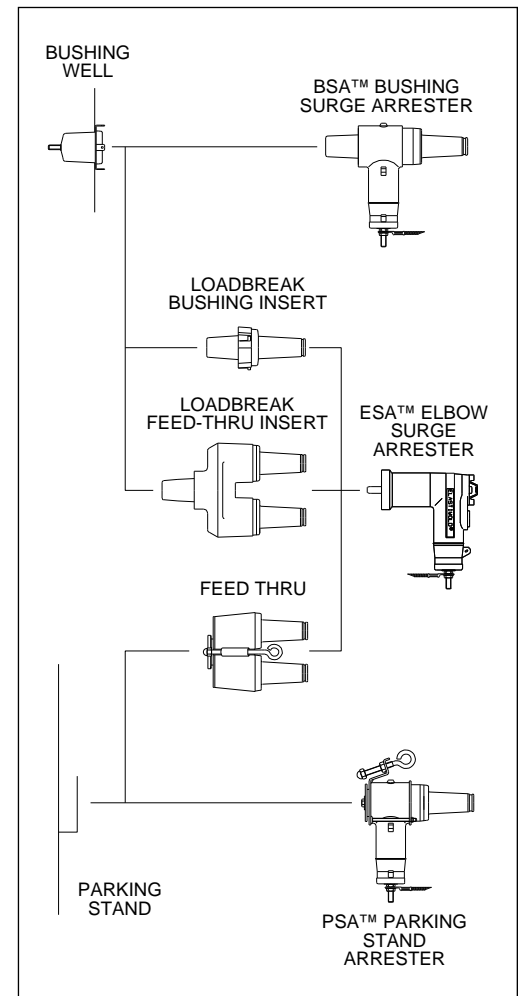
Following each of the preceding tests, MOV Arresters demonstrate thermal recovery at MCOV.

PROTECTIVE CHARACTERISTICS:

	MCOV (kVrms) Note 1	Duty Cycle Rating (kVrms)	Maximum Discharge Voltage (kV crest) 8x20 microsecond current wave					F.O.W. Protective Level (kV crest) Note 2
			1.5kA	3kA	5kA	10kA	20kA	
15kV CLASS	2.55	3	10.5	11.0	11.5	13.0	14.5	13.0
	5.1	6	20.5	21.5	23.0	25.5	30.0	25.5
	8.4	10	30.5	32.5	34.5	38.5	43.5	38.5
	10.2	12	40.0	42.5	45.0	50.0	56.5	50.0
	12.7	15	48.0	51.0	54.0	60.0	68.0	60.0
	15.3	18	56.5	60.0	64.0	71.0	80.5	71.0
25kV CLASS	8.4	10	30.5	32.5	34.5	38.5	43.5	38.5
	10.2	12	40.0	42.5	45.0	50.0	56.5	50.0
	12.7	15	48.0	51.0	54.0	60.0	68.0	60.0
	15.3	18	56.5	60.0	64.0	71.0	80.5	71.0
	17.0	21	65.5	69.5	74.0	82.5	93.0	82.5
35kV CLASS	19.5	24	78.5	83.5	89.0	99.0	112.0	99.0
	22.0	27	87.5	93.0	99.0	110.0	124.5	110.0
	24.4	30	95.5	101.5	108.0	120.0	136.0	120.0

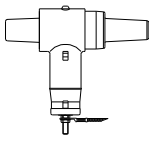
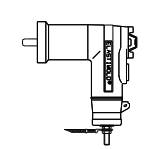
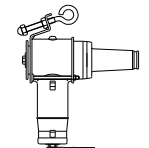
NOTES:

1. MCOV = Maximum Continuous Operating Voltage.
2. The front of wave (FOW) protective level is the maximum discharge for a 5kA impulse current wave producing a voltage wave cresting in 0.5 microseconds.



DEADFRONT	SEPARABLE CONNECTORS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	FUSED ELBOWS	200 AMP DEADBREAK	25kV
	CABLE JOINTS	600 SERIES DEADBREAK	35kV
	TERMINATIONS		
	SURGE ARRESTERS		

SELECTION CHART

Illustration (not to scale)	Description	Voltage Class	Elastimold Part Number	MCOV kVrms
	BSA Surge Arrester (includes assembly tool)	15kV	167BSA-3	2.55
		15kV	167BSA-6	5.10
		15kV	167BSA-10	8.40
		15kV	167BSA-12	10.20
		15kV	167BSA-15	12.70
	See Notes N1, 2, 3, 4	15kV	167BSA-18	15.30
		25kV	273BSA-10	8.40
		25kV	273BSA-12	10.20
		25kV	273BSA-15	12.70
		25kV	273BSA-18	15.30
		25kV	273BSA-21	17.00
		35kV	375BSA-24	19.50
		35kV	375BSA-27	22.00
		35kV	375BSA-30	24.40
	ESA Elbow Surge Arrester	15kV	167ESA-3	2.55
		15kV	167ESA-6	5.10
		15kV	167ESA-10	8.40
		15kV	167ESA-12	10.20
		15kV	167ESA-15	12.70
	See Notes N2, 3, 5	15kV	167ESA-18	15.30
		25kV	273ESA-10	8.40
		25kV	273ESA-12	10.20
		25kV	273ESA-15	12.70
		25kV	273ESA-18	15.30
		25kV	273ESA-21	17.00
		35kV	375ESA-24	19.50
		35kV	375ESA-27	22.00
		35kV	375ESA-30	24.40
	PSA Parking Stand Arrester	15kV	167PSA-3	2.55
		15kV	167PSA-6	5.10
		15kV	167PSA-10	8.40
		15kV	167PSA-12	10.20
		15kV	167PSA-15	12.70
	See Notes N1, 2, 3	15kV	167PSA-18	15.30
		25kV	273PSA-10	8.40
		25kV	273PSA-12	10.20
		25kV	273PSA-15	12.70
		25kV	273PSA-18	15.30
		25kV	273PSA-21	17.00
		35kV	375PSA-24	19.50
		35kV	375PSA-27	22.00
		35kV	375PSA-30	24.40

ARRESTER APPLICATION TABLE

	System Line-to-Line Voltage kV rms		MCOV (Max. Continuous Operating Voltage) kV rms	
	Nominal	Max.	Solidly Grounded Neutral Circuits	3-Wire Ungrounded Circuits
15kV Class	2.40	2.54	2.55	2.55
	4.16	4.40	2.55	5.10
	4.80	5.08	5.10	5.10
	6.90	7.26	5.10	8.40
	8.32	8.80	5.10	8.40
	12.47	13.20	8.40	15.30
	13.20	13.97	8.40	15.30
	13.80	14.50	8.40*	15.30
	13.80	14.50	10.20	15.30
	25kV Class	6.90	7.26	5.10
8.32		8.80	5.10	8.40
12.47		13.20	8.40	15.30
13.20		13.97	8.40	15.30
13.80		14.50	8.40*	15.30
13.80		14.50	10.20	15.30
20.78		22.00	12.70	-
20.78		22.00	15.30*	-
23.00		24.34	15.30	-
24.94		26.40	15.30	-
24.94	26.40	17.00*	-	
28.00	29.80	17.00	-	
35kV Class	23.00	24.34	-	22.00
	34.50	36.51	22.00*	-
	34.50	36.51	24.40	-

* Preferred arrester MCOV for this system voltage

- N1. Elastimold PSA and BSA Arresters are equipped with a fully rated 200A switching and fault close loadbreak bushing.
- N2. Elastimold Arresters use high-strength silver epoxy bonded MOV blocks and shunted spring connections for the best circuit connection.
- N3. A 36 inch #4 AWG ground lead provided with each unit.
- N4. BSA installed by turning internal hex bolt (accessed thru the 200 Amp Bushing Interface) with 5/16" hex wrench supplied with each unit.
- N5. For 15kV and 25kV Class DEADBREAK system Elbow Arresters, use part number 156ESA with the appropriate Duty Cycle rating.

ORDERING INSTRUCTIONS:

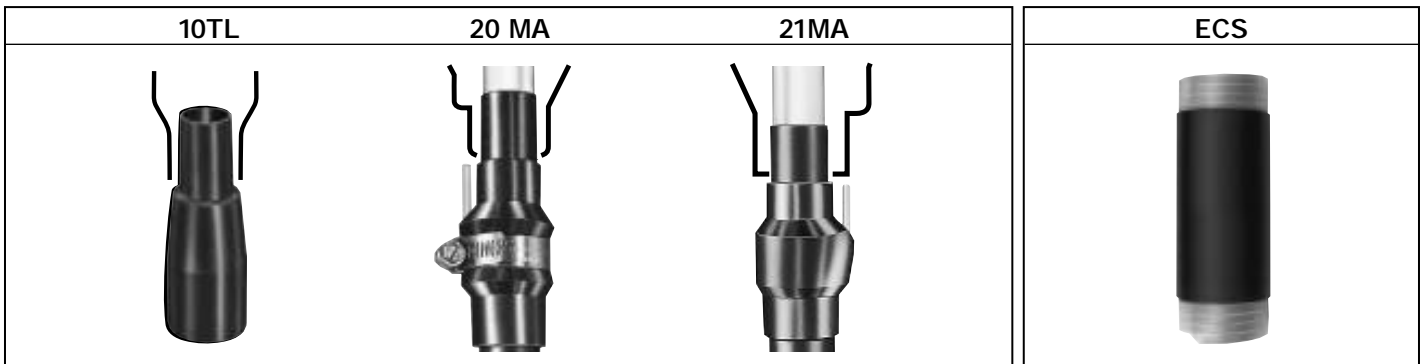
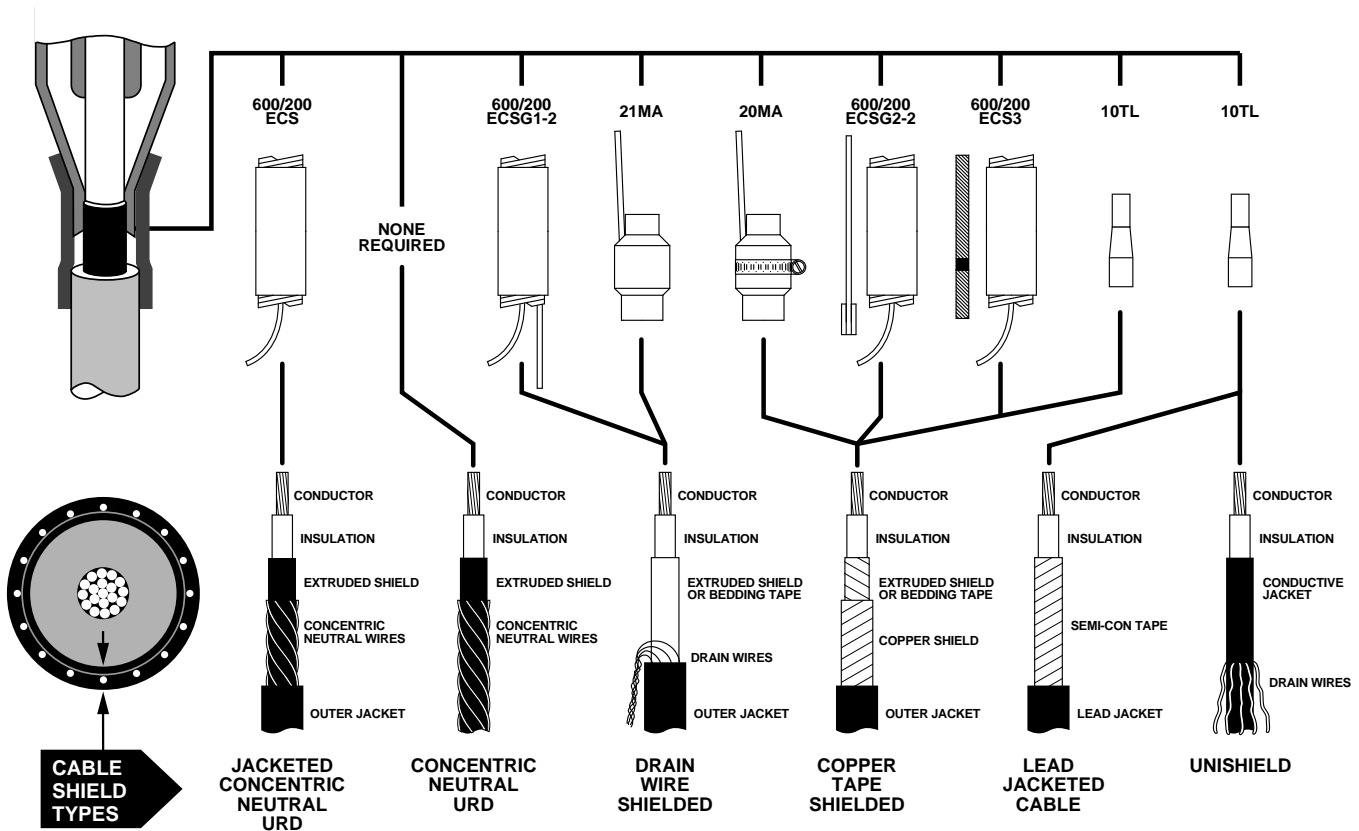
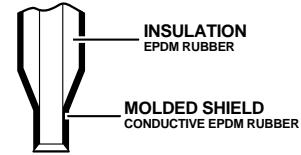
- (1.) Determine the appropriate Maximum Continuous Operating Voltage (MCOV) for your system voltage by using the ELASTIMOLD ARRESTER APPLICATION TABLE.
- (2.) Specify the appropriate ELASTIMOLD part number from the selection chart.



SHIELD ADAPTERS, GROUNDING KITS AND JACKET SEALS

Elastimold elbows, splices and terminators are designed for application on XLP, EPR and other solid dielectric insulated power cables. As shown in the diagram below, a variety of shielding and jacketing methods are available for these types of cables. In some cases, the use of cable shield adapters, grounding kits and/or jacket seals are required in order to properly install Elastimold components. Refer to the diagram below for recommendations, selection and use of adapters, grounding kits and jacket seals.

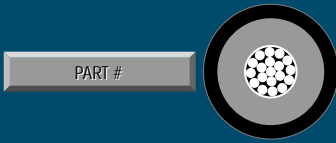
CABLE ENTRANCE DETAIL



Cable Insulation Dia.	CABLE SHIELD ADAPTERS		
	10TL inches	20MA inches	21MA inches
min.	.495	.575	.575
max.	1.755	1.755	1.755

Jacket O.D.	JACKET SEALS	
	200ECS inches	600ECS inches
min.	.80	1.28
max.	1.50	2.30

	SEPARABLE CONNECTORS		
DEADFRONT	FUSED ELBOWS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	CABLE JOINTS	200 AMP DEADBREAK	25kV
	TERMINATIONS	600 SERIES DEADBREAK	35kV
	SURGE ARRESTERS		



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

Illustration (not to scale)	Description	ELASTIMOLD Part Number	Suffix	Notes
	Cold Shrinkable Jacket Seal	200ECS	-S	N1,3
	Cold Shrinkable Jacket Seal	600ECS	-S	N1,4
	Metallic Tape Shield Adapter	20MA-W Use Table W14 for sizing	-0MA	N1,2
	Wire Shield Adapter	21MA-W Use Table W14 for sizing	-1MA	N1,2
	Shield Adapter	10TL-W Use Table W15 for sizing	-TL	N1,2
	Cold Shrinkable Seal w/ Copper Rod & Crimp Connector	200ECSG1-2	-SG1	N1,3
	Cold Shrinkable Seal w/ Copper Rod & Crimp Connector	600ECSG1-2	-SG1	N1,4
	Cold Shrinkable Seal w/ Copper Rod & Constant Force Spring	200ECSG2-2	-SG2	N1,3
	Cold Shrinkable Seal w/ Copper Rod & Constant Force Spring	600ECSG2-2	-SG2	N1,4
	Cold Shrinkable Seal w/ Copper Braid & Constant Force Spring	200ECSG3	-SG3	N1,3
	Cold Shrinkable Seal w/ Copper Braid & Constant Force Spring	600ECSG3	-SG3	N1,4

- N1. To order the kits as separate items, use the part numbers shown in the table. Example: To order a cold shrinkable tube as a separate item, use the part number 200ECS.
To order the kits as components of other items, add the suffix to the end of the part number. Example: To order a cold shrinkable jacket seal as a component of an elbow kit, use the part number 166LR-A520-S.
- N2. Only use this suffix with part numbers that designate a "W" housing size. Sizing the main component will also size the suffix adapter.
- N3. Size range .80" to 1.50" jacket diameters. Maximum installed diameter is approx. 2".
- N4. Size range 1.28" to 2.30" jacket diameters. Maximum installed diameter is approx. 2.75".

Table W14 USE FOR 20MA 21MA	Insulation Inches		Symbol for W
	MIN.	MAX.	
	.530	.680	E
.640	.820	F	
.760	.950	G	
.850	1.050	H	
.980	1.180	J	
1.090	1.310	K	
1.180	1.465	L	
1.280	1.430	LM	
1.370	1.630	M	
1.515	1.780	N	

Table W15 USE FOR 10TL	Insulation Inches		Symbol for W
	MIN.	MAX.	
	.495	.585	EB
.525	.635	EF	
.575	.585	FA	
.625	.735	FAB	
.675	.785	FB	
.725	.835	FG	
.775	.885	GA	
.825	.935	GAB	
.875	.985	GB	
.930	1.040	GH	
.980	1.115	HA	
1.040	1.175	HAB	
1.095	1.240	HB	
1.160	1.305	HJ	
1.220	1.375	JA	
1.285	1.395	JAB	
1.355	1.520	JB	
1.485	1.595	KA	
1.530	1.640	KAB	
1.575	1.685	KB	
1.755	1.875	PB	

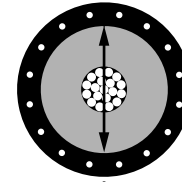
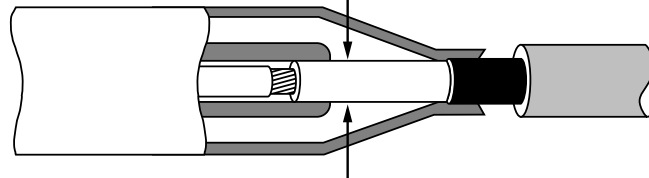


How to specify Size-Sensitive Products

PN _____ -W X- _____

Determines Size of Molded Rubber Part

'W'
INSULATION
DIAMETER



'W'
CABLE
INSULATION
DIAMETER

INSULATION DIAMETER SELECTION GUIDE

Elastimold Elbows, splices and terminations are designed for application on XLP, EPR and other solid dielectric insulated power cables. These components are constructed of molded elastomer and rely on an interference fit with the cable insulation diameter in order to maintain proper dielectric strength, creep path integrity and a water seal. Elastimold components are available in a wide range of sizes in order to accommodate a variety of cable insulation diameters.

Selection of size-sensitive components requires determining the cable insulation diameter. This can be done in several ways:

- A. Refer to the cable manufacturer's spec sheet for dimensions.
- B. Measure the cable.
- C. If the cable conforms to AEIC standards with a 175, 220, 260 or 345 mil wall thickness, use the table on page 34.

After the cable insulation diameter has been determined:

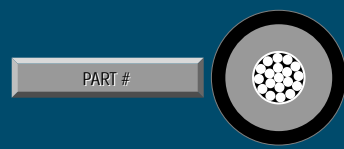
1. Locate the W table indicated in the part number selection chart.
2. Complete the ordering information by selecting and inserting the symbol (given in the W table) into the part number.

Ordering Example

To complete the information required to order a K655LR-W0X elbow for use on standard AEIC 500 kcmil stranded aluminum cable with .220 inch thick insulation wall.

- A. Determine that the insulation diameter (from AEIC table on page 34) is $1.325 \pm .030$ inches.
- B. For this elbow, the part number selection chart on page 11 indicates to use table W7 for elbow sizing and table X6 for connector sizing.
- C. From table W7 the symbol for W is L.
- D. From table X6 the symbol for X is 330.
- E. The completed part number therefore is K655LR-L0330.

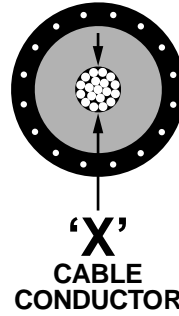
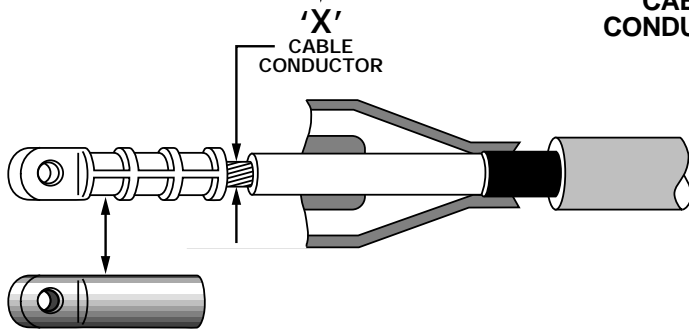
	SEPARABLE CONNECTORS		
DEADFRONT	FUSED ELBOWS	200 AMP LOADBREAK	5-15kV
LIVEFRONT	CABLE JOINTS	200 AMP DEADBREAK	25kV
	TERMINATIONS	600 SERIES DEADBREAK	35kV
	SURGE ARRESTERS		



Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

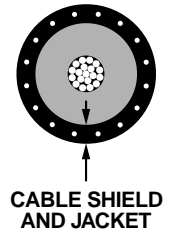
PN ____ -WX- ____

Determines Crimp Connector Size



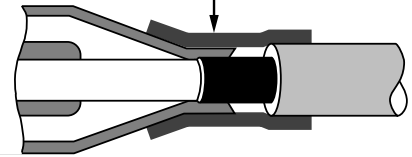
PN ____ -WX- ____

'Suffix'



Determines Required Accessories (if any)

- Cable Shield Adaptors
- Cable Grounding Kits
- Cable Jacket Seal



Reference Pages 28 & 29 for application, selection and ordering information.

CONNECTOR SELECTION GUIDE

Elastimold elbows, splices and terminations are furnished with crimp style cable connectors. As standard, these connectors are constructed with a tin-plated aluminum barrel filled with an oxide inhibitor. Aluminum barrel connectors are designed for use on either aluminum or copper conductor cable.

When specified, all copper crimp style connectors can be furnished. These connectors are ONLY for use on copper conductor cable and are not for use with aluminum conductor cables.

Bi-metallic connectors are constructed with a copper top and an aluminum barrel. Bi-metal connectors can be used on either aluminum or copper conductor cable and are furnished as standard with 200 Amp Loadbreak Elbows, 200 Amp Deadbreak Elbows, and PCT, 16 THG or MTG terminations with rod connectors.

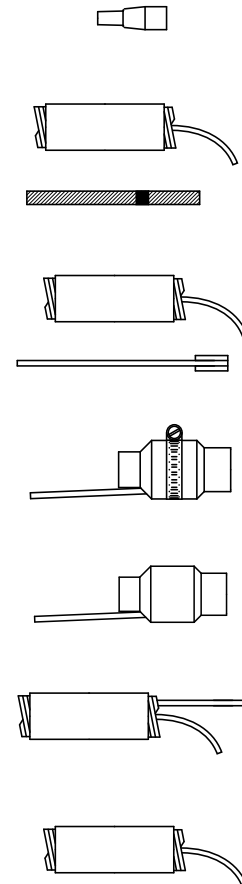
Selection and ordering the proper crimp connector requires determining information relative to the cable conductor as follows:

- Conductor size in AWG or kcmil
- Conductor type (stranded, compressed, compact or solid)
- Conductor material (aluminum or copper)

After the cable conductor information has been determined:

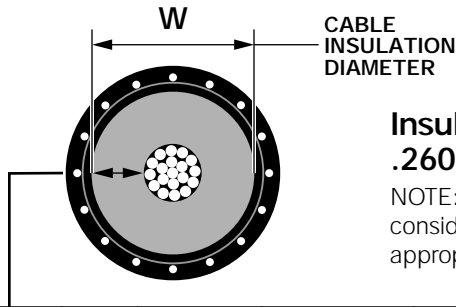
- Locate the X table indicated in the part number selection chart.
- Complete the ordering information by selecting and inserting the symbol (given in the X table) into the part number.

See the Ordering Example on page 30 for further information.





AEIC CABLE INSULATION DIAMETER REFERENCE



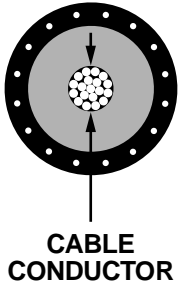
Insulation Diameters for Standard AEIC Cables with .175, .220, .260 or .345 inch wall XLP or EPR solid dielectric insulation.

NOTE: The insulation diameters shown have a $\pm .030$ inch tolerance which should be considered when selecting the minimum and maximum component sizing from the appropriate W table.

AWG or kcMil	Insulation Wall Thickness Inches	Voltage Class	w/stranded conductor	w/compressed conductor	w/compact or solid conductor
			Insulation Dia. (Inches)	Insulation Dia. (Inches)	Insulation Dia. (Inches)
#2 Solid	.175	15kV	—	—	.670
	.220	15kV	—	—	.760
	.260	25kV	—	—	—
	.345	35kV	—	—	—
#2	.175	15kV	.700	.695	.680
	.220	15kV	.790	.785	.770
	.260	25kV	—	—	—
	.345	35kV	—	—	—
#1 Solid	.175	15kV	—	—	.700
	.220	15kV	—	—	.790
	.260	25kV	—	—	.870
	.345	35kV	—	—	—
#1	.175	15kV	.740	.730	.710
	.220	15kV	.830	.820	.800
	.260	25kV	.910	.900	.880
	.345	35kV	—	—	—
1/0 Solid	.175	15kV	—	—	.735
	.220	15kV	—	—	.825
	.260	25kV	—	—	.905
	.345	35kV	—	—	1.075
1/0	.175	15kV	.785	.770	.745
	.220	15kV	.875	.860	.835
	.260	25kV	.955	.940	.915
	.345	35kV	1.125	1.110	1.085
2/0	.175	15kV	.830	.815	.785
	.220	15kV	.920	.905	.875
	.260	25kV	1.000	.985	.955
	.345	35kV	1.170	1.155	1.125
3/0	.175	15kV	.880	.865	.835
	.220	15kV	.970	.955	.925
	.260	25kV	1.050	1.035	1.005
	.345	35kV	1.220	1.205	1.175
4/0	.175	15kV	.940	.920	.885
	.220	15kV	1.030	1.010	.975
	.260	25kV	1.110	1.090	1.055
	.345	35kV	1.280	1.260	1.225
250	.175	15kV	.995	.980	.940
	.220	15kV	1.085	1.070	1.030
	.260	25kV	1.175	1.160	1.120
	.345	35kV	1.350	1.335	1.295
350	.175	15kV	1.100	1.080	1.035
	.220	15kV	1.190	1.170	1.125
	.260	25kV	1.280	1.260	1.215
	.345	35kV	1.455	1.435	1.390

AWG or kcMil	Insulation Wall Thickness Inches	Voltage Class	w/stranded conductor	w/compressed conductor	w/compact or solid conductor
			Insulation Dia. (Inches)	Insulation Dia. (Inches)	Insulation Dia. (Inches)
500	.175	15kV	1.235	1.210	1.155
	.220	15kV	1.325	1.300	1.245
	.260	25kV	1.415	1.390	1.335
	.345	35kV	1.590	1.565	1.510
600	.175	15kV	1.325	1.295	1.245
	.220	15kV	1.415	1.385	1.335
	.260	25kV	1.505	1.475	1.425
	.345	35kV	1.680	1.650	1.600
700	.175	15kV	1.395	1.365	1.305
	.220	15kV	1.485	1.455	1.395
	.260	25kV	1.575	1.545	1.485
	.345	35kV	1.750	1.720	1.660
750	.175	15kV	1.430	1.400	1.340
	.220	15kV	1.520	1.490	1.430
	.260	25kV	1.610	1.580	1.520
	.345	35kV	1.785	1.755	1.695
800	.175	15kV	1.460	1.430	1.370
	.220	15kV	1.550	1.520	1.460
	.260	25kV	1.640	1.610	1.550
	.345	35kV	1.815	1.785	1.725
900	.175	15kV	1.525	1.490	1.430
	.220	15kV	1.615	1.580	1.520
	.260	25kV	1.705	1.670	1.610
	.345	35kV	1.880	1.845	1.785
1000	.175	15kV	1.580	1.545	1.490
	.220	15kV	1.670	1.635	1.580
	.260	25kV	1.760	1.725	1.670
	.345	35kV	1.935	1.900	1.845

CABLE CONDUCTOR DIAMETER REFERENCE



Conductor Diameters for Copper and Aluminum Stranded, Compressed, Compact and Solid Cables

Conductor Size AWG or kcmil	No. of Strands and their Nom. Strand Dia. (in.)	Cross-sectional Area		Stranded Conductors (Inches)	Compressed Conductors (Inches)	Compact Conductors (Inches)	Solid Conductors (Inches)
		Square Inches	mm ² Conversion				
14	7 x .0242	.0032	2.08	.073	—	—	.064
12	7 x .0305	.0051	3.31	.092	—	—	.081
10	7 x .0385	.0082	5.26	.116	—	—	.102
8	7 x .0486	.0130	8.37	.146	—	—	.129
6	7 x .0612	.0206	13.30	.184	—	—	.162
4	7 x .0772	.0328	21.15	.232	—	—	.204
2	7 x .0974	.0521	33.62	.292	.283	.268	.258
1	19 x .0664	.0657	42.41	.332	.322	.299	.289
1/0	19 x .0745	.0829	53.49	.373	.362	.336	.325
2/0	19 x .0837	.1054	67.43	.418	.405	.376	—
3/0	19 x .0940	.1318	85.01	.470	.456	.423	—
4/0	19 x .1055	.1662	107.2	.528	.512	.475	—
250	37 x .0822	.1964	127	.575	.558	.520	—
350	37 x .0973	.2749	177	.681	.661	.616	—
500	37 x .1162	.3924	253	.813	.789	.736	—
600	61 x .0992	.4712	304	.893	.866	.813	—
700	61 x .1071	.5498	355	.964	.935	.877	—
750	61 x .1109	.5890	380	.998	.968	.908	—
800	61 x .1145	.6283	405	1.031	1.000	.938	—
900	61 x .1215	.7069	456	1.094	1.061	.999	—
1000	61 x .1280	.7854	507	1.152	1.117	1.060	—
1100	91 x .1099	.8639	557	1.209	1.173	—	—
1200	91 x .1148	.9425	608	1.263	1.225	—	—
1250	91 x .1172	.9818	633	1.289	1.250	—	—
1300	91 x .1195	1.021	659	1.315	1.276	—	—
1400	91 x .1240	1.100	709	1.364	1.323	—	—
1500	91 x .1284	1.178	760	1.412	1.370	—	—
1600	127 x .1122	1.257	811	1.459	1.415	—	—
1700	127 x .1157	1.335	861	1.504	1.459	—	—
1750	127 x .1174	1.374	887	1.526	1.480	—	—
1800	127 x .1191	1.414	912	1.548	1.502	—	—
1900	127 x .1223	1.492	963	1.590	1.542	—	—
2000	127 x .1225	1.571	1010	1.632	1.583	—	—



EQUIPMENT BUSHINGS

Elastimold manufactures a complete line of 200 Amp deepwell and 600 Series apparatus bushings for use on transformers, switchgear and other equipment applications. The bushings incorporate IEEE 386 standard interfaces (shown on page 3) and are constructed of molded epoxy with stainless steel flanges for mounting by welding or gasketed clamp. K1601PCC series bushings are provided with a

molded epoxy flange for gasketed clamp mounting only. Bushings are available for use on AIR, OIL or SF6 insulated equipment. Units are rated for submersible, padmount, indoor, outdoor and other applications. Options include hold-down bail tabs and replaceable studs for 200 Amp deepwell bushings.

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Short Shank Well with bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-S1 L1601PC-S1	N1,9 N1,9
	Short Shank Well with bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-S1-R L1601PC-S1-R	N1,7,9 N1,7,9
	Short Shank Well without bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-S2 L1601PC-S2	N1,7,9 N1,9
	Short Shank Well without bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-S2-R L1601PC-S2-R	N1,7,9 N1,7,9
	Long Shank Well with bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-T1 L1601PC-T1	N2,9 N2,9
	Long Shank Well with bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-T1-R L1601PC-T1-R	N2,7,9 N2,7,9
	Long Shank Well without bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-T2 L1601PC-T2	N2,9 N2,9
	Long Shank Well without bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-T2-R L1601PC-T2-R	N2,7,9 N2,7,9
	Epoxy Flange Well	15/25kV	K1601PCC	N1,7,9
	Epoxy Flange Well with replaceable well stud	15/25kV	K1601PCC-R	N1,7,9
	Well w/Insert (K1601PCC-R & 1601A4)	15kV	1601CABA4R	N1,9
	Well w/Insert (K1601PCC-R & 2701A4)	25kV	2701CABA4R	N1,9
	200 A Deadbreak Integral Bushing	15/25kV	K180T4	N3,9
	200 A Deadbreak Integral Bushing	15/25kV	K180C4	N2,9
	600 A Short Shank Bushing w/stud	15/25kV	K600S1	N4,8,10
	600 A Short Shank Bushing w.o./stud	15/25kV	K650S1	N4,8,11
	600 A Short Shank Bushing w.o./stud	35kV	750S1	N4,8,11
	600 A Cu Short Shank Bushing w.o./stud	15/25kV	K675S1	N4,9,11
	600 A Long Shank Bushing w/stud	15/25kV	K600T1	N5,8,10
	600 A Long Shank Bushing w.o./stud	15/25kV	K650T1	N5,8,11
	600 A Cu Long Shank Bushing w.o./stud	15/25kV	K675T1	N5,9,11
	600 A 12" Long Shank Bushing w/stud	15/25kV	K600L12	N6,8,10
	600 A In-Air Long Shank Bushing w/stud	15/25kV	K600TBC	N5,8,10,12
	600 A Cu In-Air Long Shank Bush. w/stud	15/25kV	K675TBC	N5,9,10,12
	Boot & Collars for K600T1 to use in air	15/25kV	600BC	N12

N1. Bushing shank length = 2 - 3/4 inches.

N2. Bushing shank length = 9 - 1/4 inches

N3. Bushing shank length = 7 - 11/32 inches.

N4. Bushing shank length = 2 - 5/16 inches.

N5. Bushing shank length = 8 - 37/64 inches.

N6. Bushing shank length = 12 inches.

N7. Replacement stud available separately. Specify 1601RS.

N8. Equipped with standard aluminum conductor rod.

N9. Equipped with copper conductor rod.

N10. Includes 5/8-11 threaded stud at elbow end.

N11. Includes 5/8-11 threaded hole at elbow end.

N12. Provides increased creep and strike.

SEPARABLE CONNECTORS

CABLE JOINTS

TERMINATIONS

SURGE ARRESTERS

FUSES

LOADBREAK SWITCHES

For 5kV-35kV Distribution Systems





ELASTIMOLD System Planning Guide



INTRODUCTION

Catalog 2001 provides an easy-to-use, comprehensive listing of ELASTIMOLD products for 5kV thru 35kV underground power distribution systems. Included are separable elbow connectors, cable joints, splices, terminations, surge arresters, fused elbows and other cable accessory components. The catalog incorporates information relative to product application, ratings and selection.

ELASTIMOLD is recognized as the leading producer of premolded cable accessory components worldwide. Utilizing specially formulated materials with 100% peroxide-cured insulation and shielding, Elastimold products represent the state-of-the-art in premolded process technology. Durable, quality construction and non-degrading, high-reliability, maintenance-free performance is assured when specifying ELASTIMOLD products.

ELASTIMOLD's broad line of premolded products offer significant advantages over field-fabricated and other alternatives, including: 100% factory assurance testing prior to delivery and installation; simplified, single-piece construction with built-in insulating, shielding and sealing surfaces; ease of installation with no special skills or tools required; and compact, lightweight, durable designs for easy handling and application.

Separable Elbow Connectors and their related accessories are available in 200 Amp loadbreak, 200 Amp deadbreak and 600 Amp deadbreak styles. Rated for padmount, subsurface, vault, indoor, outdoor and other applications, units feature interchangeable interfaces which can be easily engaged or separated to provide a convenient method to connect or disconnect cable and equipment to the distribution system.

Cable Joints and Splices are available in permanently crimped or bolted (separable) connector styles. Units are rated the same as the cable they are connecting and are available for all applications including direct buried.

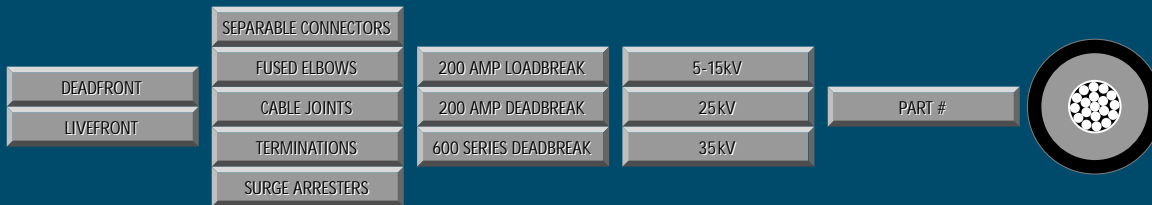
Cable Terminations are available in single-piece or modular designs. Rated for indoor, outdoor or padmount applications, units allow connection and transition from shielded underground cables to bare overhead conductors and live-front equipment.

Surge Arresters are constructed using metal oxide blocks for overvoltage protection and 200 Amp separable connector interfaces for attachment to other ELASTIMOLD accessories.

Fused Elbows combine replaceable current-limiting fuses for overcurrent protection and 200 Amp separable connector interfaces for attachment to other ELASTIMOLD accessories.

Loadbreak Switches, Molded Current Limiting Fuses, Molded Power Fuses and Transmission Class Products are shown on the back cover. For additional catalog information on these product lines, please contact your ELASTIMOLD Sales Representative.

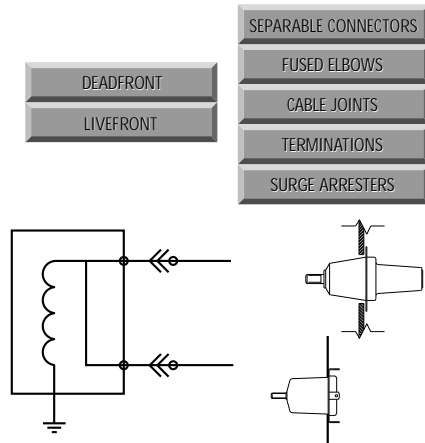
Elastimold Special Component Services Group provides custom products tailored to specific application requirements. Please contact the factory for further information regarding this service.



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

COMPONENT APPLICATION AND SELECTION

Catalog 2001 includes component group schematics, part numbers and standard ratings of ELASTIMOLD products for application on underground power distribution systems utilizing solid dielectric cable. Go directly to the product section in the table of contents or follow the decision path outlined below for component selection and application.



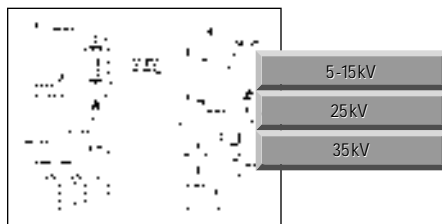
- Determine if the application involves **Deadfront** (shielded) or **Livefront** (unshielded) connections. Terminations are air insulated and classified as Livefront.

- Determine if the application requires **Separable Connectors, Fused Elbows, Cable Joints, Terminations** or **Surge Arresters**.

- If Separable Connectors are involved, determine the required current class: **200 Amp** or **600 Amp** and above. This decision is based on the conductor size, loading, and system short circuit currents. The selected connector must be compatible with the mating interface on any equipment.



- 200 Amp connectors are available in **Loadbreak** and **Deadbreak** styles. Determine which style is required. 600 Series Connectors are Deadbreak only and Fused Elbows are Loadbreak only.



- Determine the part number related to the specific **Voltage Class** by utilizing the schematic layouts and product tables.









- If the component mates with cable, determine the cable insulation diameter, conductor size, type of cable shield and if jacket sealing is required.

TABLE OF CONTENTS

• Certified Tests and Performance	2	• Cable Terminations	22-25
• Separable Connector Interfaces	3	• Surge Arresters.....	26, 27
• 200 Amp Loadbreak Connectors.....	4-7	• Shield Adapters, Grounding Kits & Jacket Seals	28, 29
• 200 Amp Deadbreak Connectors	8, 9	• How to specify size-sensitive products	30, 31
• 600 Series Deadbreak Connectors	10-13	• WX Size Tables.....	32, 33
• 600 Series Deadbreak Connectors		• AEIC Cable Insulation Diameter Reference	34
– Cam-Op, Link-Op	14,15	• Cable Conductor Diameter Reference.....	35
• 600 Series Deadbreak Connectors		• Equipment Bushings	36
– Stick-Op, Window-Op	16,17	• Loadbreak Switches, Molded Current	
• 600 Series Deadbreak Cable Joints.....	18,19	Limiting Fuses, Molded Power Fuses	
• PCJ Cable Joints	20,21	and Transmission Class products.....	Back Cover

ELASTIMOLD® CAT. NO. C-MVS
www.elastimold.com

MVS MOLDED VACUUM SWITCH

- PADMOUNT**


- SURFACE**


- STREET VULTS**

 - Low Voltage (15 to 25 kV) Voltage Classes
 - Single or Three Phase Class with Configuration
 - 15, 15.5, 20 or 25 kV Voltage Classes
 - Designed with Provision for 200 or 400 Amp Class On Instruction
- INDOOR VULTS**

 - Used on or for indoor operation

■ Catalog Number C-MVS
MVS Molded Vacuum Switches

ELASTIMOLD® CAT. NO. C-MCLF
www.elastimold.com

MCLF MOLDED CURRENT LIMITING FUSE





- 5 Amp 50kAmp Rating
- 4, 10, 20 or 30 kV and 1500 to 15000 V Voltage Classes
- 50 Amps to 5000 Amps Capability
- Class C or D
- Proven Molded Fuse Applications



■ Catalog Number C-MCLF
Molded Current Limiting Fuses

ELASTIMOLD® CAT. NO. C-MPF
www.elastimold.com

MPF MOLDED POWER FUSE


5, 10, 20 or 30 kV
1500 to 15000 V Voltage Classes

■ Catalog Number C-MPF
Molded Power Fusing

ELASTIMOLD® CAT. NO. C-MPJ
www.elastimold.com

MOLDED MULTI-POINT JUNCTIONS

- 2, 3, 4, 6 or 8 Point Junctions with Modular Design Flexibility
- Available with 200 or 600 Amp Interfaces on 4 or 6" Inch Centers
- 15, 25 or 35 kV Voltage Classes
- Padmount, Subsurface or Wall Applications



■ Catalog Number C-MPJ
Molded Multi-Point Junctions

ELASTIMOLD® CAT. NO. C-1220-TCT
www.elastimold.com

TCT TERMINATORS

65kV-Class

The maximum system voltage (30 kV RMS)


The TCT Terminator provides a 100% T termination for cable systems using through cable ends. It conforms to standard IEEE standards. The terminator is designed for use with electric cable with insulation thickness up to 0.010 inch and a maximum conductor size of 0.010 inch (0.010 inch max). Please refer to the literature for the maximum conductor.

The standard termination termination provides a 100% T termination for cable systems using through cable ends. It conforms to standard IEEE standards. The terminator is designed for use with electric cable with insulation thickness up to 0.010 inch and a maximum conductor size of 0.010 inch (0.010 inch max). Please refer to the literature for the maximum conductor.

TERMINATOR

The TCT Terminator is designed for 100% T termination for cable systems using through cable ends. It conforms to standard IEEE standards. The terminator is designed for use with electric cable with insulation thickness up to 0.010 inch and a maximum conductor size of 0.010 inch (0.010 inch max). Please refer to the literature for the maximum conductor.


TERMINATOR SIZE	MAX. CABLE CONDUCTOR SIZE
1/2"	0.010"
3/4"	0.010"
1"	0.010"
1 1/2"	0.010"
2"	0.010"
3"	0.010"
4"	0.010"
6"	0.010"



■ Catalog Number C-1220-TCT
TCT Transmission Terminators

TCJ™
TRANSMISSION CABLE JOINTS

46kV Class to 161kV Class



ELASTIMOLD®

■ Catalog Number C-TCJ
TCJ Transmission Cable Joints

Additional catalog information for product lines shown above is available by contacting your Elastimold Sales Representative.

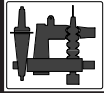


ELASTIMOLD

Thomas & Betts

A Unit of Thomas & Betts Corporation
Route 24
Hackettstown, New Jersey 07840
(908) 852-1122
Facsimile (908) 813-2094

CATALOG 2001 0198♦
Printed in U.S.A.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

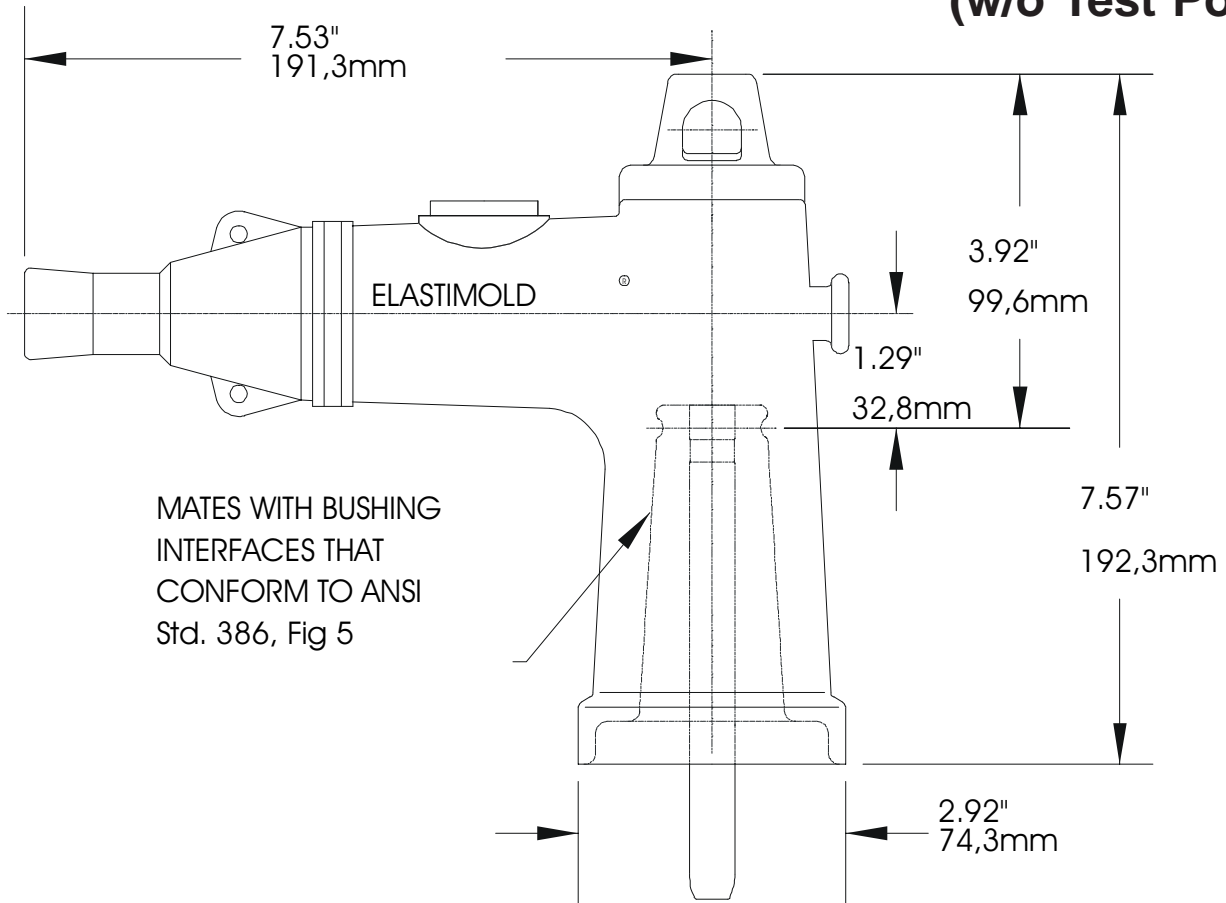
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15kV 200A Loadbreak Elbow

ELASTIMOLD PART NUMBER

165LR-WX**(w/o Test Point)**

The Elastimold 165LR Elbow Connector is a fully rated 15kV, 200 Amp Class loadbreak connector. It includes provisions for energized operation using standard hotstick tools allowing loadmake/break operation and a visible disconnect. It has a standard interface for connecting to 15kV, 200 Amp bushing inserts, junctions and operating accessories.

Features

- 15kV, 200 Amp Loadbreak Elbow
- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for hot stick operation.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.
- Long bi-metal compression lug is standard.

Ratings

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3 kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

34kV AC - One minute Withstand

53kV DC - 15 Minutes Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

200Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

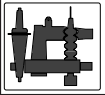
Applications

The 165LR is designed for connecting to and operating 15kV Class, 200 Amp distribution apparatus. It provides a convenient method to connect/disconnect cable and equipment on power distribution systems. The 165LR allows connection of cables with insulation diameters from .575" (14,6mm) to 1.220" (31,0mm) with only four elbow sizes. (#2 solid, 175 mil to 4/0 stranded, 260 mil)

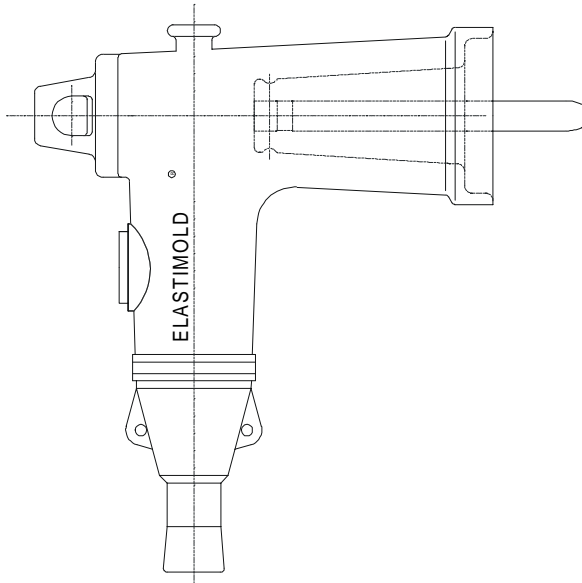
ELASTIMOLD Route 24, Hackettstown, New Jersey 07840

Phone: (908) 852-1122 Fax: (908) 813-2108

Thomas & Betts



15kV 200A Loadbreak Elbow (w/o Test Point) 165LR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

165LR - - 5

Cable Insulation Dia. Range		Elbow Code
inches	mm	Code
.575 - .740	14,6 - 18,8	A
.665 - .905	16,9 - 23,0	B
.830 - 1.060	21,1 - 26,9	C
.930 - 1.220	23,6 - 31,0	D

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Elbow Connector kit contains the following:

- 1 - Elbow connector housing 165BLR-W
- 1 - Bi-metal compression lug 02500XXX (Table R)
- 1 - Probe 166LRF
- 1 - Probe wrench 271-94
- 1 - Tube, lubricant 82-08
- 1 - Installation instruction IS-165/166LR 11/96
- 1 - Crimp chart IS-02500CC 10/96

Example:

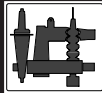
The ordering number for an Elbow Connector for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 165LR-B-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 165LR-B-2240.

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02500220	02500210
1	02500230	02500220
1/0	02500240	02500230
2/0	02500250	02500240
3/0	02500260	02500250
4/0	02500270	02500260
250	-	02500270

*Cu or Al conductor



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

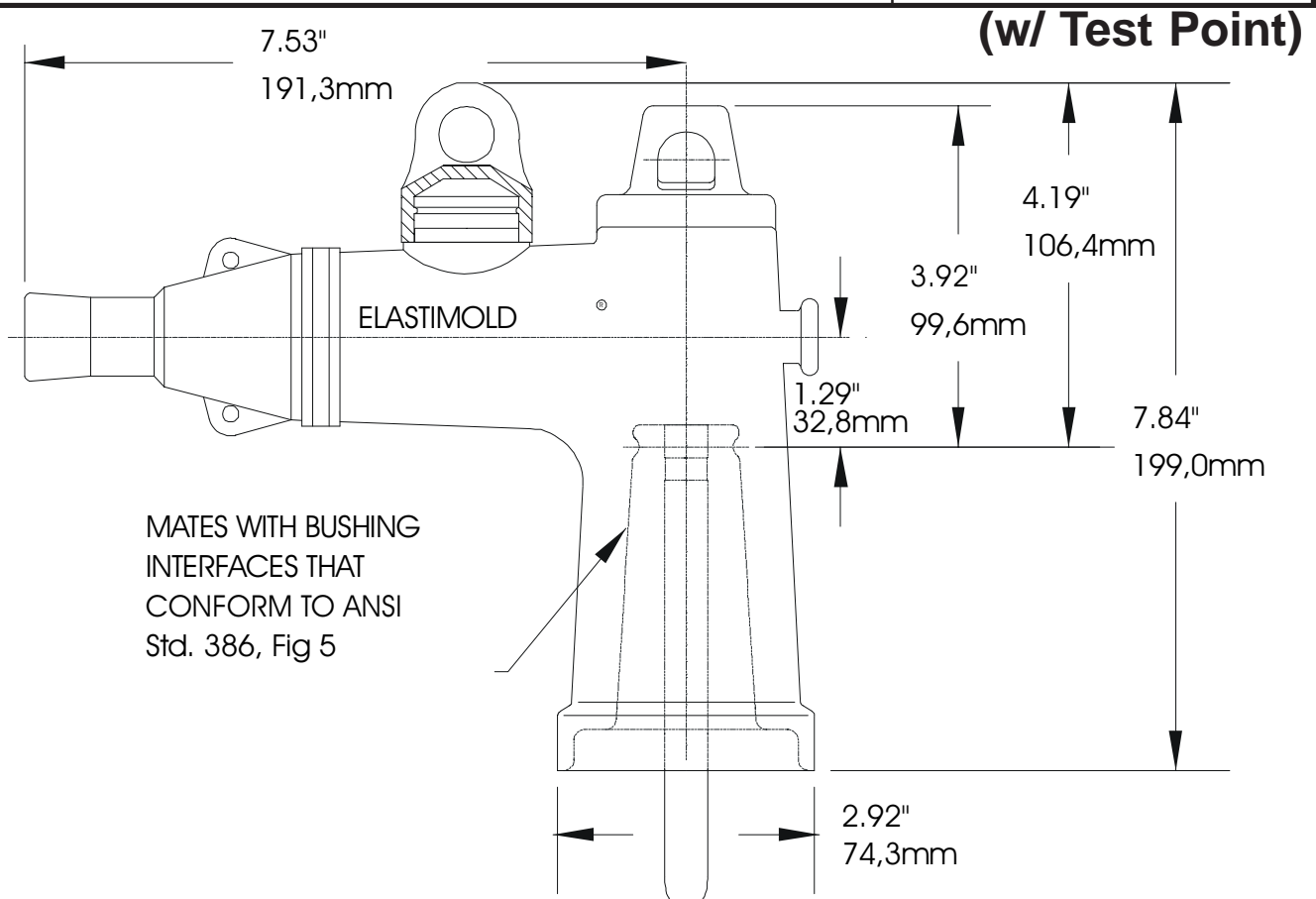
C I

DESCRIPTION

15kV 200A Loadbreak Elbow

ELASTIMOLD PART NUMBER

166LR-WX



The Elastimold 166LR Elbow Connector is a fully rated 15kV, 200 Amp Class loadbreak connector. It includes provisions for energized operation using standard hotstick tools allowing loadmake/break operation and a visible disconnect. It has a standard interface for connecting to 15kV, 200 Amp bushing inserts, junctions and operating accessories. The 166LR are equipped with an integral voltage test point.

Features

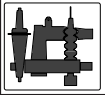
- 15kV, 200 Amp Loadbreak Elbow
- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Non-corrosive, capacitively coupled voltage test point provision with removable protective cap.
- Provision for hot stick operation.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.
- Long bi-metal compression lug is standard.

Ratings

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3 kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minutes Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

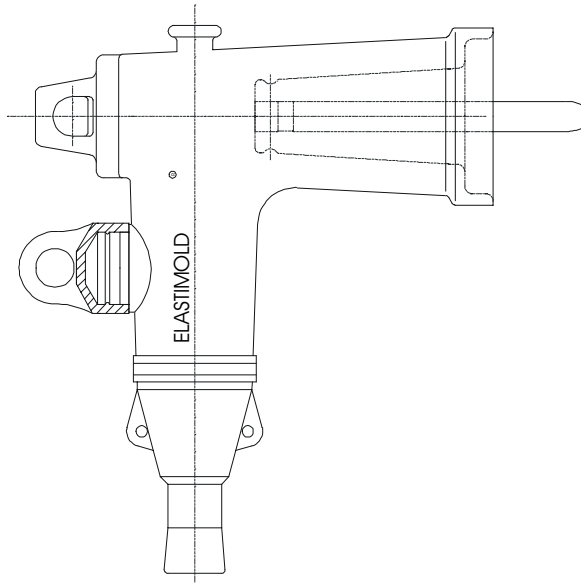
Applications

The 166LR is designed for connecting to and operating 15kV Class, 200 Amp distribution apparatus. It provides a convenient method to connect/disconnect cable and equipment on power distribution systems. The 166LR allows connection of cables with insulation diameters from .575" (14,6mm) to 1.220" (31,0mm) with only four elbow sizes. (#2 solid, 175 mil to 4/0 stranded, 260 mil).



15kV 200A Loadbreak Elbow

166LR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

166LR - - 5

Cable Insulation Dia. Range		Elbow Code
inches	mm	Code
.575 - .740	14,6 - 18,8	A
.665 - .905	16,9 - 23,0	B
.830 - 1.060	21,1 - 26,9	C
.930 - 1.220	23,6 - 31,0	D

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Elbow Connector kit contains the following:

- 1 - Elbow connector housing 166BLR-W
- 1 - Bi-metal compression lug 02500XXX (Table R)
- 1 - Probe 166LRF
- 1 - Probe wrench 271-94
- 1 - Tube, lubricant 82-08
- 1 - Installation instruction IS-165/166LR 11/96
- 1 - Crimp chart IS-02500CC 10/96

Example:

The ordering number for an Elbow Connector for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 166LR-B-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 166LR-B-2240.

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02500220	02500210
1	02500230	02500220
1/0	02500240	02500230
2/0	02500250	02500240
3/0	02500260	02500250
4/0	02500270	02500260
250	-	02500270

*Cu or Al conductor

Installation & Operating Instructions 165LR (without test point) 166LR (with test point) Loadbreak Elbow Connectors

CONTENTS: Elbow Connector Housing, Compression Lug, Probe, Probe Wrench, Lubricant, Installation/Operating Instructions.

The 165LR (without test point) and 166LR (with test point) are designed to terminate UD cable having concentric neutral and extruded insulation shielding. The elbow provides an operating interface for connecting to an Elastimold 15kV class (8.3kV phase- to- ground and 14.4kV phase- to- phase) 200 ampere loadbreak bushing or accessory device with fault close rating of 10,000 amperes RMS symmetrical. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding devices must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

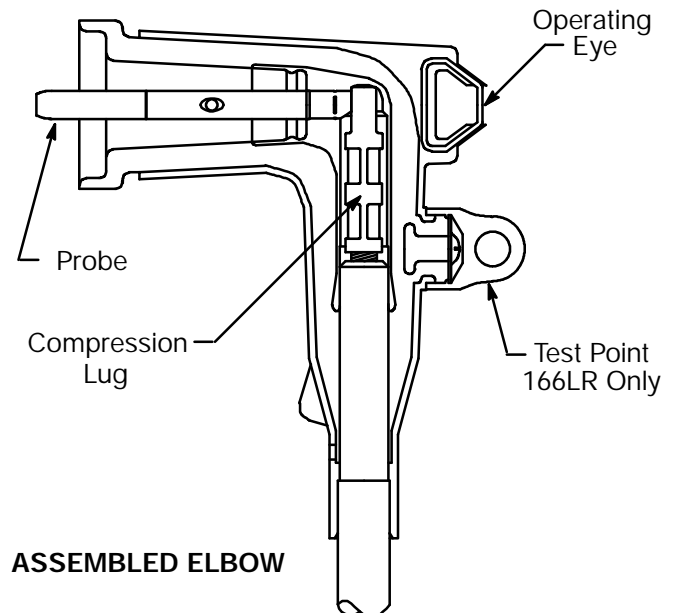
This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



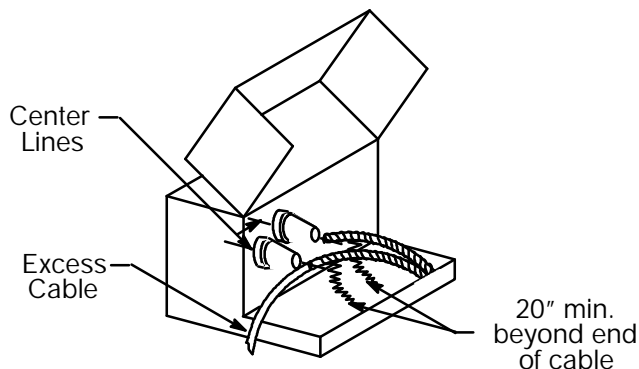
ASSEMBLED ELBOW

Caution: If test point cap is not installed, lubricate cap and test point and install cap.



STEP 1 CABLE TRAINING

- Train cable as shown to ease operation.
- Cut excess cable squarely at center line of bushing.

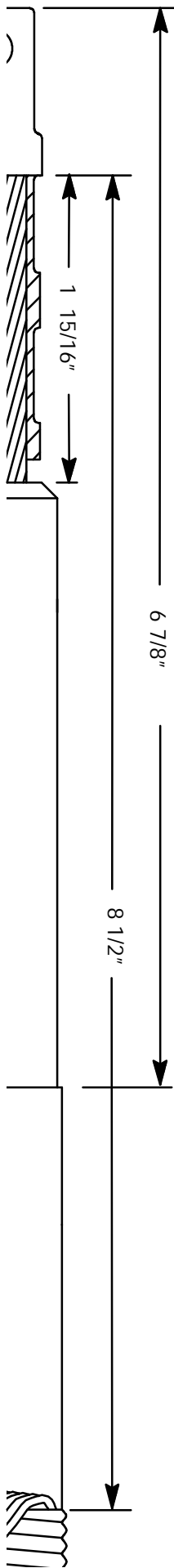
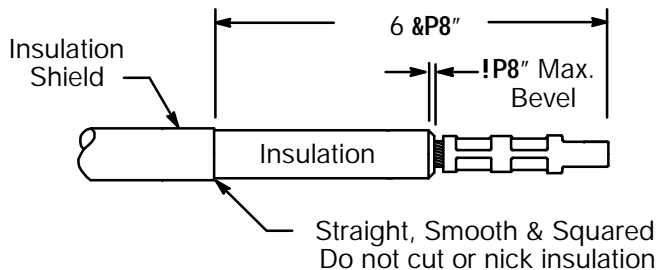
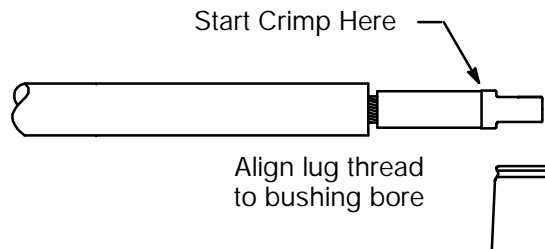
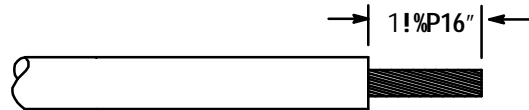
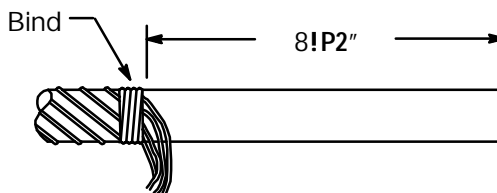


Pad Mount Transformer

STEP 2 CABLE PREPARATION

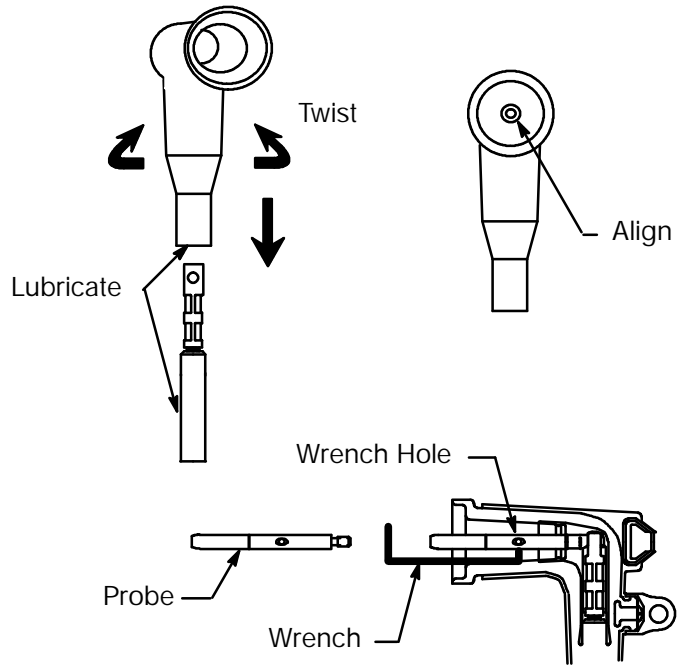
(Use cable cut back template for dimensional guide.)

- Unwrap and bind concentric neutral wires 8 1/2" back from end of cable.
- Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.
- Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor. Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information.) Start crimp at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.
- Remove insulation shield as shown. Bevel insulation end 1/8" max.
- Thoroughly clean insulation to remove all traces of conductive residue.



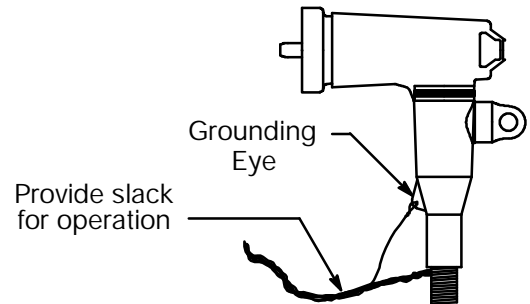
STEP 3 ELBOW ASSEMBLY

- A. Lubricate the cable insulation and inside the elbow housing with the lubricant supplied. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime.
- B. Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.
- C. Align elbow with compression lug's threaded hole.
- D. Thread probe into lug by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.



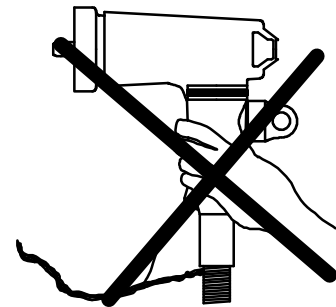
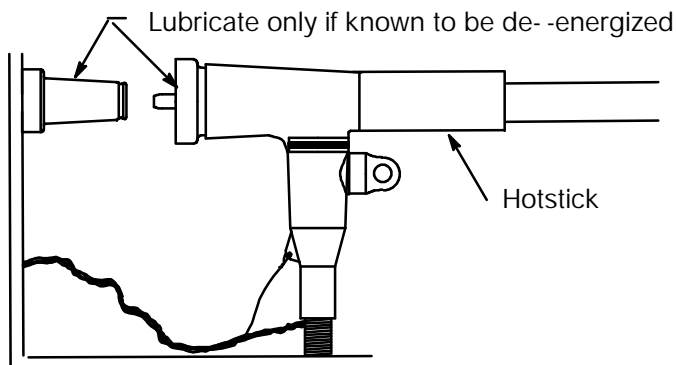
STEP 4 CONCENTRIC NEUTRAL CONNECTION

- A. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through the grounding eye on the elbow. Twist tight taking care not to damage eye.
- B. Twist neutral wires and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.



STEP 5 CONNECT ELBOW AND BUSHING PLUG

- A. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. **LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.**
- B. Operate per following instructions. **DO NOT OPERATE BY HAND.**



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Loadbreak connectors must be operated with an eight foot long, full insulated "hotstick" type tool.

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2" apart).
NOTE: DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION.
Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing plug must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plate.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

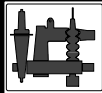
VOLTAGE TEST ON 166LR

The ELASTIMOLD loadbreak elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT. WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED ELBOW. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE ELBOW AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.**
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

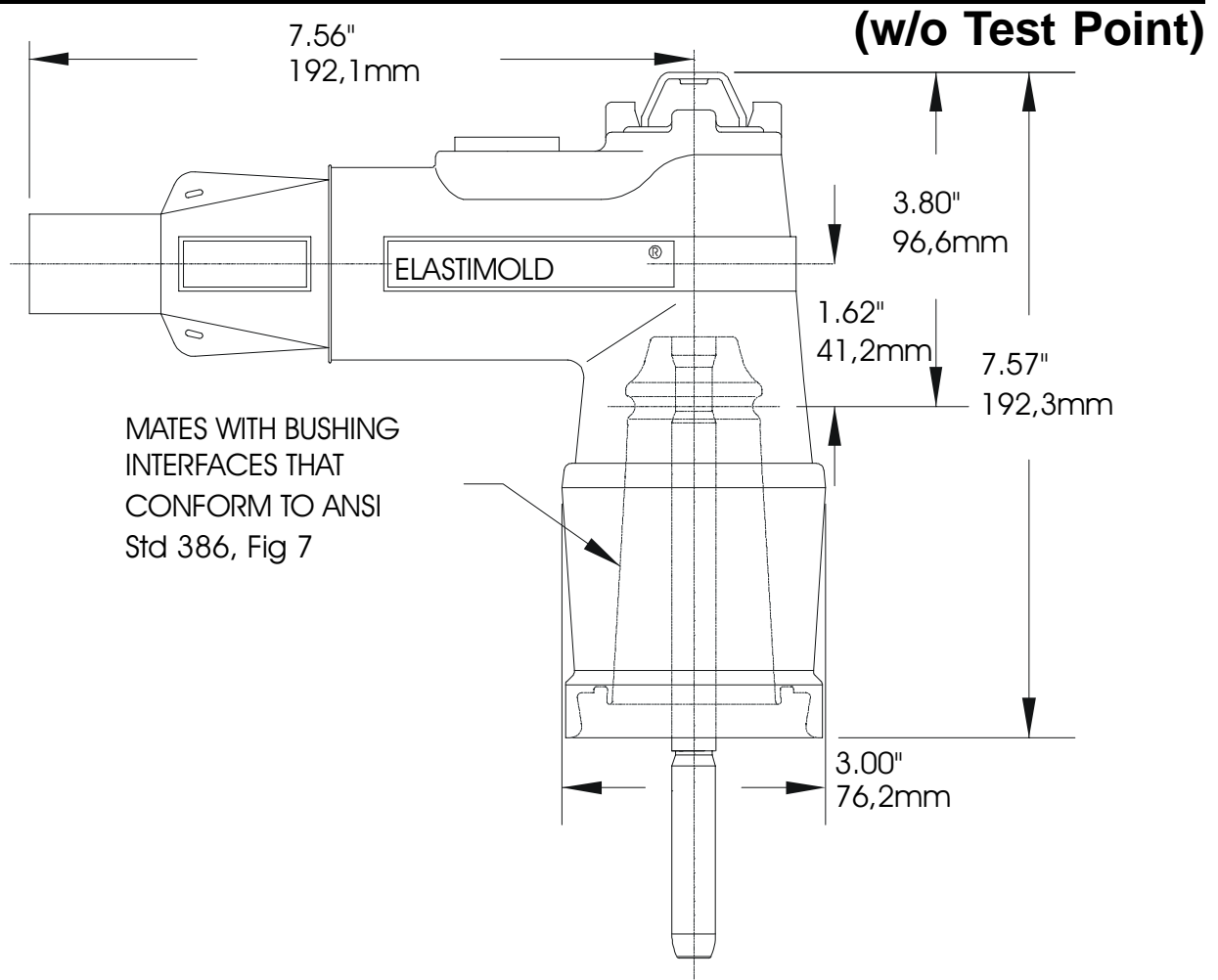
C I

DESCRIPTION

25kV 200A Loadbreak Elbow

ELASTIMOLD PART NUMBER

273LR-WX



The Elastimold 273LR Elbow Connector is a fully rated 25kV, 200 Amp Class loadbreak connector. It includes provisions for energized operation using standard hotstick tools allowing loadmake/break operation and a visible disconnect. It has a standard interface for connecting to 25kV, 200 Amp bushing inserts, junctions and operating accessories.

Features

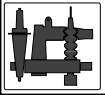
- 25kV, 200 Amp Loadbreak Elbow
- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for hot stick operation.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.
- Long bi-metal compression lug is standard.

Ratings

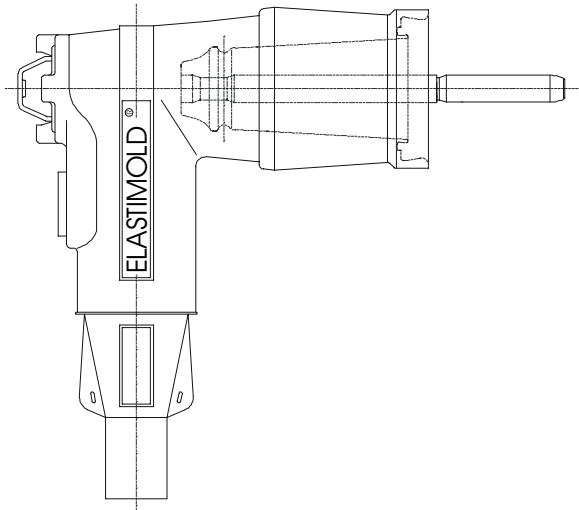
- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

The 273LR is designed for connecting to and operating 25kV Class, 200 Amp distribution apparatus. It provides a convenient method to connect/disconnect cable and equipment on power distribution systems. The 273LR allows connection of cables with insulation diameters from .760" (19,3mm) to 1.310" (33,3mm) with only four elbow sizes. (#2 solid, 260 mil to 4/0 stranded, 345 mil)



25kV 200A Loadbreak Elbow (w/o Test Point) 273LR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

273LR – – 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.760 - .950	19.30 – 24.13	G
.850 – 1.050	21.59 – 26.67	H
.980 – 1.180	24.89 – 29.97	J
1.090 – 1.310	27.69 – 33.27	K

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Elbow Connector kit contains the following:

- 1 – Elbow connector housing 273BLR-W
- 1 – Bi-metal compression lug 02500XXX (Table R)
- 1 – Probe 274LRF
- 1 – Probe wrench 271-94
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-273/274LR (C) 7/95
- 1 – Crimp chart IS-02500CC 10/96

Example:

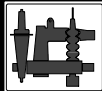
The ordering number for an Elbow Connector for a 1/0 stranded, 260 mil wall cable with an insulation diameter of .955" (23.4 mm) is 273LR-H-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 273LR-H-2240.

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02500220	02500210
1	02500230	02500220
1/0	02500240	02500230
2/0	02500250	02500240
3/0	02500260	02500250
4/0	02500270	02500260
250	-	02500270

*Cu or Al conductor



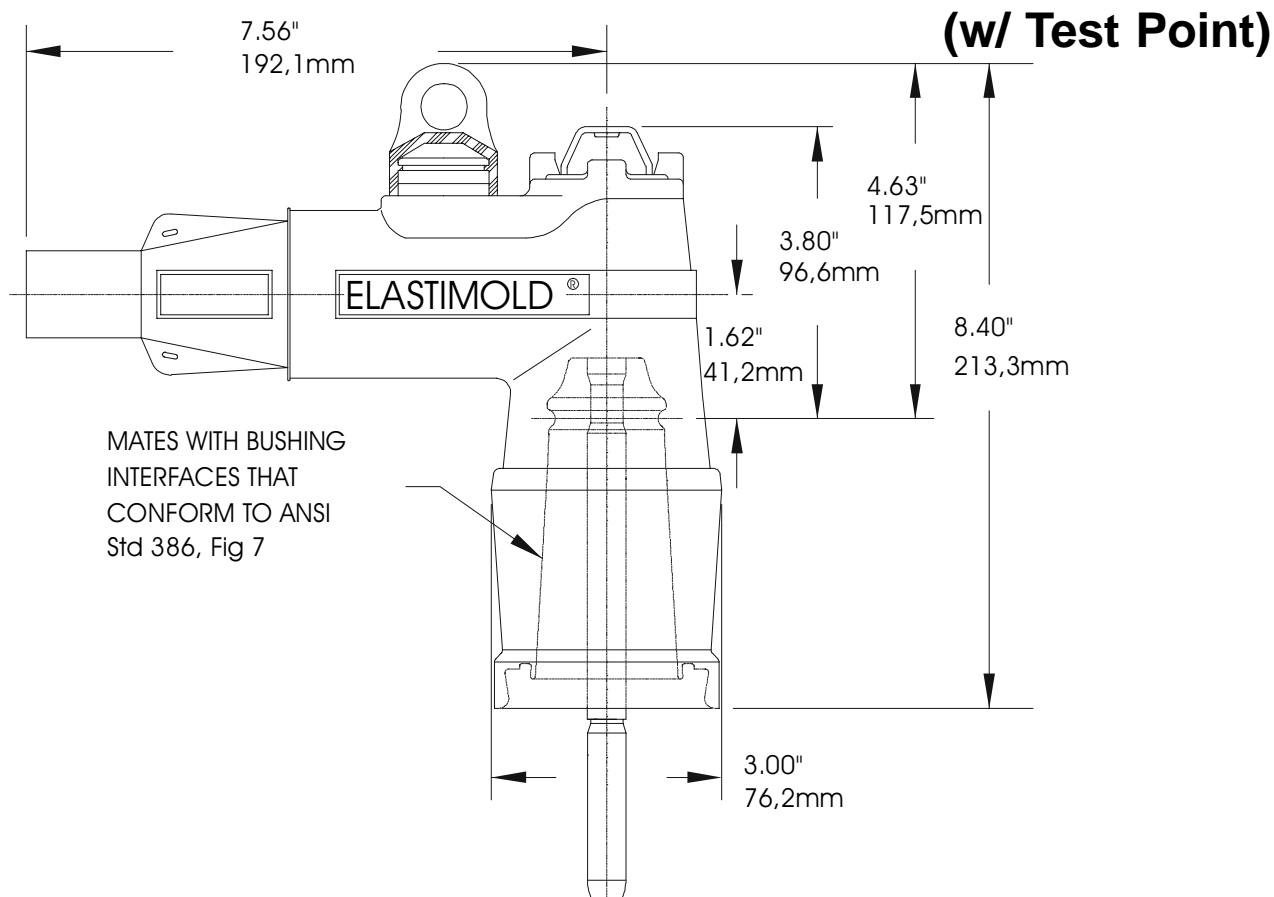
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

25kV 200A Loadbreak Elbow

ELASTIMOLD PART NUMBER

274LR-WX

The Elastimold 274LR Elbow Connector is a fully rated 25kV, 200 Amp Class loadbreak connector. It includes provisions for energized operation using standard hotstick tools allowing loadmake/break operation and a visible disconnect. It has a standard interface for connecting to 25kV, 200 Amp bushing inserts, junctions and operating accessories. The 274LR are equipped with an integral voltage test point.

Features

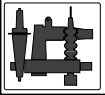
- 25kV, 200 Amp Loadbreak Elbow
- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Non-corrosive, capacitively coupled voltage test point provision with removable protective cap.
- Provision for hot stick operation.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.
- Long bi-metal compression lug is standard.

Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

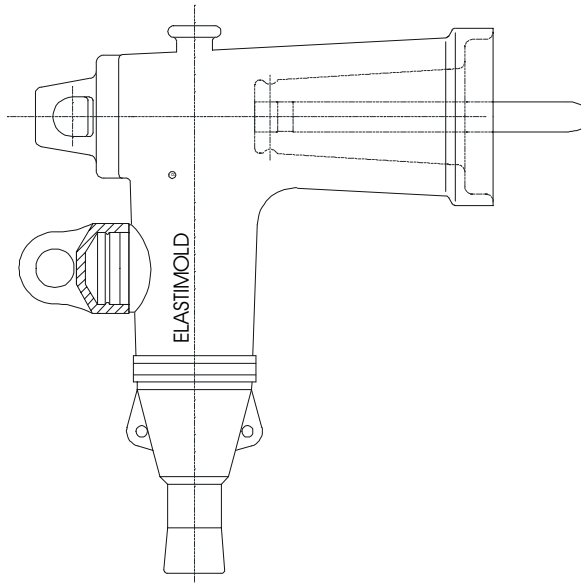
Applications

The 274LR is designed for connecting to and operating 25kV Class, 200 Amp distribution apparatus. It provides a convenient method to connect/disconnect cable and equipment on power distribution systems. The 274LR allows connection of cables with insulation diameters from .760" (19,3mm) to 1.310" (33,3mm) with only four elbow sizes. (#2 solid, 260 mil to 4/0 stranded, 345 mil)



25kV 200A Loadbreak Elbow (w/ Test Point)

274LR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

274LR – – 5

Cable Insulation Dia. Range		Elbow Code	Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
Inches	mm			Stranded/ Compr.	Solid/ Compact
.760 - .950	19.30 – 24.13	G	2	220	210
.850 – 1.050	21.59 – 26.67	H	1	230	220
.980 – 1.180	24.89 – 29.97	J	1/0	240	230
1.090 – 1.310	27.69 – 33.27	K	2/0	250	240
			3/0	260	250
			4/0	270	260
			250	-	270

*Cu or Al conductor

The Elbow Connector kit contains the following:

1 – Elbow connector housing	274BLR-W
1 – Bi-metal compression lug	02500XXX (Table R)
1 – Probe	274LRF
1 – Probe wrench	271-94
1 – Tube, lubricant	82-08
1 – Installation instruction	IS-273/274LR (C) 7/95
1 – Crimp chart	IS-02500CC 10/96

Example:

The ordering number for an Elbow Connector for a 1/0 stranded, 260 mil wall cable with an insulation diameter of .955" (23.4 mm) is 274LR-H-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 274LR-H-2240.

Table R

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02500220	02500210
1	02500230	02500220
1/0	02500240	02500230
2/0	02500250	02500240
3/0	02500260	02500250
4/0	02500270	02500260
250	-	02500270

*Cu or Al conductor

Installation & Operating Instructions 273LR (without test point) 274LR (with test point) Loadbreak Elbow Connectors

CONTENTS: Elbow Connector Housing, Compression Lug, Probe, Probe Wrench, Lubricant (Do Not Substitute), Installation/Operating Instruction

The 273LR (without test point) and 274LR (with test point) are designed to terminate UD cable having concentric neutral and extruded insulation shielding. The elbow provides an operating interface for connecting to an Elastimold 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) 200ampere loadbreak bushing or accessory device with fault close ratings of 10,000 amperes RMS, symmetrical. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

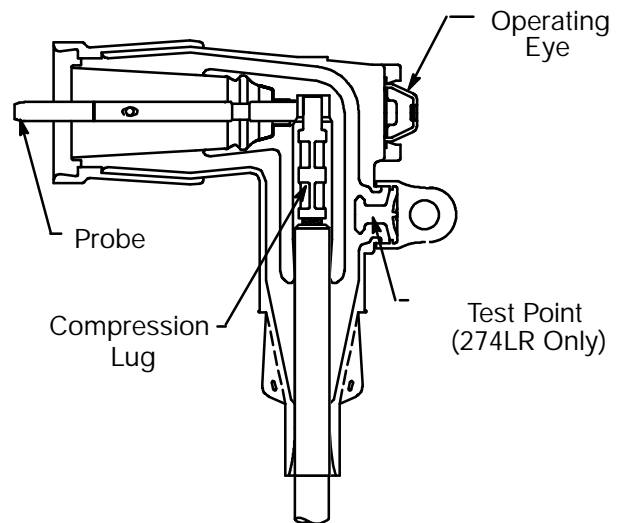
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

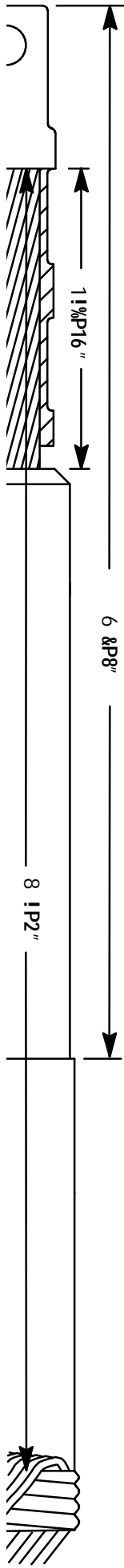
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



ASSEMBLED ELBOW

Caution: If test point cap is not installed, lubricate cap and test point and install cap

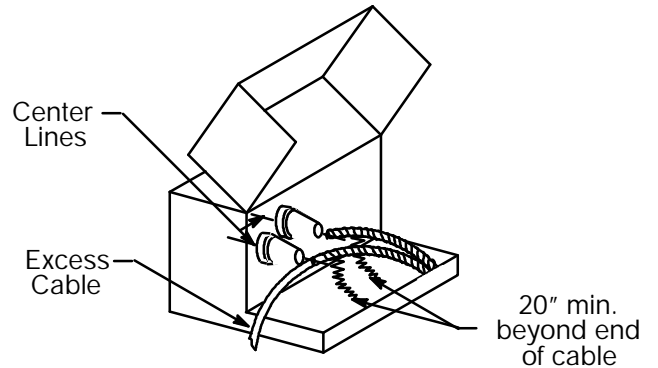




CABLE CUT BACK TEMPLATE

STEP 1 CABLE TRAINING

- A. Train cable as shown to ease operation.
- B. Cut excess cable squarely at center line of bushing.



Pad Mount Transformer

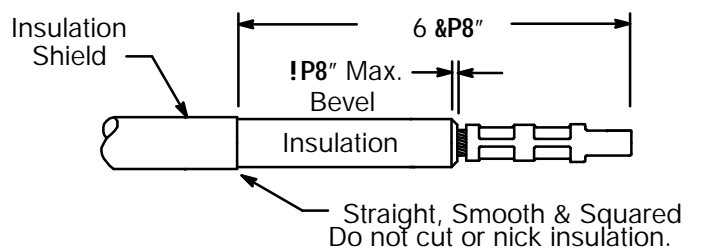
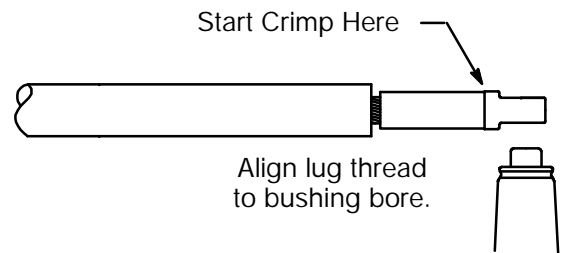
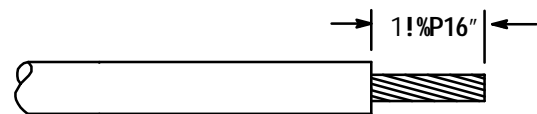
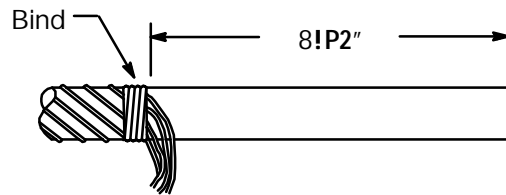
STEP 2 CABLE PREPARATION

(Use cable cut back template for dimensional guide.)

- A. Unwrap and bind concentric neutral wires 8 IP2" back from end of cable.
- B. Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.
- C. Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor.

Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information.) Start crimp at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.

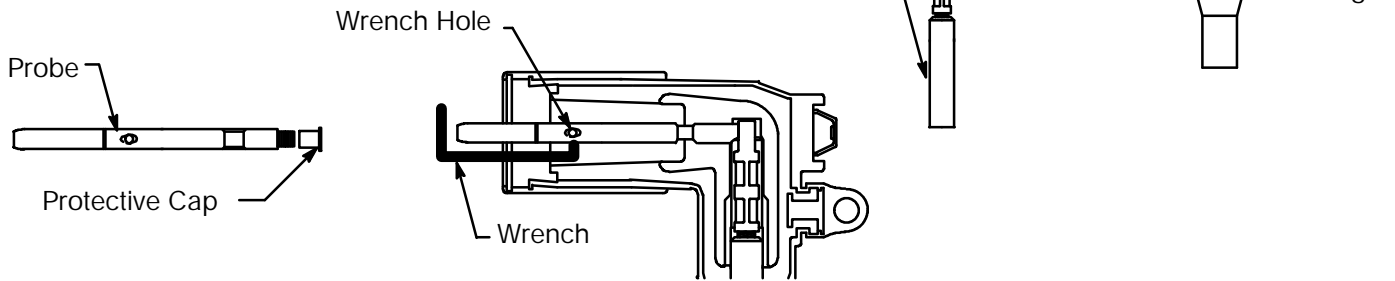
- D. Remove insulation shield as shown. Bevel insulation end IP8" max.
- E. Thoroughly clean insulation to remove all traces of conductive residue.



STEP 3 ELBOW ASSEMBLY

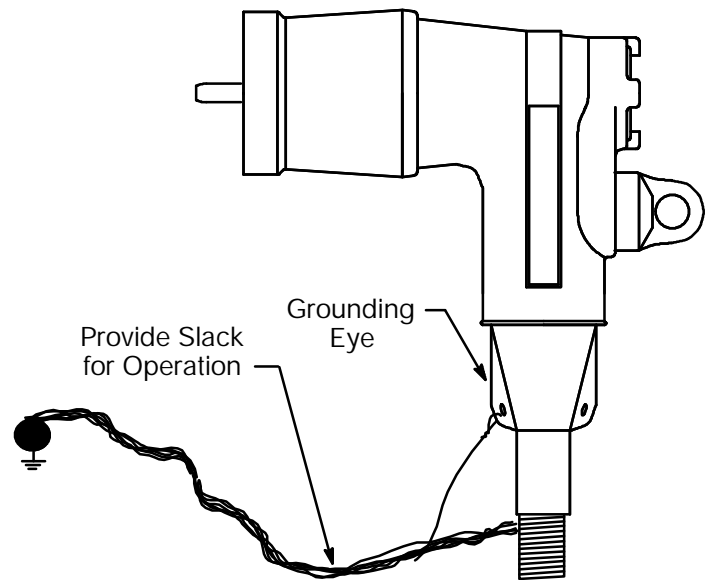
- A. Lubricate the cable insulation and inside the elbow housing with the lubricant supplied. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime.
- B. Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.
- C. Align elbow with compression lug's threaded hole.
- D. Remove protective cap from probe. Thread probe into lug by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.

IS--273/274LR (Rev C)
15 July 1995
Page 3 of 4



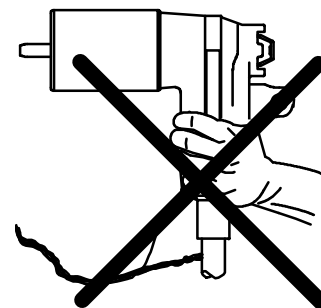
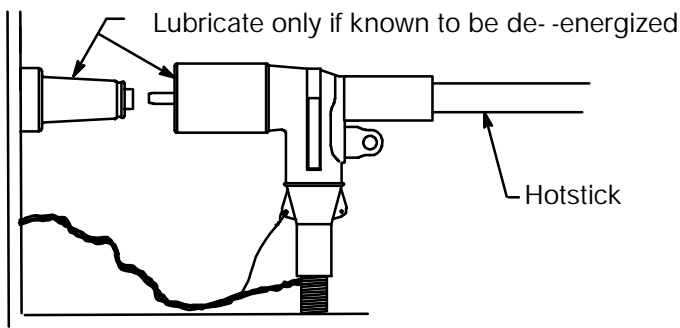
STEP 4 CONCENTRIC NEUTRAL CONNECTION

- A. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through the grounding eye on the elbow.
- B. Twist neutral wires and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.



STEP 5 CONNECT ELBOW AND BUSHING PLUG

- A. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. **LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.**
- B. Operate per following instructions. **DO NOT OPERATE BY HAND.**



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type of tool.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.
5. Insert the probe tip approximately 2" into the bushing (at this point the contacts are approximately 4" apart). **DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION**, which will engage the internal lock on the elbow and bushing interface.
Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

VOLTAGE TEST ON 274LR

The ELASTIMOLD loadbreak elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT. WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED ELBOW. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE ELBOW AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.**
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.

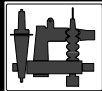


ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA

(908)852-1122 FAX: (908)852-6158

A Unit of Eagle Industries, Inc.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

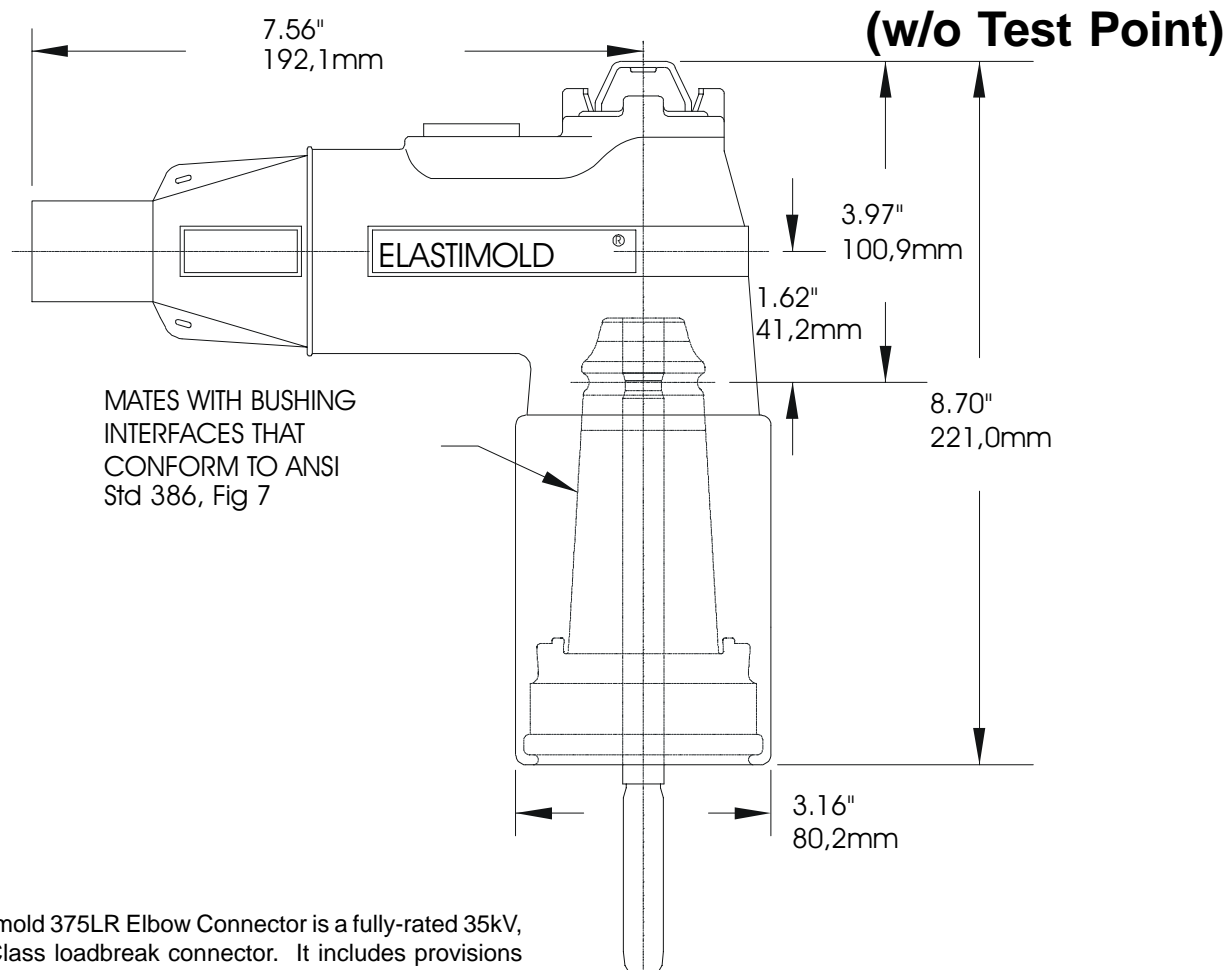
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

35kV 200A Loadbreak Elbow

ELASTIMOLD PART NUMBER

375LR-WX

The Elastimold 375LR Elbow Connector is a fully-rated 35kV, 200Amp Class loadbreak connector. It includes provisions for energized operation using standard hot stick tools allowing loadmake/break operation and a visible disconnect. It has a standard interface for connecting to 35kV, 200Amp bushing inserts, junctions and operating accessories.

Features:

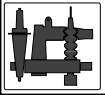
- 35kV, 200 Amp Loadbreak Elbow.
- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for hot stick operation.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.
- Long bi-metal compression lug is standard.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close.

Applications

The 375LR is designed for connecting to and operating 35kV Class, 200Amp distribution apparatus. It provides a convenient method to connect cable and equipment on power distribution systems. The 375LR allows connection of cables with insulation diameters from .760" (19,3mm) to 1.460" (37,2mm) with only four elbow sizes. (1/0 solid, 345 mil to 4/0 stranded, 345 mil).



35kV 200A Loadbreak Elbow (w/o Test Point)

375LR-WX

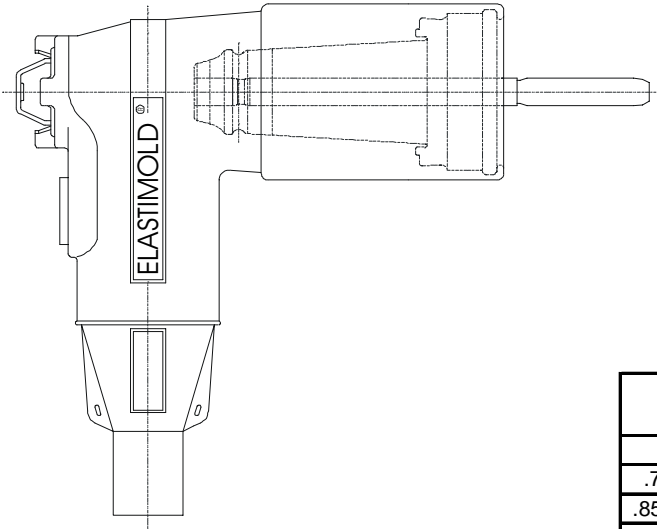
Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.



375LR – – 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	
.760 - .950	19.3 - 24.1	G
.850 - 1.050	16.9 - 23.0	H
.980 - 1.180	24.9 - 30.0	J
1.090 - 13.10	27.7 - 33.3	K
1.235 - 1.460	31.4 - 37.2	L

Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Elbow Connector kit contains the following:

- 1 – Elbow connector housing 375BLR-W
- 1 – Bimetal compression lug 02500XXX (Table R)
- 1 – Probe 376LRF
- 1 – Probe wrench 271-94
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-375/376LR (E) 7/95
- 1 – Crimp chart IS-02500CC 10/96

Example:

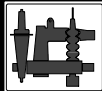
The ordering number for an Elbow Connector for a 1/0 stranded, 345 mil wall cable with an insulation diameter of 1.125" (28.6 mm) is 375LR-J-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 375LR-J-2240.

Table R

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/Compr.	Solid/Compact
2	02500220	02500210
1	02500230	02500220
1/0	02500240	02500230
2/0	02500250	02500240
3/0	02500260	02500250
4/0	02500270	02500260
250	-	02500270

*Cu or Al conductor



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

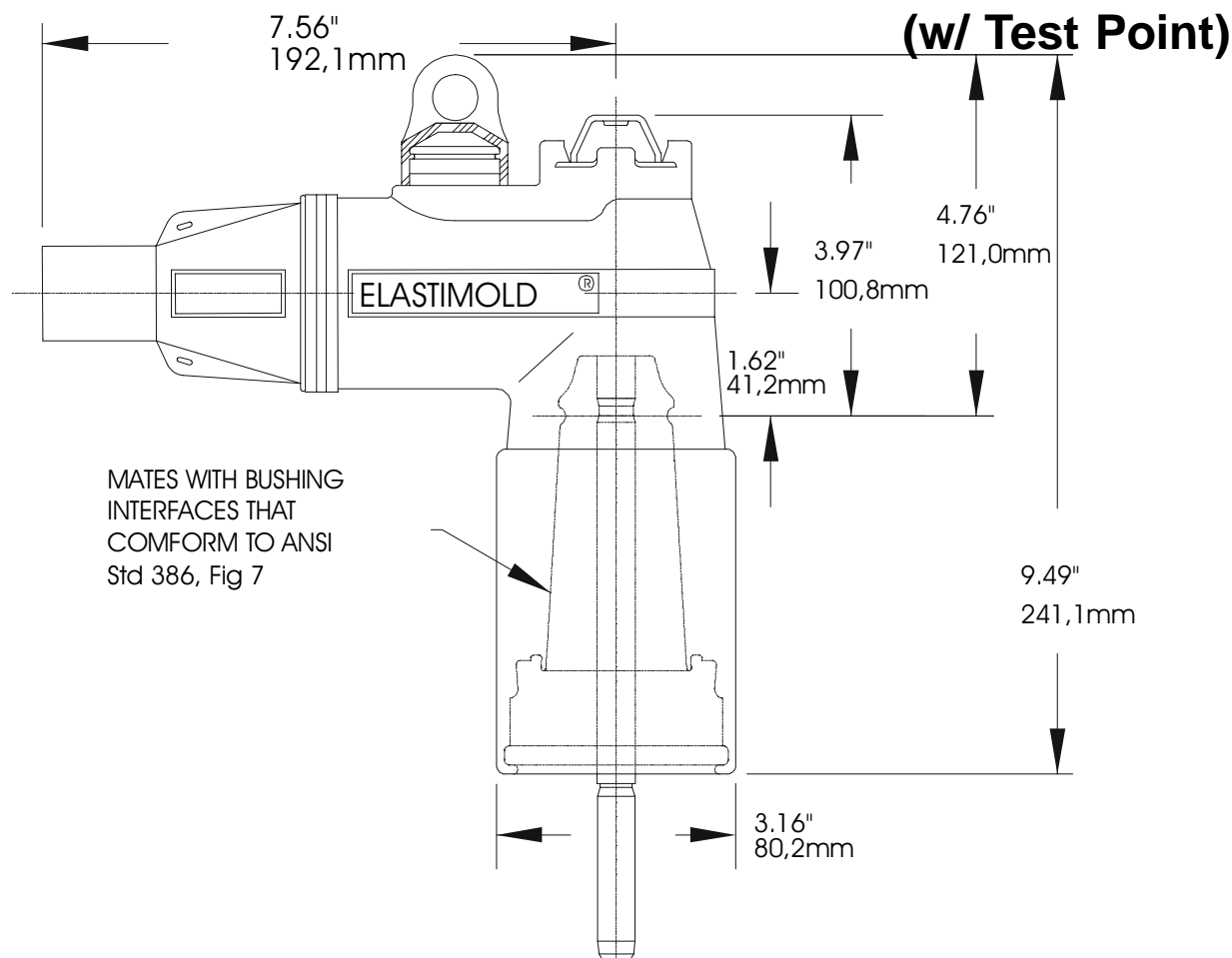
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

35kV 200A Loadbreak Elbow

ELASTIMOLD PART NUMBER

376LR-WX

The Elastimold 376LR Elbow Connector is a fully-rated 35kV, 200Amp Class loadbreak connector. It includes provisions for energized operation using standard hot stick tools allowing loadmake/break operation and a visible disconnect. It has a standard interface for connecting to 35kV, 200Amp bushing inserts, junctions and operating accessories. The 376LR is equipped with an integral voltage test point.

Features:

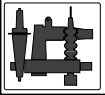
- 35kV, 200 Amp Loadbreak Elbow.
- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Non-corrosive, capacitively coupled voltage test point provision with removable protective cap.
- Provision for hot stick operation.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.
- Long bi-metal compression lug is standard.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close.

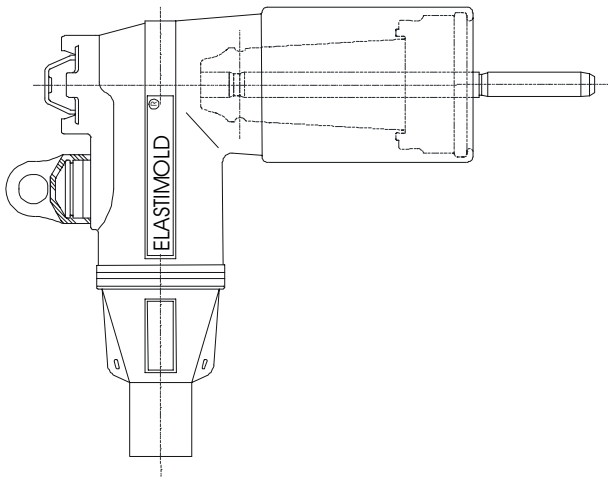
Applications

The 375LR is designed for connecting to and operating 35kV Class, 200Amp distribution apparatus. It provides a convenient method to connect cable and equipment on power distribution systems. The 375LR allows connection of cables with insulation diameters from .760" (19,3mm) to 1.460" (37,2mm) with only four elbow sizes. (1/0 solid, 345 mil to 4/0 stranded, 345 mil).



35kV 200A Loadbreak Elbow (w/ Test Point)

376LR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

376LR — — 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	
.760 - .950	19.3 - 24.1	G
.850 - 1.050	16.9 - 23.0	H
.980 - 1.180	24.9 - 30.0	J
1.090 - 13.10	27.7 - 33.3	K
1.235 - 1.460	31.4 - 37.2	L

Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Elbow Connector kit contains the following:

- 1 - Elbow connector housing 376BLR-W
- 1 - Bi-metal compression lug 02500XXX (Table R)
- 1 - Probe 376LRF
- 1 - Probe wrench 271-94
- 1 - Tube, lubricant 82-08
- 1 - Installation instruction IS-375/376LR (E) 7/95
- 1 - Crimp chart IS-02500CC 10/96

Example:

The ordering number for an Elbow Connector for a 1/0 stranded, 345 mil wall cable with an insulation diameter of 1.125" (28.6 mm) is 376LR-J-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 376LR-J-2240.

Table R

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02500220	02500210
1	02500230	02500220
1/0	02500240	02500230
2/0	02500250	02500240
3/0	02500260	02500250
4/0	02500270	02500260
250	-	02500270

*Cu or Al conductor

Installation & Operating Instructions 375LR (without test point) 376LR (with test point) Loadbreak Elbow Connectors

CONTENTS: Elbow Connector Housing, Compression Lug, Probe, Probe Wrench, Lubricant (Do Not Substitute), Installation/Operating Instruction

The 375LR (without test point) and 376LR (with test point) are designed to terminate UD cable having concentric neutral and extruded insulation shielding. The elbow provides an operating interface for connecting to an Elastimold 35kV class (21.1kV phase- to- -ground and 36.6kV phase- -to- -phase) 200 ampere loadbreak bushing or accessory device with fault close rating of 10,000 amperes RMS symmetrical. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

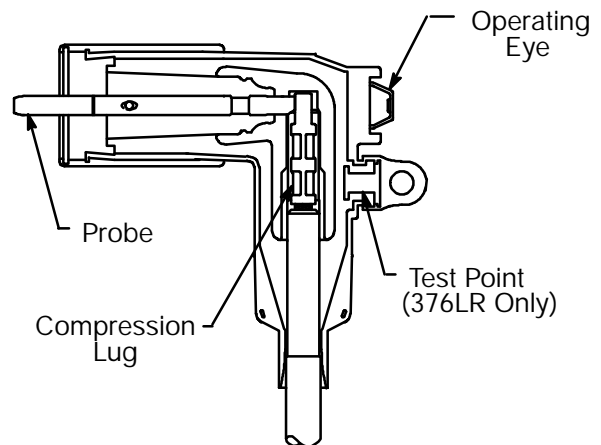
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



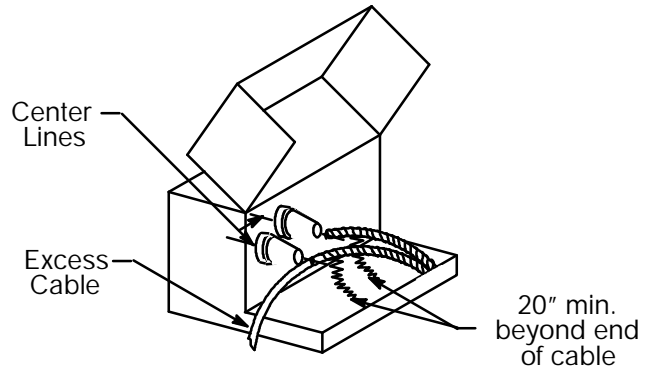
ASSEMBLED ELBOW

Caution: If test point cap is not installed, lubricate cap and test point and install cap.



STEP 1 CABLE TRAINING

- Train cable as shown to ease operation.
- Cut excess cable squarely at center line of bushing.



Pad Mount Transformer

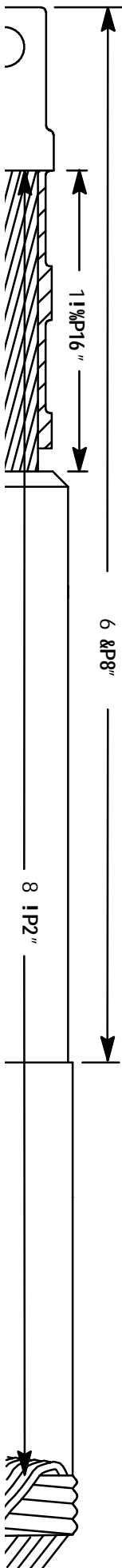
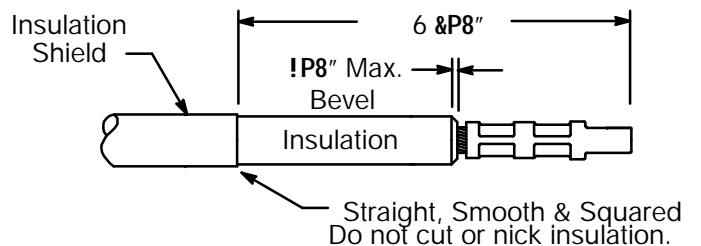
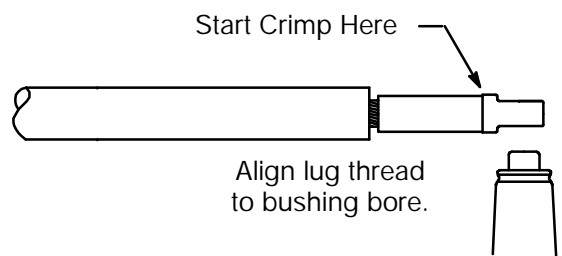
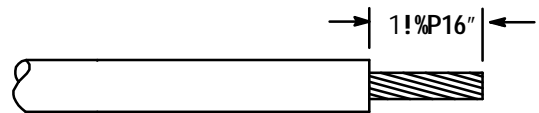
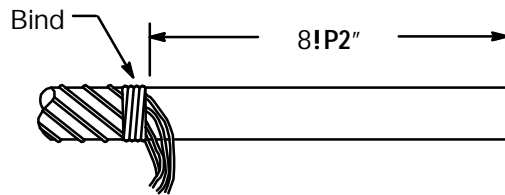
STEP 2 CABLE PREPARATION

(Use cable cut back template for dimensional guide.)

- Unwrap and bind concentric neutral wires 8 !P2" back from end of cable.
- Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.
- Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor.

Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information.) Start crimp at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.

- Remove insulation shield as shown. Bevel insulation end !P8" max.
- Thoroughly clean insulation to remove all traces of conductive residue.

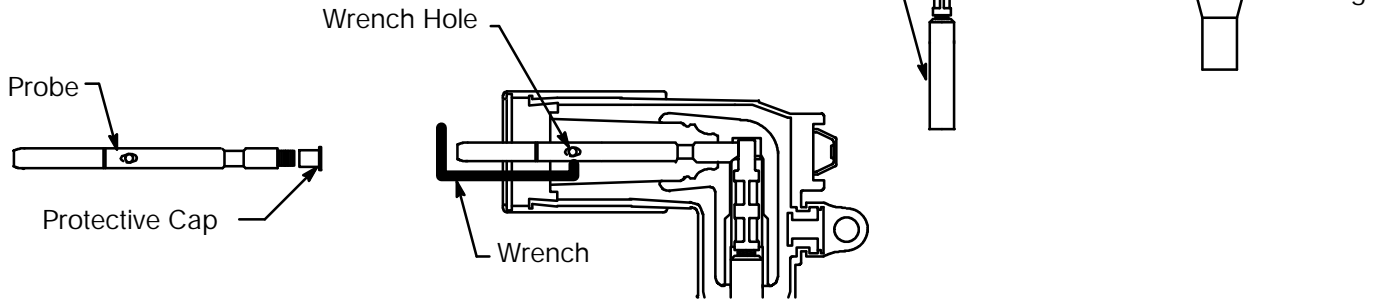


CABLE CUT BACK TEMPLATE

STEP 3 ELBOW ASSEMBLY

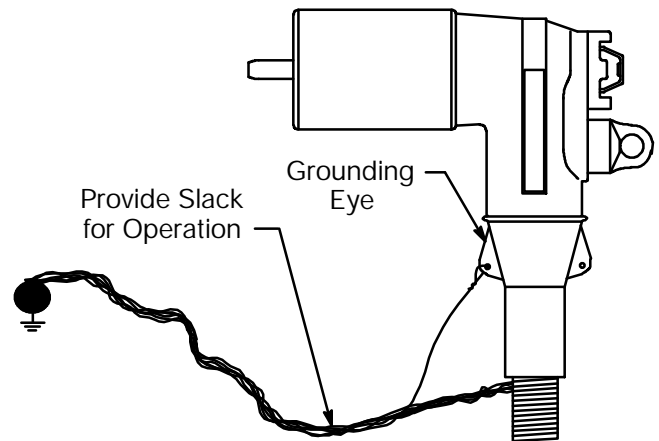
- A. Lubricate the cable insulation and inside the elbow housing with the lubricant supplied. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime.
- B. Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.
- C. Align elbow with compression lug's threaded hole.
- D. Remove protective cap from probe. Thread probe into lug by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.

IS--375/376LR (Rev E)
15 July 1995
Page 3 of 4



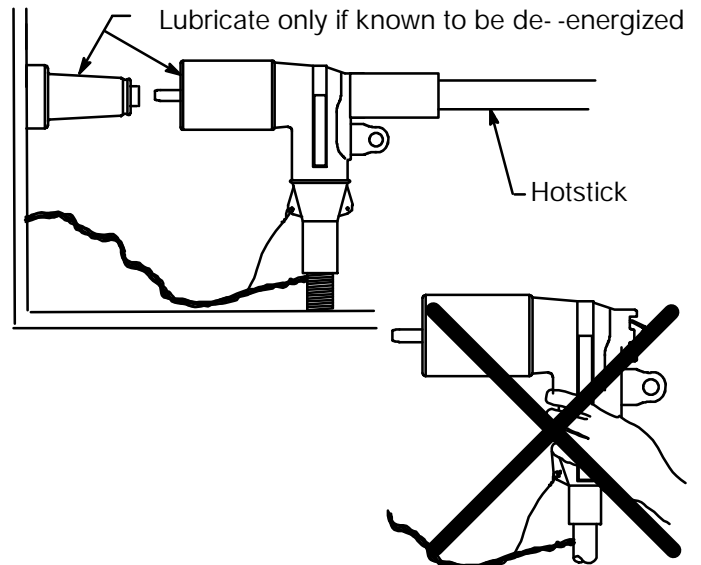
STEP 4 CONCENTRIC NEUTRAL CONNECTION

- A. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through the grounding eye on the elbow. Twist tight taking care not to damage eye.
- B. Twist neutral wires and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.



STEP 5 CONNECT ELBOW AND BUSHING PLUG

- A. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. **LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.**
- B. Operate per following instructions. **DO NOT OPERATE BY HAND.**



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. A minimum hotstick length of 8 ft. is recommended. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type of tool.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.
5. Insert the probe tip approximately 2" into the bushing (at this point the contacts are approximately 4" apart).
DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION.
Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

VOLTAGE TEST ON 376LR

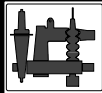
The ELASTIMOLD loadbreak elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT. WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED ELBOW. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE ELBOW AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.**
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.



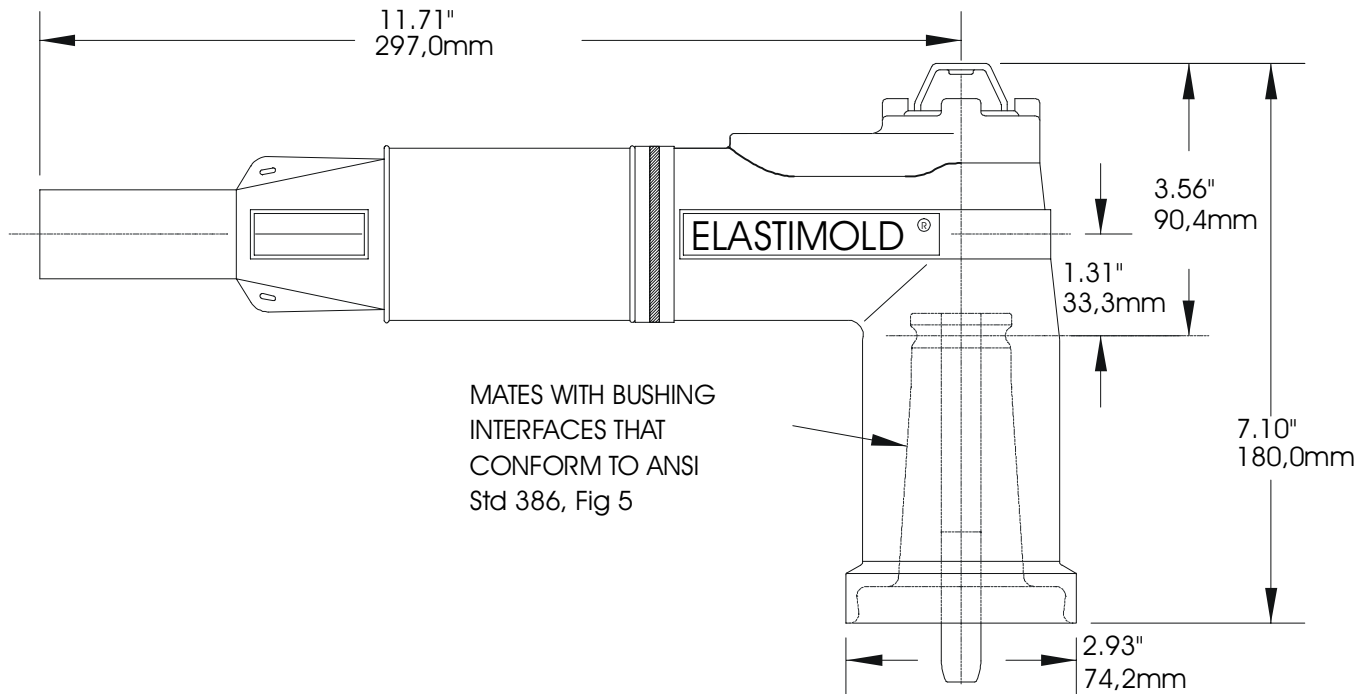
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15kV 200A Repair Elbow

ELASTIMOLD PART NUMBER

167ELR-WX**(w/o Test Point)**

The Elastimold 167ELR Repair Elbow is a fully rated 15kV Class loadbreak elbow connector with a lengthened compression lug and housing. The Repair Elbow accommodates cables that are too short to be connected to a standard elbow.

Features

- Extended length housing and compression lug [+ 3-1/4" (82,6mm)].
- 15kV, 200A Loadbreak Elbow Connector.
- Fully shielded, fully submersible molded rubber housing.
- Peroxide-cured insulation, insert and jacket.

NOTE: For housing extension greater than 3-1/4" (82,6mm), refer to Elastimold Part number 167RLR.

Ratings

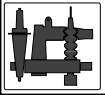
per ANSI/IEEE Standard 386

- 15kV Voltage Class
- 8.3 kV Max Phase-to-Ground - Operating Voltage
- 14.4kV Max Phase-to-Phase
- 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 34kV AC - One minute Withstand
- 53kV DC - 15 Minutes Withstand
- 11kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

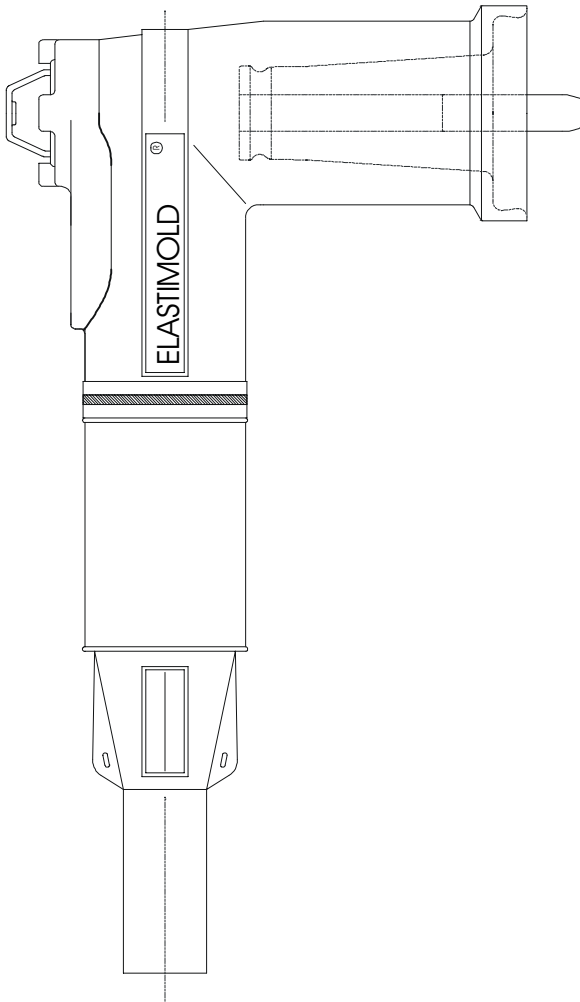
The 167ELR is designed for connecting to and operating 15kV Class, 95kV BIL distribution apparatus. Typical uses for the special characteristics of the 167ELR Repair Elbow includes the following:

- Repair of a failed elbow connection where the cable must be stripped back and a new compression lug applied.
- To gain extra length when cables have been accidentally trimmed too short or to connect new apparatus to existing cables.



15kV 200A Repair Elbow (w/o Test Point)

167ELR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

167ELR - - 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.665 - .895	16.9 - 22.7	6689
.740 - .950	18.8 - 24.1	7495
.880 - 1.100	22.4 - 27.9	88110

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Repair Elbow kit contains the following:

- 1 - Elbow connector housing 167BELR-W
- 1 - Bi-metal compression lug 02509XXX (Table R)
- 1 - Tube, lubricant 82-08
- 1 - Installation instruction IS-167/168ELR (B) 7/95
- 1 - Crimp chart IS-02500CC 10/96

Example:

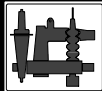
The ordering number for an Repair Elbow for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 167ELR-7495-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 167ELR-7495-2240.

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/Compr.	Solid/Compact
2	02509220	02509210
1	02509230	02509220
1/0	02509240	02509230
2/0	02509250	02509240
3/0	02509260	02509250
4/0	02509270	02509260
250	-	02509270

*Cu or Al conductor



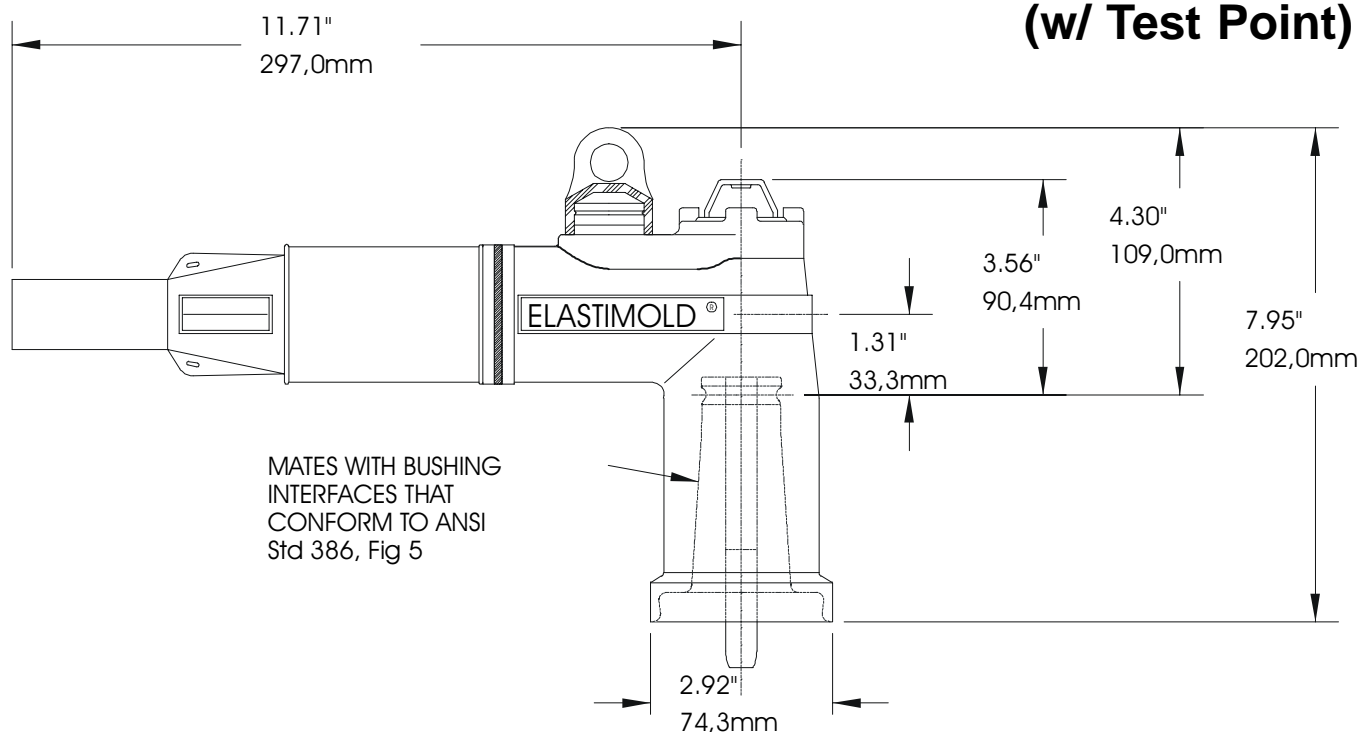
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15kV 200A Repair Elbow

ELASTIMOLD PART NUMBER

168ELR-WX

The Elastimold 168ELR Repair Elbow is a fully rated 15kV Class loadbreak elbow connector with a lengthened compression lug and housing. The Repair Elbow accommodates cables that are too short to be connected to a standard elbow.

Features

- Extended length housing and compression lug [+ 3-1/4" (82,6mm)].
- 15kV, 200A Loadbreak Elbow Connector.
- Fully shielded, fully submersible molded rubber housing.
- Peroxide-cured insulation, insert and jacket.

NOTE: For housing extension greater than 3-1/4" (82,6mm), refer to Elastimold Part number 168RLR.

Ratings

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3 kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

34kV AC - One minute Withstand

53kV DC - 15 Minutes Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

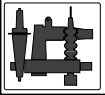
200Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

Applications

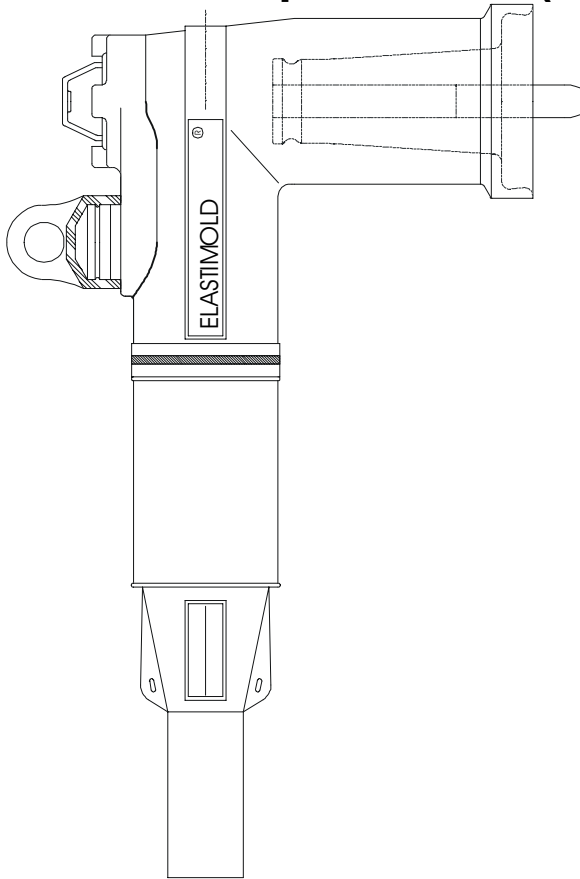
The 167ELR is designed for connecting to and operating 15kV Class, 95kV BIL distribution apparatus. Typical uses for the special characteristics of the 168ELR Repair Elbow includes the following:

- Repair of a failed elbow connection where the cable must be stripped back and a new compression lug applied.
- To gain extra length when cables have been accidentally trimmed too short or to connect new apparatus to existing cables.



15kV 200A Repair Elbow (w/ Test Point)

168ELR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

168ELR – – 5

Cable Insulation Dia. Range		Elbow Code	Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
Inches	mm	Code		Stranded/ Compr.	Solid/ Compact
.665 - .895	16.9 – 22.7	6689	2	220	210
.740 - .950	18.8 – 24.1	7495	1	230	220
.880 – 1.100	22.4 – 27.9	88110	1/0	240	230
			2/0	250	240
			3/0	260	250
			4/0	270	260
			250	-	270

*Cu or Al conductor

The Repair Elbow kit contains the following:

- 1 – Elbow connector housing 168BELR-W
- 1 – Bi-metal compression lug 02509XXX (Table R)
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-167/168ELR (B) 7/95
- 1 – Crimp chart IS-02500CC 10/96

Example:

The ordering number for an Repair Elbow for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 168ELR-7495-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 168ELR-7495-2240.

Table R

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02509220	02509210
1	02509230	02509220
1/0	02509240	02509230
2/0	02509250	02509240
3/0	02509260	02509250
4/0	02509270	02509260
250	-	02509270

*Cu or Al conductor

Installation & Operating Instructions 167ELR (without test point) 168ELR (with test point) Loadbreak Elbow Connectors

CONTENTS: Elbow Connector Housing, Compression Lug, Probe, Probe Wrench, Lubricant (Do Not Substitute), Installation/Operating Instructions.

The 167ELR (without test point) and 168ELR (with test point) are designed to terminate UD cable having concentric neutral and extruded insulation shielding. The elbow provides an operating interface for connecting to an Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) 200ampere loadbreak bushing or accessory device with fault close ratings of 10,000 amperes RMS, symmetrical. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

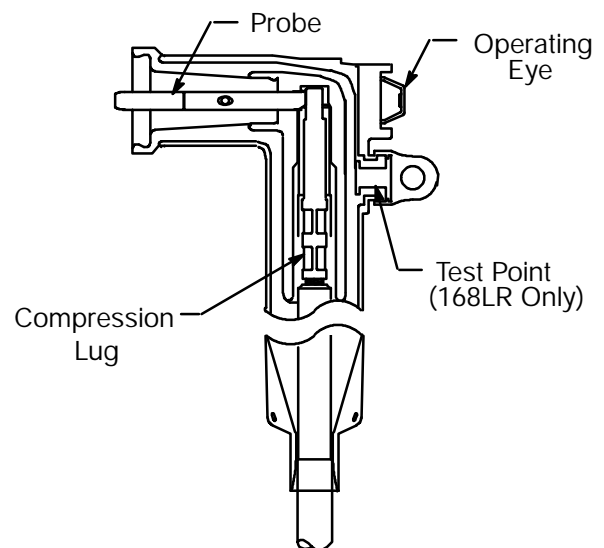
This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



ASSEMBLED ELBOW

Caution: If test point cap is not installed, lubricate cap and test point and install cap.



NEW INSTALLATION AND TOTAL REPLACEMENT OF ELBOW HOUSING AND COMPRESSION LUG

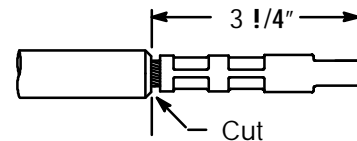
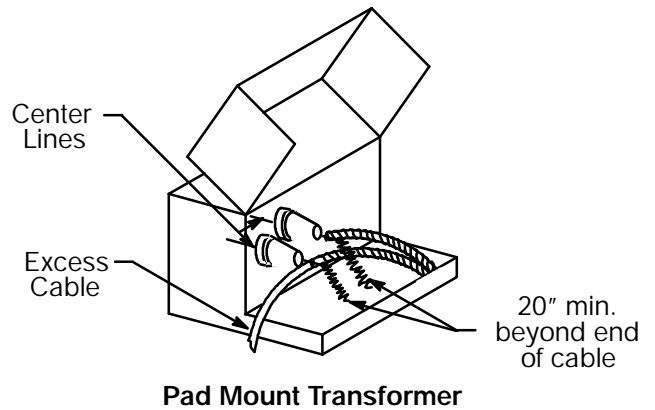
(For elbow housing replacement without changing compression lug see page 3 Steps 1a and 2a)

STEP 1 CABLE TRAINING

- A. Train cable as shown to ease operation.
- B. For **new installation** cut excess cable squarely at center line of bushing.

For **replacement**:

- a. Using pin wrench remove probe from elbow and discard probe.
- b. With a twisting motion, pull the elbow off the cable.
- c. Cut off old compression lug as shown.

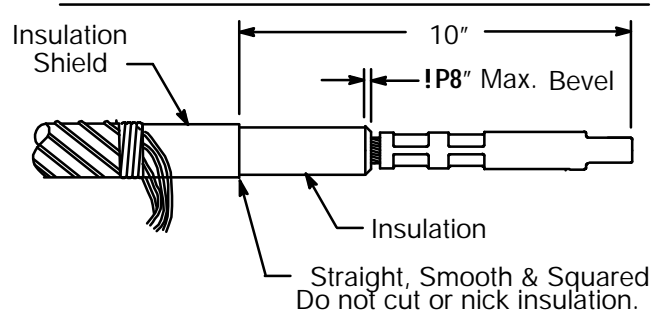
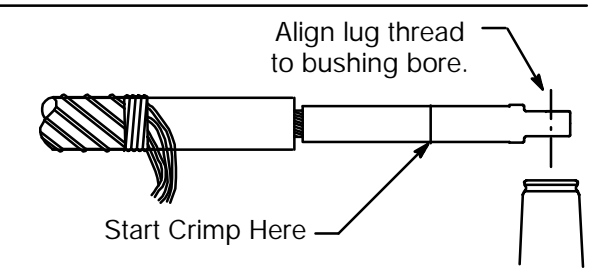
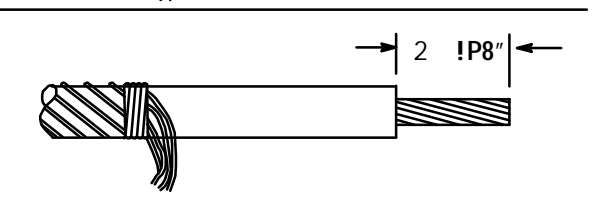
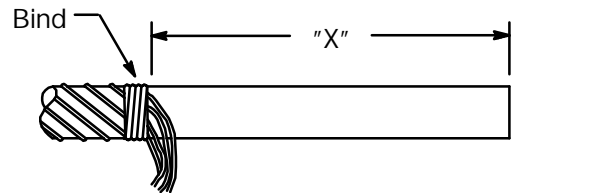


STEP 2 CABLE PREPARATION

- A. Unwrap and bind concentric neutral wires "X" back from end of cable.

Compression Lug	X Dimension
02200XXX	13
02500XXX	13
02509XXX	9 !P2"

- B. Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.
- C. Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor. Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information.) Start crimp at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.
- D. Remove insulation shield as shown. Bevel insulation end !P8" max.
- E. Thoroughly clean insulation to remove all traces of conductive residue.

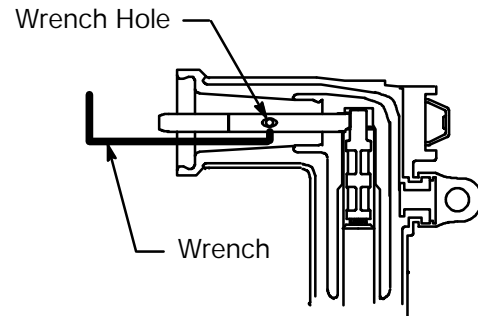


PROCEED TO STEP 3

FOR ELBOW HOUSING REPLACEMENT WITHOUT CHANGING COMPRESSION LUG (for new installation see page 2 Steps 1 and 2)

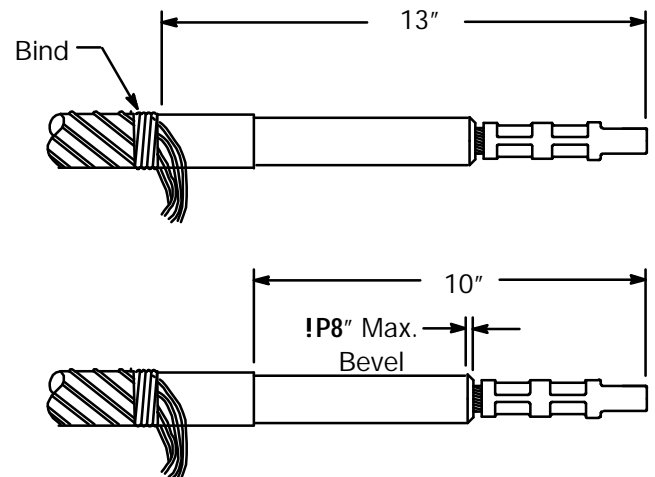
STEP 1a REMOVE ELBOW

- A. Using pin wrench remove probe from elbow and discard probe.
- B. With a twisting motion, pull the elbow off the cable.



STEP 2a CABLE PREPARATION

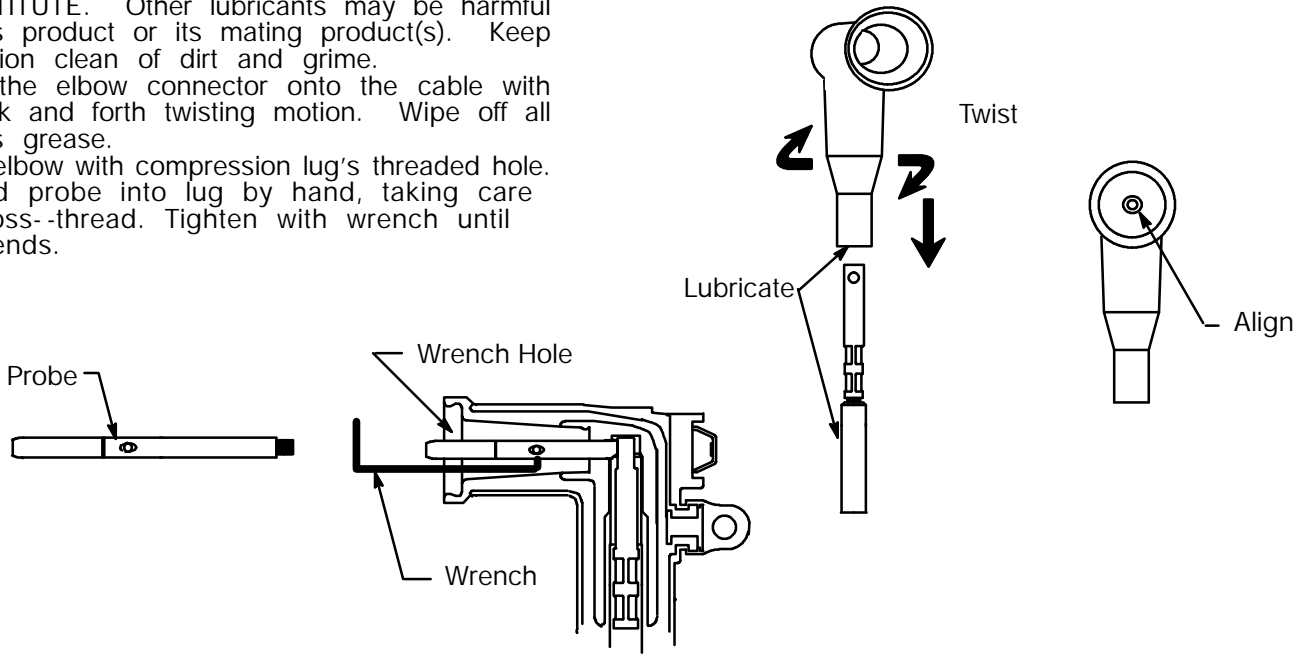
- A. Unwrap and bind concentric neutral wires 13" back from end of connector.
- B. Remove insulation shield as shown.
- C. Bevel the insulation end $1/8$ " max.
- D. Thoroughly clean insulation to remove all traces of conductive residue.



PROCEED TO STEP 3

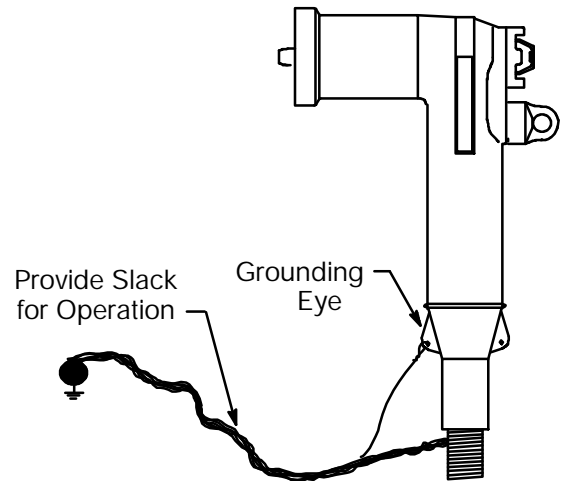
STEP 3 ELBOW ASSEMBLY

- A. Lubricate the cable insulation and inside the elbow housing with the lubricant supplied. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime.
- B. Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.
- C. Align elbow with compression lug's threaded hole.
- D. Thread probe into lug by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.



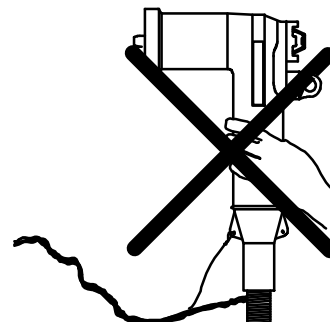
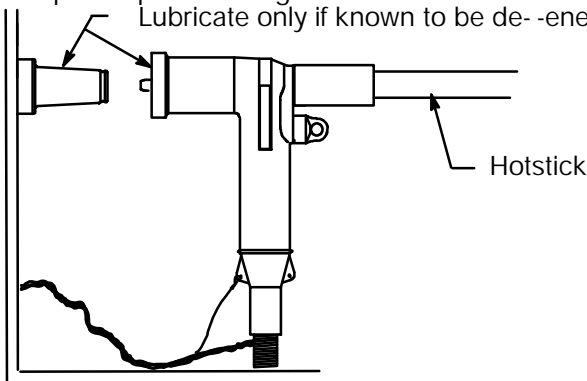
STEP 4 CONCENTRIC NEUTRAL CONNECTION

- A. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through the grounding eye on the elbow.
- B. Twist tight taking care not to damage eye.
- C. Twist neutral wires and wire from grounding eye and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.



STEP 5 CONNECT ELBOW AND BUSHING PLUG

- A. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. **LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.**
- B. Operate per following instructions. **DO NOT OPERATE BY HAND.**



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type tool.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2" apart).
NOTE: DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION, which will engage the internal lock on the elbow and bushing interface.
Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

VOLTAGE TEST ON 168ELR

The ELASTIMOLD loadbreak elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, **PEEL OFF AT AN ANGLE** rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT.**
WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED ELBOW. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE ELBOW AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.

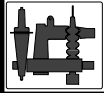


ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA

(908)852-1122 FAX: (908)813-2147

A Unit of Thomas & Betts Corporation



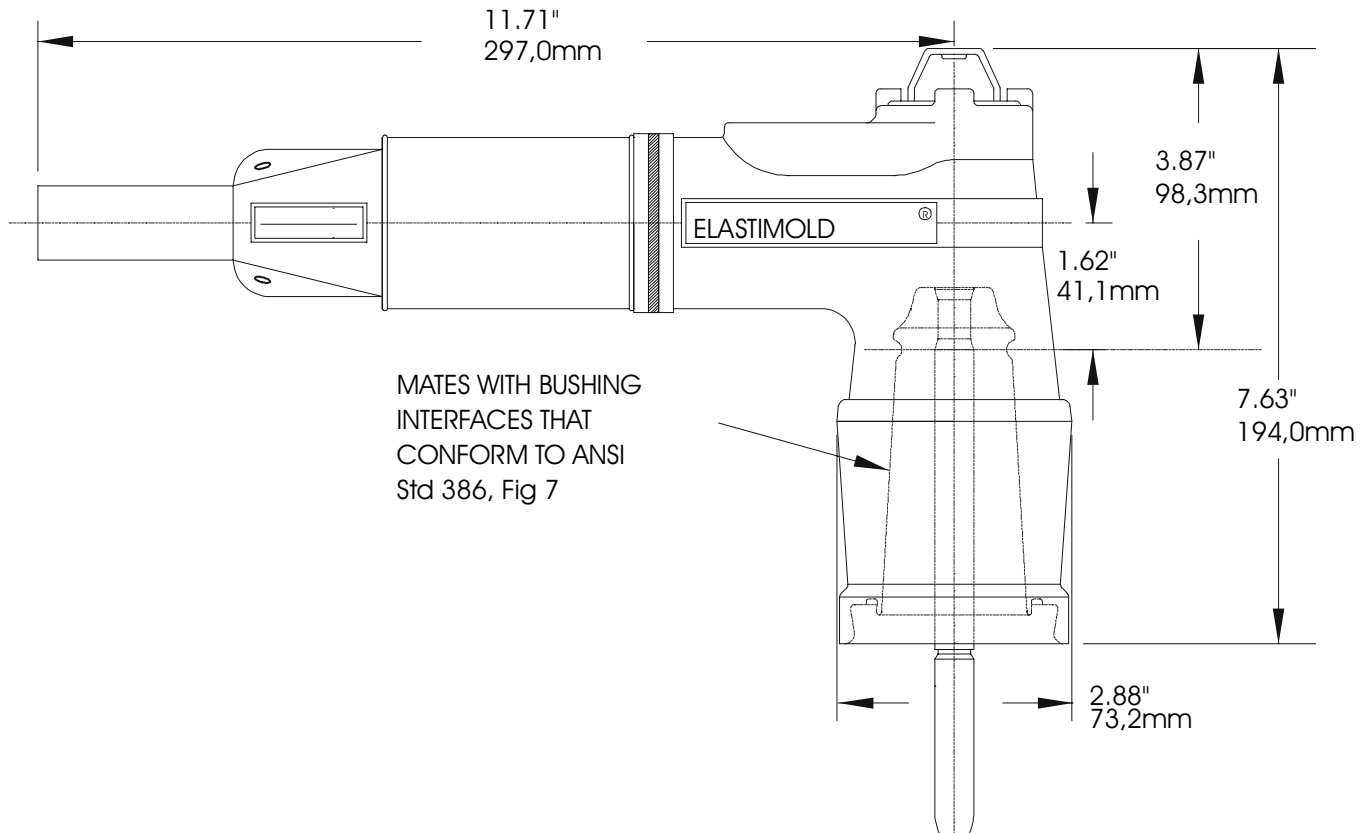
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

25kV 200A Repair Elbow

ELASTIMOLD PART NUMBER

273ELR-WX**(w/o Test Point)**

The Elastimold 273ELR Repair Elbow is a fully rated 25kV Class loadbreak elbow connector with a lengthened compression lug and housing. The Repair Elbow accommodates cables that are too short to be connected to a standard elbow.

Features

- Extended length housing and compression lug [+ 3-1/4" (82,6mm)].
- 15kV, 200A Loadbreak Elbow Connector.
- Fully shielded, fully submersible molded rubber housing.
- Peroxide-cured insulation, insert and jacket.

NOTE: For housing extension greater than 3-1/4" (82,6mm), refer to Elastimold Part number 273RLR.

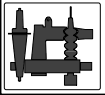
Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

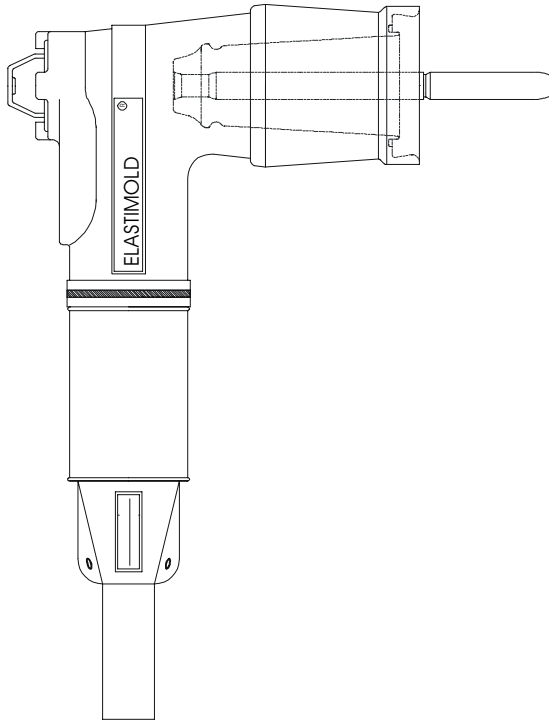
The 273ELR is designed for connecting to and operating 25kV Class, 125kV BIL distribution apparatus. Typical uses for the special characteristics of the 273ELR Repair Elbow includes the following:

- Repair of a failed elbow connection where the cable must be stripped back and a new compression lug applied.
- To gain extra length when cables have been accidentally trimmed too short or to connect new apparatus to existing cables.



25kV 200A Repair Elbow (w/o Test Point)

273ELR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

273ELR – – 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.665 - .895	16.9 – 22.7	6689
.740 - .950	18.8 – 24.1	7495
.880 – 1.100	22.4 – 27.9	88110

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Repair Elbow kit contains the following:

- 1 – Elbow connector housing 273ELR-W
- 1 – Bi-metal compression lug 02509XXX (Table R)
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-273/274ELR (B) 7/95
- 1 – Crimp chart IS-02500CC 10/96

Example:

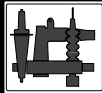
The ordering number for an Repair Elbow for a 1/0 stranded, 260 mil wall cable with an insulation diameter of .955" (23.4 mm) is 273ELR-88110-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 273ELR-88110-2240.

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02509220	02509210
1	02509230	02509220
1/0	02509240	02509230
2/0	02509250	02509240
3/0	02509260	02509250
4/0	02509270	02509260
250	-	02509270

*Cu or Al conductor



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

C I

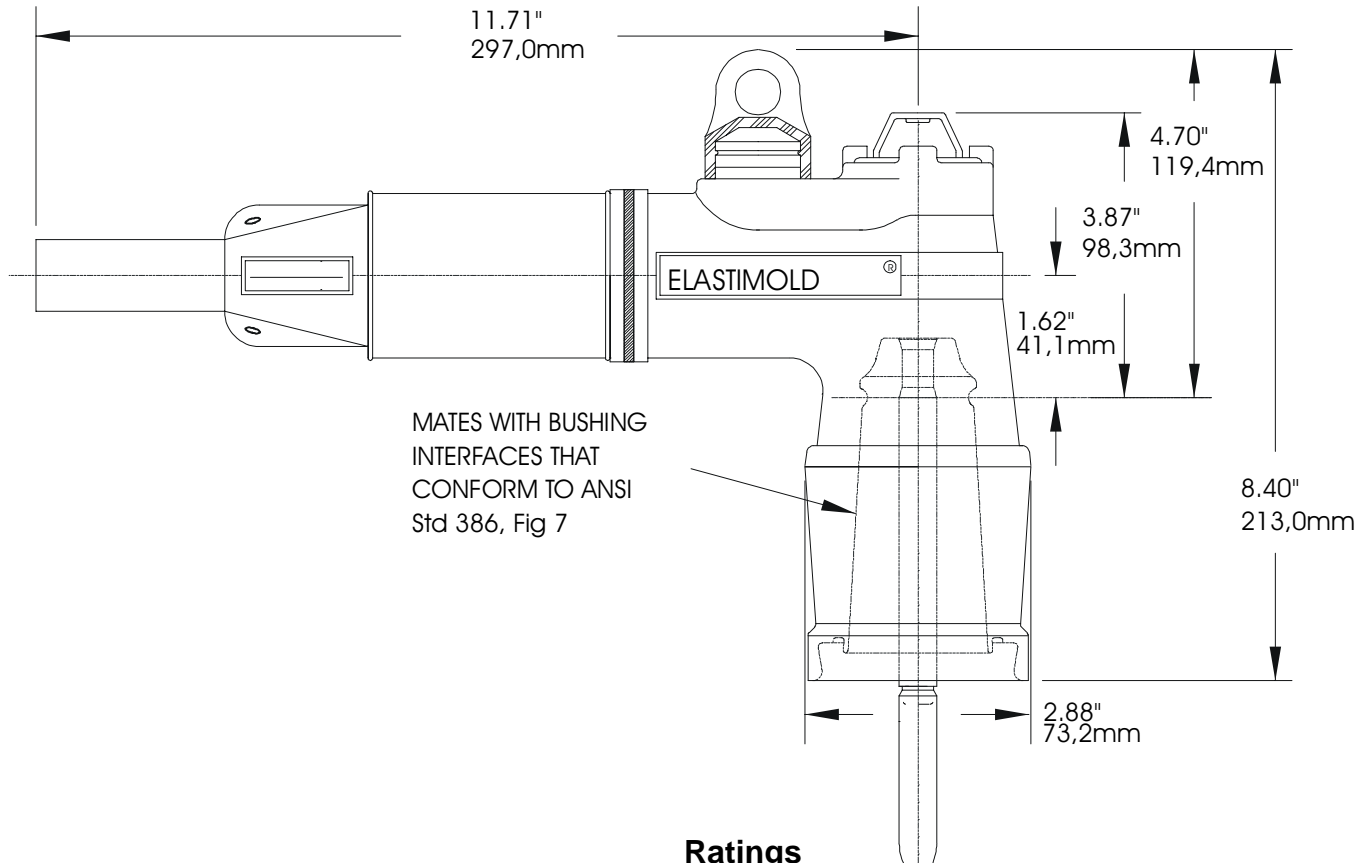
DESCRIPTION

25kV 200A Repair Elbow

ELASTIMOLD PART NUMBER

274ELR-WX

(w/ Test Point)



The Elastimold 274ELR Repair Elbow is a fully rated 25kV Class loadbreak elbow connector with a lengthened compression lug and housing. The Repair Elbow accommodates cables that are too short to be connected to a standard elbow.

Features

- Extended length housing and compression lug [+ 3-1/4" (82,6mm)].
- 15kV, 200A Loadbreak Elbow Connector.
- Fully shielded, fully submersible molded rubber housing.
- Peroxide-cured insulation, insert and jacket.

NOTE: For housing extension greater than 3-1/4" (82,6mm), refer to Elastimold Part number 274RLR.

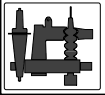
Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

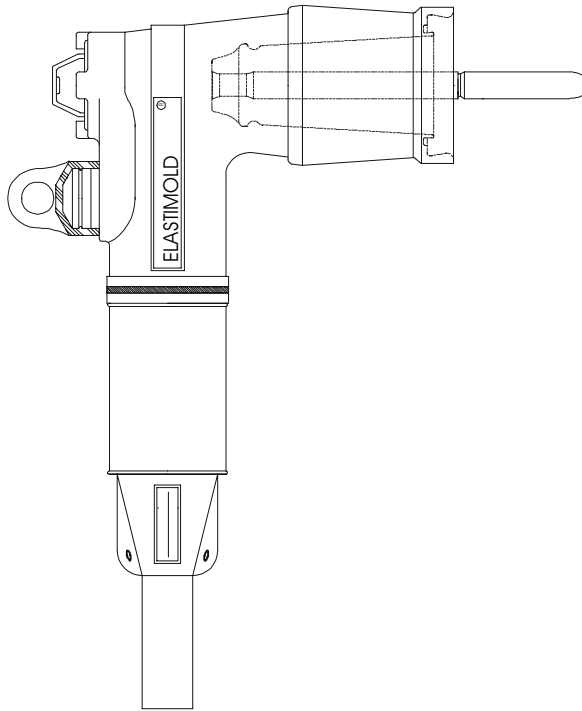
The 274ELR is designed for connecting to and operating 25kV Class, 125kV BIL distribution apparatus. Typical uses for the special characteristics of the 274ELR Repair Elbow includes the following:

- Repair of a failed elbow connection where the cable must be stripped back and a new compression lug applied.
- To gain extra length when cables have been accidentally trimmed too short or to connect new apparatus to existing cables.



25kV 200A Repair Elbow (w/ Test Point)

274ELR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

274ELR — — **5**

Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.665 - .895	16.9 - 22.7	6689
.740 - .950	18.8 - 24.1	7495
.880 - 1.100	22.4 - 27.9	88110

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Repair Elbow kit contains the following:

- 1 - Elbow connector housing 274ELR-W
- 1 - Bi-metal compression lug 02509XXX (Table R)
- 1 - Tube, lubricant 82-08
- 1 - Installation instruction IS-273/274ELR (B) 7/95
- 1 - Crimp chart IS-02500CC 10/96

Example:

The ordering number for an Repair Elbow for a 1/0 stranded, 260 mil wall cable with an insulation diameter of .955" (23.4 mm) is 274ELR-88110-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 274ELR-88110-2240.

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02509220	02509210
1	02509230	02509220
1/0	02509240	02509230
2/0	02509250	02509240
3/0	02509260	02509250
4/0	02509270	02509260
250	-	02509270

*Cu or Al conductor

Installation & Operating Instructions 273ELR (without test point) 274ELR (with test point) Loadbreak Elbow Connectors

CONTENTS: Elbow Connector Housing, Compression Lug, Probe, Probe Wrench, Lubricant (Do Not Substitute), Installation/Operating Instructions.

The 273ELR (without test point) and 274ELR (with test point) are designed to terminate UD cable having concentric neutral and extruded insulation shielding. The elbow provides an operating interface for connecting to an Elastimold 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) 200ampere loadbreak bushing or accessory device with fault close ratings of 10,000 amperes RMS, symmetrical. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

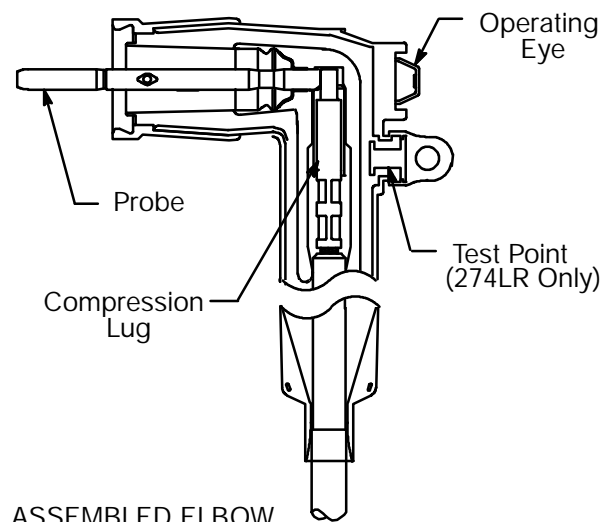
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



Caution: If test point cap is not installed, lubricate cap and test point and install cap.



NEW INSTALLATION AND TOTAL REPLACEMENT OF ELBOW HOUSING AND COMPRESSION LUG

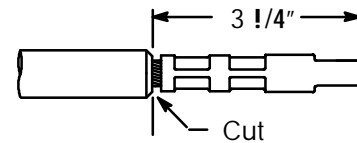
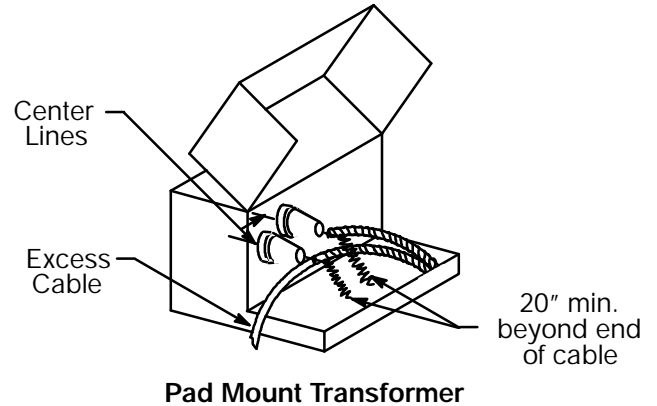
(For elbow housing replacement without changing compression lug see page 3 Steps 1a and 2a)

STEP 1 CABLE TRAINING

- A. Train cable as shown to ease operation.
- B. For **new installation** cut excess cable squarely at center line of bushing.

For **replacement**:

- a. Using pin wrench remove probe from elbow and discard probe.
- b. With a twisting motion, pull the elbow off the cable.
- c. Cut off old compression lug as shown.

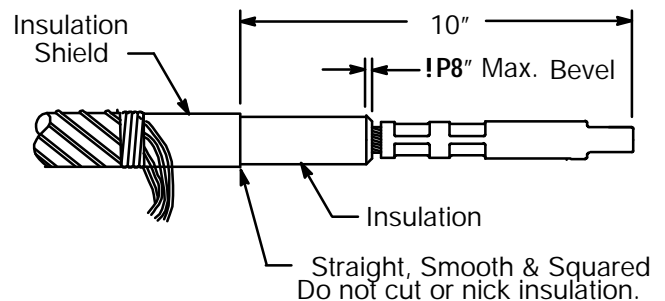
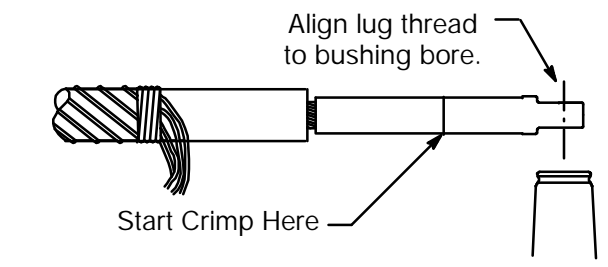
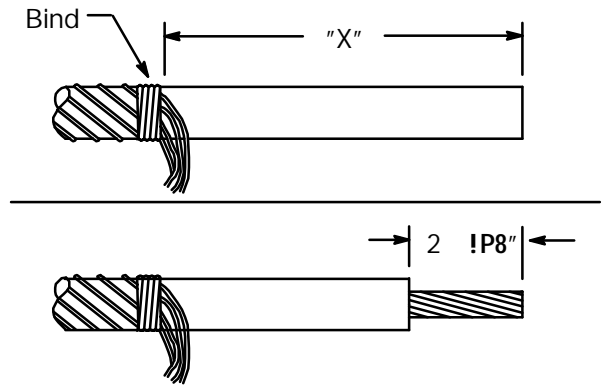


STEP 2 CABLE PREPARATION

- A. Unwrap and bind concentric neutral wires "X" back from end of cable.

Compression Lug	X Dimension
02200XXX	13
02500XXX	13
02509XXX	9 !P2"

- B. Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.
- C. Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor. Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information.) Start crimp at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.
- D. Remove insulation shield as shown. Bevel insulation end !P8" max.
- E. Thoroughly clean insulation to remove all traces of conductive residue.

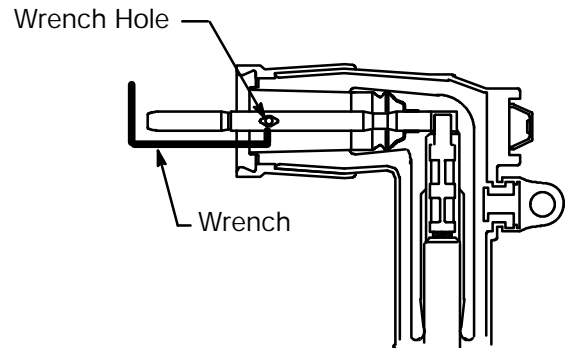


PROCEED TO STEP 3

FOR ELBOW HOUSING REPLACEMENT WITHOUT CHANGING COMPRESSION LUG (for new installation see page 2 Steps 1 and 2)

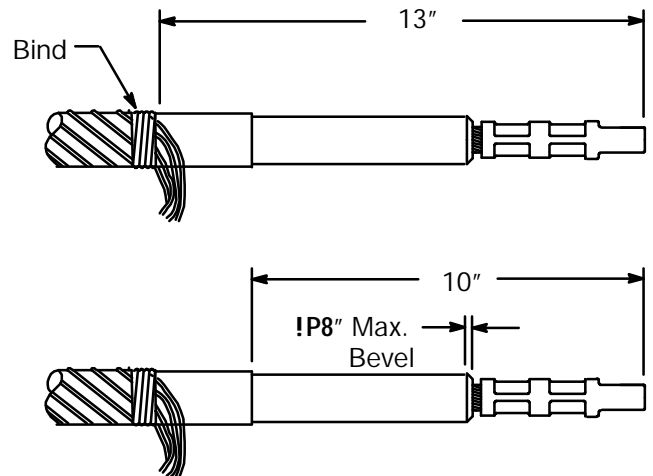
STEP 1a REMOVE ELBOW

- A. Using pin wrench remove probe from elbow and discard probe.
- B. With a twisting motion, pull the elbow off the cable.



STEP 2a CABLE PREPARATION

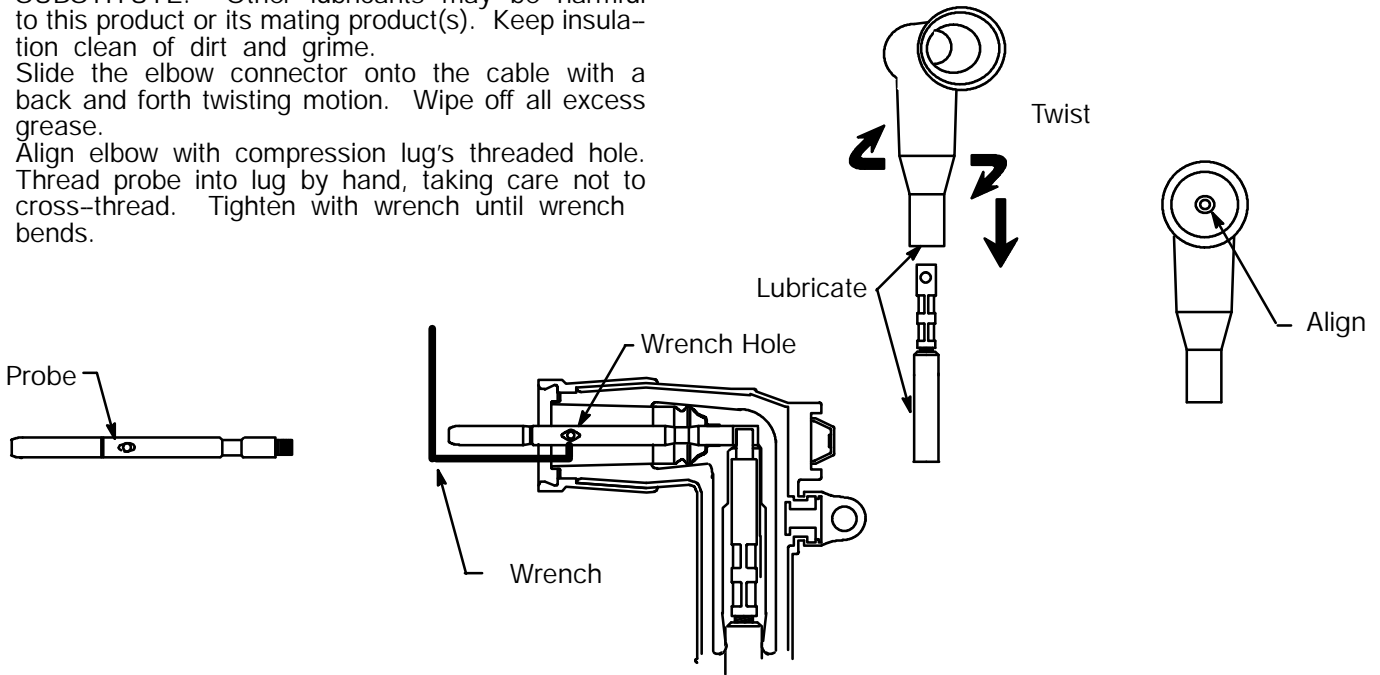
- A. Unwrap and bind concentric neutral wires 13" back from end of connector.
- B. Remove insulation shield as shown.
- C. Bevel the insulation end $1/8$ " max.
- D. Thoroughly clean insulation to remove all traces of conductive residue.



PROCEED TO STEP 3

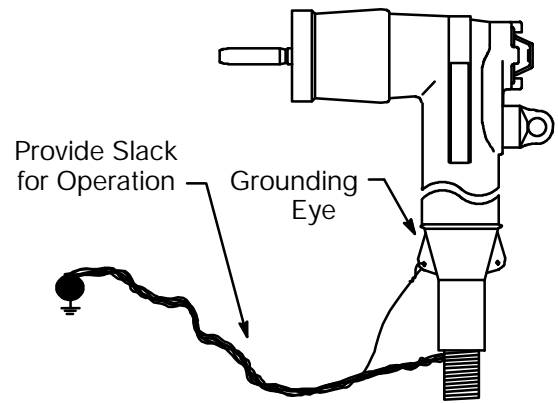
STEP 3 ELBOW ASSEMBLY

- A. Lubricate the cable insulation and inside the elbow housing with the lubricant supplied. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime.
- B. Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.
- C. Align elbow with compression lug's threaded hole.
- D. Thread probe into lug by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.



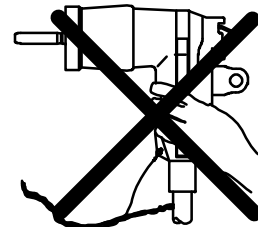
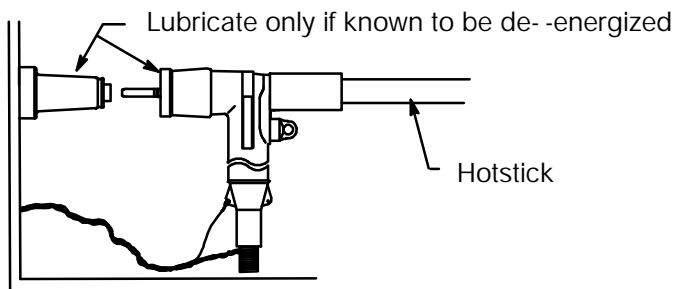
STEP 4 CONCENTRIC NEUTRAL CONNECTION

- A. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent wire through the grounding eye on the elbow. Twist tight taking care not to damage eye.
- B. Twist neutral wires and wire from grounding eye and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.



STEP 5 CONNECT ELBOW AND BUSHING PLUG

- A. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. **LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.**
- B. Operate per following instructions. **DO NOT OPERATE BY HAND.**



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type tool.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.

NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.

5. Insert the probe tip approximately 2" into the bushing (at this point the contacts are approximately 4" apart). **DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION**, which will engage the internal lock on the elbow and bushing interface.

Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

VOLTAGE TEST ON 274ELR

The ELASTIMOLD loadbreak elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

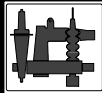
1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT.**

WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. Contamination: Moisture, dirt, etc., around the test point, or use of the wrong measuring equipment can provide a false "No Voltage" indication on an energized elbow. To prevent serious or fatal injury treat the elbow as energized until the "No Voltage" test point indication is confirmed by other means.

3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Thomas & Betts Corporation



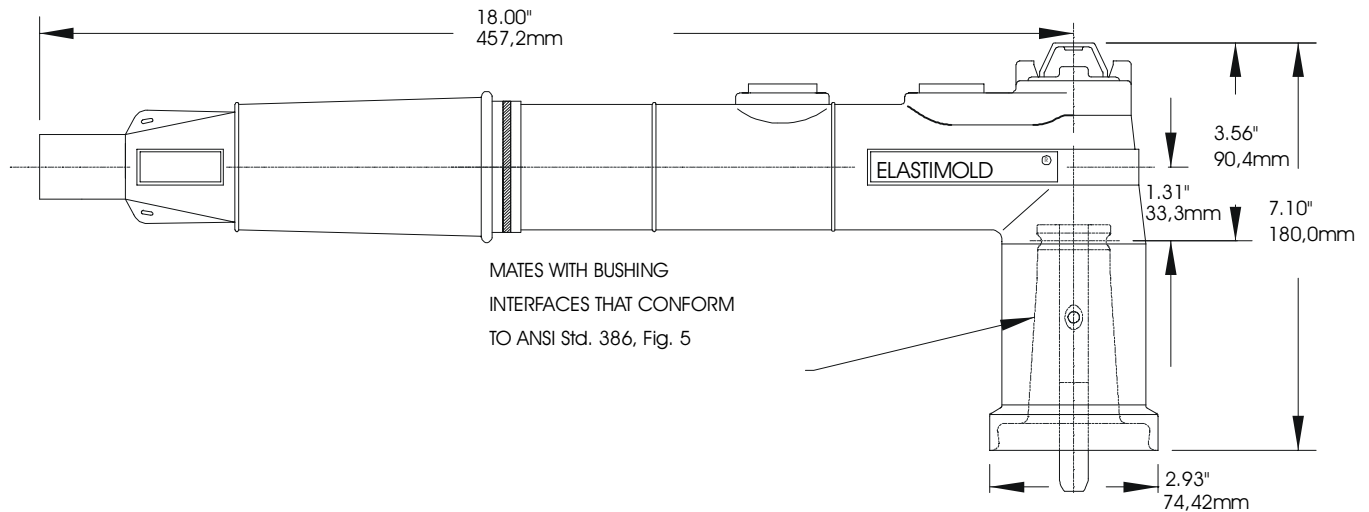
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15kV 200A Replacement Elbow

ELASTIMOLD PART NUMBER

167RLR-WX**(w/o Test Point)**

The Elastimold 167RLR Replacement Elbow is a fully rated 15kV Class loadbreak elbow connector with a lengthened compression lug and housing. The Replacement Elbow accommodates cables that are too short to be connected to a standard elbow.

Features

- Extended length housing and compression lug [+ 10 ½ " (266,7mm)].
- 15kV, 200A Loadbreak Elbow Connector.
- Fully shielded, fully submersible molded rubber housing.
- Peroxide-cured insulation, insert and jacket.

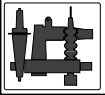
Ratings

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3 kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minutes Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

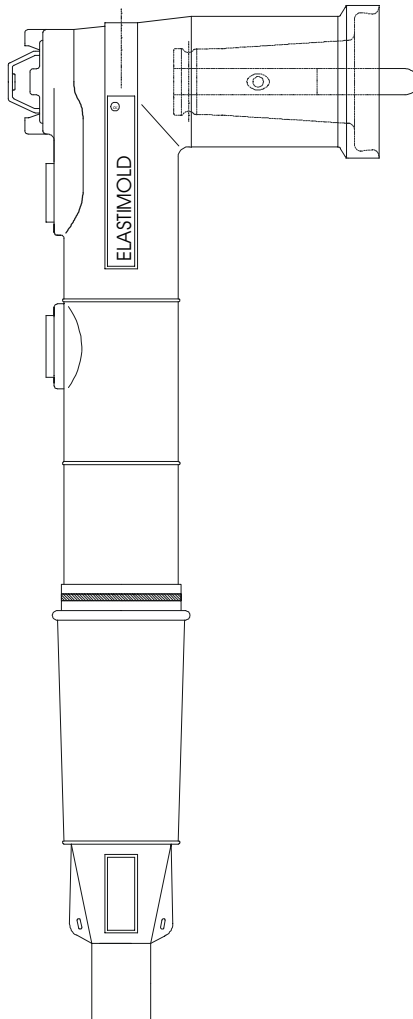
The 167RLR is designed for connecting to and operating 15kV Class, 95kV BIL distribution apparatus. Typical uses for the special characteristics of the 167RLR Replacement Elbow includes the following:

- Repair of a failed elbow connection where the cable must be stripped back and a new compression lug applied.
- To gain extra length when cables have been accidentally trimmed too short or to connect new apparatus to existing cables.
- Convert equipment connections from live front to dead front without changing cable.



15kV 200A Replacement Elbow

167RLR-WX (w/o Test Point)



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

167RLR - - 5

Cable Insulation Dia. Range		Elbow Code	Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
Inches	mm	Code		Stranded/ Compr.	Solid/ Compact
.640 - .820	16.26 - 20.83	F	2	220	210
.760 - .950	19.30 - 24.13	G	1	230	220
.850 - 1.050	21.59 - 26.67	H	1/0	240	230
.980 - 1.180	24.89 - 29.97	J	2/0	250	240
1.090 - 1.310	27.69 - 33.27	K	3/0	260	250
			4/0	270	260
			250	-	270

*Cu or Al conductor

The Replacement Elbow kit contains the following:

- 1 - Elbow connector housing 167BRLR-W
- 1 - Bi-metal compression lug 00400XXX (Table R)
- 1 - Probe 166LRF
- 1 - Probe wrench 271-94
- 1 - Hose clamp 65-27-2
- 1 - Tube, lubricant 82-08
- 1 - Installation instruction IS-167/168RLR 12/96
- 1 - Crimp chart IS-00400XXX-CC

Example:

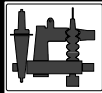
The ordering number for a Replacement Elbow for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 167RLR-G-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 167RLR-G-2240.

Table R

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	00400220	00400400
1	00400230	00400220
1/0	00400240	00400230
2/0	00400250	00400240
3/0	00400260	00400250
4/0	00400270	00400260
250	-	00400270

*Cu or Al conductor



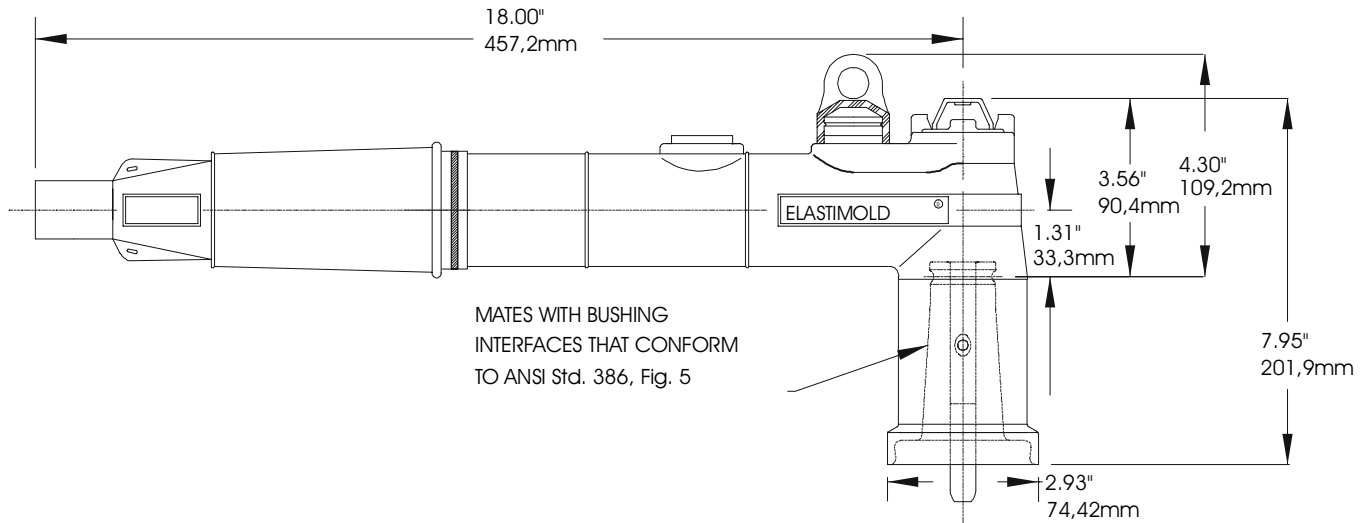
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15kV 200A Replacement Elbow

ELASTIMOLD PART NUMBER

168RLR-WX**(w/ Test Point)**

The Elastimold 168RLR Replacement Elbow is a fully rated 15kV Class loadbreak elbow connector with a lengthened compression lug and housing. The Replacement Elbow accommodates cables that are too short to be connected to a standard elbow.

Features

- Extended length housing and compression lug [+ 10 ½ " (266,7mm)].
- 15kV, 200A Loadbreak Elbow Connector.
- Fully shielded, fully submersible molded rubber housing.
- Peroxide-cured insulation, insert and jacket.

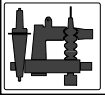
Ratings

- per ANSI/IEEE Standard 386
- 15kV Voltage Class
- 8.3 kV Max Phase-to-Ground - Operating Voltage
- 14.4kV Max Phase-to-Phase
- 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 34kV AC - One minute Withstand
- 53kV DC - 15 Minutes Withstand
- 11kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

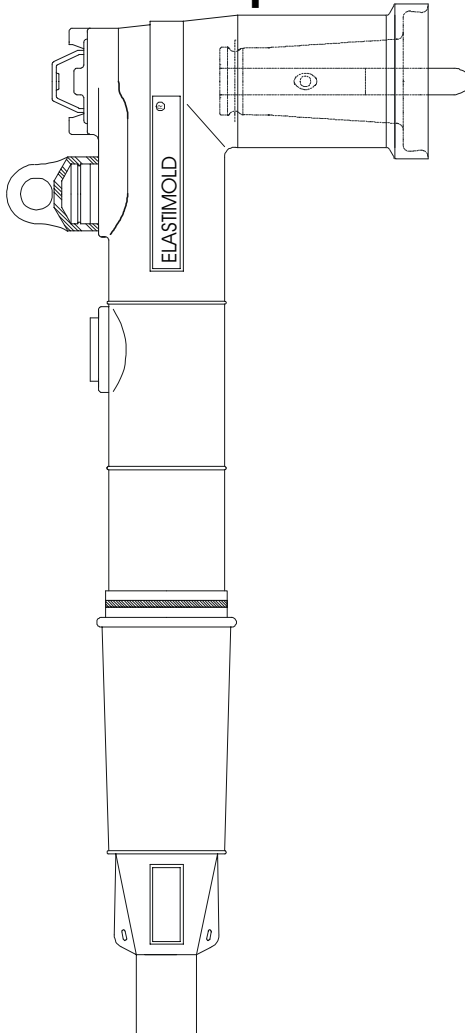
The 168RLR is designed for connecting to and operating 15kV Class, 95kV BIL distribution apparatus. Typical uses for the special characteristics of the 168RLR Replacement Elbow includes the following:

- Repair of a failed elbow connection where the cable must be stripped back and a new compression lug applied.
- To gain extra length when cables have been accidentally trimmed too short or to connect new apparatus to existing cables.
- Convert equipment connections from live front to dead front without changing cable.



15kV 200A Replacement Elbow

168RLR-WX (w/ Test Point)



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

168RLR – – 5

Cable Insulation Dia. Range		Elbow Code	Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
Inches	mm			Stranded/ Compr.	Solid/ Compact
.640 - .820	16.26 – 20.83	F	2	220	210
.760 - .950	19.30 – 24.13	G	1	230	220
.850 – 1.050	21.59 – 26.67	H	1/0	240	230
.980 – 1.180	24.89 – 29.97	J	2/0	250	240
1.090 – 1.310	27.69 – 33.27	K	3/0	260	250
			4/0	270	260
			250	-	270

*Cu or Al conductor

The Replacement Elbow kit contains the following:

1 – Elbow connector housing	168BRLR-W
1 – Bi-metal compression lug	00400XXX (Table R)
1 – Probe	166LRF
1 – Probe wrench	271-94
1 – Hose clamp	65-27-2
1 – Tube, lubricant	82-08
1 – Installation instruction	IS-167/168RLR 12/96
1 – Crimp chart	IS-00400XXX-CC

Example:

The ordering number for an Replacement Elbow for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 168RLR-G-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 168RLR-G-2240.

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	00400220	00400400
1	00400230	00400220
1/0	00400240	00400230
2/0	00400250	00400240
3/0	00400260	00400250
4/0	00400270	00400260
250	-	00400270

*Cu or Al conductor

Installation & Operating Instructions 167RLR (without Test Point) 168RLR (with Test Point) Loadbreak Replacement Elbow Connectors

CONTENTS: Replacement Elbow Connector Housing, Compression Lug, Probe, Probe Wrench, Lubricant, (Do Not Substitute), Hose Clamp, Installation/Operating Instructions.

The 167RLR (without Test Point) 168RLR (with Test Point) is designed to convert a livefront termination to deadfront for UD cable having concentric neutral and extruded insulation shielding. The elbow provides an operating interface for connecting to an Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) 200 ampere loadbreak bushing or accessory device with fault close ratings of 10,000 amperes RMS, symmetrical. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent per-

sonnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

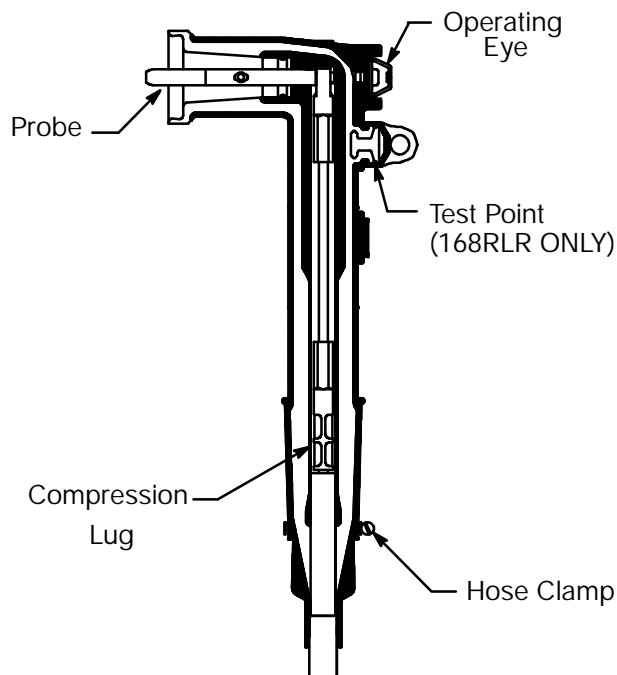
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



ASSEMBLED ELBOW

CAUTION: If test point cap is not installed, lubricate cap and test point and install cap.



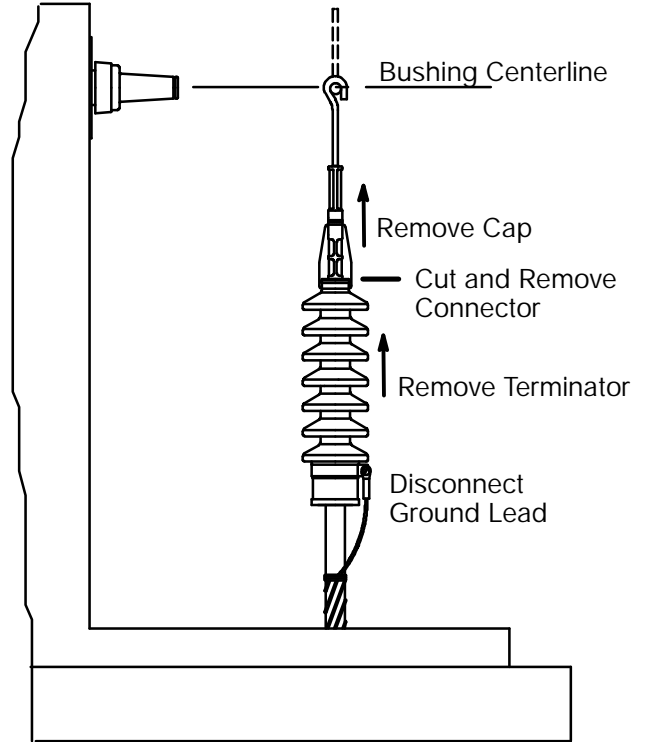
ELASTIMOLD

NEW INSTALLATION OF REPLACEMENT ELBOW HOUSING AND COMPRESSION LUG

DANGER: All apparatus must be de-energized during installation or removal of part(s).

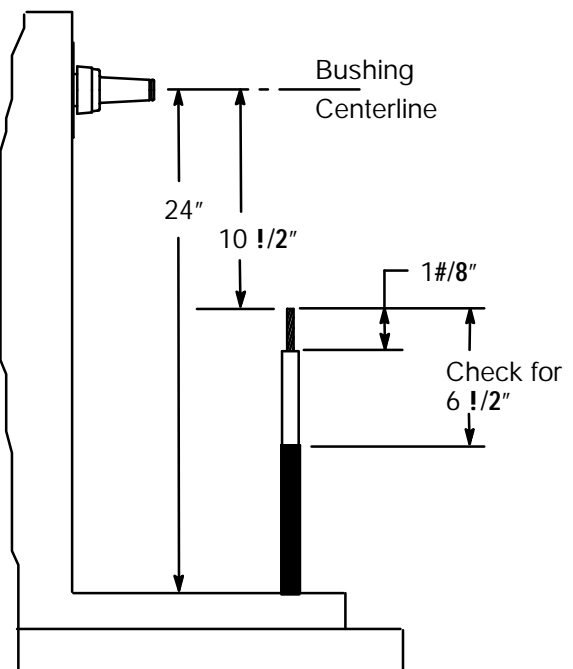
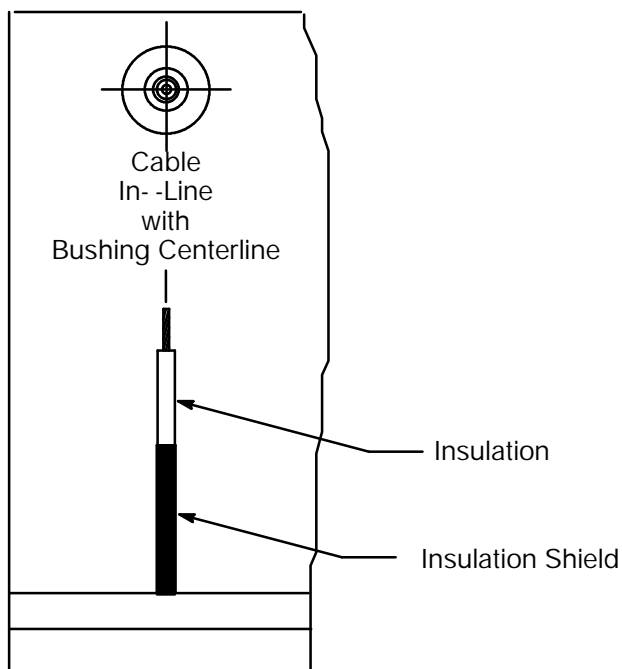
STEP 1 LIVEFRONT REMOVAL

- A. Remove the rubber cap from the terminator.
- B. Cut off connector at the top of the terminator.
- C. Disconnect ground lead from the base of the terminator.
- D. Remove the terminator housing from the cable.



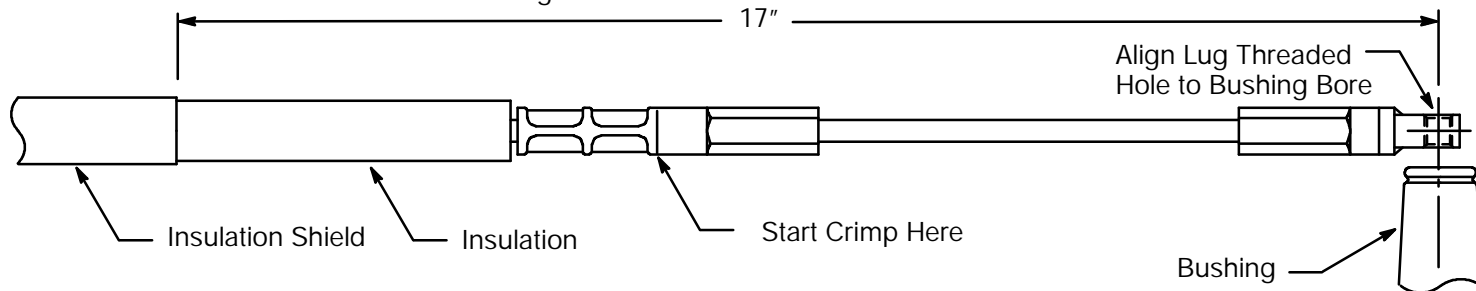
STEP 2 CABLE PREPARATION

- A. Train cables to be straight and in-line with bushing centerline.
- B. The end of the cable MUST measure 10 1/2" from the bushing centerline. Cut the cable to 10 1/2".
CHECK DISTANCE FROM END OF CUT CABLE TO INSULATION SHIELD.
 1. If the insulation shield measures less than 6 1/2" continue to "C". Insulation shield will be cut in STEP 3.
 2. If the insulation shield is greater than 6 1/2", consult your nearest ELASTIMOLD representative.
- C. Remove cable insulation 1 #/8" from end of cable. Cut squarely. DO NOT NICK THE CONDUCTOR.



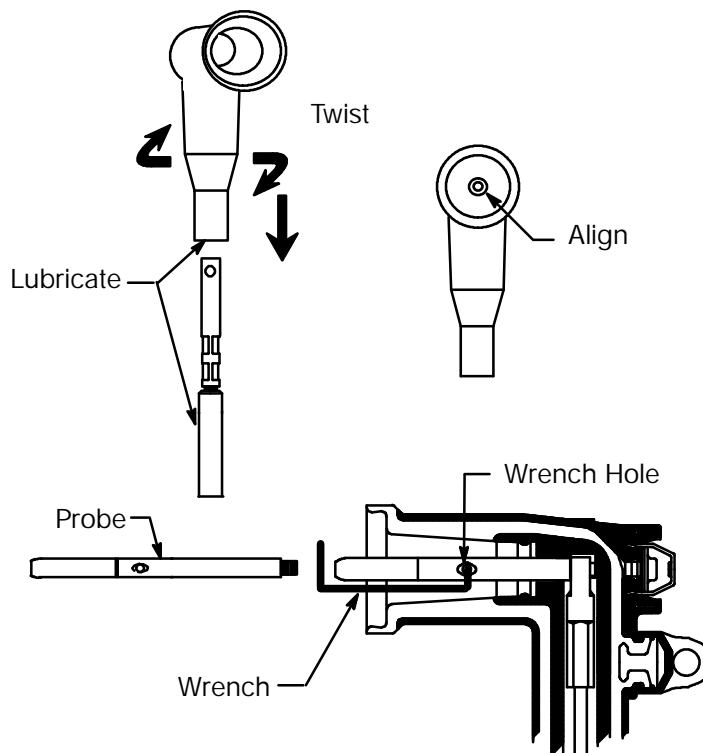
STEP 3

Wire brush bare aluminum conductor and immediately install compression lug. Rotate to spread inhibitor. Position compression lug so the contact threaded hole aligns with the bushing bore (refer to crimp chart packaged with compression lug for recommended crimp information) Start crimp at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.



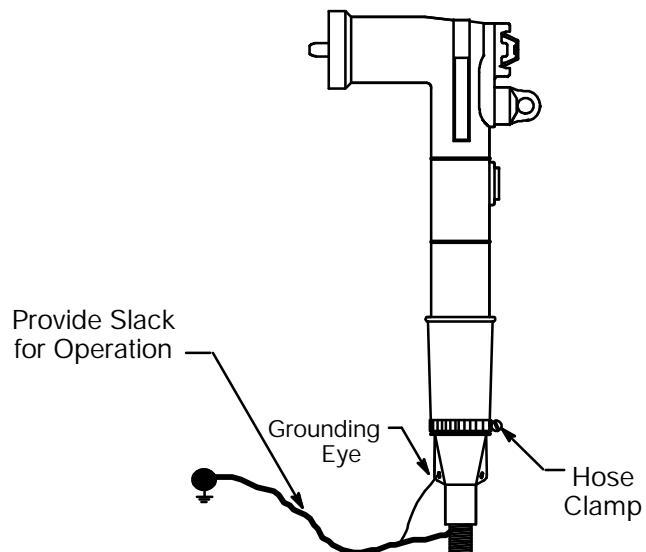
STEP 4 ELBOW ASSEMBLY

- Lubricate the cable insulation and inside the elbow housing with the lubricant supplied. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime. Do not use excess grease and do not introduce any grease into the gap between the lug and the insulation.
- Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.
- Align elbow with compression lug's threaded hole.
- Thread probe into lug by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.



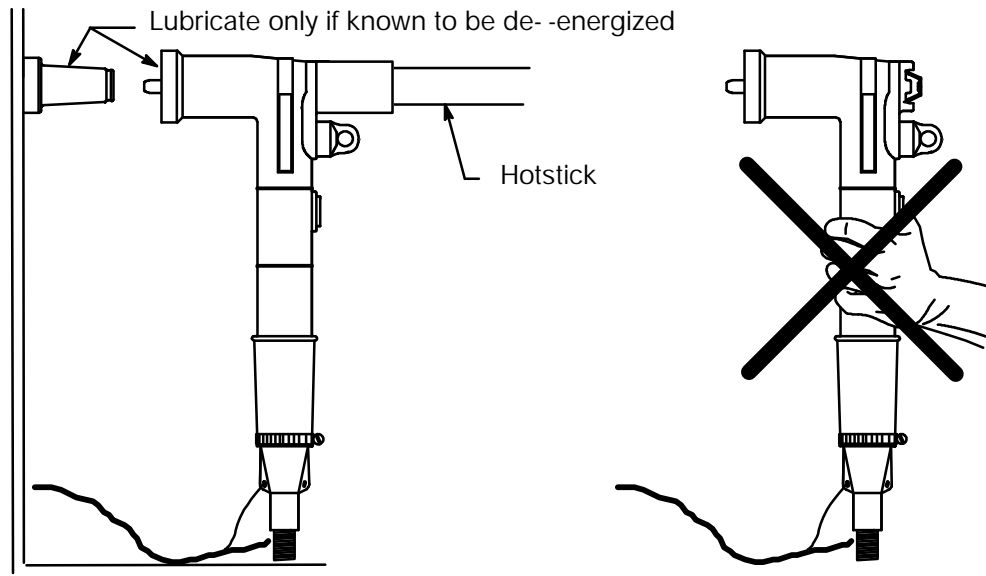
STEP 5 CONCENTRIC NEUTRAL CONNECTION

- Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through the grounding eye on the elbow. Twist tight taking care not to damage eye.
- Twist neutral wires and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.
- Add hose clamp as shown. Tighten snugly. Do Not overtighten.



STEP 6 CONNECT ELBOW AND BUSHING PLUG

- A. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.
- B. Operate per following instructions. **DO NOT OPERATE BY HAND.**



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type of tool.

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2" apart).

DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION, which will engage the internal lock on the elbow and bushing interface.

Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

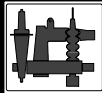
VOLTAGE TEST ON 168RLR

The ELASTIMOLD loadbreak elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device proceed to determine if cable is energized.

CAUTION: The voltage test point is a capacitance device; it is not directly connected to the connector. It requires the use of specially designed instruments. DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT; NO INDICATION WILL BE OBTAINED.

3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



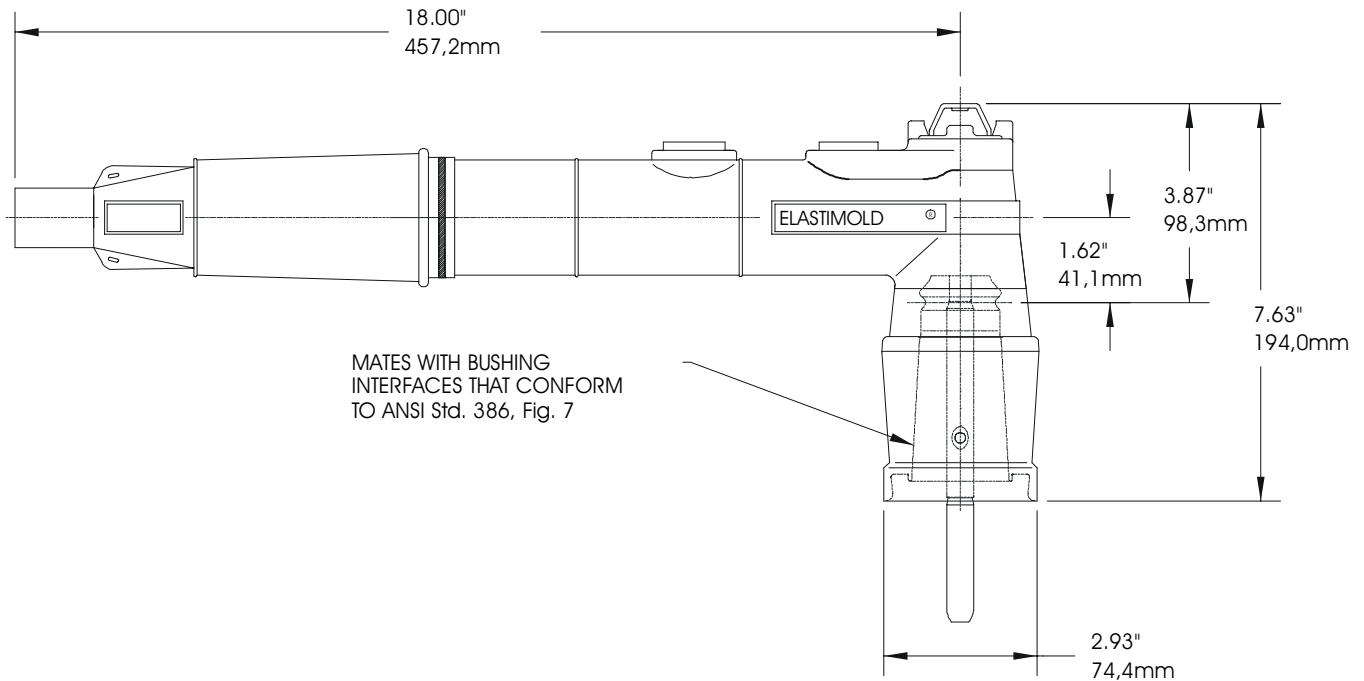
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

25kV 200A Replacement Elbow

ELASTIMOLD PART NUMBER

273RLR-WX**(w/o Test Point)**

The Elastimold 273RLR Replacement Elbow is a fully rated 25kV Class loadbreak elbow connector with a lengthened compression lug and housing. The Replacement Elbow accommodates cables that are too short to be connected to a standard elbow.

Features

- Extended length housing and compression lug [+ 10 ½ " (266,7mm)].
- 25kV, 200A Loadbreak Elbow Connector.
- Fully shielded, fully submersible molded rubber housing.
- Peroxide-cured insulation, insert and jacket.

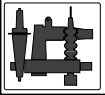
Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

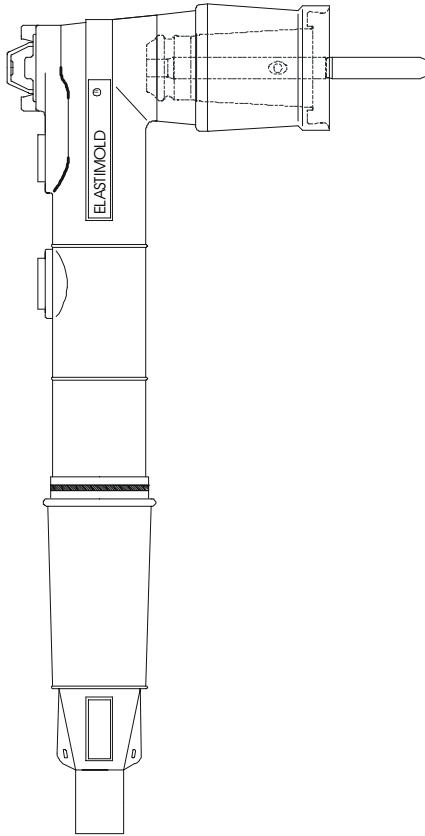
The 273RLR is designed for connecting to and operating 25kV Class, 125kV BIL distribution apparatus. Typical uses for the special characteristics of the 273RLR Replacement Elbow includes the following:

- Repair of a failed elbow connection where the cable must be stripped back and a new compression lug applied.
- To gain extra length when cables have been accidentally trimmed too short or to connect new apparatus to existing cables.
- Convert equipment connections from live front to dead front without changing cable.



25kV 200A Replacement Elbow

273RLR-WX (w/o Test Point)



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

273RLR – – 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.760 - .950	19.30 – 24.13	G
.850 – 1.050	21.59 – 26.67	H
.980 – 1.180	24.89 – 29.97	J
1.090 – 1.310	27.69 – 33.27	K

Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The elbow Connector kit contains the following:

- 1 – Elbow connector housing 273BRLR-W
- 1 – Bi-metal compression lug 00400XXX (Table R)
- 1 – Probe 274LRF
- 1 – Probe wrench 271-94
- 1 – Hose clamp 65-27-2
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-273/274RLR 12/96
- 1 – Crimp chart IS-00400XXX-CC

Example:

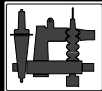
The ordering number for an Elbow Connector for a 1/0 stranded, 260 mil wall cable with an insulation diameter of .955" (23.4 mm) is 273RLR-H-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 273RLR-H-2240.

Table R

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	00400220	00400400
1	00400230	00400220
1/0	00400240	00400230
2/0	00400250	00400240
3/0	00400260	00400250
4/0	00400270	00400260
250	-	00400270

*Cu or Al conductor



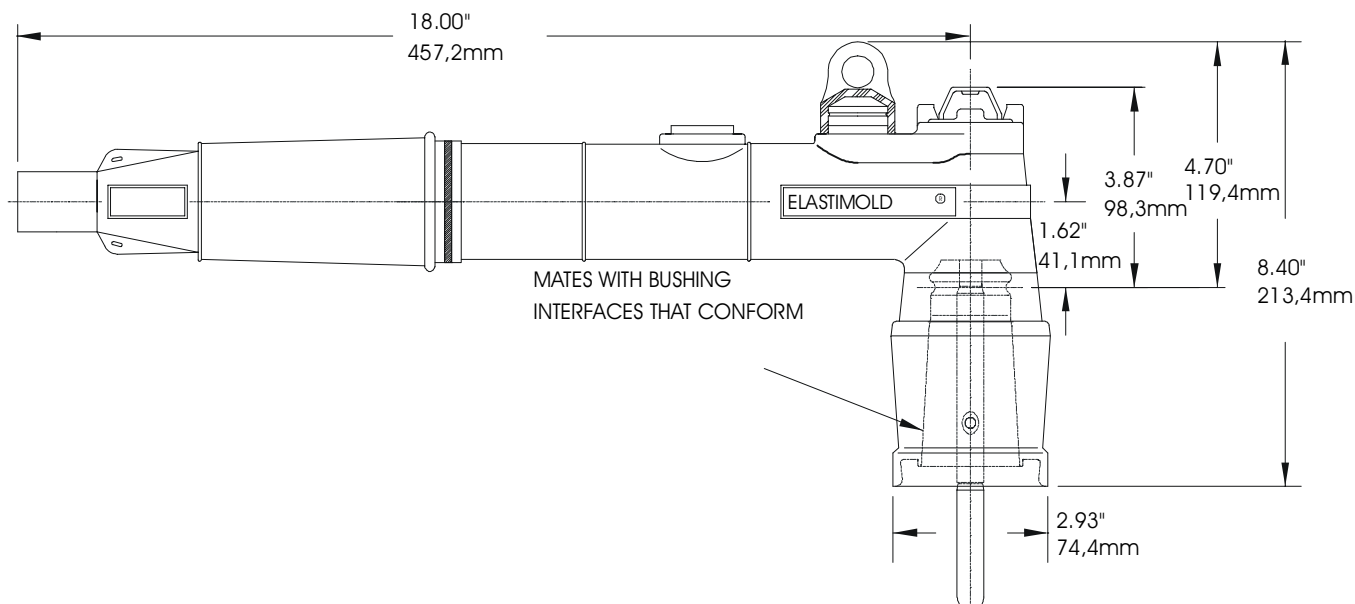
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

25kV 200A Replacement Elbow

ELASTIMOLD PART NUMBER

274RLR-WX**(W/ Test Point)**

The Elastimold 274RLR Replacement Elbow is a fully rated 25kV Class loadbreak elbow connector with a lengthened compression lug and housing. The Replacement Elbow accommodates cables that are too short to be connected to a standard elbow.

Features

- Extended length housing and compression lug [+ 10 ½ " (266,7mm)].
- 25kV, 200A Loadbreak Elbow Connector.
- Fully shielded, fully submersible molded rubber housing.
- Peroxide-cured insulation, insert and jacket.

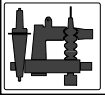
Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

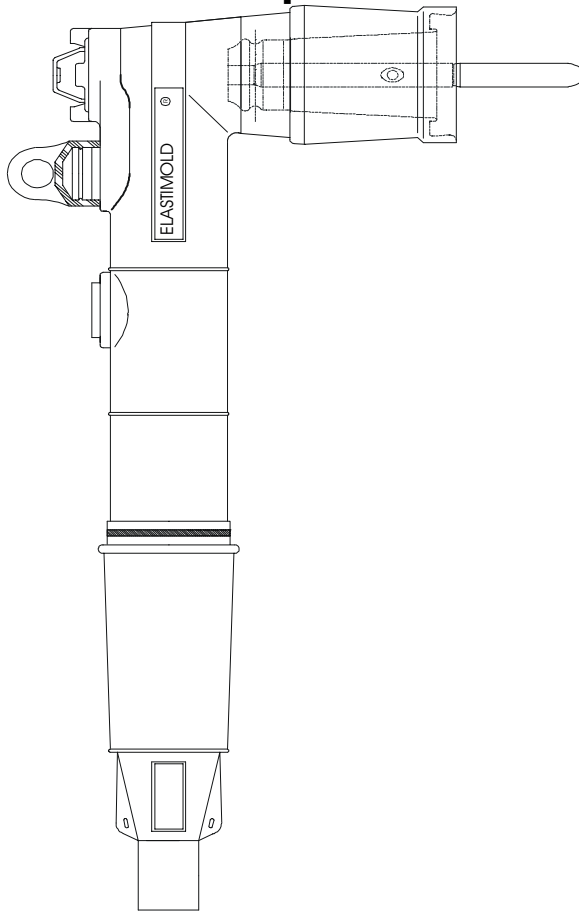
The 274RLR is designed for connecting to and operating 25kV Class, 125kV BIL distribution apparatus. Typical uses for the special characteristics of the 274RLR Replacement Elbow includes the following:

- Repair of a failed elbow connection where the cable must be stripped back and a new compression lug applied.
- To gain extra length when cables have been accidentally trimmed too short or to connect new apparatus to existing cables.
- Convert equipment connections from live front to dead front without changing cable.



25kV 200A Replacement Elbow

274RLR-WX (w/ Test Point)



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

274RLR – – 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	
.760 - .950	19.30 – 24.13	G
.850 – 1.050	21.59 – 26.67	H
.980 – 1.180	24.89 – 29.97	J
1.090 – 1.310	27.69 – 33.27	K

Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Replacement Elbow kit contains the following:

- 1 – Elbow connector housing 274BRLR-W
- 1 – Bi-metal compression lug 00400XXX (Table R)
- 1 – Probe 274LRF
- 1 – Probe wrench 271-94
- 1 – Hose clamp 65-27-2
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-273/274RLR 12/96
- 1 – Crimp chart IS-00400XXX-CC

Example:

The ordering number for a Replacement Elbow for a 1/0 stranded, 260 mil wall cable with an insulation diameter of .955" (23.4 mm) is 274RLR-H-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 274RLR-H-2240.

Table R

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	00400220	00400400
1	00400230	00400220
1/0	00400240	00400230
2/0	00400250	00400240
3/0	00400260	00400250
4/0	00400270	00400260
250	-	00400270

*Cu or Al conductor

Installation & Operating Instructions 273RLR (without Test Point) 274RLR (with Test Point) Loadbreak Replacement Elbow Connectors

CONTENTS: Replacement Elbow Connector Housing, Compression Lug, Probe, Probe Wrench, Lubricant, (Do Not Substitute), Hose Clamp, Installation/Operating Instructions.

The 273RLR (without Test Point) 274RLR (with Test Point) is designed to convert a livefront termination to deadfront for UD cable having concentric neutral and extruded insulation shielding. The elbow provides an operating interface for connecting to an Elastimold 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) 200 ampere loadbreak bushing or accessory device with fault close ratings of 10,000 amperes RMS, symmetrical. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

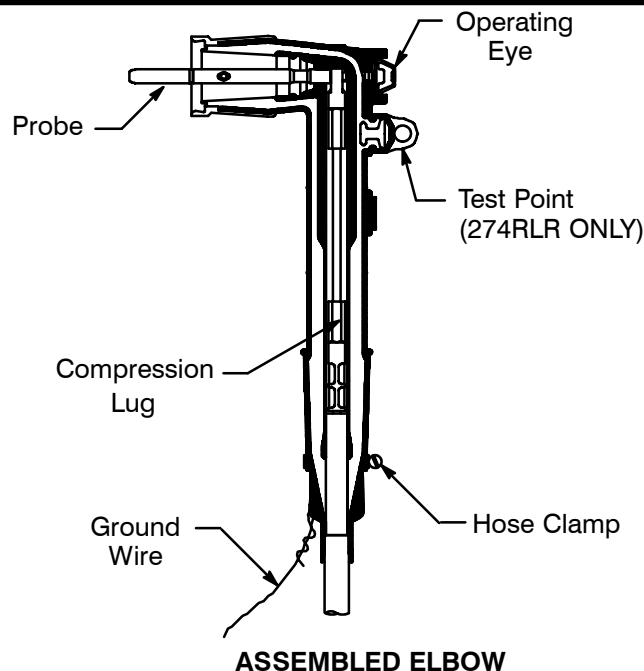
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



CAUTION: If test point cap is not installed, lubricate cap and test point and install cap.



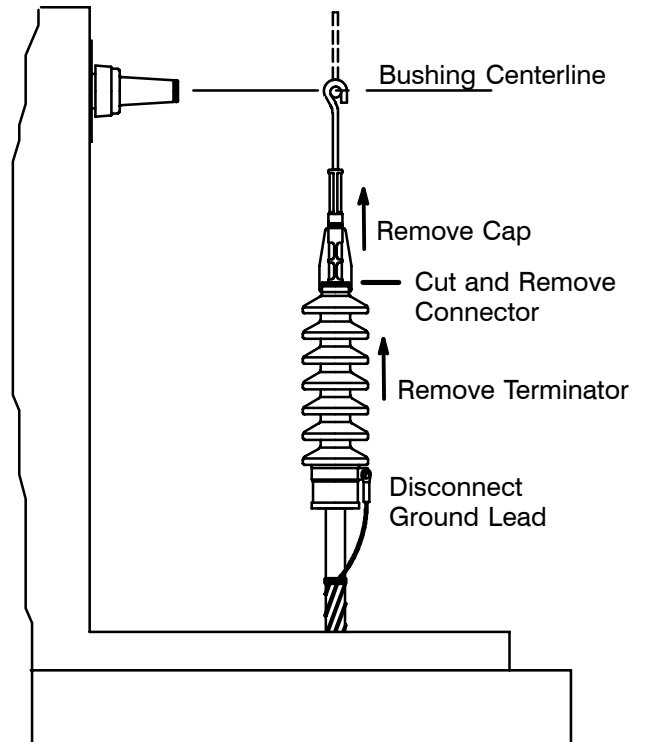
ELASTIMOLD

NEW INSTALLATION OF REPLACEMENT ELBOW HOUSING AND COMPRESSION LUG

DANGER: ALL APPARATUS MUST BE DE-ENERGIZED DURING INSTALLATION OR REMOVAL OF PART(S).

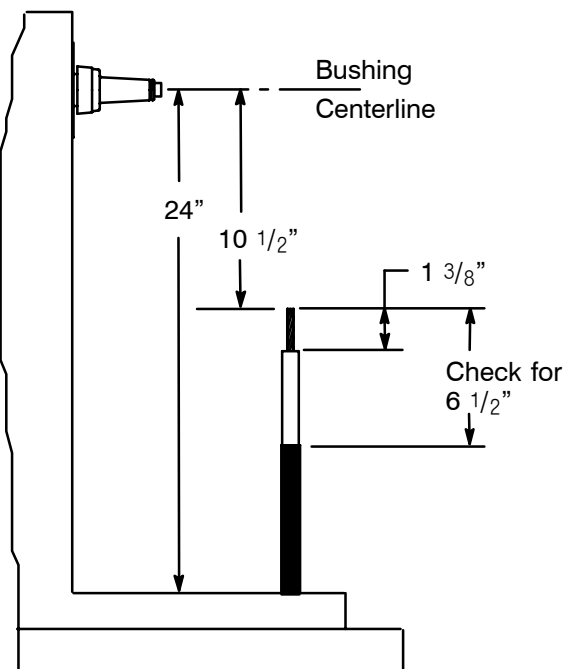
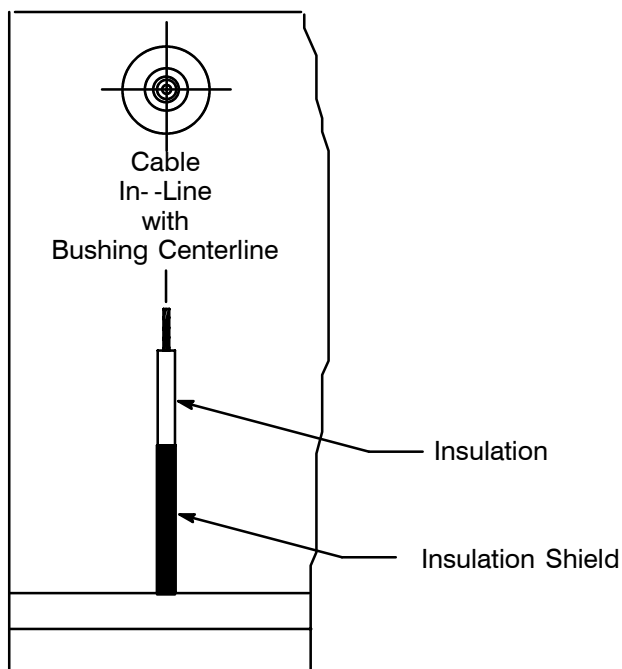
STEP 1 LIVEFRONT REMOVAL

- Remove the rubber cap from the terminator.
- Cut off connector at the top of the terminator.
- Disconnect ground lead from the base of the terminator.
- Remove the terminator housing from the cable.



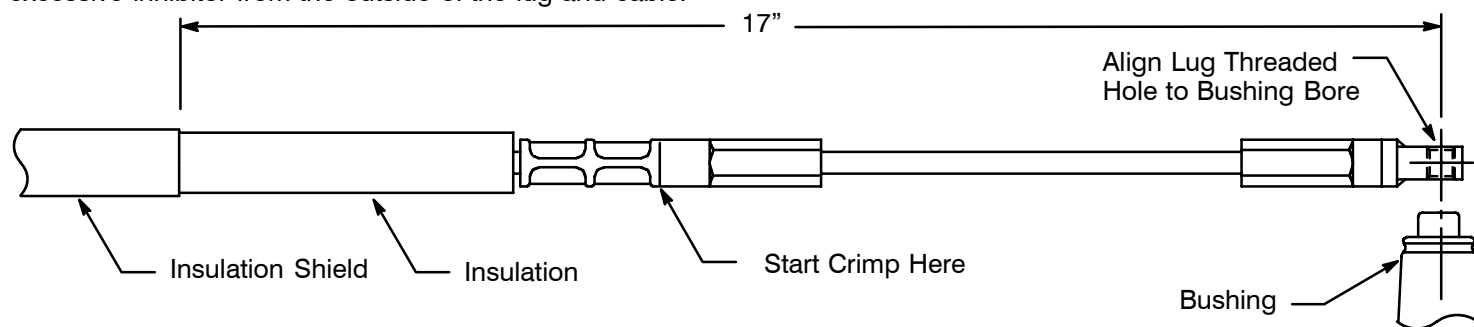
STEP 2 CABLE PREPARATION

- Train cables to be straight and in-line with bushing centerline.
- The end of the cable **MUST** measure $10\frac{1}{2}$ " from the bushing centerline. Cut the cable to $10\frac{1}{2}$ ".
CHECK DISTANCE FROM END OF CUT CABLE TO INSULATION SHIELD.
 - If the insulation shield measures less than $6\frac{1}{2}$ " continue to "C". Insulation shield will be cut in STEP 3.
 - If the insulation shield is greater than $6\frac{1}{2}$ ", consult your nearest ELASTIMOLD representative.
- Remove cable insulation $1\frac{3}{8}$ " from end of cable. Cut squarely. **DO NOT NICK THE CONDUCTOR.**



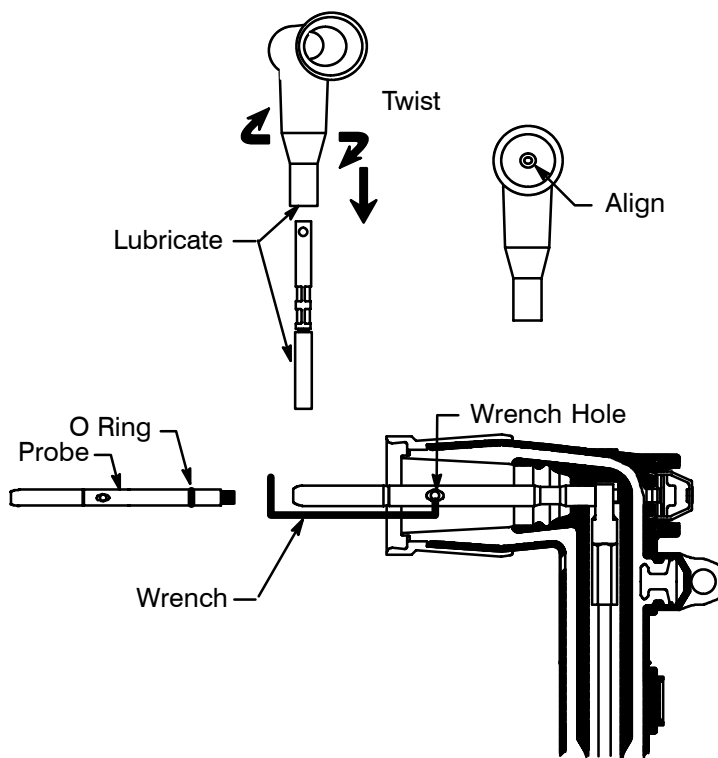
STEP 3

Wire brush bare aluminum conductor and immediately install compression lug. Rotate to spread inhibitor. Position compression lug so the contact threaded hole aligns with the bushing bore (refer to crimp chart packaged with compression lug for recommended crimp information) Start crimp at the crimp line mark. Rotate 180° each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.



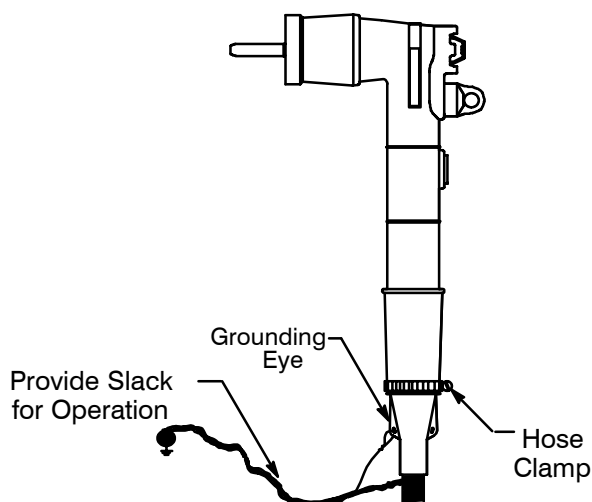
STEP 4 ELBOW ASSEMBLY

- Lubricate the cable insulation and inside the elbow housing with the lubricant supplied. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime. Do not use excess grease and do not introduce any grease into the gap between the lug and the insulation.
- Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.
- Align elbow with compression lug's threaded hole.
- Thread probe into lug by hand, taking care not to crossthread. Tighten with wrench until wrench bends.



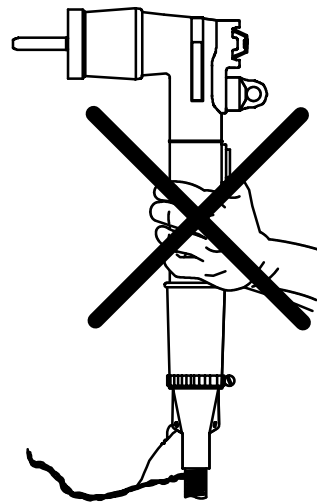
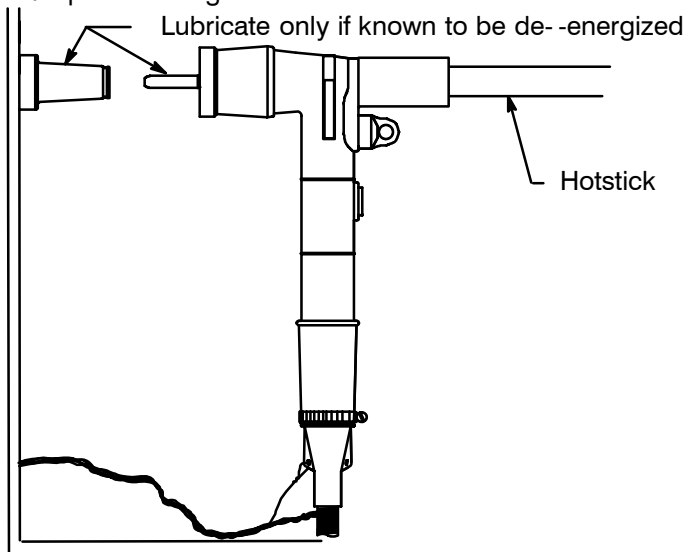
STEP 5 CONCENTRIC NEUTRAL CONNECTION

- Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through the grounding eye on the elbow. Twist tight taking care not to damage eye.
- Twist neutral wires and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.
- Add hose clamp as shown. Tighten snugly. Do Not overtighten.



STEP 6 CONNECT ELBOW AND BUSHING PLUG

- A. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE--ENERGIZED.
- B. Operate per following instructions. **DO NOT OPERATE BY HAND.**



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type of tool.

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de--energized. Do not connect two different phases of a multiple--phase system. Before closing a single--phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

CAUTION: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2" apart).

CAUTION: Do not hold in this position but immediately push the elbow home with a fast, firm, straight motion, which will engage the internal lock on the elbow and bushing interface.

Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.

CAUTION: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.

2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

VOLTAGE TEST ON 274RLR

The ELASTIMOLD loadbreak elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

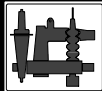
1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.

2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT.**

WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR.

Contamination: moisture, dirt, etc. around the test point, or use of the wrong measuring equipment can provide a false "NO VOLTAGE" indication on an energized elbow. To prevent serious or fatal injury treat the elbow as energized until the "No Voltage" test point indication is confirmed by other means.

3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



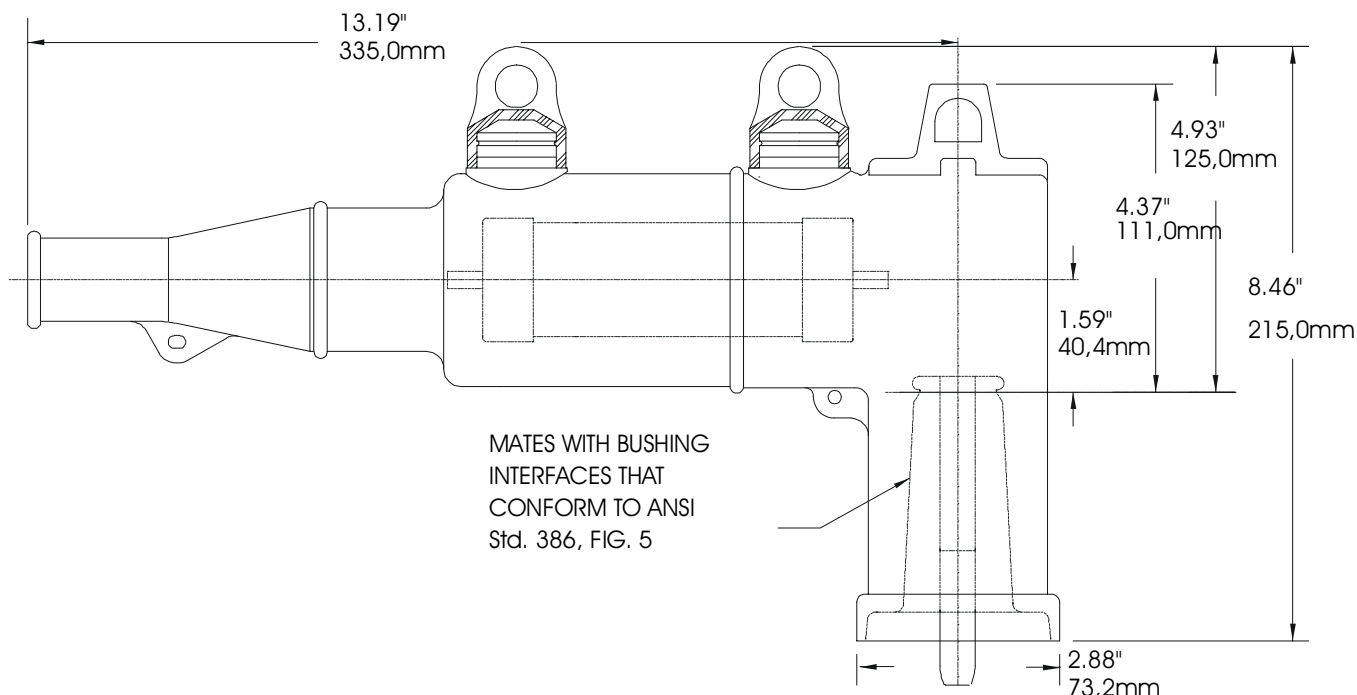
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

Fused Elbow

ELASTIMOLD PART NUMBER

166FLR-WX

Elastimold's Fused Elbow combines a general purpose, current-limiting fuse in a deadfront, submersible 200 Amp loadbreak elbow housing. Fuse replacement is easily accomplished by disconnecting the elbow from the source, unscrewing the probe and pulling apart the housing to expose the fuse.

Features

- 15kV, 200 Amp, Loadbreak Elbow
- 15kV, 30 Amp Max, current limiting fuse
- Fully-shielded/fully submersible, molded EDPM rubber housing with:
 - Split seam at center for disassembly during fuse replacement.
 - Two voltage test points for determining fuse status and blown fuse indication.
 - Two ground lead attachment provisions.
 - Reinforced pulling eye for hot stick operation.
 - 100% Peroxide-cured insulation, insert and jacket.

Ratings

Per ANSI/IEEE Standard 386 (Elbow) and C37.41 (Fuse)

- 15kV Voltage Class
- 8.3kV Max Phase-to-Ground - Operating Voltage
- 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 34kV AC - One minute Withstand
- 53kV DC - 15 Minute Withstand
- 11 kV AC - Corona Extinction @ 3 p.C. sensitivity
- 200Amp - Continuous and Loadbreak (Elbow)
- 30Amp - Max Continuous (Fuse)
- 10kA Sym - 10 Cycles Momentary & Fault Close (Elbow)
- 50kA Sym - Interrupting Capability (Fuse)

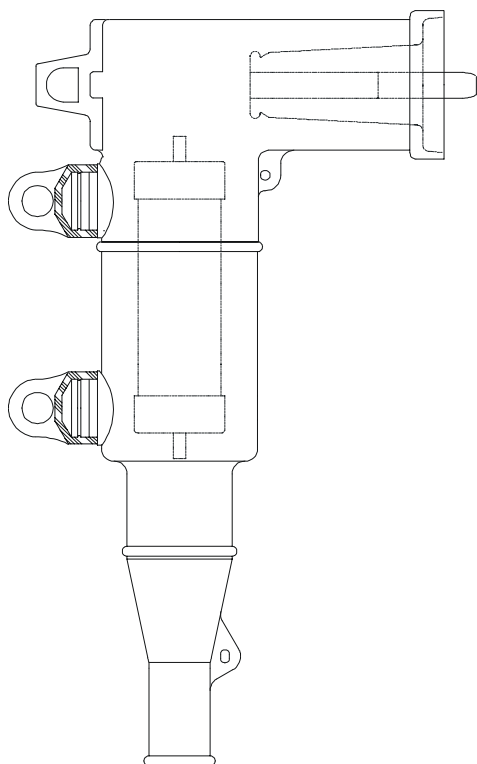
Applications

- Typical uses of fused elbows on underground distribution systems include the following:
 - Fusing of power/potential transformers, capacitor banks, motors and other equipment connections.
 - Fusing of sub-loops and radial taps from the main system to provide additional protection.
 - In sectionalizing cabinets combined with 3- and 4-way, 200 AMP junctions.
 - With reducing tap wells on 600 Amp splices in subsurface vaults.
 - In high fault current applications, requiring reduction of let-thru current.



Fused Elbow

166FLR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

166FLR — —

| |

Step 1 (W) Step 2 (X)

Cable Insulation Dia. Range		Elbow Code	Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
inches	mm			Stranded/Compr.	Solid/Compact
.610 - .735	15,5 – 18,7	FAB	2	220	210
.675 - .785	17,1 – 19,9	FB	1	230	220
.725 - .835	18,4 – 21,2	FG	1/0	240	230
.775 - .885	19,7 – 22,5	GA	2/0	250	240
.825 - .935	21,0 – 23,7	GAB	3/0	-	250

*Cu or Al conductor

The Fused Elbow kit contains the following:

- 1 – Upper elbow half 166BFLR-T
- 1 – Lower elbow half 166BFLR-W
- 1 – Upper connector 166-88
- 1 – Lower connector 02600X (TableR)
- 1 – Probe 166LRF
- 1 – Probe wrench 271-94
- 3 – Tube, lubricant 82-08
- 1 – Installation instruction IS-166FLR 9/92
- 1 – Crimp chart IS-02600CC (A) 4/94

Fuse Kit Catalog Number (to be ordered separately)
Determine the ampere rating required, Insert rating into the catalog number below.

The Fuse kit includes the following:

- 1 – Current limiting fuse 166PF8-X
- 1 – Allen wrench 650-14-2
- 1 – Air-release stick 166-81
- 1 – Installation sheet IS-166FLR 9/92

Table R

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	02600220	02600210
1	02600230	02600220
1/0	02600240	02600230
2/0	02600250	02600240
3/0	-	02600250

166PF8-

Voltage (kV) Rating	Ampere
8.3	5
	8
	12
	18
	30

Installation and Operating Instructions 166FLR Loadbreak Fused Elbow Connector

CONTENTS: Fuse Half Housing, Probe Half Housing, Fuse, Compression Lug with Spring, Probe, Probe Connector, Probe Wrench, Lubricant, Installation/Operating Instructions.

The 166FLR is designed to provide an in line 30 amp fuse while terminating UD cable having concentric neutral and extruded insulation shielding. The elbow provides an operating interface for connecting to an Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) 200 ampere loadbreak bushing or accessory device with fault close rating of 10,000 amperes RMS symmetrical. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding devices must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

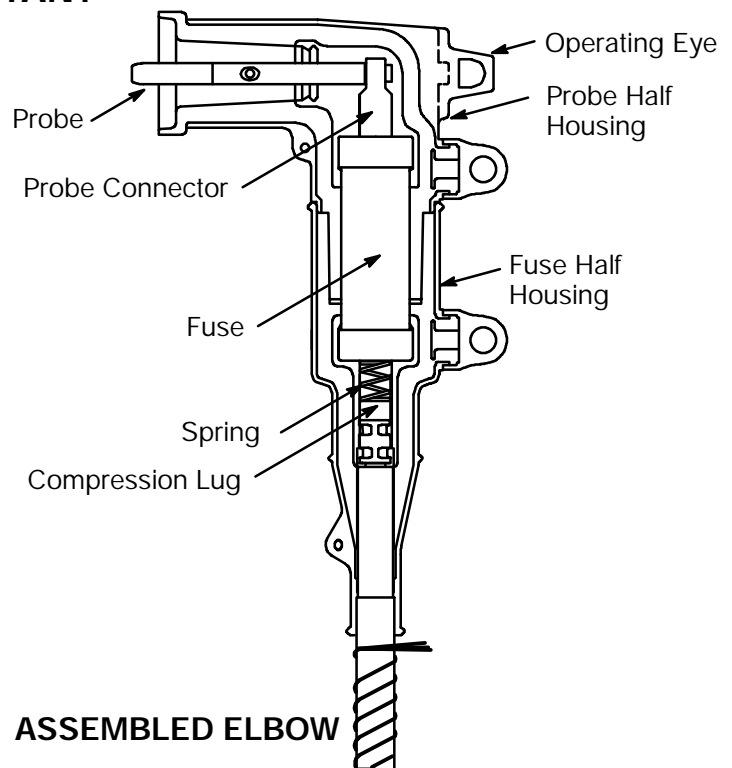
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

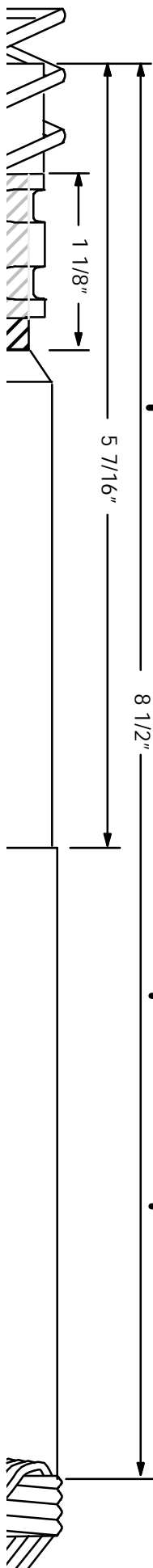
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

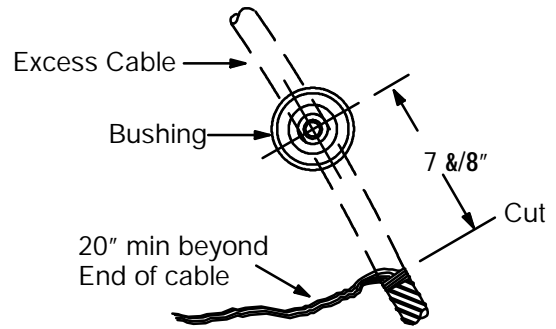


ELASTIMOLD



STEP 1 Cable Training

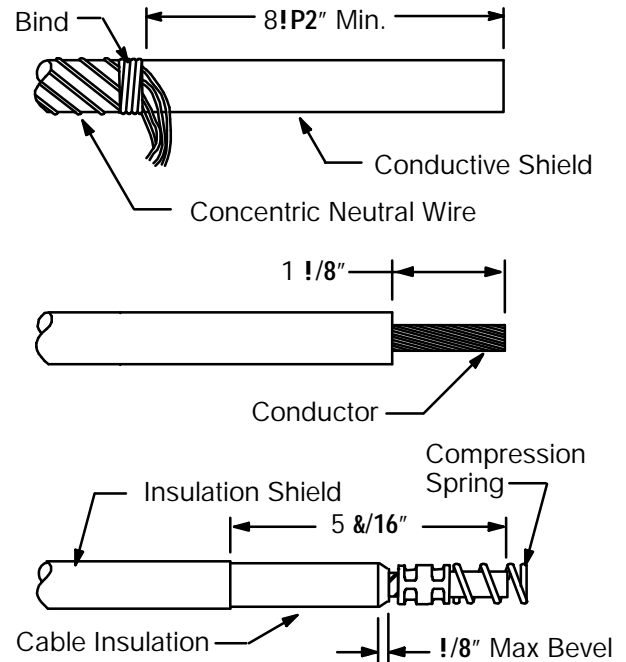
1. Train cable to ease operation.
2. Cut excess cable squarely as shown.



STEP 2 Cable Preparation

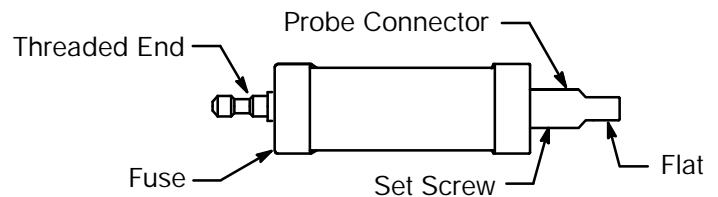
(Use cable cut back template for dimensional guide.)

1. Unwrap and bind concentric neutral wires 8 1/2" back from end of cable.
2. Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.
3. Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor. Crimp the unthreaded end of the compression lug to the conductor (refer to crimp chart packaged with the compression lug for recommended crimp tool information.) Start crimp at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.
4. Remove insulation shield as shown. Bevel insulation end 1/8" max.
5. Thoroughly clean insulation to remove all traces of conductive residue.



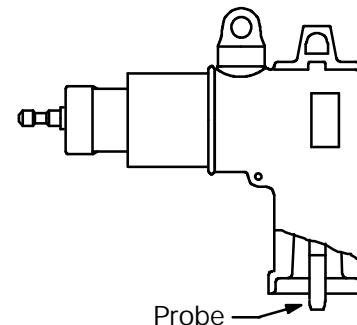
STEP 3

Assemble the probe connector to the fuse terminal, opposite the threaded end. Lock the probe connector in position by tightening the set screw with the Allen wrench supplied in the fuse kit.



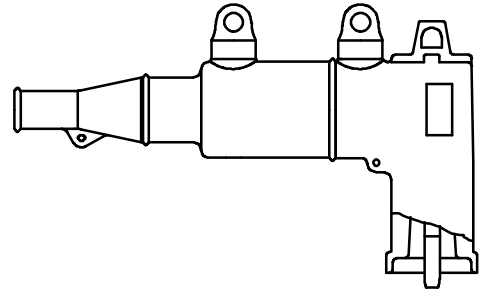
STEP 4

1. To install fuse, apply a small amount of silicone grease (use lubricant supplied, (DO NOT SUBSTITUTE) to the probe half of the fuse body and then assemble it to the probe half of the fused elbow making sure that the probe connector faces the opening of the fused elbow probe half.
2. Insert the probe into the probe connector. Start the threads by hand taking care not to cross thread the probe. To tighten use the special torque limiting wrench supplied. Insert the short end of the wrench into the hole in the probe; tighten until the wrench just begins to bend.



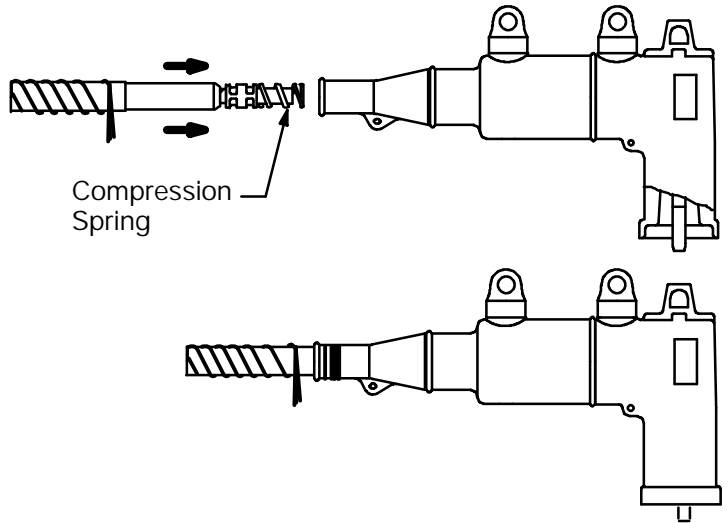
STEP 5

1. Apply silicone grease to cable half of fuse body, DO NOT APPLY TO THREADED TERMINAL.
2. Insert the threaded terminal end of fuse into the cable half of the fused elbow making sure the rubber surfaces butt. The two test points should be in line.



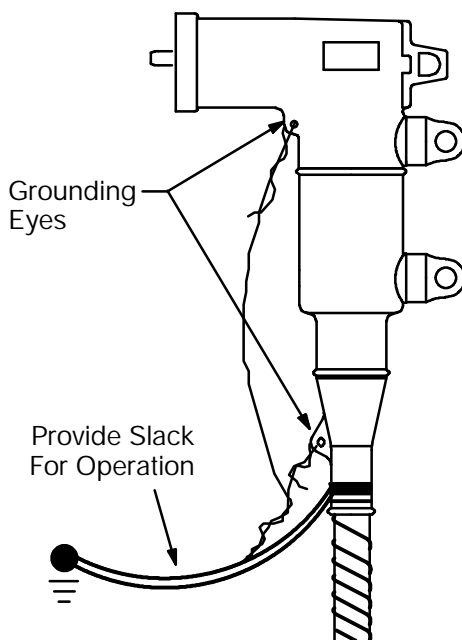
STEP 6

Apply silicone grease to the outside of the compression lug, cable insulation and conductive shield and the cable entrance of the elbow. Insert compression lug (with spring attached) and cable into the fused elbow. Rotate the fused elbow clockwise onto the cable and compression lug until completely threaded on and snug. Align fused elbow with bushing by rotating the elbow counterclockwise as necessary.



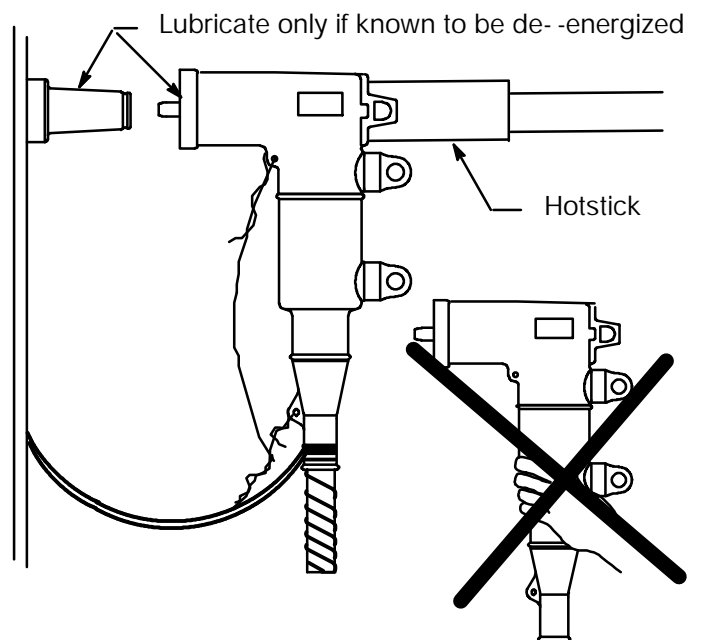
STEP 7 Concentric Neutral Connection

1. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through each grounding eye on the elbow. Twist tight taking care not to damage eye.
2. Twist neutral wires and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.



STEP 8 Connect Elbow and Bushing Plug

1. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.
2. Operate per following instructions. **DO NOT OPERATE BY HAND.**



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type of tool.

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2" apart).
NOTE: DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION.
Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing insert must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

VOLTAGE TEST ON 166FLR

The ELASTIMOLD loadbreak fused elbow connector is equipped with two integral capacitance test points that can be used to establish whether either end of the fuse is energized. When making a measurement, complete the following steps for both test points:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT. WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED ELBOW. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE ELBOW AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.**
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.

REPLACING CLEARED FUSE

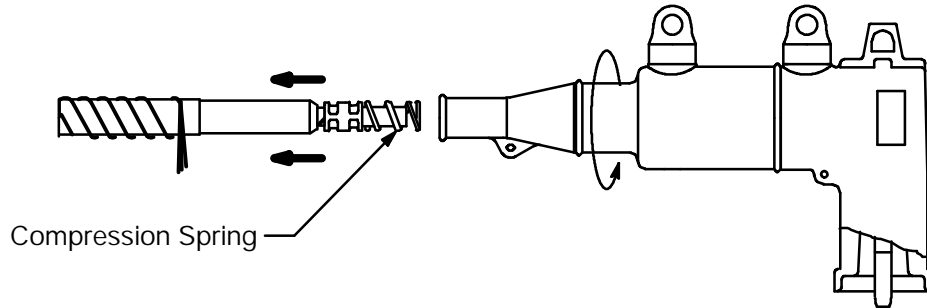
DANGER: DO NOT ATTEMPT TO REPLACE THE FUSE IF THE FUSED ELBOW IS ENERGIZED, THIS WILL RESULT IN SERIOUS OR FATAL INJURY.

1. With the de-energized elbow removed from the bushing use the torque limiting wrench to remove the probe.
2. Insert a vent stick between the Fused Elbow fuse half and probe half to aid separation of the halves.
3. Remove the probe connector from the fuse by loosening the Allen setscrew.
4. Unscrew the cleared fuse by hand from the fuse half.
5. Install new fuse as shown on page 5 of this instruction sheet.

INSTRUCTIONS FOR REPLACING FUSE

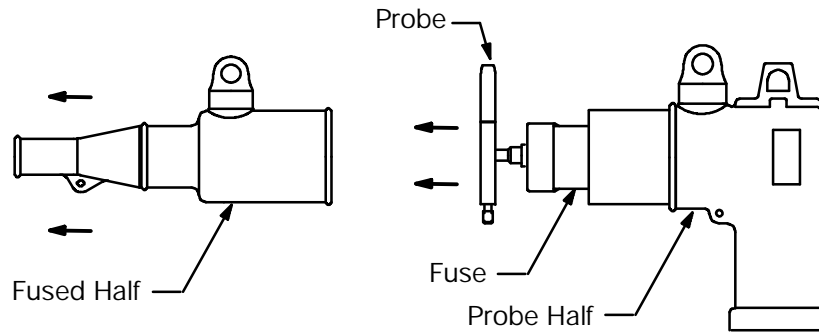
STEP A

1. Remove fused elbow from cable by rotating counter clockwise unthreading compression lug from threaded stud of fuse, replace compression spring on lug, if remove.
2. Use the torque limiting wrench to remove the probe.



STEP B

Remove the fused half of elbow exposing threaded stud of fuse. Thread probe onto fuse stud and pull fuse from probe half of fused elbow.



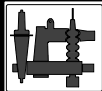
STEP C

Install new fuse as shown in Steps 3, 4, 5, and 6 of this instruction sheet.



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2094
A Division of Amerace Corporation

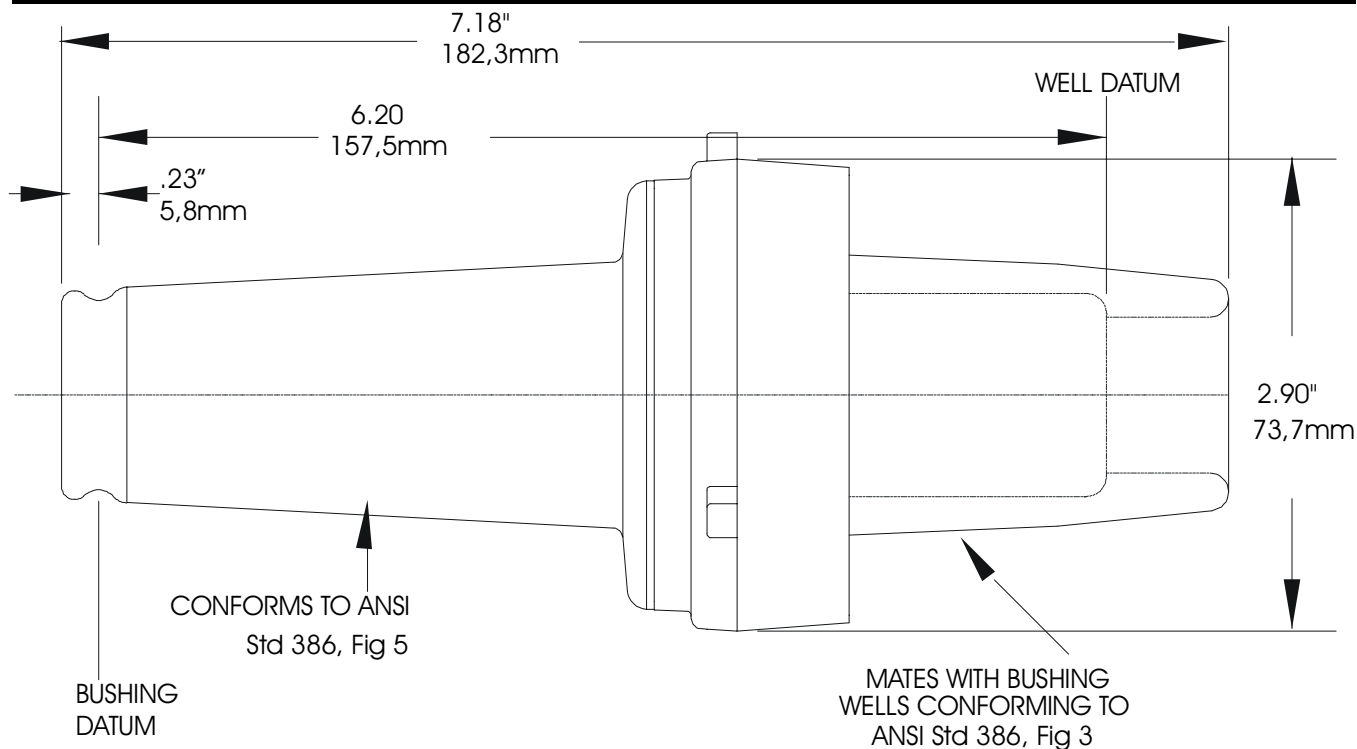


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Bushing Insert

ELASTIMOLD PART NUMBER

1601A4

The Elastimold 1601A4 bushing insert is fully rated with a 15kV class, 200 Amp load break bushing interface. The load-break bushing insert fits a standard ANSI bushing well interface and becomes the apparatus bushing interface for elbow connections.

Features:

- 15kV, 200 Amp loadbreak rated.
- Includes hex-broach for torque installation.
- Peroxide-cured insulation and jacket.
- Provision for ground wire connection.

Ordering Instruction:

To order, specify number **1601A4** bushing insert.

The 1601A4 bushing insert includes the following:

1 – Bushing insert	1601A4
1 – Protective shipping cap	1601-APC-1
1 – Lubricant	82-08
1 – Installation instruction	IS-1601-A4 (A) 7/90

Ratings

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

34kV AC - One minute Withstand

53kV DC - 15 Minutes Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

Applications:

It may be used as the bushing interface for connecting shielded cable to the following:

- | | |
|----------------------------|--------------|
| * Sub-surface transformers | * Generators |
| * Pad mounted transformers | * Switchgear |
| * Regulators | * Reclosers |

Designed for use as an apparatus bushing interface, the 1601A4 is easily installed in an ELASTIMOLD universal bushing well and mated with an appropriate ELASTIMOLD product.

Installation Instructions 1601A4 Loadbreak Bushing Insert

CONTENTS: 1--Loadbreak Bushing Insert, Lubricant (DO NOT SUBSTITUTE), 1--Installation Instruction

The 1601A4 is designed to provide the apparatus interface for Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak connections.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

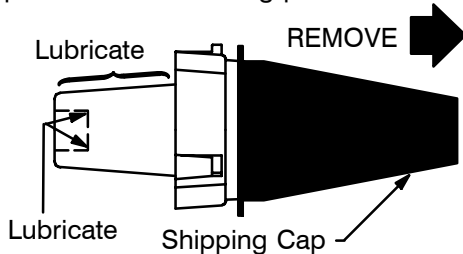
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

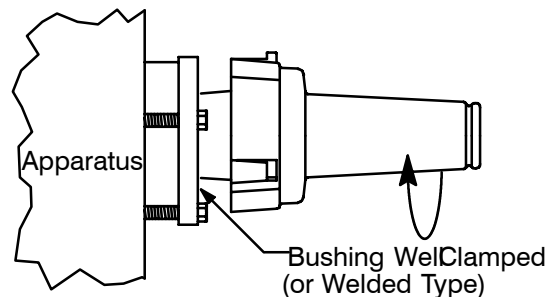
STEP 1

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Remove the protective shipping cap from the bushing insert. Lubricate the bushing well interface area of the bushing insert with the supplied lubricant or ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products.



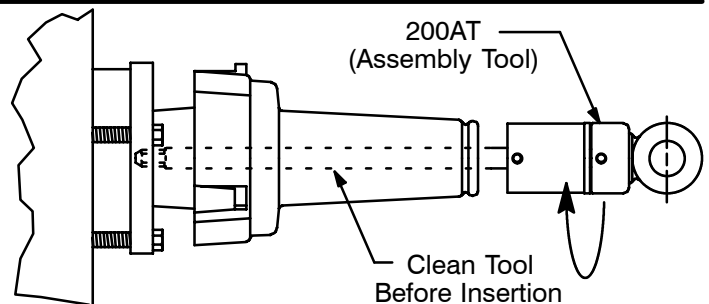
STEP 2

Place the lubricated portion of the bushing insert in the apparatus bushing well. Hand tighten the bushing insert in a clockwise direction until it bottoms.



STEP 2 -- ALTERNATE

Place the lubricated portion of the bushing insert in the apparatus bushing well. Insert 200AT assembly tool in bore of bushing insert until fully seated. Insert suitable rod through the eye of the tool and turn in a clockwise direction. Continue to rotate the eye of the 200AT until it begins to ratchet signifying the proper assembly torque has been reached. Remove 200AT from bushing insert.



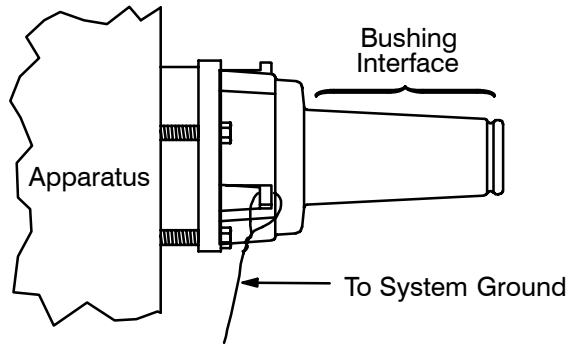
Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

STEP 3

Push a length of copper wire (No. 14 AWG (2,5mm²) or equivalent) through one of the grounding tabs on the bushing insert. Make a small loop and twist tight, taking care not to damage the grounding tab. Connect free end of electrostatic grounding wire to the system ground using a suitable connector.

The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

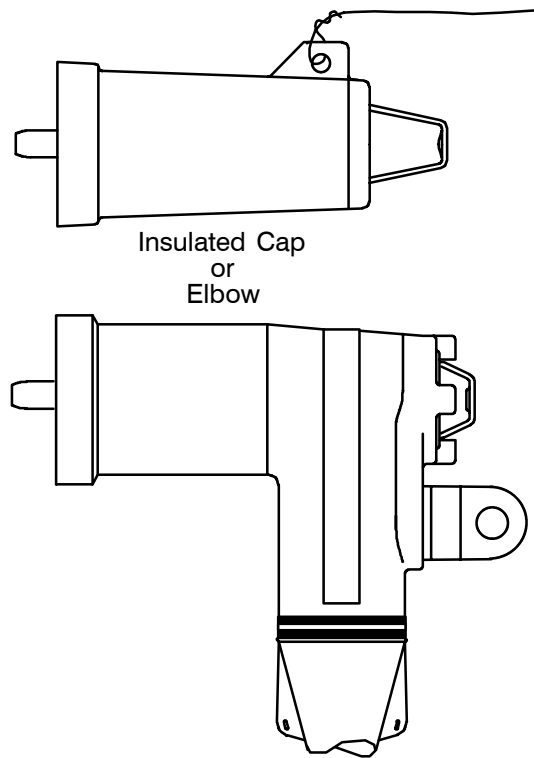
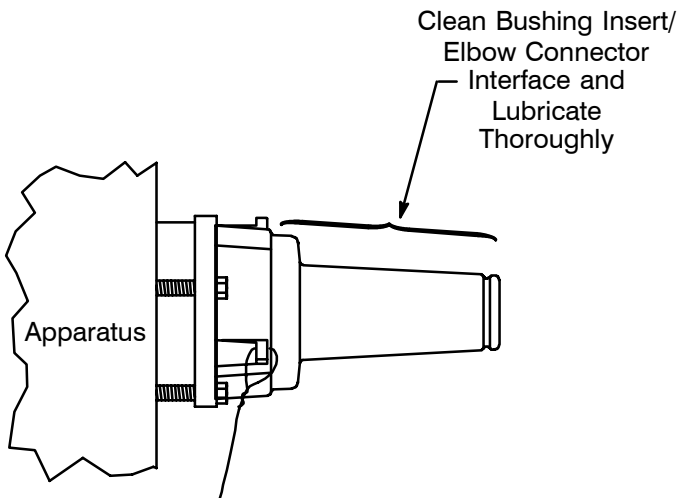
This step provides assurance that the insulation shield on the bushing insert is grounded.



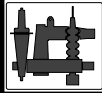
STEP 4

Thoroughly wipe the bushing interface clean of any contaminants and lubricate with the supplied lubricant. Install the mating products to the bushing insert following the instructions supplied with the mating products. **If the bushing insert is not to be immediately mated with an elbow connector, insulated cap or grounding elbow**

connector, replace the shipping cap. Do not energize or submerge the apparatus with the shipping cap on the bushing insert. This is a protective cap only which is not insulated or water tight and only intended to keep the bushing surfaces clean during handling and installation.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

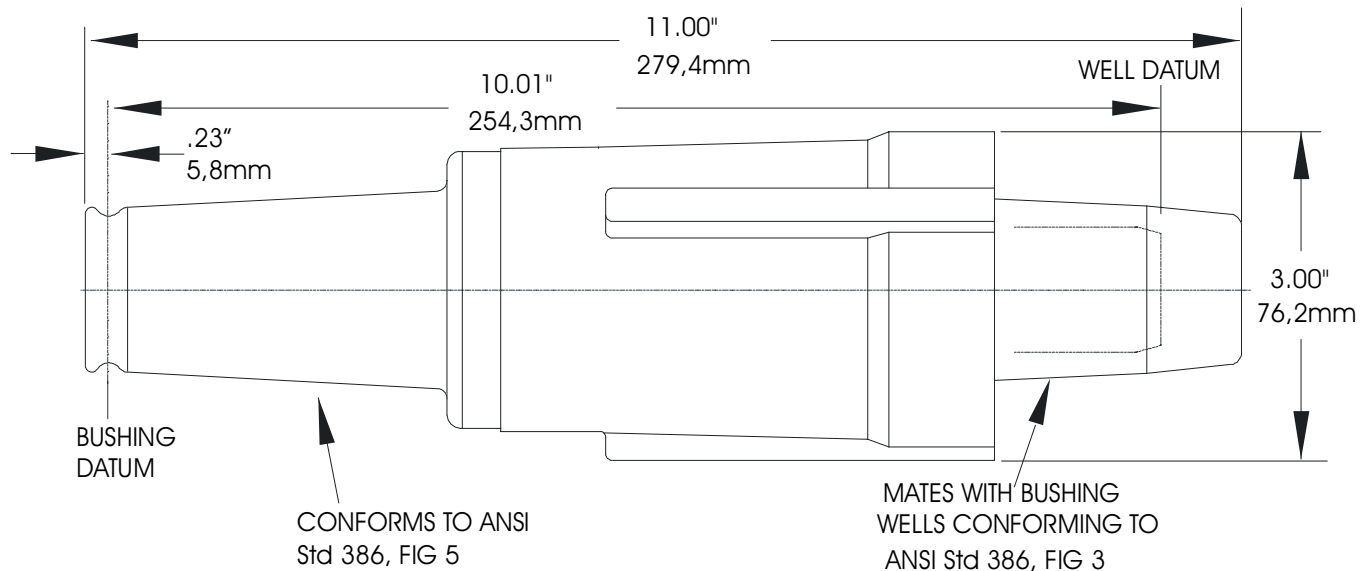


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Extended Bushing Insert

ELASTIMOLD PART NUMBER

1601EA4

The Elastimold 1601EA4 Extended Bushing Insert is fully rated with a 15kV class, 200 Amp load break bushing interface. The loadbreak bushing insert fits a standard ANSI bushing well interface and becomes the apparatus bushing interface for elbow connections.

Features

- The 1601EA4 is 3 3/4" (95mm) longer than the standard 1601A4 Bushing Insert.
- 15kV 200 Amp loadbreak rated.
- Includes hex-broach for torque installation.
- Peroxide-cured insulation and jacket.
- Provision for ground wire connection.

Ordering Instructions:

To order, specify number **1601EA4** bushing insert.

The 1601EA4 bushing insert includes the following:

1 – Bushing insert	1601EA4
1 – Protective shipping cap	1601-APC-1
1 – Lubricant	82-08
1 – Installation instruction	IS-1601EA4 10/93

Ratings

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

34kV AC - One minute Withstand

53kV DC - 15 Minute Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

Applications

Using the 1601EA4 moves the primary cables further away from the faceplate of a low profile transformer to prevent the secondary cables from interfering with the primary cables.

Installation Instructions 1601EA4 Loadbreak Bushing Insert

CONTENTS: Loadbreak Bushing Insert, Lubricant (DO NOT SUBSTITUTE), Installation Instructions.

The 1601EA4 is designed to provide the apparatus interface for Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak connections.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove the shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

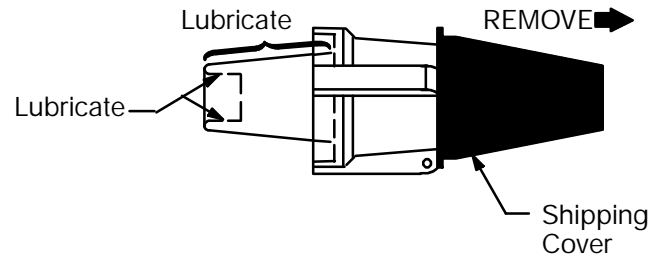
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

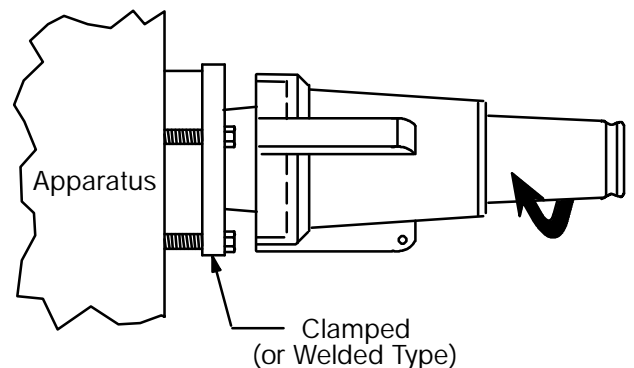
STEP 1

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Remove the protective shipping cap from the bushing insert. Lubricate the bushing well interface area of the bushing insert with the supplied lubricant or ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products.



STEP 2

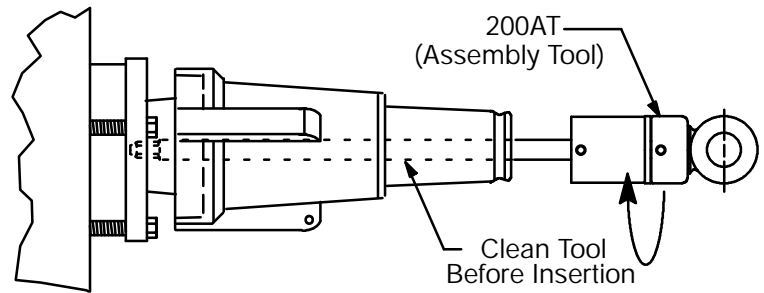
Place the lubricated portion of the bushing insert in the apparatus bushing well. Hand tighten the bushing insert in a clockwise direction until it bottoms.



ELASTIMOLD

STEP 2 ALTERNATE

Place the lubricated portion of the bushing insert in the apparatus bushing well. Insert 200AT assembly tool in bore of bushing insert until fully seated. Insert suitable rod through the eye of the tool and turn in a clockwise direction. Continue to rotate the eye of the 200AT until it begins to ratchet signifying the proper assembly torque has been reached. Remove 200AT from bushing insert.

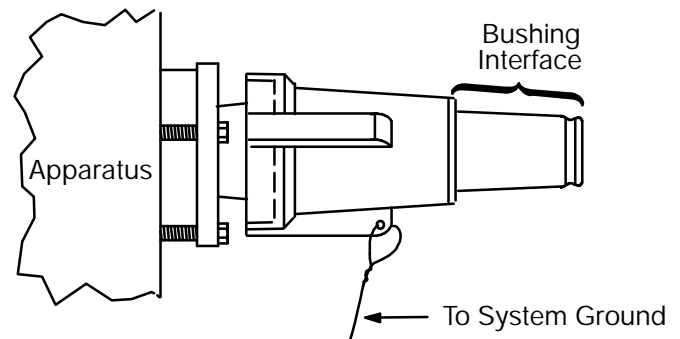


STEP 3

Push a length of copper wire (No. 14 AWG (2,5mm ϕ) or equivalent) through one of the grounding tabs on the bushing insert. Make a small loop and twist tight, taking care not to damage the grounding tab. Connect free end of electrostatic grounding wire to the system ground using a suitable connector.

The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

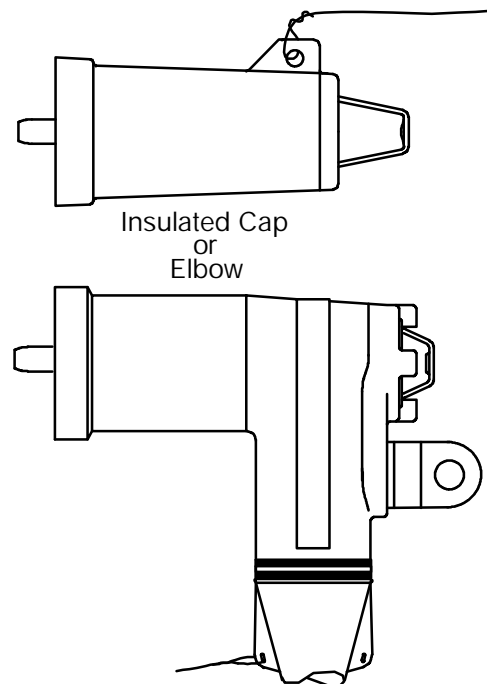
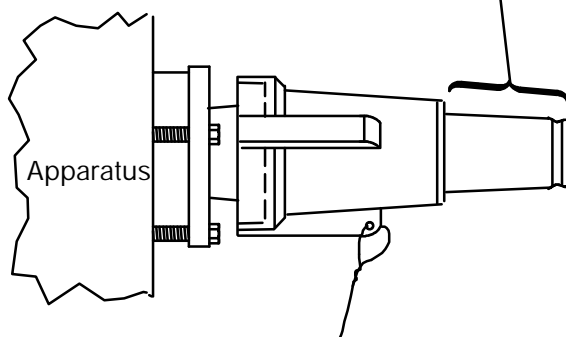
This step provides assurance that the insulation shield on the bushing insert is grounded.

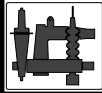


STEP 4

Thoroughly wipe the bushing interface clean of any contaminants and lubricate with the supplied lubricant. Install the mating products to the bushing insert following the instructions supplied with the mating products. **If the bushing insert is not to be immediately mated with an elbow connector, insulated cap or grounding elbow connector, replace the shipping cap. Do not energize or submerge the apparatus with the shipping cap on the bushing insert.** This is a protective cap only which is not insulated or water tight and only intended to keep the bushing surfaces clean during handling and installation.

Clean Bushing Insert/Elbow Connector Interface and Lubricate Thoroughly

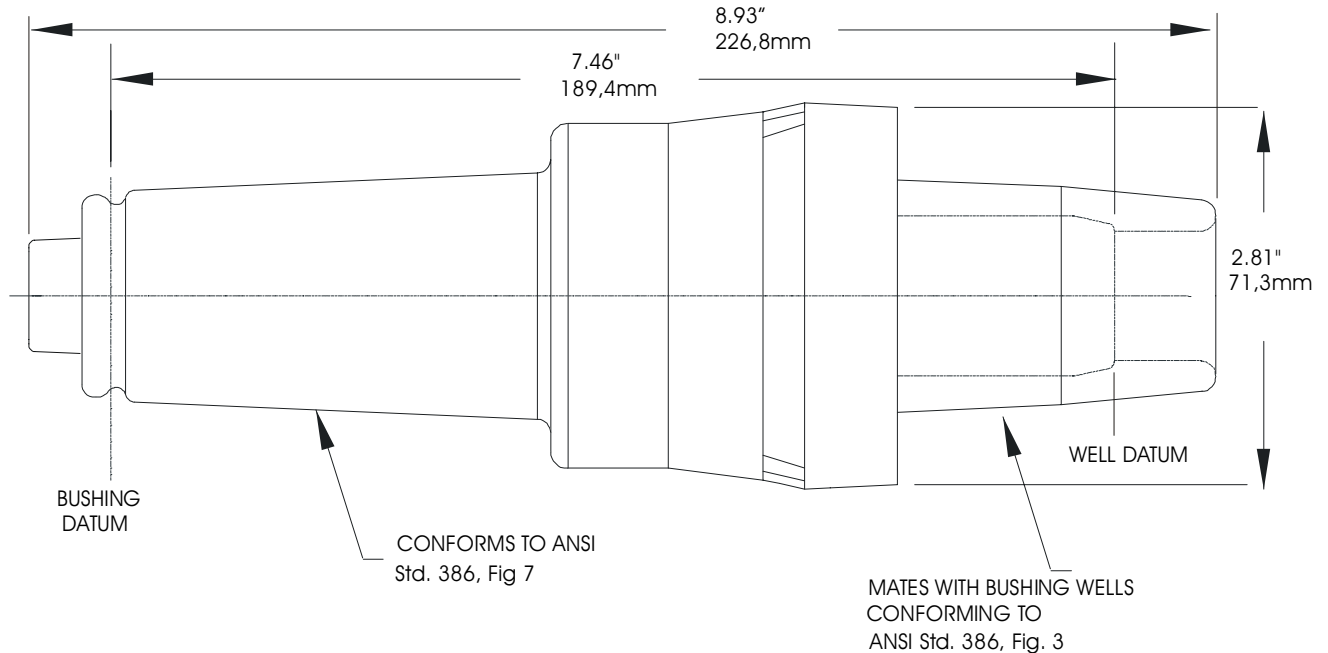




PRODUCT SPECIFICATION SHEET

DESCRIPTION
25kV 200A Loadbreak Bushing Insert

ELASTIMOLD PART NUMBER
2701A4



The Elastimold 2701A4 bushing insert is fully rated with a 25kV class, 200 Amp load break bushing interface. The load-break bushing insert fits a standard ANSI bushing well interface and becomes the apparatus bushing interface for elbow connections.

Features

- 25kV 200 Amp loadbreak rated.
- Includes hex-broach for torque installation.
- Peroxide-cured insulation and jacket.
- Provision for ground wire connection.

Ordering Instrucion:

To order, specify number **2701A4** bushing insert.

The 2701A4 bushing insert includes the following:

1 – bushing insert	2701A4
1 – Protective shipping cap	2701-41
1 – Lubricant	82-08
1 – Installation instruction	IS-2701-A4 (A) 11/95

Ratings

per ANSI/IEEE Standard 386

25kV Voltage Class

15.2kV Max Phase-to-Ground - Operating Voltage

26.3kV Max Phase-to-Phase

125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

40kV AC - One minute Withstand

78kV DC - 15 Minutes Withstand

19kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

Applications

It may be used as the bushing interface for connecting shielded cable to the following:

- * Sub-surface transformers
- * Pad mounted transformers
- * Regulators
- * Generators
- * Switchgear
- * Reclosers

Designed for use as an apparatus bushing interface, the 2701A4 is easily installed in an ELASTIMOLD universal bushing well and mated with an appropriate ELASTIMOLD product.

Installation Instructions 2701A4 Loadbreak Bushing Insert

CONTENTS: 1--Loadbreak Bushing Insert, 1--Lubricant, 1--Installation Instruction

The 2701A4 is designed to provide the apparatus interface for Elastimold 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) loadbreak connections.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

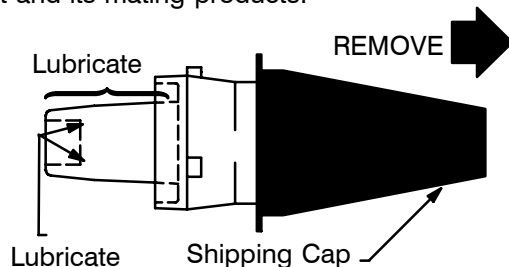
Failure to follow these instructions could result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

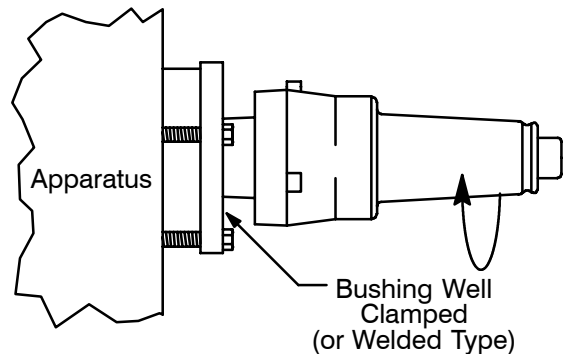
STEP 1

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Remove the protective shipping cap from the bushing insert. Lubricate the bushing well interface area of the bushing insert with the supplied lubricant or ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products.



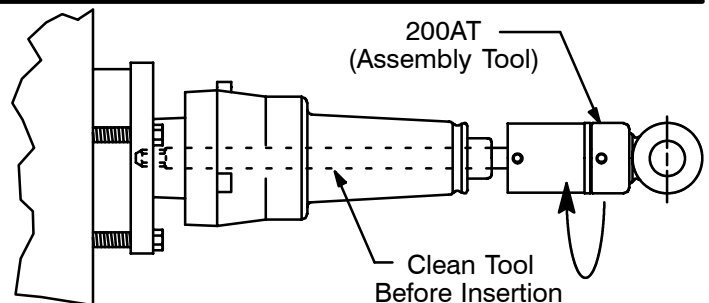
STEP 2

Place the lubricated portion of the bushing insert in the apparatus bushing well. Hand tighten the bushing insert in a clockwise direction until it bottoms.



STEP 2 -- ALTERNATE

Place the lubricated portion of the bushing insert in the apparatus bushing well. Insert 200AT assembly tool in bore of bushing insert until fully seated. Insert suitable rod through the eye of the tool and turn in a clockwise direction. Continue to rotate the eye of the 200AT until it begins to ratchet signifying the proper assembly torque has been reached. Remove 200AT from bushing insert.

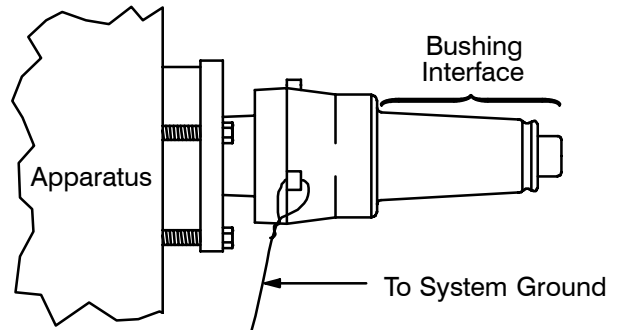


STEP 3

Push a length of copper wire (No. 14 AWG (2,5mm²) or equivalent) through one of the grounding tabs on the bushing insert. Make a small loop and twist tight, taking care not to damage the grounding tab. Connect free end of electrostatic grounding wire to the system ground using a suitable connector.

The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

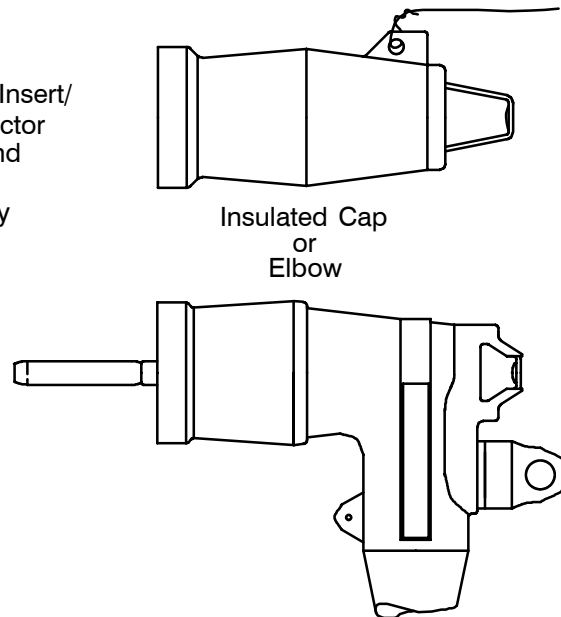
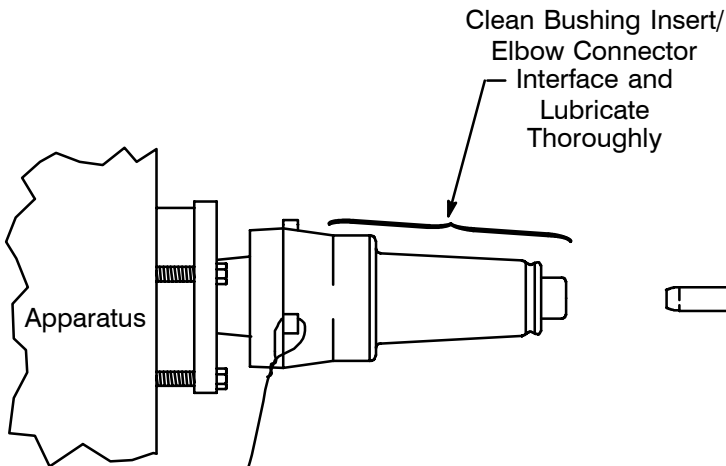
This step provides assurance that the insulation shield on the bushing insert is grounded.



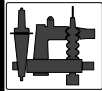
STEP 4

Thoroughly wipe the bushing interface clean of any contaminants and lubricate with the supplied lubricant. Install the mating products to the bushing insert following the instructions supplied with the mating products. **If the bushing insert is not to be immediately mated with an elbow connector, insulated cap or grounding elbow connector,**

replace the shipping cap. Do not energize or submerge the apparatus with the shipping cap on the bushing insert. This is a protective cap only which is not insulated or water tight and only intended to keep the bushing surfaces clean during handling and installation.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

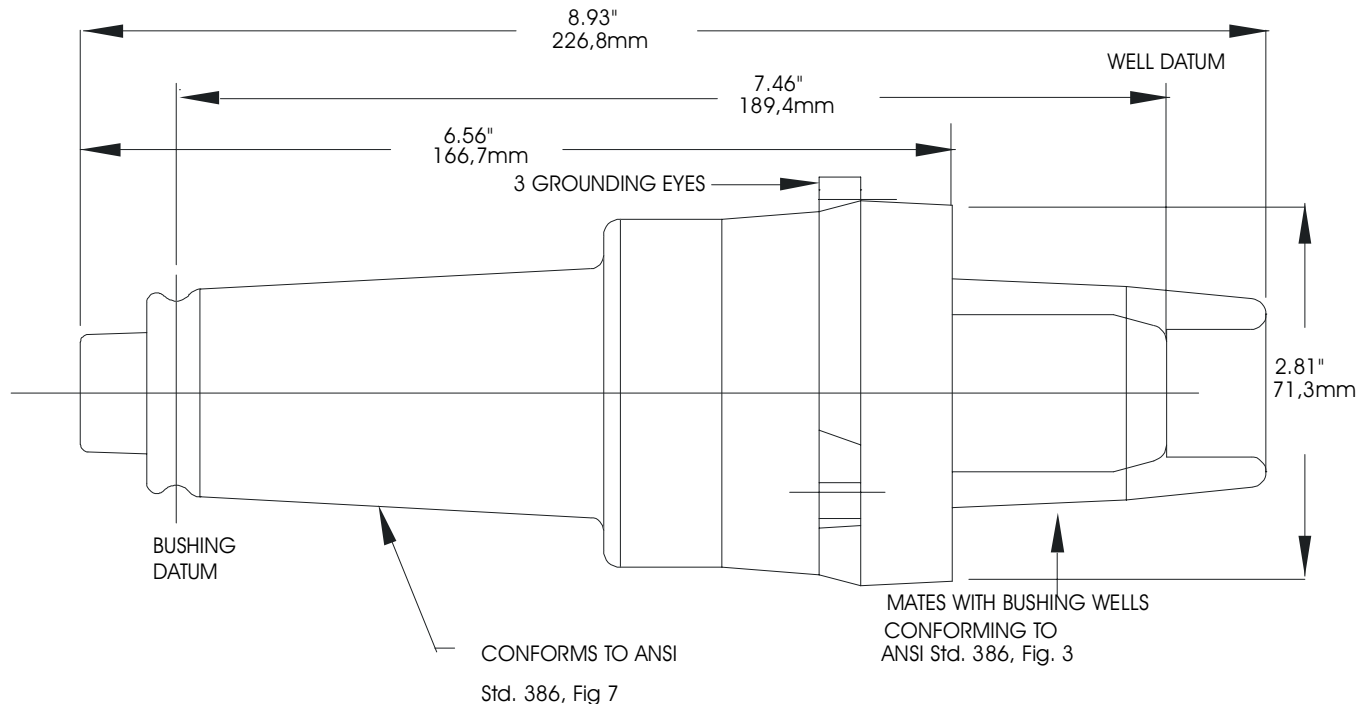


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 200A Loadbreak Bushing Insert

ELASTIMOLD PART NUMBER

3701A4

The Elastimold 3701A4 bushing insert is 1 Ø rated with a 35kV class, 200 Amp load break bushing interface. The load-break bushing insert fits a standard ANSI bushing well interface and becomes the apparatus bushing interface for elbow connections.

Features

- Rated for 1 Ø switching.
- 35kV, 200 Amp loadbreak rated.
- Includes hex-broach for torque installation.
- Peroxide-cured insulation and jacket.
- Provision for ground wire connection.

Ordering Instructions:

To order, specify number **3701A4** bushing insert.

The 3701A3 bushing insert includes the following:

1 – Bushing insert	3701A4
1 – Protective shipping cap	2701-41
1 – Lubricant	82-08
1 – Installation instruction	IS-3701A4 8/92

Ratings

per ANSI/IEEE Standard 386

35kV Voltage Class, 1 Ø.

21.1kV Max Phase-to-Ground - Operating Voltage

150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

50kV AC - One minute Withstand

103kV DC - 15 Minute Withstand

26kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

Applications

It may be used as the bushing interface for connecting shielded cable to the following:

- | | |
|----------------------------|--------------|
| * Sub-surface transformers | * Generators |
| * Pad mounted transformers | * Switchgear |
| * Regulators | * Reclosers |

Designed for use as an apparatus bushing interface, the 3701A4 is easily installed in an ELASTIMOLD universal bushing well and mated with an appropriate ELASTIMOLD product.

Installation Instructions 3701A4 Loadbreak Bushing Insert

CONTENTS: Loadbreak Bushing Insert, Lubricant, Installation Instructions.

The 3701A4 is designed to provide the apparatus interface for Elastimold single-phase 35kV class (21.1kV phase-to-ground) loadbreak connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

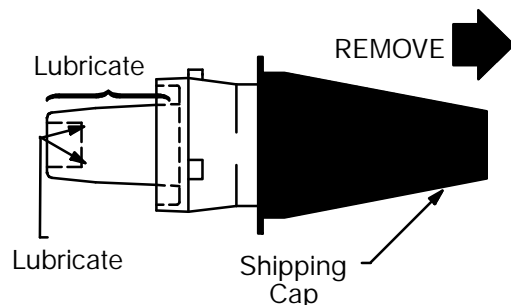
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

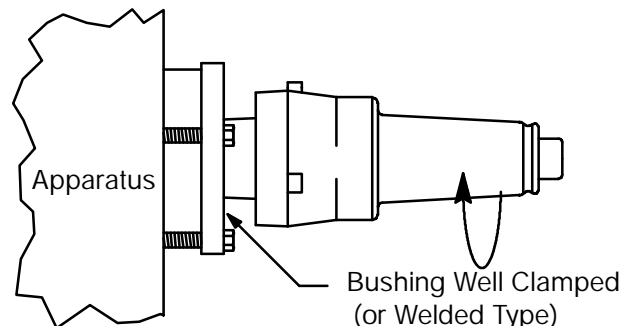
STEP 1

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Remove the protective shipping cap from the bushing insert. Lubricate the bushing well interface area of the bushing insert with the supplied lubricant or ELASTIMOLD approved lubricants. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating products.



STEP 2

Place the lubricated portion of the bushing insert in the apparatus bushing well. Hand tighten the bushing insert in a clockwise direction until it bottoms.



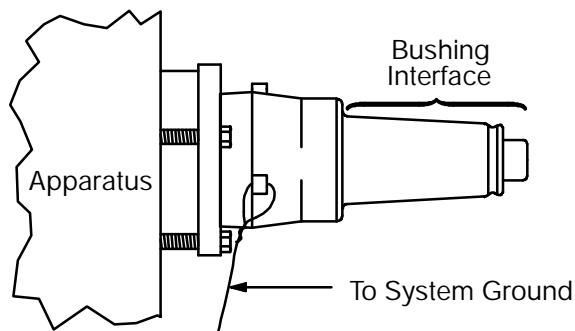
ELASTIMOLD

STEP 3

Push a length of copper wire (No. 14 AWG (2,5mm ϕ) or equivalent) through one of the grounding tabs on the bushing insert. Make a small loop and twist tight, taking care not to damage the grounding tab. Connect free end of electrostatic grounding wire to the system ground using a suitable connector.

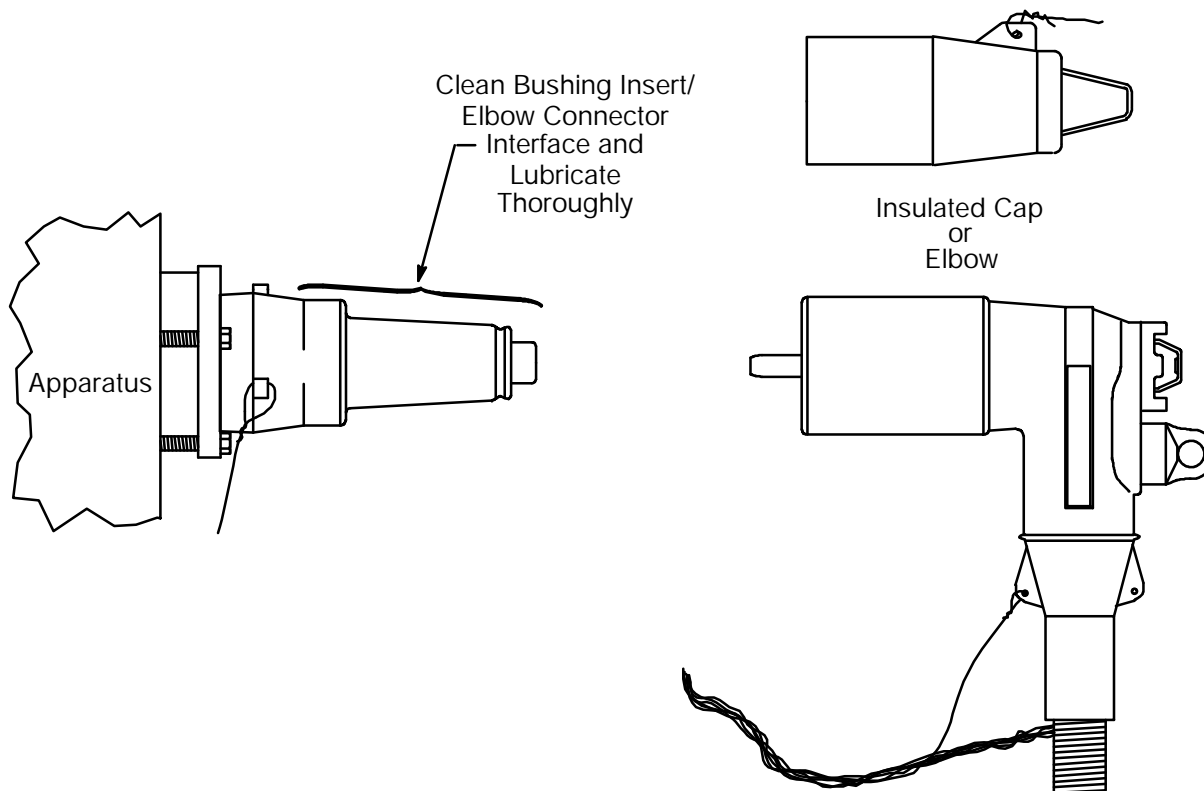
The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

This step provides assurance that the insulation shield on the bushing insert is grounded.

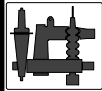


STEP 4

Thoroughly wipe the bushing interface clean of any contaminants and lubricate with the supplied lubricant. Install the mating products to the bushing insert following the instructions supplied with the mating products. **If the bushing insert is not to be immediately mated with an elbow connector, insulated cap or grounding elbow connector, replace the shipping cap. Do not energize or submerge the apparatus with the shipping cap on the bushing insert.** This is a protective cap only which is not insulated or water tight and only intended to keep the bushing surfaces clean during handling and installation.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2094
A Unit of Eagle Industries, Inc.



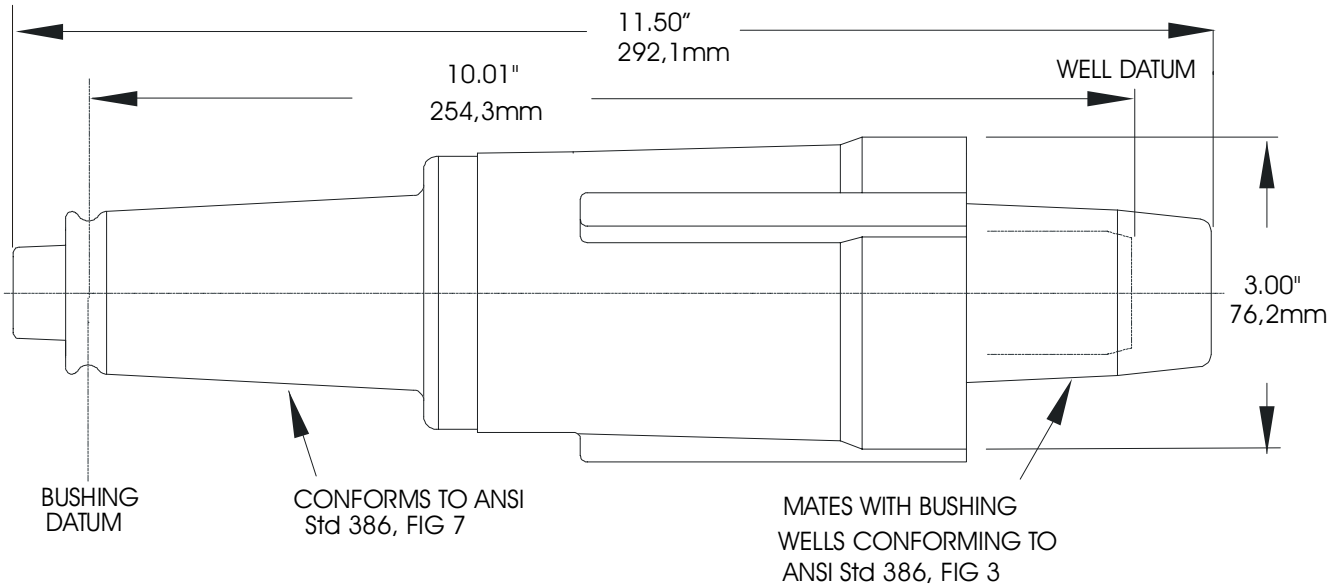
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

35kV 200A Loadbreak Bushing Insert

ELASTIMOLD PART NUMBER

3701A3

The Elastimold 3701A3 bushing insert is fully rated with a 35kV class, 200 Amp load break bushing interface. The loadbreak bushing insert fits a standard ANSI bushing well interface and becomes the apparatus bushing interface for elbow connections.

Features

- Fully rated for 1 Ø and 3 Ø 35kV switching.
- 35kV, 200 Amp loadbreak rated
- Includes hex-broach for torque installation.
- Peroxide-cured insulation and jacket.
- Provision for ground wire connection.

Ordering Instruction:

To order, specify number **3701A3** bushing insert.

The 3701A3 bushing insert includes the following:

1 – Bushing insert	3701A3
1 – Protective shipping cap	2701-41
1 – Lubricant	82-08
1 – Installation instruction	IS-3701A3 6/96

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minute Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

It may be used as the bushing interface for connecting shielded cable to the following:

- * Sub-surface transformers
- * Pad mounted transformers
- * Regulators
- * Generators
- * Switchgear
- * Reclosers

Designed for use as an apparatus bushing interface, the 3701A3 is easily installed in an ELASTIMOLD universal bushing well and mated with an appropriate ELASTIMOLD product.

Installation Instructions 3701A3 Loadbreak Bushing Insert

CONTENTS: Loadbreak Bushing Insert, Lubricant (Do Not Substitute), Installation Instructions.

The 3701A3 is designed to provide the apparatus interface for Elastimold 35KV class (21.1kV phase-to-ground and 36.6kV phase-to-phase) loadbreak connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

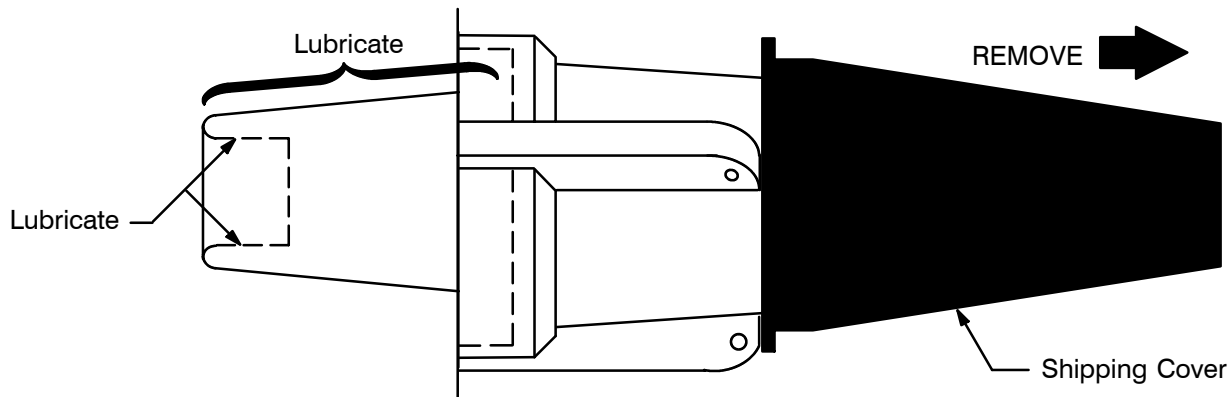
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

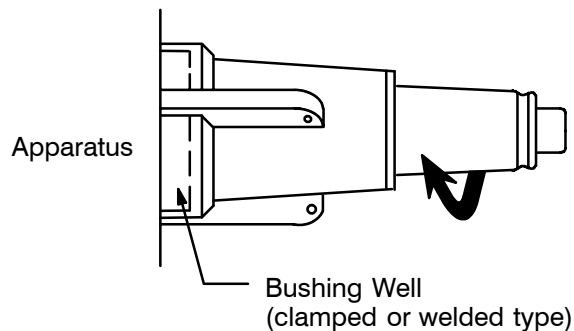
STEP 1

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Remove the protective shipping cap from the bushing insert. Lubricate the bushing well interface area of the bushing insert with the supplied lubricant or ELASTIMOLD approved lubricant. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating products.



STEP 2

Place the lubricated portion of the bushing insert in the apparatus bushing well. Hand tighten the bushing insert in a clockwise direction until it bottoms.

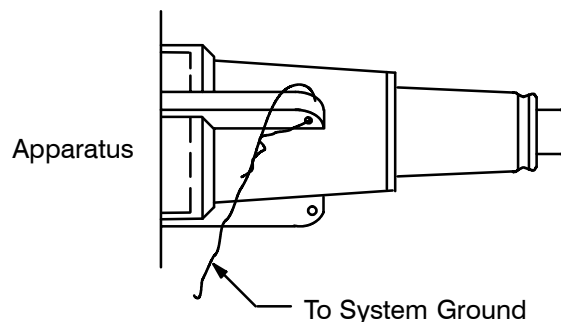


STEP 3

Push a length of copper wire, No. 14 AWG (2,5mm²) or equivalent, through one of the grounding tabs on the bushing insert. Make a small loop and twist tight, taking care not to damage the grounding tab. Connect free end of electrostatic grounding wire to the system ground using a suitable connector.

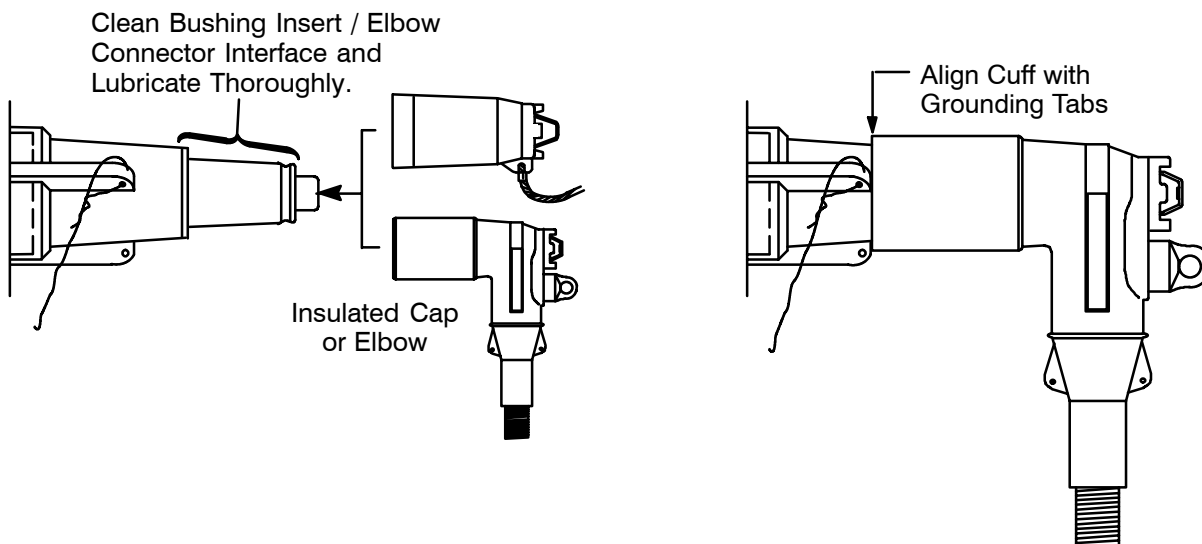
The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

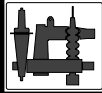
This step provides assurance that the insulation shield on the bushing insert is grounded.



STEP 4

Thoroughly wipe the bushing interface clean of any contaminants and lubricate with the supplied lubricant. Install the mating products to the bushing insert following the instructions supplied with the mating products. **Complete assembly of an elbow is indicated by alignment of the end of the elbow cuff with the ground tab of the bushing insert. If the bushing insert is not to be immediately mated with an elbow connector, insulated cap or grounding elbow connector, replace the shipping cover. Do not energize or submerge the apparatus with the shipping cap on the bushing insert.** This is a protective cap only which is not insulated or water tight and only intended to keep the bushing surfaces clean during handling and installation.



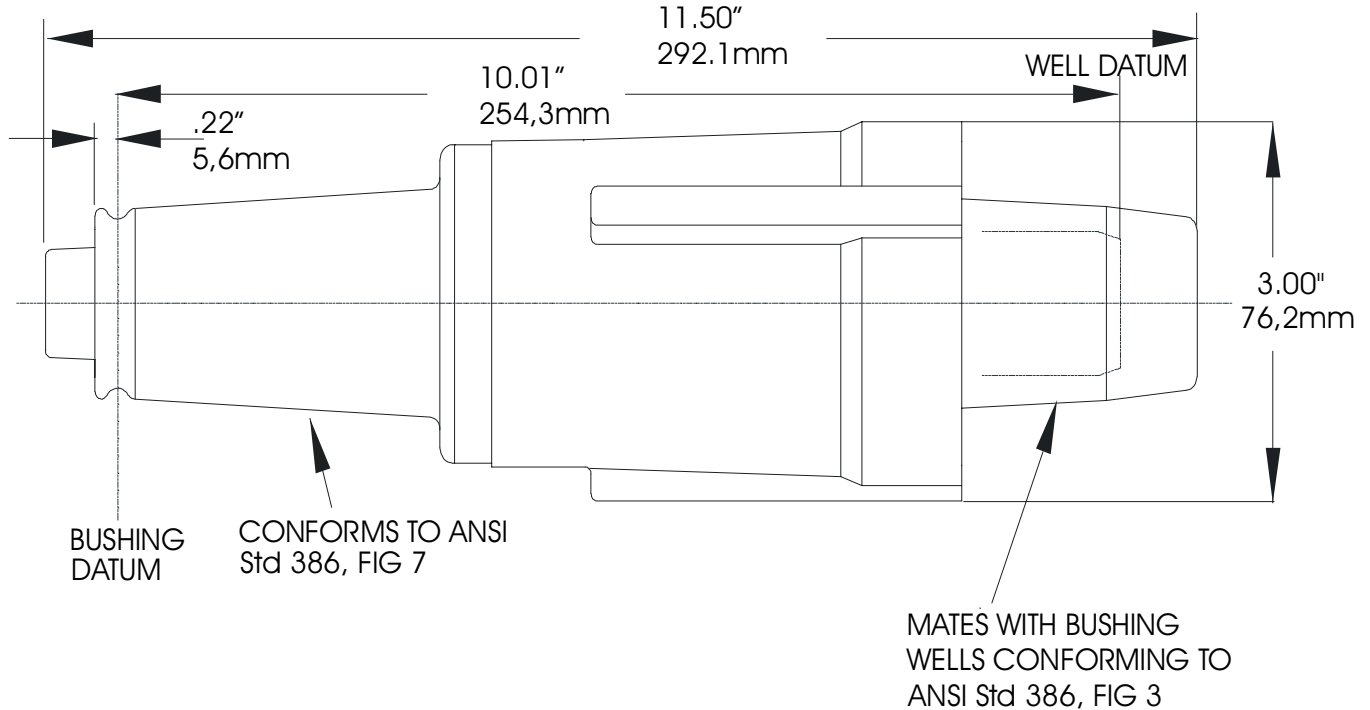


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Extended Bushing Insert

ELASTIMOLD PART NUMBER

2701EA4

The Elastimold 2701EA4 Extended Bushing Insert is fully rated with a 25kV class, 200 Amp load break bushing interface. The loadbreak bushing insert fits a standard ANSI bushing well interface and becomes the apparatus bushing interface for elbow connections.

Features

- The 2701EA4 is 3" (76,2mm) longer than the standard 2701A4 Bushing Insert.
- 25kV 200 Amp loadbreak rated.
- Includes hex-broach for torque installation.
- Peroxide-cured insulation and jacket.
- Provision for ground wire connection.

Ordering Instructions:

To order, specify number **2701EA4** bushing insert.

The 2701EA4 bushing insert includes the following:

1 – Bushing insert	2701EA4
1 – Protective shipping cap	2701-41
1 – Lubricant	82-08
1 – Installation instruction	IS-2701EA4 10/93

Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minute Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

Using the 2701EA4 moves the primary cables further away from the faceplate of a low profile transformer to prevent the secondary cables from interfering with the primary cables.

Installation Instructions 2701EA4 Loadbreak Bushing Insert

CONTENTS: Loadbreak Bushing Insert, Tube, Lubricant (DO NOT SUBSTITUTE), Installation Instructions.

The 2701EA4 is designed to provide the apparatus interface for Elastimold 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) loadbreak connections.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove the shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

IMPORTANT

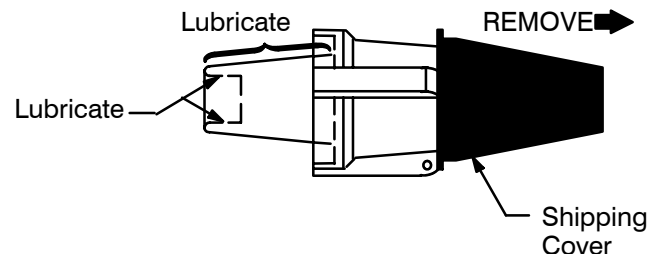
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.

4. Have all required tools at hand and maintain cleanliness throughout the procedure.

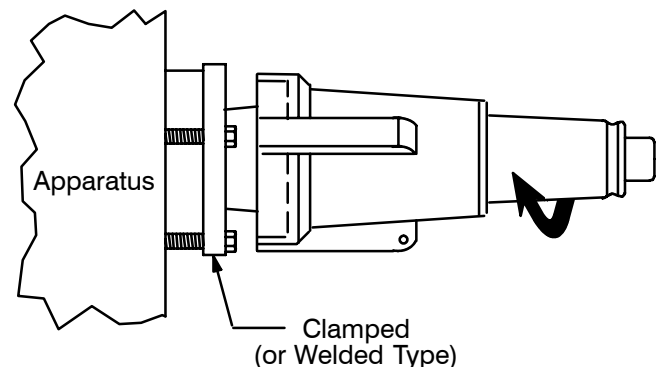
STEP 1

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Remove the protective shipping cap from the bushing insert. Lubricate the bushing well interface area of the bushing insert with the supplied lubricant or ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products.



STEP 2

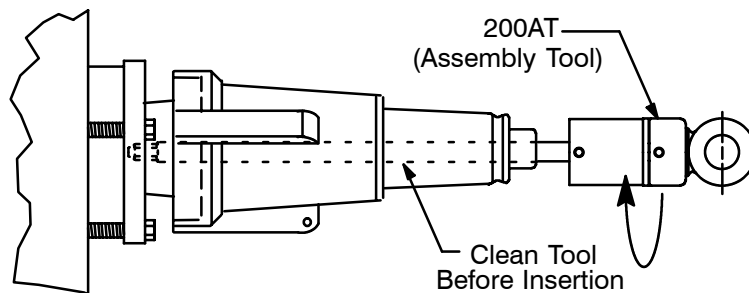
Place the lubricated portion of the bushing insert in the apparatus bushing well. Hand tighten the bushing insert in a clockwise direction until it bottoms.



ELASTIMOLD

STEP 2 ALTERNATE

Place the lubricated portion of the bushing insert in the apparatus bushing well. Insert 200AT assembly tool in bore of bushing insert until fully seated. Insert suitable rod through the eye of the tool and turn in a clockwise direction. Continue to rotate the eye of the 200AT until it begins to ratchet signifying the proper assembly torque has been reached. Remove 200AT from bushing insert.

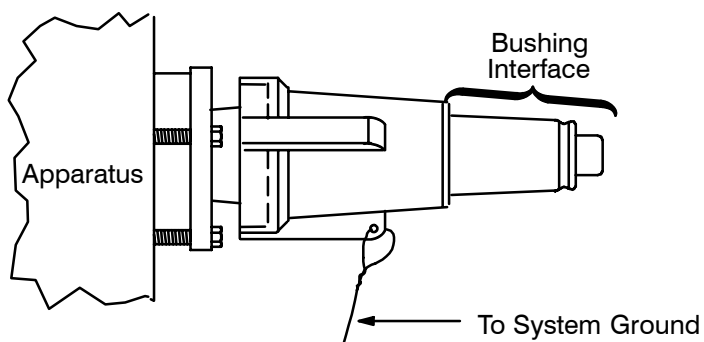


STEP 3

Push a length of copper wire (No. 14 AWG (2,5mm²) or equivalent) through one of the grounding tabs on the bushing insert. Make a small loop and twist tight, taking care not to damage the grounding tab. Connect free end of electrostatic grounding wire to the system ground using a suitable connector.

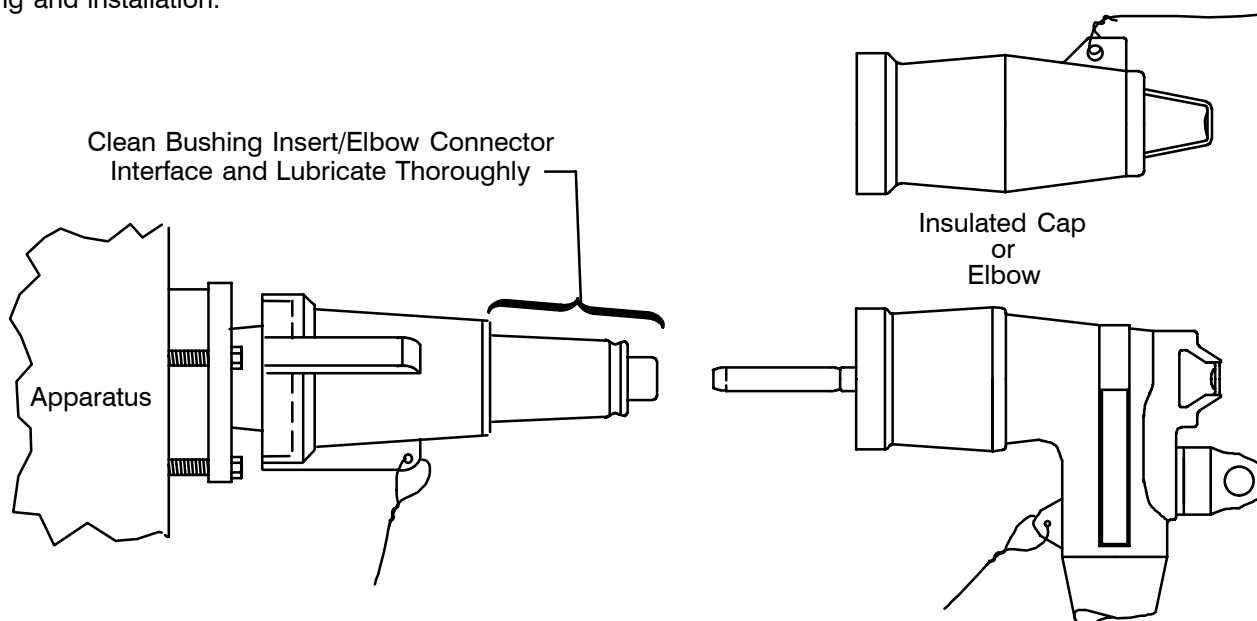
The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

This step provides assurance that the insulation shield on the bushing insert is grounded.

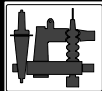


STEP 4

Thoroughly wipe the bushing interface clean of any contaminants and lubricate with the supplied lubricant. Install the mating products to the bushing insert following the instructions supplied with the mating products. **If the bushing insert is not to be immediately mated with an elbow connector, insulated cap or grounding elbow connector, replace the shipping cap. Do not energize or submerge the apparatus with the shipping cap on the bushing insert.** This is a protective cap only which is not insulated or water tight and only intended to keep the bushing surfaces clean during handling and installation.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.

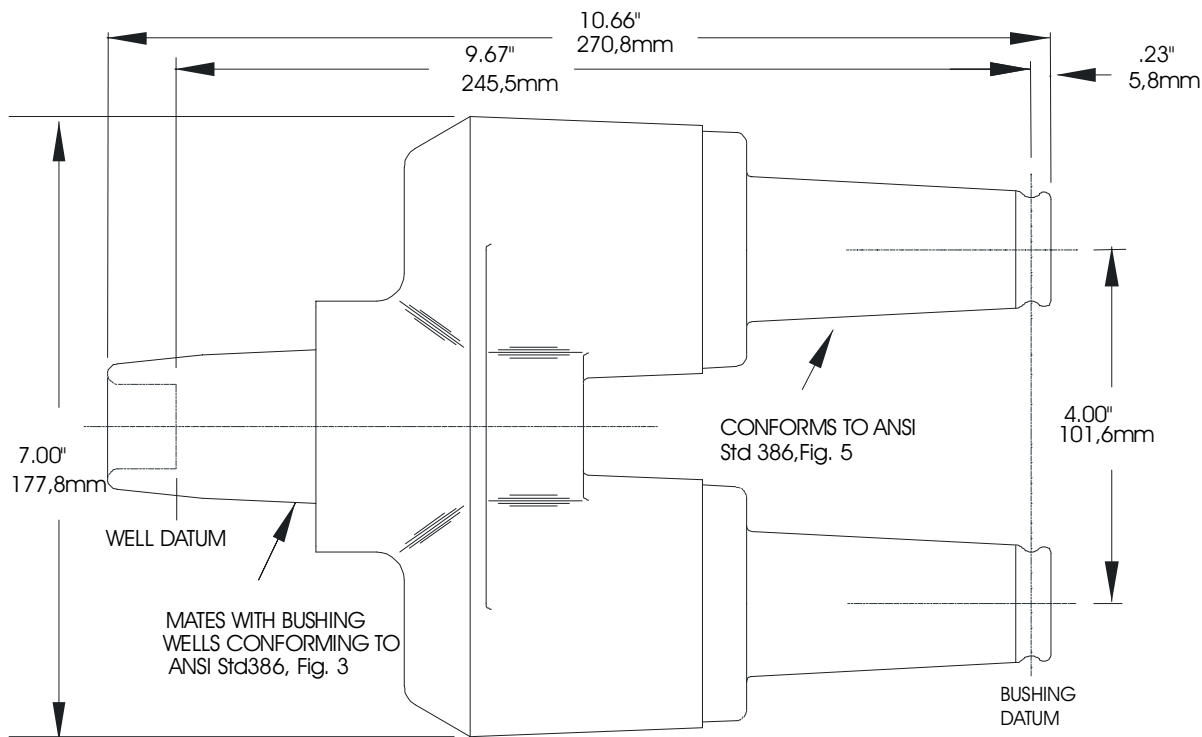


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Feed-Thru Insert

ELASTIMOLD PART NUMBER

1602A3R

The Elastimold 1602A3R feed-thru bushing insert is fully rated with a 15kV class, 200 Amp load break bushing interface. The feed-thru bushing insert fits a standard ANSI bushing well interface and provides the capability of creating a tap position in an existing apparatus installation and transforming a radial-feed transformer into a loop-feed unit.

Features

- Transform radial feed transformer into loop-feed unit.
- Provide extra tap for elbow arrester connection
- 15kV, 200 Amp loadbreak rated.
- Peroxide-cured insulation and jacket.

Ordering Instructions:

To order, specify number **1602A3R** bushing insert.

The 1602A3R bushing insert includes the following:

1 – Bushing insert	1602A3R
2 – Protective shipping cap	1601-APC-1
1 – Bail assembly	2702-16
3 – Lubricant	82-08
1 – Installation instruction	IS-1602A3R (C) 1/81

Ratings

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

34kV AC - One minute Withstand

53kV DC - 15 Minutes Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

Applications

It may be used as the bushing interface for connecting shielded cable to the following:

- | | |
|----------------------------|--------------|
| * Sub-surface transformers | * Generators |
| * Pad mounted transformers | * Switchgear |
| * Regulators | * Reclosers |

Designed for use as an apparatus bushing interface and provide extra tap connection, the 1602A3R is easily installed in an ELASTIMOLD universal bushing well and mated with an appropriate ELASTIMOLD product.

IMPORTANT:

Read instructions thoroughly and completely prior to beginning installation.

Installation Instructions 1602A3R Loadbreak Feed-Thru Insert

CONTENTS: 1— Loadbreak feed-thru insert, 1— Stainless steel plate, 2— Stainless steel hook bolts, 2— Stainless steel wing nuts, 3— Tubes lubricant, 3— Wiping cloths, 1— Installation instructions.

The 1602A3R is designed to provide the apparatus interface and loop feed-thru for Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s) to avoid fatal shock.

Inspect parts for damage, ratings and compatibility with mating parts.

The product should be installed only by competent personnel familiar with good safety practices in handling high-voltage electrical equipment.

These instructions are not intended as a substitute for adequate training or experience in such good safety practices.

These instructions do not attempt to provide for every possible contingency.

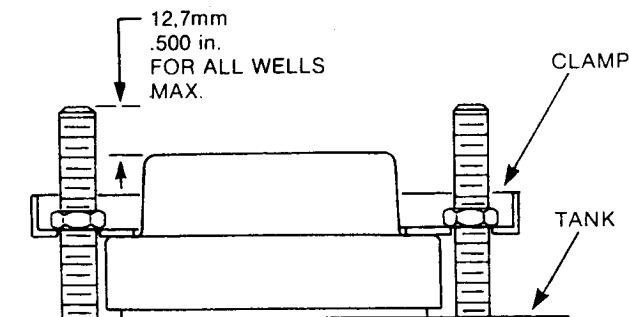
Install according to the following instructions.

Do not energize or submerge apparatus with shipping cap on bushing(s).

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

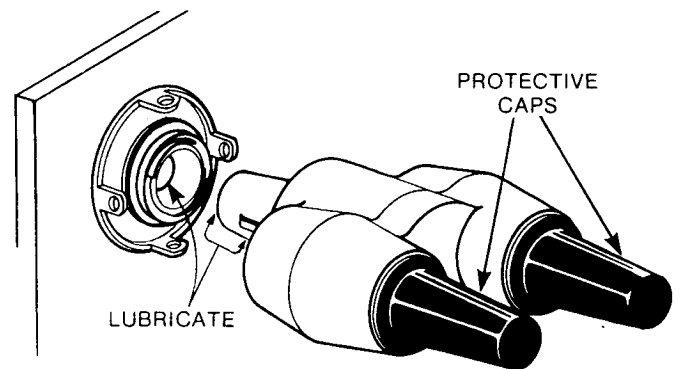
STEP 1

When installing a 1602A3R feed-thru insert in a clampable apparatus bushing well, check the height of the mounting bolts. Hardware which protrudes more than 1/2" (12mm) above the top of the apparatus bushing well will prevent the feed-thru insert from being assembled. If this condition exists, consult with apparatus manufacturer on proper method to shorten bolts.



STEP 2

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Lubricate the bushing well interface and cuff area of the feed-thru insert with the supplied lubricant or ELASTIMOLD approved lubricant. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating parts.



WARRANTY

The following is given by the ELASTIMOLD DIVISION of AMERACE CORPORATION in lieu of all other warranties, express or implied:

ELASTIMOLD® Products will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. ELASTIMOLD's liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material. All statements, technical information and recommendations contained herein are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. This warranty is effective for two (2) years from date of shipment by ELASTIMOLD, but at no time will ELASTIMOLD be liable for incidental or consequential damages.

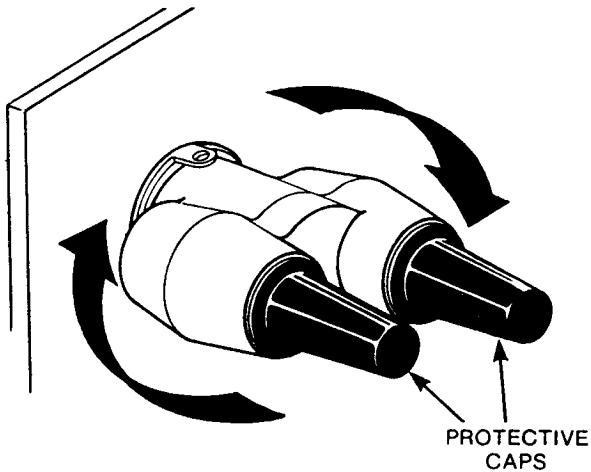


**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840, (201) 852-1122

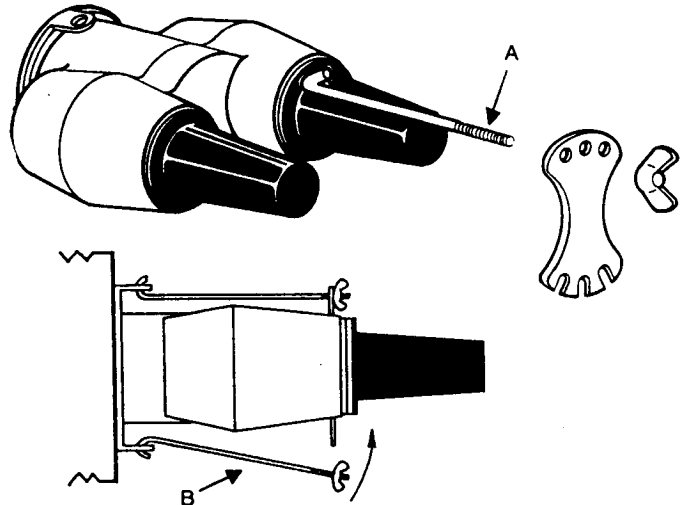
STEP 3

Place the lubricated portion of the feed-thru insert in the apparatus bushing well and rotate feed-thru insert clockwise until fully seated. **DO NOT FORCE.** Overtightening may damage threads of bushing well. The feed-thru insert has been designed with a special 180° adjustment feature. Feed-thru insert may now be rotated counter-clockwise up to a half turn to obtain desired alignment. A definite stop will be felt at the end of the 180° adjustment range.



STEP 4

Assemble "A" hook bolt in available upper bushing well tab. Assemble plate over threaded end of bolt. Use hole in plate which allows the most vertical position of hook bolt. Assemble wing nut. Assemble "B" hook bolt and wing nut. Engage hook of hook bolt into lower bushing well tab. Swing hook bolt up into slot of plate, using slot which allows the most vertical position of hook bolt. Tighten wing nuts securely by hand.

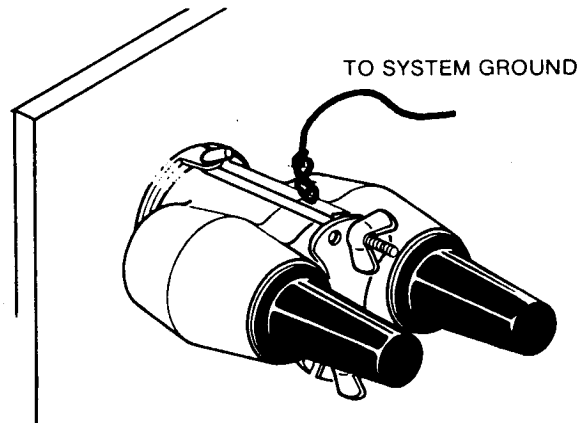


STEP 5

Push a length of copper wire, No. 14 AWG (2.5mm²) or equivalent, through one of the grounding holes on the feed-thru insert. Make a small loop and twist tightly, taking care not to damage the conductive shield. Connect free end of the wire to the system ground using a suitable connector.

The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

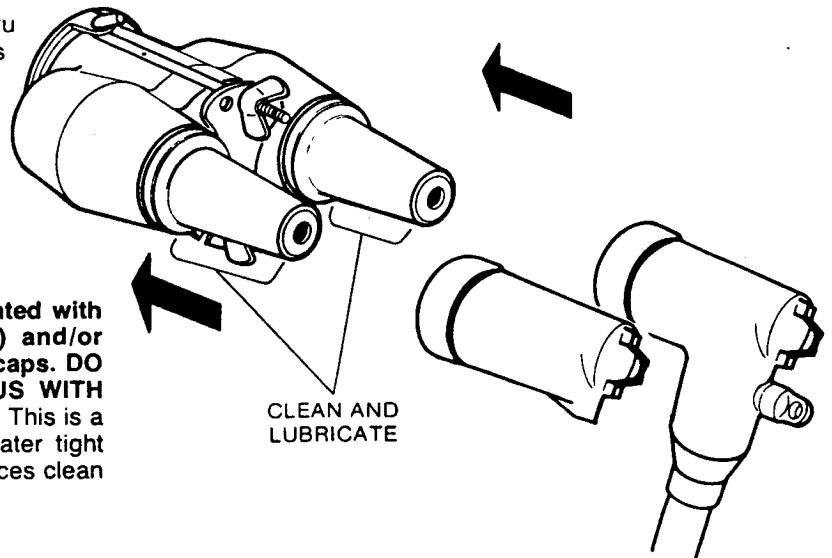
This step provides assurance that the conductive shield on the feed-thru insert is grounded.

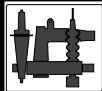


STEP 6

Remove protective shipping caps from feed-thru insert. Thoroughly wipe the bushing interfaces clean of any contaminants and lubricate with the supplied lubricant or ELASTIMOLD approved lubricant. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating parts. *Install the mating products to the feed-thru insert following the instructions supplied with the mating products.*

If feed-thru insert is not to be immediately mated with elbow connector(s) and/or insulated cap(s) and/or grounding elbow(s), do not remove shipping caps. DO NOT ENERGIZE OR SUBMERGE APPARATUS WITH SHIPPING CAPS ON THE FEED-THRU INSERT. This is a protective cap only which is not insulated or water tight and only intended to keep the bushing plug surfaces clean during handling and installation.



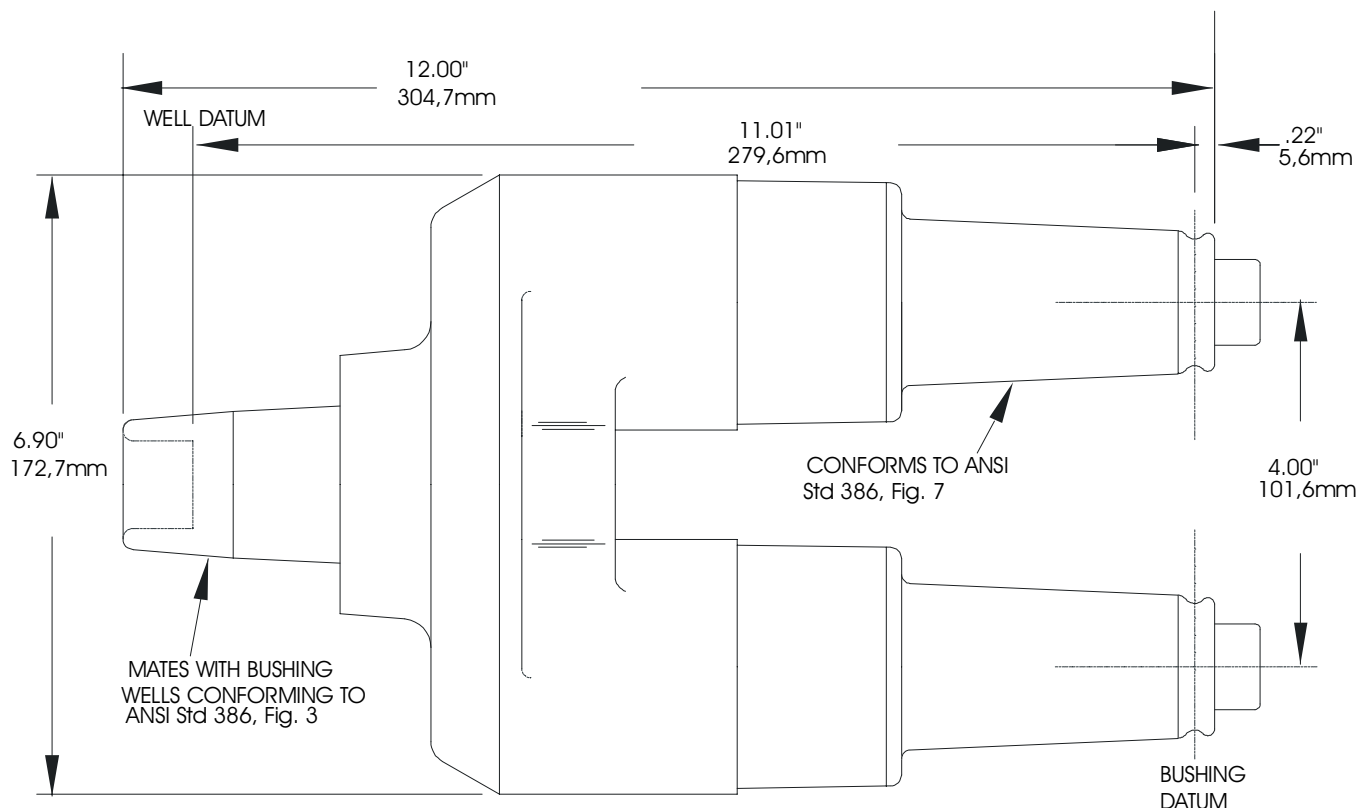


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Loadbreak Feed-Thru Insert

ELASTIMOLD PART NUMBER

2702A1

The Elastimold 2702A1 feed-thru bushing insert is fully rated with a 25kV class, 200 Amp load break bushing interface. The feed-thru bushing insert fits a standard ANSI bushing well interface and provide the capability of creating a tap position in an existing apparatus installation and transforming a radial-feed transformer into a loop-feed unit.

Features

- Transform radial feed transformer into loop-feed unit.
- Provide extra tap for elbow arrester connection
- 25kV, 200 Amp loadbreak rated.
- Peroxide-cured insulation and jacket.

Ordering Instructions:

To order, specify number **2702A1** bushing insert.

The 2702A1 bushing insert includes the following:

1 – Feed-thru bushing insert	2702A1
2 – Protective shipping cap	2701-41
1 – Bail assembly	2702-16
3 – Lubricant	82-08
1 – Installation instruction	IS-2702A1 (B) 4/86

Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

It may be used as the bushing interface for connecting shielded cable to the following:

- | | |
|----------------------------|--------------|
| * Sub-surface transformers | * Generators |
| * Pad mounted transformers | * Switchgear |
| * Regulators | * Reclosers |

Designed for use as an apparatus bushing interface and provide extra tap connection, the 2702A1 is easily installed in an ELASTIMOLD universal bushing well and mated with an appropriate ELASTIMOLD product.

Installation Instructions 2702A1

Loadbreak Feed- -Thru Insert

CONTENTS: Loadbreak feed- -thru insert, Stainless steel plate, Stainless steel hook bolts, stainless steel wing nuts, Lubricant, Installation Instructions.

The 2702A1 is designed to provide the apparatus interface and loop feed- -thru for Elastimold 25kV class (15.2kV phase- -to- -ground and 26.3kV phase- -to- -phase) loadbreak connectors.

DANGER

All apparatus must be de- -energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.

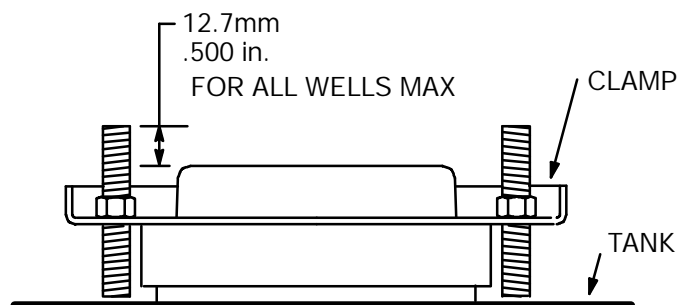
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.

4. Have all required tools at hand and observe cleanliness throughout the procedure.

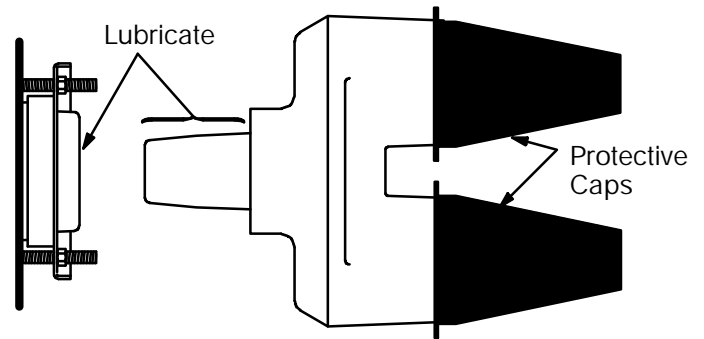
STEP 1

When installing a 2702A1 feed- -thru insert in a clampable apparatus bushing well, check the height of the mounting bolts. Hardware which protrudes more than 1/2" (12mm) above the top of the apparatus bushing well will prevent the feed- -thru insert from being assembled. If this condition exists, consult with apparatus manufacturer on proper method to shorten bolts.



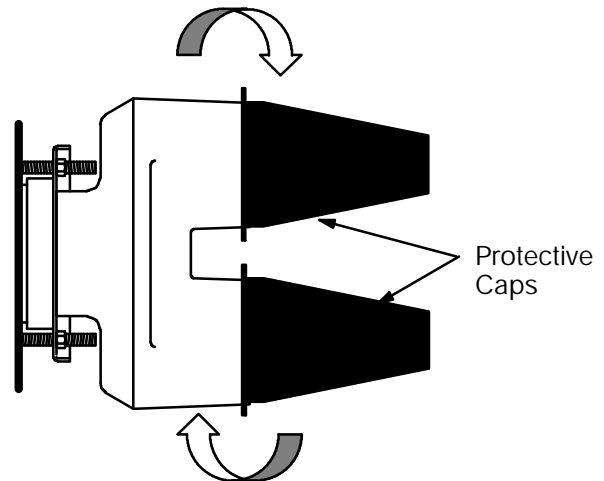
STEP 2

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Lubricate the bushing well interface and cuff area of the feed-thru insert with the supplied lubricant or ELASTIMOLD approved lubricant. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating parts.



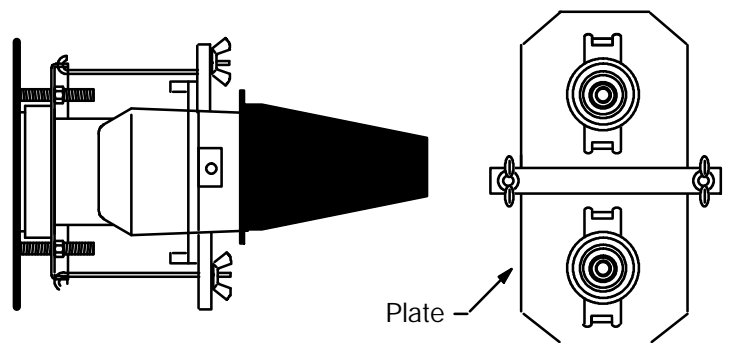
STEP 3

Place the lubricated portion of the feed-thru insert in the apparatus bushing well and rotate feed-thru insert clockwise until fully seated. DO NOT FORCE. Over tightening may damage threads of bushing well. The feed-thru insert has been designed with a special 180° adjustment feature. Feed-thru insert may now be rotated counter-clockwise up to a half turn to obtain desired alignment. A definite stop will be felt at the end of the 180° adjustment range.



STEP 4

FEED-THRU INSERT MUST BE ASSEMBLED WITH HOLD-DOWN BAIL. Assemble "A" hook bolt in available upper bushing well tab. Assemble plate over threaded end of bolt with detents upward towards operator. Use hole in plate which allows the most vertical position of hook bolt. Assemble wing nut. Assemble "B" hook bolt and wing nut. Engage hook of hook bolt into lower bushing well tab. Swing hook bolt up into slot of plate, using slot which allows the most vertical position of hook bolt. Tighten wing nuts securely by hand.

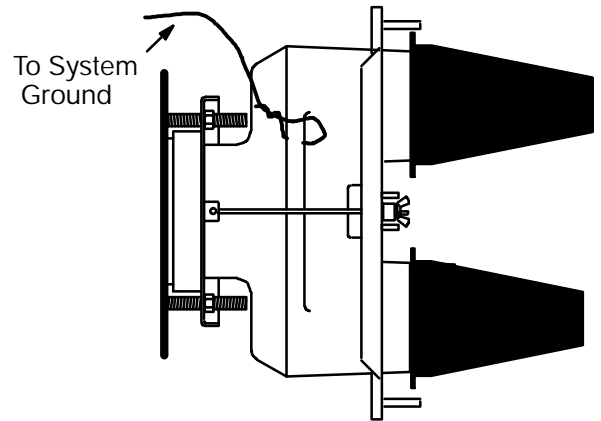


STEP 5

Push a length of copper wire, No. 14 AWG (2.5mm ϕ) or equivalent, through one of the grounding holes on the feed-thru insert. Make a small loop and twist tightly, taking care not to damage the conductive shield. Connect free end of the wire to the system ground using a suitable connector.

The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

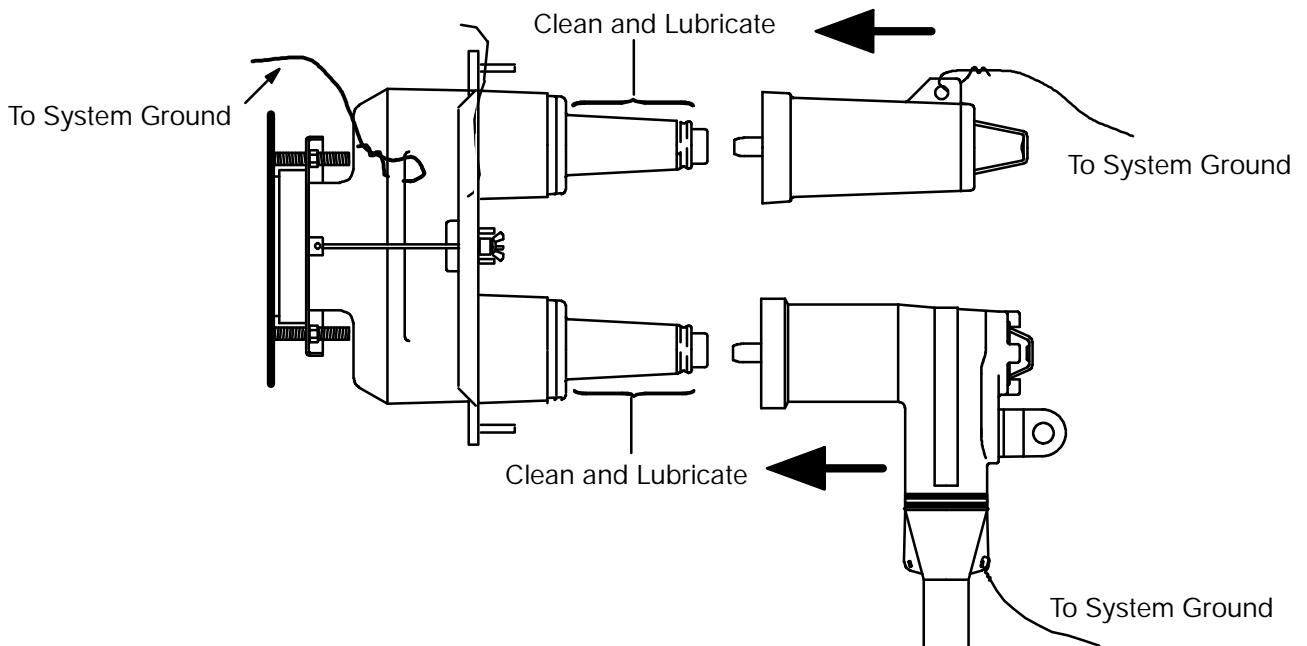
This step provides assurance that the conductive shield on the feed-thru insert is grounded.



STEP 6

Remove protective shipping caps from feed-thru insert. Thoroughly wipe the bushing interfaces clean of any contaminants and lubricate with the supplied lubricant or ELASTIMOLD approved lubricant. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating parts. *Install the mating products to the feed-thru insert following the instructions supplied with the mating products.*

If feed-thru insert is not to be immediately mated with elbow connector(s) and/or insulated cap(s) and/or grounding elbow(s), do not remove shipping caps. Do not energize or submerge apparatus with the shipping caps on the feed-thru insert. This is a protective cap only which is not insulated or water tight and only intended to keep the bushing plug surfaces clean during handling and installation.

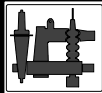


WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W--EE2).



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158



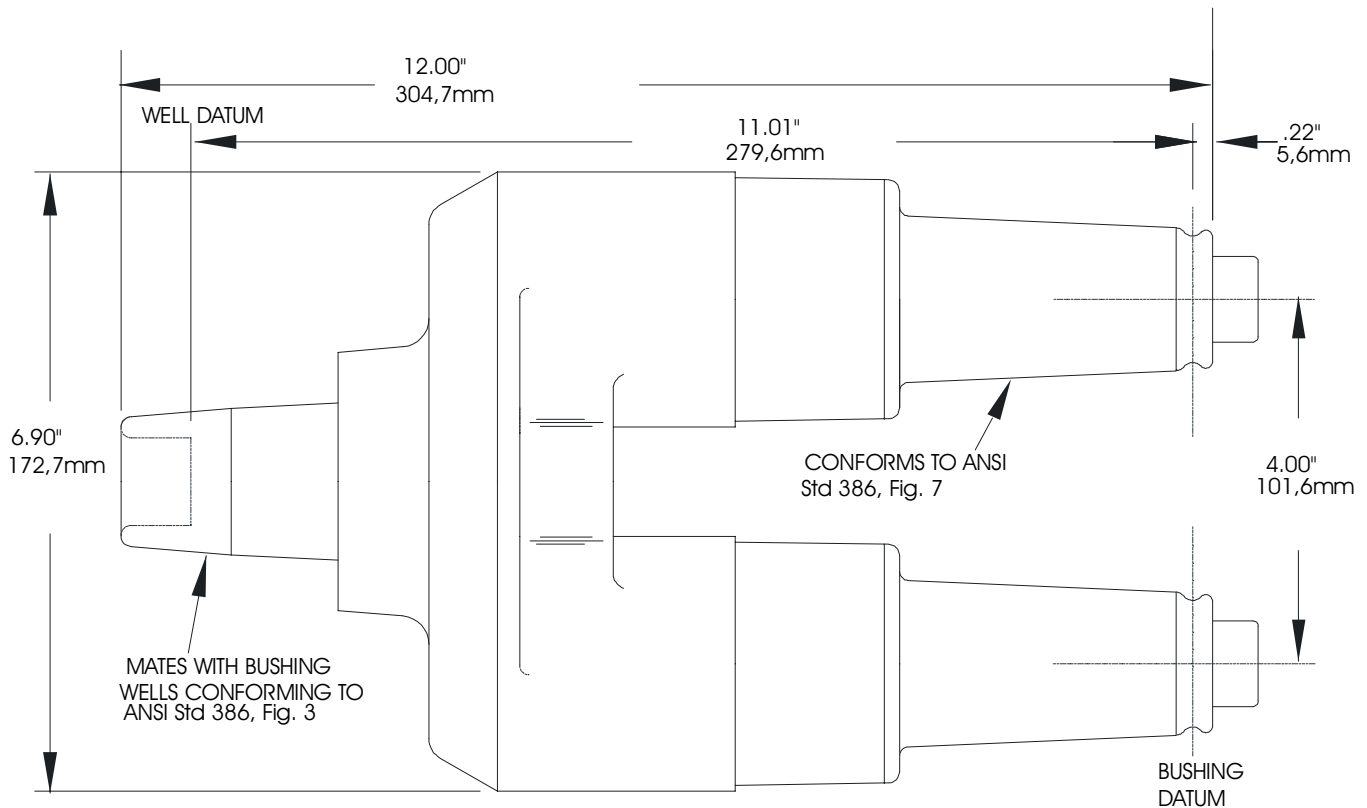
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

35kV 200A Loadbreak Feed-Thru Insert

ELASTIMOLD PART NUMBER

3702A1

The Elastimold 3702A1 feed-thru bushing insert is 1 Ø rated with a 35kV class, 200 Amp load break bushing interface. The feed-thru bushing insert fits a standard ANSI bushing well interface and provide the capability of creating a tap position in an existing apparatus installation and transforming a radial-feed transformer into a loop-feed unit.

Features

- Transform radial feed transformer into loop-feed unit.
- Provide extra tap for elbow arrester connection
- 35kV, 200 Amp loadbreak rated.
- Peroxide-cured insulation and jacket.

Ordering Instructions:

To order, specify number **3702A1** bushing insert.

The 3702A1 bushing insert includes the following:

1 – Feed-thru bushing insert	3702A1
2 – Protective shipping cap	2701-41
1 – Bail assembly	2702-16
3 – Lubricant	82-08
1 – Installation instruction	IS-3702A1 4/86

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class, 1 Ø rated
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150V BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Applications

It may be used as the bushing interface for connecting shielded cable to the following:

- * Sub-surface transformers
- * Pad mounted transformers
- * Regulators
- * Generators
- * Switchgear
- * Reclosers

Designed for use as an apparatus bushing interface and provide extra tap connection, the 3702A1 is easily installed in an ELASTIMOLD universal bushing well and mated with an appropriate ELASTIMOLD product.

Installation Instructions 3702A1 Loadbreak Feed-Thru Insert

CONTENTS: 1— Loadbreak feed-thru insert, 1— Stainless steel plate, 2— Stainless steel hook bolts, 2— Stainless steel wing nuts, 3— Tubes lubricant, 3— Wiping cloths, 1— Installation instructions.

The 3702A1 is designed to provide the apparatus interface and loop feed-thru for Elastimold single phase 35kV class (21.1kV phase-to-ground) loadbreak connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s) to avoid fatal shock.

Inspect parts for damage, ratings and compatibility with mating parts.

The product should be installed only by competent personnel familiar with good safety practices in handling high-voltage electrical equipment, only to be installed with wells having provision for a hold-down bail.

These instructions are not intended as a substitute for adequate training or experience in such good safety practices.

These instructions do not attempt to provide for every possible contingency.

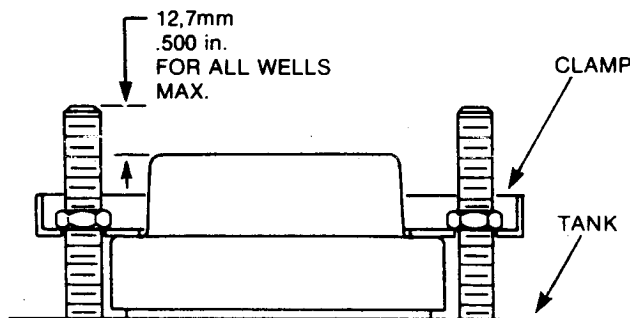
Install according to the following instructions.

Do not energize or submerge apparatus with shipping cap on bushing(s).

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

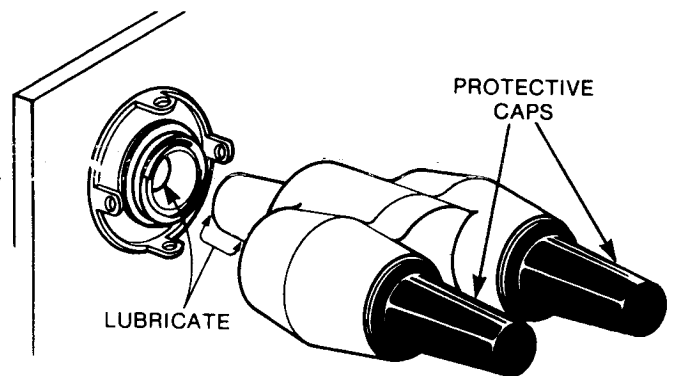
STEP 1

When installing a 3702A1 feed-thru insert in a clampable apparatus bushing well, check the height of the mounting bolts. Hardware which protrudes more than 1/2" (12.7mm) above the top of the apparatus bushing well will prevent the feed-thru insert from being assembled. If this condition exists, consult with apparatus manufacturer on proper method to shorten bolts.



STEP 2

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Lubricate the bushing well interface and cuff area of the feed-thru insert with the supplied lubricant or ELASTIMOLD approved lubricant. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating parts.



WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement of component parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2)



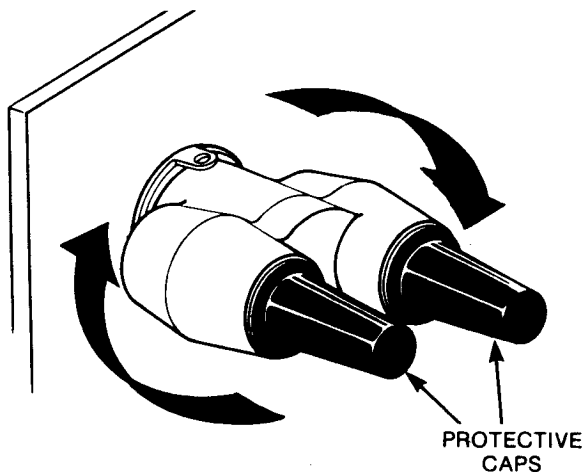
**AMERACE
CORPORATION**

AMERACE CORPORATION
NEWBURGH ROAD, HACKETTSTOWN
NEW JERSEY 07840 USA
(201) 852-1122

IS-0113

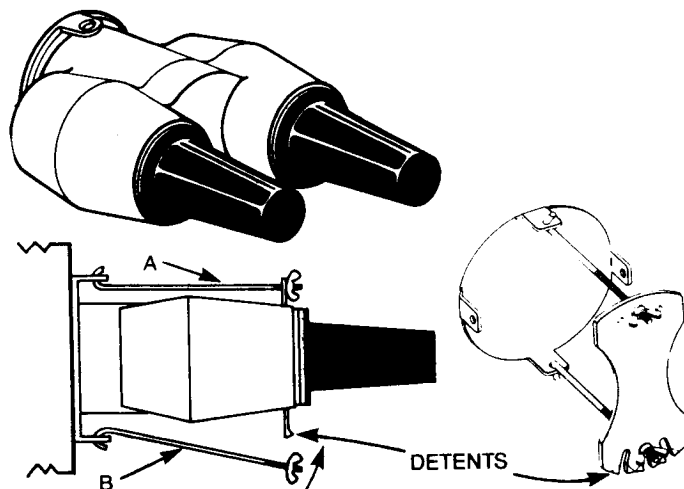
STEP 3

Place the lubricated portion of the feed-thru insert in the apparatus bushing well and rotate feed-thru insert clockwise until fully seated. **DO NOT FORCE.** Overtightening may damage threads of bushing well. The feed-thru insert has been designed with a special 180° adjustment feature. Feed-thru insert may now be rotated counter-clockwise up to a half turn to obtain desired alignment. A definite stop will be felt at the end of the 180° adjustment range.



STEP 4

FEEDTHRU INSERT MUST BE ASSEMBLED WITH HOLD-DOWN BAIL. Assemble "A" hook bolt in available upper bushing well tab. Assemble plate over threaded end of bolt with detents upward towards operator. Use hole in plate which allows the most vertical position of hook bolt. Assemble wing nut. Assemble "B" hook bolt and wing nut. Engage hook of hook bolt into lower bushing well tab. Swing hook bolt up into slot of plate, using slot which allows the most vertical position of hook bolt. Tighten wing nuts securely by hand.

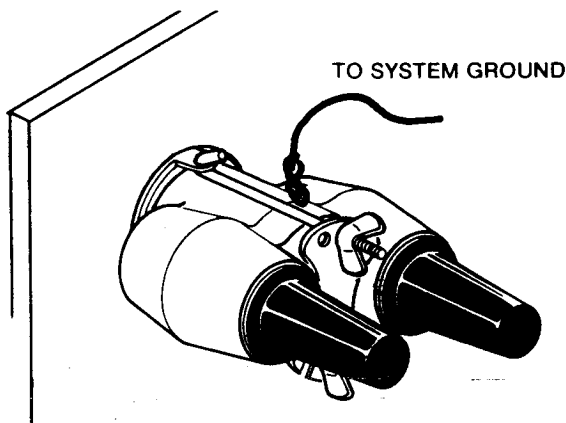


STEP 5

Push a length of copper wire, No. 14 AWG (2.5mm²) or equivalent, through one of the grounding holes on the feed-thru insert. Make a small loop and twist tightly, taking care not to damage the conductive shield. Connect free end of the wire to the system ground using a suitable connector.

The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

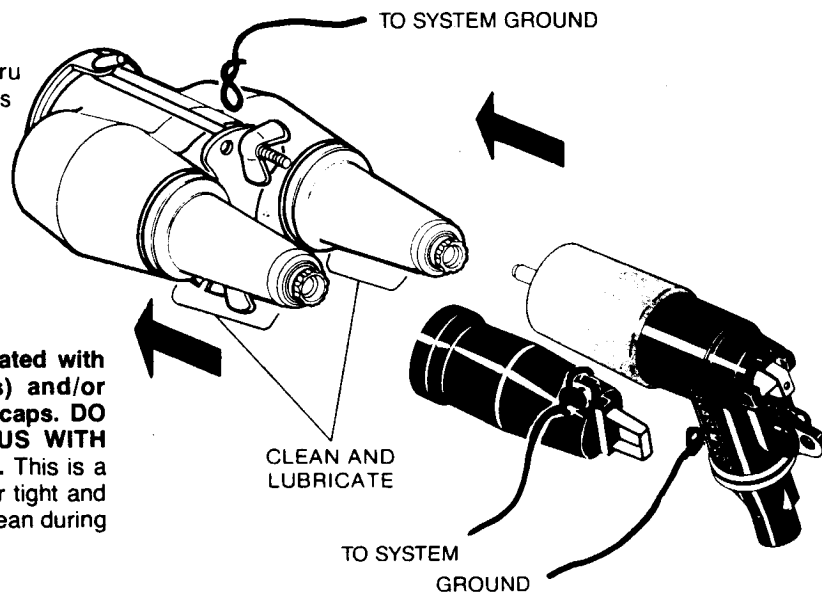
This step provides assurance that the conductive shield on the feed-thru insert is grounded.

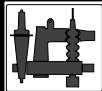


STEP 6

Remove protective shipping caps from feed-thru insert. Thoroughly wipe the bushing interfaces clean of any contaminants and lubricate with the supplied lubricant or ELASTIMOLD® approved lubricant. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating parts. *Install the mating products to the feed-thru insert following the instructions supplied with the mating products.*

If feed-thru insert is not to be immediately mated with elbow connector(s) and/or insulated cap(s) and/or grounding elbow(s), do not remove shipping caps. DO NOT ENERGIZE OR SUBMERGE APPARATUS WITH SHIPPING CAPS ON THE FEED-THRU INSERT. This is a protective cap only which is not insulated or water tight and only intended to keep the bushing plug surfaces clean during handling and installation.



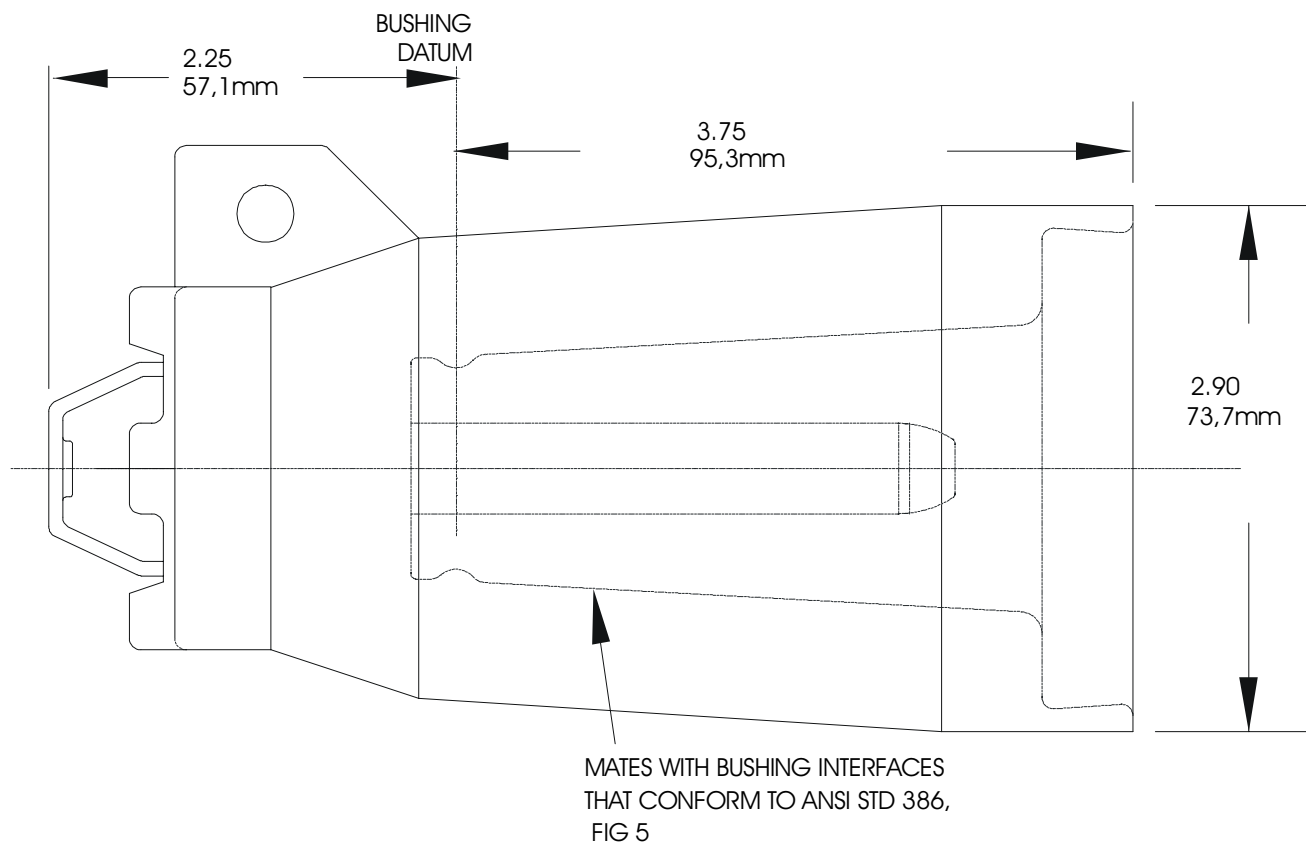


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Insulated Cap

ELASTIMOLD PART NUMBER

160DR

Application:

ELASTIMOLD 160DR insulated caps (without insulated cuff) are fully shielded, fully submersible, hot stick operable, separable insulated connector designed for energized operation. They are suitable for use on 15kV class loadbreak systems. The 160DR is used to "dead-end" the following ELASTIMOLD mating products:

- * 1601A4 bushing insert
- * 1602A3R feed-thru insert
- * 163FT feed-thru
- * 164 series junctions

Ratings

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minutes Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity

Ordering Instructions:

To order, specify number **160DR** bushing insert.

The 160DR bushing insert includes the following:

- | | |
|------------------------------|-------------------|
| 1 - Insulated cap | 160DR |
| 1 - Lubricant | 82-08 |
| 1 - Installation instruction | IS-160DR (F) 2/92 |

Operating Instructions 160DR Insulated Cap

CONTENTS: Insulated Cap, Lubricant, Operating instructions.

The 160DR is designed for insulating, shielding and watersealing any ELASTIMOLD 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak bushing interface.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

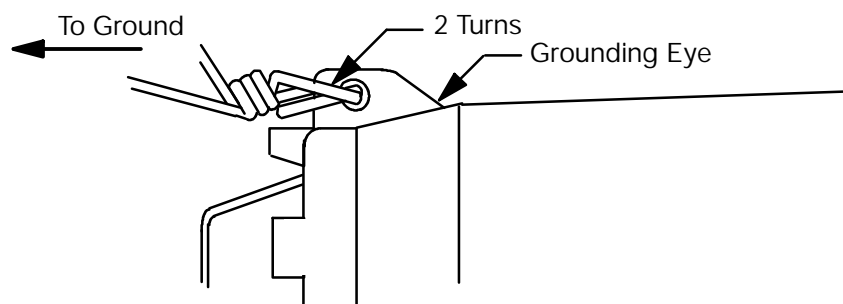
This product is supplied with a protective shipping cover. Remove this shipping cover prior to installing on the appropriate HV insulated connector before submerging or energizing the circuit.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

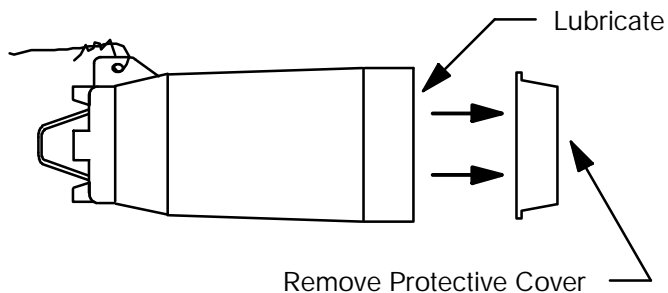
STEP 1

Connect electrostatic grounding wire, equivalent to No. 2 to No. 14 copper, to the grounding eye of the insulated cap and twist tight. Connect free end of electrostatic grounding wire to the system ground, leaving enough slack for hot-stick operation of the insulated cap. **CAUTION:** The electrostatic grounding wire should be trained so as not to contact the bushing interface during operation. **WARNING: IF THE GROUND LEAD DISCONNECTS DURING OPERATION, DO NOT ATTEMPT TO REATTACH WITHOUT FIRST PULLING INSULATED CAP OFF THE BUSHING WITH THE HOTSTICK.**



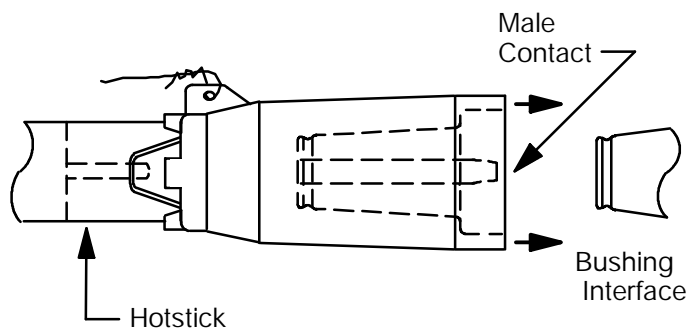
STEP 2

Remove protective cover from the insulated cap and lubricate the cap's internal mating surface. Use only the supplied lubricant or ELASTIMOLD approved lubricants. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating products. Keep the internal mating surface free from dirt and grime. Always replace protective cover when not in use.



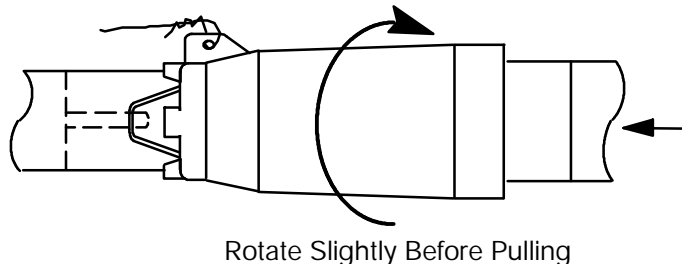
STEP 3

Firmly attach hotstick to the insulated cap pulling eye. Insert the male contact of the insulated cap into the loadbreak bushing, and push home with a fast, firm, straight motion. Make certain it is fully mated, with the locking ring seated. Detach hotstick from the insulated cap.

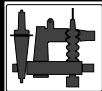


STEP 4

To remove. Attach hot-stick to pulling eye. Before pulling rotate insulated cap while in the mated position to break surface friction. Pull receptacle off with a fast, firm, straight motion to complete the operation. Remove electrostatic grounding wire of the insulated cap from the system ground. Replace protective cover on insulated cap to keep its internal surface clean.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

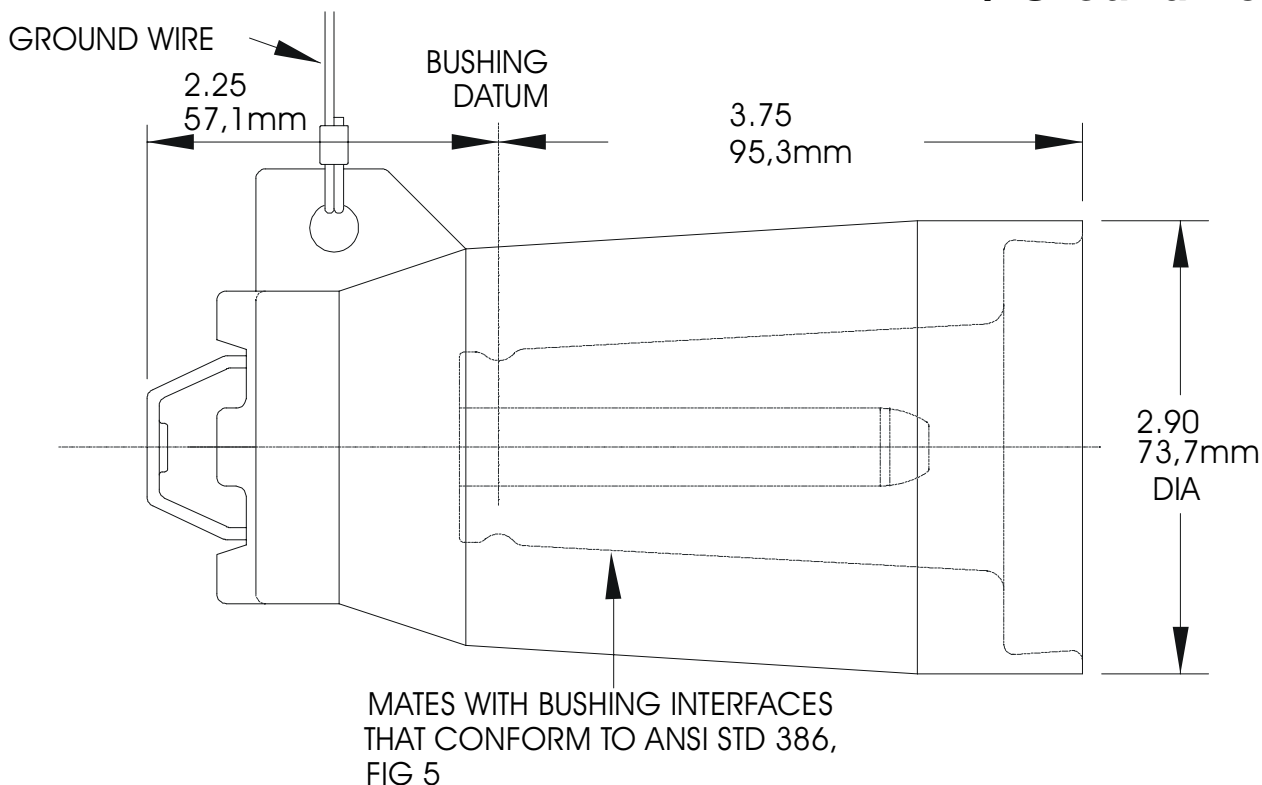


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Insulated Cap

ELASTIMOLD PART NUMBER

160DRG**w/ Ground Lead**

Application:

ELASTIMOLD 160DRG insulated caps w/ ground lead (without insulated cuff) are fully shielded, fully submersible, hot stick operable, separable insulated connector designed for energized operation. They are suitable for use on 15kV class loadbreak systems. The 160DRG has an integral ground lead as part of the assembly. The 160DRG is used to "dead-end" the following ELASTIMOLD mating products:

- * 1601A4 bushing insert
- * 1602A3R feed-thru insert
- * 163FT feed-thru
- * 164 series junctions

Ratings

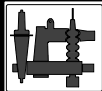
per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minute Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycle Momentary & Fault Close

Ordering Instruction:

To order, specify number **160DRG** insulated cap w/ ground lead.

The **160DRG** insulated cap w/ ground lead includes the following:

1 - Insulated cap	160DRG
1 - Grounding cable #14 AWG, 38"	16-14-2
1 - Lubricant	82-08
1 - Installation instruction	IS-160DRG

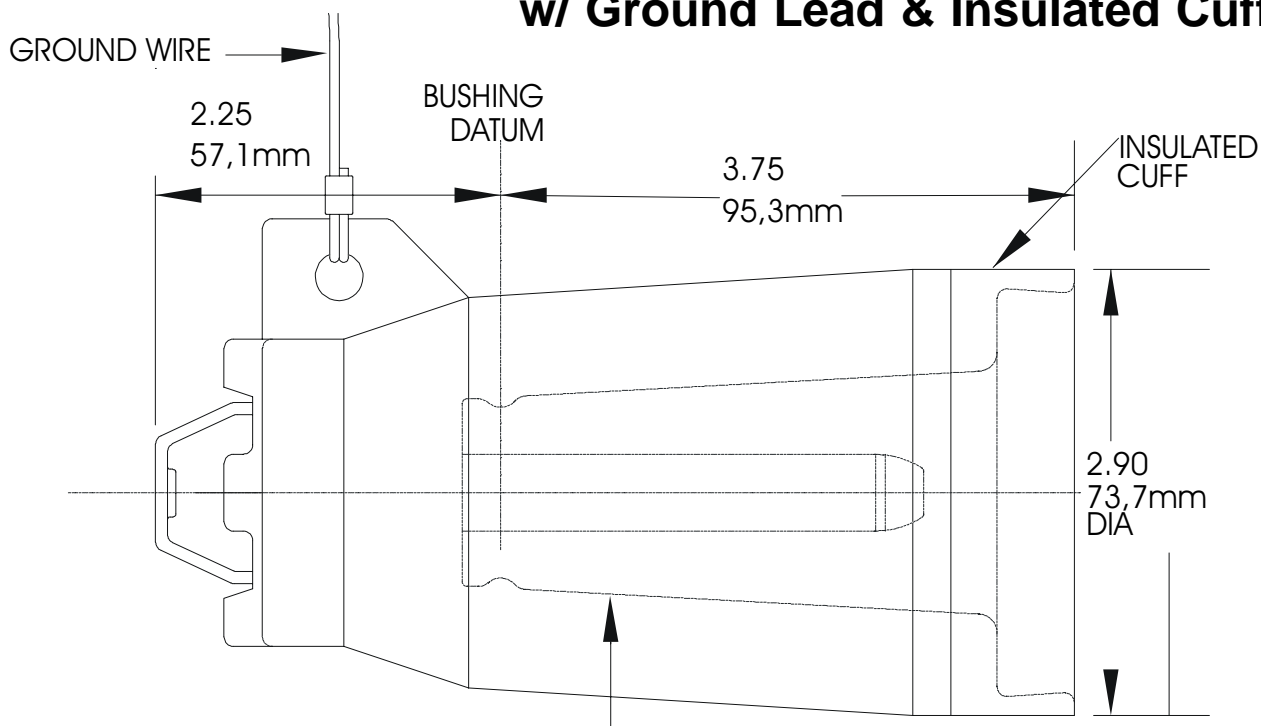


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Insulated Cap

ELASTIMOLD PART NUMBER

167DRG**w/ Ground Lead & Insulated Cuff**

MATES WITH BUSHING INTERFACES
THAT CONFORM TO ANSI STD 386,
FIG 5

Application:

ELASTIMOLD 167DRG insulated caps (with insulated cuff) are fully shielded, fully submersible, hot stick operable, separable insulated connector designed for energized operation. They are suitable for use on 15kV class loadbreak systems. The 167DRG has an integral ground lead as part of the assembly, it is used to "dead-end" the following ELASTIMOLD mating products:

- * 1601A4 bushing insert
- * 1602A3R feed-thru insert
- * 163FT feed-thru
- * 164 series junctions

Ratings

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minute Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instruction:

To order, specify number **167DRG** insulated cap.

The 167DRG insulated cap includes the following:

1 - Insulated cap	167DRG
1 - Grounding cable #14 AWG, 38"	16-14-2
1 - Lubricant	82-08
1 - Installation instruction	IS-167DRG

Operating Instructions 167DRG Insulated Cap with Ground Lead

CONTENTS: Insulated Cap with Ground Lead, Lubricant, Operating instructions

The 167DRG is designed for insulating, shielding and watersealing any ELASTIMOLD 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak bushing interface.

DANGER

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions

are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover prior to installing on the appropriate HV insulated connector before submerging or energizing the circuit.

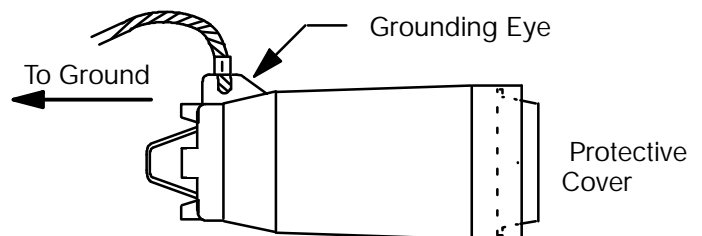
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

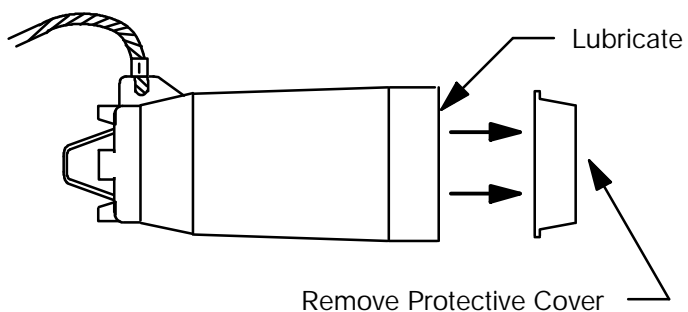
STEP 1

Connect free end of electrostatic grounding wire to the system ground, leaving enough slack for hot-stick operation of the insulated cap. **CAUTION:** The electrostatic grounding wire should be trained so as not to contact the bushing interface during operation. **WARNING: IF THE GROUND LEAD DISCONNECTS DURING OPERATION, DO NOT ATTEMPT TO REATTACH WITHOUT FIRST PULLING INSULATED CAP OFF THE BUSHING WITH THE HOTSTICK.**



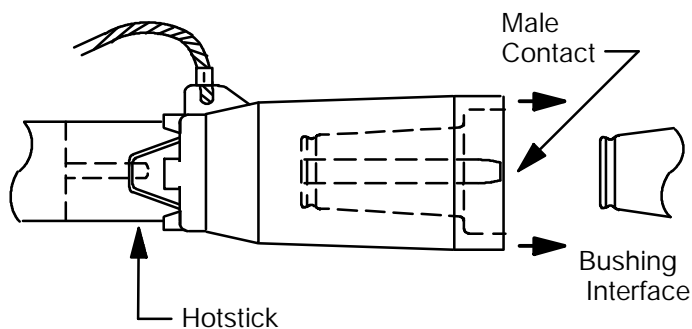
STEP 2

Remove protective cover from the insulated cap and lubricate the cap's internal mating surface. Use only the supplied lubricant or ELASTIMOLD approved lubricants. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating products. Keep the internal mating surface free from dirt and grime. Always replace protective cover when not in use.



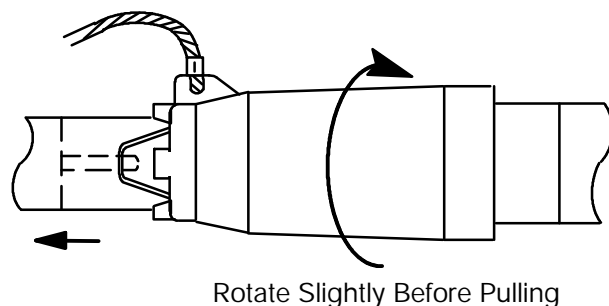
STEP 3

Firmly attach hotstick to the insulated cap pulling eye. Insert the male contact of the insulated cap into the loadbreak bushing, and push home with a fast, firm, straight motion. Make certain it is fully mated, with the locking ring seated. Detach hotstick from the insulated cap.

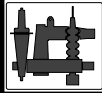


STEP 4

To remove. Attach hotstick to pulling eye. Before pulling rotate insulated cap while in the mated position to break surface friction. Pull receptacle off with a fast, firm, straight motion to complete the operation. Remove electrostatic grounding wire of the insulated cap from the system ground. Replace protective cover on insulated cap to keep its internal surface clean.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

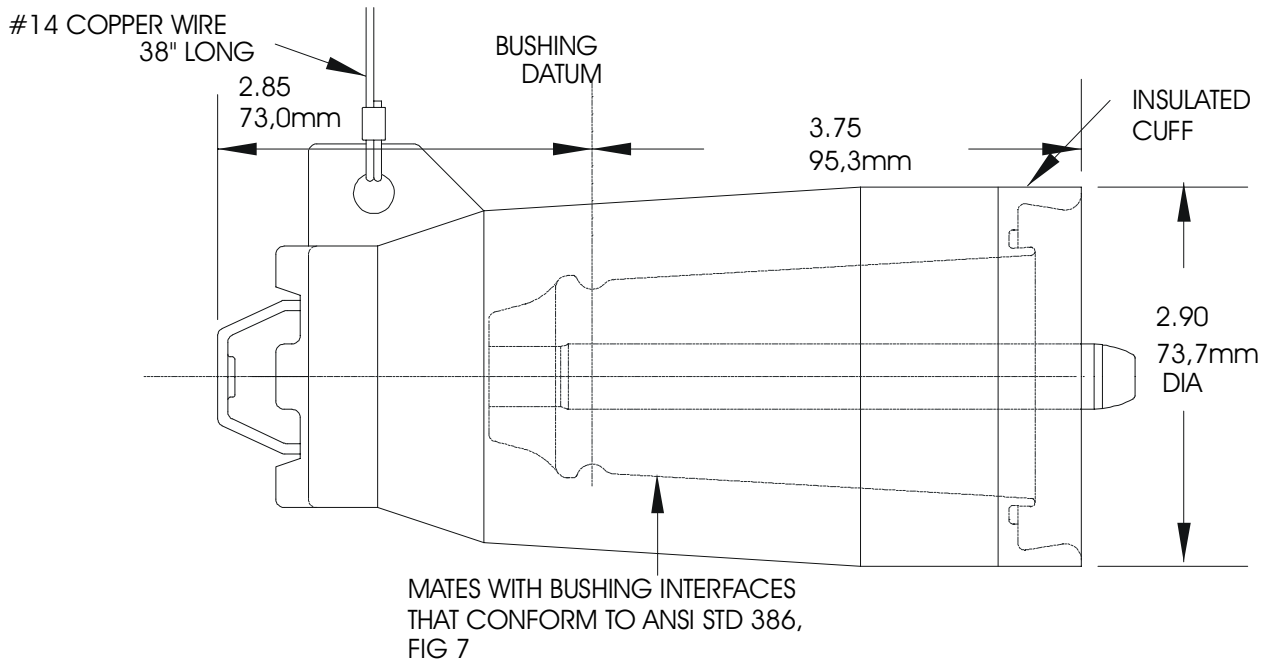


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Loadbreak Insulated Cap

ELASTIMOLD PART NUMBER

273DRG**w/ Ground Lead & Insulated Cuff**

Application:

ELASTIMOLD 273DRG insulated caps (with insulated cuff) are fully shielded, fully submersible, hot stick operable, separable insulated connector designed for energized operation. They are suitable for use on 25kV class loadbreak systems. The 273DRG has an integral ground lead as part of the assembly. The 273DRG is used to "dead-end" the following ELASTIMOLD mating products:

- * 2701A4 bushing insert
- * 271FT feed-thru
- * 2701A1 feed-thru insert
- * 271 series junctions

Ratings

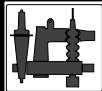
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **273DRG** insulated cap.

The 273DRG insulated cap includes the following:

- | | |
|------------------------------|------------------|
| 1 - Insulated cap | 273DRG |
| 1 - Gnd cable #14 AWG, 38" | 16-14-2 |
| 1 - Lubricant | 82-08 |
| 1 - Installation instruction | IS-273DRG/375DRG |

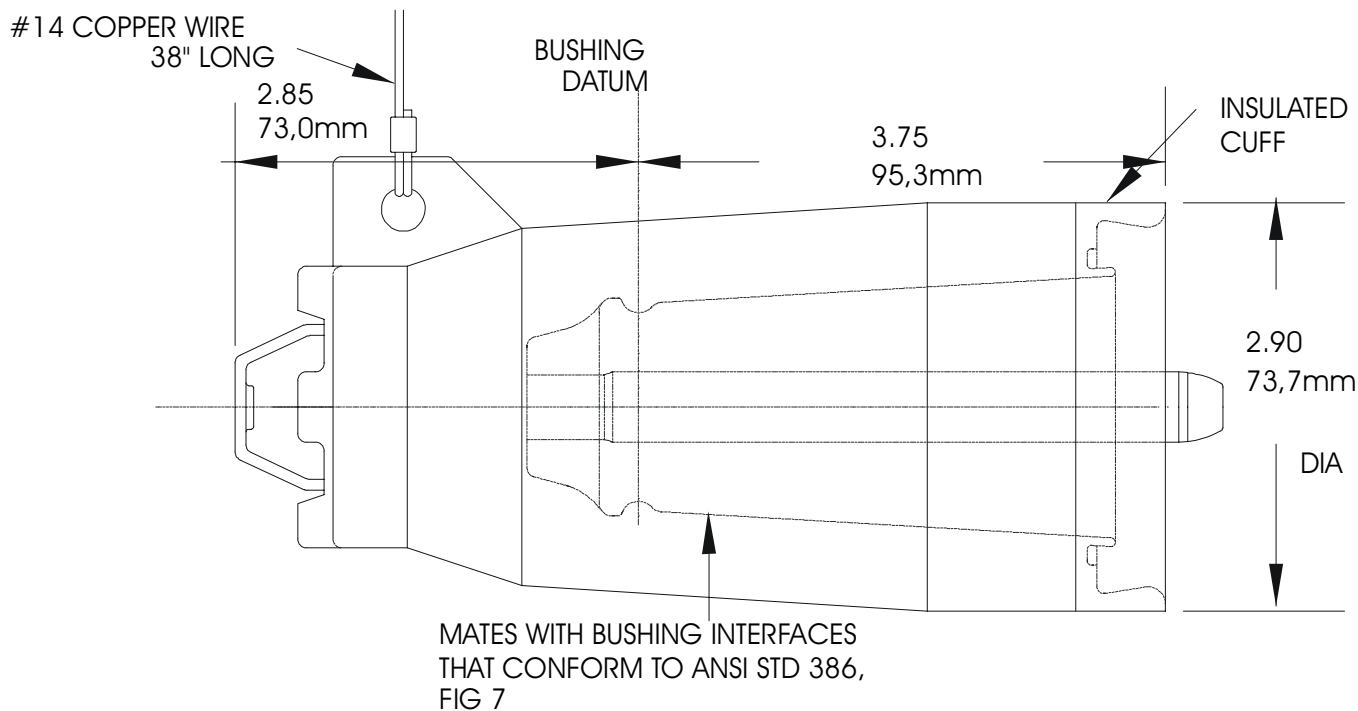


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 200A Loadbreak Insulated Cap

ELASTIMOLD PART NUMBER

375DRG**w/ Ground Lead & Insulated Cuff**

Application:

ELASTIMOLD 375DRG insulated caps (with insulated cuff) are fully shielded, fully submersible, hot stick operable, separable insulated connector designed for energized operation. They are suitable for use on 35kV class loadbreak systems. The 375DRG has an integral ground lead as part of the assembly. The 375DRG is used to "dead-end" the following ELASTIMOLD mating products:

* 3701A3/A4 bushing insert

* 3702A1 feed-thru insert

* 373FT feed-thru

* 373 series junctions

Ratings

per ANSI/IEEE Standard 386

35kV Voltage Class 1 Ø and 3 Ø

21.1kV Max Phase-to-Ground - Operating Voltage

36.6kV Max Phase-to-Phase

150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

50kV AC - One minute Withstand

103kV DC - 15 Minutes Withstand

26kV AC - Corona Extinction @ 3p.C.sensitivity

200Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instruction:

To order, specify number 375DRG bushing insert.

The 375DRG bushing insert includes the following:

1 - Insulated cap	375DRG
1 - Gnd cable #14 AWG, 38"	16-14-2
1 - Lubricant	82-08
1 - Installation instruction	IS-273DRG/375DRG

Operating Instructions 273DRG/375DRG Insulated Cap with Ground Lead

CONTENTS: Insulated Cap with Ground Lead, Lubricant, Operating instructions.

The 273DRG is designed for insulating, shielding and watersealing any ELASTIMOLD 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) loadbreak bushing interface. The 375DRG is designed for insulating, shielding and watersealing any ELASTIMOLD 35kV class (21.1kV phase-to-ground and 36.6kV phase-to-phase) loadbreak bushing interface.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

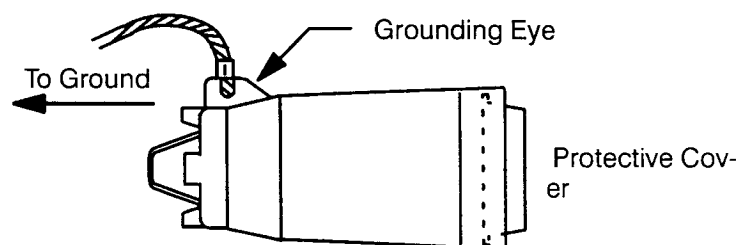
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

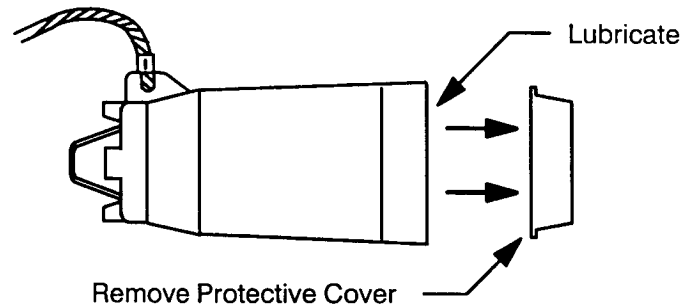
Connect free end of electrostatic grounding wire to the system ground, leaving enough slack for hot-stick operation of the insulated cap. **Caution:** The electrostatic grounding wire should be trained so as not to contact the bushing interface during operation. **Warning:** If the ground lead disconnects during operation, do not attempt to reattach without first pulling insulated cap off the bushing with the hotstick.



15-0322

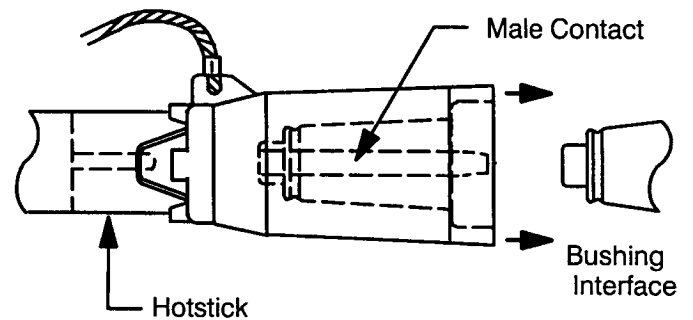
STEP 2

Remove protective cover from the insulated cap and lubricate the cap's internal mating surface. Use only the supplied lubricant or ELASTIMOLD approved lubricants. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating products. Keep the internal mating surface free from dirt and grime. Always replace protective cover when not in use.



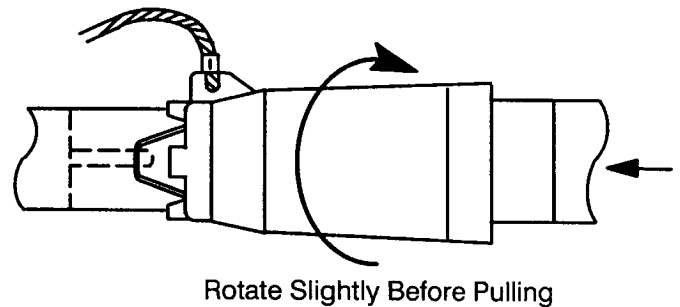
STEP 3

Firmly attach hotstick to the insulated cap pulling eye (a minimum hotstick length of 8 ft. is recommended). Insert the male contact of the insulated cap into the loadbreak bushing, and push home with a fast, firm, straight motion. Make certain it is fully mated, with the locking ring seated. Detach hotstick from the insulated cap.

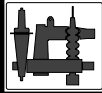


STEP 4

To remove. Attach hotstick to pulling eye. Before pulling rotate insulated cap while in the mated position to break surface friction. Pull receptacle off with a fast, firm, straight motion to complete the operation. Remove electrostatic grounding wire of the insulated cap from the system ground. Replace protective cover on insulated cap to keep its internal surface clean.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.

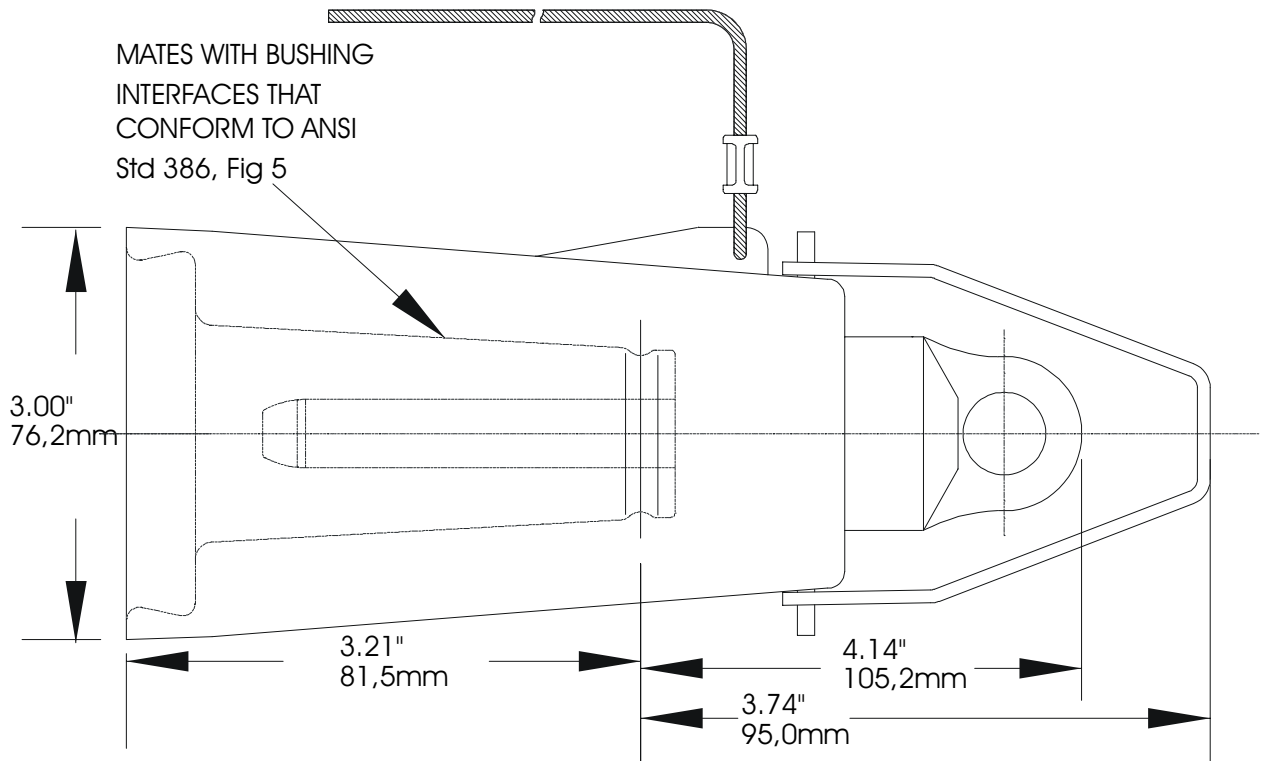


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Insulated Cap

ELASTIMOLD PART NUMBER

168DRG**w/ Ground Lead, Insulated Cuff, & Test Point**

Ratings

ELASTIMOLD 168DRG insulated caps (with insulated cuff & test point) are fully shielded, fully submersible, hot stick operable, separable insulated connector designed for energized operation. They are suitable for use on 15kV class loadbreak systems. The 167DRG has an integral ground lead as part of the assembly. The 168DRG is used to "dead-end" the following ELASTIMOLD mating products:

- * 1601A4 bushing insert
- * 1602A3R feed-thru insert
- * 163FT feed-thru
- * 164 series junctions

per ANSI/IEEE Standard 386
15kV Voltage Class
8.3kV Max Phase-to-Ground - Operating Voltage
14.4kV Max Phase-to-Phase
95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
34kV AC - One minute Withstand
53kV DC - 15 Minutes Withstand
11kV AC - Corona Extinction @ 3p.C.sensitivity
200 Amp - Continuous and Loadbreak
10kA Sym - 10 Cycles Momentary & Fault Clsoe

Ordering Instructions:

To order, specify number **168DRG** bushing insert.

The 168DRG bushing insert includes the following:

- | | |
|------------------------------|----------------|
| 1 - Insulated cap | 168DRG |
| 1 - Gnd cable #14 AWG, 38" | 16-14-2 |
| 1 - Lubricant | 82-08 |
| 1 - Installation instruction | IS-168DRG 4/92 |

Operating Instructions 168DRG Insulated Cap with Test Point & Ground Lead

CONTENTS: Insulated Cap with test point, Ground Lead, Lubricant, Operating Instructions

The 168DRG is designed for insulating, shielding and watersealing any ELASTIMOLD 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak bushing interface.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover prior to installing on the appropriate HV insulated connector before submerging or energizing the circuit.

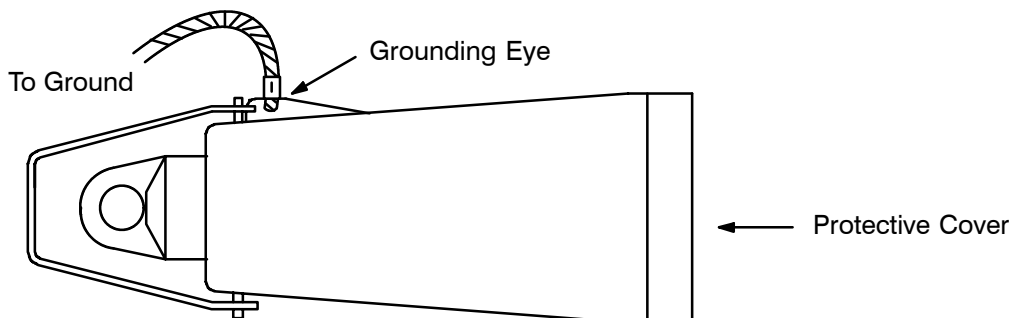
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

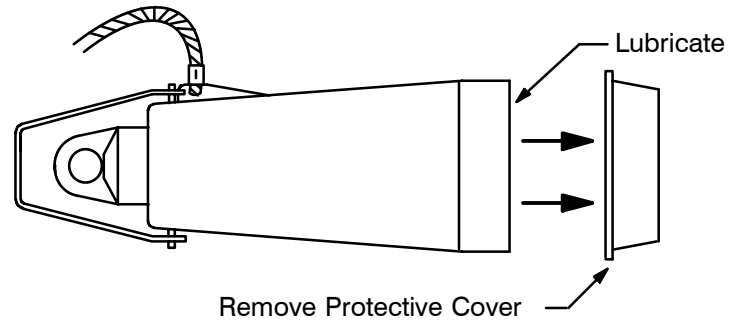
STEP 1

Connect free end of electrostatic grounding wire to the system ground, leaving enough slack for hotstick operation of the insulated cap. **Caution, The electrostatic grounding wire should be trained so as not to contact the bushing interface during operation. Warning: If the ground lead disconnects during operation, do not attempt to reattach without first pulling insulated cap off the bushing with the hotstick.**



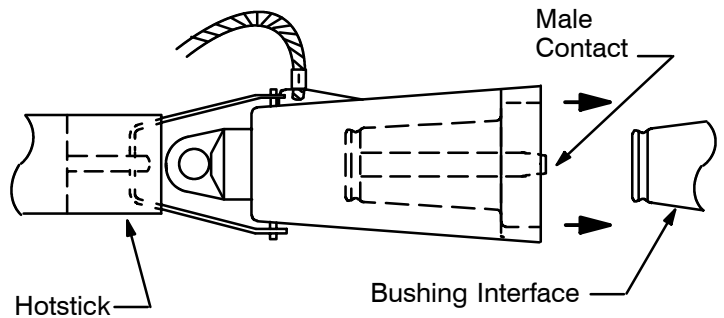
STEP 2

Remove protective cap from the insulated cap and lubricate the receptacle's internal mating surface. Use only ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products. Keep the internal mating surface free from dirt and grime. Always replace protective cover when not in use.



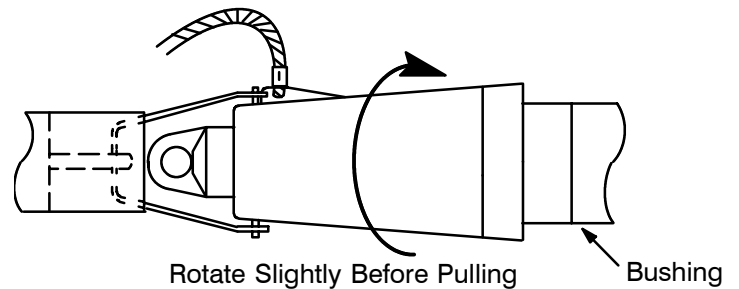
STEP 3

Firmly attach hotstick to the insulated cap pulling eye. Insert the male contact of the insulated cap into the loadbreak bushing, and push home with a fast, firm, straight motion. Make certain it is fully mated, with the locking ring seated. Detach hotstick from the insulated cap.



STEP 4

To remove. Attach hotstick to pulling eye. Before pulling rotate insulated cap while in the mated position to break surface friction. Pull receptacle off with a fast, firm, straight motion to complete the operation. Remove electrostatic grounding wire of the insulated cap from the system ground. Replace protective cap on insulated cap to keep its internal surface clean.



VOLTAGE TEST

The ELASTIMOLD 168DRG insulated cap is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT.**

WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED INSULATED CAP. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE INSULATED CAP AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.

3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



Route 24, Hackettstown, New Jersey 07840 USA
(908) 852-1122 FAX: (908) 852-6158
A Unit of Eagle Industries, Inc.

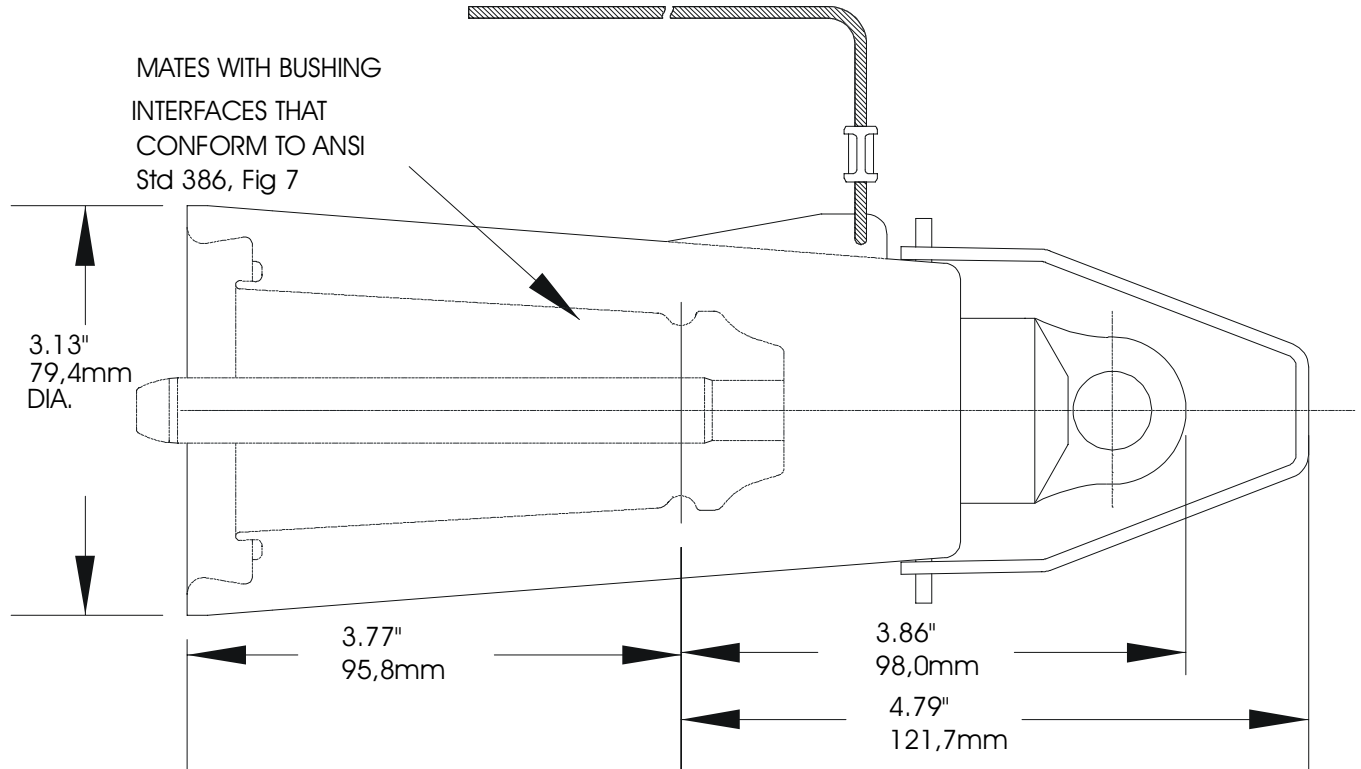


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Loadbreak Insulated Cap

ELASTIMOLD PART NUMBER

274DRG**w/ Ground Lead, Insulated Cuff, & Test Point**

ELASTIMOLD 274DRG insulated caps (with insulated cuff & test point) are fully shielded, fully submersible, hot stick operable, separable insulated connector designed for energized operation. They are suitable for use on 25kV class loadbreak systems. The 274DRG has an integral ground lead as part of the assembly. The 274DRG is used to "dead-end" the following ELASTIMOLD mating products:

- * 2701A4 bushing insert
- * 271FT feed-thru
- * 2701A1 feed-thru insert
- * 271 series junctions

Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **274DRG** insulated cap.

The 274DRG insulated cap includes the following:

- | | |
|------------------------------|------------------|
| 1 - Insulated cap | 274DRG |
| 1 - Gnd cable #14 AWG, 38" | 16-14-2 |
| 1 - Lubricant | 82-08 |
| 1 - Installation instruction | IS-274DRG/376DRG |



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

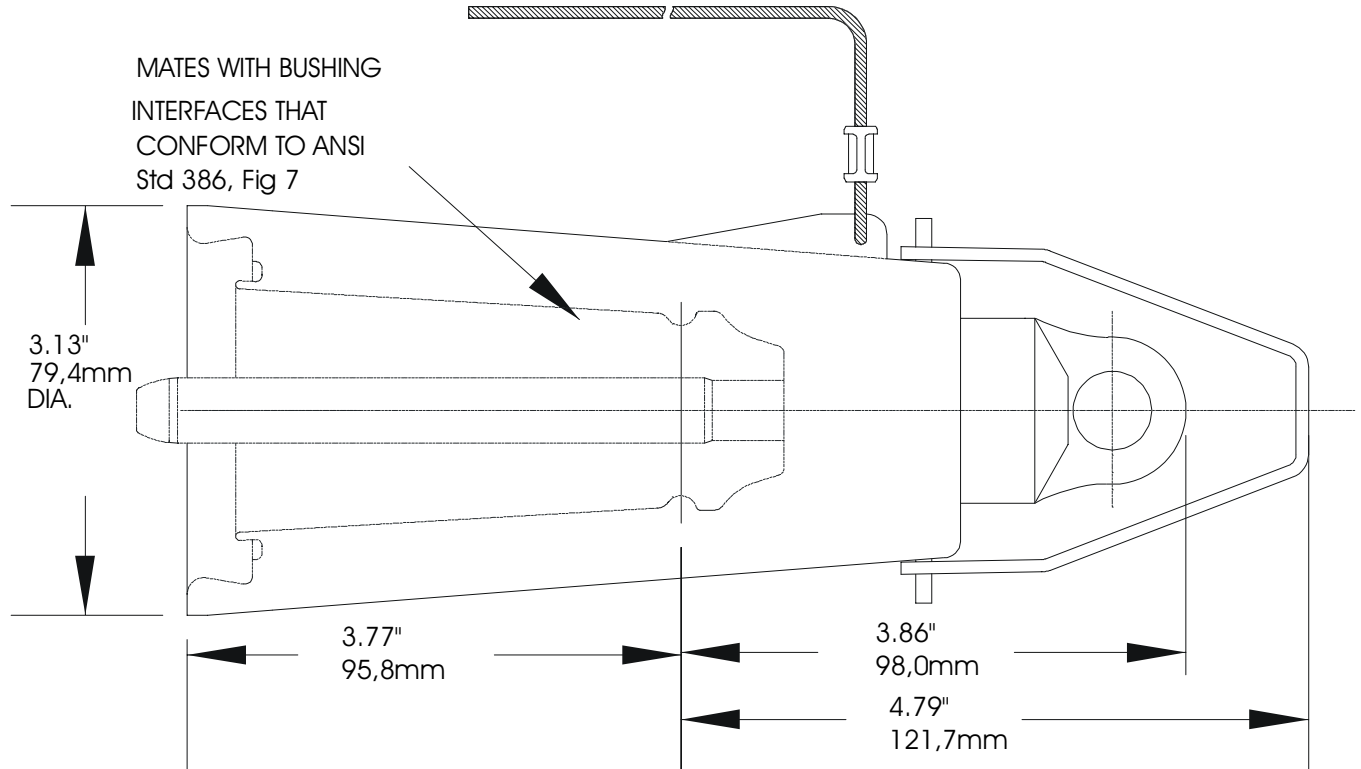
DESCRIPTION

35kV 200A Loadbreak Insulated Cap

ELASTIMOLD PART NUMBER

376DRG

w/ Ground Lead, Insulated Cuff, & Test Point



Ratings

ELASTIMOLD 376DRG insulated caps (with insulated cuff & test point) are fully shielded, fully submersible, hot stick operable, separable insulated connector designed for energized operation. They are suitable for use on 1 Ø and 3 Ø, 35kV class loadbreak on systems. The 376DRG has an integral ground lead as part of the assembly. The 376DRG are used to "dead-end" the following ELASTIMOLD mating products:

per ANSI/IEEE Standard 386
35kV Voltage Class 1 Ø and 3 Ø
21.1kV Max Phase-to-Ground - Operating Voltage
36.6kV Max Phase-to-Phase
150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
50kV AC - One minute Withstand
103kV DC - 15 Minutes Withstand
26kV AC - Corona Extinction @ 3p.C.sensitivity
200 Amp - Continuous and Loadbreak
10kA Sym - 10 Cycles Momentary & Fault Clsoe

* 3701A3/A4 bushing insert

* 373FT feed-thru

* 3702A1 feed-thru insert

* 373 series junctions

Ordering Instructions:

To order, specify number **376DRG** bushing insert.

The **376DRG** bushing insert includes the following:

1 - Insulated cap	376DRG
1 - Gnd cable #14 AWG, 38"	16-14-2
1 - Lubricant	82-08
1 - Installation instruction	IS-274DRG/376DRG

ELASTIMOLD Route 24, Hackettstown, New Jersey 07840
Phone: (908) 852-1122 Fax: (908) 813-2108

Thomas & Betts

Operating Instructions 274DRG/376DRG

Insulated Cap with Test Point & Ground Lead

CONTENTS: Insulated Cap with test point, Ground Lead, Lubricant, Operating Instructions

The 274DRG is designed for insulating, shielding and watersealing any ELASTIMOLD 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) loadbreak bushing interface. The 376DRG is designed for insulating, shielding and watersealing any Elastimold 35kV class (21.1kV phase-to-ground and 36.6kV phase-to-phase) loadbreak bushing interface.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover prior to installing on the appropriate HV insulated connector before submerging or energizing the circuit.

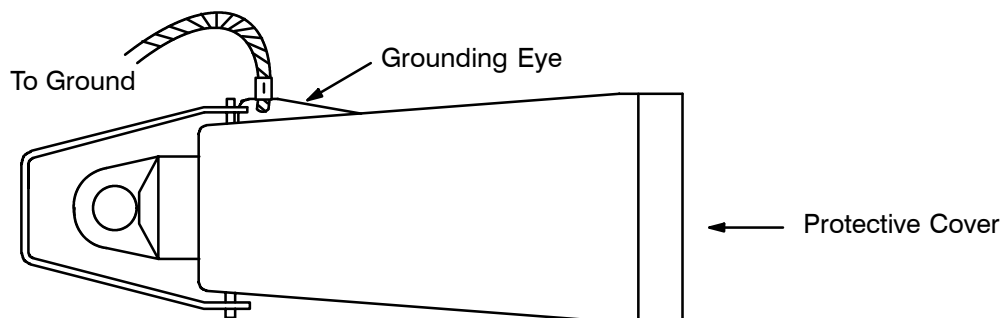
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

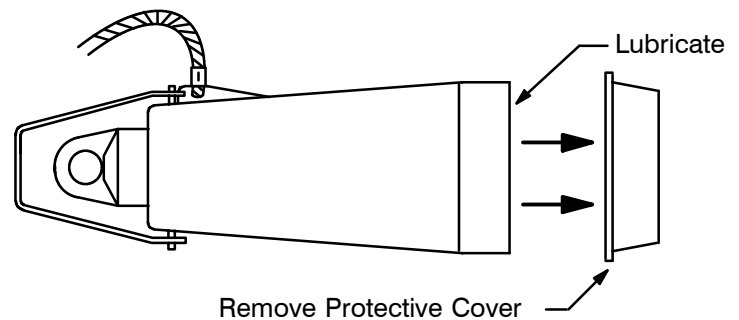
Connect free end of electrostatic grounding wire to the system ground, leaving enough slack for hotstick operation of the insulated cap. **Caution, The electrostatic grounding wire should be trained so as not to contact the bushing interface during operation. Warning: If the ground lead disconnects during operation, do not attempt to reattach without first pulling insulated cap off the bushing with the hotstick.**



ELASTIMOLD

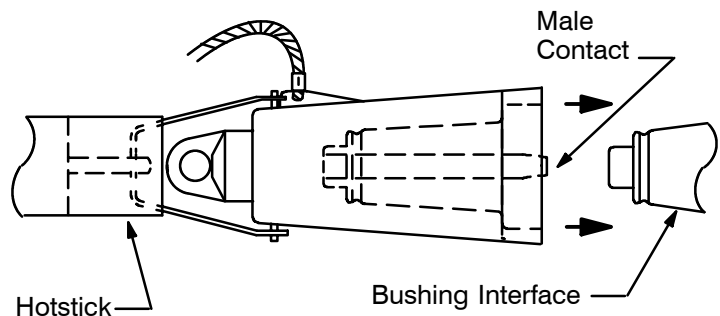
STEP 2

Remove protective cap from the insulated cap and lubricate the receptacle's internal mating surface. Use only ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and it mating products. Keep the internal mating surface free from dirt and grime. Always replace protective cover when not in use.



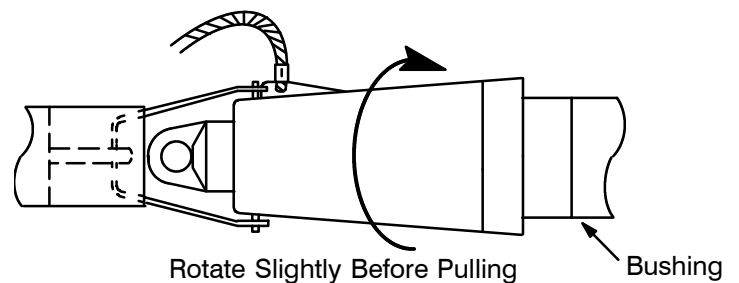
STEP 3

Firmly attach hotstick to the insulated cap pulling eye. Insert the male contact of the insulated cap into the loadbreak bushing, and push home with a fast, firm, straight motion. Make certain it is fully mated, with the locking ring seated. Detach hotstick from the insulated cap.



STEP 4

To remove. Attach hotstick to pulling eye. Before pulling rotate insulated cap while in the mated position to break surface friction. Pull receptacle off with a fast, firm, straight motion to complete the operation. Remove electrostatic grounding wire of the insulated cap from the system ground. Replace protective cap on insulated cap to keep its internal surface clean.



VOLTAGE TEST

The ELASTIMOLD 274DRG and 376DRG insulated caps are equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

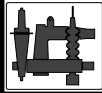
1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT.**

WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED INSULATED CAP. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE INSULATED CAP AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.

3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.

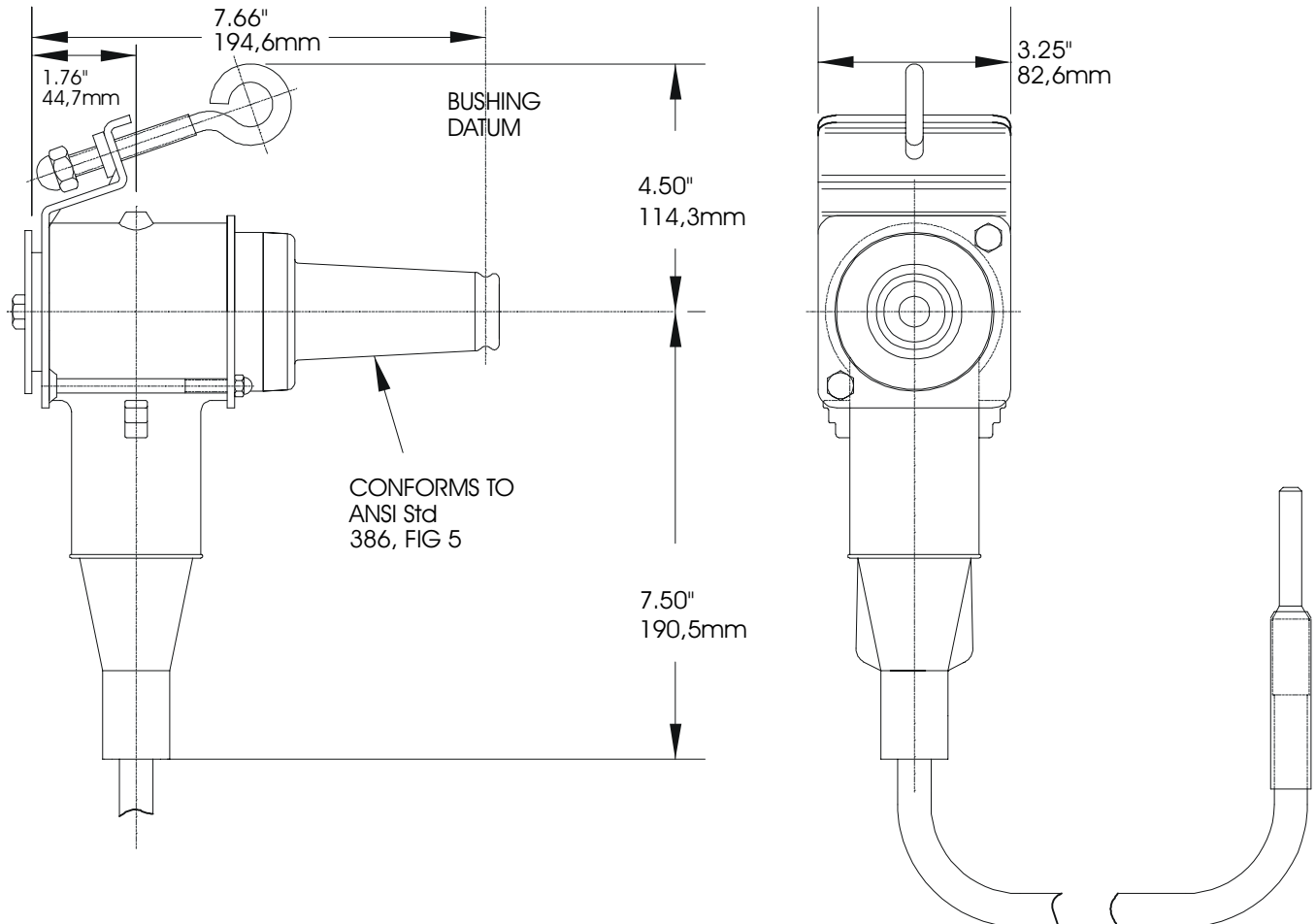


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Grounding Plug

ELASTIMOLD PART NUMBER

161GP

Ratings

The Elastimold 161GP Grounding Plug is equipped with a 15kV class, 200 Amp loadbreak interface, 6 feet (183cm) of 1/0 AWG grounding cable, stainless steel mounting bracket and hot stick operable mounting hardware. The 161GP Grounding Plug is inserted into a standard parking stand with an insulated hot stick and secures in place. Mating Elastimold 15kV class loadbreak elbows can then be removed from the equipment and placed on the 161GP Grounding Bushing to ground the circuit.

per ANSI/IEEE Standard 386
 15kV Voltage Class
 200Amp - Continuous
 10kA Sym - 10 Cycles Momentary & Fault Close

Features:

- Contains a fully operational fault close mechanism in the grounding plug.
- Stainless Steel mounting bracket.
- 5/16"-18 stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the 161GP into the mating parking stand.

Ordering Instructions:

To order, specify catalog number **161GP** Grounding Plug

The 161GP Grounding Plug includes the following:

1 – Grounding Plug	161GP
1 – Lubricant	82-08
1 – Protective Shipping Cap	1601-APC-1
1 – Operation instruction	IS-161GP 1/94

Installation & Operating Instructions 161GP Grounding Plug

CONTENTS: Grounding Plug, Lubricant (DO NOT SUBSTITUTE), Installation/Operating Instruction

The grounding bushing is designed to provide plug-in visible ground for UD systems. The 161GP has a standard 15kV-class loadbreak bushing interface (ANSI/IEEE STD 386 Fig. 5) for connecting to 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak elbow connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

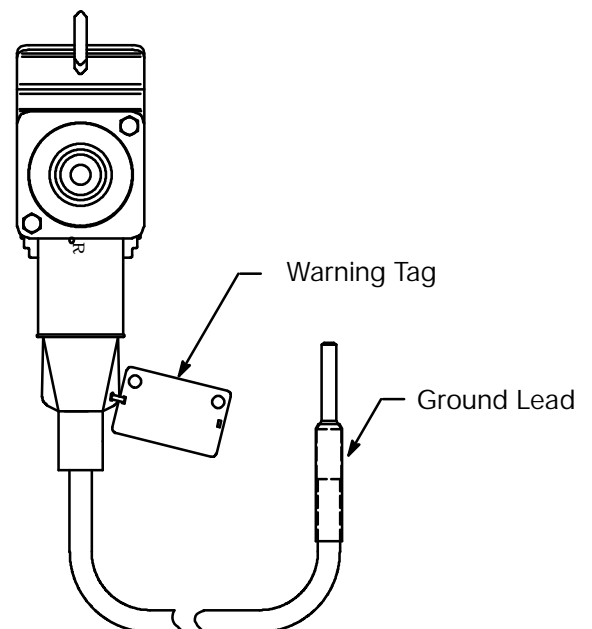
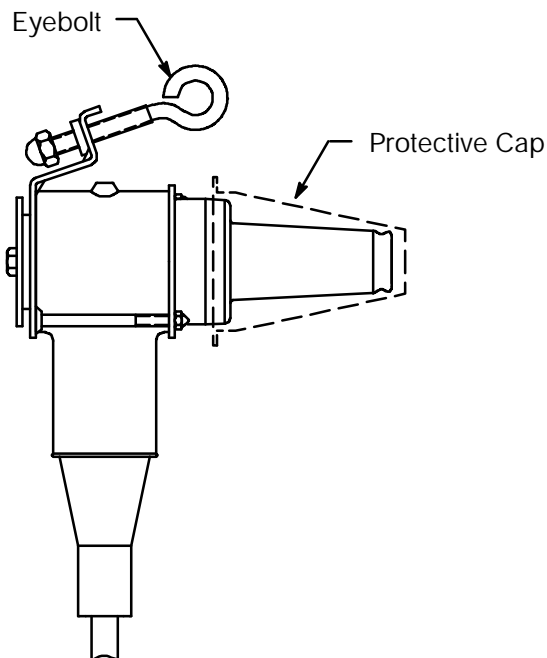
This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

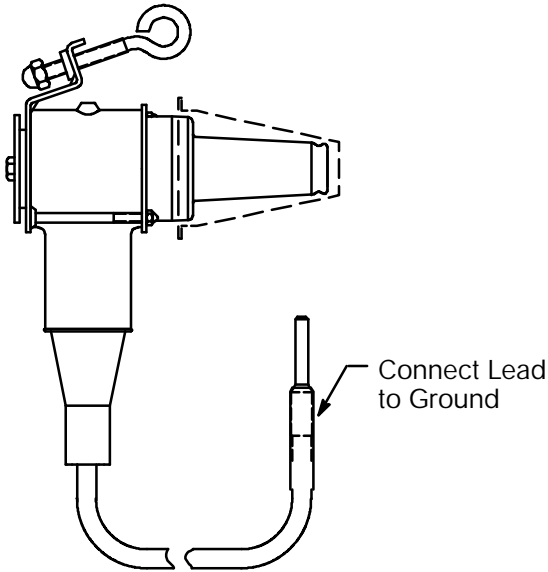
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



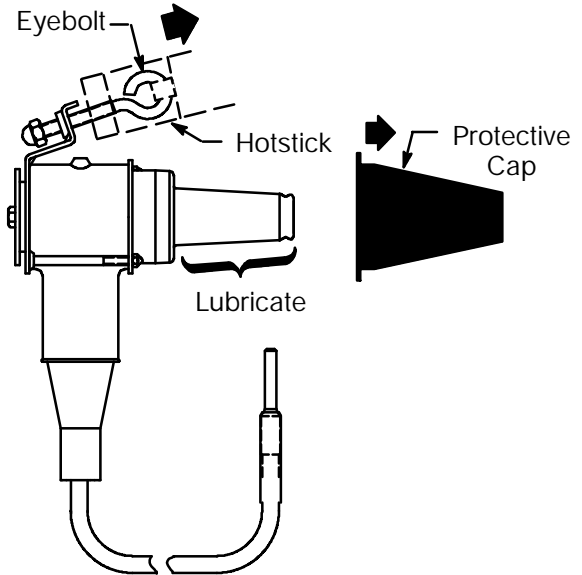
STEP A GROUNDING

Connect lead on grounding plug to system ground. Leave enough slack in ground lead for hotstick operation of the grounding plug.



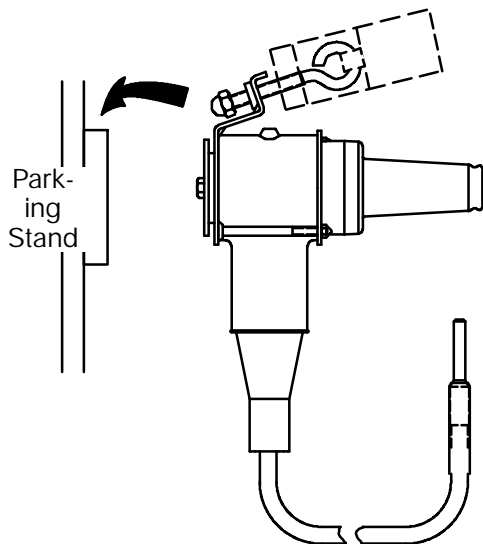
STEP B LUBRICATION & HOTSTICK ATTACHMENT

1. Remove protective cap and apply a light, uniform coat of supplied lubricant, working thoroughly into surface. CAUTION: EXCESS LUBRICANT may prevent a loadbreak elbow from being fully seated in the "locked on" position. Keep the external mating surface free from dirt and grime. Always replace protective cap when grounding plug is not in use.
2. Eyebolt should be positioned as shown before attaching the hotstick. Firmly tighten hotstick to the grounding plug eyebolt.

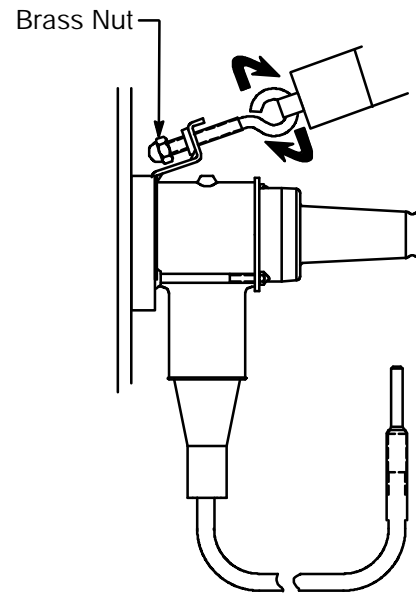


STEP C MOUNTING

1. Use hotstick to slide entire bracket of grounding plug into parking stand which is supplied on the apparatus.



2. Back off the hotstick, rotate the eyebolt clockwise until the nut on the opposite end snugly wedges the grounding plug to the underside of the parking stand. **DO NOT OVERTIGHTEN BOLT.**



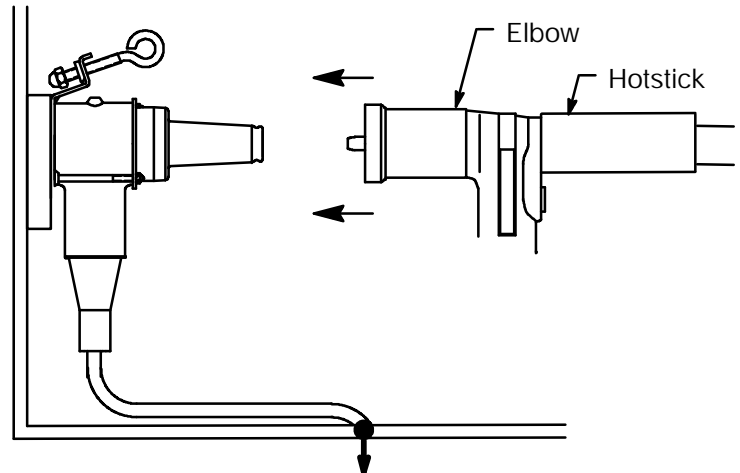
IMPORTANT: DO NOT INSERT ELBOW INTO GROUNDING PLUG UNLESS CIRCUIT HAS BEEN TESTED AND SHOWN TO BE "DE-ENERGIZED".

STEP D CONNECTION

1. Remove the de-energized loadbreak elbow connector from the loadbreak bushing following the operating instructions below. Insert the male contact on the loadbreak elbow into the grounding plug and push it home with a fast, firm, straight motion. Make sure it is firmly in place and locking ring is seated.

2. Inspect the grounding plug ground lead for proper connection.

DANGER: IF THE GROUND LEAD DISCONNECTS DURING OPERATION DO NOT ATTEMPT TO REATTACH WITHOUT FIRST PULLING LOADBREAK ELBOW OFF THE GROUNDING PLUG WITH THE HOTSTICK, FOLLOWING THE OPERATING INSTRUCTIONS BELOW.



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type of tool.

Remove Fluid Injection or Voltage Test Cap and install Insulated Cap following instructions packaged with these parts.

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2" apart).

NOTE: DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION, which will engage the internal lock on the elbow and bushing interface.

Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. It is not recommended that operations be made on known faults.
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.

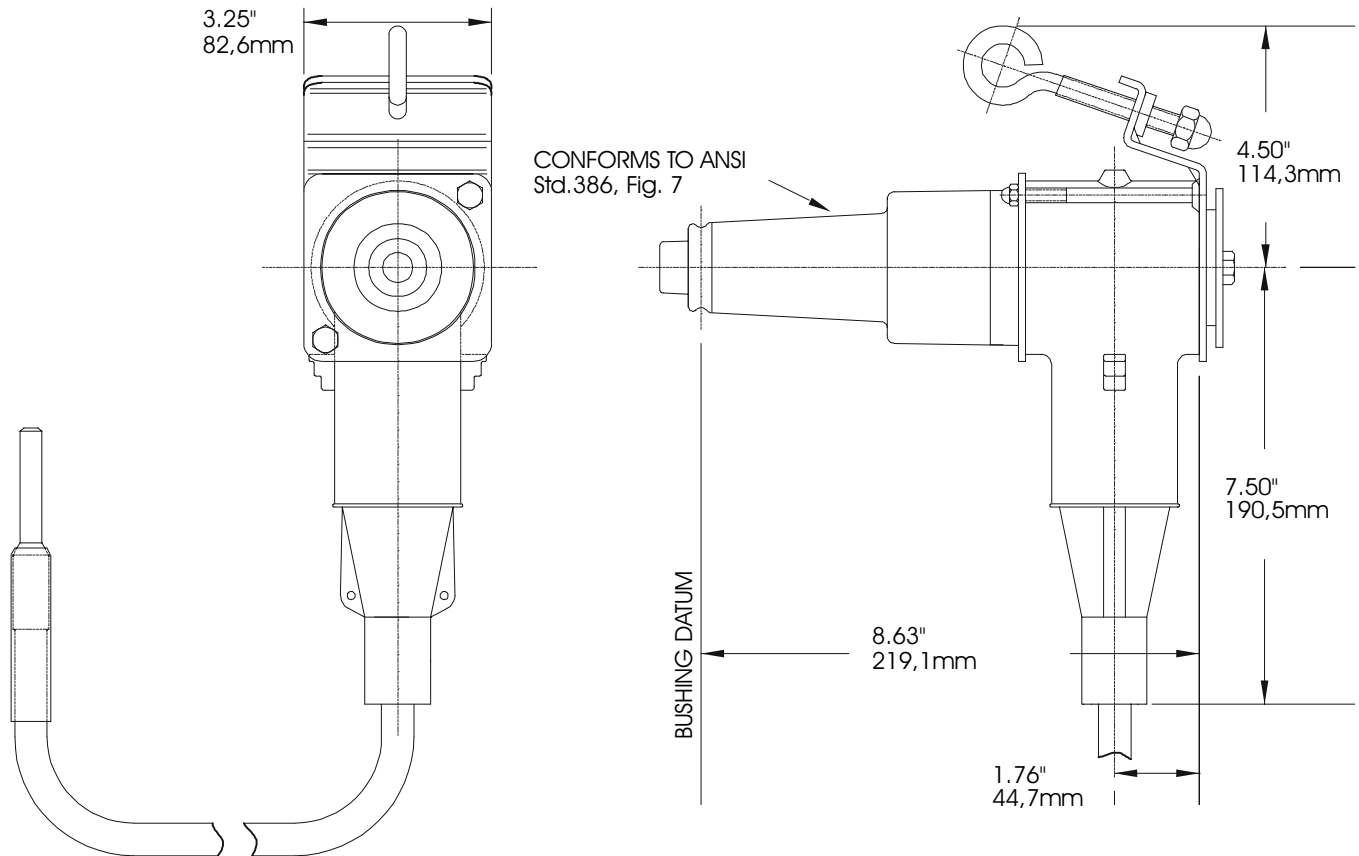


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Grounding Plug

ELASTIMOLD PART NUMBER

272GP

The Elastimold 272GP Grounding Plug is equipped with a 25kV class, 200 Amp loadbreak interface, 6 feet (183cm) of 1/0 AWG grounding cable, stainless steel mounting bracket and hot stick operable mounting hardware. The 161GP Grounding Plug is inserted into a standard parking stand with an insulated hot stick and secures in place. Mating Elastimold 25kV class loadbreak elbows can then be removed from the equipment and placed on the 272GP Grounding Bushing to ground the circuit.

Features:

- Contains a fully operational fault close mechanism in the grounding plug.
- Stainless Steel mounting bracket.
- 5/16"-18 stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the 272GP into the mating parking stand.

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 200Amp - Continuous
 10kA Sym - 10 Cycles Momentary & Fault Close

Applications:

The 272GP Grounding plug can be utilized if there is not enough room for a feed thru and a grounding elbow when the transformer is overcrowd with multiple secondaries. The 272GP Grounding Plug is an operating accessory used to ground circuit connected with loadbreak elbows as required during switching or system maintenance.

Installation & Operating Instructions 272GP Grounding Plug

CONTENTS: Grounding Plug, Lubricant (DO NOT SUBSTITUTE), Installation/Operating Instructions.

The grounding bushing is designed to provide plug-in visible ground for UD systems. The 272GP has a standard 25kV class loadbreak bushing interface (ANSI/IEEE STD 386 Fig. 7) for connecting to 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) Loadbreak elbow connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

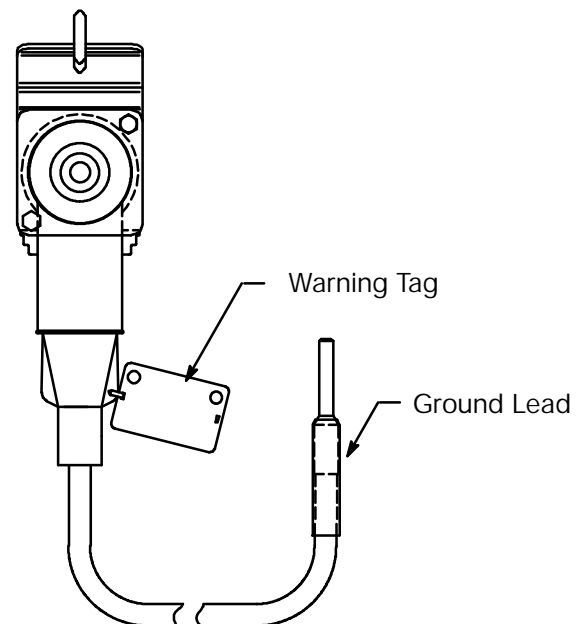
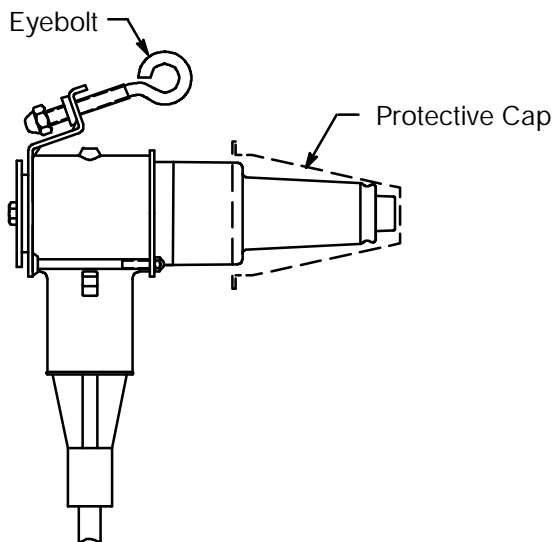
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

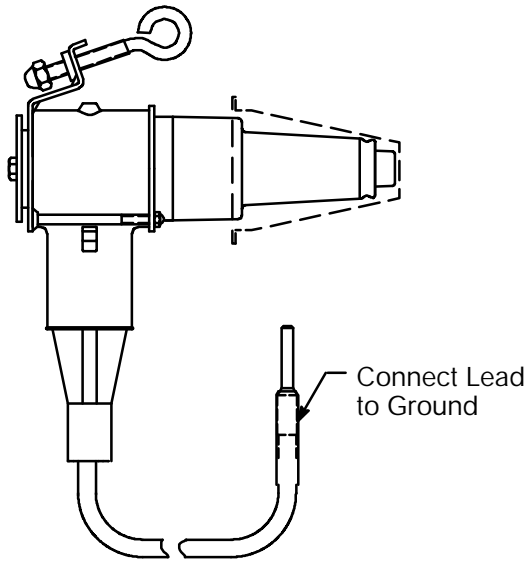
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



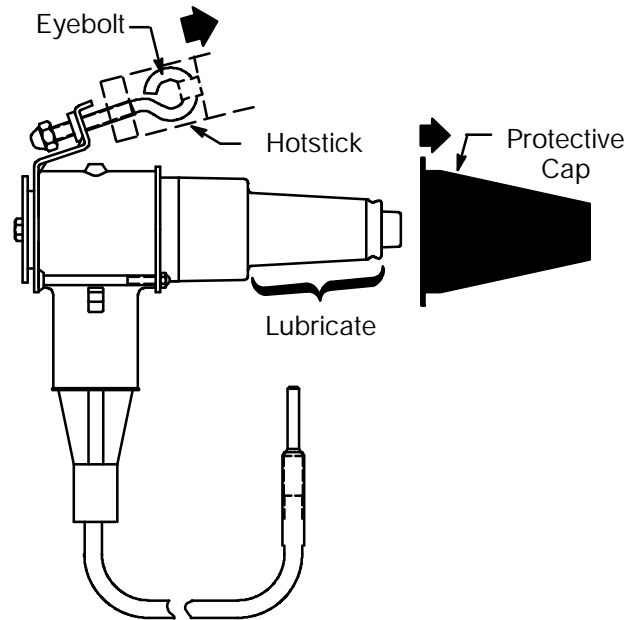
ELASTIMOLD

STEP A GROUNDING Connect lead on grounding plug to system ground. Leave enough slack in ground lead for hotstick operation of the grounding plug.



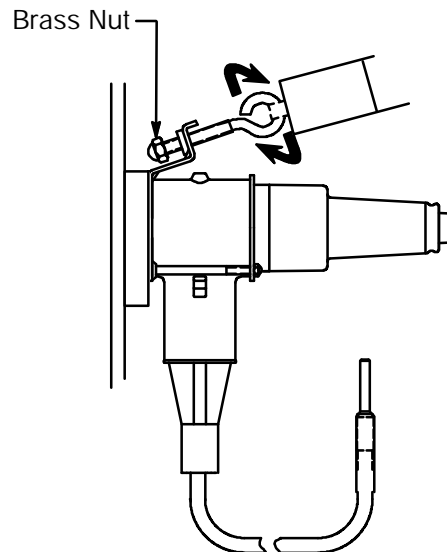
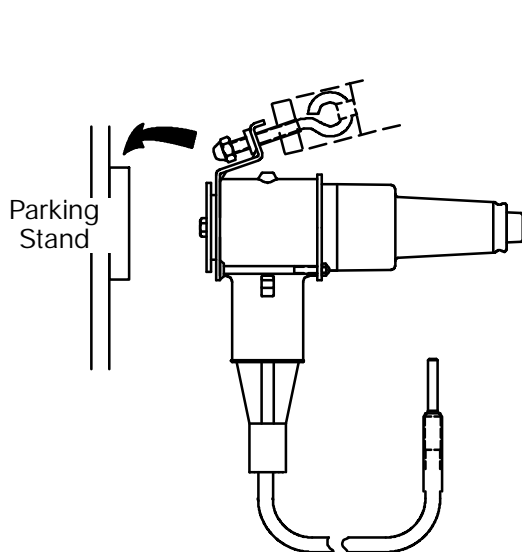
STEP B LUBRICATION & HOTSTICK ATTACHMENT

1. Remove protective cap and apply a light, uniform coat of supplied lubricant, working thoroughly into surface. CAUTION: EXCESS LUBRICANT may prevent a loadbreak elbow from being fully seated in the "locked on" position. Keep the external mating surface free from dirt and grime. Always replace protective cap when grounding plug is not in use.
2. Eyebolt should be positioned as shown before attaching the hotstick. Firmly tighten hotstick eyebolt to the grounding plug.



STEP C MOUNTING

1. Use hotstick to slide entire bracket of grounding plug into parking stand which is supplied on the apparatus.
2. Back off the hotstick. Rotate the eyebolt clockwise until the nut on the opposite end snugly wedges the grounding plug to the underside of the parking stand. **DO NOT OVERTIGHTEN BOLT.**

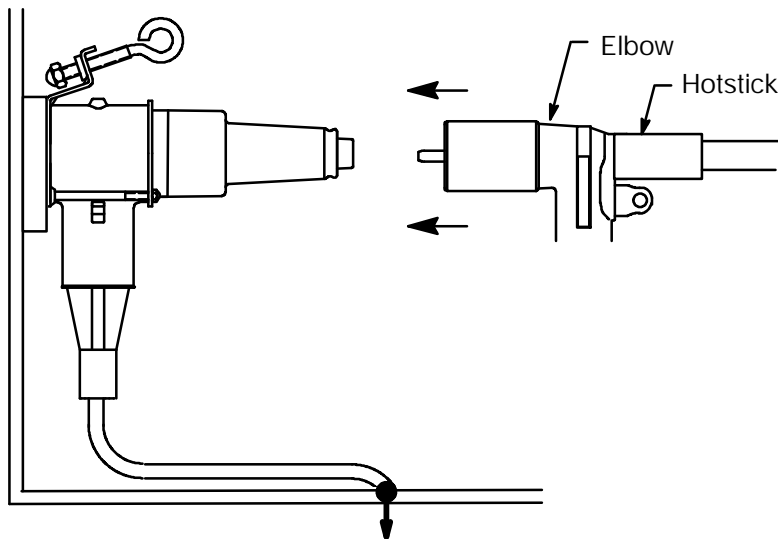


IMPORTANT: DO NOT INSERT ELBOW INTO GROUNDING PLUG UNLESS CIRCUIT HAS BEEN TESTED AND SHOWN TO BE "DE-ENERGIZED".

STEP D CONNECTION

1. Remove the de-energized loadbreak elbow connector from the loadbreak bushing following the operating instructions below. Insert the male contact on the loadbreak elbow into the grounding plug and push it home with a fast, firm straight motion. Make sure it is firmly in place and locking ring is seated.
2. Inspect the grounding plug ground lead for proper connection.

DANGER: IF THE GROUND LEAD DISCONNECTS DURING OPERATION DO NOT ATTEMPT TO REATTACH WITHOUT FIRST PULLING LOADBREAK ELBOW OFF THE GROUNDING PLUG WITH THE HOTSTICK, FOLLOWING THE OPERATING INSTRUCTIONS BELOW.



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type of tool.

Remove Fluid Injection or Voltage Test Cap and install Insulated Cap following instructions packaged with these parts.

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2" apart).

NOTE: DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION, which will engage the internal lock on the elbow and bushing interface.

Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. It is not recommended that operations be made on known faults.
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

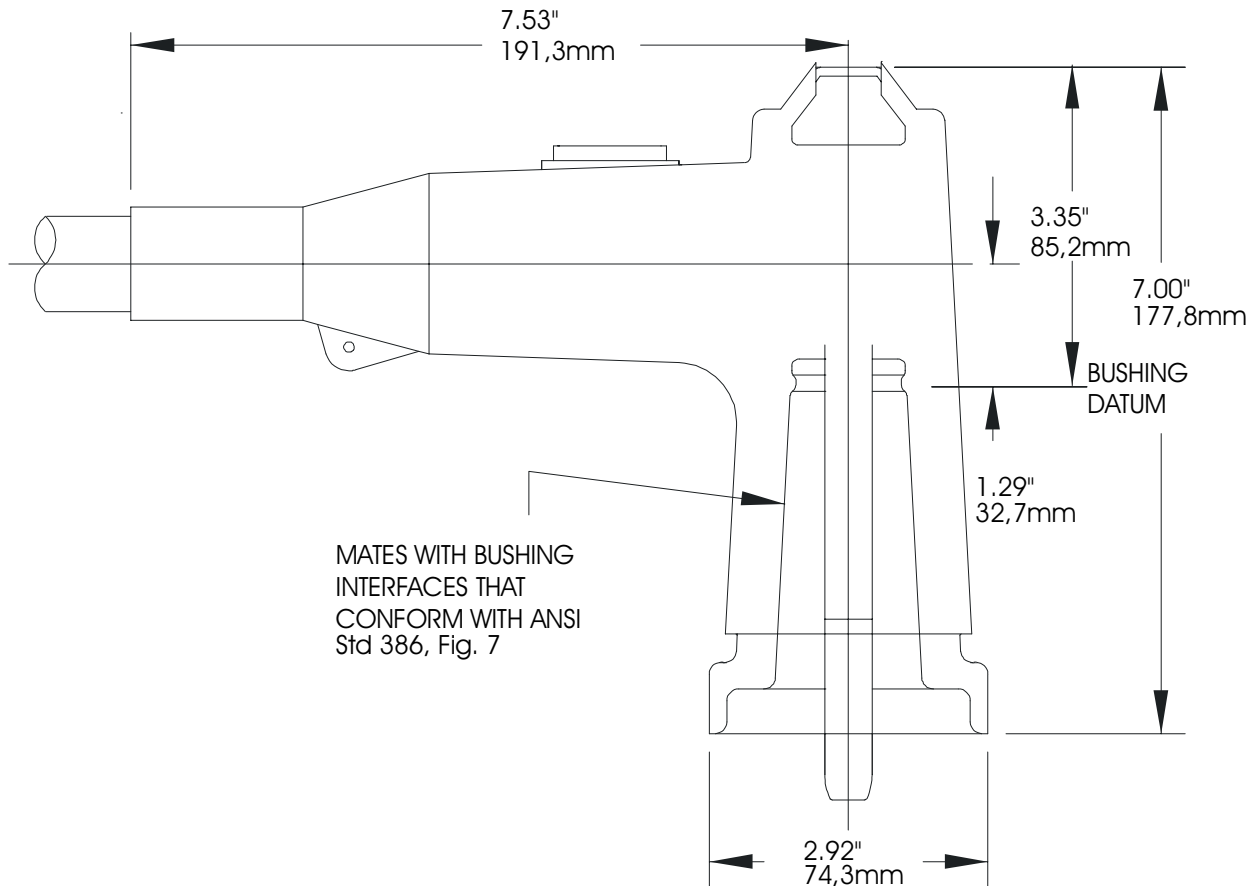


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Grounding Elbow

ELASTIMOLD PART NUMBER

160GLR

The 160GLR grounding elbow is designed to visibly ground cables, transformers, switchgear or other equipment. It can be operated alone or in combination with the 164FT feed-thru. The 160GLR grounding elbow has a stainless steel pulling eye and a 1/0 AWG, 6 ft, 600 volt insulated, stranded, tinned copper ground lead.

Ratings

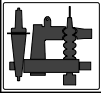
per ANSI/IEEE Standard 386
 15kV Voltage Class
 10kA Sym - 10 Cycle Momentary & Fault Close
 200Amp - Continuous

Ordering Instructions:

To order, specify catalog number **160GLR** Grounding Plug

The 160GLR Grounding Plug includes the following:

1 - Grounding Plug	160GLR
1 - Lubricant	82-08
1 - Protective Shipping Cap	160-164-1
1 - Operation instruction	IS-160/370GLR (A) 4/92

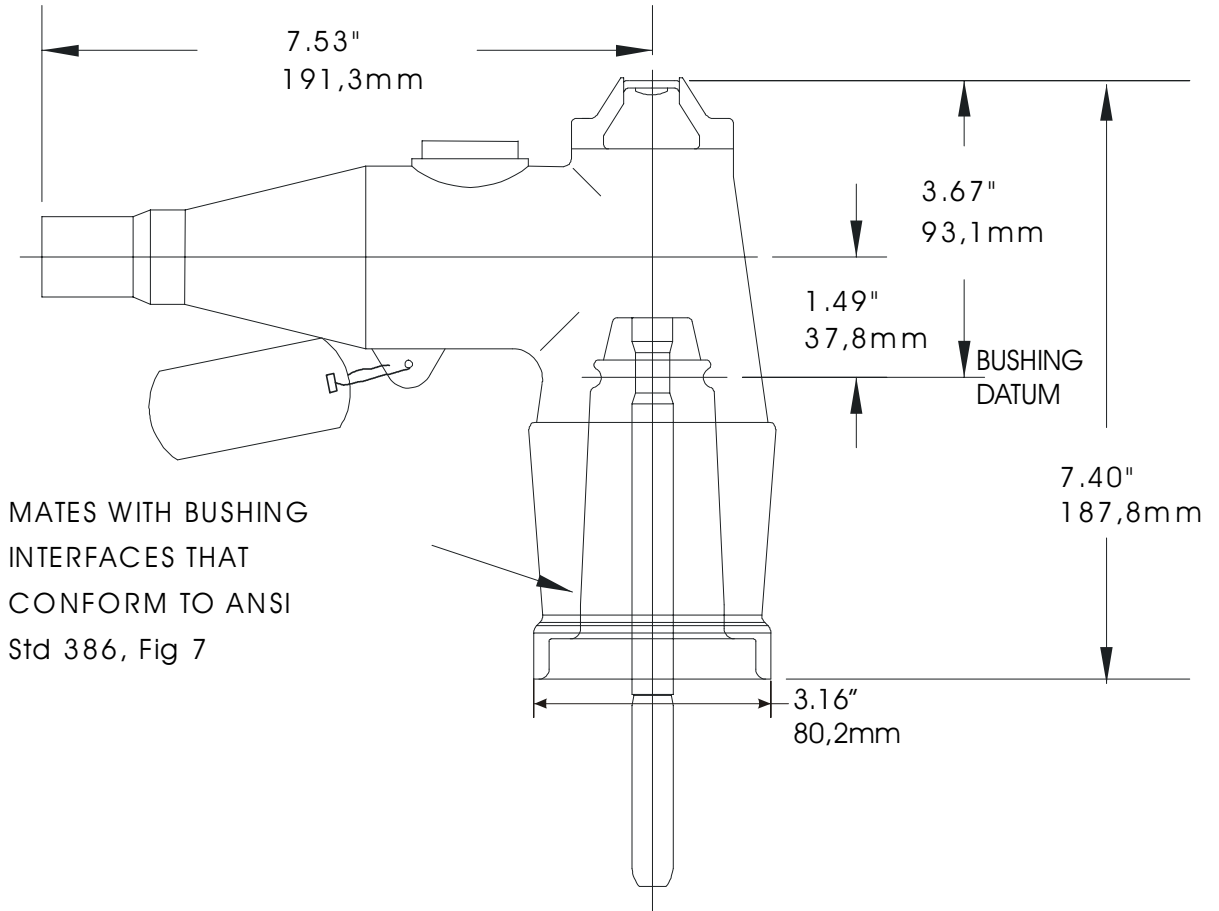


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25/35kV 200A Grounding Elbow

ELASTIMOLD PART NUMBER

370GLR

MATES WITH BUSHING
INTERFACES THAT
CONFORM TO ANSI
Std 386, Fig 7

Ratings:

The 370GLR grounding elbow is designed to visibly ground cables, transformers switchgear or other equipment. It can be operated alone or in combination with the 25kV and 35kV class 274FT/373FT feed-thru. The 370GLR also keeps the bushing interface free of contamination during the grounding elbow has a stainless steel pulling eye and a 1/0 AWG, 6 ft, 600 volt insulated, stranded, tinned copper ground lead.

per ANSI/IEEE Standard 386
35kV Voltage Class
10kA Sym - 10 Cycles Momentary & Fault Close
200Amp - Continuous

Ordering Instructions:

To order, specify catalog number **370GLR** Grounding Plug

The 370GLR Grounding Plug includes the following:

1 - Grounding Plug	370GLR
1 - Lubricant	82-08
1 - Protective Shipping Cap	160-164-2
1 - Operation instruction	IS-160/370GLR (A) 4/92

Installation & Operating Instructions 160GLR & 370GLR GROUNDING ELBOW

CONTENTS: *Grounding Elbow, Lubricant (DO NOT SUBSTITUTE), Installation/Operating Instruction*

The grounding elbow is designed to provide plug-in, visible grounding for UD systems. The 160GLR provides an operating interface for connecting to an ANSI/IEEE STD 386 Fig. 5, 15kV class (nominal 8.3kV phase-to-ground and 14.4kV phase-to-phase) 200 ampere loadbreak bushing or accessory device with fault close rating of 10,000 amperes, symmetrical.

The 370GLR provides an operating interface for connecting to an ANSI/IEEE STD 386 Fig. 7, 25kV class (nominal 15.2kV phase-to-ground and 26.3kV phase-to-phase) or 35kV class (nominal 21.1kV phase-to-ground and 36.6kV phase-to-phase) 200 ampere loadbreak bushing or accessory device with fault close rating of 10,000 amperes, symmetrical.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

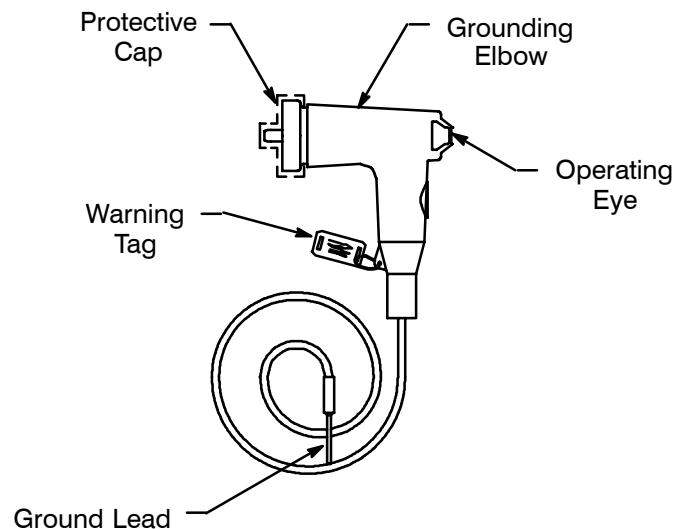
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

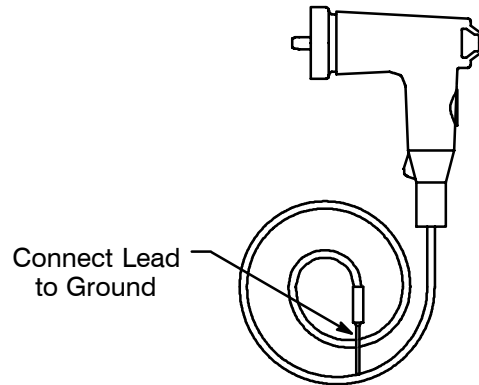
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



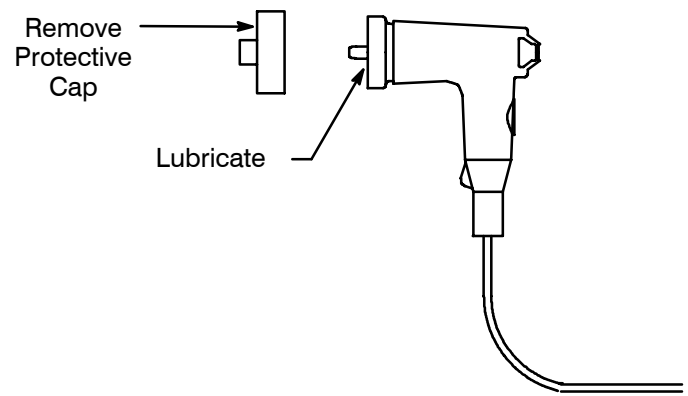
STEP A GROUNDING

Connect lead on grounding elbow to system ground. Leave enough slack in ground lead for hotstick operation of the grounding elbow.



STEP B LUBRICATION

Remove protective cap and apply a light, uniform coat of supplied lubricant, working thoroughly into surface. **CAUTION:** EXCESS LUBRICANT may prevent the grounding elbow from being fully seated in the "locked on" position. Keep the internal mating surface free from dirt and grime.



IMPORTANT: Do not insert grounding elbow into bushing unless circuit has been tested and shown to be "de-energized".

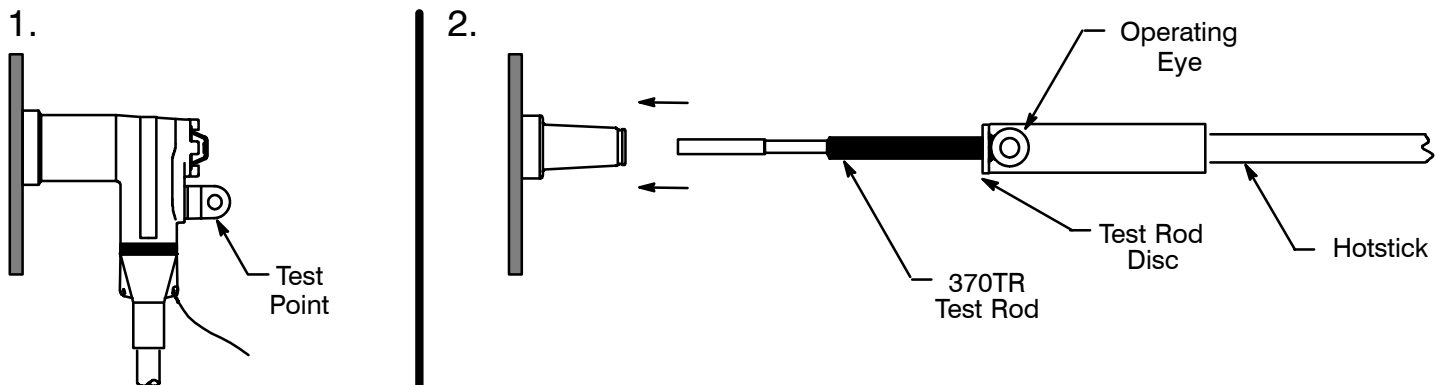
STEP C PREPARATION

ENSURE THAT THE SYSTEM IS DE-ENERGIZED WITH EITHER OF THE FOLLOWING PROCEDURES:

1. Check the capacitive test point on the loadbreak elbow for voltage, with an appropriate voltage detection device.
CAUTION: The voltage test point is a capacitance device; it is not directly connected to the conductor. It requires the use of specially designed instruments. **NO INDICATION WILL BE OBTAINED UNLESS THE CORRECT TOOL IS USED.**
2. Remove existing elbow or insulated cap from the bushing with a hotstick following the applicable loadbreak operating instructions (IS--167/168LR, IS--273/274LR or IS--375/376LR). Firmly tighten a hotstick to the 370TR test rod operating eye. Insert the test rod into the bushing. Using a meter capable of direct reading the system voltage, check the test rod disc for voltage. Remove test rod.

IMPORTANT: If voltage is indicated by either of the two preceding procedures, do not proceed without de-energizing the system.

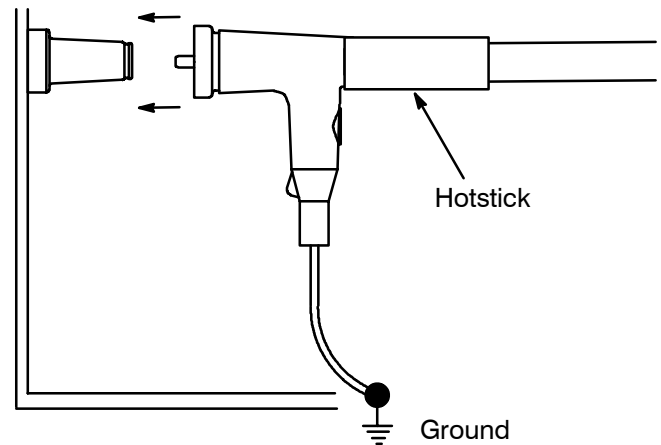
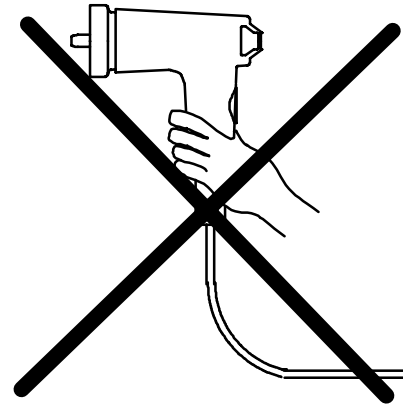
CAUTION: The hotstick eye and disc of the test rod are not insulated; be careful to keep them clear from ground until tested "de-energized".



IF ONE OF THE ABOVE MEASUREMENTS INDICATES THE SYSTEM IS DE--ENERGIZED PROCEED WITH STEP D.

STEP D CONNECTION

1. **CAUTION:** Continue to treat the system as energized using a hotstick for all operations in case of error or equipment malfunction in Step C: **DO NOT OPERATE BY HAND.**
2. Firmly tighten a hotstick to the grounding elbow operating eye.
3. Place the grounding elbow receptacle area over the bushing, inserting the probe into the bushing until the first slight resistance is felt.
4. Firmly thrust the grounding elbow home with a fast, straight motion, which will engage the internal lock of the grounding elbow into the bushing interface.
5. **CAUTION:** Inspect ground lead for proper connection. If ground lead disconnects during operation, **DO NOT** attempt to re--attach without first pulling grounding elbow off the bushing with a hotstick.
6. To return the loadbreak elbow to the apparatus bushing and to remove the grounding elbow, reverse the operational sequence, following the applicable loadbreak--loadmake operating instructions.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852--1122 FAX: (908)813--2147
A Unit of Thomas & Betts Corporation

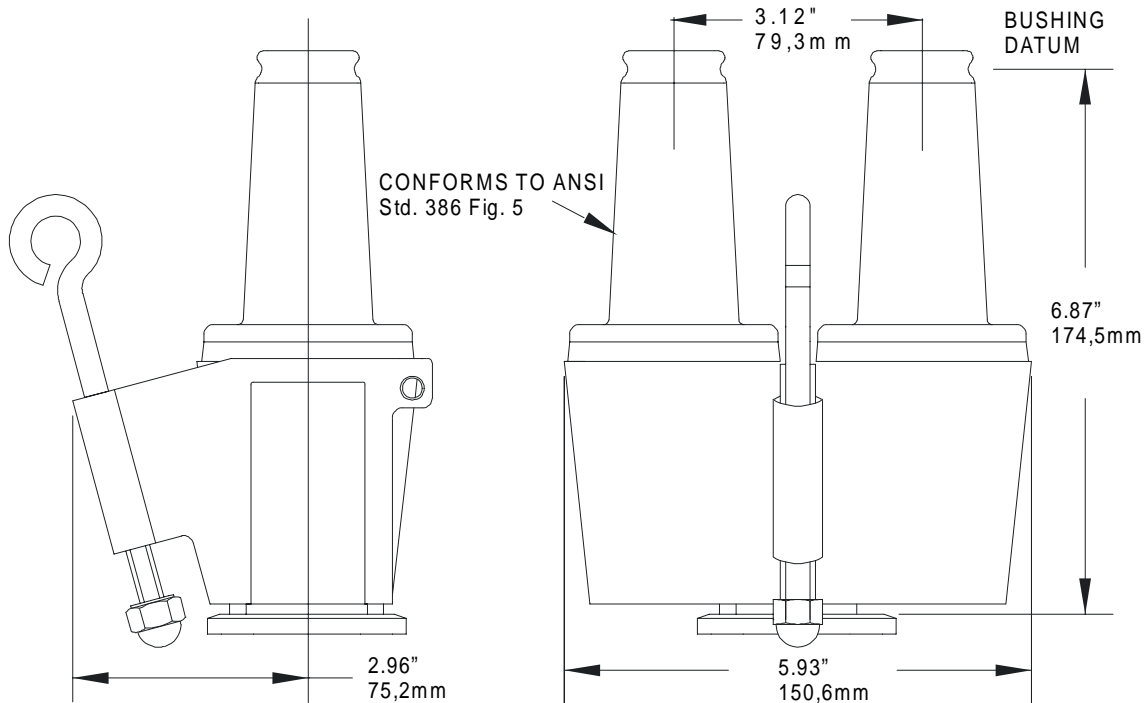


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Feed-Thru

ELASTIMOLD PART NUMBER

164FT

The 164FT feed-thru is a fully shielded, fully submersible, separable insulated connector designed for energized operation. It is suitable for use on 15kV class loadbreak systems. When used in conjunction with 15kV class elbow connectors, the 164FT provides the circuit with the loadbreak junction point. Testing and grounding of the circuit is accomplished when the 164FT is used in conjunction with the 370TR and 160GLR. When used in conjunction with a 160DR the 164FT can be used to isolate and "dead-end" the circuit. The 164FT is designed to mate with the following Elastimold products:

- 165LR/166LR elbow connector
- 370TR test rod
- 160GLR grounding elbow
- 160DR/DRG insulated cap

Ratings

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

34kV AC - One minute Withstand

53kV DC - 15 Minutes Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **164FT** Feed-thru

The 164FT Feed-thru includes the following:

1 - Feed-thru body	164J2-4
1 - Mounting hardware	164FT-6
2 - Protective shipping cap	1601-APC-1
2 - Lubricant	82-08
1 - Installation instruction	IS-164FT 9/96

Installation & Operating Instructions 164FT FEED-THRU/GROUNDING DEVICE

CONTENTS: Feed-thru Body Complete with Mounting Hardware, Lubricant (DO NOT SUBSTITUTE), Operating Instruction

IMPORTANT: Read these instructions and the Loadbreak Elbow Operating Instructions (IS-167/168LR COMPLETELY before operating connectors.

The feed-thru can be used for the following functions: A) A junction point, B) A grounding point. To use the feed-thru as a junction point, follow steps 1 to 7. To use the feed-thru as a grounding point, follow steps 1 to 5 and 8 to 9.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

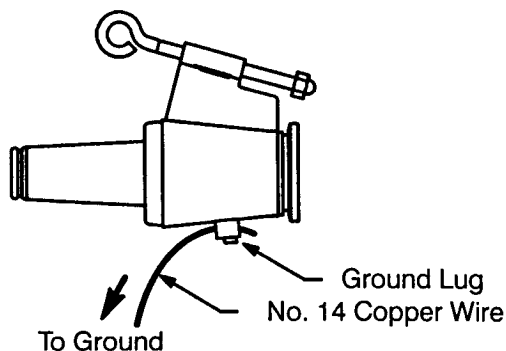
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Grounding – Insert ground lead into the grounding lug provided on the mounting hardware and tighten lug. Ground lead should be No. 14 copper wire or equivalent. Connect the opposite end of the lead to ground, leaving enough slack to operate with a hotstick.



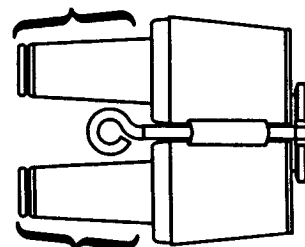
STEP 2

Remove the protective caps from the bushings of the feed-thru.

PROTECTIVE CAPS MUST NOT BE ON THE BUSHINGS OF THE FEED-THRU WHEN THE FEED-THRU IS BEING USED. When the feed-thru is not in use, the protective caps should be placed on the bushings of the feed-thru to protect them from dirt and other contaminants.

Clean the bushing surfaces and lubricate them with the lubricant supplied. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating product(s).

Clean & Lubricate

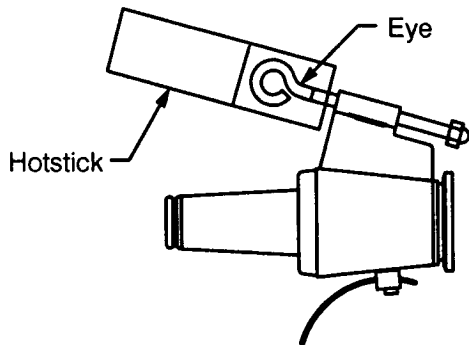


Clean & Lubricate



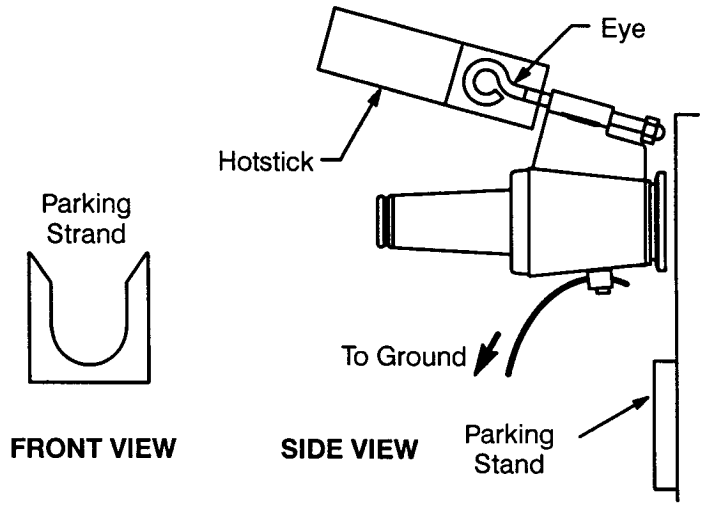
STEP 3

Attach feed-thru eye firmly to hotstick.



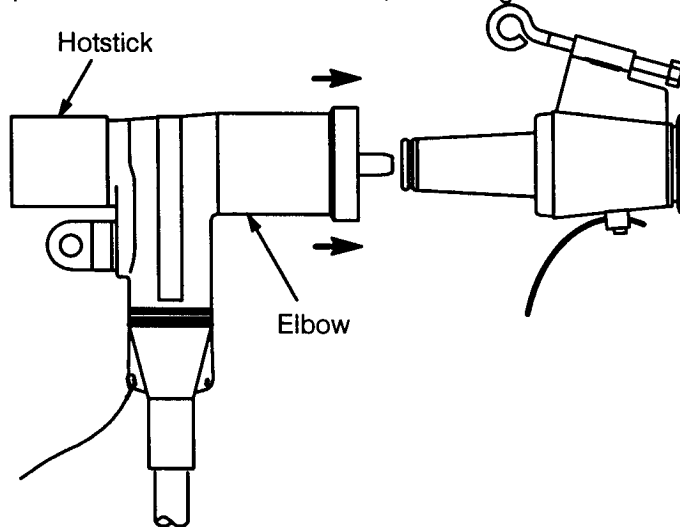
STEP 4

Using a hotstick, slide feed-thru onto parking stand. Unlock hotstick and back off, to allow space for eyebolt to be tightened. Tighten eyebolt by rotating hotstick clockwise until snug. DO NOT OVERTIGHTEN. Release hotstick.



STEP 5

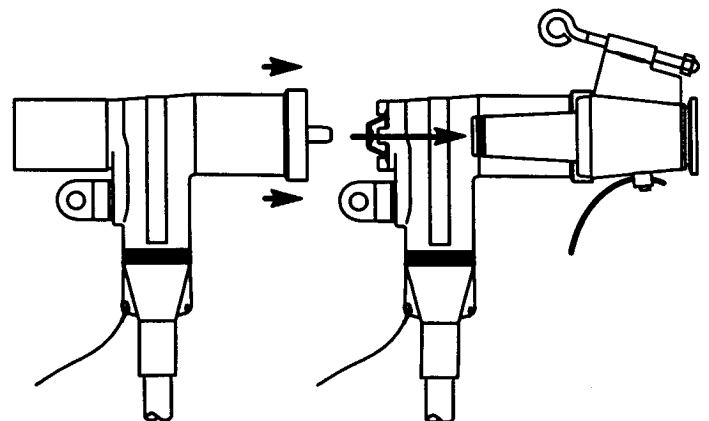
Remove one loadbreak elbow from its apparatus loadbreak bushing following the applicable loadbreak operating instructions (IS-165/166LR). Using a hotstick, firmly attached to the elbow, insert the probe tip into one feed-thru until the first slight resistance is felt. Immediately push the elbow home with a fast, firm straight motion which will engage the internal lock on the mating interfaces.



FOR JUNCTION POINT APPLICATION FOLLOW STEPS 6 AND 7

STEP 6

Remove second loadbreak elbow, following the applicable loadbreak operating instructions (IS-165/166LR). Using a hotstick, firmly attached to the elbow, insert the probe tip into the remaining feed-thru until the first slight resistance is felt. Immediately push the elbow home with a fast, firm straight motion which will engage the internal lock on the mating interfaces.



STEP 7

When it is desired to re-connect the elbow(s) to the apparatus bushing(s), first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.

FOR GROUNDING POINT APPLICATION FOLLOW STEPS 8 TO 9

IMPORTANT: Do not insert grounding elbow into Feed-Thru unless circuit has been tested "De-Energized".

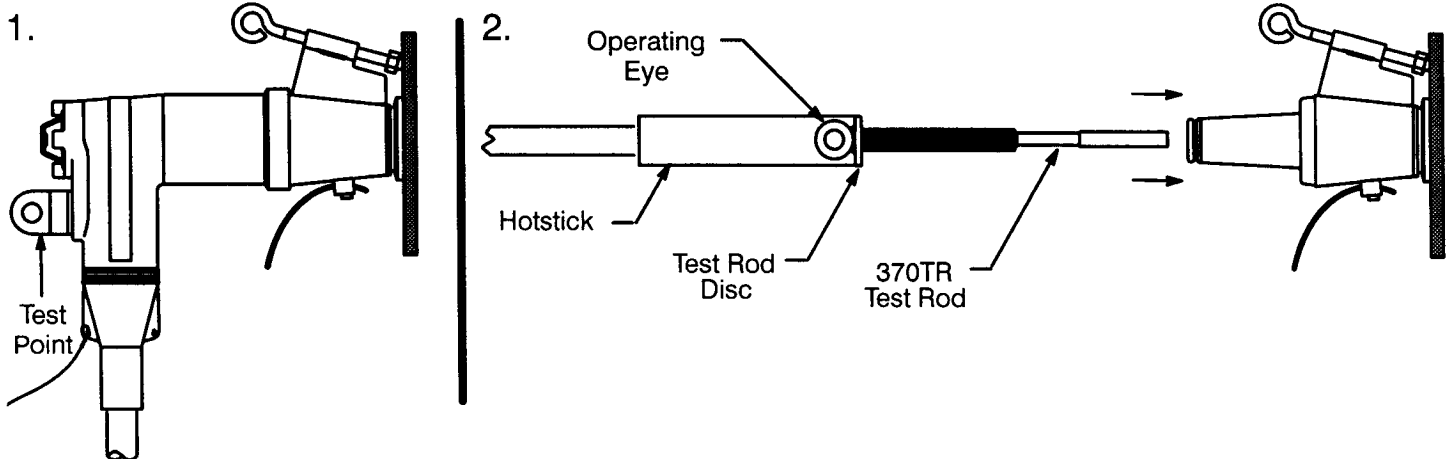
STEP 8

Ensure that the system is de-energized with either of the following procedures.

1. Check the capacitive test point on the loadbreak elbow for voltage, with an appropriate voltage detection device.
CAUTION: The voltage test point is a capacitance device; it is not directly connected to the conductor. It requires the use of specially designed instruments. Do not use conventional voltage measuring requirements; **NO INDICATION WILL BE OBTAINED.**
2. Remove existing elbow or insulated cap from the bushing with a hotstick following the applicable loadbreak operating instructions (IS-165/166LR, IS-273/274LR or IS-375/376LR). Firmly tighten a hotstick to the 370TR test rod operating eye. Insert the test rod into the bushing. Using a meter capable of direct reading the system voltage, check the test rod disc for voltage. Remove test rod.

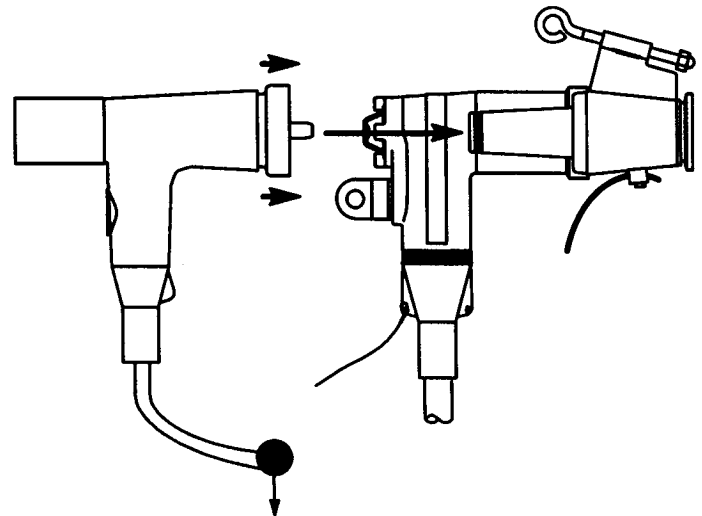
IMPORTANT: If voltage is indicated by either of the two preceding procedures, do not proceed without De-energizing the system.

IMPORTANT: The hotstick eye and disc of the test rod are not insulated; be careful to keep them clear from ground until tested "de-energized".



STEP 9

Install ground elbow into the second plug of the feed-thru, following the grounding elbow operating instructions (IS-160/370GLR).



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

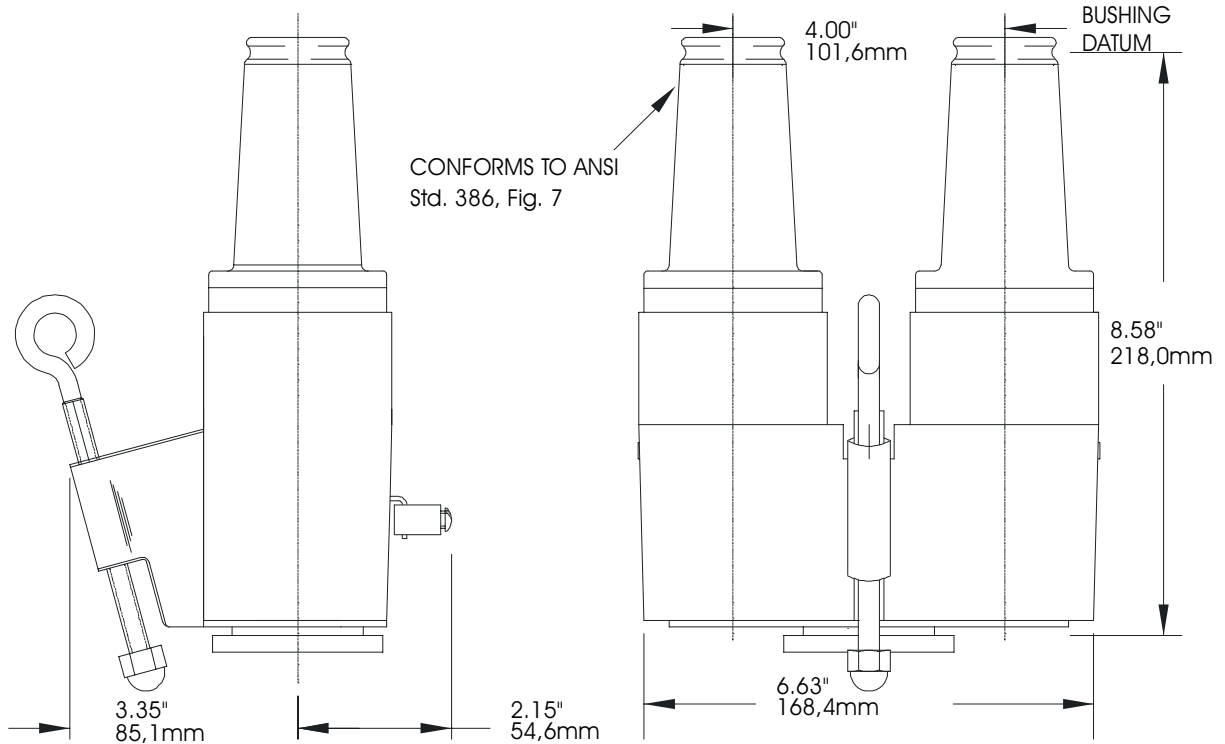


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Loadbreak Feed-Thru

ELASTIMOLD PART NUMBER

274FT

The 274FT feed-thru is a fully shielded, fully submersible, separable insulated connector designed for energized operation. It is suitable for use on 25kV class loadbreak. When used in conjunction with 25kV class elbow connectors, the 274FT provides the circuit with the loadbreak junction point. Testing and grounding of the circuit is accomplished when the 274FT is used in conjunction with the 370TR and 370GLR. When used in conjunction with a 273DRG/274DRG the 274FT can be used to isolate and "dead-end" the circuit. The 274FT is designed to mate with the following Elastimold products:

- 273LR/274LR elbow connector
- 370TR test rod
- 370GLR grounding elbow
- 273DRG/274DRG insulated cap

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **271FT** Feed-thru

The 271FT Feed-thru includes the following:

1 - Feed-thru body	271J2-4
1 - Mounting hardware	271FT-6
2 - Protective shipping cap	2701-41
2 - Lubricant	82-08
1 - Installation instruction	IS-271FT 5/92

Operating Instructions 274FT Feed-Thru/Grounding Device

CONTENTS: Feed-thru body complete with mounting hardware, Lubricant, Operating Instructions.

The 274FT provides interconnected apparatus interfaces for Elastimold 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) loadbreak connections and can be used for the following functions:

A. A junction point. **B.** A grounding point.

To use the feed-thru as a junction point, follow steps 1 to 5 and 6A and 7A.

To use the feed-thru as a grounding point, follow steps 1 to 5 and 6B to 9B.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

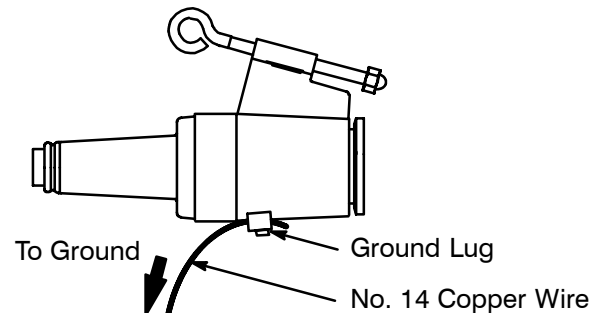
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Grounding- Insert ground lead into the grounding lug provided on the mounting hardware and tighten lug. Ground lead should be No. 14 copper wire or equivalent. Connect the opposite end of the lead to ground, leaving enough slack to operate with a hotstick.



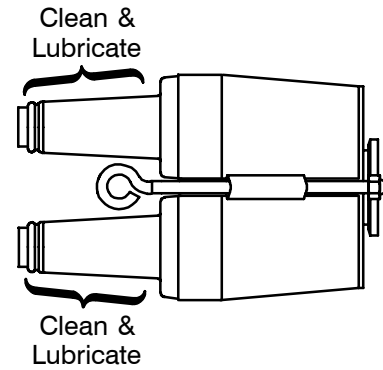
ELASTIMOLD

STEP 2

Remove the protective caps from the bushings of the feed-thru.

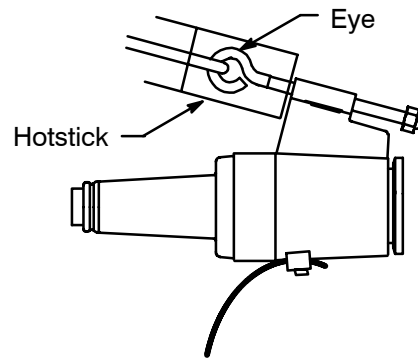
PROTECTIVE CAPS MUST NOT BE ON THE BUSHINGS OF THE FEED-THRU WHEN THE FEED-THRU IS BEING USED. When the feed-thru is not in use, the protective caps should be placed on the bushings of the feed-thru to protect them from dirt and other contaminants.

Clean the bushing surfaces and lubricate them with the lubricant supplied. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating product(s).



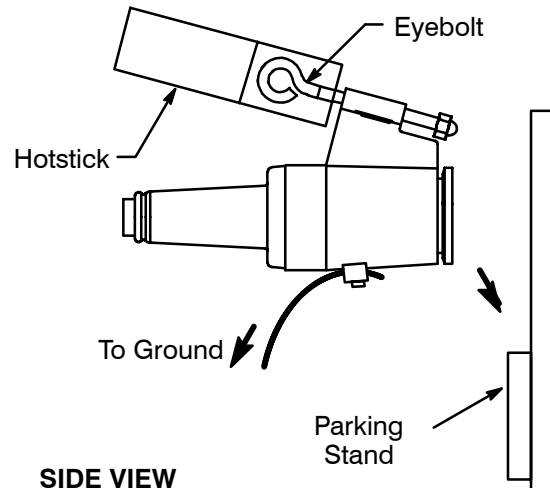
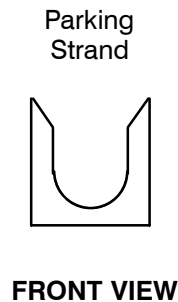
STEP 3

Attach feed-thru eye firmly to hotstick.



STEP 4

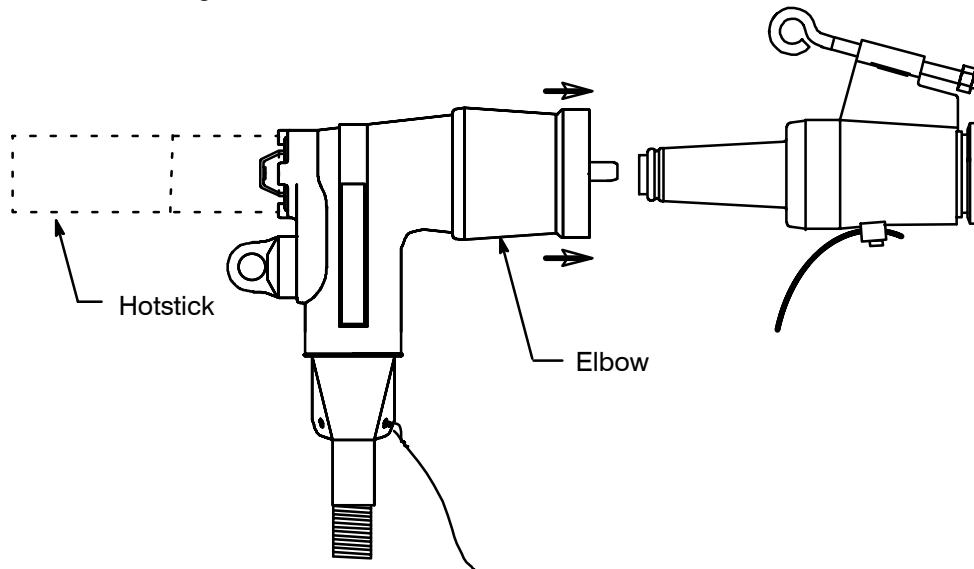
Using a hotstick, slide feed-thru onto parking stand. Unlock hotstick and back off, to allow space for eyebolt to be tightened. Tighten eyebolt by rotating hotstick clockwise until snug. DO NOT OVERTIGHTEN. Release hotstick.



STEP 5

CAUTION: Check that ground lead is connected between feed-thru lug and ground before assembling elbow. Do not attempt to attach ground lead after elbow is assembled.

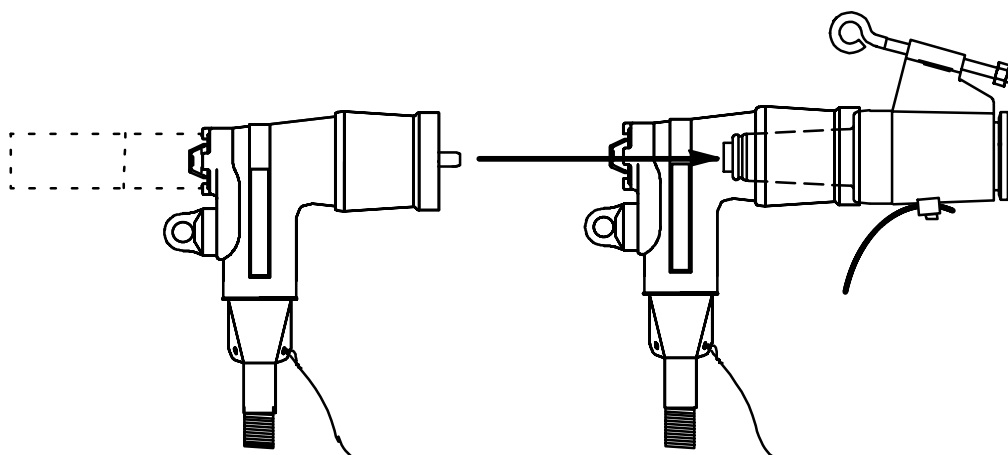
Remove one loadbreak elbow from its apparatus loadbreak bushing plug following the applicable loadbreak operating instructions (IS-273,274LR). Using a hotstick, firmly attached to the elbow, insert the pin contact of the loadbreak elbow into one of the feed-thru bushings, approximately 2". Immediately push the elbow home with a fast, firm straight motion which will engage the internal lock on the mating interfaces. Release hotstick.



FOR JUNCTION POINT APPLICATION FOLLOW STEPS 6A AND 7A

STEP 6A

Remove the second loadbreak elbow, following the applicable LOADBREAK operating instructions (IS-273/274LR). Using a hotstick, firmly attached to the elbow, insert the pin contact of the loadbreak elbow into the remaining feed-thru bushing approximately 2". Immediately push the elbow home with a fast, firm straight motion which will engage the internal lock on the mating interfaces. Release hotstick.



STEP 7A

When it is desired to reconnect the elbow(s) to the apparatus bushing(s), first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.

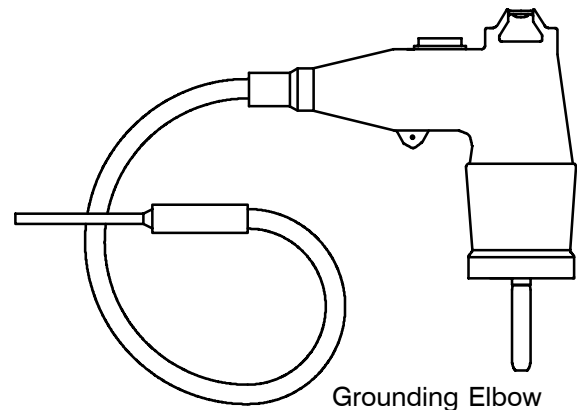
FOR GROUNDING POINT APPLICATION FOLLOW STEPS 6B TO 9B

STEP 6B

Connect lead on ELASTIMOLD 370GLR grounding elbow to ground.

CAUTION: Do not attempt to connect the ground lead to ground after assembling the ground elbow on bushing. If bushing is energized contact with an ungrounded lead will cause serious or fatal injury from electric shock.

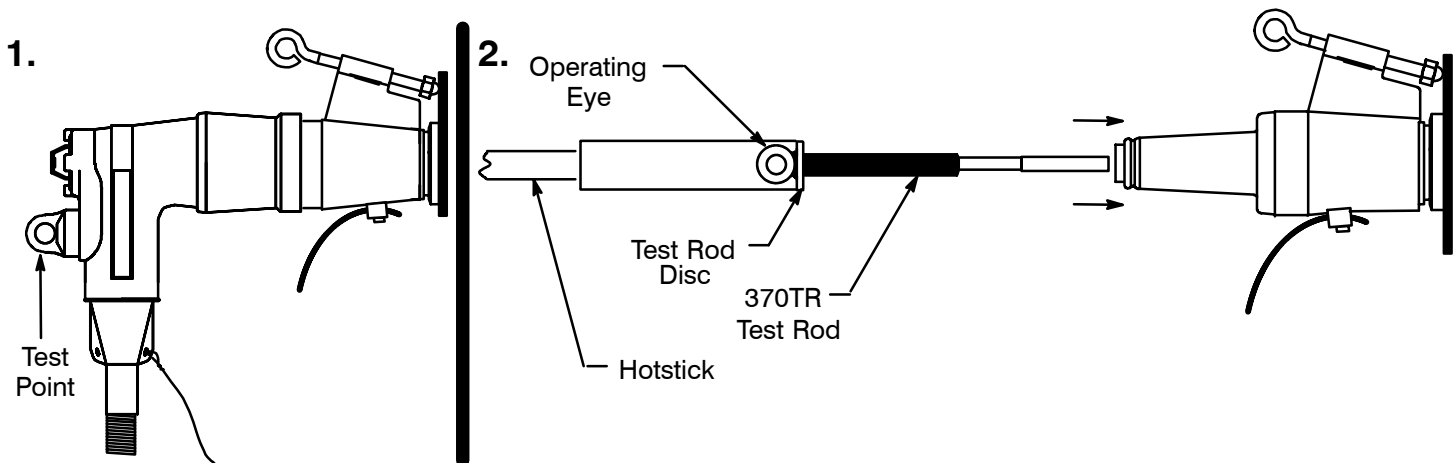
IMPORTANT: Do not insert grounding elbow into feed-thru unless circuit has been tested "dead".



STEP 7B

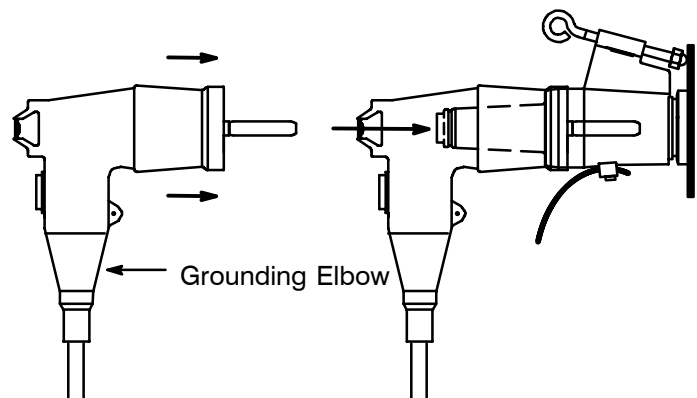
1. To test "dead" use the capacitive test point on the 274LR elbow or
2. Using a 370TR test rod, attach the test rod eye firmly to the hotstick. Insert the test rod into the second plug of the feed-thru. Check the test rod disc for voltage.

The hotstick eye and disc of the test rod are not insulated; be careful to keep them clear from ground until tested "de-energized".



STEP 8B

After the circuit has been tested "dead" remove the test rod and using the hotstick immediately insert the grounding elbow.



STEP 9B

When it is desired to reconnect the elbow to the apparatus bushing, first make certain no faults exist on the system to return the loadbreak elbow to the apparatus bushing. To remove the grounding elbow reverse the operational sequence following the applicable loadbreak-loadmake operating instructions.

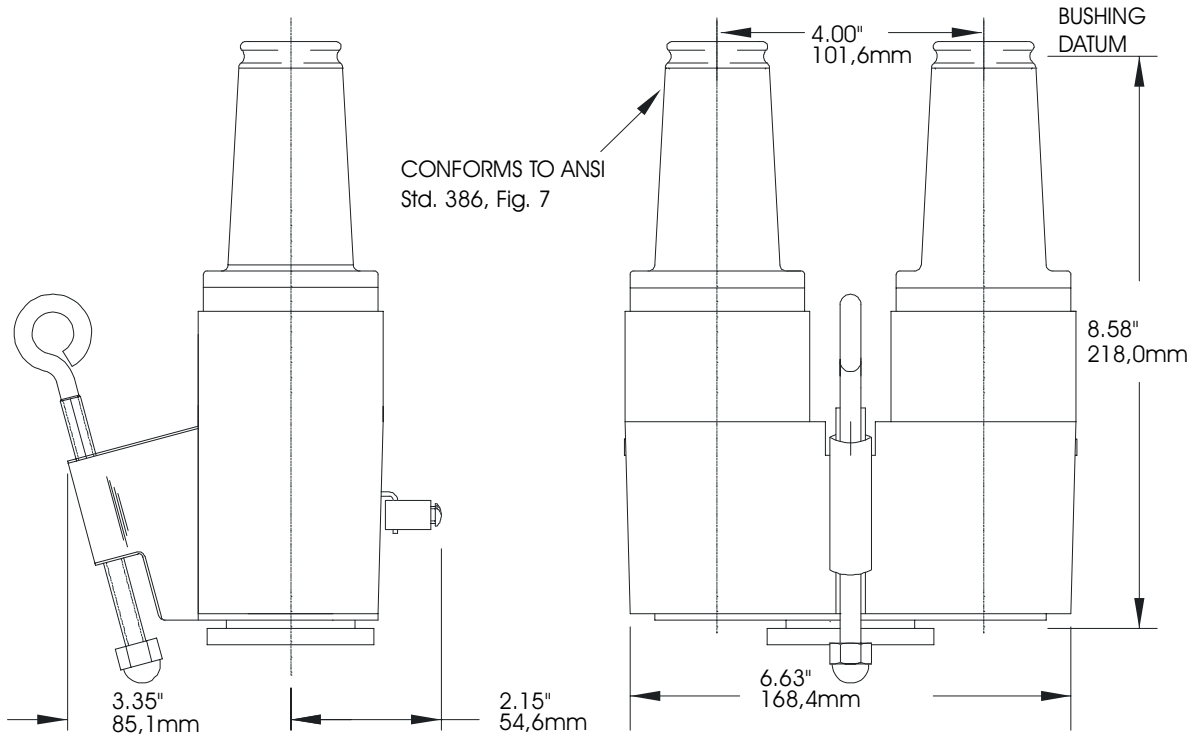


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 200A Loadbreak Feed-Thru

ELASTIMOLD PART NUMBER

373FT

The 373FT feed-thru is a fully shielded, fully submersible, separable insulated connector designed for energized operation. It is suitable for use on 35kV class loadbreak systems. When used in conjunction with 35kV class elbow connectors, the 373FT provides the circuit with the loadbreak junction point. Testing and grounding of the circuit is accomplished when the 373FT is used in conjunction with the 370TR and 370GLR. When used in conjunction with a 375DRG/376DRG the 373FT can be used to isolate and "dead-end" the circuit. The 373FT is designed to mate with the following Elastimold products:

- 375LR/376LR elbow connector
- 370TR test rod
- 370GLR grounding elbow
- 375DRG/376DRG insulated cap

Ratings:

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **373FT** Feed-thru

The 373FT Feed-thru includes the following:

1 - Feed-thru body	373J2-4
1 - Mounting hardware	373FT-6
2 - Protective shipping cap	2701-41
2 - Lubricant	82-08
1 - Installation instruction	IS-373FT 10/82

Operating Instructions 373FT Feed-Thru/Grounding Device

CONTENTS: 1—Feed-thru body complete with mounting hardware, 1—Tube silicone grease, 1—Wiping cloth.

IMPORTANT: Read these instructions and the Loadbreak Elbow Operating Instructions **COMPLETELY** before operating connectors.

The 373FT is designed to interface with ELASTIMOLD 35kV class (21.1 phase-to-ground and 36.6kV phase-to-phase) loadbreak connectors for the following functions:

A. A junction point. B. A grounding point.

To use the feed-thru as a junction point, follow steps 1 to 5 and 6A and 7A.

To use the feed-thru as a grounding point, follow steps 1 to 5 and 6B to 9B.

DANGER

The product should be operated only by competent personnel familiar with good safety practices in handling high-voltage electrical equipment to avoid fatal electric shock.

These instructions are not intended as a substitute for adequate training and experience in such good safety practices.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

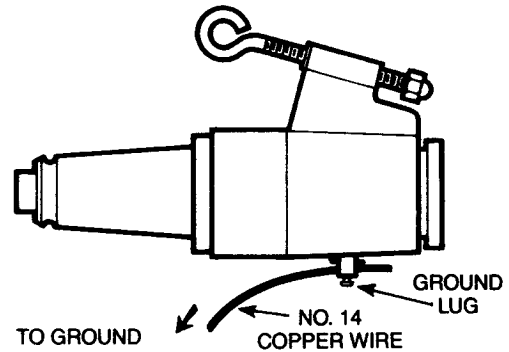
These instructions do not attempt to provide for every possible contingency.

Operate according to the following instructions.

Do not energize or submerge apparatus with cap(s) on Operating interface(s).

STEP 1

Grounding—Insert electrostatic grounding lead into the grounding lug provided on the mounting hardware and tighten lug. Ground lead should be No. 14 copper wire or equivalent. Connect the opposite end of the lead to ground, leaving enough slack to operate with a hotstick.



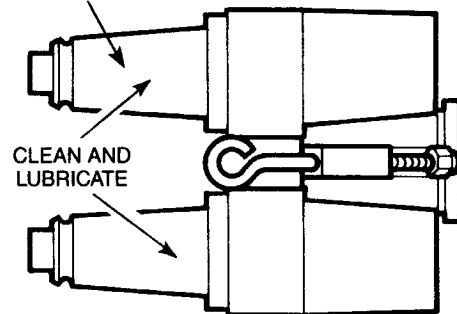
STEP 2

Remove the protective caps from the bushings of the feed-thru.

NOTE: Protective caps must not be on the bushings of the feed-thru when the feed-thru is being used. When the feed-thru is not in use, the protective caps should be placed on each operating interface of the feed-thru to protect them from dirt and other contaminants.

Clean the bushing surfaces and lubricate them with silicone grease supplied (DO NOT SUBSTITUTE). Other lubricants may be harmful to this product and its mating product(s).

OPERATING INTERFACE

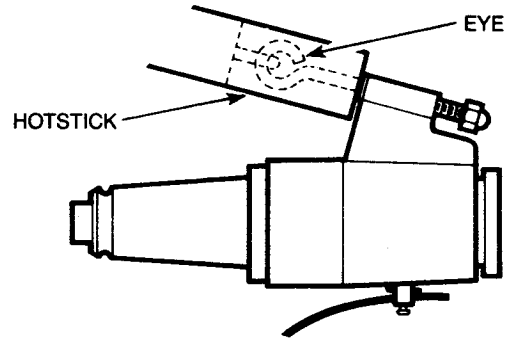


**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840, (201) 852-1122

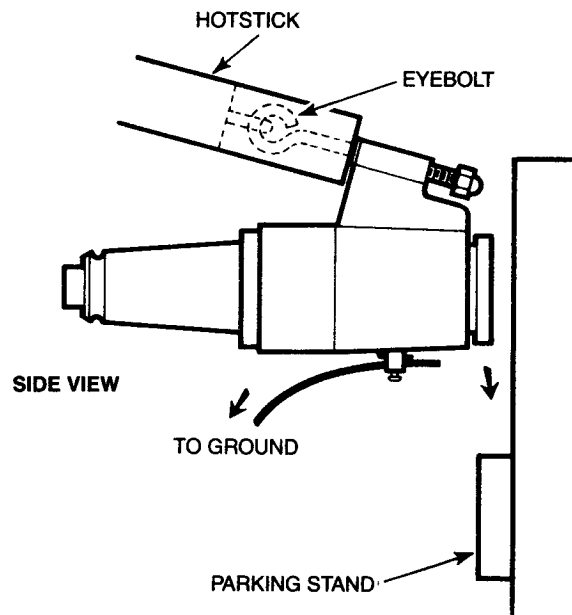
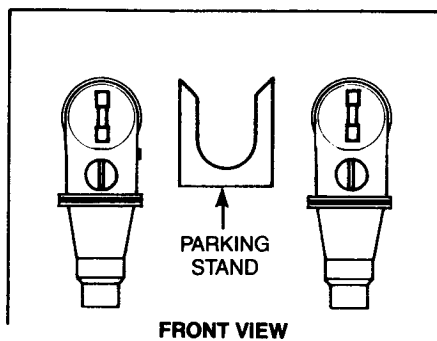
STEP 3

Attach feed-thru eye firmly to hotstick.



STEP 4

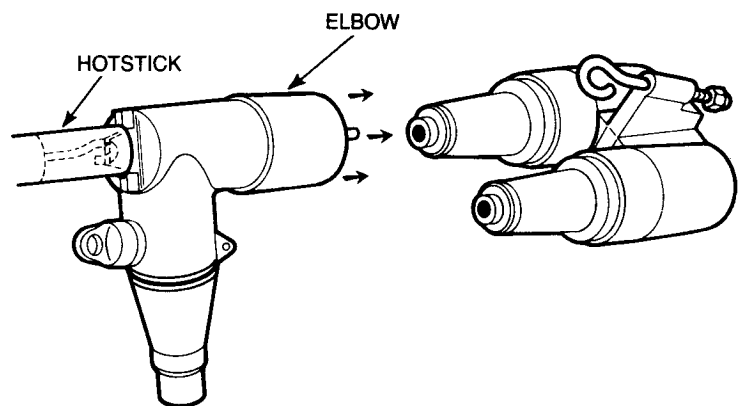
Using hotstick, slide feed-thru onto parking stand. Unlock hotstick and back off, to allow space for eyebolt to be tightened. Tighten eyebolt by rotating hotstick clockwise until snug. DO NOT OVERTIGHTEN. Release hotstick.



STEP 5

Remove one loadbreak elbow from its apparatus loadbreak bushing plug following the applicable LOADBREAK operating instructions (EDP-I-375/376LR).

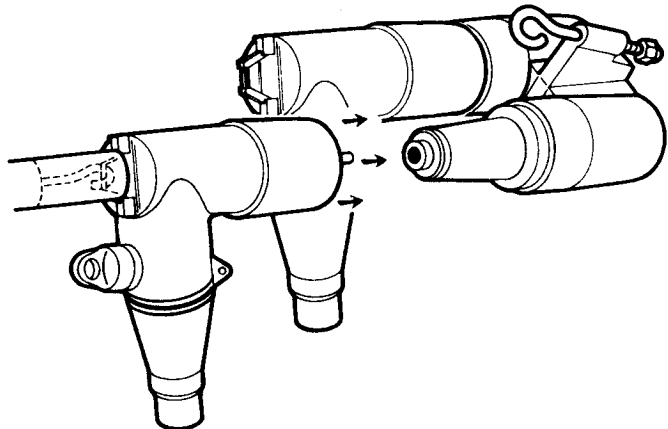
Using a hotstick, firmly attached to the elbow, insert the probe tip into one feed-thru approximately 2". Immediately push the elbow home with a fast, firm straight motion which will engage the internal lock on the mating interfaces.



FOR JUNCTION POINT APPLICATION FOLLOW STEPS 6A and 7A.

STEP 6A

Remove the second loadbreak elbow, following the applicable LOADBREAK operating instructions (EDP-I-375/376LR). Using a hotstick, firmly attached to the elbow, insert the probe tip into one feed-thru approximately 2". Immediately push the elbow home with a fast, firm straight motion which will engage the internal lock on the mating interfaces.



STEP 7A

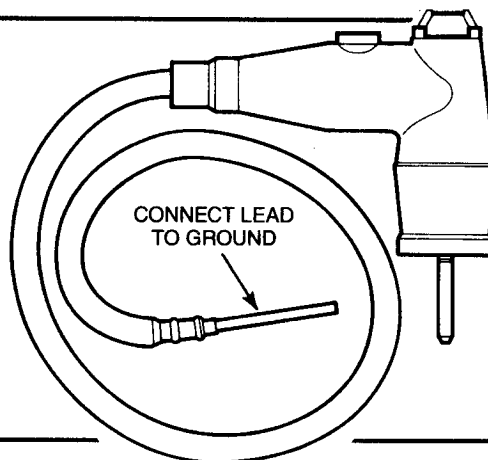
When it is desired to reconnect the elbow(s) to the apparatus bushing(s), first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.

FOR GROUNDING POINT APPLICATION FOLLOW STEPS 6B to 9B.

STEP 6B

Connect lead on ELASTIMOLD 370GLR grounding elbow to ground.

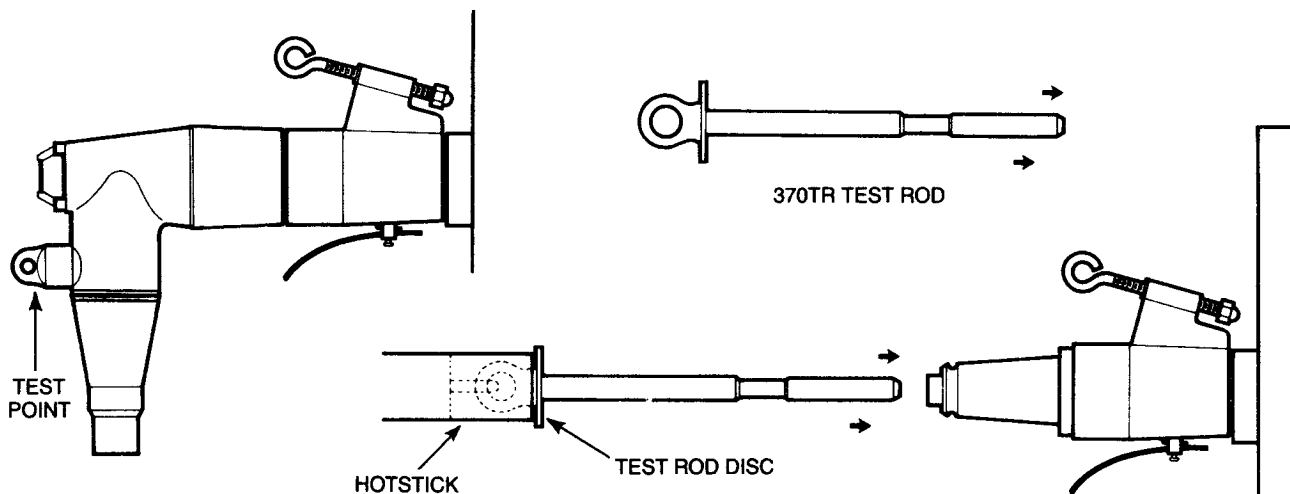
IMPORTANT: DO NOT INSERT GROUNDING ELBOW INTO FEED-THRU UNLESS CIRCUIT HAS BEEN TESTED "DEAD".



STEP 7B

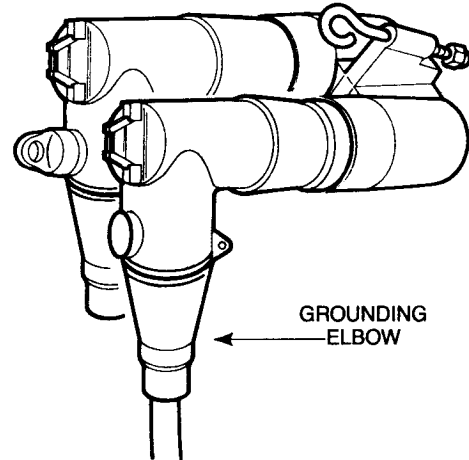
1. To test "dead" use the capacitive test point on the 376LR elbow, or:
2. Using a 370TR test rod, attach the test rod eye firmly to the hotstick. Insert the test rod into the second plug of the feed-thru. Check the test rod disc for voltage.

NOTE: The hotstick eye and disc of the test rod are not insulated; be careful to keep them clear from ground until tested "dead".



STEP 8B

After the circuit has been tested "dead" remove the test rod and using the hotstick, immediately insert the grounding elbow.



STEP 9B

When it is desired to reconnect the elbow to the apparatus bushing, first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing and to remove the grounding elbow, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.

WARRANTY

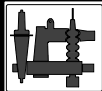
The following is given by the ELASTIMOLD DIVISION of AMERACE CORPORATION in lieu of all other warranties, express or implied:

ELASTIMOLD® Products will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. ELASTIMOLD's liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material. All statements, technical information and recommendations contained herein are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. This warranty is effective for two (2) years from date of shipment by ELASTIMOLD, but at no time will ELASTIMOLD be liable for incidental or consequential damages.



**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840, (201) 852-1122

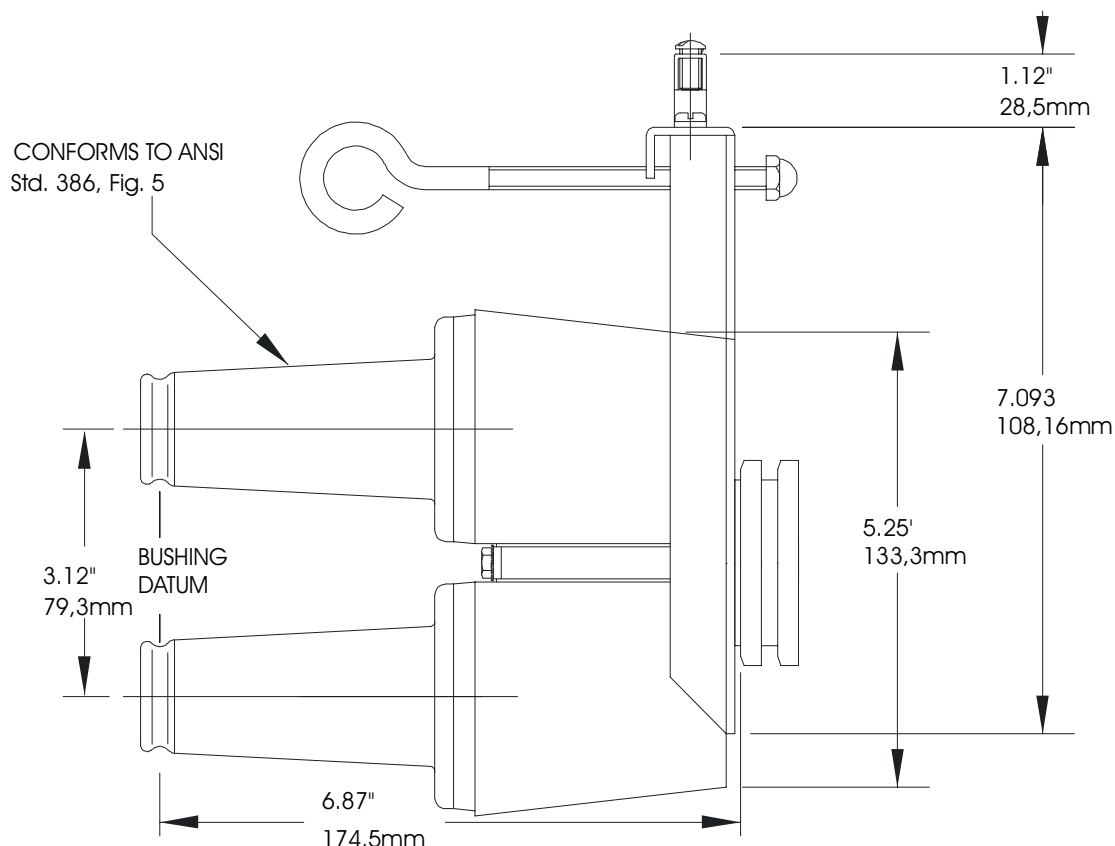


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Loadbreak Vertical Feed-Thru

ELASTIMOLD PART NUMBER

164FTV

The 164FTV vertical feed-thru is a space saving design for congested areas inside transformers or switchgear. The 164FTV is a fully shielded, fully submersible, separable insulated connector designed for energized operation. It is suitable for use on 15kV class loadbreak systems. When used in conjunction with 15kV class elbow connectors, the 164FTV provides the circuit with the loadbreak junction point. Testing and grounding of the circuit is accomplished when the 164FTV is used in conjunction with the 370TR and 160GLR. When used in conjunction with a 160DR the 164FTV can be used to isolate and "dead-end" the circuit. The 164FTV is designed to mate with the following Elastimold products:

- 165LR/166LR elbow connector
- 370TR test rod
- 160GLR grounding elbow
- 160DR/160DRG insulated cap

Ratings

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minutes Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **164FTV** Vertical Feed-thru

The 164FTV Vertical Feed-thru includes the following:

1 - Feed-thru body	164J2-4
1 - Mounting hardware	164FTV-6
2 - Protective shipping cap	1601-APC-1
2 - Lubricant	82-08
1 - Installation instruction	IS - 164FTV 9/96

Installation & Operating Instructions 164FTV FEED--THRU/GROUNDING DEVICE

CONTENTS: Feed- -thru Body Complete with Mounting Hardware, Lubricant (DO NOT SUBSTITUTE), Operating Instructions.

IMPORTANT: Read these instructions and the Loadbreak Elbow Operating Instructions (IS--167/168LR, Pages 3--4) COMPLETELY before operating connectors.

The feed- -thru can be used for the following functions: A) A junction point, B) A grounding point. To use the feed- -thru as a junction point, follow steps 1 to 7. To use the feed- -thru as a grounding point, follow steps 1 to 5 and 8 to 9.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

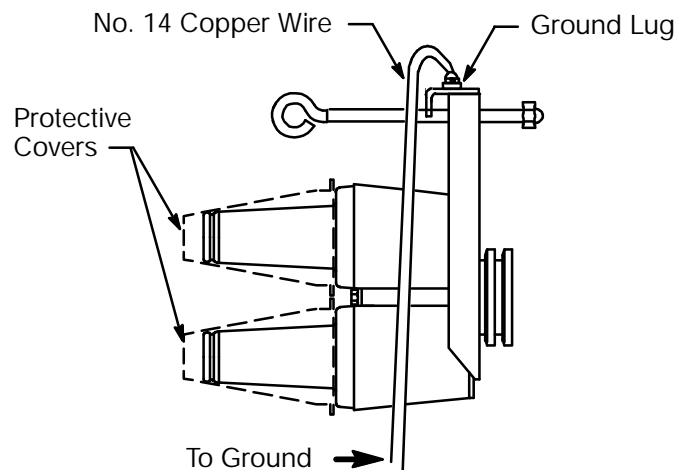
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Grounding- -insert ground lead into the grounding lug provided on the mounting hardware and tighten lug. Ground lead should be equivalent to No. 14 copper wire or greater. Connect the opposite end of the ground lead to ground, leaving enough slack to operate with a hotstick.

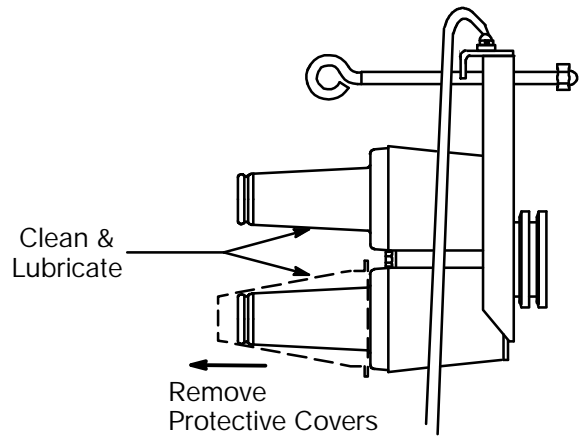


STEP 2

Remove the protective covers from the bushings of the feed-thru.

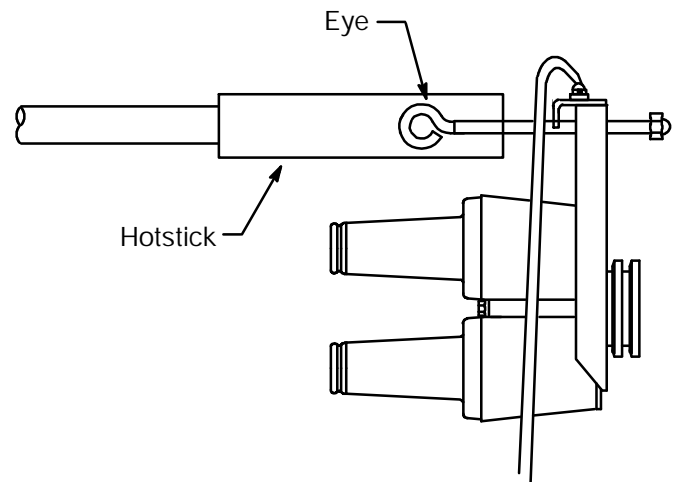
PROTECTIVE COVERS MUST NOT BE ON THE BUSHINGS OF THE FEED-THRU WHEN THE FEED-THRU IS BEING USED. When the feed-thru is not in use, the protective covers should be placed on the bushings of the feed-thru to protect them from dirt and other contaminants.

Clean the bushing surfaces and lubricate them with the lubricant supplied. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating product(s).



STEP 3

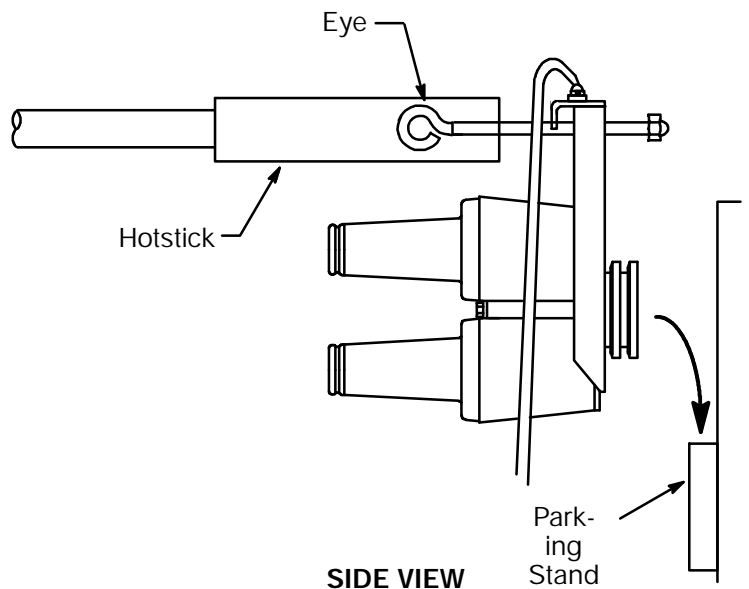
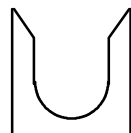
Attach feed-thru eye firmly to hotstick.



STEP 4

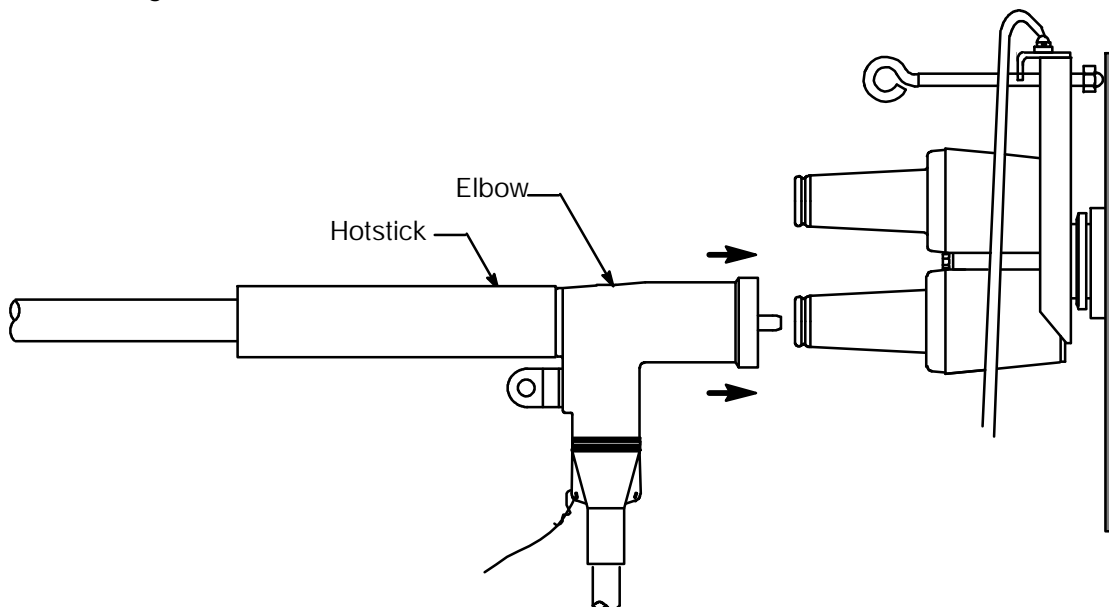
1. Using a hotstick, slide feed-thru onto parking stand. Unlock hotstick and back off, to allow space for eye bolt to be tightened. Tighten eyebolt by rotating hotstick clockwise until snug. DO NOT OVERTIGHTEN. Release hotstick.
2. Position the ground lead near the bracket so it does not come in contact with the bushing interfaces or mating devices.

Parking
Stand



STEP 5

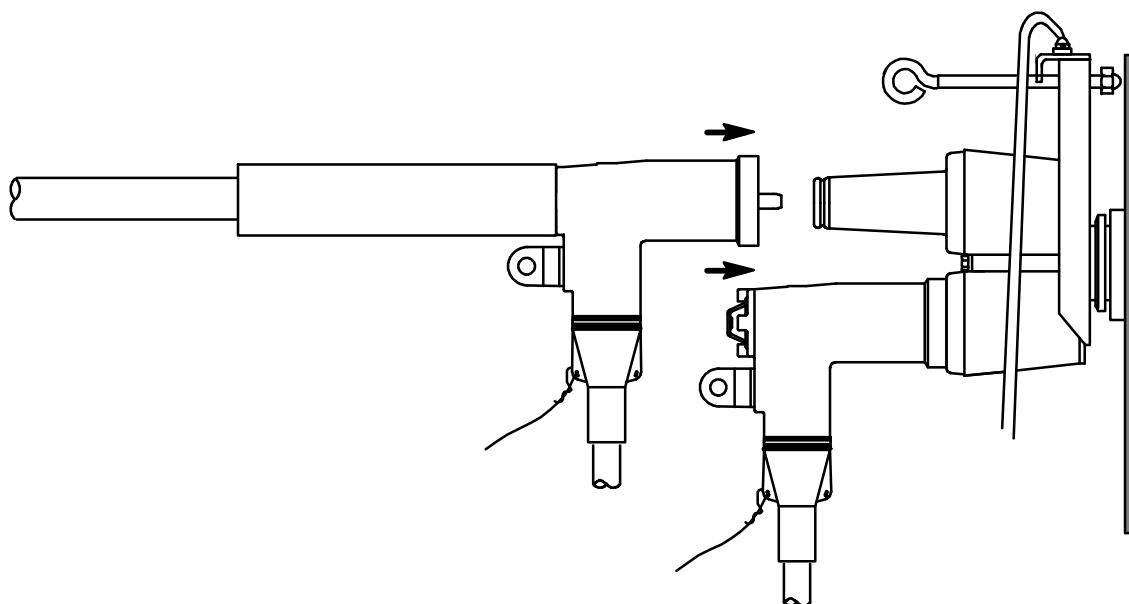
Remove one loadbreak elbow from its apparatus loadbreak bushing following the applicable loadbreak operating instructions (IS-167/168LR, pages 3-4). Using a hotstick, firmly attached to the elbow, insert the probe tip into one feed-thru until the first slight resistance is felt. Immediately push the elbow home with a fast, firm straight motion which will engage the internal lock on the mating interfaces.



FOR JUNCTION POINT APPLICATION FOLLOW STEPS 6 AND 7

STEP 6

Remove second loadbreak elbow, following the applicable loadbreak operating instructions (IS-167/168LR, pages 3-4). Using a hotstick, firmly attached to the elbow, insert the probe tip into the remaining feed-thru until the first slight resistance is felt. Immediately push the elbow home with a fast, firm straight motion which will engage the internal lock on the mating interfaces.



STEP 7

When it is desired to re-connect the elbow(s) to the apparatus bushing(s), first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.

FOR GROUNDING POINT APPLICATION FOLLOW STEPS 8 TO 9

IMPORTANT: DO NOT INSERT GROUNDING ELBOW INTO FEED--THRU UNLESS CIRCUIT HAS BEEN TESTED AND SHOWN TO BE "DE--ENERGIZED".

STEP 8

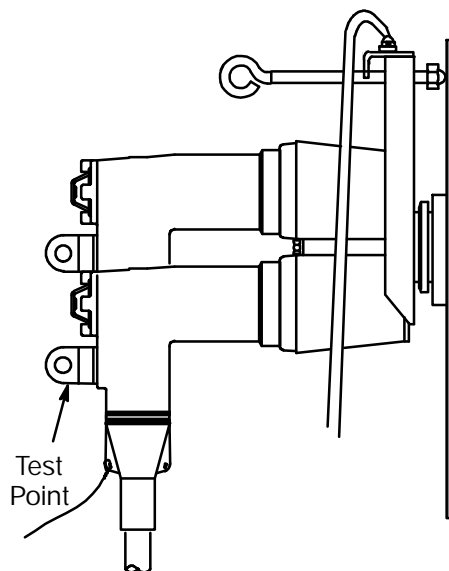
Ensure that the system is de--energized with either of the following procedures.

1. Check the capacitive test point on the loadbreak elbow for voltage, with an appropriate voltage detection device. Caution: The voltage test point is a capacitance device; it is not directly connected to the conductor. It requires the use of instruments specially designed for this purpose. Do not use conventional low voltage measuring instruments; NO INDICATION WILL BE OBTAINED .
2. Remove existing elbow or insulated cap from the bushing with a hotstick following the applicable loadbreak operating instructions (IS--167/168LR). Firmly tighten a hotstick to the 370TR test rod operating eye. Insert the test rod into the bushing. Using a meter capable of DIRECT READING the system voltage, check the test rod disc for voltage. Remove test rod.

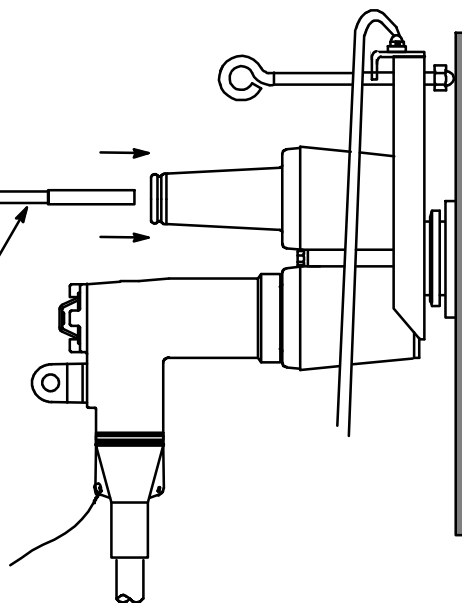
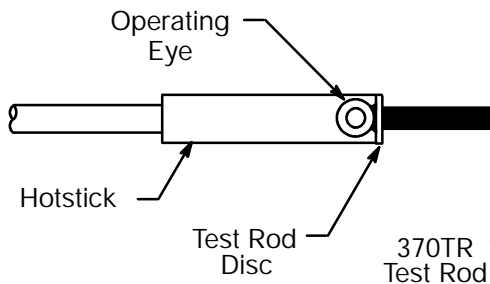
NOTE: The hotstick eye and disc of the test rod are not insulated; be careful to keep them clear from ground until tested "de--energized".

IMPORTANT: If voltage is indicated by either of the two preceding procedures, do not proceed without de--energizing the system.

1.

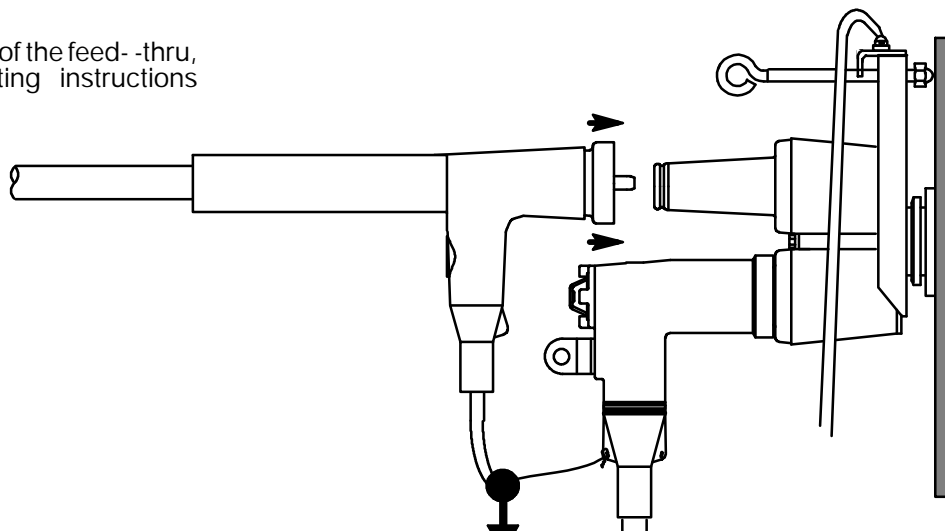


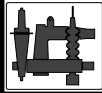
2.



STEP 9

Install ground elbow into the second plug of the feed--thru, following the grounding elbow operating instructions (IS--160/370GLR, steps B thru D).





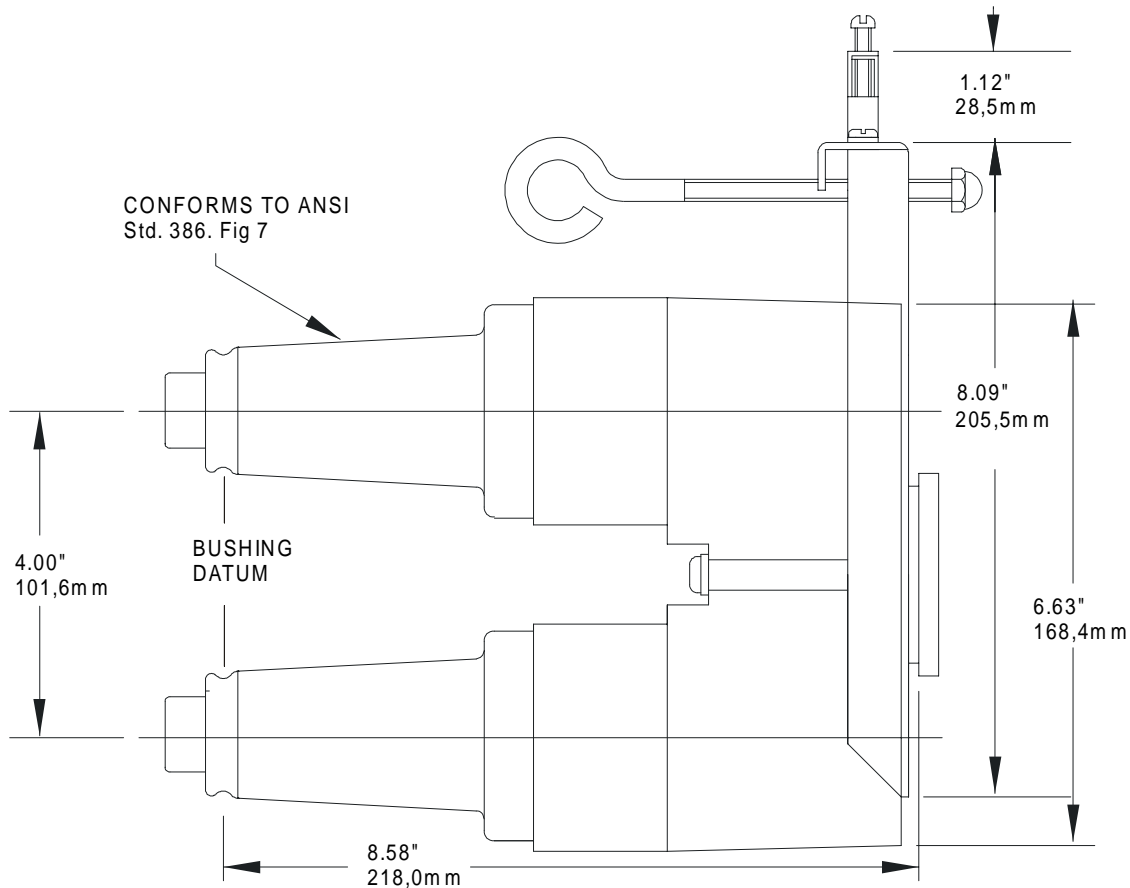
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

25kV Loadbreak Vertical Feed-Thru

ELASTIMOLD PART NUMBER

274FTV

Ratings:

The 274FTV vertical feed-thru is a space saving design for congested areas inside transformers or switchgear. The 274FTV is a fully shielded, fully submersible, separable insulated connector designed for energized operation. It is suitable for use on 25kV class loadbreak systems. When used in conjunction with 25kV class elbow connectors, the 274FTV provides the circuit with the loadbreak junction point. Testing and grounding of the circuit is accomplished when the 274FTV is used in conjunction with the 370TR and 370GLR. When used in conjunction with a 273/274DRG the 274FTV can be used to isolate and "dead-end" the circuit. The 274FTV is designed to mate with the following Elastimold products:

- 273LR/274LR elbow connector
- 370TR test rod
- 370GLR grounding elbow
- 273DRG/274DRG insulated cap

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **271FTV** Vertical Feed-thru

The 271FTV Vertical Feed-thru includes the following:

1 - Feed-thru body	2712-4
1 - Mounting hardware	271FTV-6
2 - Protective shipping cap	2701-41
2 - Lubricant	82-08
1 - Installation instruction	IS - 271/274FTV 7/97

Installation Instructions 271FTV / 274FTV Feed-Thru/Grounding Device

CONTENTS: Feed-thru body complete with mounting hardware, Lubricant, Instruction Sheet.

The 271FTV / 274FTV is designed to interface with ELASTIMOLD 25/28kV class (16.2 phase-to-ground and 28.0kV phase-to-phase maximum) loadbreak connectors for the following functions:

- A. A junction point.
- B. A grounding point.

To use the feed-thru as a junction point, follow steps 1 to 5 and 6A and 7A.

To use the feed-thru as a grounding point, follow steps 1 to 5 and 6B to 9B.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

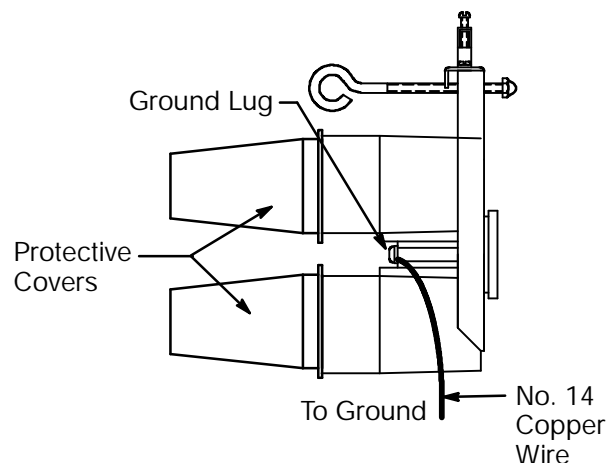
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1 - GROUNDING

Insert electrostatic grounding lead into the grounding lug provided on the mounting hardware and tighten lug. Ground lead should be No. 14 (2.5mm²) copper wire or equivalent. Connect the opposite end of the lead to ground, leaving enough slack to operate with a hotstick.

CAUTION: keep ground wire clear of operating interfaces.

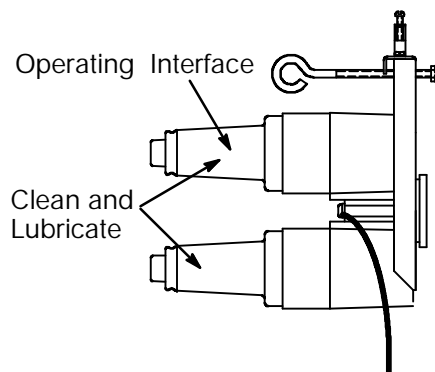


STEP 2

1. Remove the protective covers from the bushings of the feed-thru.

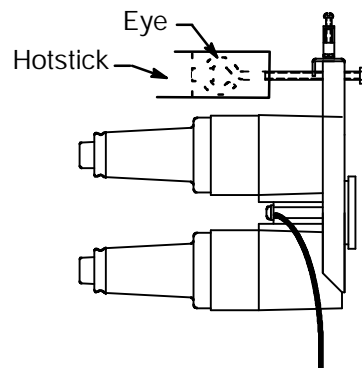
CAUTION: Protective covers must not be on the bushing of the feed-thru when the feed-thru is being used. When the feed-thru is not in use, the protective covers should be placed on each operating interface on the feed-thru to protect them from dirt and other contaminants.

2. Clean the bushing surfaces and lubricate them with silicone grease supplied (DO NOT SUBSTITUTE). Other lubricants may be harmful to this product and its mating product(s).



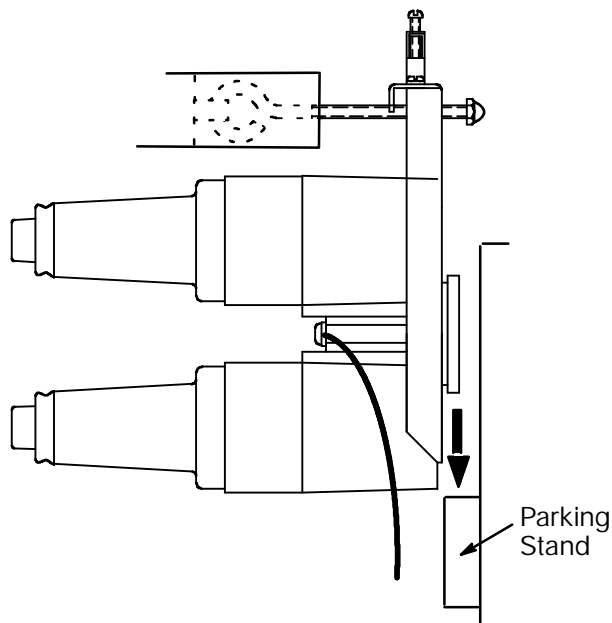
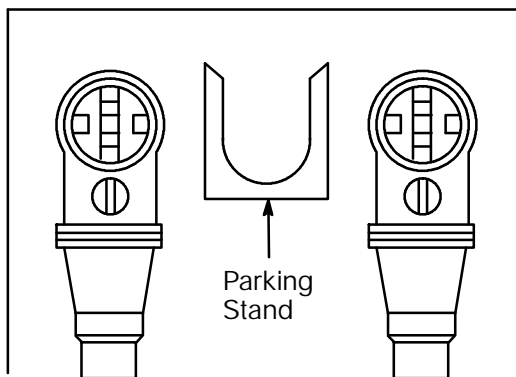
STEP 3

Attach feed-thru eye firmly to hotstick.



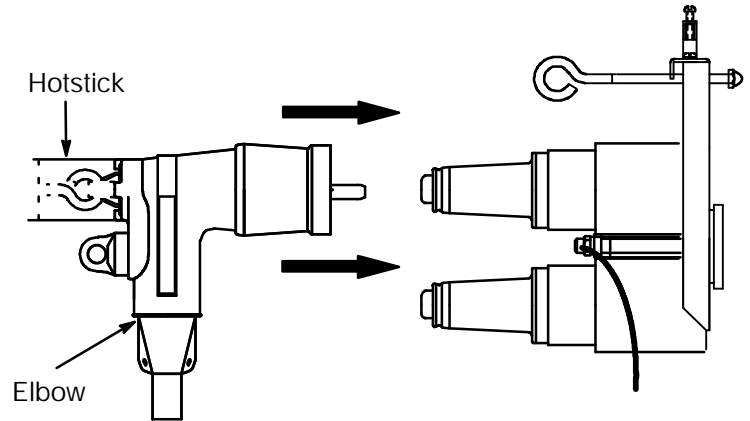
STEP 4

Using a hotstick, slide feed-thru onto parking stand. Unlock hotstick and back off, to allow space for eyebolt to be tightened. Tighten eyebolt by rotating hotstick clockwise until snug. DO NOT OVERTIGHTEN. Release hotstick.



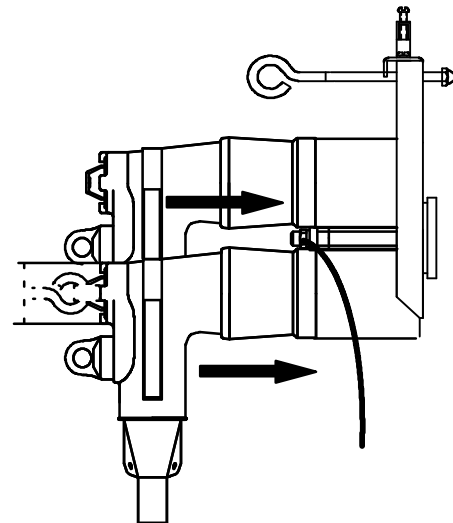
STEP 5

Following the applicable operating instructions (IS-273/274LR) remove one loadbreak elbow from its apparatus bushing insert and place on the feed-thru.



STEP 6A – JUNCTION POINT APPLICATION

Following the applicable operating instructions (IS-273/274LR) remove the second loadbreak elbow from its apparatus bushing insert and place on the feed-thru.

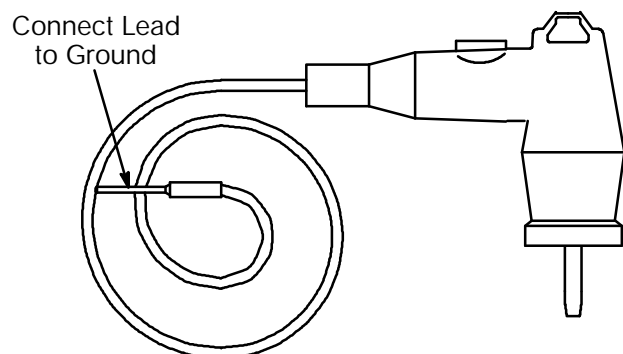


STEP 7A

When it is desired to reconnect the elbow(s) to the apparatus bushing(s), first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.

STEP 6B

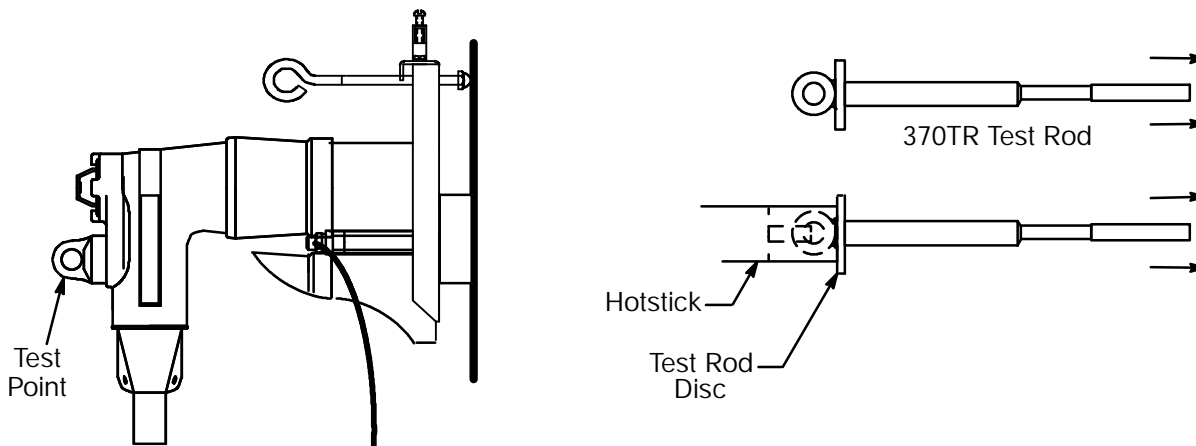
Connect lead on ELASTIMOLD 370GLR grounding elbow to ground. **IMPORTANT:** DO NOT INSERT GROUNDING ELBOW INTO FEED-THRU UNLESS CIRCUIT HAS BEEN TESTED "DEAD".



STEP 7B

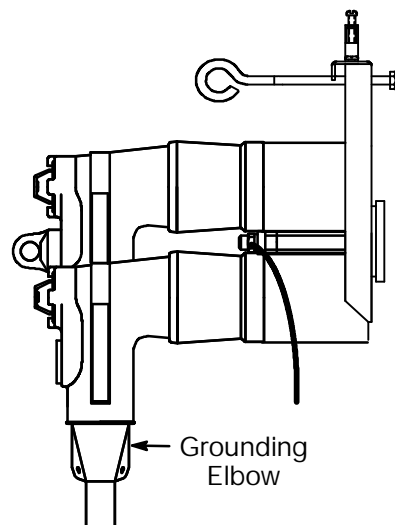
1. To test "dead" use the capacitive test point on the 274LR elbow, or:
2. Using a 370TR test rod, attach the test rod eye firmly to the hotstick. Insert the test rod into the second plug of the feed-thru. Check the test rod disc for voltage.

DANGER: The hotstick eye and disc of the test rod are not insulated; be careful to keep them clear from ground until tested dead". Contact with the test rod can cause serious or fatal injury.



STEP 8B

After the circuit has been tested "dead" remove the test rod and using the hotstick, immediately insert the grounding elbow.

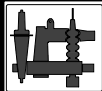


STEP 9B

When it is desired to reconnect the elbow to the apparatus bushing, first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing and to remove the grounding elbow, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

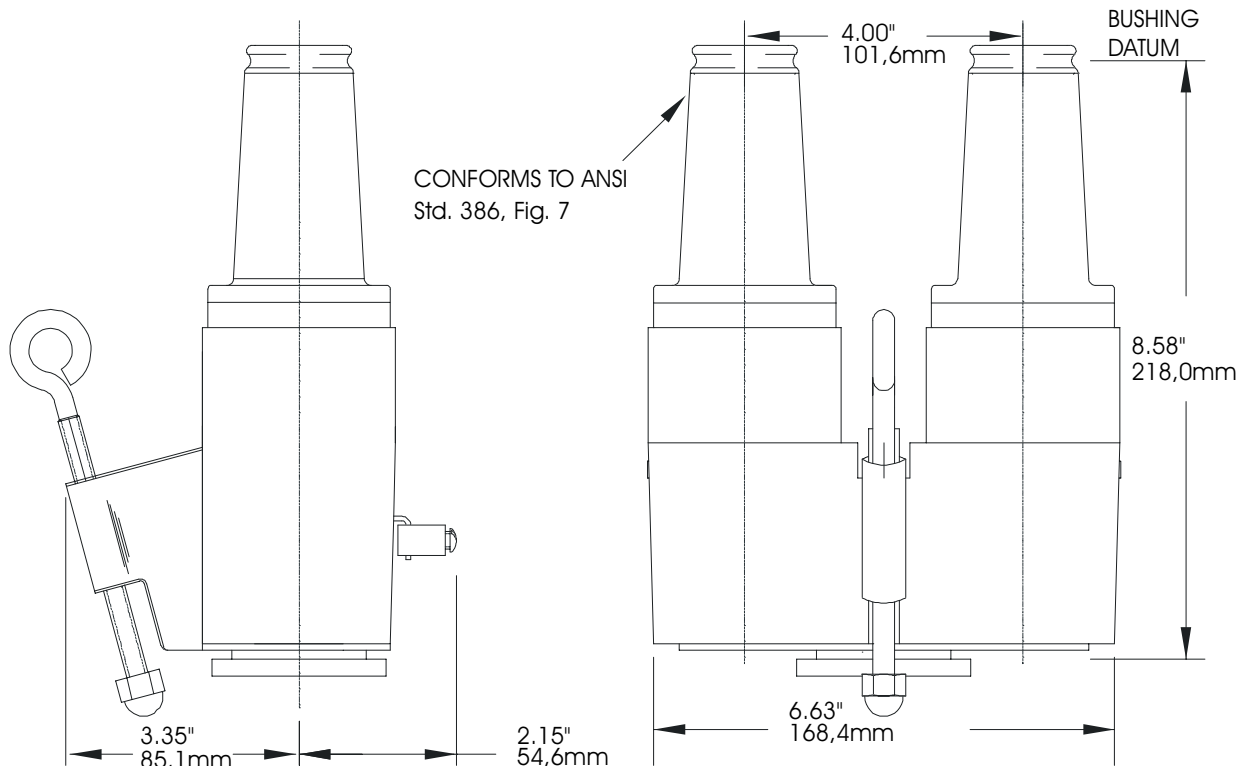


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV Loadbreak Vertical Feed-Thru

ELASTIMOLD PART NUMBER

373FTV

Ratings:

The 373FTV vertical feed-thru is a space saving design for congested areas inside transformers or switchgear. The 373FTV is a fully shielded, fully submersible, separable insulated connector designed for energized operation. It is suitable for use on 35kV class loadbreak systems. When used in conjunction with 35kV class elbow connectors, the 373FTV provides the circuit with the loadbreak junction point. Testing and grounding of the circuit is accomplished when the 373FTV is used in conjunction with the 370TR and 370GLR. When used in conjunction with a 375/376DRG the 373FTV can be used to isolate and "dead-end" the circuit. The 373FTV is designed to mate with the following Elastimold products:

- 375LR/376LR elbow connector
- 370TR test rod
- 370GLR grounding elbow
- 375DRG/376DRG insulated cap

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **373FTV** Vertical Feed-thru

The 373FTV Vertical Feed-thru includes the following:

1 - Feed-thru body	373J2-4
1 - Mounting hardware	373FTV-6
2 - Protective shipping cap	2701-41
2 - Lubricant	82-08
1 - Installation instruction	IS - 373FTV 4/91

Installation Instructions 373FTV Feed-Thru/Grounding Device

CONTENTS: Feed-thru body complete with mounting hardware, Lubricant

The 373FTV is designed to interface with ELASTIMOLD 35kV class (21.1 phase-to-ground and 36.6kV phase-to-phase) loadbreak connectors for the following functions:

- A. A junction point. B. A grounding point.

To use the feed-thru as a junction point, follow steps 1 to 5 and 6A and 7A.

To use the feed-thru as a grounding point, follow steps 1 to 5 and 6B to 9B.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

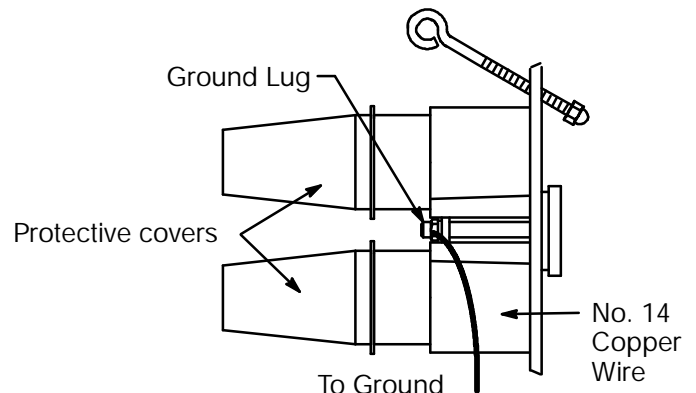
IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

STEP 1 - GROUNDING

Insert electrostatic grounding lead into the grounding lug provided on the mounting hardware and tighten lug. Ground lead should be No. 14 (2.5mm^Ø) copper wire or equivalent. Connect the opposite end of the lead to ground, leaving enough slack to operate with a hotstick.

CAUTION: keep ground wire clear of operating interfaces.

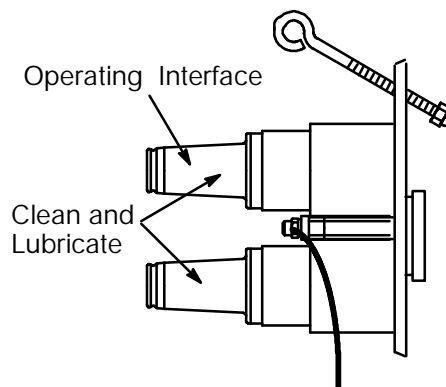


STEP 2

1. Remove the protective covers from the bushings of the feed-thru.

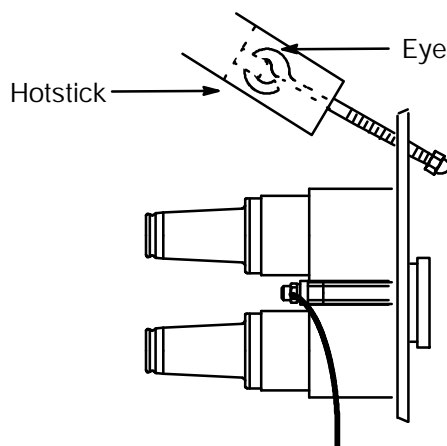
Protective covers must not be on the bushing of the feed-thru when the feed-thru is being used. When the feed-thru is not in use, the protective covers should be placed on each operating interface on the feed-thru to protect them from dirt and other contaminants.

2. Clean the bushing surfaces and lubricate them with silicone grease supplied (DO NOT SUBSTITUTE). Other lubricants may be harmful to this product and its mating product(s).



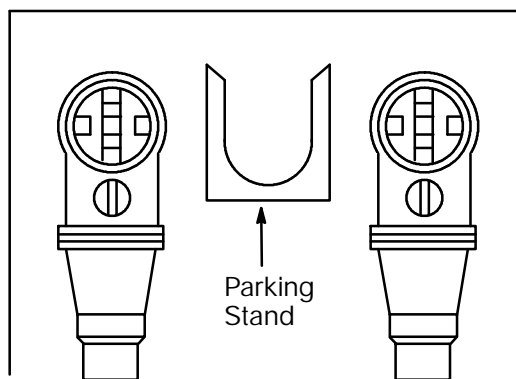
STEP 3

Attach feed-thru eye firmly to hotstick.

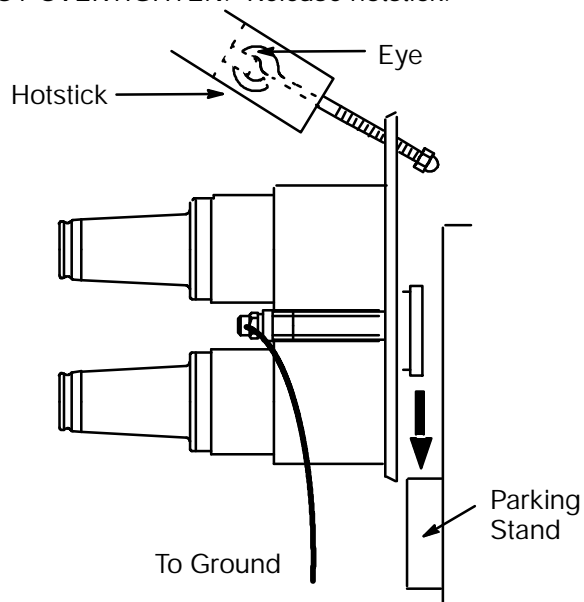


STEP 4

Using a hotstick, slide feed-thru onto parking stand. Unlock hotstick and back off, to allow space for eyebolt to be tightened. Tighten eyebolt by rotating hotstick clockwise until snug. DO NOT OVERTIGHTEN. Release hotstick.

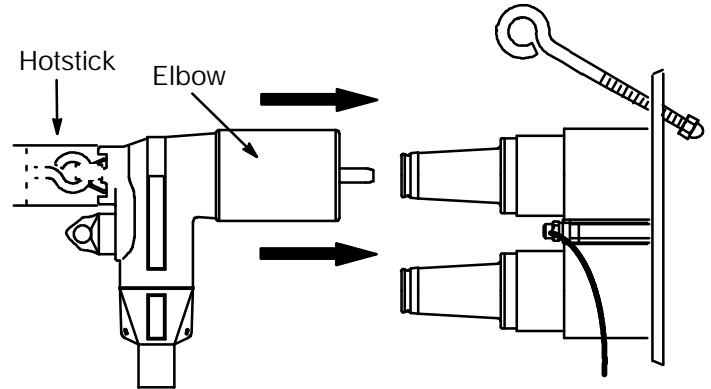


FRONT VIEW



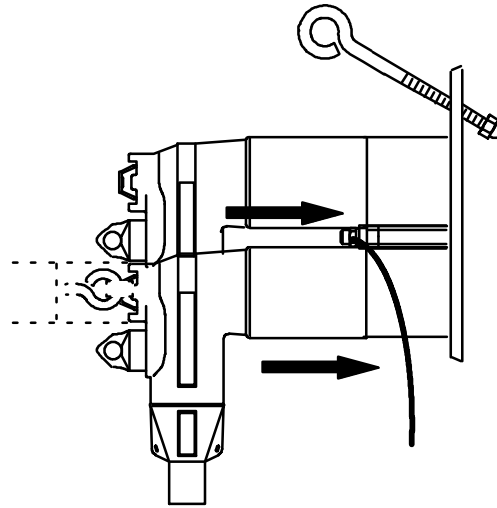
STEP 5

Following the applicable operating instructions (IS-375/376LR) remove one loadbreak elbow from its apparatus bushing insert and place on the feet-thru.



STEP 6A - JUNCTION POINT APPLICATION

Following the applicable operating instruction (IS- 375/376LR) remove the second loadbreak elbow from its apparatus bushing insert and place on the feed-thru.



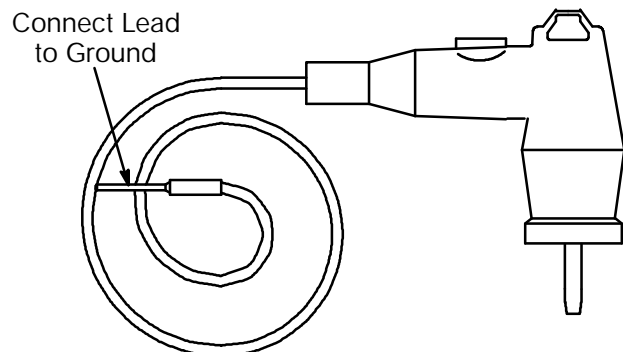
STEP 7A

When it is desired to reconnect the elbow(s) to the apparatus bushing(s), first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.

STEP 6B

Connect lead on ELASTIMOLD 370GLR grounding elbow to ground.

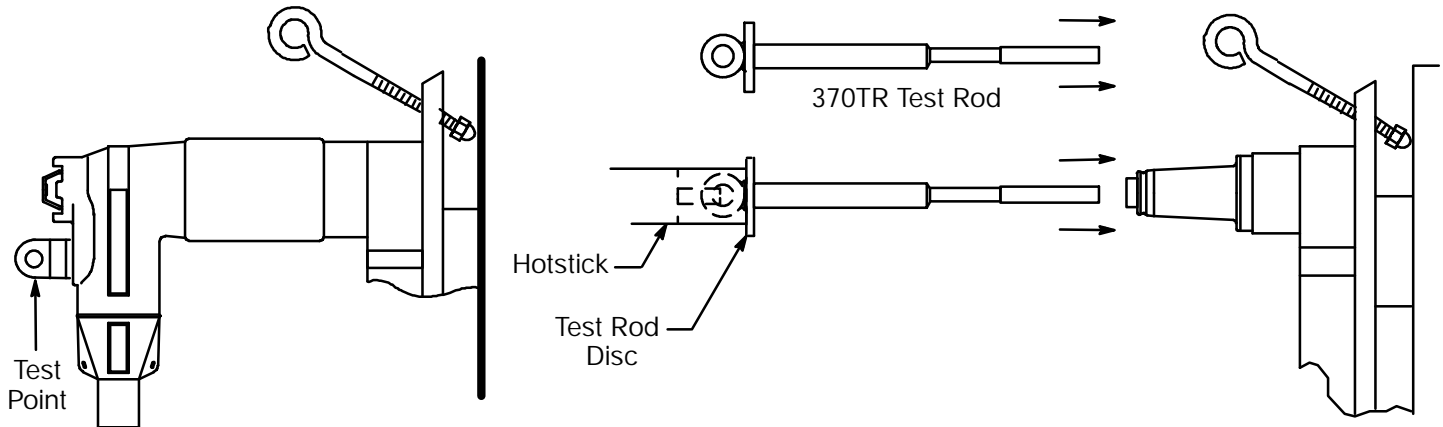
IMPORTANT: Do not insert grounding elbow into feed-thru unless circuit has been tested "dead".



STEP 7B

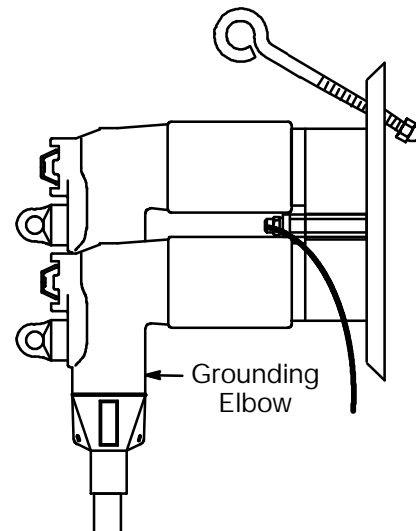
1. To test "dead" use the capacitive test point on the 376LR elbow, or:
2. Using a 370TR test rod, attach the test rod eye firmly to the hotstick. Insert the test rod into the second plug of the feed-thru. Check the test rod disc for voltage.

DANGER: The hotstick eye and disc of the test rod are not insulated; be careful to keep them clear from ground until tested dead". Contact with the test rod can cause serious or fatal injury.



STEP 8B

After the circuit has been tested "dead" remove the test rod and using the hotstick, immediately insert the grounding elbow.



STEP 9B

When it is desired to reconnect the elbow to the apparatus bushing, first make certain no faults exist on the system. To return the loadbreak elbow to the apparatus bushing and to remove the grounding elbow, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

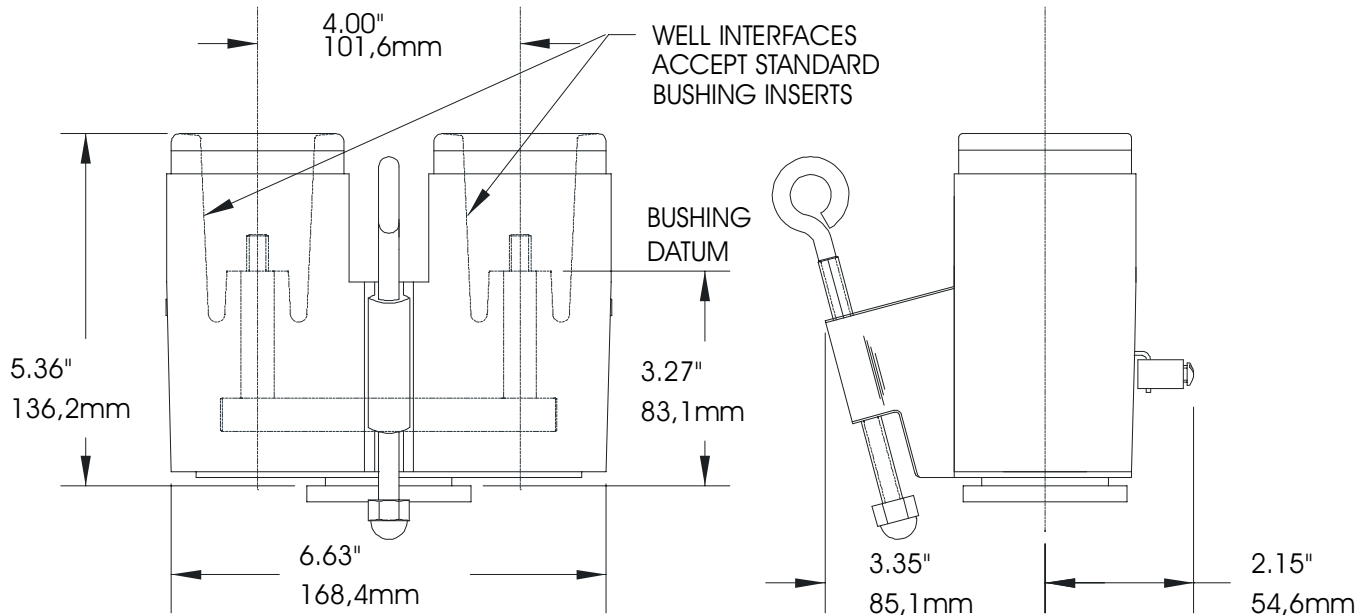


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Feed-Thru Well

ELASTIMOLD PART NUMBER

K1601WFT

The K1601WFT feed-thru well is a fully shielded, fully submersible, separable insulated connector designed for energized operation. It is suitable for use with 15/25kV class loadbreak and/or deadbreak bushing inserts. When used in conjunction with 15/25 kV, 200 Amp elbow connectors, the K1601WFT provides the circuit with the junction point. The unit allows replacement of damaged bushing instead of the complete junction reducing maintenance costs. When used in conjunction with proper dead-end receptacle the K1601WFT can be used to isolate and "dead-end" the circuit. The K1601WFT is designed to mate with the following Elastimold products:

- 1601A4/1602A3R
- 2701A4/2702A1
- K1501A1

Ratings

per ANSI/IEEE Standard 386

25kV Voltage Class

15.2kV Max Phase-to-Ground - Operating Voltage

26.3kV Max Phase-to-Phase

125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

40kV AC - One minute Withstand

78kV DC - 15 Minutes Withstand

19kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous

10kA Sym - 10 Cycles Momentary

Ordering Instructions:

To order, specify number **K1601WFT** Feed-thru Well.

The K1601WFT Feed-thru Well includes the following:

1 - Feed-thru body	K1601WFT-4
1 - Mounting hardware	K1601WFT-6
2 - Lubricant	82-08
1 - Installation instruction	IS - 1601WFT 3/96

Installation Instructions K1601WFT Well Feed-Thru/Grounding Device

CONTENTS: Feed-thru body complete with mounting hardware, Lubricant, Operating Instructions.

The K1601WFT provides universal interconnected bushing wells for Elastimold bushings thru 25kV class (15.2kV phase-to-ground)

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping caps. Remove these shipping caps and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

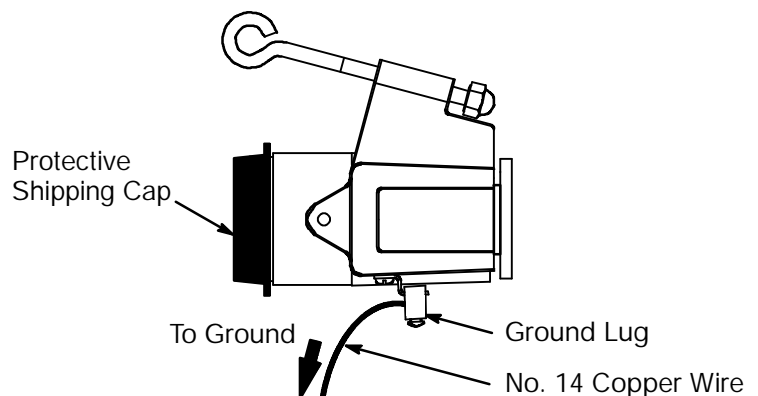
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
 2. Check all components to insure proper fit with cable and/or mating products.
 3. Read entire installation instructions before starting.
 4. Have all required tools at hand and maintain cleanliness throughout the procedure.
-

STEP 1

Grounding – Insert ground lead into the grounding lug provided on the mounting hardware and tighten lug. Ground lead should be No. 14 copper wire or equivalent. Connect the opposite end of the lead to ground, leaving enough slack to operate with a hotstick.



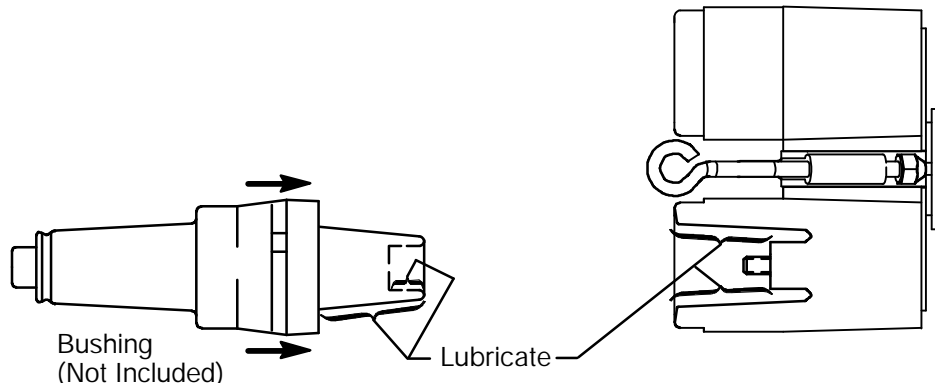
ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

STEP 2

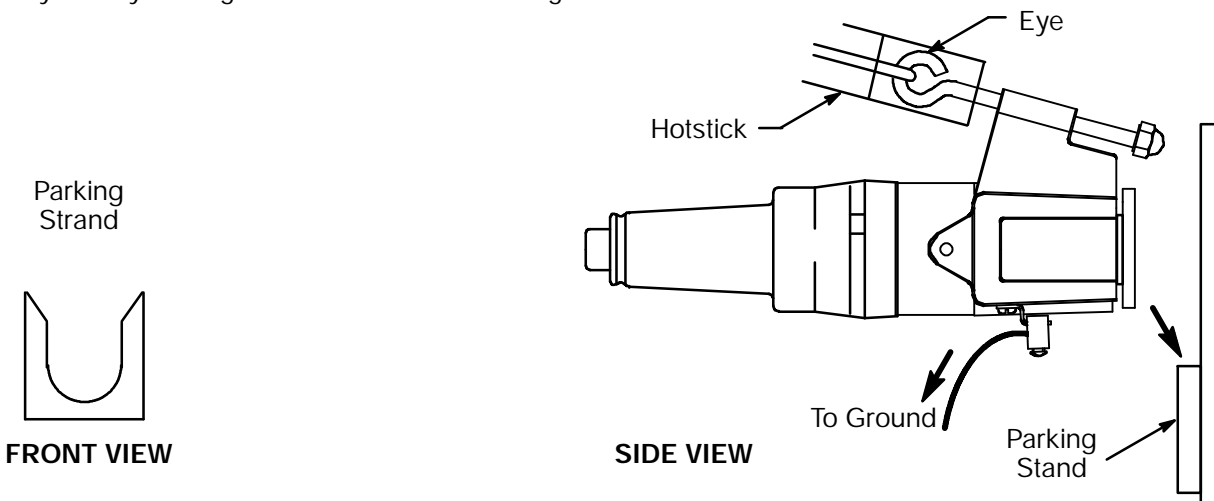
1. Remove the protective shipping caps from the bushings wells.
2. Inspect the bushing wells to ensure it is dry and free from all contaminants. Lubricate the well interface area with the supplied lubricant or ELASTIMOLD approved lubricants. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating products.
3. Install the bushings into the wells following the installation instructions included with the bushing.

IMPORTANT: Protective shipping caps must **not** be on the bushing wells of the feed-thru when the feed-thru is being used. When the feed-thru is not in use, the protective caps should be placed on the bushing wells of the feed-thru to protect them from dirt and other contaminants.



STEP 3

1. Attach feed-thru eye firmly to hotstick.
2. Using a hotstick, slide feed-thru onto parking stand. Unlock hotstick and back off, to allow space for eyebolt to be tightened. Tighten eyebolt by rotating hotstick clockwise until snug. **DO NOT OVERTIGHTEN.** Release hotstick.



OPERATING INSTRUCTIONS

Remove protective shipping caps and clean the operating interfaces. Apply silicone lubricant (**DO NOT SUBSTITUTE**) before assembly with an ELASTIMOLD product. Refer to operating instructions included with the product you are using.

WARNING: IF ALL OPERATING INTERFACES ARE NOT UTILIZED, AN ELASTIMOLD INSULATED CAP OR INSULATED PLUG MUST BE INSTALLED BEFORE ENERGIZING.

DO NOT USE the protective shipping covers for this function as they are not insulated and are only intended to keep the operating interface surfaces clean during handling and installation.

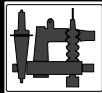


ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA

(908)852-1122 FAX: (908)813-2147

A Unit of Thomas & Betts Corporation

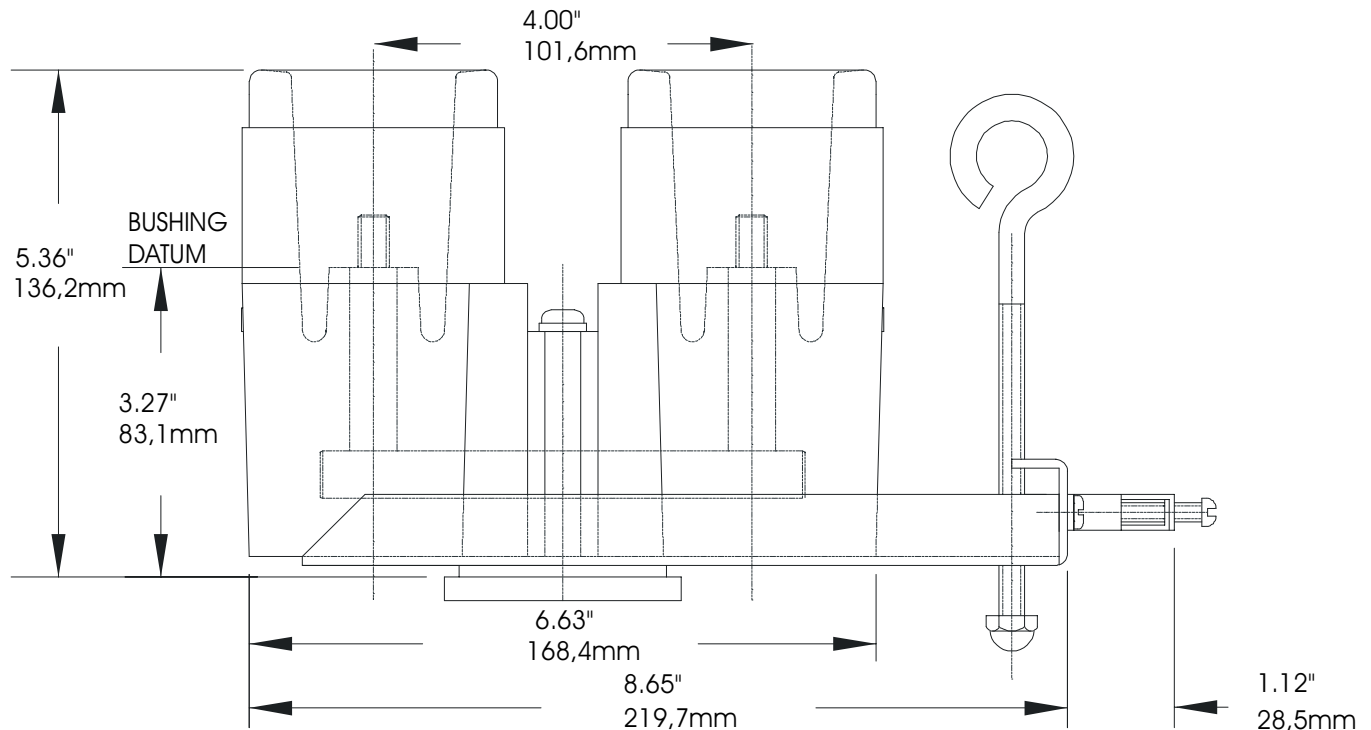


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Vertical Feed-Thru Well

ELASTIMOLD PART NUMBER

K1601WFTV

The K1601WFTV vertical feed-thru is a space saving design for congested areas inside transformers or switchgear. The K1601WFTV is a fully shielded, fully submersible, separable insulated connector designed for energized operation. It is suitable for use with 15/25kV class loadbreak and/or deadbreak bushing inserts. When used in conjunction with 15/25 kV, 200 Amp elbow connectors, the K1601WFTV provides the circuit with the junction point. The unit allows replacement of damaged inserts instead of the complete junction reducing maintenance costs. When used in conjunction with proper dead-end receptacle the K1601WFTV can be used to isolate and "dead-end" the circuit. The K1601WFTV is designed to mate with the following Elastimold products:

- 1601A4/1602A3R
- 2701A4/2702A1
- K1501A1

Ratings

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minutes Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 10kA Sym - 10 Cycles Momentary

Ordering Instructions:

To order, specify number **K1601WFTV** Vertical Feed-thru Well

The **K1601WFTV** Vertical Feed-thru Well includes the following:

1 - Feed-thru body	K1601WFTV-4
1 - Mounting hardware	K1601WFTV-6
2 - Lubricant	82-08
1 - Installation instruction	IS - K1601WFTV 9/98

Installation Instructions K1601WFTV Well Feed-Thru/Grounding Device

CONTENTS: Feed-thru body complete with mounting hardware, Lubricant, Operating Instructions.

The K1601WFTV provides universal interconnected bushing wells for Elastimold bushings thru 25kV class (15.2kV phase-to-ground)

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping caps. Remove these shipping caps and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

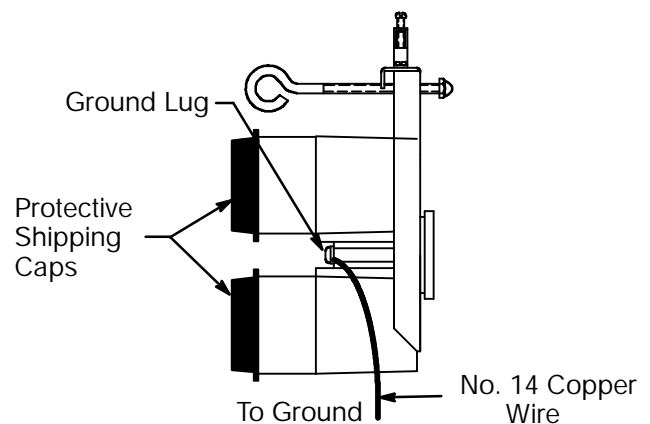
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

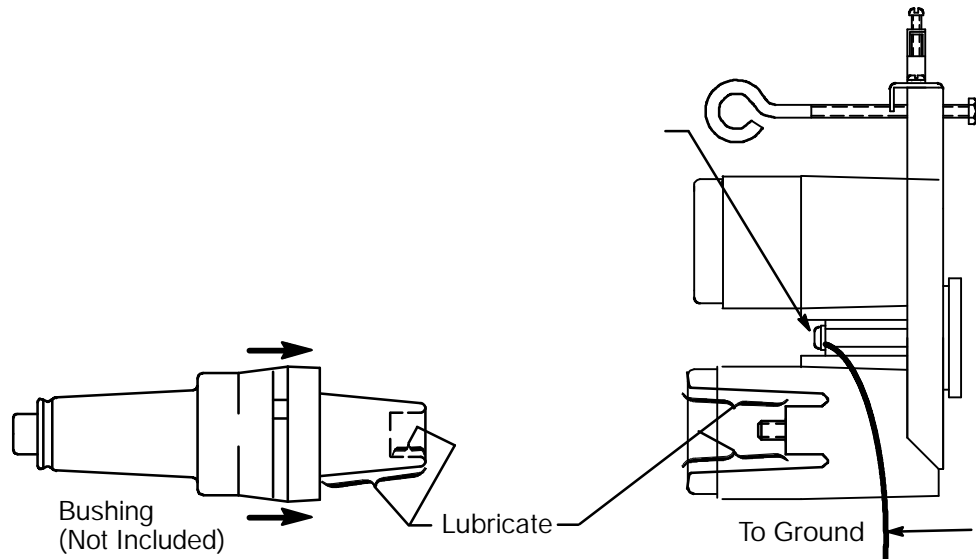
Grounding – Insert ground lead into the grounding lug provided on the mounting hardware and tighten lug. Ground lead should be No. 14 copper wire or equivalent. Connect the opposite end of the lead to ground, leaving enough slack to operate with a hotstick.



STEP 2

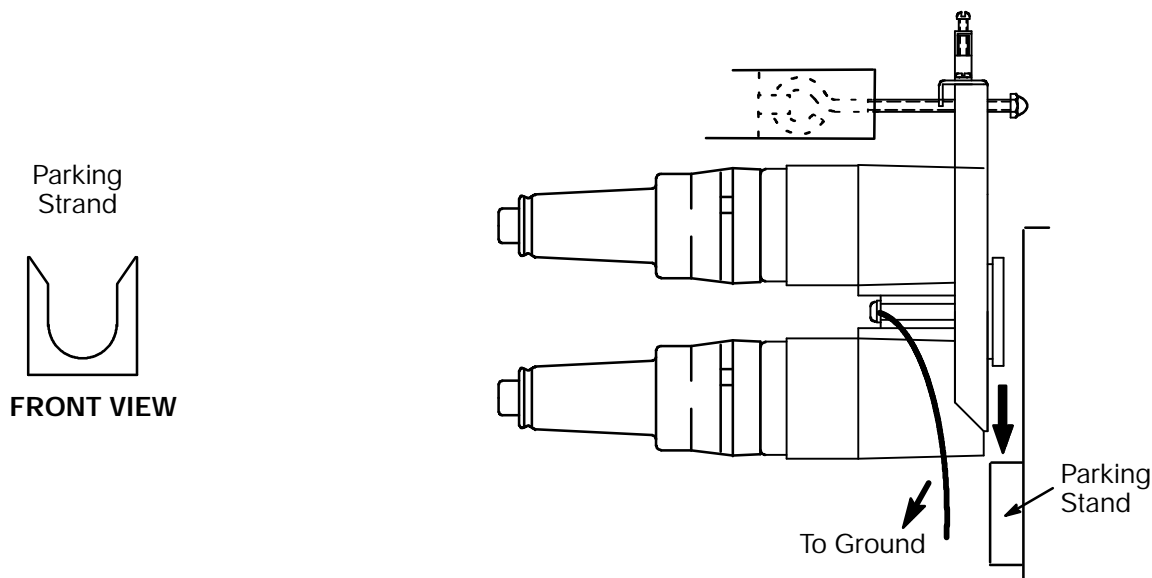
1. Remove the protective shipping caps from the bushings wells.
2. Inspect the bushing wells to ensure it is dry and free from all contaminants. Lubricate the well interface area with the supplied lubricant or ELASTIMOLD approved lubricants. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating products.
3. Install the bushings into the wells following the installation instructions included with the bushing.

IMPORTANT: Protective shipping caps must **not** be on the bushing wells of the feed-thru when the feed-thru is being used. When the feed-thru is not in use, the protective caps should be placed on the bushing wells of the feed-thru to protect them from dirt and other contaminants.



STEP 3

1. Attach feed-thru eye firmly to hotstick.
2. Using a hotstick, slide feed-thru onto parking stand. Unlock hotstick and back off, to allow space for eyebolt to be tightened. Tighten eyebolt by rotating hotstick clockwise until snug. **DO NOT OVERTIGHTEN.** Release hotstick.

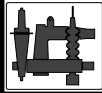


OPERATING INSTRUCTIONS

Remove protective shipping caps and clean the operating interfaces. Apply silicone lubricant (**DO NOT SUBSTITUTE**) before assembly with an ELASTIMOLD product. Refer to operating instructions included with the product you are using.

WARNING: IF ALL OPERATING INTERFACES ARE NOT UTILIZED, AN ELASTIMOLD INSULATED CAP OR INSULATED PLUG MUST BE INSTALLED BEFORE ENERGIZING.

DO NOT USE the protective shipping covers for this function as they are not insulated and are only intended to keep the operating interface surfaces clean during handling and installation.

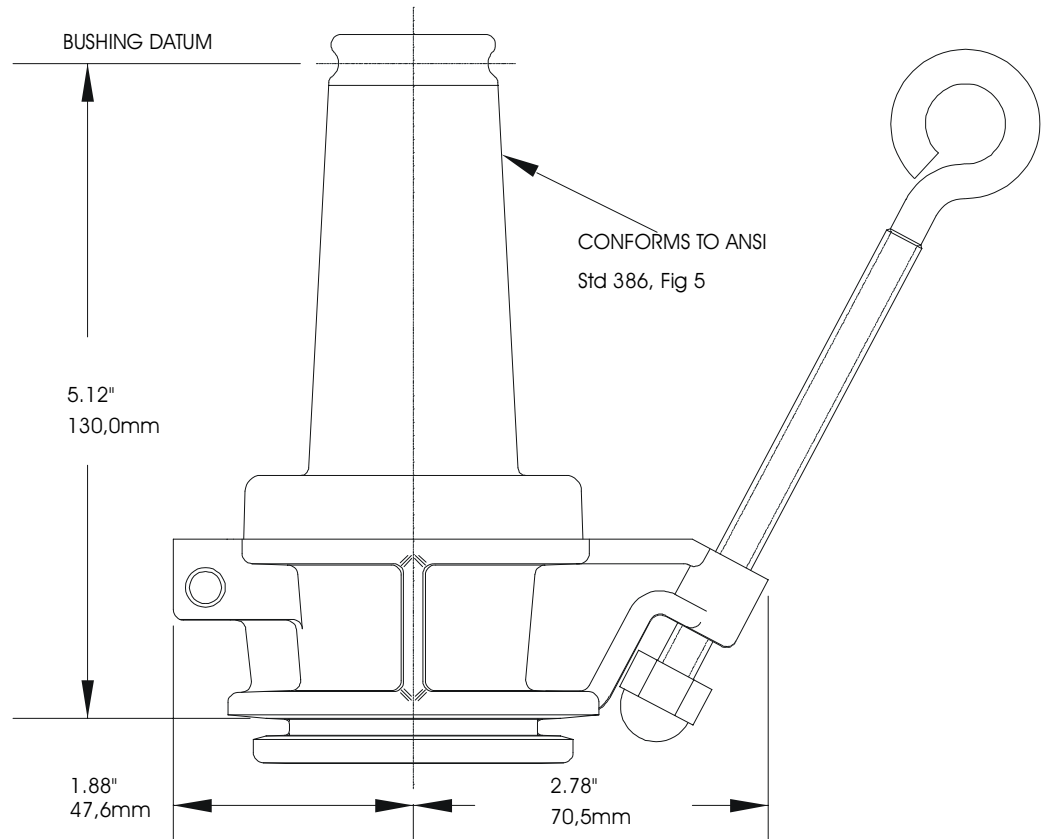


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Insulated Parking Bushing

ELASTIMOLD PART NUMBER

161SOP

The Elastimold 161SOP Insulated Parking Bushing is equipped with a 15kV class, 200 Amp loadbreak interface, a cast aluminum bracket for insertion into a standard parking stand and hot stick operable mounting hardware. The 161SOP are inserted into the parking stand with an insulated hot stick and secured in place. Mating Elastimold 15kV class Loadbreak Elbows can then be removed from the equipment and placed on the 161SOP to provide a fully shielded and fully submersible connection. Provisions for grounding the 161SOP mounting bracket are included.

Ordering Instructions:

To order, specify number **161SOP** Insulated Parking Bushing.

The 161SOP includes the following:

1 – Insulated parking bushing	161SOP
1 – Protective shipping cap	1601-APC-1
2 – Lubricant	82-08

Ratings:

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minutes Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Features:

- 15kV, 200 Amp loadbreak rated.
- Molded EPDM interface.
- Cast aluminum bracket with slotted end, which inserts into parking stand.
- 5/16"-18 Stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the 161SOP into the mating parking stand.
- Set screw ground connection with 1/4" diameter thru hole.

Operating Instructions 161SOP Stand- -Off Plug

CONTENTS: Stand off plug complete with mounting hardware, Instruction Sheet.

The 161SOP is designed to isolate and "dead- -end" Elastimold 15kV class (8.3kV phase- -to- -ground and 14.4kV phase- -to phase) loadbreak elbow connectors.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

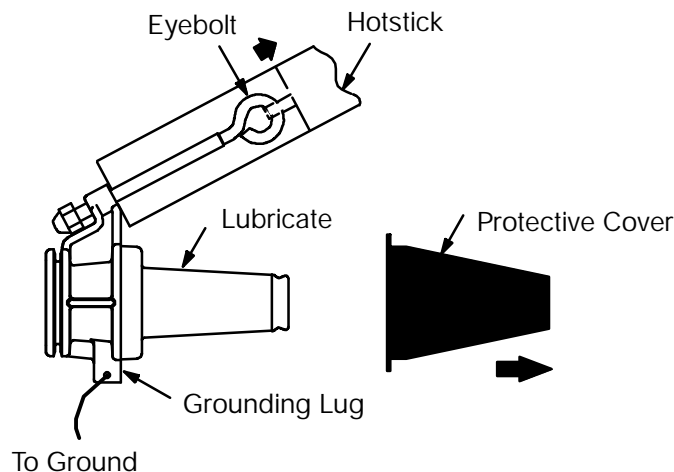
Failure to follow these instructions could result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

STEP 1

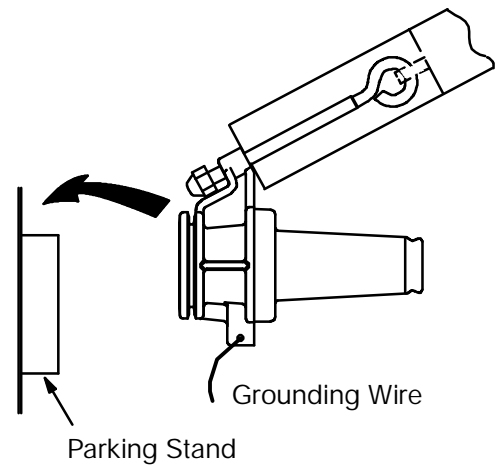
- A. Grounding- -Connect electrostatic grounding lead (#14AWG copper wire or equivalent) to the grounding lug. Connect the opposite end to ground, leaving enough slack to operate with a hotstick. Remove protective cover, clean and lubricate stand- -off plug interface with an Elastimold approved lubricant. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating product(s). Always replace protective cover when stand- -off plug is not in use.
- B. Eyebolt should be positioned as shown before attaching the hotstick. Attach hotstick hook to stand- -off plug eyebolt. Retract hotstick hook to firmly affix it to the stand- -off plug bracket.



ELASTIMOLD

STEP 2

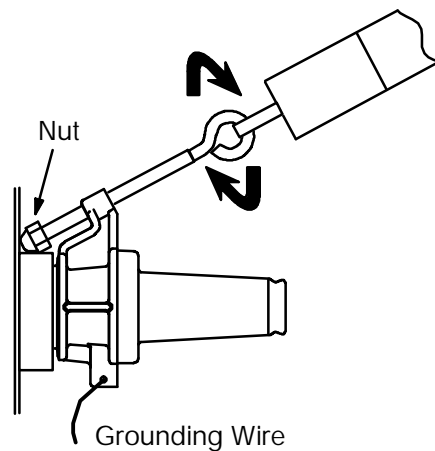
Use hotstick to slide round disc of stand-off plug bracket, engaging slot, into parking stand. Assembly can be rotated if desired.



STEP 3

Back off the hotstick. Rotate the eyebolt clockwise until the nut on the opposite end snugly wedges the stand-off plug to the underside of the parking stand.

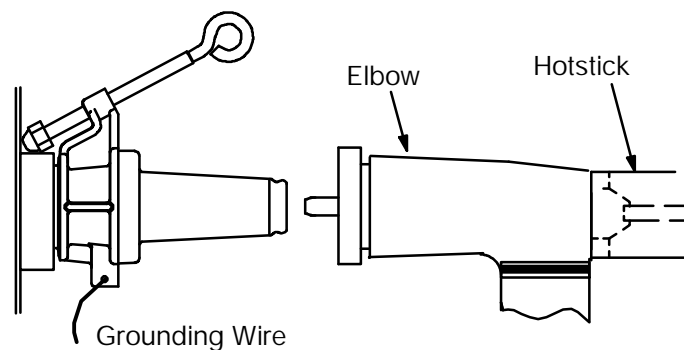
DO NOT OVER TIGHTEN BOLT.

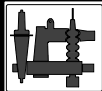


STEP 4

A. Remove ELASTIMOLD loadbreak elbow connector from loadbreak bushing following applicable LOAD-BREAK operating instructions (IS- -165/166LR or IS- -167/168LR). Insert the male contact of the loadbreak elbow into the stand-off plug and push it home with a fast, firm, straight motion. Make sure it is firmly in place and locking ring is seated.

B. To return loadbreak elbow to the bushing, reverse the operational sequence following applicable LOAD-MAKE operating instructions (IS- -165/166LR or IS- -167/168LR). Before connecting elbow to bushing, be certain no fault to ground exists on the system.





ELASTIMOLD

ISSUE DATE 0199

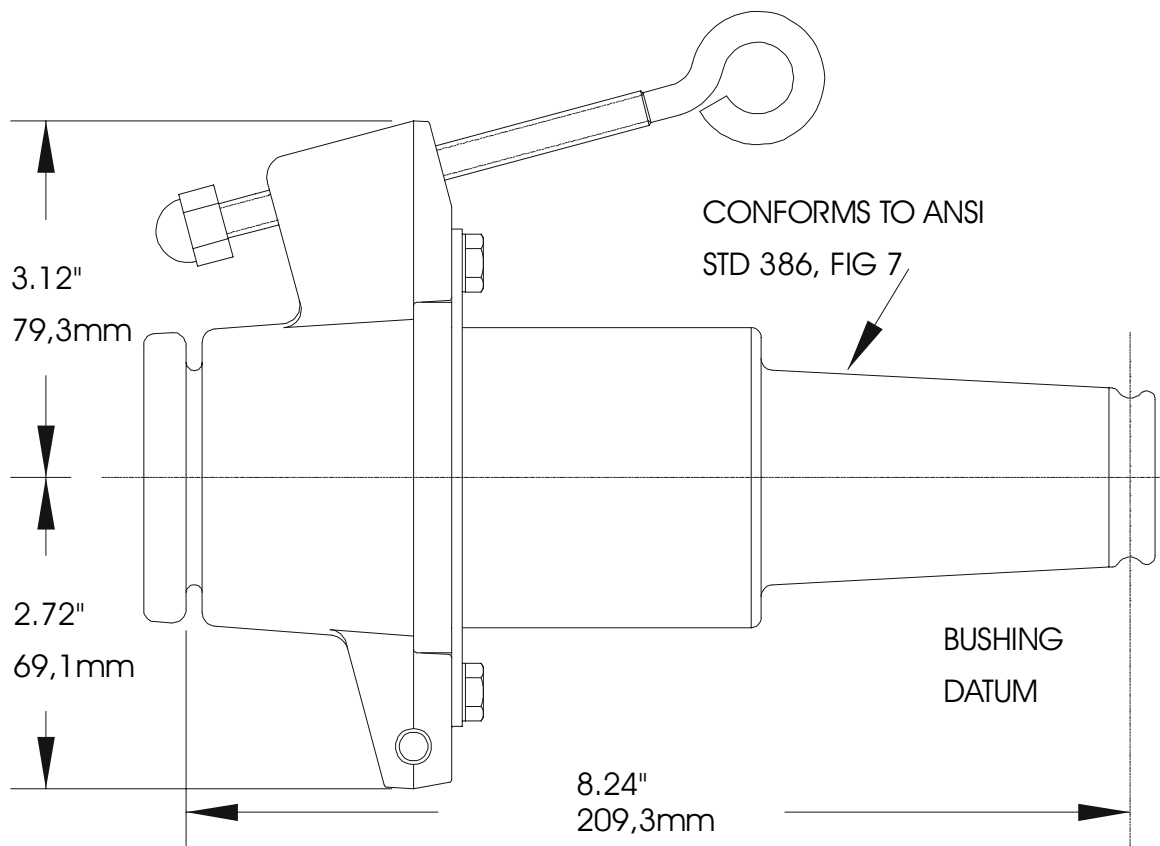
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Insulated Parking Bushing

ELASTIMOLD PART NUMBER

272SOP

The Elastimold 272SOP Insulated Parking Bushing is equipped with a 25kV class, 200 Amp loadbreak interface, a cast aluminum bracket for insertion into a standard parking stand and hot stick operable mounting hardware. The 272SOP are inserted into the parking stand with an insulated hot stick and secured in place. Mating Elastimold 25kV class Loadbreak Elbows can then be removed from the equipment and placed on the 272SOP to provide a fully shielded and fully submersible connection. Provisions for grounding the 272SOP mounting bracket are included.

Features:

- 25kV, 200 Amp loadbreak rated.
- Molded EPDM interface.
- Cast aluminum bracket with slotted end, which inserts into parking stand.
- 5/16"-18 Stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the 272SOP into the mating parking stand.
- Set screw ground connection with 1/4" diameter thru hole.

Ratings:

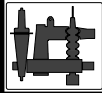
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **272SOP** Insulated Parking Bushing

The 272SOP includes the following:

1 - Insulated parking bushing	272SOP
1 - Protective shipping cap	2701-41
2 - Lubricant	82-08
1 - Installation instruction	IS-161/272/372SOP 8/95



ELASTIMOLD

ISSUE DATE 0199

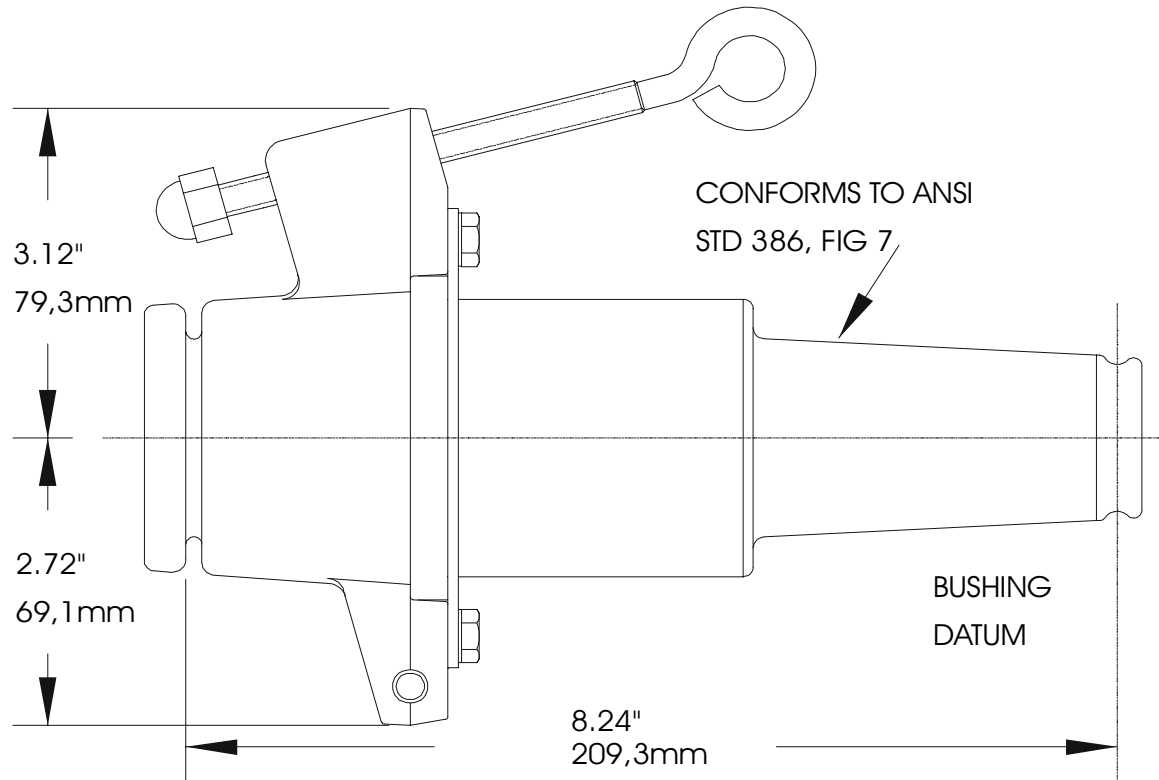
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 200A Insulated Parking Bushing

ELASTIMOLD PART NUMBER

372SOP

The Elastimold 372SOP Insulated Parking Bushing is equipped with a 35kV class, 200 Amp loadbreak interface, a cast aluminum bracket for insertion into a standard parking stand and hot stick operable mounting hardware. The 372SOP are inserted into the parking stand with an insulated hot stick and secured in place. Mating Elastimold 35kV class Loadbreak Elbows can then be removed from the equipment and placed on the 372SOP to provide a fully shielded and fully submersible connection. Provisions for grounding the 372SOP mounting bracket are included.

Features:

- 35kV, 200 Amp loadbreak rated.
- Molded EPDM interface.
- Cast aluminum bracket with slotted end, which inserts into parking stand.
- 5/16"-18 Stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the 372SOP into the mating parking stand.
- Set screw ground connection with 1/4" diameter thru hole.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **372SOP** Insulated Parking Bushing

The 372SOP includes the following:

1 - Insulated parking bushing	372SOP
1 - Protective shipping cap	2701-41
2 - Lubricant	82-08
1 - Installation instruction	IS-161/272/372SOP

Operating Instructions 272/372SOP Stand-Off Plug

Contents: Stand Off Plug complete with Mounting Hardware, Operating Instructions.

The 272/372SOP is designed to isolate and "dead-end" Elastimold 25kV or 35kV class (Maximum phase-to-ground voltage 21.1kV) loadbreak elbow connectors.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

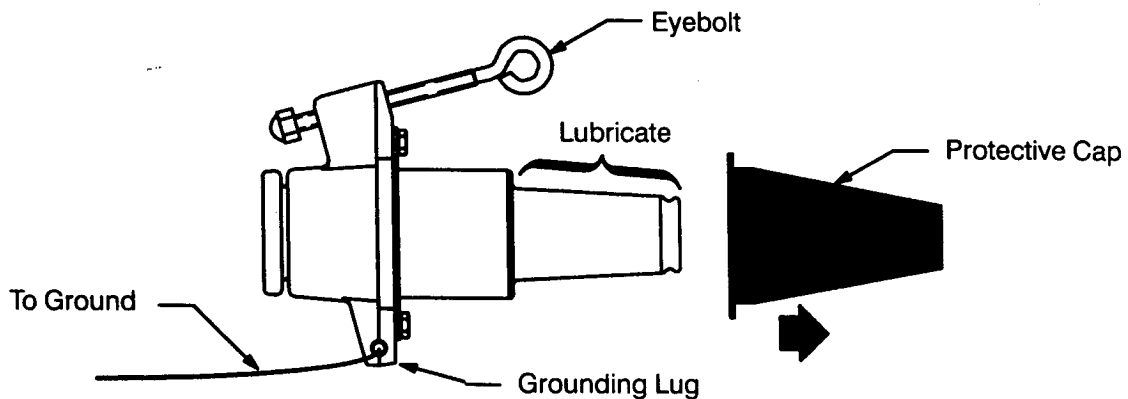
This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Grounding- Connect electrostatic grounding lead to the grounding lug. Connect the opposite end to ground, leaving enough slack to operate with a hotstick. Remove protective cap, clean and lubricate stand-off plug interface with an Elastimold approved lubricant. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating product(s). Always replace protective cap when stand-off plug is not in use.



IS-0635

IS-272/372SOP
31 August 1995
Printed in U.S.A.

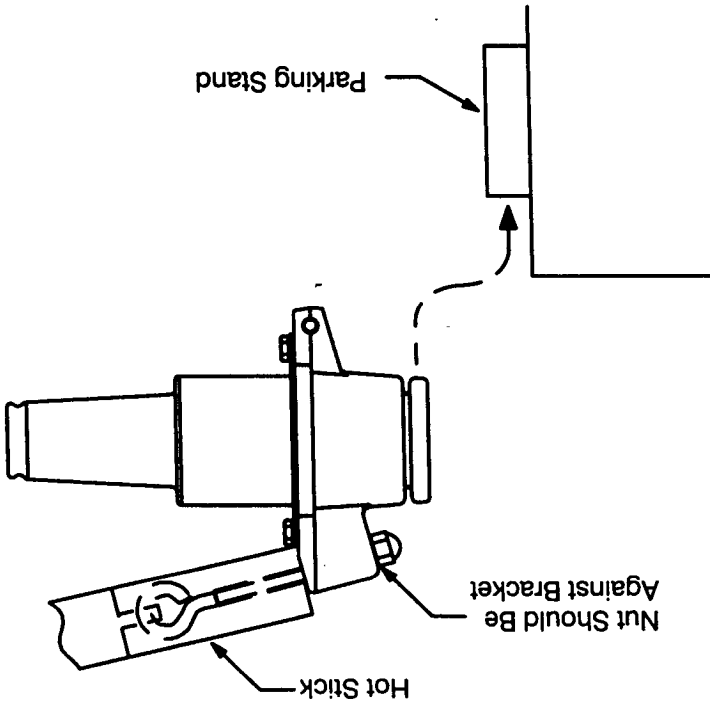


ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2094
A Unit of Eagle Industries, Inc.

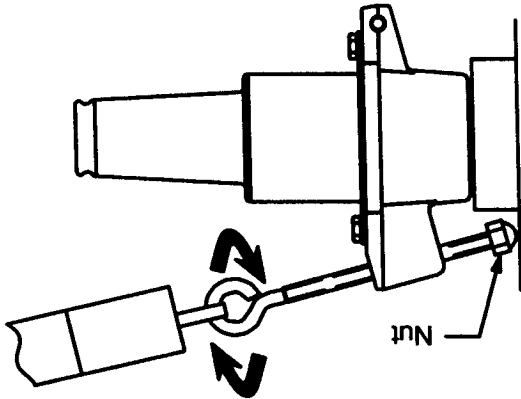
STEP 2

Rotate the eyebolt counterclockwise until the nut is in contact with the bracket. Attach the hot stick firmly to the eyebolt. Slide the Stand-off Plug into the parking stand.



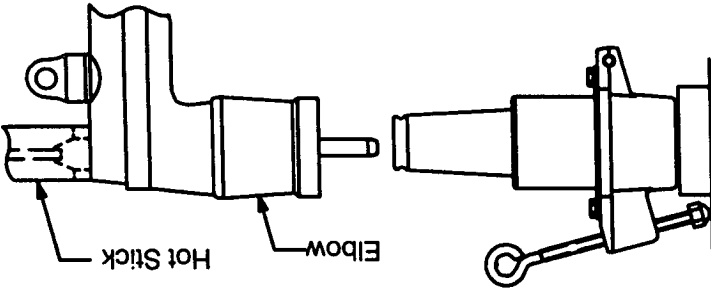
STEP 3

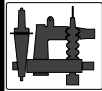
Back off the hotstick. Rotate the eyebolt clockwise until the nut on the opposite end snugly wedges the stand-off plug to the underside of the parking stand.
DO NOT OVER TIGHTEN BOLT.



STEP 4

- A. Remove ELASTIMOLD loadbreak elbow connector from loadbreak bushing following applicable LOADBREAK operating instructions (IS-273/274LR or IS-375/376LR). Insert the male contact of the loadbreak elbow into the stand-off plug and push it home with a fast, straight motion. Make sure it is firmly in place and locking ring is seated.
- B. To return loadbreak elbow to the bushing, reverse the operational sequence following applicable LOADMAKE operating instructions (IS-273/274LR or IS-375/376LR).





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

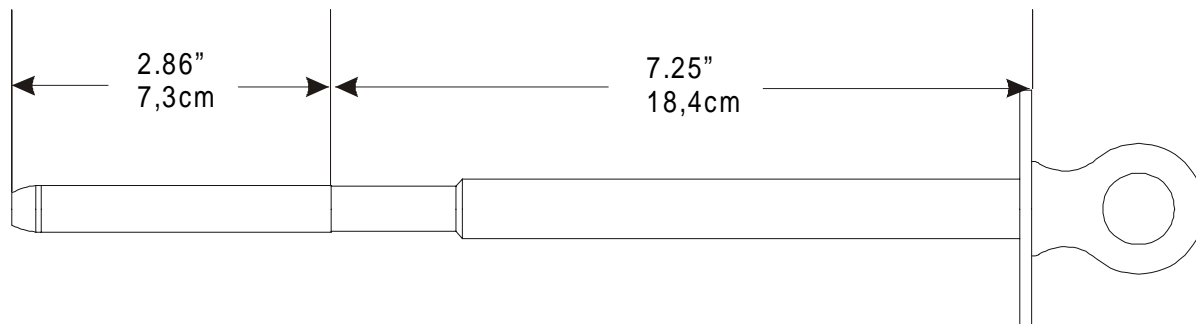
PRODUCT SPECIFICATION SHEET

DESCRIPTION

Test Rod

ELASTIMOLD PART NUMBER

370TR



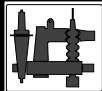
The Elastimold **370TR** test rod is designed to test & allow determination the condition of the circuit. It is designed to mate with all the Elastimold 200 Amp loadbreak bushing products.

Ordering Instructions:

To order, specify number **370TR** Test Rod.

The 370TR includes the following:

1 – Test Rod 370TR



PRODUCT SPECIFICATION SHEET

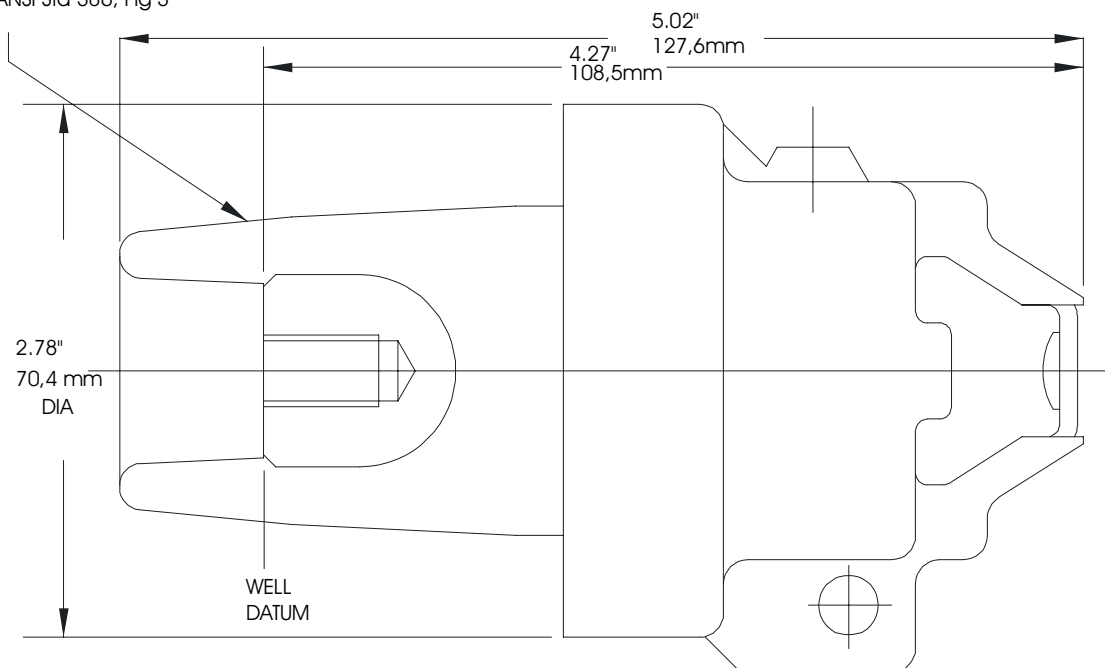
DESCRIPTION

25kV 200A Bushing Well Plug

ELASTIMOLD PART NUMBER

276BWP

MATES WITH BUSHING
WELLS CONFORMING TO
ANSI Std 386, Fig 3



Application:

The Elastimold 276BWP bushing well plug is a fully shielded, fully submersible, insulating plug designed for de-energized operation. It is suitable for use on 15/25 kV class bushing wells to "dead-end" the transformer or switchgear for testing purposes.

Ordering Instructions:

To order, specify number **276BWP**.

The 276BWP bushing well plug includes the following:

- | | |
|------------------------------|------------------|
| 1 – bushing well plug | 276BWP |
| 1 – Lubricant | 82-08 |
| 1 – Installation instruction | IS - 276BWP 1/92 |

Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
 - 15.2kV Max Phase-to-Ground - Operating Voltage
 - 26.3kV Max Phase-to-Phase
 - 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 - 40kV AC - One minute Withstand
 - 78kV DC - 15 Minutes Withstand
 - 19kV AC - Corona Extinction @ 3p.C.sensitivity
 - 10kA Sym - 10 Cycles Momentary
 - 200Amp - Continuous

Installation Instructions 276BWP

CONTENTS: Bushing Well Plug, Lubricant, Installation Instructions

The 276BWP is designed for insulating and watersealing an ELASTIMOLD 200A bushing well interface 15kV class (8.3kV phase-to-ground/14.4kV phase-to-phase) or 25kV class (15.2kV phase-to-ground/26.3 phase-to-phase).

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

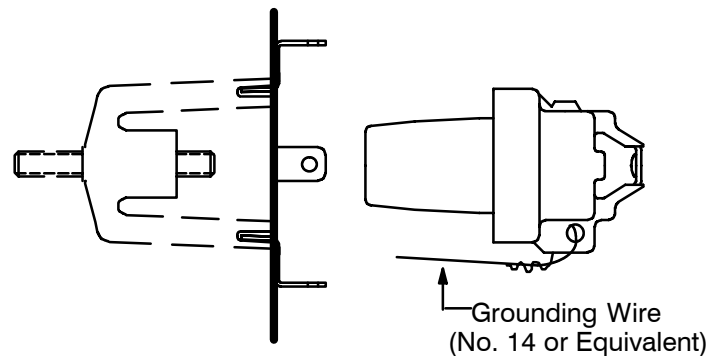
Failure to follow these instructions could result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

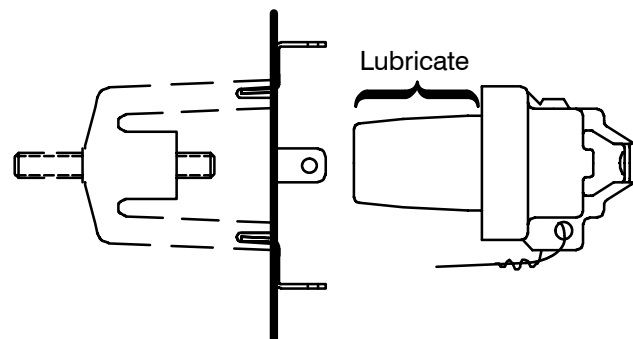
STEP 1 GROUNDING

Securely connect electrostatic grounding wire (No.14 Copper or equivalent) to the grounding eye of the bushing well plug.



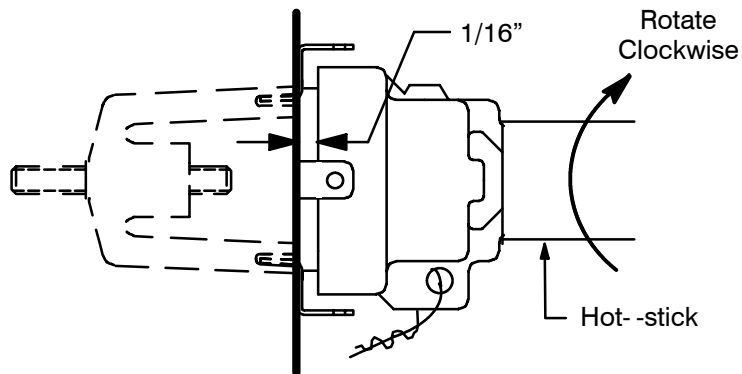
STEP 2 INSTALLATION

Lubricate external mating surface of bushing well plug with silicone lubricant provided. DO NOT SUBSTITUTE. Keep mating surfaces free of dirt and grime.



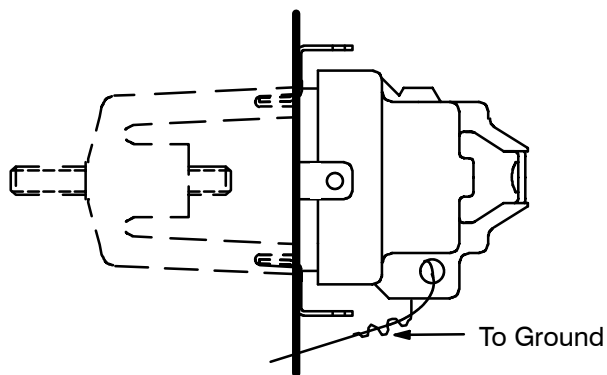
STEP 3

Firmly attach hot-stick to the bushing well plug hot-stick eye. Insert into the bushing well and rotate clockwise until tight. Conductive flange should be within 1/16" of bushing well metal flange.



STEP 4

Connect the electrostatic grounding wire to the system ground, using a suitable connector.



STEP 5 REMOVAL

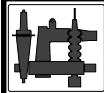
DANGER: ALL ASSOCIATED APPARATUS MUST BE DE-ENERGIZED DURING REMOVAL.

Disconnect and remove the electrostatic grounding wire. Attach hot-stick to the bushing well plug hot-stick eye and rotate counter-clockwise until free. Promptly cap bushing well or install other component.



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2094
A Unit of Eagle Industries, Inc.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

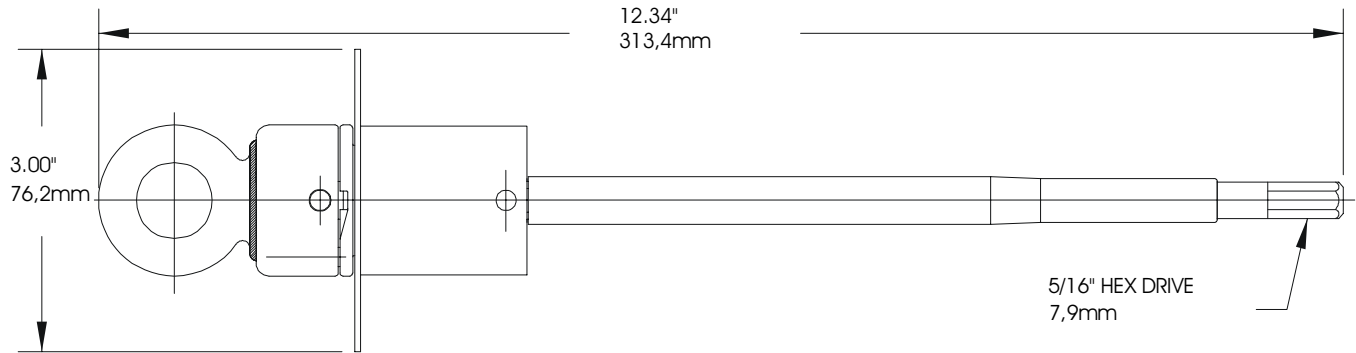
PRODUCT SPECIFICATION SHEET

DESCRIPTION

Installation Tool

ELASTIMOLD PART NUMBER

200AT



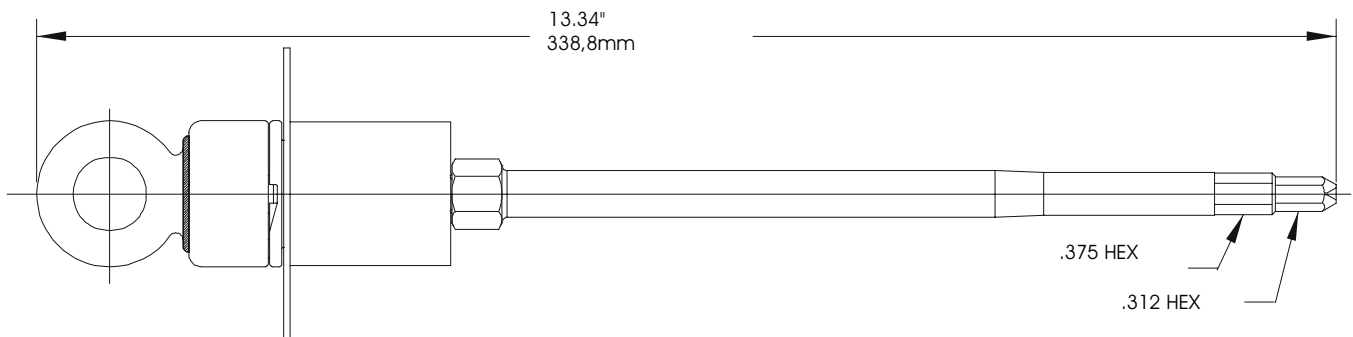
The **200AT** installation tool can be used to install the 200A loadbreak bushing insert include 1601A4 and 2701A4 with proper torque, the torque is pre-set at 180 inch-pounds.

DESCRIPTION

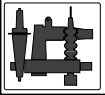
Installation Tool

ELASTIMOLD PART NUMBER

600AT



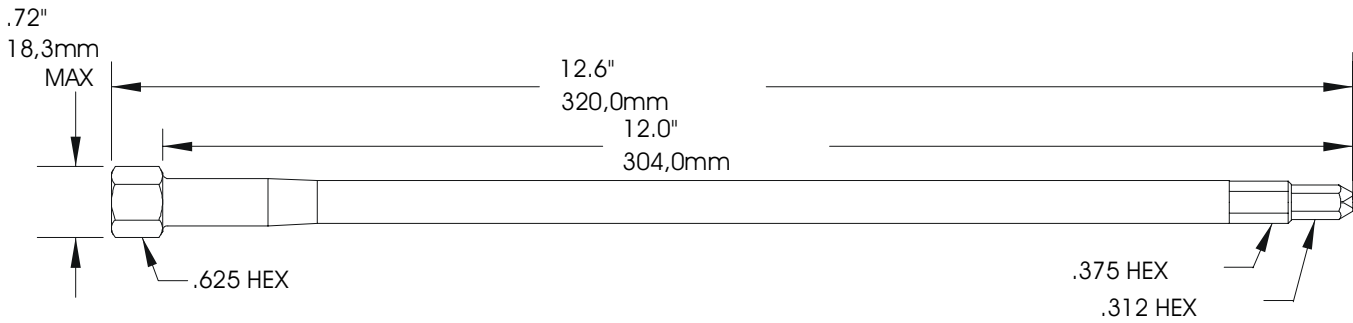
The **600AT** installation tool can be used to install all the 600A/200A loadbreak reducant tap include 650LRTPA3 and K650LRTPA2 with proper torque, the torque is pre-set at 240 inch-pounds.



DESCRIPTION

ELASTIMOLD PART NUMBER

Installation Tool

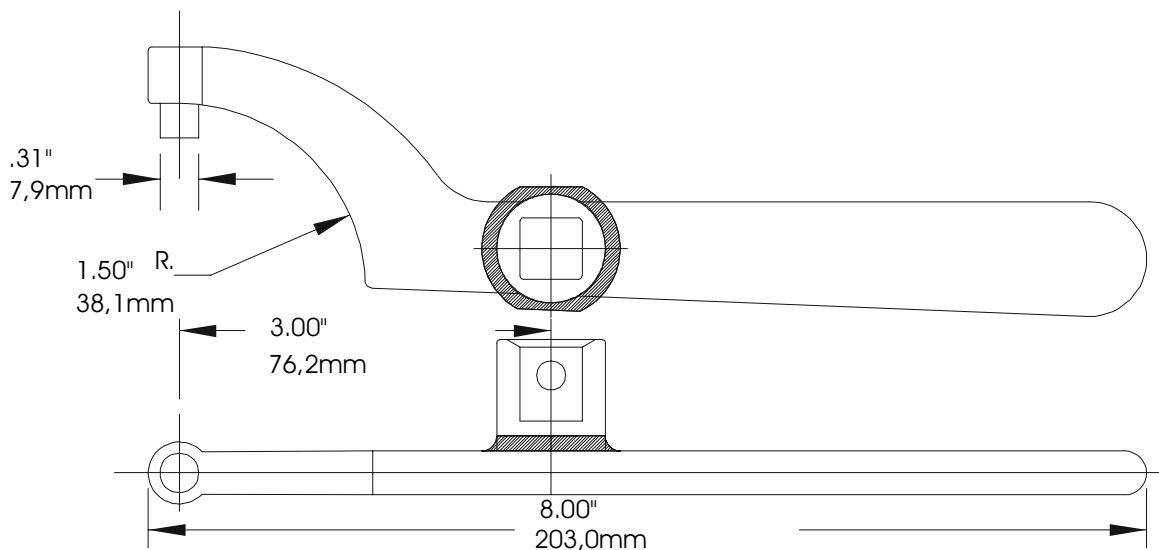
600ATM

The **600ATM** installation tool is designed for use on 650ETP, K650ETP and 750ETP. It provides an easy to use tool for tightening and/or loosening these units.

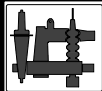
DESCRIPTION

ELASTIMOLD PART NUMBER

Installation Tool

600SW

The **600SW** spanner wrench is designed for use on K650CP connecting plugs, K650RTP tap plugs, and K650RTWS tap wells. It provides an easy to use tool for tightening and/or loosening these units.

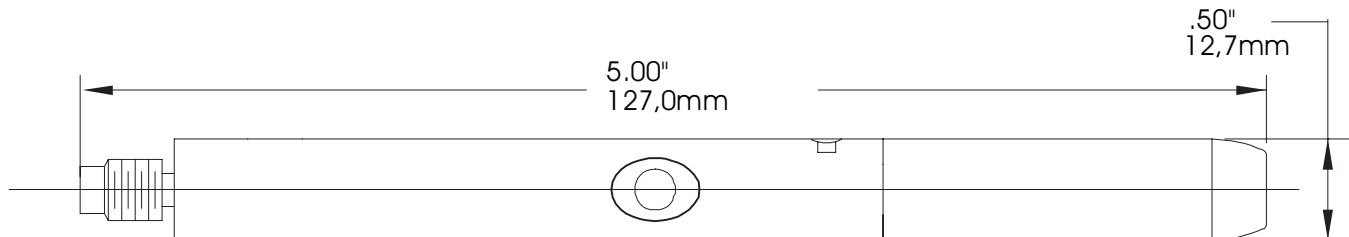


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Elbow Probe

ELASTIMOLD PART NUMBER

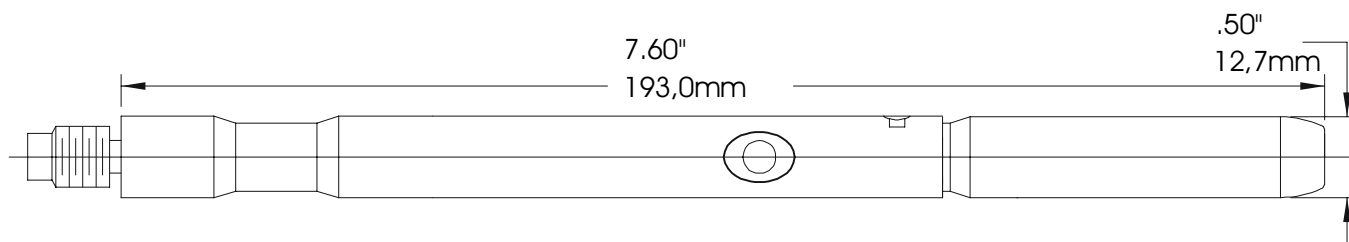
166LRF

The **166LRF** loadbreak elbow probe is designed to be used with all the 15 kV class loadbreak elbow, such as 165/166LR, 167/168ELR, 167/168RLR and 166FLR.

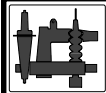
DESCRIPTION

25kV 200A Loadbreak Elbow Probe

ELASTIMOLD PART NUMBER

274LRF

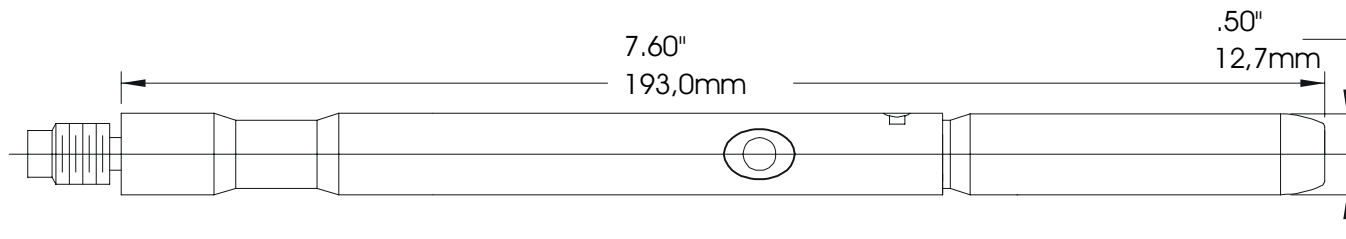
The **274LRF** loadbreak elbow probe is designed to be used with all the 25 kV class loadbreak elbow, such as 273/274LR, 273/274ELR and 273/274RLR.



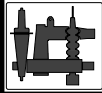
DESCRIPTION

35kV 200A Loadbreak Elbow Probe

ELASTIMOLD PART NUMBER

376LRF

The **376LRF** loadbreak elbow probe is designed to be used with all the 35 kV class loadbreak elbow, such as 375/376LR.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

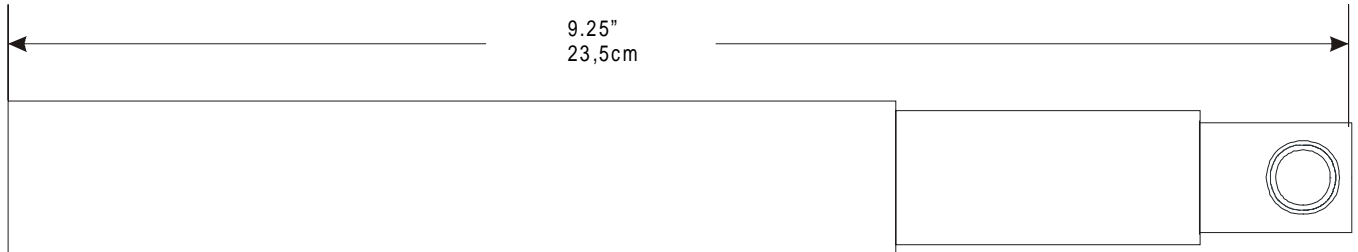
PRODUCT SPECIFICATION SHEET

DESCRIPTION

Elbow Cable Entrance Insulating Plug

ELASTIMOLD PART NUMBER

10EP-W



Application:

The ELASTIMOLD 10EP elbow cable entrance insulating plug is designed to electrically insulate and water seal the cable entrances of ELASTIMOLD 200-amp elbow connectors.

The 10EP insulating plug makes it possible to provide an electrically and mechanically sound dead-end cable entrance on any ELASTIMOLD elbow connector. This is designed with a threaded hole on one end to simulate the conductor contact in order that the elbow's male contact can be installed.

Installation of the 10EP enables the elbow connector to function as a dead-end receptacle for any mating bushing interface. This flexibility provides an advantage in that the need for the normal dead-end receptacle is alleviated and the elbow required for future cable installation is already in place. By using elbow connectors equipped with a test allows the additional advantage of a dead-end receptacle with test point. The normal function of the elbow connector is restored by simply removing the 10EP and replacing it with a properly prepared cable.

Ordering Instructions:

To order, specify number **10EP-W**. The 10EP elbow cable entrance insulating plug is available for the Elastimold elbow cable entrance sizes EB, EF, FA, FAB, FB, FG, GA, GAB and GB.

The 10EP-W elbow cable entrance insulating plug includes the following:

- | | |
|------------------------------|--------------------|
| 1 – Insulated plug | 10EP |
| 1 – Lubricant | 82-08 |
| 1 – Installation instruction | IS - 10EP (E) 8/83 |

IMPORTANT:
Read instructions thoroughly and completely
prior to beginning operation.

Installation Instructions 10EP Elbow Cable Entrance Insulating Plug

CONTENTS: 1—Elbow cable entrance insulating plug, 1—Tube, silicone lubricant, 1—Wiping cloth.

The 10EP is designed to insulate and waterseal the cable entrances of the ELASTIMOLD 200-amp elbow connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s) to avoid fatal shock.

Inspect parts for damage, ratings and compatibility with mating parts.

The product should be installed only by competent personnel familiar with good safety practices in handling high-voltage electrical equipment.

These instructions are not intended as a substitute for adequate training or experience in such good safety practices.

These instructions do not attempt to provide for every possible contingency.

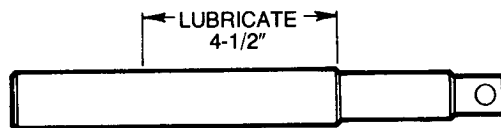
Install according to the following instructions.

Do not energize or submerge apparatus with shipping cap on bushing(s).

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

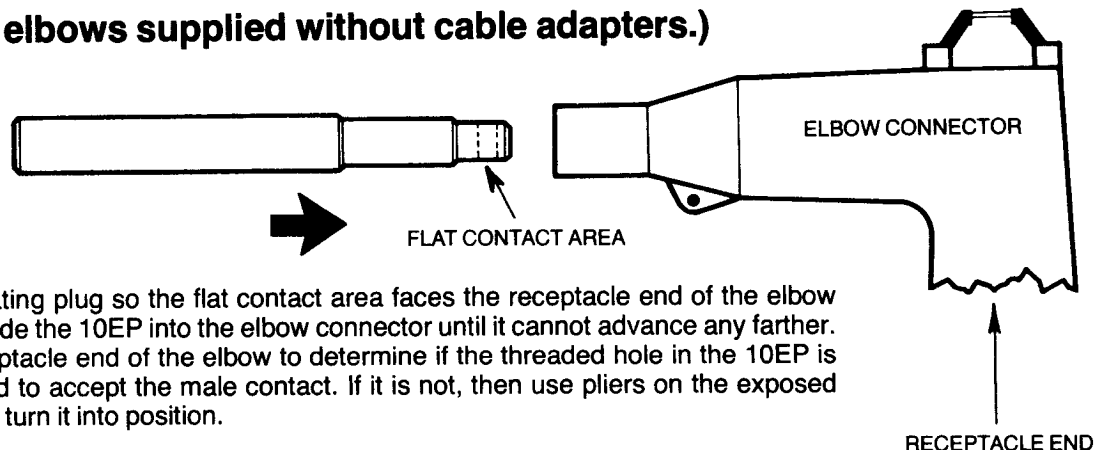
STEP 1.

Lightly lubricate the surface of the insulating plug with the supplied lubricant or ELASTIMOLD approved lubricant for a distance of approximately 4-1/2 inches from the second chamfered step. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating product(s).



KEEP INSULATING PLUG CLEAN AT ALL TIMES.

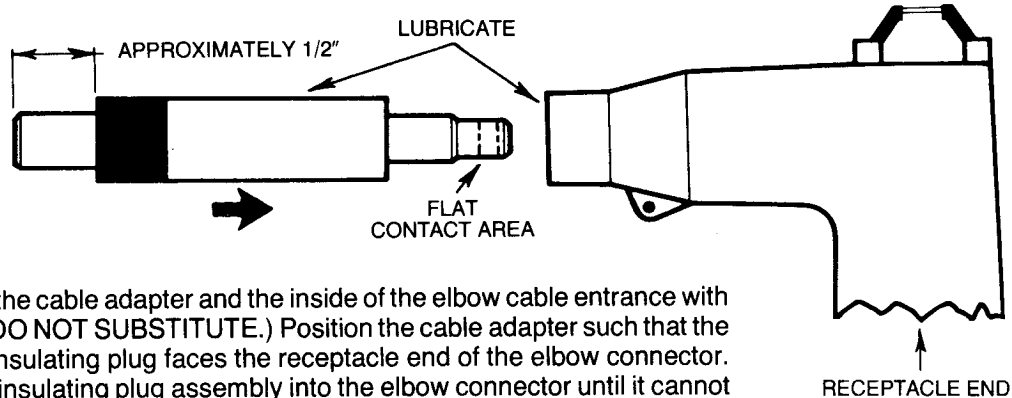
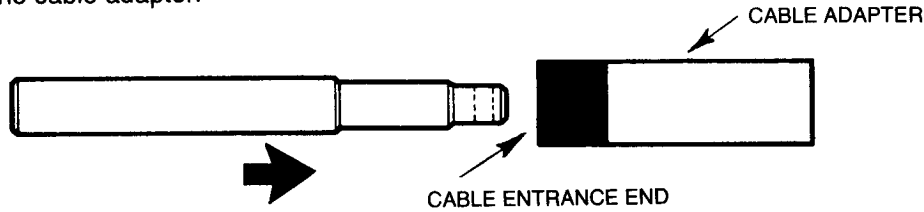
STEP 2. (For elbows supplied without cable adapters.)



Position the insulating plug so the flat contact area faces the receptacle end of the elbow connector. Now slide the 10EP into the elbow connector until it cannot advance any farther. Look into the receptacle end of the elbow to determine if the threaded hole in the 10EP is properly positioned to accept the male contact. If it is not, then use pliers on the exposed end of the 10EP to turn it into position.

STEP 2. (For elbows supplied with cable adapters.)

- A. Insert insulating plug into the cable adapter so that approximately 1/2" of the insulating plug is exposed at the cable entrance end of the cable adapter.

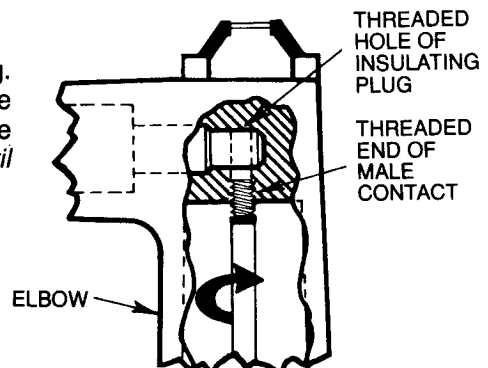


- B. Lubricate the outside of the cable adapter and the inside of the elbow cable entrance with the lubricant supplied. (DO NOT SUBSTITUTE.) Position the cable adapter such that the flat contact area of the insulating plug faces the receptacle end of the elbow connector. Slide the cable adapter-insulating plug assembly into the elbow connector until it cannot advance any farther. Look into the receptacle end of the elbow to determine if the threaded hole in the 10EP is properly positioned to accept the male contact. If it is not, then use pliers on the exposed end of the 10EP to turn it into position.

STEP 3.

Remove protective cap from threads of the male contact before installing. Make sure the Belleville washers are in place. Insert the threaded end of the male contact into the threaded hole of the insulating plug located in the receptacle end of the elbow. Hand tighten this contact. *Do not tighten until the wrench bends as indicated in the elbow connector instructions.*

SNUG TIGHTEN ONLY TO AVOID STRIPPING THREADS.



STEP 4.

Lightly lubricate both bushing and elbow connector mating surfaces and complete assembly as indicated in instructions for the elbow.

Elbows using the 10EP must be grounded by connecting a piece of wire equivalent to No. 14 AWG (2,5mm²) copper from the apparatus ground to the elbow grounding eye.

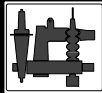
WARRANTY

The following is given by the ELASTIMOLD DIVISION of AMERACE CORPORATION in lieu of all other warranties, express or implied:

ELASTIMOLD® Products will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. ELASTIMOLD's liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material. All statements, technical information and recommendations contained herein are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. This warranty is effective for two (2) years from date of shipment by ELASTIMOLD, but at no time will ELASTIMOLD be liable for incidental or consequential damages.



**ELASTIMOLD
DIVISION**



ELASTIMOLD

ISSUE DATE 0199

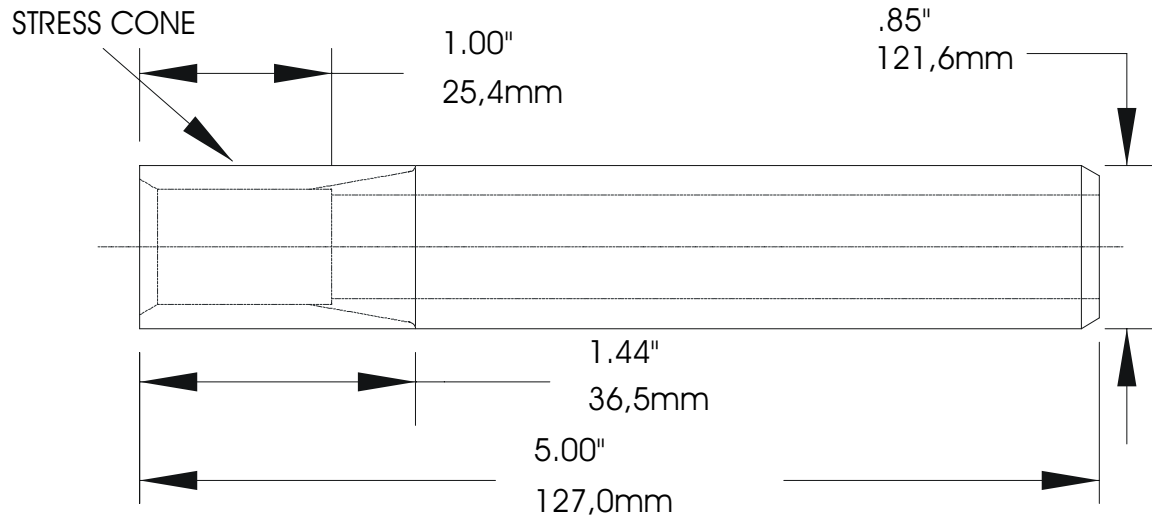
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

200A Elbow Cable Size Adapter

ELASTIMOLD PART NUMBER

160CA-W

The Elastimold **160CA** Elbow Cable Size Adapter is specially designed for small cable with insulation OD between .495" to .625". The 160CA can only be used in a 165/166LR "C" size housing.

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 1 (W)
160CA –

Cable Insulation Dia. Range		Adapter Code
inches	mm	
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA

The Elbow Cable size Adapter kit contains the following:

1 – Cable size adapter	160CA-W
1 – Lubricant	82-08
1 – Installation Instruction	IS EB, EF, FA (A) 3/94

Example:

The ordering number for an Elbow Cable Size Adapter for a #4 stranded, 175 mil wall cable with an insulation diameter of .618" (15.7 mm) is 160CA-FA

Supplemental Installation Instructions EB, EF AND FA Size Elbow Connectors

CONTENTS: Cable Adapter, Tube, Lubricant, Supplemental Installation Instruction

For sizes EB, EF and FA a cable adapter is used in conjunction with the elbow connector.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

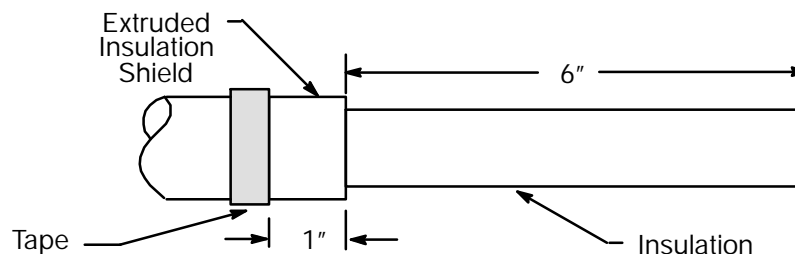
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1 CABLE TRAINING

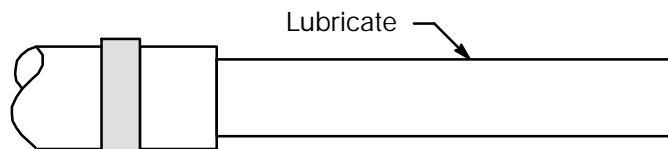
Follow installation instructions provided with the elbow.

STEP 2 CABLE PREPARATION AND CABLE ADAPTER ASSEMBLY

- A. Wipe the extruded insulation shield clean of dirt and grease. Remove the shield to a point 6" back from the end of the cable with a straight smooth "squared" cut. **DO NOT CUT OR NICK THE INSULATION.** Mark the shield with a wrap of tape exactly 1" from the end of the shield. Thoroughly clean the insulation to remove all traces of conductive residue.



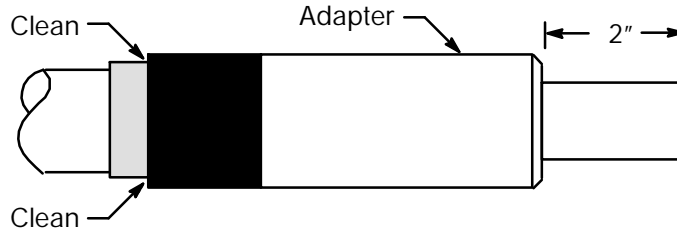
- B. Lubricate the cable insulation with the silicone lubricant supplied (**DO NOT SUBSTITUTE**). Keep the cable insulation clean at all times.



ELASTIMOLD

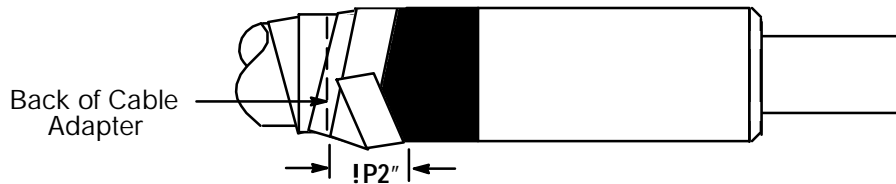
- C. Slide the cable adapter (160CA series) over the cable until the black end of the cable adapter is flush with the marking tape.

NOTE: An internal step in the cable adapter should cause it to bottom on the insulation shield of the cable. **DO NOT FORCE PAST THIS POINT.** Clean silicone lubricant from black end of cable adapter, marking tape and insulation shield.



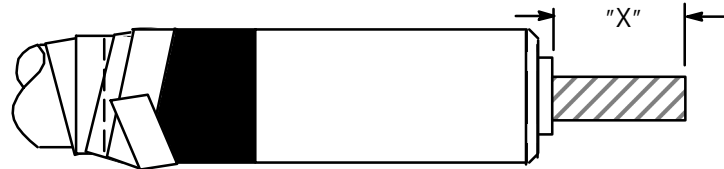
- D. Secure cable adapter in position by wrapping tape behind it, building up to approximate cable adapter outer diameter and overlapping up to **!P2"** onto cable adapter.

NOTE: Do not exceed **!P2"** dimension since tape is to be removed in a later step.

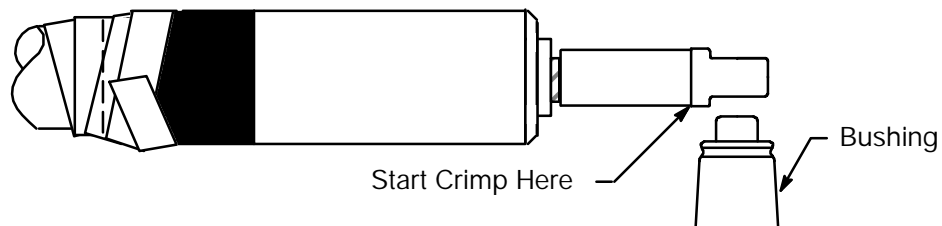


- E. Remove cable insulation as shown back from the cable end. **CUT SQUARELY. DO NOT PENCIL.** (Wire brush bare aluminum conductors and immediately insert in compression lug containing inhibitor.)

Compression Lug	"X"
02000XXX	1 !P8"
02200XXX	1 !P16"
02500XXX	



- F. Position compression lug on prepared conductor so the **FLAT CONTACT AREA FACES THE BUSHING**. Hold the contact barrel against the cable insulation and then crimp the contact. Start crimps at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excess inhibitor from the outside of the contact and cable insulation. **REFER TO CRIMP CHART FOR RECOMMENDED CRIMP TOOL INFORMATION.**



STEP 3 ELBOW ASSEMBLY

Complete elbow assembly as shown in installation instructions provided with the elbow. Remove tape after completing Step 3.



Route 24, Hackettstown, New Jersey 07840 USA
 (908)852-1122 FAX: (908)813-2094
 A Unit of Eagle Industries, Inc.

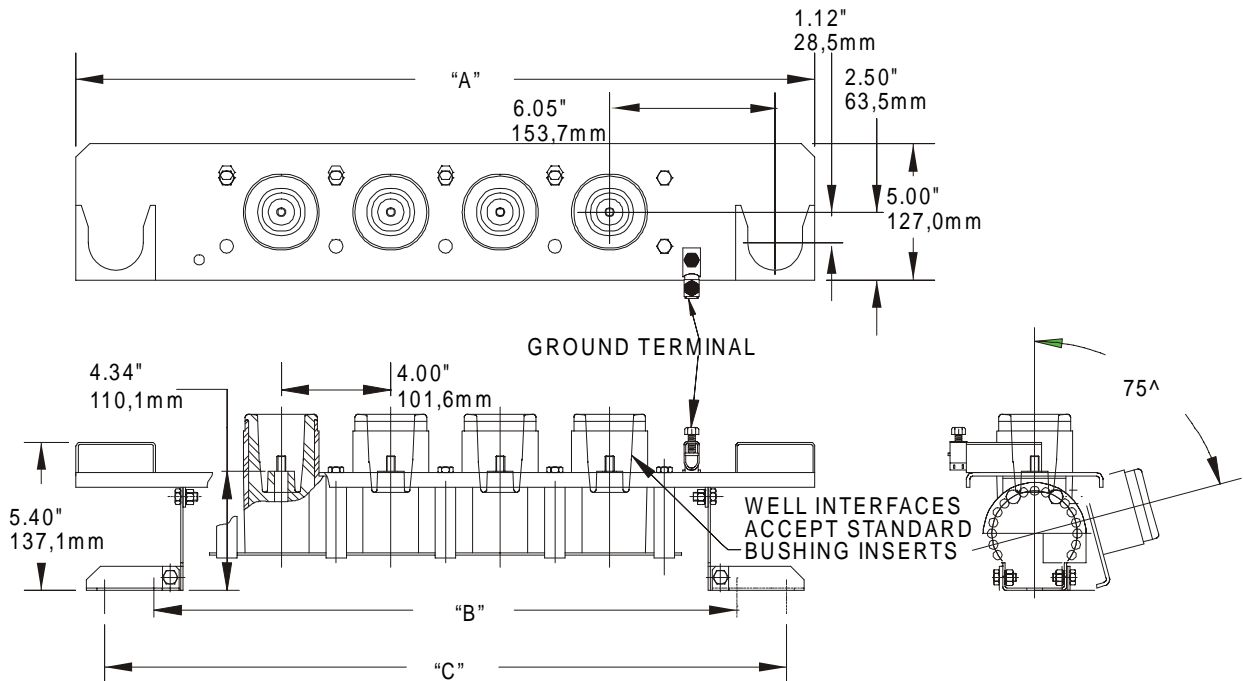


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 200A Well Junction

ELASTIMOLD PART NUMBER

K1601WJ

Junction	A DIM.		B DIM		C DIM	
	inch	mm	inch	DIM	inch	DIM
2-way	19.00	482,6	13.5	342,9	16.88	428,8
3-way	23.00	584,2	17.5	439,5	20.88	530,4
4-way	27.00	685,8	21.50	546,1	24.88	632,0

The ELASTIMOLD Well Junctions K1601WJ are designed for use on 15/25kV class systems. Units incorporate lightweight, damage resistant, EPDM molded rubber construction, corrosion resistant 304 stainless steel mounting brackets and easy replacement studs. Molded Junctions are maintenance free, fully shielded, deadfront and submersible. Units are ideally suited for subsurface, padmount, indoor and outdoor vault applications. Mated with an appropriate loadbreak or deadbreak bushing insert, Elastimold Well Junctions provide a convenient method for connecting, looping and tapping of 200 Amp loadbreak or deadbreak elbows. Maintenance costs are reduced since only a damaged bushing insert requires replacement in case of failure.

The Molded Well Junction kit contains the following:

1 – Basic Molded Junction	K1601WJX-4
1 – Mounting Hardware	K1601WJX-6
X – “U” strap	271-21-1
X – Protective cap	1601-PCC-1
X – Tube, lubricant	82-08
X – Replaceable stud	1601RS
1 – Installation instruction	IS-K1601WJ2,J3,J4

Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minute Withstand
 19kV AC - Corona Extinction @ 3p.c.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

Specify **K1601WJ2** for a 2-way Molded Junction
 Specify **K1601WJ3** for a 3-way Molded Junction
 Specify **K1601WJ4** for a 4-way Molded Junction

Add “-5” at the end of the catalog number for junctions with U style mounting strap only.

Add “-6” at the end of the catalog number for bracket with “U” strap and mounting hardware only.

Installation Instructions K1601WJ2, K1601WJ3, K1601WJ4

Two-, Three-, and Four-Point Loadbreak Well Junctions

Contents: Loadbreak Well Junction assembled with base bracket, Two mounting brackets with hardware, Lubricant Installation Instructions.

The two-, three-, and four-point well junctions are designed for universal mounting on both flat and curved surfaces. The mounting angle of the junction is adjustable from 0_ thru 90_ above or below the horizontal in 15_ increments.

These junctions provide universal interconnected bushing wells for Elastimold bushings thru 25kV class (15.2kV phase-to-ground).

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping covers. Remove these shipping covers and replace with the appropriate HV insulated caps or connectors before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

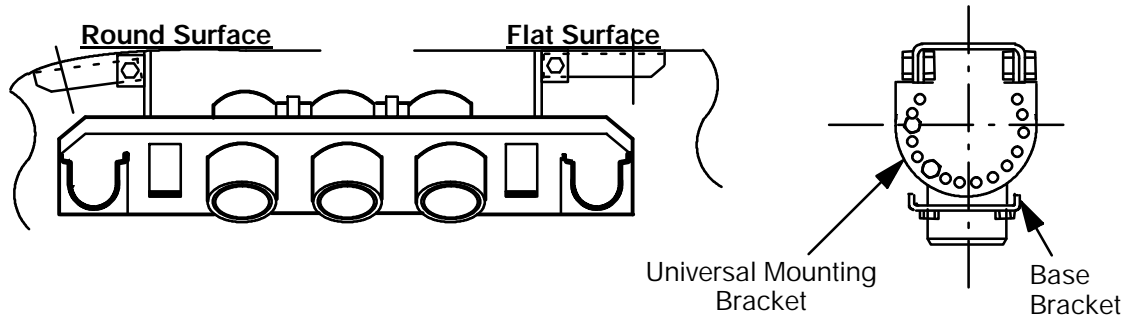
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
 2. Check all components to insure proper fit with cable and/or mating products.
 3. Read entire installation instructions before starting.
 4. Have all required tools at hand and maintain cleanliness throughout the procedure.
-



STEP 1

Loosely attach universal mounting brackets to the junction base bracket and place assembly against the wall. Adjust brackets for proper alignment and mark their location on the wall.

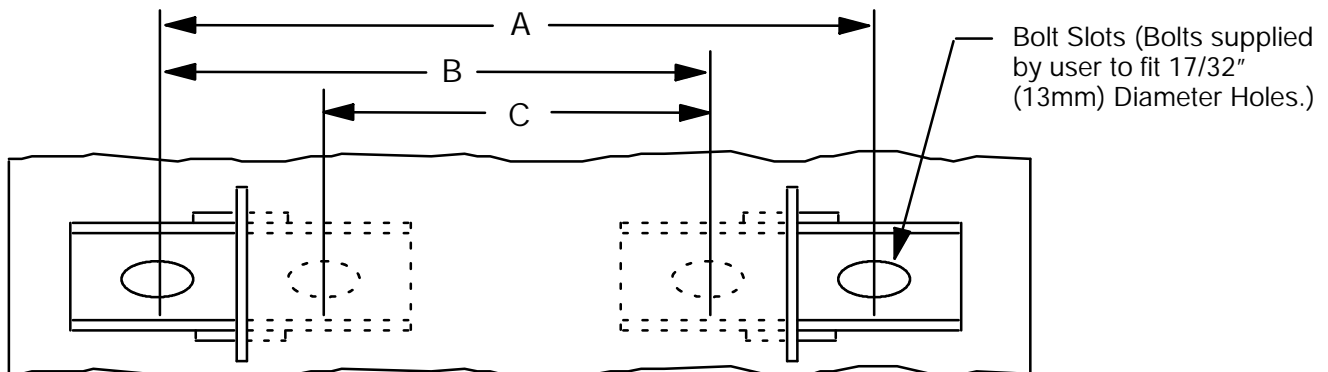


STEP 2

Detach universal mounting brackets from junction base bracket. Mount brackets on wall according to marks made in Step 1.

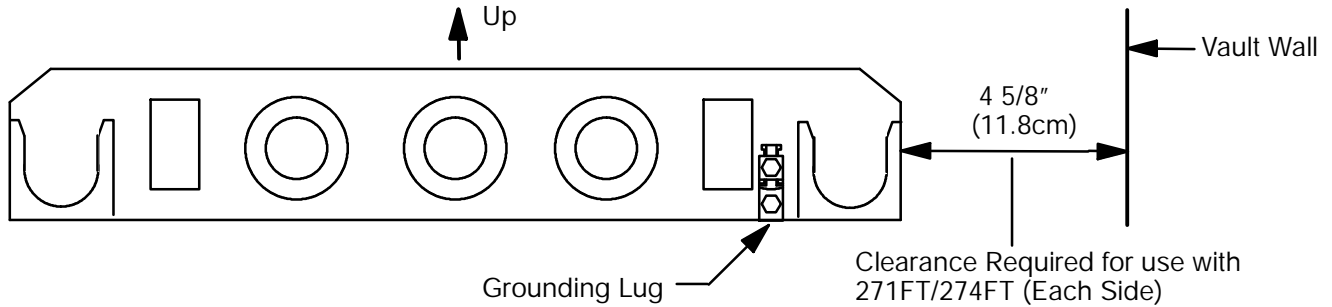
IMPORTANT: One or both of the mounting brackets can be inverted to change the distance required between bolt centers. The mounting bracket slot length provides the following dimensional ranges between bolt centers.

Junction Part No.	Mounting Dimensions (Inches)		
	A	B	C
J2	13 1/2 to 16 5/8 34,3cm to 42,9cm	9 1/2 to 13 1/8 24,1cm to 33,3cm	5 1/4 to 9 1/4 13,3cm to 23,5cm
J3	17 1/2 to 20 5/8 45,5cm to 53,0cm	13 1/2 to 17 1/8 34,3cm to 43,5cm	9 1/4 to 13 1/4 23,5cm to 33,7cm
J4	21 1/2 to 24 5/8 54,6cm to 63,2cm	17 1/2 to 21 1/8 44,5cm to 53,7cm	13 1/4 to 17 1/4 33,7cm to 43,8cm



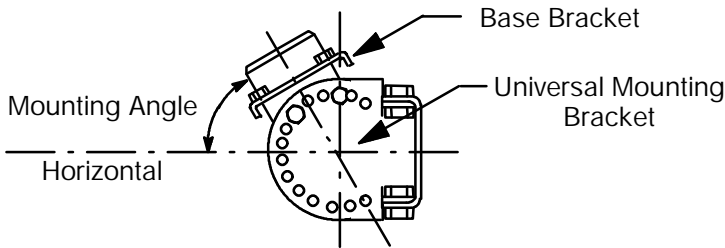
STEP 3A

With universal mounting brackets secure, fasten base bracket (with junction attached) to mounting brackets, making sure parking stands are in upright position.



STEP 3B

Adjust mounting angle to desired position.



STEP 3C

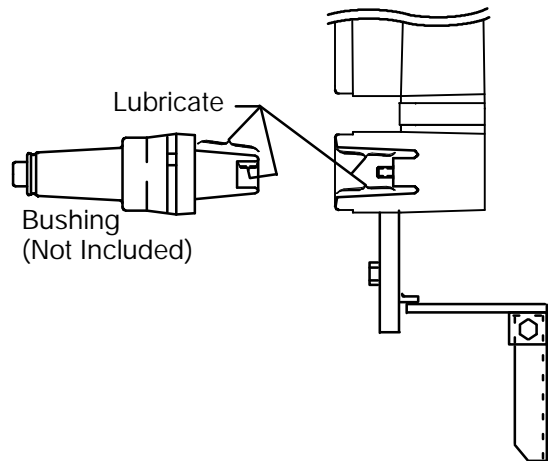
Tighten all bolts securely to assure no movement during operation.

STEP 3D

Ground base bracket. A grounding lug is provided for this purpose. It accommodates wire sizes of No. 10 Solid to No. 1 Stranded.

STEP 4

1. Remove the protective caps from the bushing wells.
2. Inspect the bushing wells to ensure they are dry and free from all contaminants. Lubricate the well interface area with supplied lubricant or Elastimold approved lubricants. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to the product and its mating products.
3. Install the bushings into the wells following the installation instruction included with the bushings.



OPERATING INSTRUCTIONS

Remove protective shipping caps and clean the operating interfaces. Apply silicone lubricant (**DO NOT SUBSTITUTE**) before assembly with an ELASTIMOLD product. Refer to operating instructions included with the product you are using.

WARNING: IF ALL OPERATING INTERFACES ARE NOT UTILIZED, AN ELASTIMOLD INSULATED CAP OR INSULATED PLUG MUST BE INSTALLED ON THE UNUSED INTERFACE OR INTERFACES BEFORE ENERGIZATION.

DO NOT USE the protective shipping covers for this function as they are not insulated and are only intended to keep the operating interface surfaces clean during handling and installation.



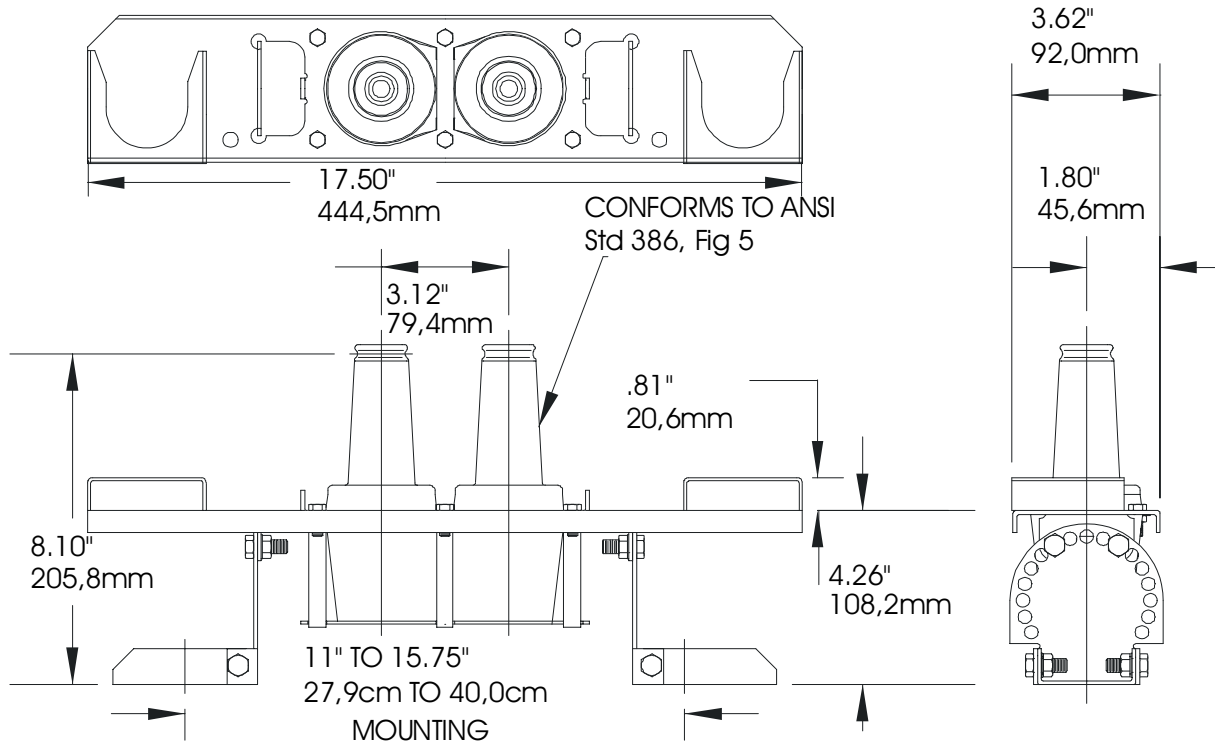


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Junction - 2 Way

ELASTIMOLD PART NUMBER

164J2

Ratings:

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

34kV AC - One minute Withstand

53kV DC - 15 Minutes Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 165LR elbow connector
- 166LR elbow connector
- 160GLR grounding elbow
- 370TR test rod
- 160DR/DRG, 167/168DR insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 15-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

Ordering Instructions:

Specify **164J2** for 15kV, 200 Amp, 2-way Loadbreak Junction
Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.

Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 164J2 2-way Junction kit contains the following:

1 - Basic Molded Junction	164J2-4
1 - Mounting Hardware	164J2-6
3 - U strap	163-159
2 - Protective shipping cap	1601-APC-1
2 - Tube, lubricant	82-08
1 - Installation instruction	IS-164J2,J3 1/98



ELASTIMOLD

ISSUE DATE 0199

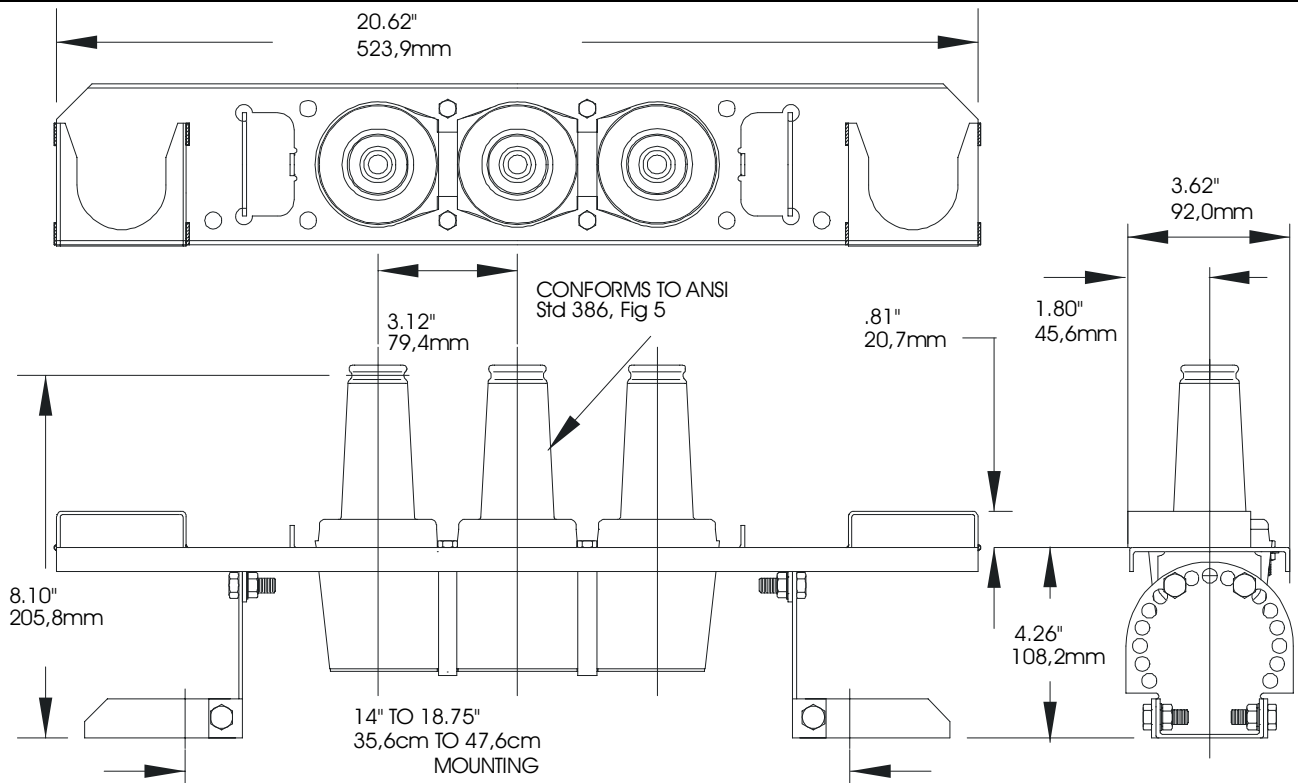
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Junction - 3 Way

ELASTIMOLD PART NUMBER

164J3

Ratings:

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

34kV AC - One minute Withstand

53kV DC - 15 Minutes Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 165LR elbow connector
- 166LR elbow connector
- 160GLR grounding elbow
- 370TR test rod
- 160DR/DRG, 167/168DR insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 15-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

Ordering Instructions:

Specify **164J3** for 15kV, 200 Amp, 3-way Loadbreak Junction
Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.

Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 164J3 3-way Junction kit contains the following:

1 - Basic Molded Junction	164J3-4
1 - Mounting Hardware	164J3-6
2 - "U" strap	163-159
3 - Protective shipping cap	1601-APC-1
3 - Tube, lubricant	82-08
1 - Installation instruction	IS-164J2,J3 1/98

Installation Instructions 164J2/164J3

Two- and Three-Point Loadbreak Junctions

Contents: Loadbreak Junction assembled with backplate, Left mounting bracket with necessary mounting hardware, Right mounting bracket with necessary mounting hardware, Silicone lubricant.

The two- and three-way loadbreak junctions are designed to interface with ELASTIMOLD 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak connectors for the purpose of sectionalizing, looping, tapping or for apparatus change out.

The loadbreak junction brackets are designed for universal mounting on both flat and curved surfaces. The mounting angle of the junction is adjustable from 0° thru 90° above or below the horizontal in 15° increments.

These junctions are also available without the backplate and mounting brackets. In these cases, only U-straps are furnished with the junction and the user must mount the junctions to a flat metal surface.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

FOR MORE INFORMATION ON PARTS, INSTALLATION, RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

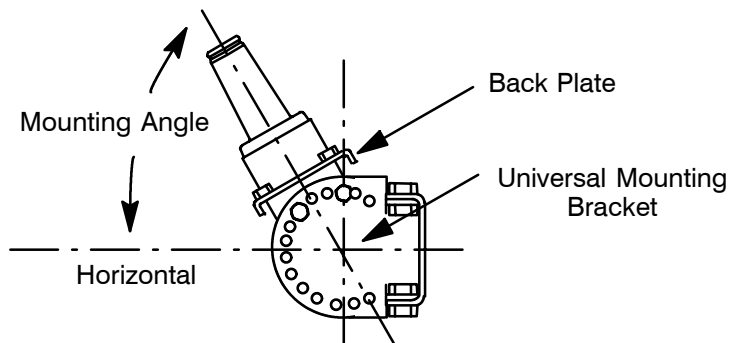
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

These products are supplied with a protective shipping covers. Remove these shipping covers and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

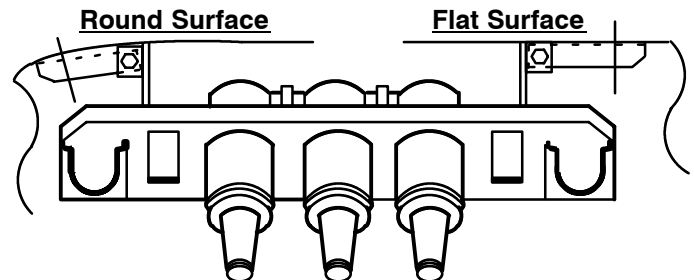
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



STEP 1

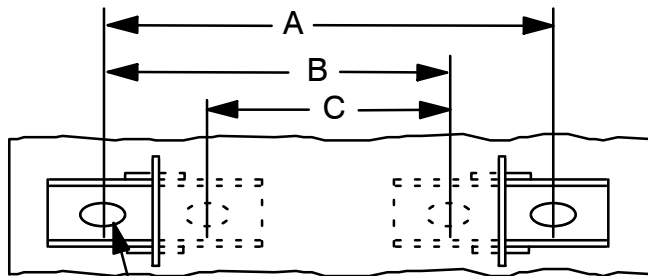
Loosely attach universal mounting brackets to the junction backplate and place assembly against the wall. Adjust brackets for proper alignment and mark their location on the wall.



ELASTIMOLD

STEP 2

Detach universal mounting brackets from junction back plate. Mount brackets on wall according to marks made in Step 1. One or both of the mounting brackets can be inverted to change the distance required between bolt centers. The mounting bracket slot length provides the following dimensional ranges between bolt centers.

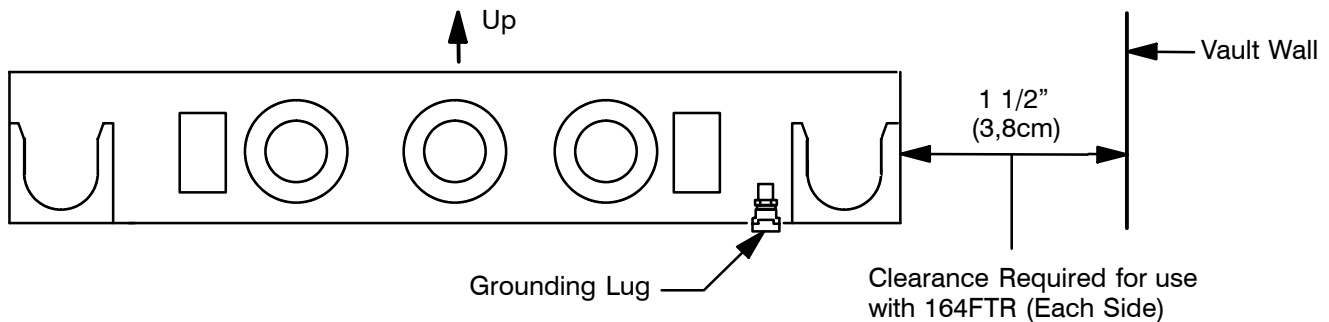


Junction Part No.	Mounting Dimensions (Inches/cm)		
	A	B	C
164J2	11 to 15 ³ / ₄ 27,9cm to 40,0cm	6 ⁷ / ₈ to 11 ³ / ₄ 17,5cm to 29,8cm	3 to 7 ³ / ₄ 7,6cm to 19,7cm
164J3	14 to 18 ³ / ₄ 35,6cm to 47,6cm	10 to 14 ⁷ / ₈ 25,4cm to 37,8cm	6 ¹ / ₈ to 10 ³ / ₄ 15,6cm to 27,3cm

Bolt Slots (Bolts supplied by user to fit 17/32" (13,5mm) Dia. Holes.)

STEP 3

With universal mounting brackets secure, fasten back plate (with junction attached) to mounting brackets, making sure parking stands are in upright position.



STEP 4

Adjust mounting angle to desired position.

STEP 5

Tighten all bolts securely to assure no movement during operation.

STEP 6

The backplate and supported junction's black conductive jacket must be grounded. A grounding lug is provided on the backplate for this purpose. It accommodates wire sizes of No. 2 solid to 1.0 stranded. In the case where the junction is mounted without the backplate, the junction black conductive jacket must be grounded by other means.

OPERATING INSTRUCTIONS

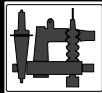
Remove protective caps and clean bushings. Apply silicone lubricant (DO NOT SUBSTITUTE) before assembly with an ELASTIMOLD loadbreak connector. Refer to IS-165LR/166LR, before operating junctions with loadbreak elbow connectors.

WARNING: IF ALL BUSHINGS ARE NOT UTILIZED, AN ELASTIMOLD INSULATED CAP MUST BE INSTALLED ON THE UNUSED BUSHINGS BEFORE ENERGIZATION.

DO NOT USE the protective shipping covers for this function as they are not insulated and are only intended to keep the bushing surfaces clean during handling and installation.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
 (908)852-1122 FAX: (908)813-2147
 A Unit of Thomas & Betts Corporation

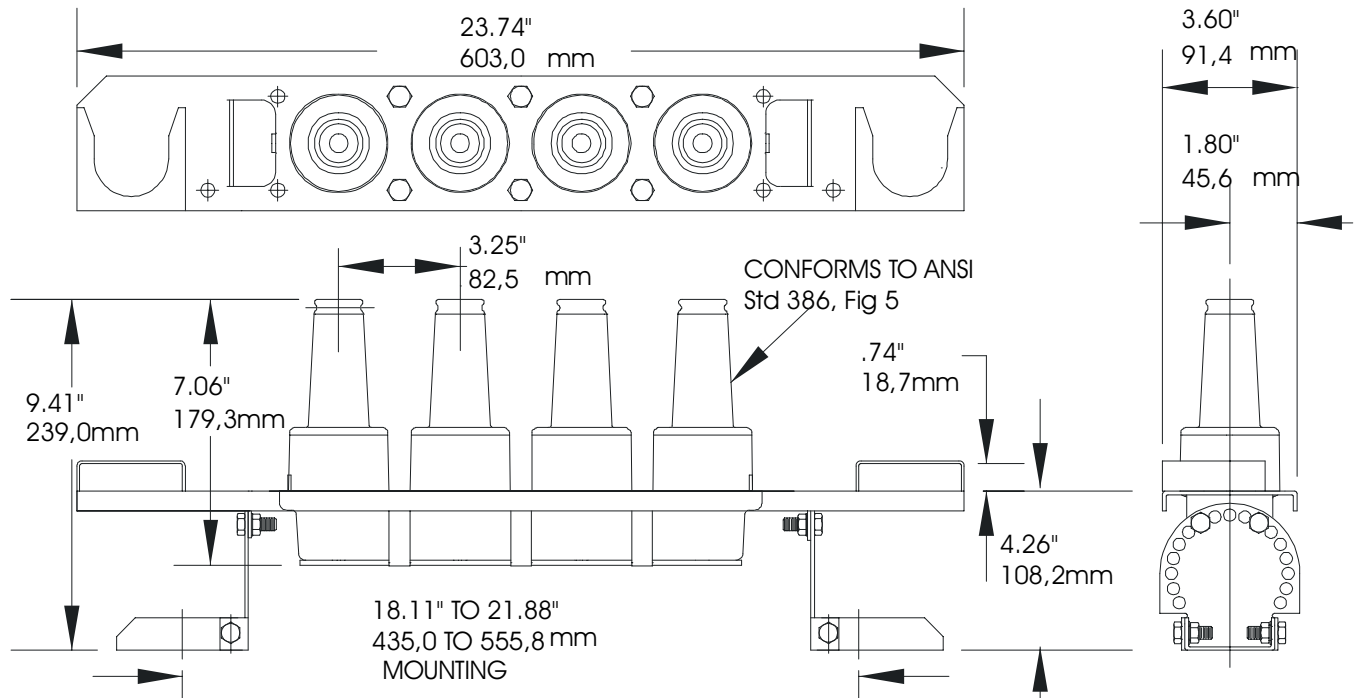


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV 200A Loadbreak Junction - 4 Way

ELASTIMOLD PART NUMBER

164J4

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 165LR elbow connector
- 166LR elbow connector
- 160GLR grounding elbow
- 370TR test rod
- 160DR/DRG, 167/168DR insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 15-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

Ratings:

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minutes Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

Specify **164J4** for 15kV, 200 Amp, 4-way Loadbreak Junction
 Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.
 Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 164J4 4-way Junction kit contains the following:

1 - Basic Molded Junction	164J4-4
1 - Mounting Hardware	164J4-6
3 - "U" strap	163-159
4 - Protective shipping cap	1601-APC-1
3 - Tube, lubricant	82-08
1 - Installation instruction	IS-163/164J4 (B) 1/98

Installation Instructions 163/164J4(B) Four-Point Loadbreak Junctions

Contents: Loadbreak Junction assembled with backplate, Left mounting bracket with necessary mounting hardware, Right mounting bracket with necessary mounting hardware, Silicone lubricant, Installation Instructions.

The four-way loadbreak junctions are designed to interface with ELASTIMOLD 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) loadbreak connectors for the purpose of sectionalizing, looping, tapping or for apparatus change out.

The loadbreak junction brackets are designed for universal mounting on both flat and curved surfaces. The mounting angle of the junction is adjustable from 0° thru 90° above or below the horizontal in 15° increments.

These junctions are also available without the backplate and mounting brackets. In these cases, only U-straps are furnished with the junction and the user must mount the junctions to a flat metal surface.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

FOR MORE INFORMATION ON PARTS, INSTALLATION, RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

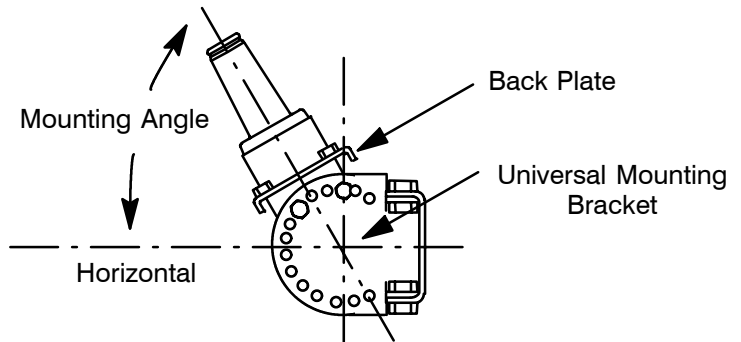
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

These products are supplied with a protective shipping covers. Remove these shipping covers and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

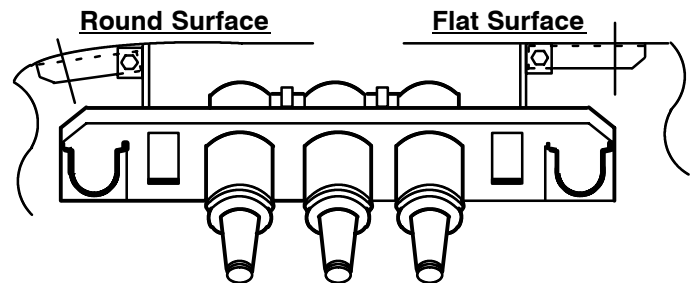
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



STEP 1

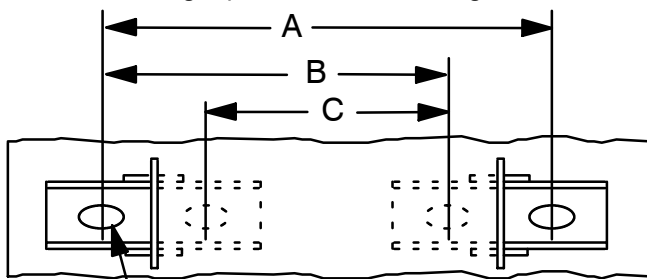
Loosely attach universal mounting brackets to the junction backplate and place assembly against the wall. Adjust brackets for proper alignment and mark their location on the wall.



ELASTIMOLD

STEP 2

Detach universal mounting brackets from junction back plate. Mount brackets on wall according to marks made in Step 1. One or both of the mounting brackets can be inverted to change the distance required between bolt centers. The mounting bracket slot length provides the following dimensional ranges between bolt centers.

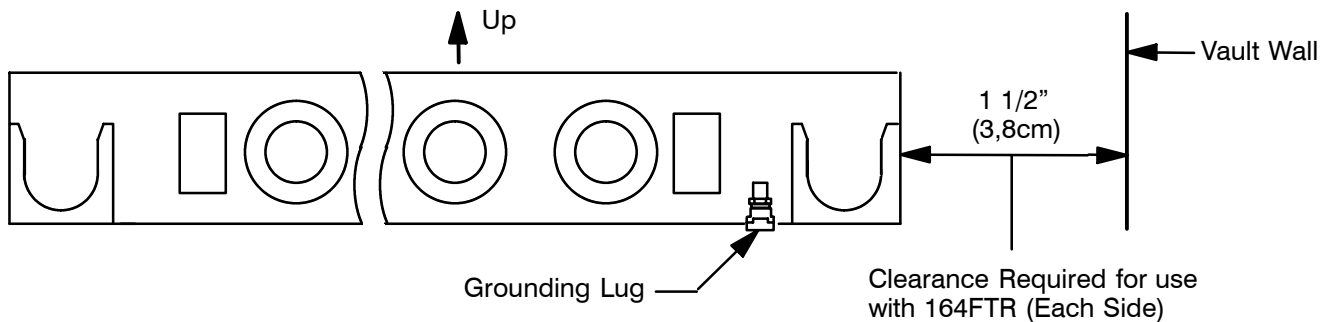


Junction Part No.	Mounting Dimensions (Inches/cm)		
	A	B	C
163/164J4(B)	17 1/8 to 21 7/8 43,5cm to 55,6cm	13 1/8 to 17 7/8 33,3cm to 45,4cm	9 1/8 to 13 7/8 23,2cm to 35,2cm

Bolt Slots (Bolts supplied by user to fit 17/32" (13,5mm) Dia. Holes.)

STEP 3

With universal mounting brackets secure, fasten back plate (with junction attached) to mounting brackets, making sure parking stands are in upright position.



STEP 4

Adjust mounting angle to desired position.

STEP 5

Tighten all bolts securely to assure no movement during operation.

STEP 6

The backplate and supported junction's black conductive jacket must be grounded. A grounding lug is provided on the backplate for this purpose. It accommodates wire sizes of No. 2 solid to 1.0 stranded. In the case where the junction is mounted without the backplate, the junction black conductive jacket must be grounded by other means.

OPERATING INSTRUCTIONS

Remove protective caps and clean bushings. Apply silicone lubricant (DO NOT SUBSTITUTE) before assembly with an ELASTIMOLD loadbreak connector. Refer to the appropriate operating instructions packaged with the connector assembly being used, before operating junctions with loadbreak elbow connectors.

WARNING: IF ALL BUSHINGS ARE NOT UTILIZED, AN ELASTIMOLD INSULATED CAP MUST BE INSTALLED ON THE UNUSED BUSHINGS BEFORE ENERGIZATION.

DO NOT USE the protective shipping covers for this function as they are not insulated and are only intended to keep the bushing surfaces clean during handling and installation.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
 (908)852-1122 FAX: (908)813-2147
 A Unit of Thomas & Betts Corporation

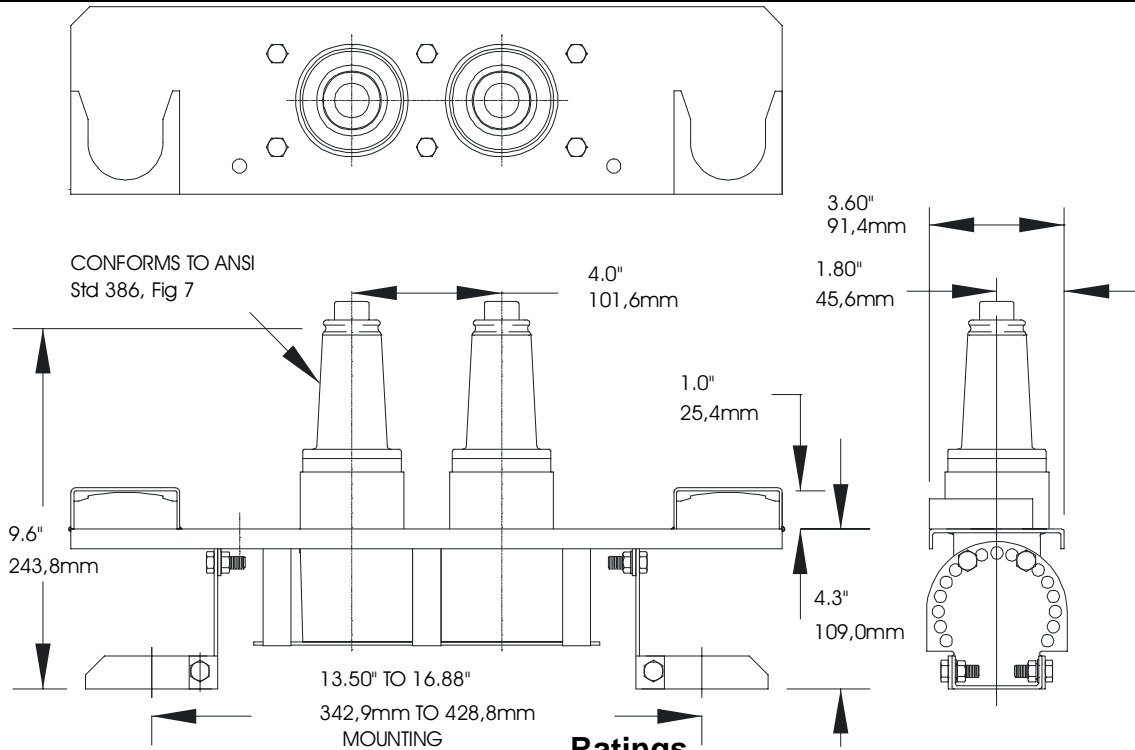


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Loadbreak Junction - 2 Way

ELASTIMOLD PART NUMBER

274J2

Ratings

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 273LR elbow connector
- 274LR elbow connector
- 370GLR grounding elbow
- 370TR test rod
- 273/274DR insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 25-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

per ANSI/IEEE Standard 386

25kV Voltage Class

15.2kV Max Phase-to-Ground - Operating Voltage

26.3kV Max Phase-to-Phase

125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

40kV AC - One minute Withstand

78kV DC - 15 Minutes Withstand

19kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

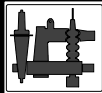
Ordering Instructions:

Specify **274J2** for 25kV, 200 Amp, 2-way Loadbreak Junction
Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.

Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 274J2 2-way Junction kit contains the following:

1 - Basic Molded Junction	274J2-4
1 - Mounting Hardware	274J2-6
3 - U strap	163-159
2 - Protective shipping cap	2701-41
2 - Tube, lubricant	82-08
1 - Installation instruction	IS-274J2, J3, J4 1/98



ELASTIMOLD

ISSUE DATE 0199

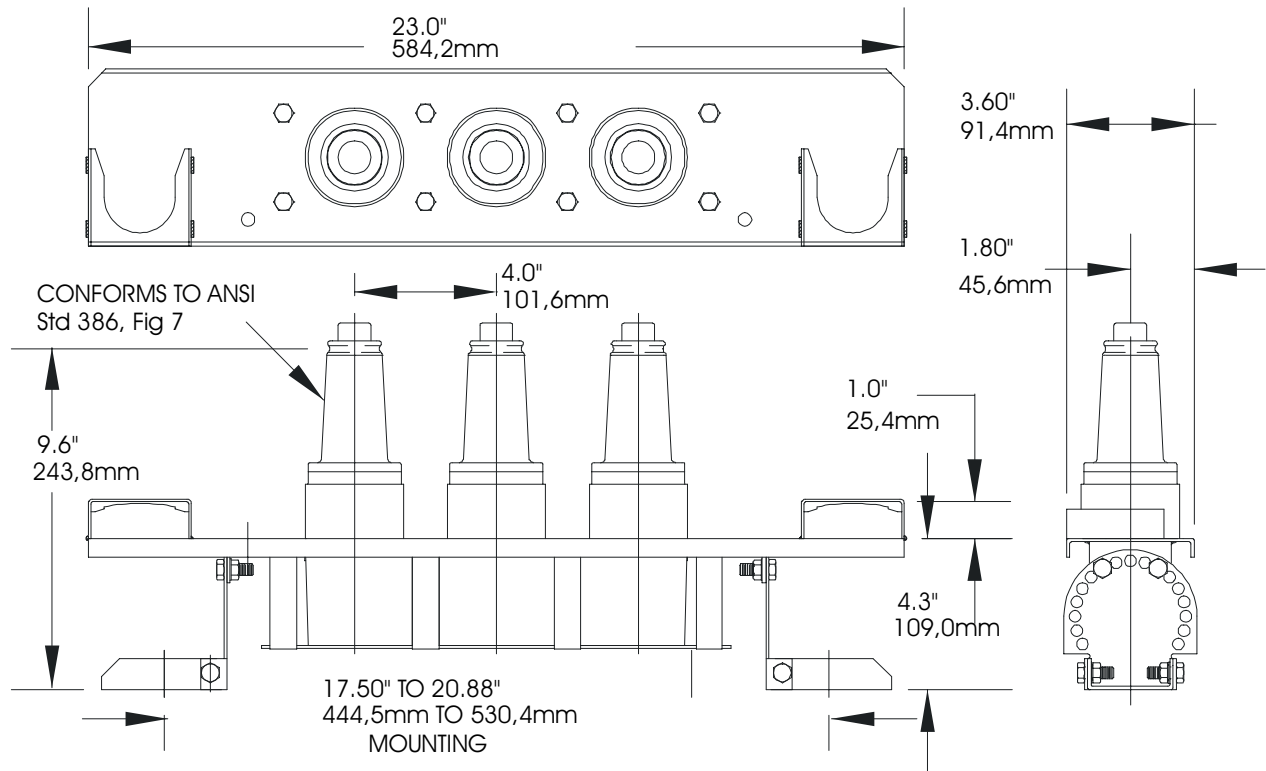
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Loadbreak Junction - 3 Way

ELASTIMOLD PART NUMBER

274J3

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 273LR elbow connector
- 274LR elbow connector
- 370GLR grounding elbow
- 370TR test rod
- 273/274DR insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 25-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

Specify **274J3** for 25kV, 200 Amp, 3-way Loadbreak Junction
 Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.
 Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 274J3 3-way Junction kit contains the following:

1 - Basic Molded Junction	274J3-4
1 - Mounting Hardware	274J3-6
4 - U strap	163-159
3 - Protective shipping cap	2701-41
3 - Tube, lubricant	82-08
1 - Installation instruction	IS-274J2, J3, J4 1/98



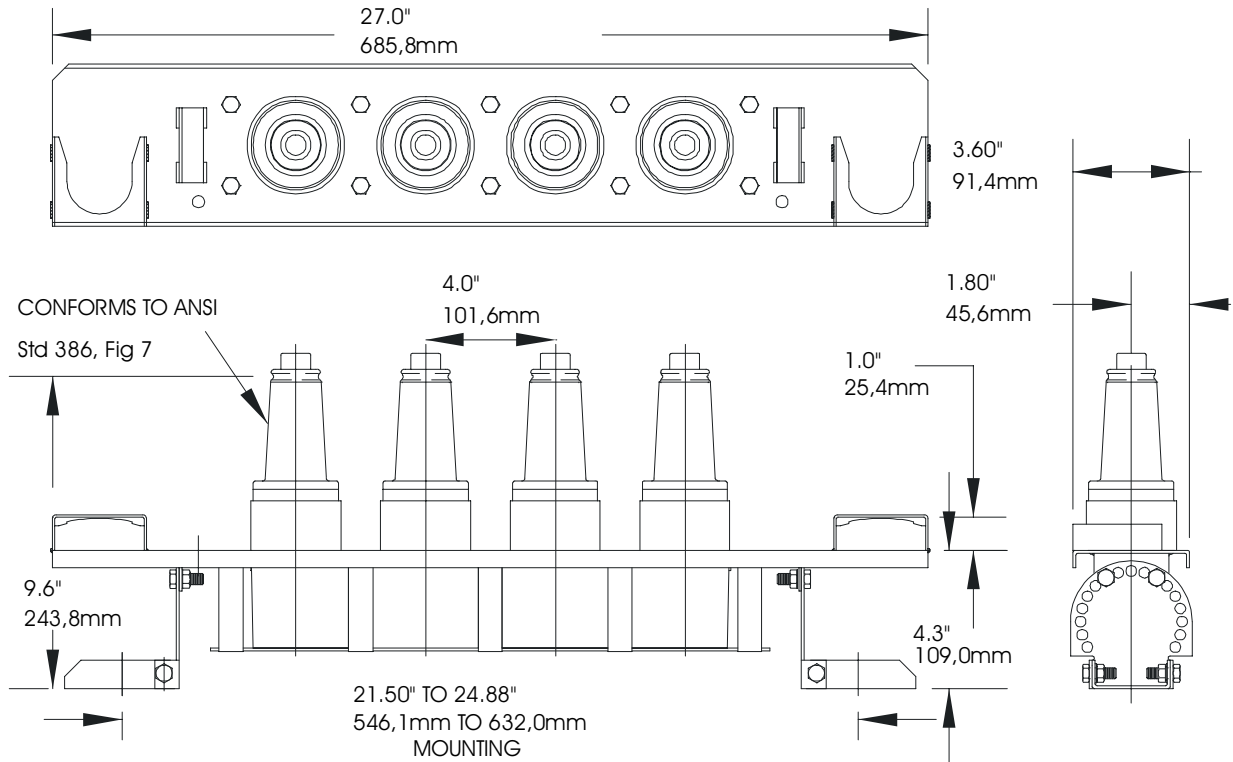
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

25kV 200A Loadbreak Junction - 4 Way

ELASTIMOLD PART NUMBER

274J4

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 273LR elbow connector
- 274LR elbow connector
- 370GLR grounding elbow
- 370TR test rod
- 273/274DR insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 25-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

Specify **274J4** for 25kV, 200 Amp, 4-way Loadbreak Junction
 Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.
 Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 274J4 4-way Junction kit contains the following:

1 - Basic Molded Junction	274J4-4
1 - Mounting Hardware	274J4-6
5 - U strap	163-159
4 - Protective shipping cap	2701-41
4 - Tube, lubricant	82-08
1 - Installation instruction	IS-274J2, J3, J4 1/98

Installation Instructions 274J2, 274J3, 274J4

Two-, Three-, and Four-Point Loadbreak Junctions

Contents: Loadbreak Junction assembled with back plate, Two mounting brackets with hardware, Lubricant Installation Instructions.

The two-, three-, and four-point loadbreak junctions are designed for universal mounting on both flat and curved surfaces. The mounting angle of the junction is adjustable from 0° thru 90° above or below the horizontal in 15° increments.

These junctions provide interconnected apparatus interfaces for Elastimold 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) loadbreak connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

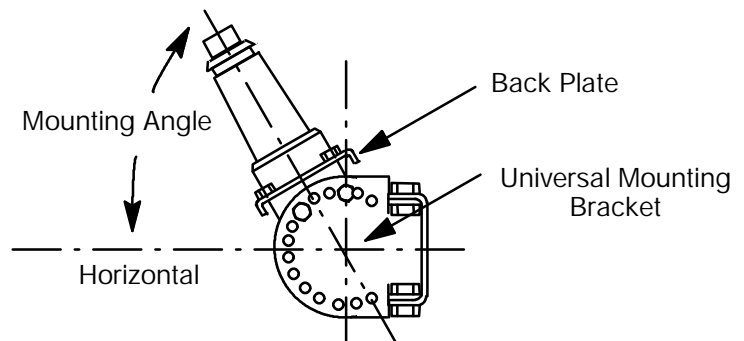
Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping covers. Remove these shipping covers and replace with the appropriate HV insulated caps or connectors before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

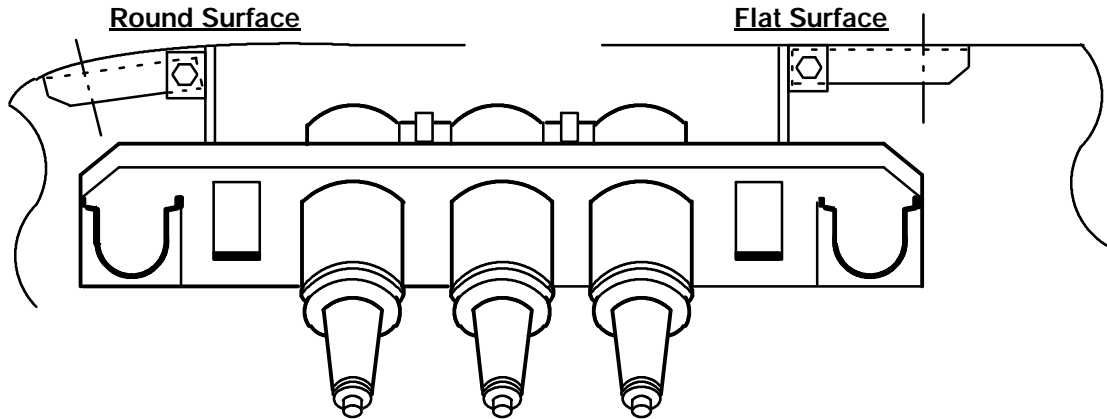
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



STEP 1

Loosely attach universal mounting brackets to the junction back plate and place assembly against the wall. Adjust brackets for proper alignment and mark their location on the wall.

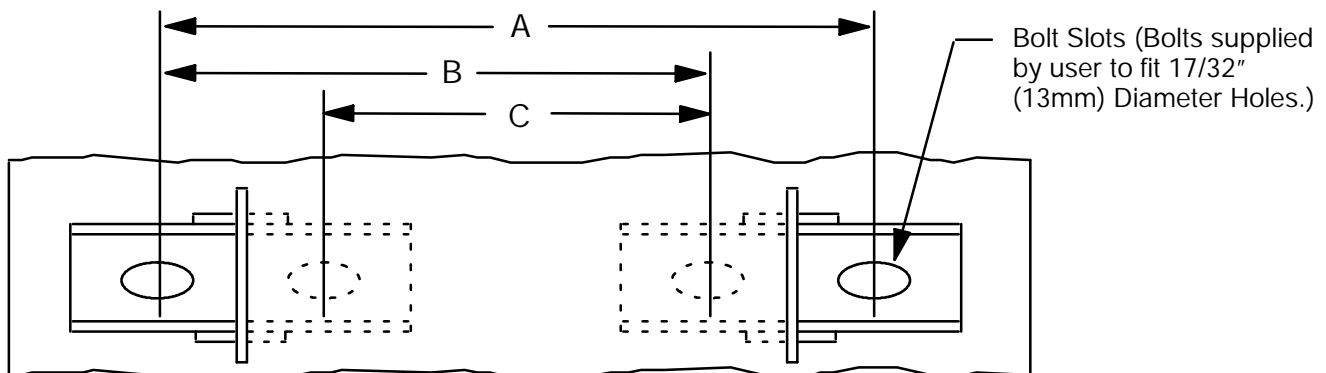


STEP 2

Detach universal mounting brackets from junction back plate. Mount brackets on wall according to marks made in Step 1.

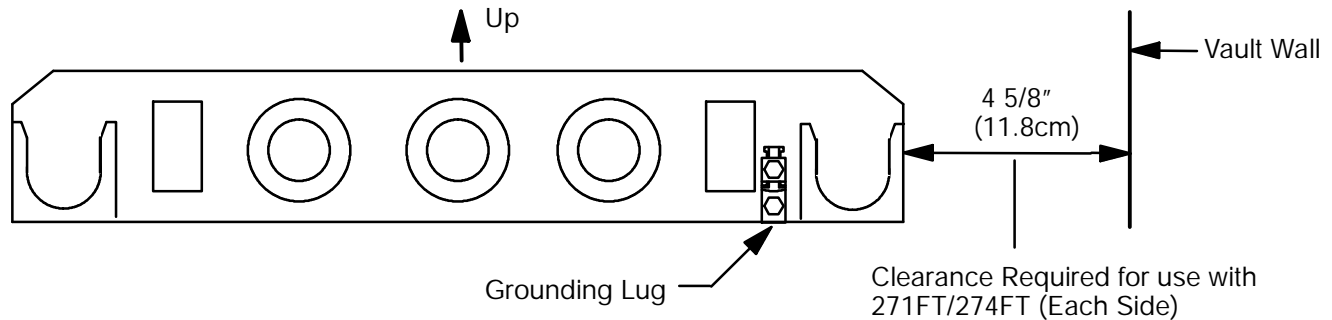
NOTE: One or both of the mounting brackets can be inverted to change the distance required between bolt centers. The mounting bracket slot length provides the following dimensional ranges between bolt centers.

Junction Part No.	Mounting Dimensions (Inches)		
	A	B	C
274J2	13 1/2 to 16 5/8 34,3cm to 42,9cm	9 1/2 to 13 1/8 24,1cm to 33,3cm	5 1/4 to 9 1/4 13,3cm to 23,5cm
274J3	17 1/2 to 20 5/8 45,5cm to 53,0cm	13 1/2 to 17 1/8 34,3cm to 43,5cm	9 1/4 to 13 1/4 23,5cm to 33,7cm
274J4	21 1/2 to 24 5/8 54,6cm to 63,2cm	17 1/2 to 21 1/8 44,5cm to 53,7cm	13 1/4 to 17 1/4 33,7cm to 43,8cm



STEP 3

With universal mounting brackets secure, fasten back plate (with junction attached) to mounting brackets, making sure parking stands are in upright position.



STEP 4

Adjust mounting angle to desired position.

STEP 5

Tighten all bolts securely to assure no movement during operation.

STEP 6

Ground back plate. A grounding lug is provided for this purpose. It accommodates wire sizes of No. 10 Solid to No. 1 Stranded.

OPERATING INSTRUCTIONS

Remove protective caps and clean the operating interfaces. Apply silicone lubricant (DO NOT SUBSTITUTE) before assembly with an ELASTIMOLD loadbreak connector. Refer to IS-273LR/274LR, before operating junctions with loadbreak elbow connectors.

WARNING: IF ALL OPERATING INTERFACES ARE NOT UTILIZED, AN ELASTIMOLD 273DR INSULATED CAP MUST BE INSTALLED ON THE UNUSED INTERFACE OR INTERFACES BEFORE ENERGIZATION.

DO NOT USE the protective shipping covers for this function as they are not insulated and are only intended to keep the operating interface surfaces clean during handling and installation.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA

(908)852-1122 FAX: (908)813-2147

A Unit of Thomas & Betts Corporation

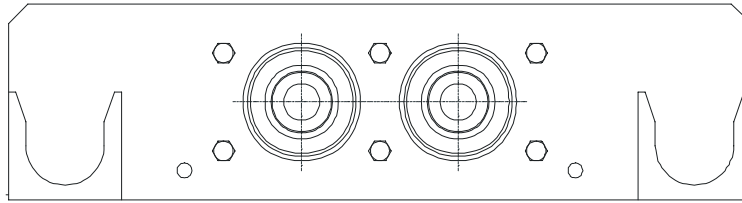
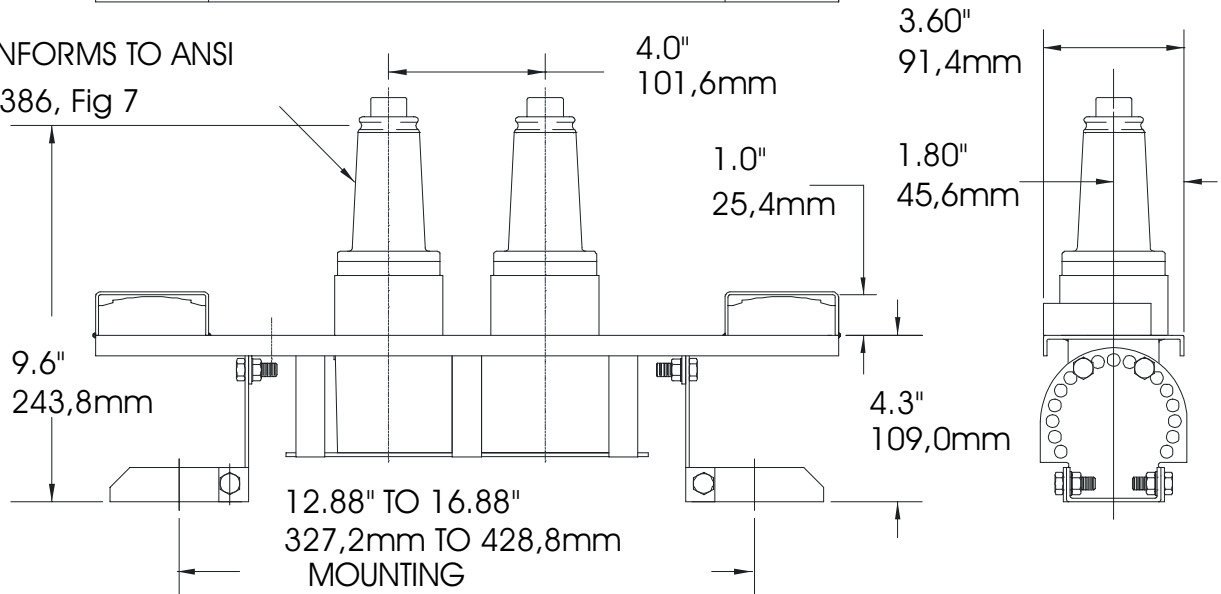


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 200A Loadbreak Junction - 2 Way

ELASTIMOLD PART NUMBER

373J2CONFORMS TO ANSI
Std 386, Fig 7

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 375LR elbow connector
- 376LR elbow connector
- 370GLR grounding elbow
- 370TR test rod
- 370DR/370DRG insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 35-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close.

Ordering Instructions:

Specify **373J2** for 35kV, 200 Amp, 2-way Loadbreak Junction
Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.

Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 373J2 2-way Junction kit contains the following:

1 - Basic Molded Junction	373J2-4
1 - Mounting Hardware	373J2-6
3 - U strap	163-159
2 - Protective shipping cap	2701-41
2 - Tube, lubricant	82-08
1 - Installation instruction	IS-373J2,J3,J4 10/82



ELASTIMOLD

ISSUE DATE 0199

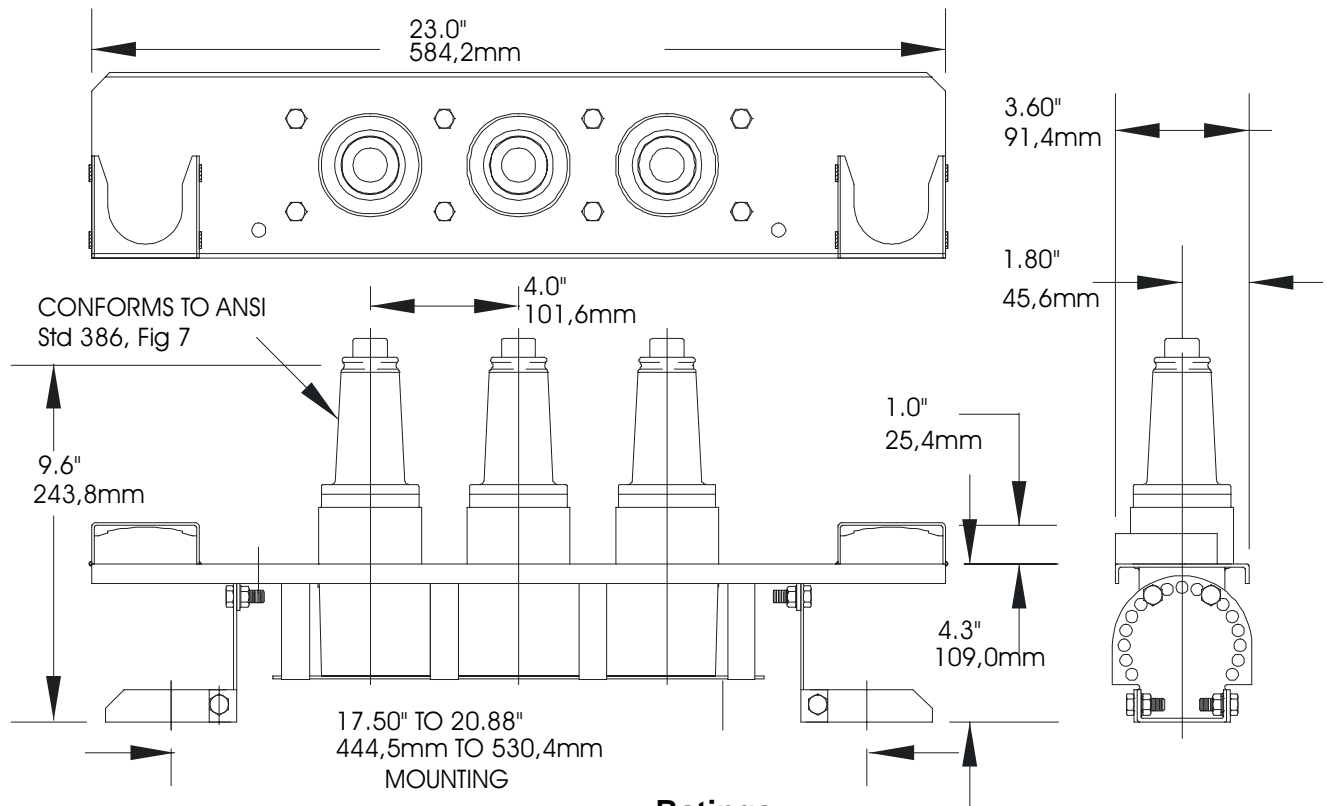
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 200A Loadbreak Junction - 3 Way

ELASTIMOLD PART NUMBER

373J3

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 375LR elbow connector
- 376LR elbow connector
- 370GLR grounding elbow
- 370TR test rod
- 370DR/370DRG insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 35-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close.

Ordering Instructions:

Specify **373J3** for 35kV, 200 Amp, 3-way Loadbreak Junction
 Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.
 Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 373J3 3-way Junction kit contains the following:

1 - Basic Molded Junction	373J3-4
1 - Mounting Hardware	373J3-6
4 - U strap	163-159
3 - Protective shipping cap	2701-41
3 - Tube, lubricant	82-08
1 - Installation instruction	IS-373J2,J3,J4 10/82



ELASTIMOLD

ISSUE DATE 0199

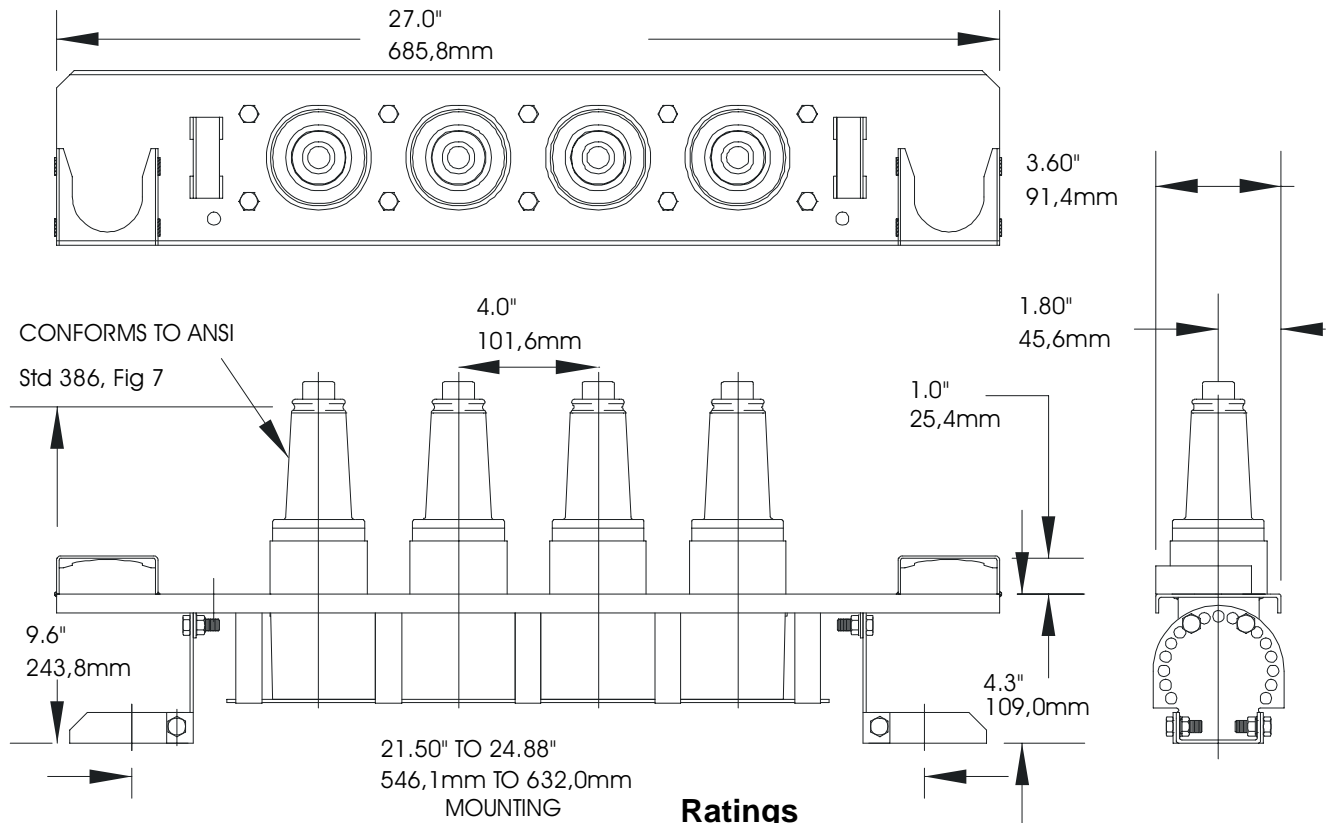
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 200A Loadbreak Junction - 4 Way

ELASTIMOLD PART NUMBER

373J4

ELASTIMOLD junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping, and equipment bypass. Junctions are designed to mate with other ELASTIMOLD products including:

- 375LR elbow connector
- 376LR elbow connector
- 370GLR grounding elbow
- 370TR test rod
- 370DR/370DRG insulated cap

ELASTIMOLD loadbreak junctions, provide a fully shielded, fully submersible, separable, insulated assembly designed for energized operation. They are suitable for use on 35-kV class distribution systems. And rated for 200-ampere loadmake/break operation. Junctions are equipped with universal brackets that accommodate curved or flat surfaces and provide tilt mounting angles from 0° to 90° in 15° increments.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close.

Ordering Instructions:

Specify **373J4** for 35kV, 200 Amp, 4-way Loadbreak Junction
 Add "-5" at the end of the catalog number for junctions with "U" style mounting straps only.

Add "-6" at the end of the catalog number for bracket only with "U" strap and mounting hardware.

The 373J4 4-way Junction kit contains the following:

1 - Basic Molded Junction	373J4-4
1 - Mounting Hardware	373J4-6
5 - U strap	163-159
4 - Protective shipping cap	2701-41
4 - Tube, lubricant	82-08
1 - Installation instruction	IS-373J2,J3,J4 10/82

CAUTION:
Read instructions thoroughly and completely
prior to beginning operation.

Installation Instructions 373 J2, 373 J3, 373 J4 Two-, Three- and Four-Point Loadbreak Junctions

CONTENTS: 1—Loadbreak junction assembled with plate, 1—Left mounting bracket with necessary mounting hardware, 1—Right mounting bracket with necessary mounting hardware, 2—Tubes, silicone grease, 2—Wiping cloths.

The junction bracket is designed for universal mounting on both flat and curved surfaces. The mounting angle of the junction is adjustable from 0° thru 90° above or below the horizontal in 15° increments.

The two-, three-, and four-point loadbreak junctions are designed to interface with ELASTIMOLD three phase 35kV class (21.1kV phase-to-ground and 36.5kV phase-to-phase) loadbreak connectors for the purpose of sectionalizing, looping, tapping or for apparatus change out.

These junctions are also available without the plate and mounting brackets. In these cases, only U-straps are furnished with the junction and the user must mount the junctions to a flat metal surface.

DANGER

All apparatus must be de-energized during installation or removal of part(s) to avoid fatal shock.

Inspect parts for damage, ratings and compatibility with mating parts.

The product should be installed and operated only by competent personnel familiar with good safety practices in handling high-voltage electrical equipment.

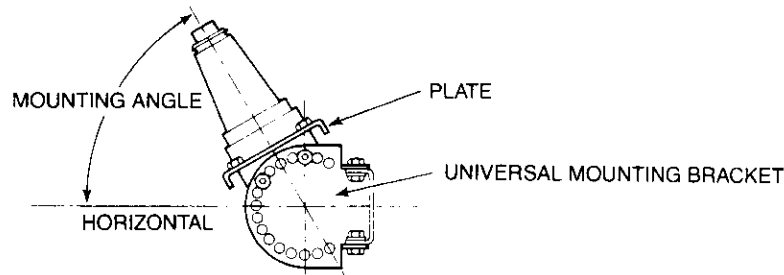
These instructions are not intended as a substitute for adequate training or experience in such good safety practices.

These instructions do not attempt to provide for every possible contingency.

Install according to the following instructions.

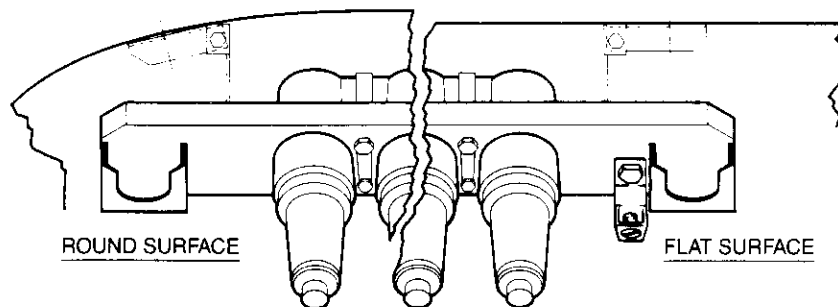
Do not energize or submerge apparatus with shipping cap on bushing(s).

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.



STEP 1

Loosely attach universal mounting brackets to the junction plate and place assembly against the wall. Adjust brackets for proper alignment and mark their location on the wall.



**ELASTIMOLD
DIVISION**

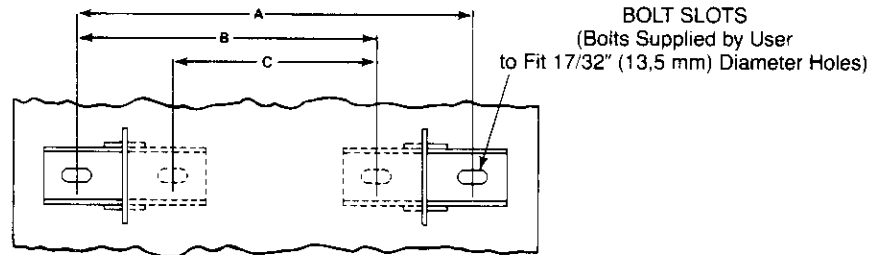
AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840. (201) 852-1122

STEP 2

Detach universal mounting brackets from junction plate. Mount brackets on wall according to marks made in Step 1.

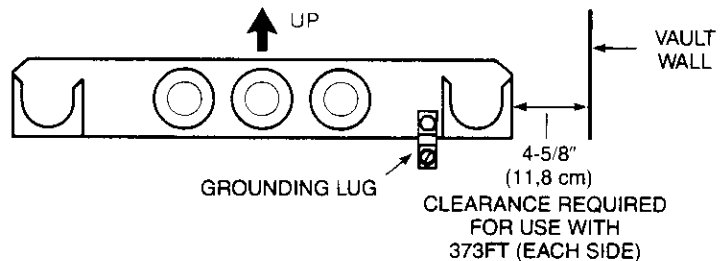
NOTE: One or both of the mounting brackets can be inverted to change the distance required between bolt centers. The mounting bracket slot length provides the following dimensional ranges between bolt centers.

Junction Part No.	Mounting Dimensions (inches)		
	A	B	C
373 J2	12-7/8 to 16-7/8 (32.7 cm) to (42.9 cm)	9-1/8 to 13-1/8 (23.2 cm) to (33.3 cm)	5-1/4 to 9-1/4 (13.3 cm) to (23.5 cm)
373 J3	16-7/8 to 20-7/8 (42.9 cm) to (53.0 cm)	13-1/8 to 17-1/8 (33.3 cm) to (43.5 cm)	9-1/4 to 13-1/4 (23.5 cm) to (33.7 cm)
373 J4	20-7/8 to 24-7/8 (53.0 cm) to (63.2 cm)	17-1/8 to 21-1/8 (43.5 cm) to 53.7 cm)	13-1/4 to 17-1/4 (33.7 cm) to (43.8 cm)



STEP 3

With universal mounting brackets secure, fasten plate (with junction attached) to mounting brackets, making sure parking stands are in upright position.



STEP 4

Adjust mounting angle to desired position.

STEP 5

Tighten all bolts securely to assure no movement during operation.

STEP 6

The plate and supported junction's black conductive jacket must be grounded. A grounding lug is provided on the plate for this purpose. It accommodates wire sizes of No. 2 solid to 1/0 stranded. In the case where the junction is mounted without the plate, the junction black conductive jacket must be grounded by other means.

OPERATING INSTRUCTIONS

Remove protective caps and clean the operating interfaces. Lubricate each interface with the supplied lubricant or ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products. Refer to loadbreak connector operating instructions (EDP-I-375/376LR) before operating junctions with loadbreak elbow connectors.

If all operating interfaces are not utilized, ELASTIMOLD 370DR/370DRG insulated caps must be installed on the unused bushing(s) before energization.

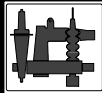
Do not use the protective shipping caps for this function as they are not insulated and are only intended to keep the operating interface surfaces clean during handling and installation.

WARRANTY

The following is given by the ELASTIMOLD DIVISION of AMERACE CORPORATION in lieu of all other warranties, express or implied:

ELASTIMOLD® Products will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. ELASTIMOLD's liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material. All statements, technical information and recommendations contained herein are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. This warranty is effective for two (2) years from date of shipment by ELASTIMOLD, but at no time will ELASTIMOLD be liable for incidental or consequential damages.





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

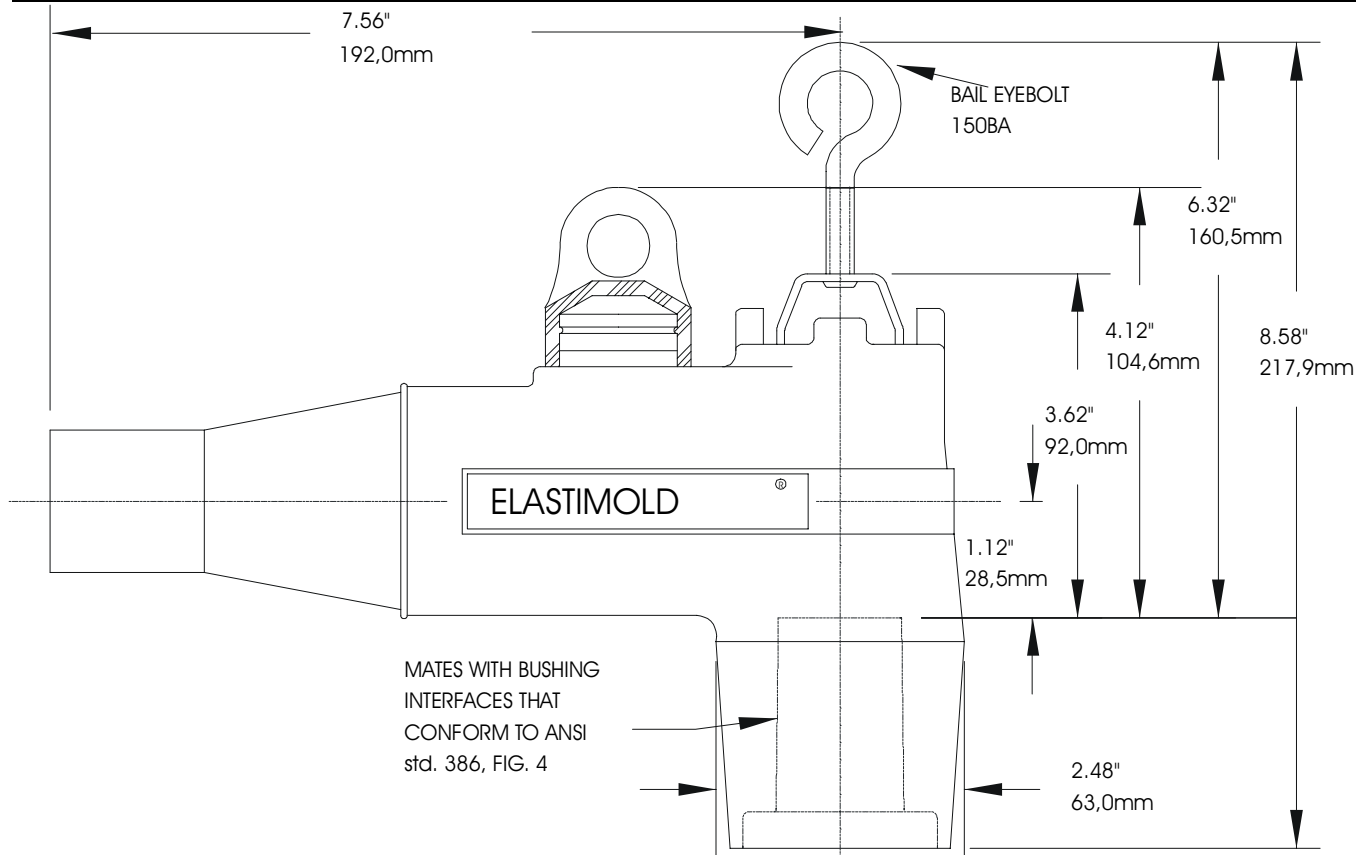
C I

DESCRIPTION

15/25kV 200A Deadbreak Elbow

ELASTIMOLD PART NUMBER

156LR-WX



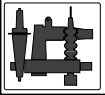
The Elastimold 165LR Elbow Connector is a fully-rated 15/25kV, 200Amp Class deadbreak connector. Units include provisions for de-energized operation using standard hot stick tools. It has a standard interface for connecting to 15/25kV, 200Amp deadbreak bushing inserts, junctions and other accessories. The 156LR is equipped with an integral voltage test point.

Features:

- 15/25kV, 200 Amp Deadbreak Elbow.
- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Non-corrosive, capacitively coupled voltage test point with removable protective cap.
- Provision for hot stick operation.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.
- Long bi-metal compression lug is standard.

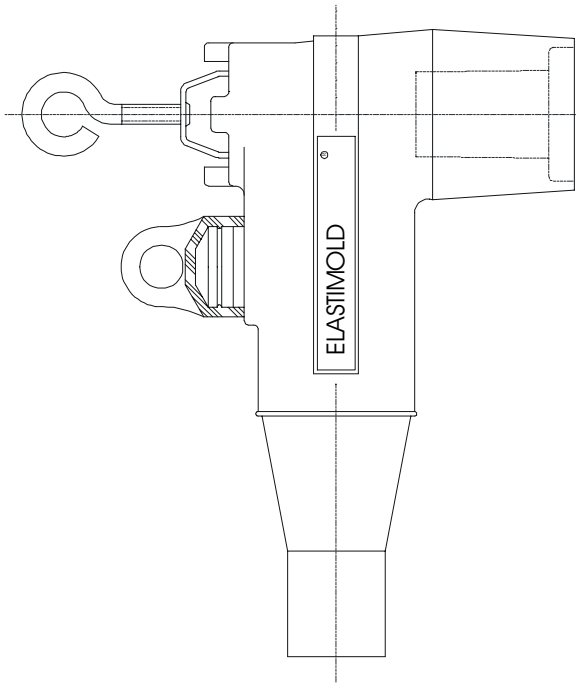
Ratings:

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous current
- 10kA Sym - 10 Cycles momentary current



15/25kV 200A Deadbreak Elbow

156LR-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

156LR – – 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Deadbreak Elbow Connector kit contains the following:

- 1 – Elbow connector housing 156BLR-W
- 1 – Bi-metal compression lug 02500XXX (table R)
- 1 – Pin contact 156-9
- 1 – Probe hex wrench 650-14-3
- 1 – Bail assembly 150-BA
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-156LR 5/98
- 1 – Crimp chart IS-02500CC 10/96

Example:

The ordering number for an Elbow Connector for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 156LR-G-5240.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 156LR-G-2240.

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/Compr.	Solid/Compact
2	02500220	02500210
1	02500230	02500220
1/0	02500240	02500230
2/0	02500250	02500240
3/0	02500260	02500250
4/0	02500270	02500260
250	-	02500270

*Cu or Al conductor

Installation Instructions 156LR Deadbreak Elbow Connectors

CONTENTS: Elbow Connector Housing, Compression Lug, Probe, Probe Contact, Wrench, Lubricant, Hold-down Bail, Installation Instructions.

The 156LR is designed to terminate UD cable having concentric neutral and extruded insulation shielding. The elbow provides a voltage test point and an operating interface for connecting to an Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) or 25kV class (15.2kV Phase-to-Ground and 26.3kV phase-to-phase) 200 ampere deadbreak bushing or accessory device. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

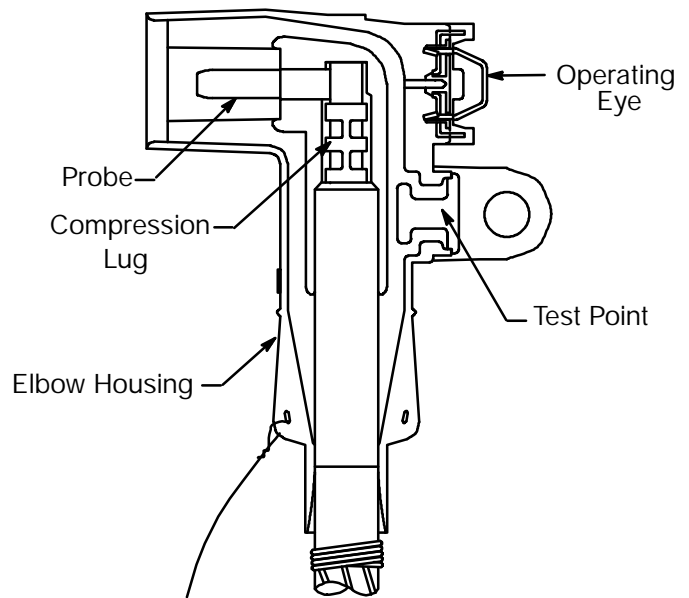
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check elbow housing cable entrance size and compression lug size to insure proper fit with cable.
3. Read entire installation instruction before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



ASSEMBLED ELBOW

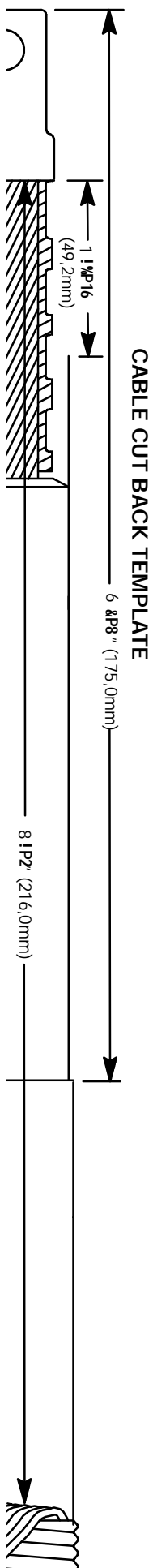
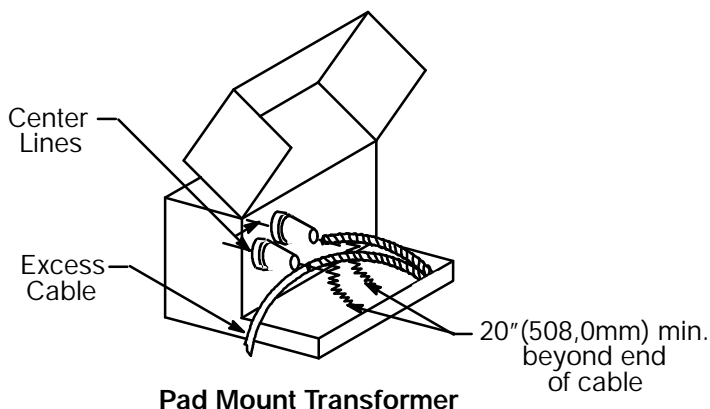
Caution: If test point cap is not installed, lubricate cap and test point and install cap.



ELASTIMOLD

STEP 1 CABLE TRAINING

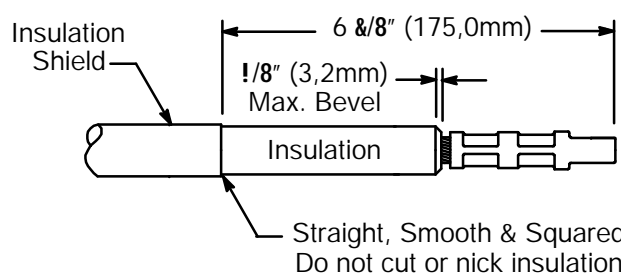
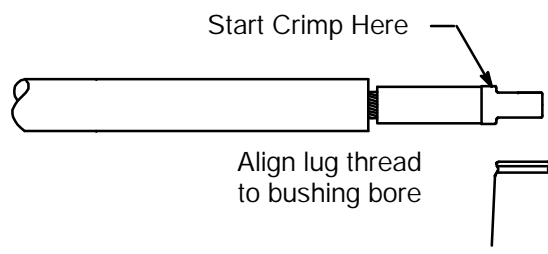
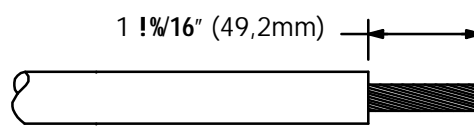
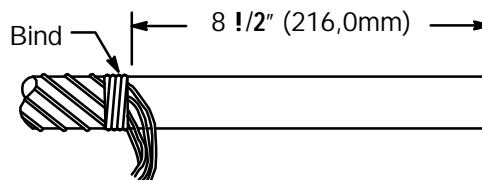
- Train cable as shown to ease operation.
- Cut excess cable squarely at center line of bushing.



STEP 2 CABLE PREPARATION

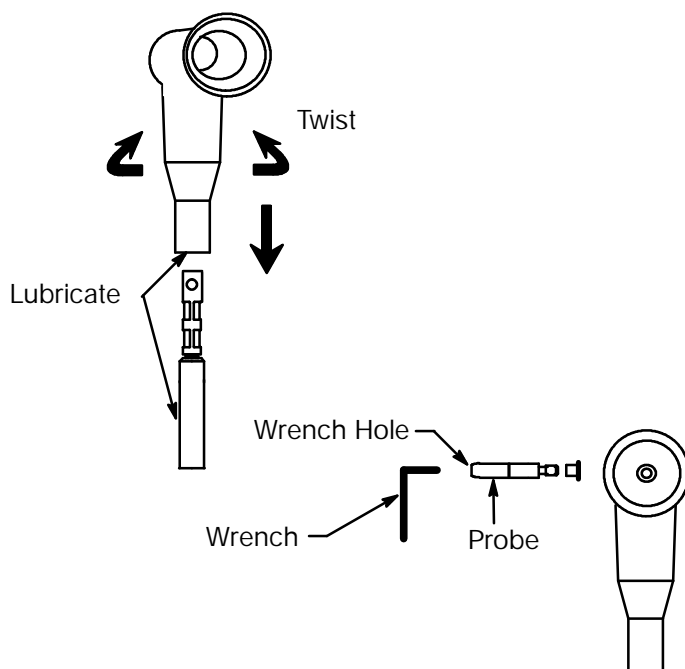
(Use cable cut back template for dimensional guide.)

- Unwrap and bind concentric neutral wires 8 1/2" (216,0mm) back from end of cable.
- Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.
- Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor. Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information). Start crimp at the crimp line mark. Rotate 180_ each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.
- Remove insulation shield as shown. Bevel insulation end 1/8" (3,2mm) max.
- Thoroughly clean insulation to remove all traces of conductive residue.



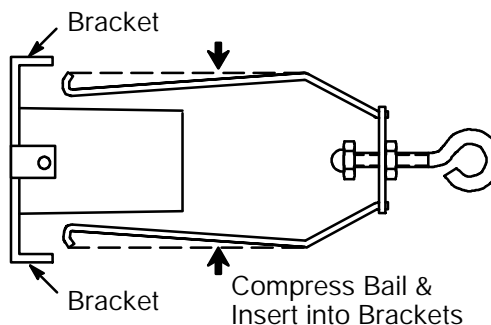
STEP 3 ELBOW ASSEMBLY

- A. Lubricate the cable insulation and inside the elbow housing with the lubricant supplied. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime.
- B. Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.
- C. Align elbow with compression lug's threaded hole.
- D. Thread probe into lug by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.



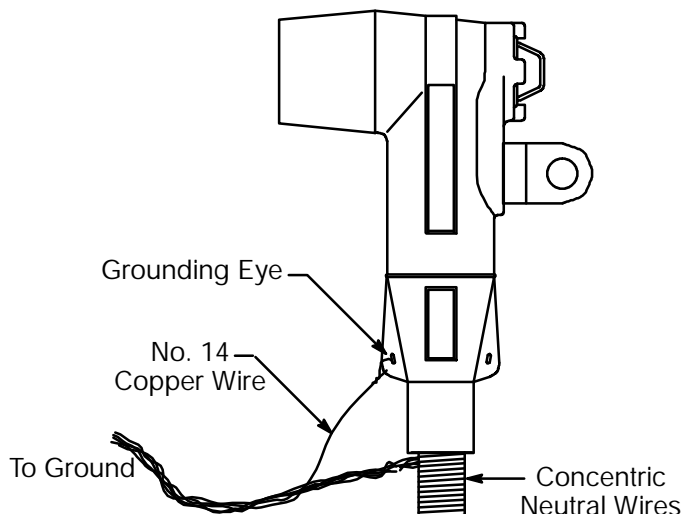
STEP 4 ASSEMBLE BAIL

Place hold-down bail in hold-down bracket.



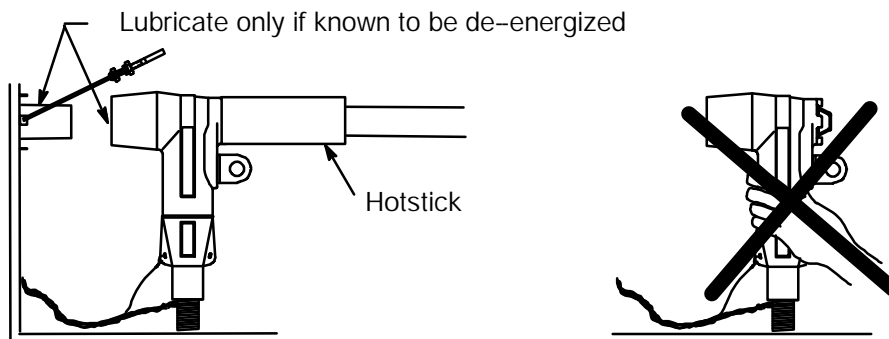
STEP 5 CONCENTRIC NEUTRAL CONNECTION

- A. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through one of the grounding eye on the elbow. Twist tight taking care not to damage eye.
- B. Twist neutral wires and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.



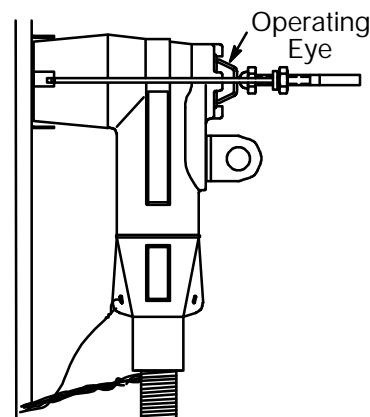
STEP 6 CONNECT ELBOW AND BUSHING PLUG

- A. Lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. **LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.**
- B. Place elbow on bushing with a fully insulated hotstick. **DO NOT OPERATE BY HAND. DO NOT SEPARATE IF ENERGIZED.**



STEP 7 BAIL ELBOW

- A. Pull hold-down bail up over the crown or top of elbow so that the eyebolt on the bail is directly over the operating eye.
- B. Tighten down on elbow locator by turning eyebolt in a clockwise direction. Adjust the nut on the eyebolt until it allows the eyebolt to seat securely in the locator. The nut should act as a stop to prevent the eye bolt from applying excessive force on the elbow. Once the nut is in final position, it will not have to be readjusted when removing and replacing elbow.



VOLTAGE TEST

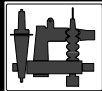
The ELASTIMOLD dead-break elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When use the test point, complete the following steps:

Loadbreak connectors must be operated with an eight foot, fully insulated "hotstick" type of tool.

1. Remove test point with a hotstick. When removing cap, **PEEL OFF AT AN ANGLE** rather than pulling directly in line with the test point assembly.
2. Using a suitable sensing device, proceed to determine if cable is energized.
DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT
WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. Contamination: moisture, dirt, etc., around the test point, or use of the wrong measuring equipment can provide a false "No Voltage" indication on an energized elbow. To prevent serious or fatal injury treat the elbow as energized until the "No Voltage" test point indication is confirmed by other means.
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

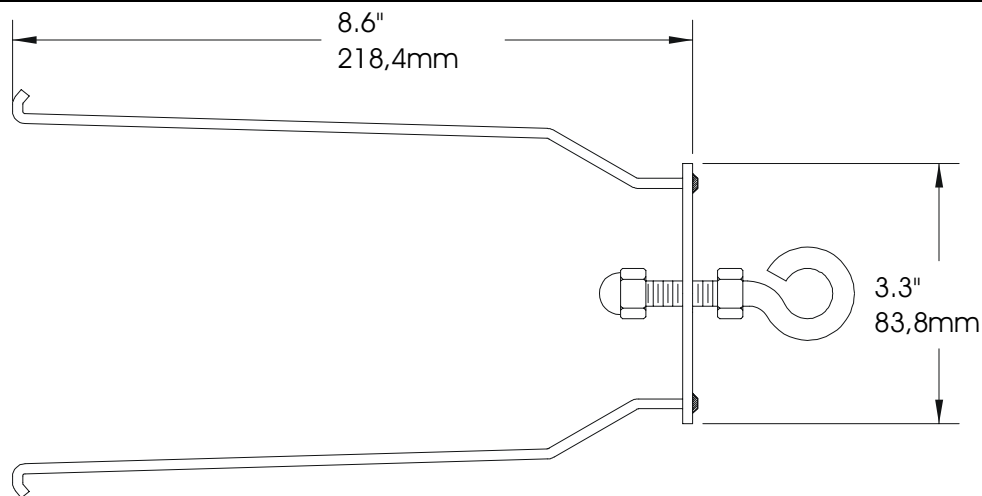


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Deadbreak Elbow Hold Down Bail

ELASTIMOLD PART NUMBER

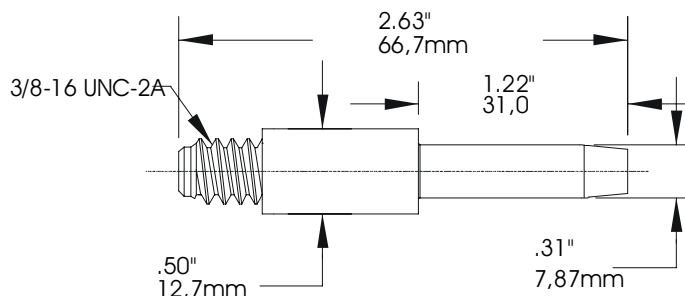
150BA

The **150BA** hold down bail is designed to be used with 156LR deadbreak elbow. It is included with 156LR kit as standard.

DESCRIPTION

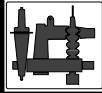
Deadbreak Elbow Probe

ELASTIMOLD PART NUMBER

156LRF

The **156LRF** is the replacement probe for 156LR-W deadbreak elbow.

To order a deadbreak replacement probe specify, **156LRF**.

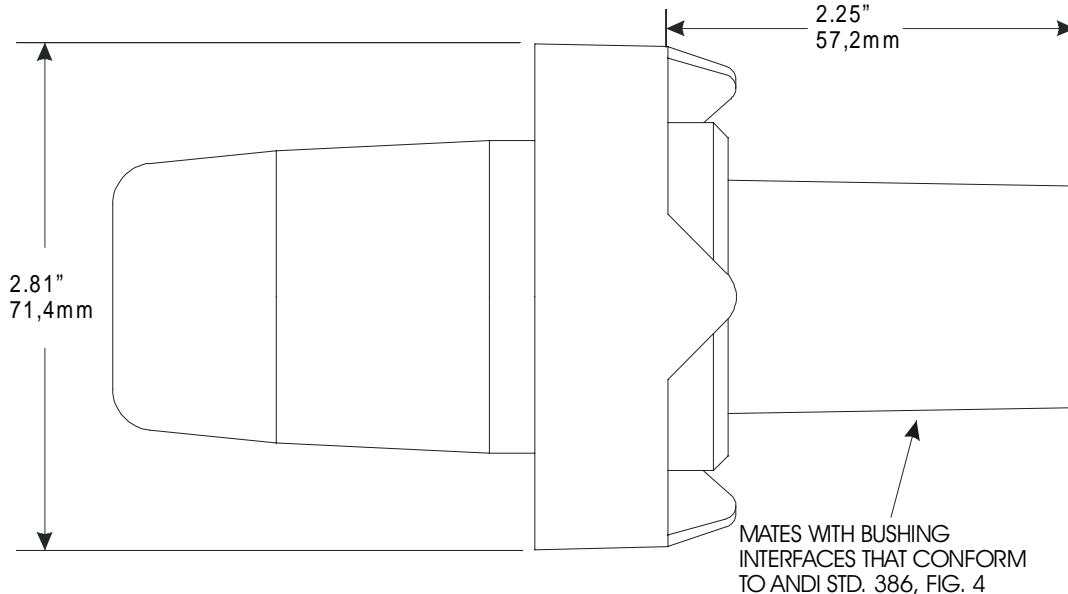


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 200A Deadbreak Bushing In-

ELASTIMOLD PART NUMBER

K1501A1**sert**

The ELASTIMOLD K1501A1 bushing insert is a fully-shielded, fully submersible; separable insulated connector designed for de-energized operation. The K1501A1 is suitable for use on 15/25kV class systems and may be used as the bushing interface for connecting shielded cable to the following:

Subsurface transformer	Pad-mounted transformer
Capacitors	Reclosers
Switchgear	Motors
Regulators	Generators

Designed for use as an apparatus bushing interface, the K1501A1 should be installed in an Elastimold universal bushing well and mated with an appropriate Elastimold product. The K1501A1 is designed to mate with the following Elastimold products including:

156LR elbow	K150T
K150DR	K151SR

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current

Ordering Instructions:

To order, specify number **K1501A1** bushing insert.

The K1501A1 bushing insert includes the following:

1 - Bushing insert	K1501A1
1 - Protective shipping cap	180-PPC
1 - Lubricant	82-08
1 - Installation instruction	IS-K1501A1 8/90

Installation Instructions K1501A1 Non--Loadbreak Bushing Plug Insert

CONTENTS: Non--loadbreak Bushing Plug Insert, Lubricant, Installation Instructions.

The ELASTIMOLD K1501A1 non--loadbreak bushing plug inserts are designed for use as apparatus bushing interfaces and must be installed in the following ELASTIMOLD universal bushing wells:

K1601PC--T1(R), K1601PC--S1(R), K1601PC--L15(R)

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

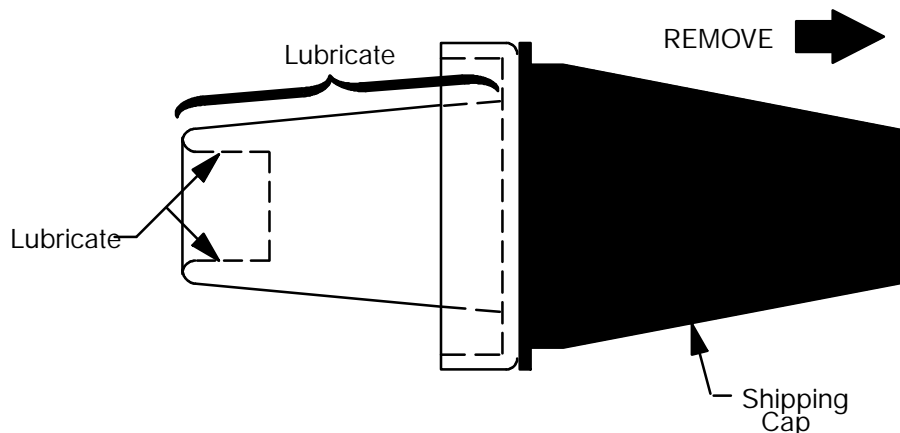
Failure to follow these instructions will result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

STEP 1

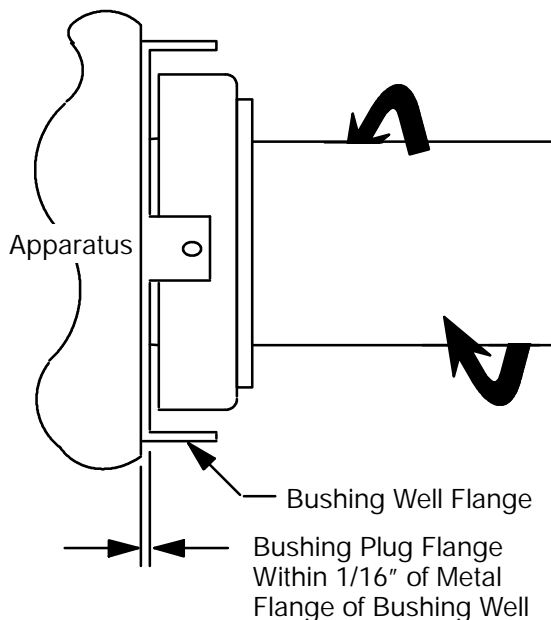
Inspect the apparatus bushing well to make sure it is dry and clear of all contaminants. Remove the protective shipping cap of the bushing insert and lubricate the bushing well interface area with the lubricant supplied. **DO NOT SUBSTITUTE.**



ELASTIMOLD

STEP 2

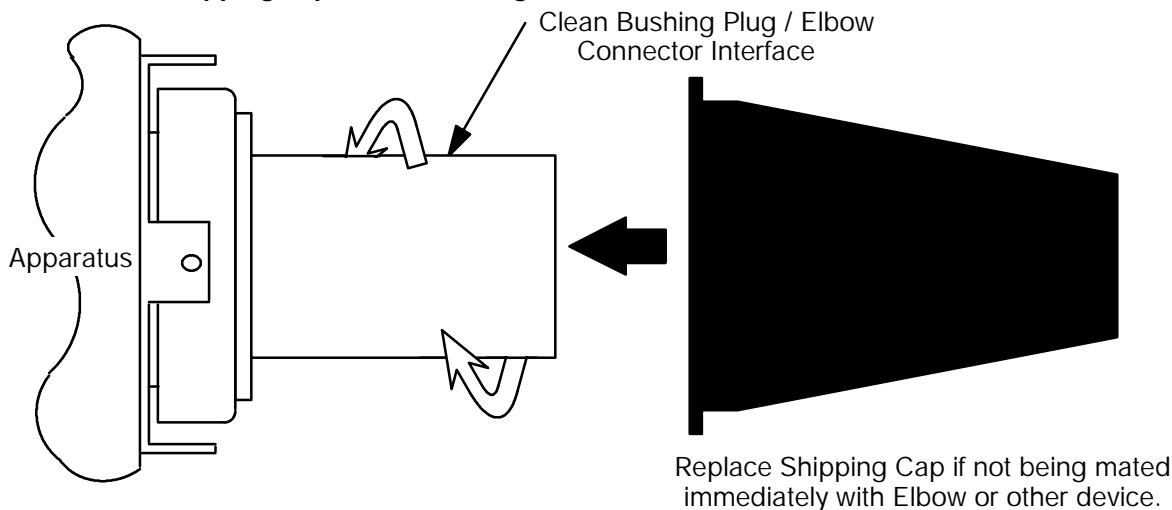
Place the lubricated portion of the bushing plug insert in the apparatus bushing well. Rotate the bushing plug insert in a clockwise direction until the conductive flange of the bushing plug insert is within 1/16" of the metal flange of the bushing well.



STEP 3

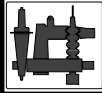
Thoroughly wipe the bushing plug/elbow connector interface clean of any contaminants. Mate the non-loadbreak elbow connector or other appropriate device to the bushing plug following the instructions packed with the mating device.

CAUTION: If the bushing plug is not to be immediately mated with the elbow connector or other mating device, replace the protective shipping cap. **This is a protective cap only, not an insulating receptacle. Do not energize the apparatus with the shipping cap on the bushing.**



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



PRODUCT SPECIFICATION SHEET

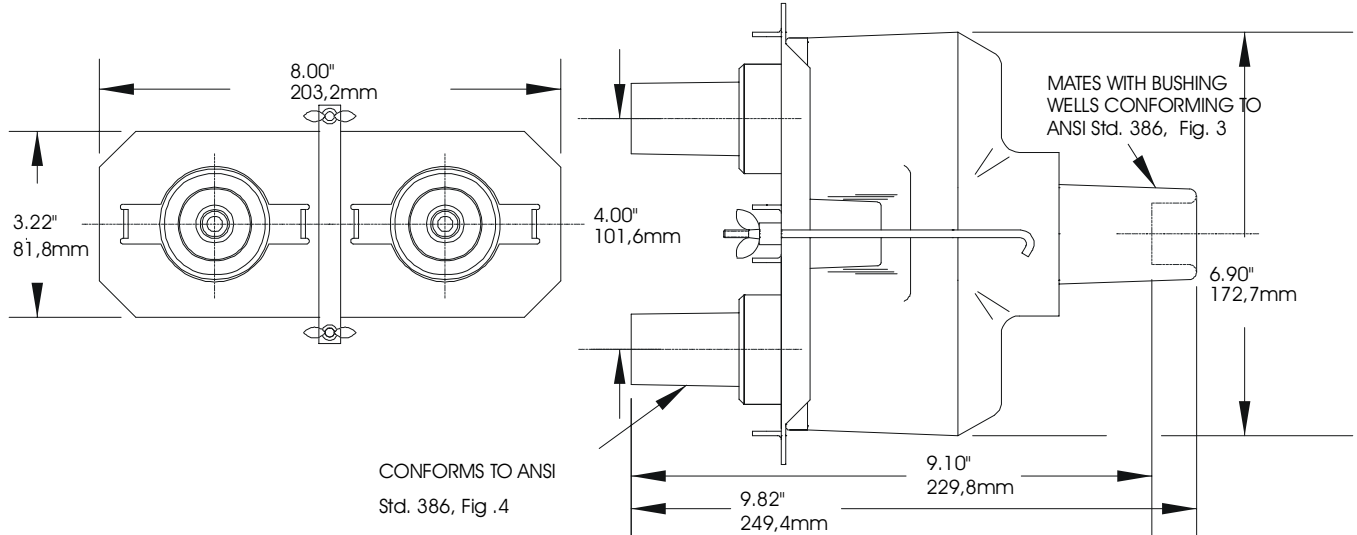
DESCRIPTION

15/25kV 200A Deadbreak Feed-Thru

ELASTIMOLD PART NUMBER

K1502A1

Insert



The Elastimold K1502A1 feed-thru bushing insert is a fully fully shielded, fully submersible separate insulated connector designed for de-energized operation. The feed-thru bushing insert fits a standard ANSI bushing well interface and provides the user the capability of creating a tap position in an existing apparatus installation and transforming a radial-feed transformer into a loop-feed unit. The K1502A1 is suitable for use on 15/25kV class systems and may be used as the bushing interface for connecting shielded cable to the following:

Subsurface transformer	Pad-mounted transformer
Capacitors	Reclosers
Switchgear	Motors
Regulators	Generators

Designed for use as an apparatus bushing interface, the K1502A1 should be installed in an Elastimold universal bushing well and mated with an appropriate Elastimold product. The K1502A1 is designed to mate with other Elastimold products including:

156LR elbow	K150T
K150DR	K151SR

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current

Ordering Instructions:

To order, specify number **K1502A1** Feed-thru insert.

The K1502A1 feed-thru insert includes the following:

1 - Feed-Thru	K1502A1
1 - Mounting hardware	1502-10
2 - Protective shipping cap	180-PPC
3 - Lubricant	82-08
1 - Installation instruction	IS-K1502A1 3/91

Installation Instructions K1502A1 Deadbreak Feed--Thru Insert

CONTENTS: Deadbreak Feed--Thru Insert, Stainless Steel Plate, Bar, Stainless Steel Hook Bolts, Stainless Steel Wing Nuts, Lubricant (DO NOT SUBSTITUTE), Installation Instruction

The K1502A1 is designed to provide the apparatus interface and loop feed--thru for Elastimold 25kV class (15.2kV phase--to--ground and 26.3kV phase--to--phase) deadbreak connections.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage

electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping caps. Remove these shipping caps and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

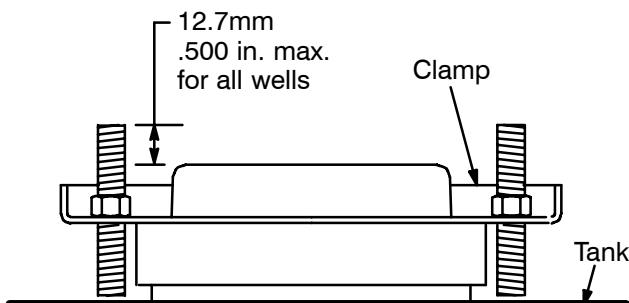
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

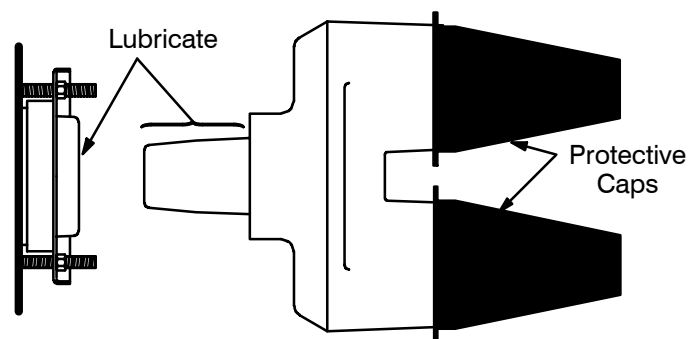
STEP 1

When installing a K1502A1 feed--thru insert in a clampable apparatus bushing well, check the height of the mounting bolts. Hardware which protrudes more than 1/2" (12mm) above the top of the apparatus bushing well will prevent the feed--thru insert from being assembled. If this condition exists, consult with apparatus manufacturer on proper method to shorten bolts.



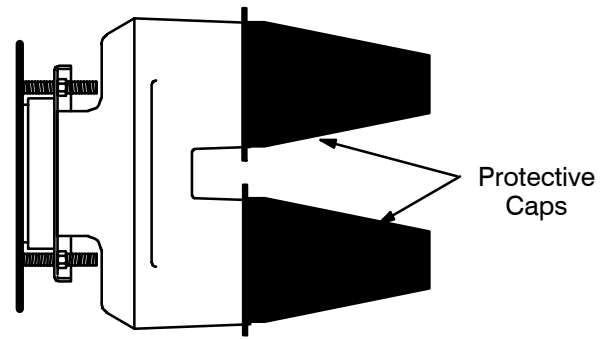
STEP 2

Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Lubricate the bushing well interface and cuff area of the feed--thru insert with the supplied lubricant or ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products.



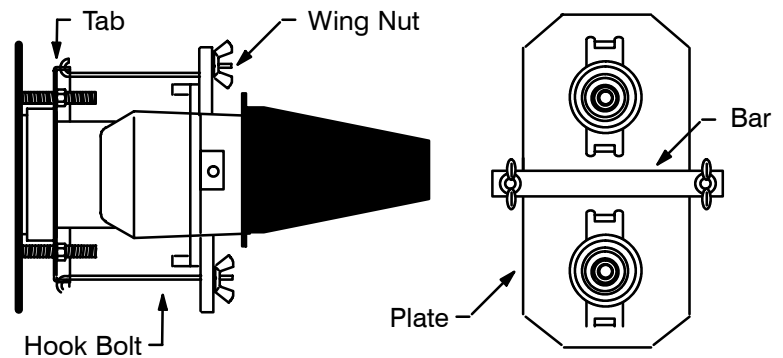
STEP 3

Place the lubricated portion of the feed-thru insert in the apparatus bushing well and rotate feed-thru insert clockwise until fully seated. **DO NOT FORCE**. Overtightening may damage the threads of bushing well. The feed-thru insert has been designed with a special 180° adjustment feature. Feed-thru insert may now be rotated counter-clockwise up to a half turn to obtain desired alignment. A definite stop will be felt at the end of the 180° adjustment range.



STEP 4

Assemble hook bolts in bushing well tabs. Holding plate in position slide bar over hook bolts and assemble wing nuts. Tighten wing nuts securely by hand.

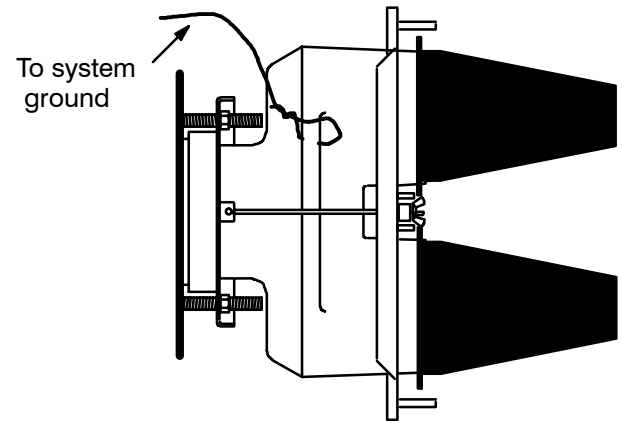


STEP 5

Push a length of copper wire No. 14 AWG (2,5mm²) or equivalent, through one of the grounding tabs on the feed-thru insert. Make a small loop and twist tight, taking care not to damage the conductive shield. Connect free end of wire to the system ground using a suitable connector.

The electrostatic grounding wire should be installed in such a manner so as not to contact the bushing interface or adjacent bushing interfaces or interfere with the placement of accessories on nearby parking stands.

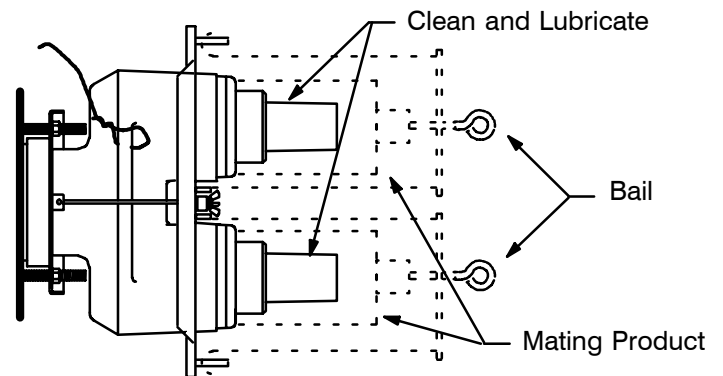
This step provides assurance that the insulation shield on the feed-thru insert is grounded.

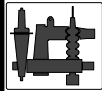


STEP 6

Remove protective shipping covers from feed-thru insert. Thoroughly wipe the bushing interface clean of any contaminants and lubricate.

Install and bail the mating products (elbows, elbow arrester or insulated cap) to the feed-thru insert following the instructions supplied with the mating products.



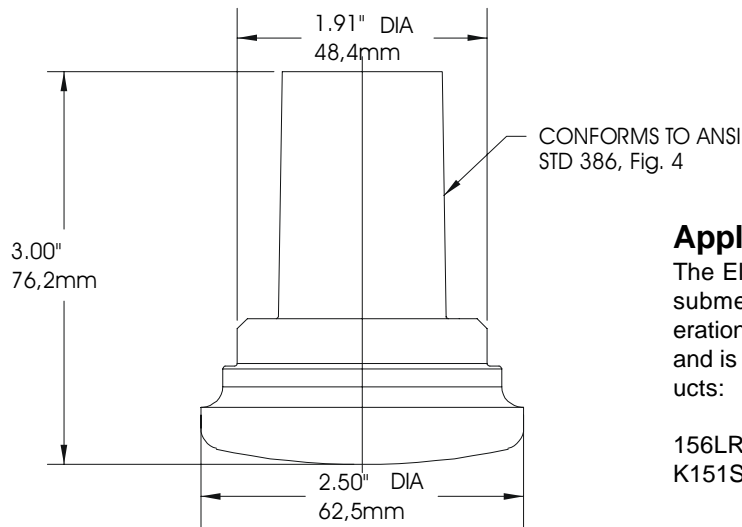


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Deadbreak Dead-end Plug

ELASTIMOLD PART NUMBER

K150DP

Application:

The Elastimold K150DP dead-end plug is a fully shielded, fully submersible, insulating plug designed for de-energized operation. It is suitable for use on 15 and 25 kV class systems and is used to "dead-end" the following Elastimold mating products:

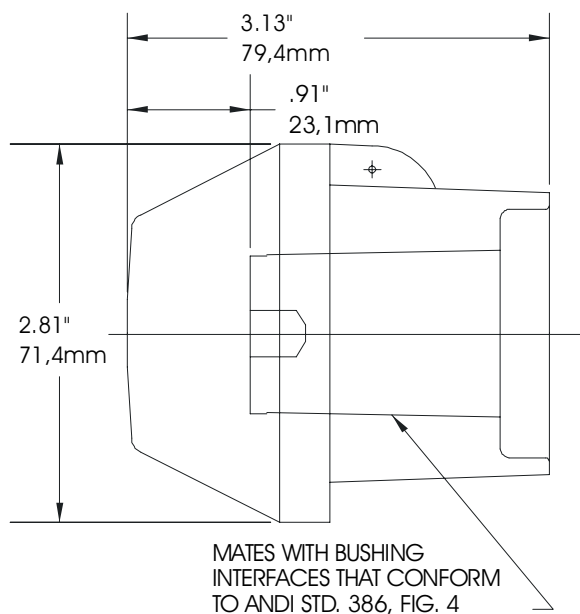
156LR elbow
K151SR straight receptacle

K150T

DESCRIPTION

15/25kV Deadbreak Dead-end Receptacle

ELASTIMOLD PART NUMBER

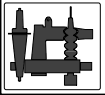
K150DR

Application:

The Elastimold K150DR dead-end receptacle is a fully shielded, fully submersible, insulating plug designed for de-energized operation. It is suitable for use on 15 and 25 kV class systems and is used to "dead-end" the following Elastimold mating products:

K180 series bushings
K150 junctions
K6050RTP reducing plug

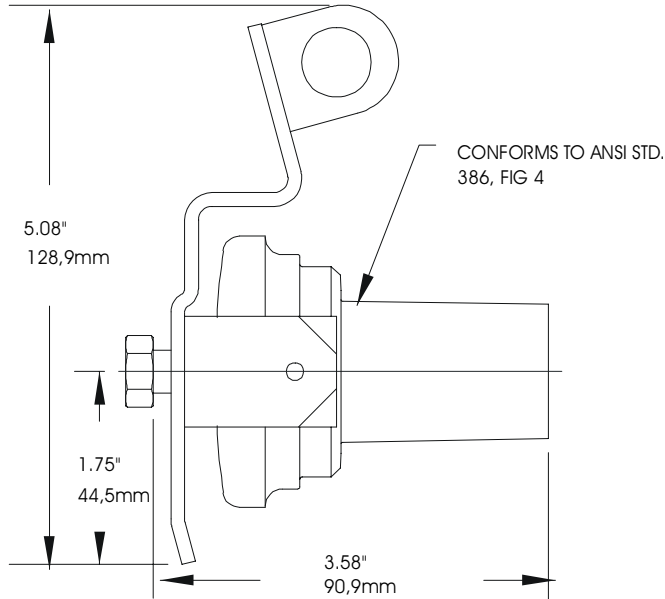
K1501A1
K150T
K151SP straight plug



DESCRIPTION

15/25kV Deadbreak Stand-Off Plug

ELASTIMOLD PART NUMBER

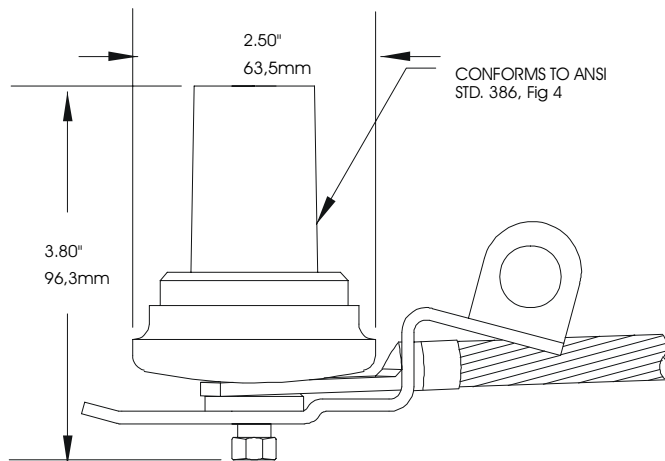
K151SOP**Application:**

The Elastimold K150SOP stand-off plug is a fully shielded, fully submersible, insulating plug designed for de-energized operation. It is suitable for use on 15 and 25 kV class systems and is used to isolate an Elastimold 156LR elbow connector.

DESCRIPTION

25kV Deadbreak Grounding Plug

I ELASTIMOLD PART NUMBER

K151GP**Application:**

The Elastimold K151GP grounding plug is a fully shielded, fully submersible, insulating plug designed for de-energized operation. It is suitable for use on 15 and 25 kV class systems and is used to ground Elastimold 156LR elbow connectors.

Installation Instructions 150DP AND K150DP Dead- -End Plug

CONTENTS: *Dead- -end Plug, Nylon Venting Rod, Installation Instructions.*

The Elastimold 150DP and K150DP dead- -end plugs are used to insulate the receptacle portion of the following Elastimold products:

154LR, K154LR and 156LR elbow connectors
150T and K150T tee connectors
151SR and K151SR straight receptacles

DANGER

All apparatus must be de- -energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

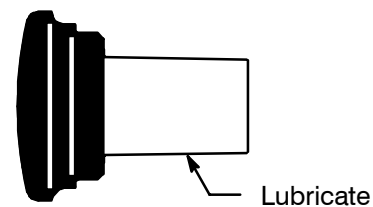
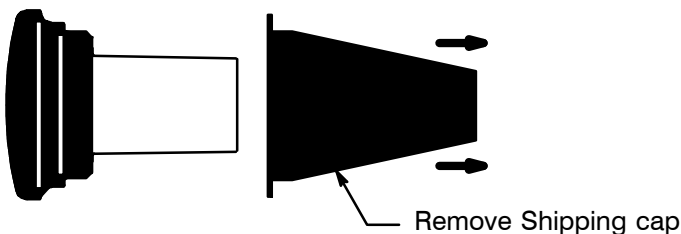
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Inspect the mating receptacle interface to make sure it is dry and clear of contaminants. Remove the protective shipping cap from the dead- -end plug.

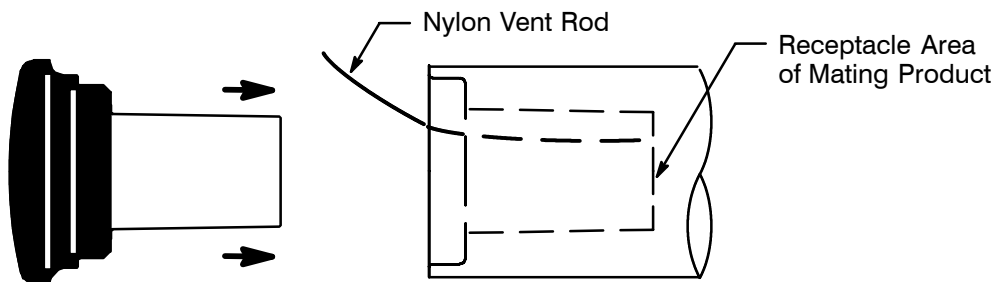
STEP 2

Lubricate the now exposed interface area with the lubricant supplied. **DO NOT SUBSTITUTE.**



STEP 3

Insert the nylon venting rod into the receptacle area of the product desired to be dead- -ended to exhaust the air during assembly. Insert the dead- -end plug into the receptacle area as far as possible. Remove the nylon venting rod to complete the installation.



Installation Instructions 150DR AND K150DR Dead--End Receptacle

CONTENTS: *Dead--end Receptacle, Nylon Venting Rod, Installation Instructions.*

The Elastimold 150DR and K150DR dead--end receptacles are used to insulate the plug portion of the following Elastimold products:

1501A1 and K1501A1 bushing inserts
1501J3 & J4 and K1501J3 & J4 junctions
150T and K150T tee connectors
K1502A1 feed--thru insert
K1501FT feed--thru

151SP and K151SP straight plugs
600RTP and K600RTP reducing tap plugs
600RTPS and K600RTPS reducing tap plugs with stud

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

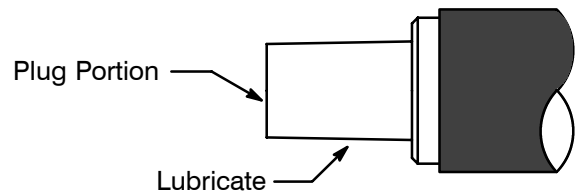
Failure to follow these instructions could result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

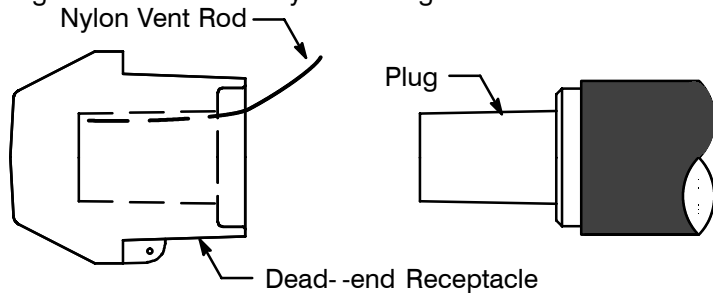
STEP 1

Lubricate the plug portion of the mating product desired to be dead--ended with the lubricant supplied. Keep grease away from the metal center end of the plug. DO NOT SUBSTITUTE.



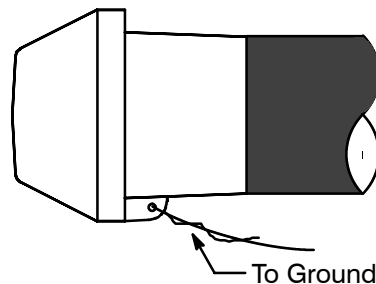
STEP 2

Insert the nylon venting rod into the dead--end receptacle to exhaust the air during assembly. Push the dead--end receptacle onto the plug as far as possible until the two parts butt together. Remove the nylon venting rod.



STEP 3

Connect a ground wire to the grounding eye of the dead--end receptacle and to system ground. The ground wire should be No. 14 AWG size (2mm²) or larger.



Operating Instructions 151SOP/K151SOP Deadbreak Insulated Parking Bushing

CONTENTS: Stand Off Plug (complete with mounting hardware), Hold-down Bail Assembly, Lubricant, Operating Instructions

The 151SOP is designed to terminate the female deadbreak connector interface of the 154LR or the 156LR Elbows (other products should not be used since the 151SOP bail is designed to secure elbows only) rated for 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) 200 ampere. The K151SOP provides the same function for the 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) 200 ampere rating.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

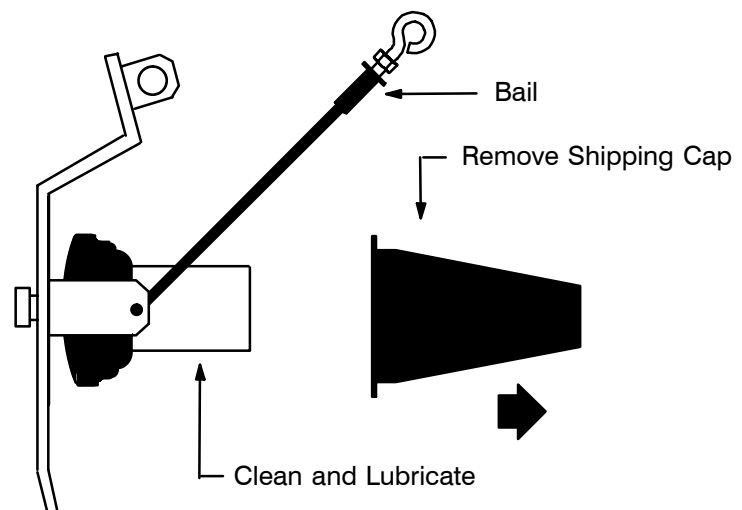
IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

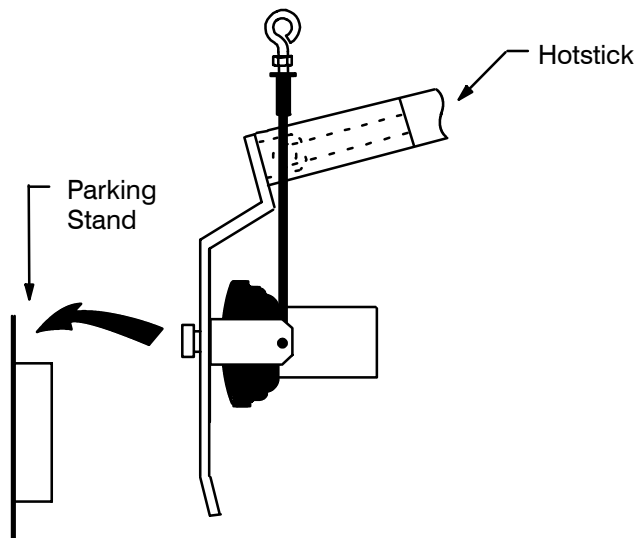
STEP 1

Remove protective shipping cap and clean the mating interface of the insulated parking bushing. Lubricate this surface. Use only the supplied lubricant or ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products. Always replace the protective cap when the insulated parking bushing is not in use.



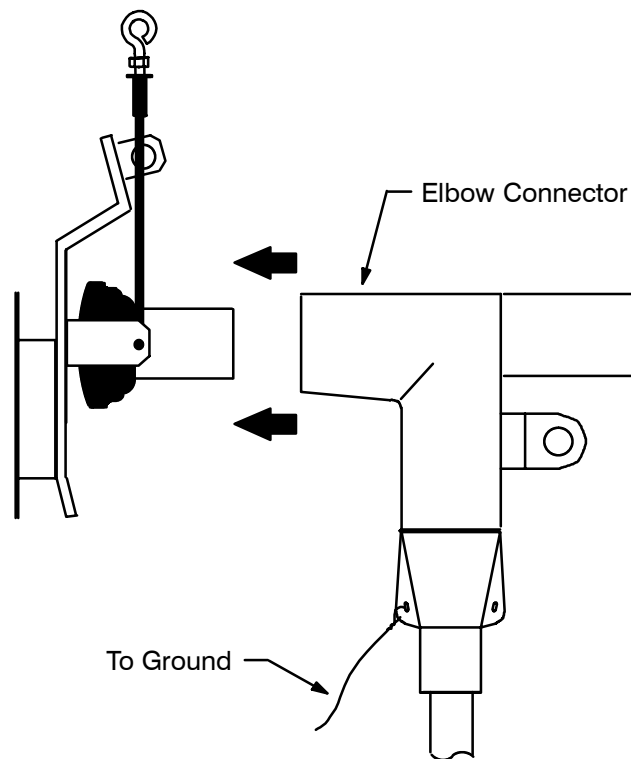
STEP 2

Attach hotstick to eye of insulated parking bushing carriage assembly. Slide carriage assembly into parking stand. Push bail out of way so it will not interfere with placement of elbow connector.



STEP 3

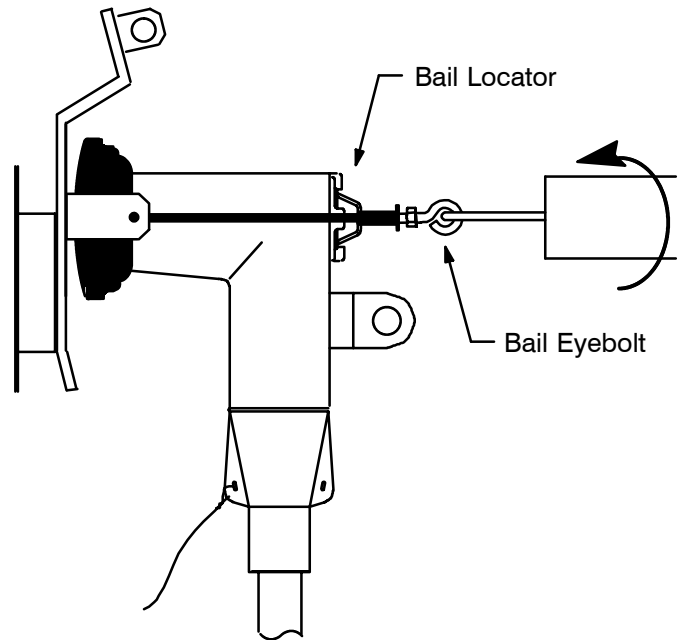
Follow the applicable instructions to make a voltage test before removing the elbow connector from the apparatus bushing. Remove elbow connector from apparatus bushing and place on insulated parking bushing. **DO NOT REMOVE IF VOLTAGE TEST INDICATES CONNECTOR IS ENERGIZED.**



STEP 4

BAIL MUST BE USED TO SECURE ELBOW.

Position the bail eyebolt directly over the bail locator on the elbow. Tighten down on bail locator by turning eyebolt with the hotstick in a clockwise direction. If entire assembly (insulated parking bushing and elbow) is to be removed from parking stand, attach hotstick to eye of carriage assembly, remove from parking stand and place where desired. To return elbow connector to apparatus bushing, simply reverse the operational sequence.



WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2).

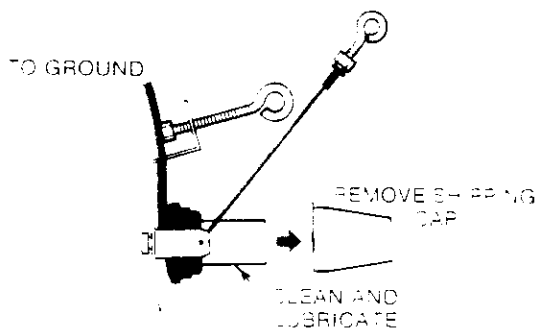
Installation Instructions 151GP Grounding Plug

CONTENTS: 1—Grounding plug complete with stainless steel mounting hardware, 1—Hold-down bail assembly, 1—Tube, silicone grease.

CAUTION: All associated apparatus should be de-energized during installation of this assembly.

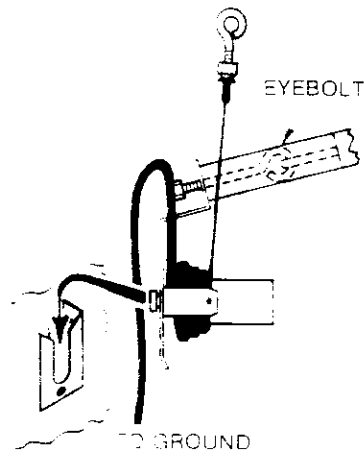
STEP 1.

Connect flexible lead of the grounding plug to the system ground leaving enough slack to operate with a hotstick. Remove the protective snipping cap and clean the mating interface of the grounding plug. Lubricate this surface with the silicone grease supplied. **DO NOT SUBSTITUTE.** Always replace protective cap when grounding plug is not in use.



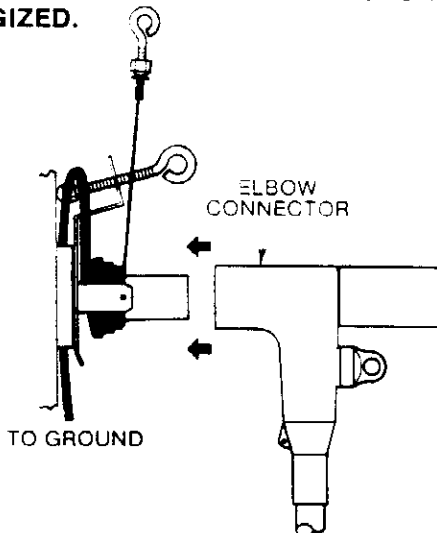
STEP 2.

Attach hotstick to eyebolt of grounding plug carriage assembly. Slide carriage assembly into parking stand. Push bail out of way so it will not interfere with placement of elbow connector.



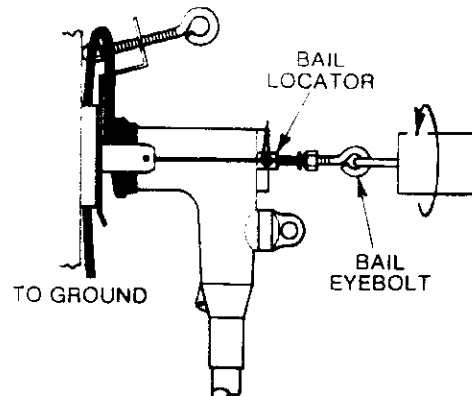
STEP 3.

If elbow connector to be grounded has a capacitance test point, follow the applicable instructions to make a voltage test before removing it from the apparatus bushing. Remove elbow connector from apparatus bushing and place on grounding plug. **DO NOT REMOVE IF VOLTAGE TEST INDICATES CONNECTOR IS ENERGIZED.**



STEP 4

Move the bail so the eyebolt is directly over the bail locator on the elbow. Tighten down on bail locator by turning the eyebolt with the hotstick in a clockwise direction. If entire assembly (grounding plug and elbow) is to be removed from parking stand, attach hotstick to eye of carriage assembly, remove from parking stand and place where desired. To return elbow connector to apparatus bushing, simply reverse the operational sequence.



WARRANTY

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied:

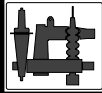
ELASTIMOLD® Electrical Distribution Products are warranted to perform with the recommended operational ratings when installed and used in accordance with applicable operating instructions. ELASTIMOLD'S liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material.

In adjustment of any claims, inspection of the parts and the application will be required. This warranty is effective for two (2) years from the date of shipment by ELASTIMOLD.



**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840, (201) 852-1122

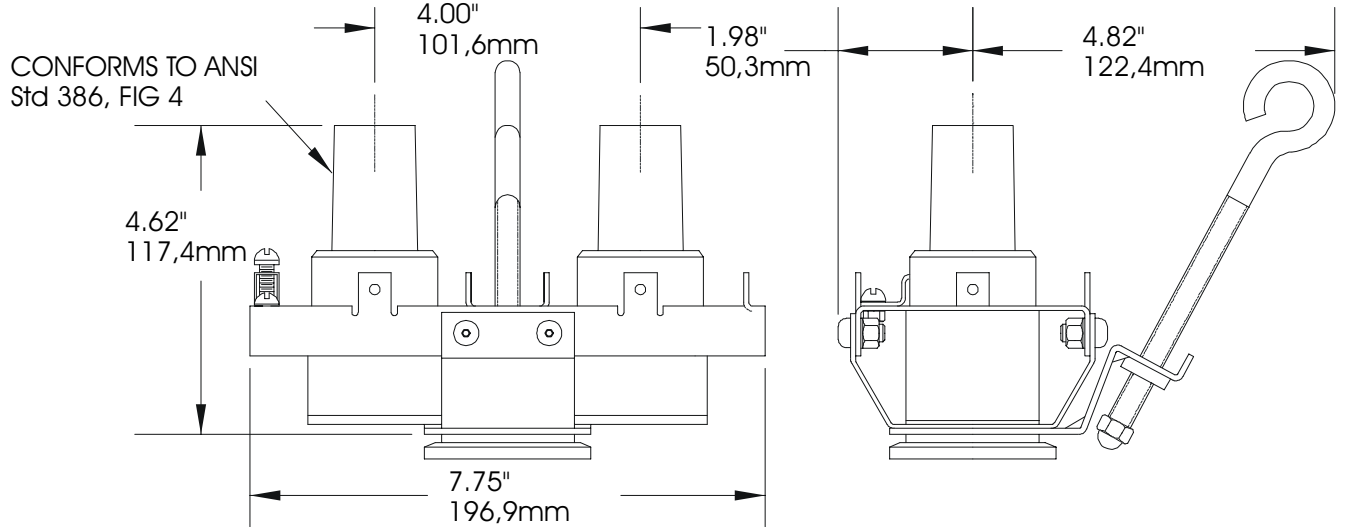


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Deadbreak Feed-Thru Insert

ELASTIMOLD PART NUMBER

K1501FT

The K1501FT feed-thru, is a fully shielded, fully submersible, separable insulated connector designed for de-energized operation. Units are suitable for use with deadbreak connectors on 15/25kV systems. The K1501FT is designed to mate with other Elastimold products including:

- 156LR elbow connector
- K150DR insulated cap

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current

Ordering Instructions:

To order, specify number **K1501FT** bushing insert.

The K1501FT bushing insert includes the following:

- | | |
|---------------------------------|------------------|
| 1 - 2 way junction housing only | K1501J2-U-4 |
| 2 - Protective shipping cap | 180PCC |
| 1 - Bail assembly | K1501FT-6 |
| 3 - Lubricant | 82-08 |
| 1 - Installation instruction | IS-K1501FT 12/92 |

Operating Instructions K1501FT Deadbreak Feed Thru

CONTENTS: Feed-thru Body (complete with mounting hardware), Hold-down Bail Assembly, Lubricant, Operating Instructions.

The Elastimold (K)1501FT deadbreak feed-thru is designed to provide a means of apparatus change out, sectionalizing, tapping, or looping. The following deadbreak products mate with the deadbreak junctions: (K)154LR, (K)150DR, 156LR.

The 1501 Feed-thru is designed for use with Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) deadbreak components. The K1501 Feed Thru is designed for use with Elastimold 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) deadbreak components.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping covers. Remove these shipping covers and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

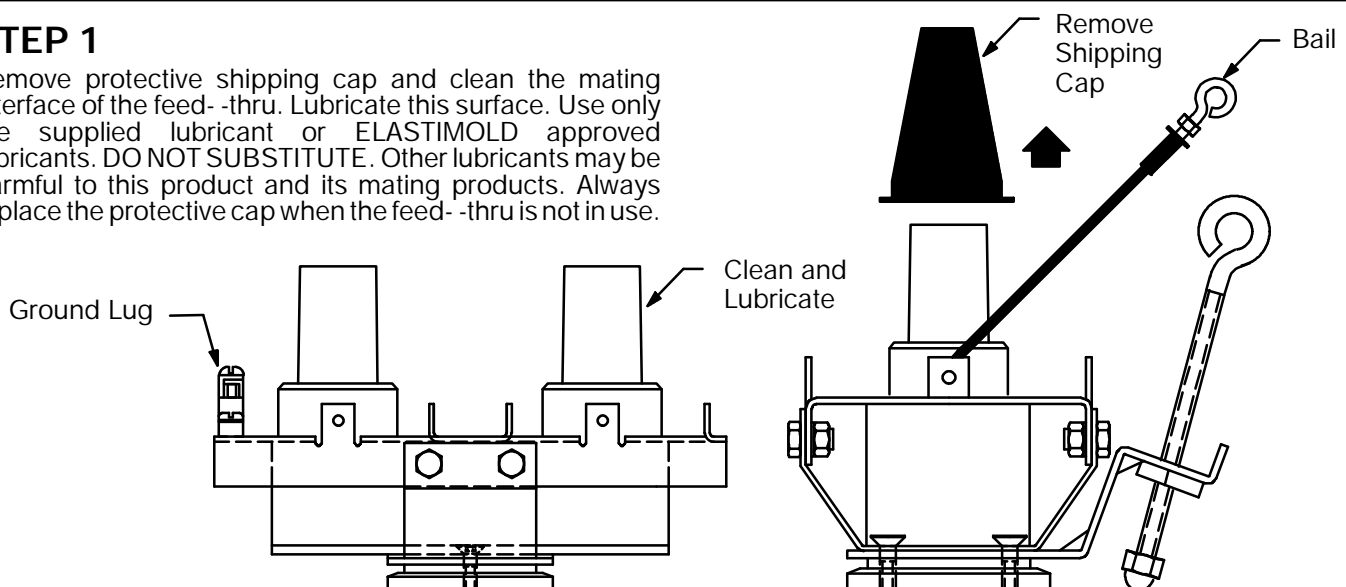
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

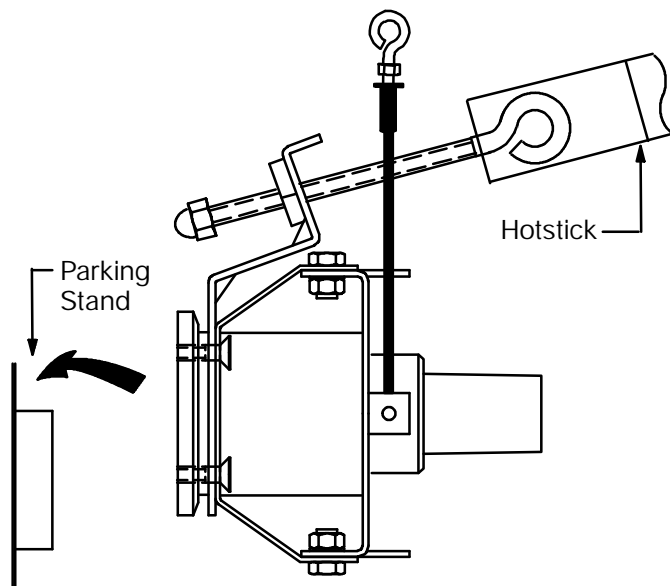
STEP 1

Remove protective shipping cap and clean the mating interface of the feed-thru. Lubricate this surface. Use only the supplied lubricant or ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product and its mating products. Always replace the protective cap when the feed-thru is not in use.



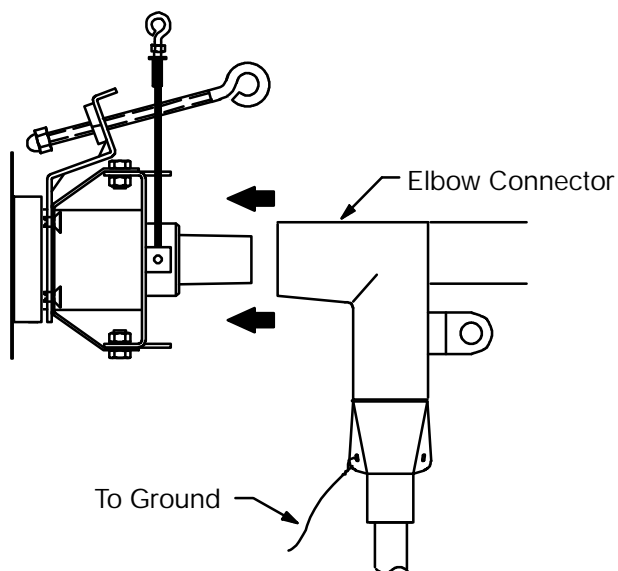
STEP 2

Attach hotstick to eye of feed-thru assembly. Slide feed-thru into parking stand. Tighten eyebolt by rotating hotstick clockwise until snug. DO NOT OVER TIGHTEN. Release hotstick. Push bail out of the way so it will not interfere with placement of elbow connector.



STEP 3

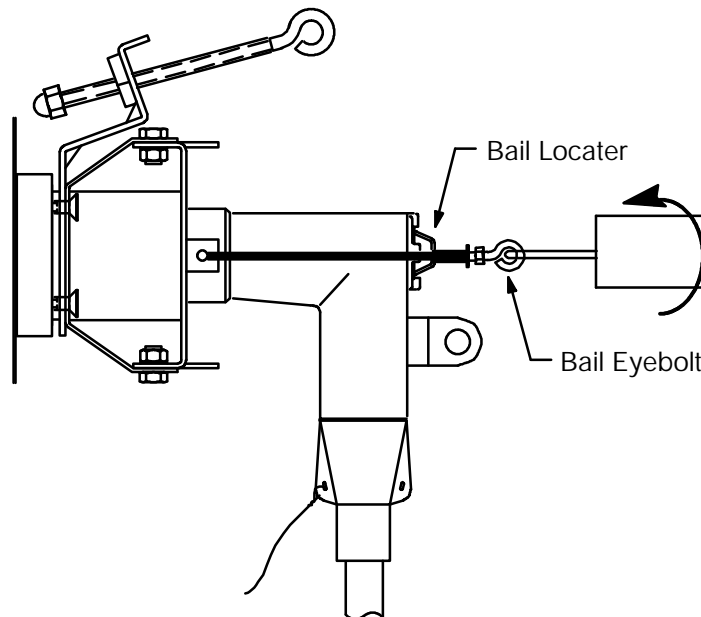
Follow the applicable instructions to make a voltage test before removing the elbow connector from the apparatus bushing. Remove elbow connector from apparatus bushing and place on feed-thru. DO NOT REMOVE IF VOLTAGE TEST INDICATES CONNECTOR IS ENERGIZED.

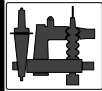


STEP 4

BAIL MUST BE USED TO SECURE ELBOW.

Position the bail eyebolt directly over the bail locator on the elbow. Tighten down on bail locator by turning eyebolt with the hotstick in a clockwise direction. If entire assembly (feed-thru and elbow) is to be removed from parking stand, attach hotstick to eye of feed-thru assembly, remove from parking stand and place where desired. To return elbow connector to apparatus bushing, simply reverse the operational sequence.





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

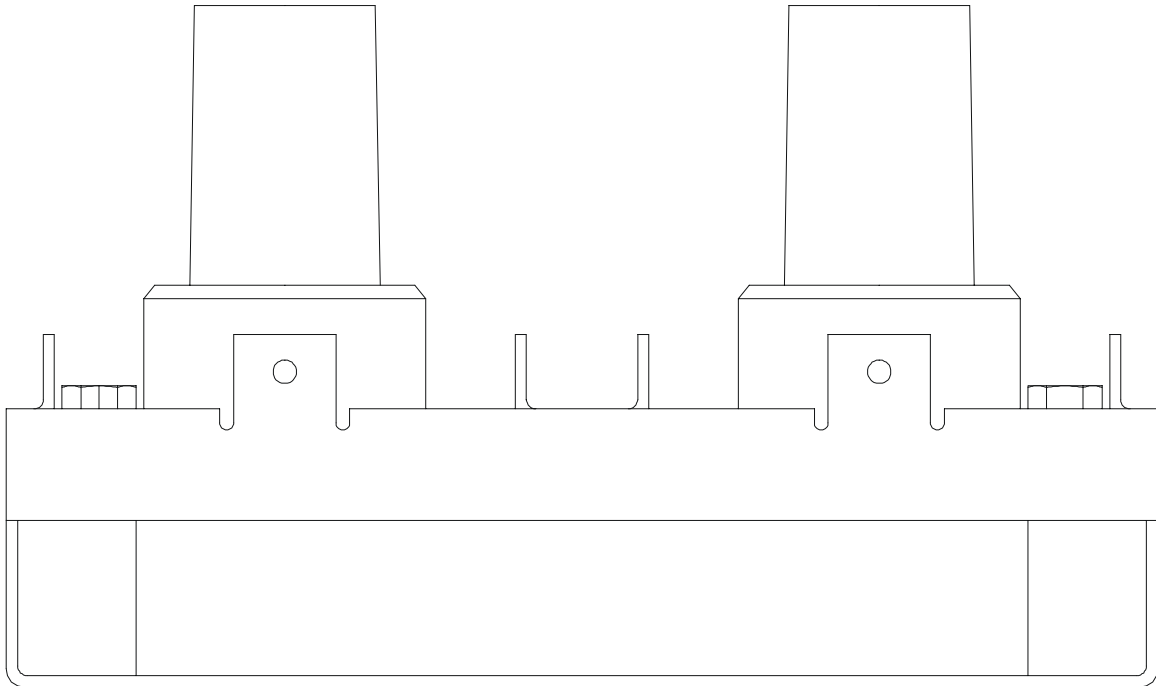
PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Deadbreak Junction - 2 Way

ELASTIMOLD PART NUMBER

K1501J2-U



Contact your local sales representatives for detail dimension.

The Elastimold deadbreak junctions, are fully shielded, fully submersible, separable insulated connectors designed for de-energized operation. They are suitable for use on 15/25 kV class systems and are designed to mate with other Elastimold products including:

- 156LR elbow connector
- K150T
- K150DR
- K151SR

Units are supplied with brackets which accommodate curved or flat surfaces and provide 0°, 30° or 45° tilt mounting arrangements.

The k1501J2-U 2-way Junction kit contains the following:

- | | |
|------------------------------|--------------|
| 1 – Basic Molded Junction | K1501J2-U-4 |
| 1 – Mounting Hardware | K1501J2-U-6 |
| 3 – Protective shipping cap | 180PCC |
| 3 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-K1501J2-U |

Ratings:

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous current
- 10kA Sym - 10 Cycles momentary current

Ordering Instructions:

- Specify **K1501J2-U** for 25kV, 200 Amp, 2-way Deadbreak Junction
- Add "-5" at the end of the catalog number for Junctions with "U" style mounting straps only.
- Add "-6" at the end of the catalog number for bracket only with "U" straps and mounting hardware.

Installation Instructions (K)1501J2- -U Two- - Point Deadbreak Junctions

CONTENTS: Deadbreak junction with bracket, Universal mounting brackets, Lubricant, Installation Instructions.

The ELASTIMOLD (K)1501J2- -U deadbreak junctions is designed to provide a means of apparatus change out, sectionalizing, tapping, or looping. The following deadbreak products mate with the deadbreak junctions: (K)154LR, (K)150DR, 156LR.

The 1501 series junctions are designed for use with ELASTIMOLD 15kV class (8.3kV phase- -to- -ground and 14.4kV phase- -to- -phase) deadbreak components. The K1501 series junctions are designed for use with ELASTIMOLD 25kV class (15.2kV phase- -to- -ground and 26.3kV phase- -to- -phase) deadbreak components.

The (K)1501J3- -U and (K)1501J4- -U deadbreak junctions are designed for universal mounting on flat surfaces. The mounting angle of the junction is adjustable from 0_ thru 45_ above or below the horizontal in 15_ increments.

WARNING: DO NOT CONNECT OR DISCONNECT MATING PRODUCTS WHILE ENERGIZED.
Do not energize while disconnected.

DANGER

All apparatus must be de- -energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

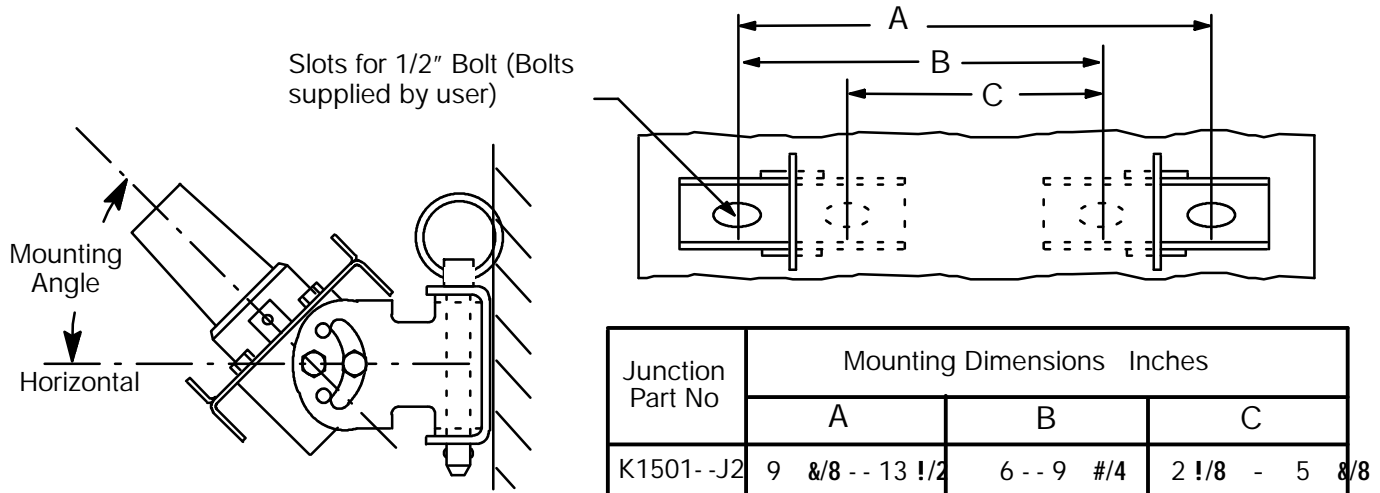
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



STEP 1

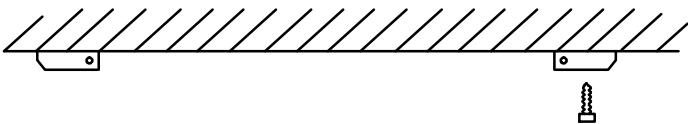
Determine the desired mounting angle and the desired direction of the slotted bracket. Loosely attach the preassembled universal mounting brackets to the junction back plate. Place junction assembly against the wall in desired location and mark slot location on the wall.

CAUTION: One or both of the mounting brackets can be reversed to change the distance required between bolt centers. The mounting bracket slot length provides the dimensional ranges between bolt centers as indicated in the diagram.



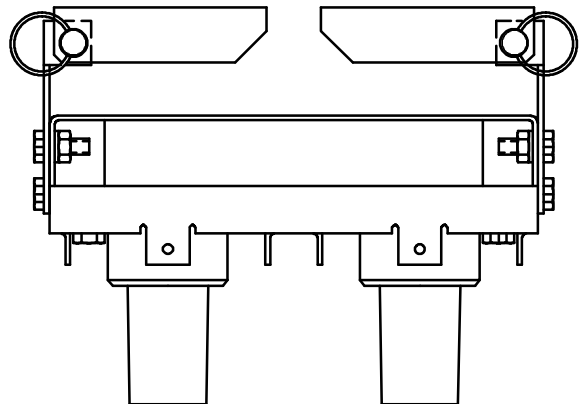
STEP 2

Remove slotted mounting brackets from assembly and attach to wall with suitable fasteners.



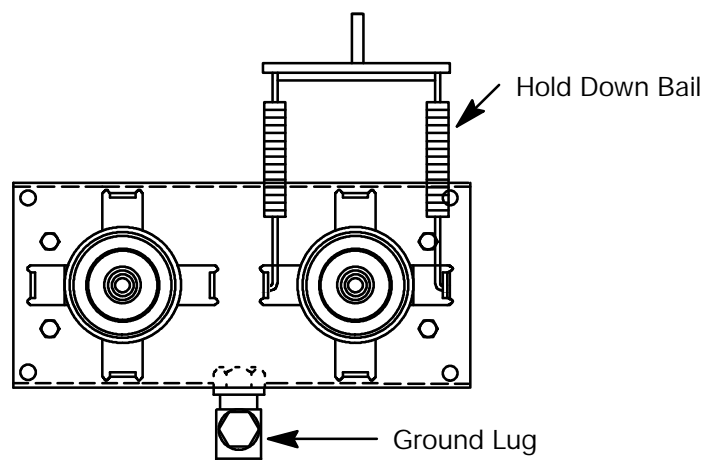
STEP 3

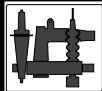
Assemble deadbreak junction to slotted mounting brackets with quick release pins.



STEP 4

Attach suitable wire to ground lug and connect to system ground. Ground wire should be sized to carry the rated fault current or the system fault current if less than the product rating. Attach hold-down bails (supplied with elbow), to junction.



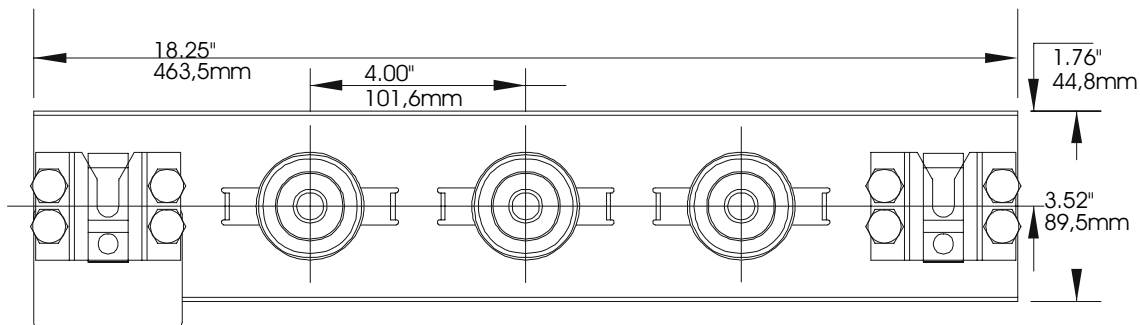
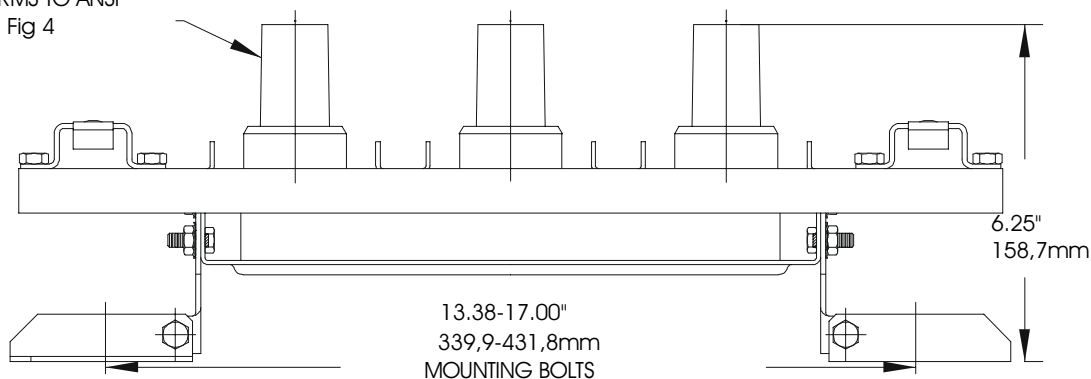


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Deadbreak Junction - 3 Way

ELASTIMOLD PART NUMBER

K1501J3-UCONFORMS TO ANSI
Std 386, Fig 4

The Elastimold deadbreak junctions, are fully shielded, fully submersible, separable insulated connectors designed for de-energized operation. They are suitable for use on 15/25 kV class systems and are designed to mate with other Elastimold products including:

- 156LR elbow connector
- K150T
- K150DR
- K151SR

Units are supplied with brackets which accommodate curved or flat surfaces and provide 0°, 30° or 45° tilt mounting arrangements.

The k1501J3-U 3-way Junction kit contains the following:

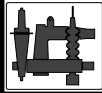
1 – Basic Molded Junction	K1501J3-U-4
1 – Mounting Hardware	K1501J3-U-6
3 – Protective shipping cap	180PCC
3 – Tube, lubricant	82-08
1 – Installation instruction	IS-K1501J3 (J4)-U

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current

Ordering Instructions:

Specify **K1501J3-U** for 25kV, 200 Amp, 3-way Deadbreak Junction
 Add "-5" at the end of the catalog number for Junctions with "U" style mounting straps only.
 Add "-6" at the end of the catalog number for bracket only with "U" straps and mounting hardware.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

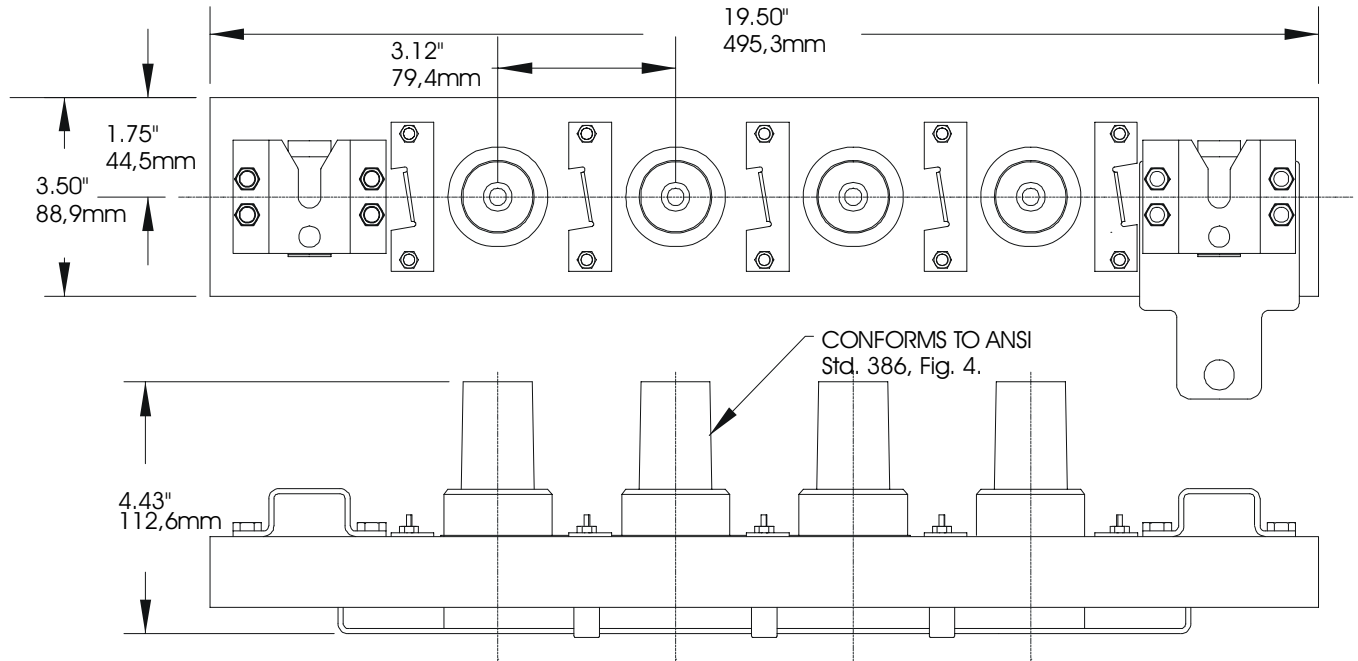
PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Deadbreak Junction - 4 Way

ELASTIMOLD PART NUMBER

K1501J4-U



The Elastimold deadbreak junctions, are fully shielded, fully submersible, separable insulated connectors designed for de-energized operation. They are suitable for use on 15/25 kV class systems and are designed to mate with other Elastimold products including:

- 156LR elbow connector
- K150T
- K150DR
- K151SR

Units are supplied with brackets which accommodate curved or flat surfaces and provide 0°, 30° or 45° tilt mounting arrangements.

The k1501J4-U 4-way Junction kit contains the following:

- | | |
|------------------------------|-------------------|
| 1 – Basic Molded Junction | K1501J4-U-4 |
| 1 – Mounting Hardware | K1501J4-U-6 |
| 4– Protective shipping cap | 180PCC |
| 4 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-K1501J3 (J4)-U |

Ratings:

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous current
- 10kA Sym - 10 Cycles momentary current

Ordering Instructions:

- Specify **K1501J4-U** for 25kV, 200 Amp, 4-way Deadbreak Junction
- Add "-5" at the end of the catalog number for Junctions with "U" style mounting straps only.
- Add "-6" at the end of the catalog number for bracket only with "U" straps and mounting hardware.

Installation Instructions K1501J3-U K1501J4-U

Three- and Four- Point Deadbreak Junctions

CONTENTS: Deadbreak junction with bracket, Universal mounting brackets, Lubricant, Installation Instructions.

The ELASTIMOLD K1501J3-U and K1501J4-U deadbreak junctions are designed to provide a means of apparatus change out, sectionalizing, tapping, or looping. The following deadbreak products mate with the deadbreak junctions: 156LR, K150DR.

The K1501 series junctions are designed for use with ELASTIMOLD 25kV class (15.2kV phase-to-ground and 26.3kV phase-to-phase) deadbreak components.

The K1501J3-U and K1501J4-U deadbreak junctions are designed for universal mounting on flat surfaces. The mounting angle of the junction is adjustable from 0° thru 45° above or below the horizontal in 15° increments.

WARNING: DO NOT CONNECT OR DISCONNECT MATING PRODUCTS WHILE ENERGIZED. Do not energize while disconnected.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping caps. Remove these shipping caps and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.

2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.

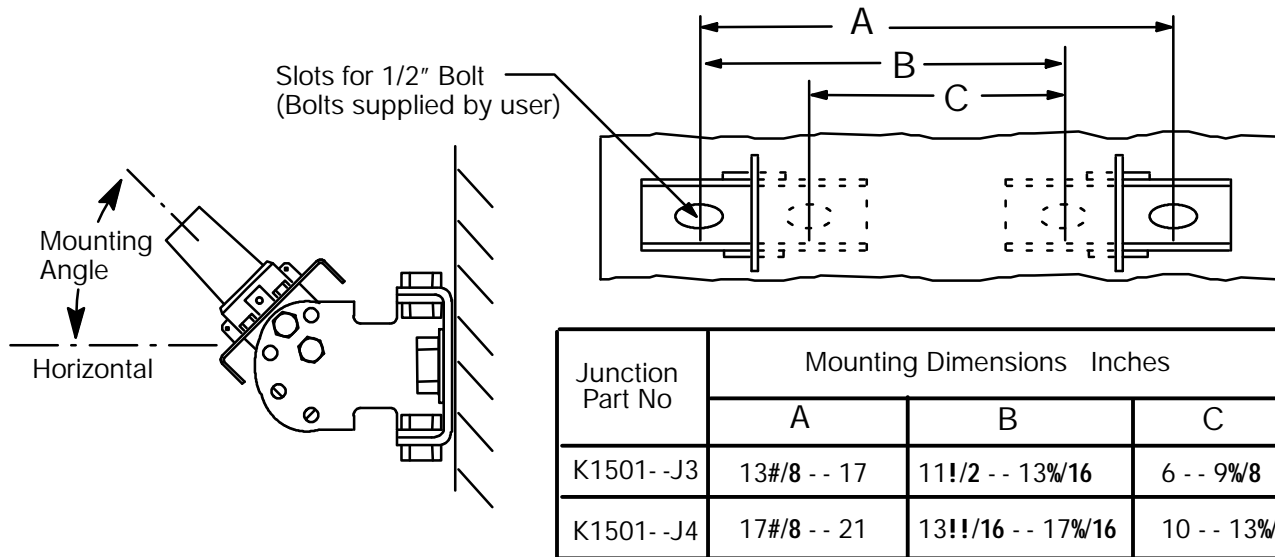
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



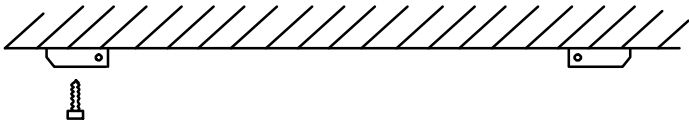
STEP 1

Determine the desired mounting angle and the desired direction of the slotted bracket. Loosely attach the pre-assembled universal mounting brackets to the junction back plate. Place junction assembly against the wall in desired location and mark slot location on the wall.

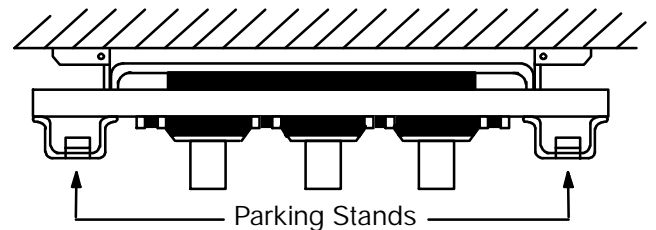
NOTE: One or both of the mounting brackets can be reversed to change the distance required between bolt centers. The mounting bracket slot length provides the dimensional ranges between bolt centers as indicated in the diagram.

**STEP 2**

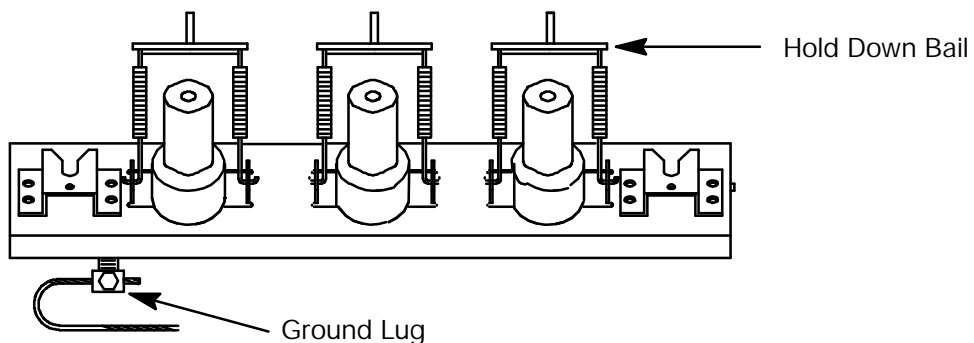
Remove slotted mounting brackets from assembly and attach to wall with suitable fasteners.

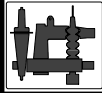
**STEP 3**

Assemble deadbreak junction to slotted mounting brackets and tighten all bolts securely to ensure no movement during operation. Make sure that parking stands are in an upright position as shown in Step 4.

**STEP 4**

Attach suitable wire to ground lug and connect to system ground. Ground wire should be sized to carry the rated fault current or the system fault current if less than the product rating. Attach hold-down bails (supplied with elbow), to junction.





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

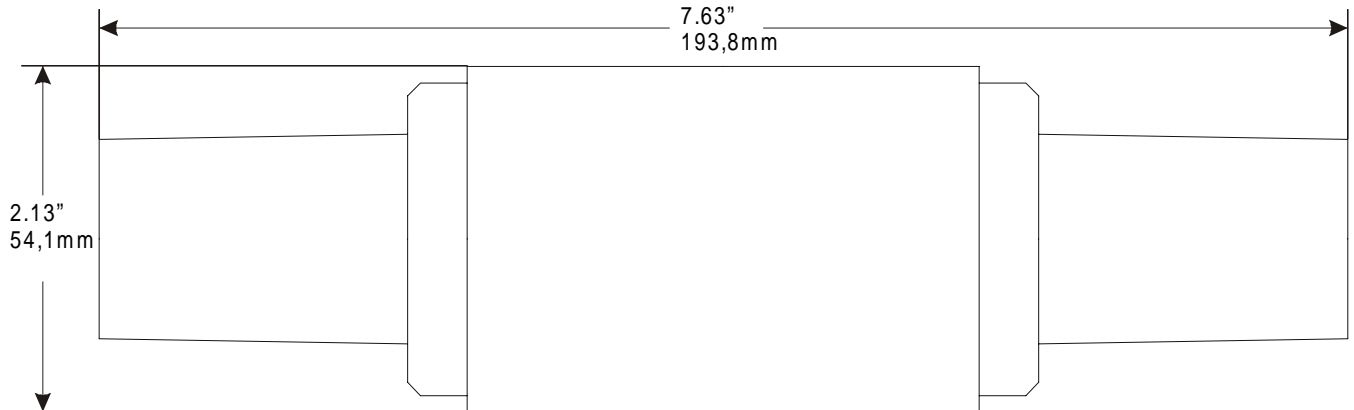
I

DESCRIPTION

15/25kV 200A In-Line Splice

ELASTIMOLD PART NUMBER

K150S



Application:

The K150S in-line splice provide a disconnectible, fully shielded, fully submersible, separable insulated cable connection. The disconnectible feature can be used only when the circuit is de-energized.

The K150S are designed with two plug ends that mate with the appropriate ELASTIMOLD product listed below:

- 156LR elbow connectors
- K151SR straight receptacles

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current

Ordering Instruction:

To Order, specify number **K150S** In-Line Splice.

The K150S In-Line Splice includes the following:

1 – In-Line splice	K150S
2 – Protective shipping cap	180-PCC
1 – Lubricant	82-08
1 – Installation instruction	IS-150S/K150S (A) 8/90

Installation Instructions 150S/K150S In-Line Junctions

CONTENTS: 1-In-line Junction, 1-Nylon Venting Rod, Lubricant, 1-Installation Instructions

The 150S and K150S are junction points with two plug ends which mate with the following ELASTIMOLD products:

154LR and K154LR Elbow Connectors
151SR and K151SR Straight Receptacles

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

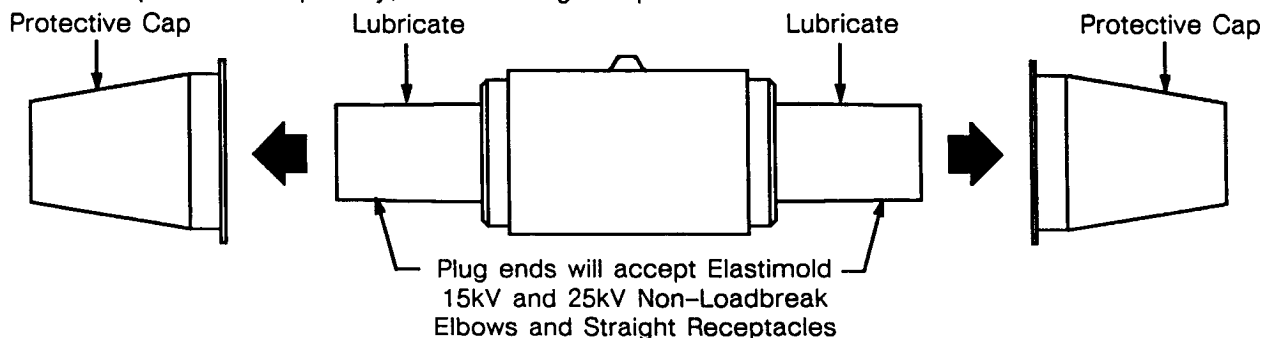
STEP 1

It is recommended that an appropriate ELASTIMOLD bailing assembly be utilized to secure all connectors from separating due to cable movement (refer to Section 310-16 of Elastimold Data Book). Refer to the appropriate bailing assembly instructions prior to beginning installation of the 150S/K150S and its mating connectors.

STEP 2

Remove protective caps* and lubricate plug ends with silicone grease supplied. DO NOT SUBSTITUTE. To keep plug ends clean, do not remove protective caps until it is time to make final connections. Always install mating parts first, following instructions packed with them.

*NOTE: These are protective caps only, not insulating receptacles.

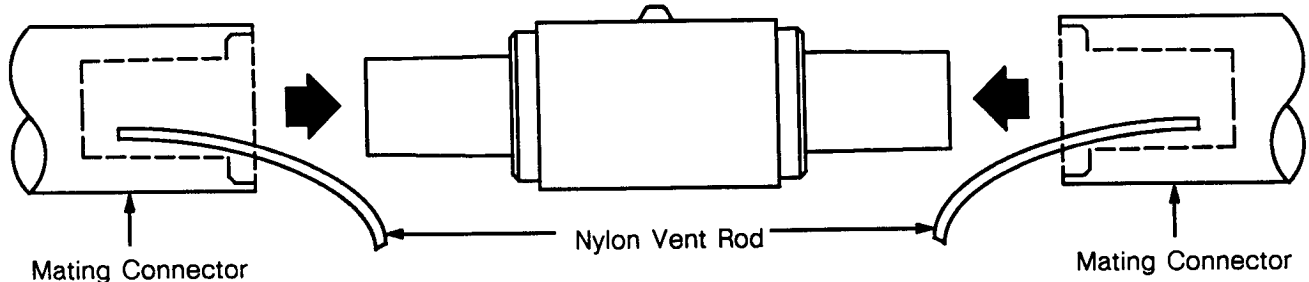


STEP 3

Before installing mating parts on the 150S/K150S, be sure the cables on these parts are properly trained. The cable should be trained so the cable entrances are not strained and care must be taken to insure that the cable entrances will remain at an angle 90° from the center line of the 150S/K150S.

STEP 4

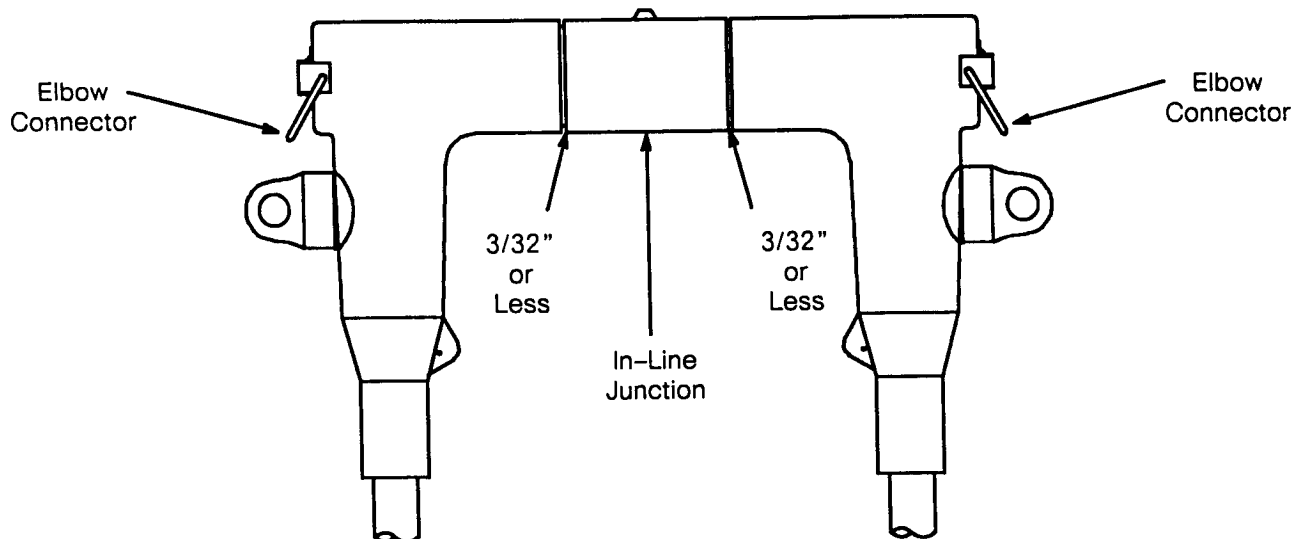
Insert the nylon venting rod into the receptacle portion of the desired mating connector to exhaust the air during assembly. Push the connector onto the in-line junction as far as possible. Remove the nylon rod to complete the installation. Repeat this procedure for the other end of the in-line junction.



STEP 5

Proper installation of the in-line junction and the mating part is achieved when the gap between the skirts of the mating part and the recess of the in-line junction is 3/32" (2,4mm) or less.

NOTE: Shown above is the in-line junction mated with two elbow connectors. The requirement of a gap 3/32" (2,4mm) or less is necessary to bail the assembly. Be sure to follow the installation instructions packaged with the bailing assembly. The 15TB-3 bailing assembly is used with elbow connectors; the 15TB-4 bailing assembly is used with straight receptacles.



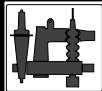
WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2).



**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ROUTE 24
HACKETTSTOWN, NEW JERSEY USA 07840 (201) 852-1122



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 3

PRODUCT SPECIFICATION SHEET

DESCRIPTION

200A Deadbreak Bail Assembly

ELASTIMOLD PART NUMBER

150TB1

Application:

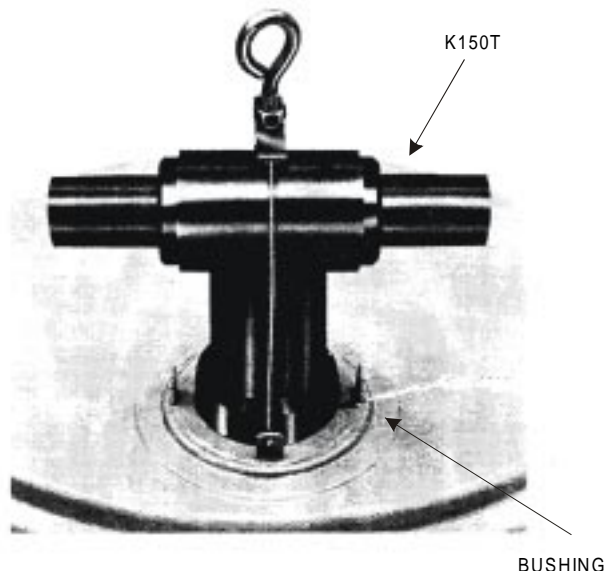
The ELASTIMOLD 150TB-1 bailing assembly kit consists of a modified hold-down bail for securing an ELASTIMOLD tee splice K150T to any apparatus supplied with ELASTIMOLD 200-amp deadbreak bushings. This assembly provides positive hold-down force on the tee splice minimizing the possibility of cable movement in the mating parts to dislodge the tee splice from the apparatus bushing.

Ordering Instruction:

To order, please specify **150TB-1**.

The 150TB1 Bail Assembly kit contains the following:

- 1 – Bail assembly kit 150TB1
- 1 – Installation Instruction IS-150TB1



NOTE: For correct, safe installation of a bailing assembly, refer to the instructions packed with each assembly.

DESCRIPTION

200A Deadbreak Bail Assembly

ELASTIMOLD PART NUMBER

150TB2

Application:

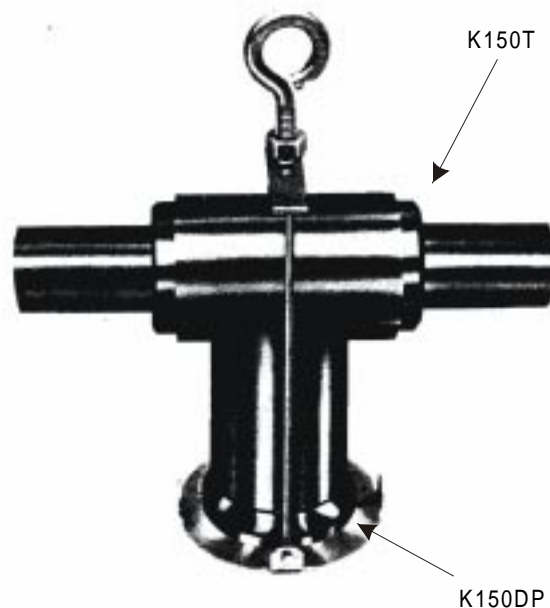
The ELASTIMOLD 150TB-2 bailing assembly kit consists of a modified hold-down bail and a stainless steel flange for securing an ELASTIMOLD dead-end plug K150DP to an ELASTIMOLD tee splice K150T. This assembly assures that the dead-end plug will not be dislodged from the tee splice.

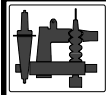
Ordering Instruction:

To order, please specify **150TB-2**.

The 150TB1 Bail Assembly kit contains the following:

- 1 – Bail assembly kit 150TB2
- 1 – Installation Instruction IS-150TB2





DESCRIPTION

200A Deadbreak Bail Assembly

Application:

The ELASTIMOLD 150TB-3 bailing assembly kit consists of two pieces of flat stainless steel stock, which are designed for connecting the hold-down bails supplied with the ELASTIMOLD deadbreak elbow connectors 156LR. This kit enables the deadbreak elbow connectors to be positively secured to an ELASTIMOLD tee connector, K150T, or in-line junction, K150S, minimizing the possibility of being dislodged due to cable movement.

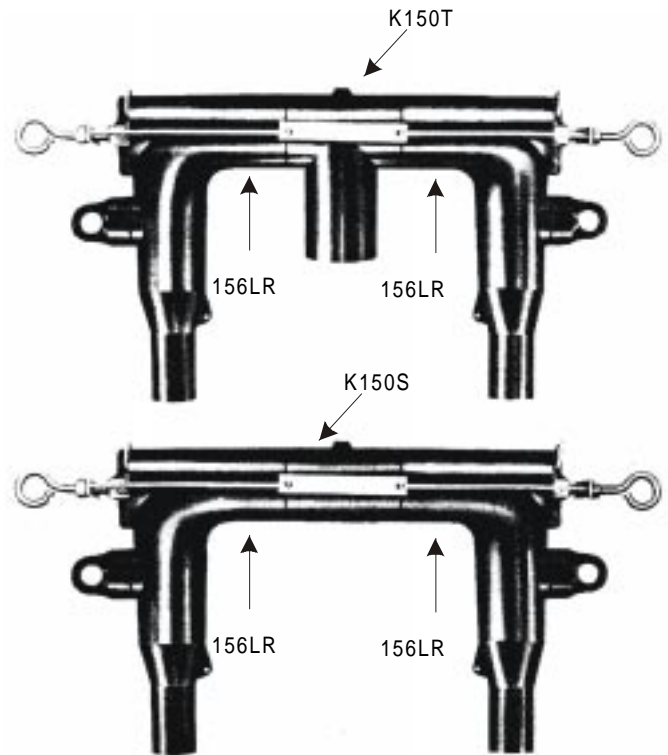
Ordering Instruction:

To order, please specify **150TB-3**.

The 150TB1 Bail Assembly kit contains the following:

- | | |
|------------------------------|-----------|
| 1 – Bail assembly kit | 150TB3 |
| 1 – Installation Instruction | IS-150TB3 |

ELASTIMOLD PART NUMBER



DESCRIPTION

200A Deadbreak Bail Assembly

Application:

The ELASTIMOLD 150TB-4 bailing assembly kit consists of three stainless steel collars and three lengths of stainless steel strap. This bailing assembly was designed to secure two ELASTIMOLD straight receptacles K151SR and an ELASTIMOLD straight plug K151SR and an ELASTIMOLD tee connector K150T, or two straight receptacles K151SR to an in-line junction K150S. NOTE: For the 150S or K150S, only two of the three straps and collars are used. The 150TB-4 minimizes any possibility of separation of the assemblies due to cable movement.

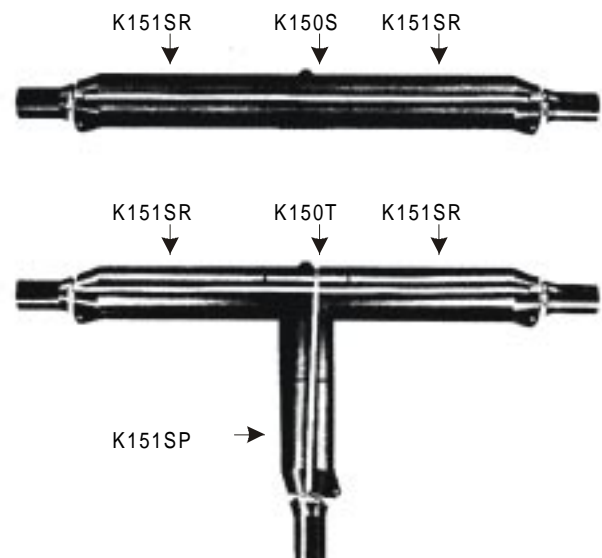
Ordering Instruction:

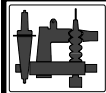
To order, please specify **150TB-4**.

The 150TB1 Bail Assembly kit contains the following:

- | | |
|------------------------------|-----------|
| 1 – Bail assembly kit | 150TB4 |
| 1 – Installation Instruction | IS-150TB4 |

ELASTIMOLD PART NUMBER

150TB4



DESCRIPTION

200A Deadbreak Bail Assembly

ELASTIMOLD PART NUMBER

150TB5

Application:

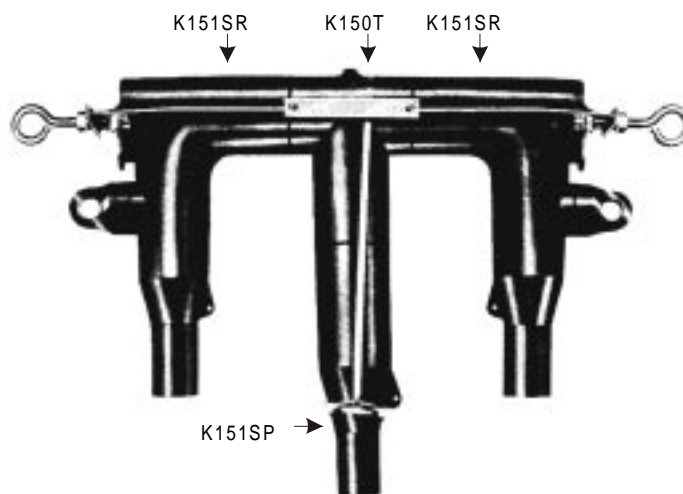
The ELASTIMOLD 150TB-5 bailing assembly kit consists of two stainless steel bail connectors, a stainless steel collar and a length of stainless steel strap. This kit was designed to secure two ELASTIMOLD non-loadbreak elbow connectors 156LR and an ELASTIMOLD straight plug K151SP to the ELASTIMOLD tee connector K150T. The 150TB-5 minimizes any possibility of separation of the assembled tee splice mating connectors due to cable movement.

Ordering Instruction:

To order, please specify **150TB-5**.

The 150TB1 Bail Assembly kit contains the following:

1 – Bail assembly kit	150TB5
1 – Installation Instruction	IS-150TB5



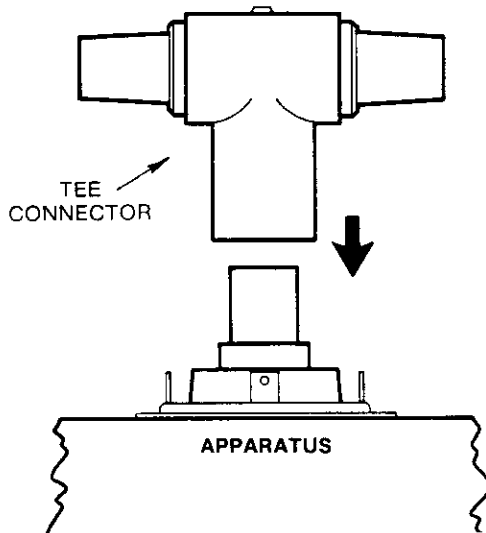
Installation Instructions 150TB-1 Bailing Assembly

CONTENTS: 1—Modified hold-down bail

CAUTION: All associated apparatus should be de-energized during installation of this assembly.

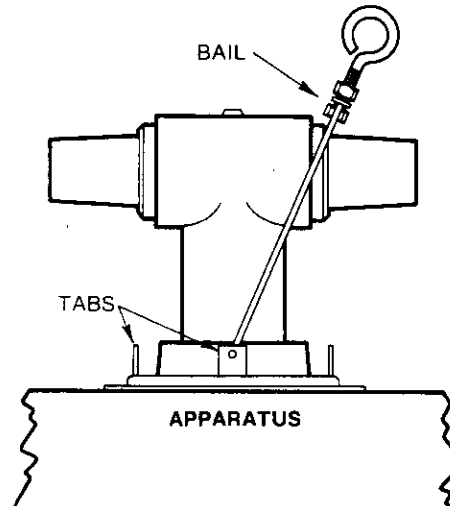
STEP 1.

Install the ELASTIMOLD tee connector (150T or K150T) on the apparatus according to the instructions packaged with it.



STEP 2.

Insert the 150TB-1 bail in the tabs provided on the apparatus bushing or bushing well.

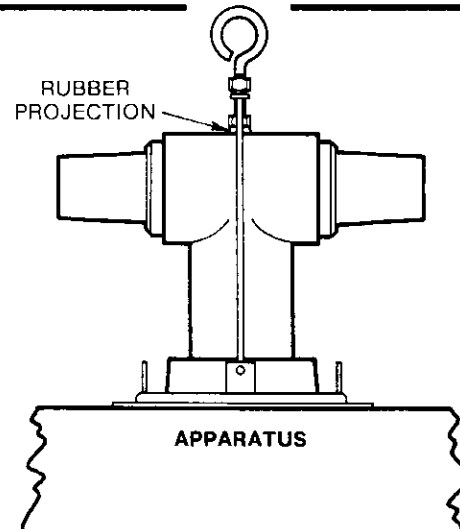


STEP 3.

Position the bail over the center of the tee connector and tighten it until the nut on the end of the eyebolt is snug with the rubber projection on the tee connector.

CAUTION: Do not overtighten the bail as you may then damage the tee connector.

The tee connector is now secured and ready to accommodate the desired Elastimold mating products.



WARRANTY

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied: ELASTIMOLD® Electrical Distribution Products are warranted to perform with the recommended operational ratings when installed and used in accordance with applicable operating instructions. ELASTIMOLD'S liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material. In adjustment of any claims, inspection of the parts and the application will be required. This warranty is effective for two (2) years from the date of shipment by ELASTIMOLD.

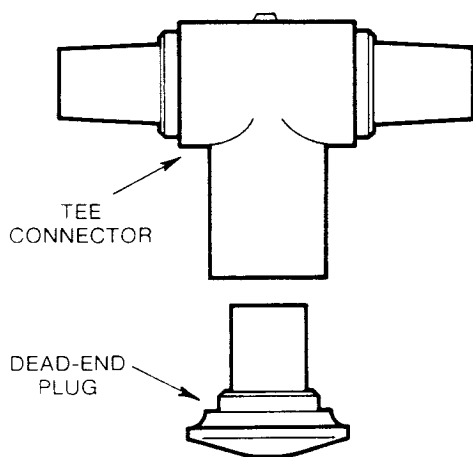
Installation Instructions 150TB-2 Bailing Assembly

CONTENTS: 1—Modified hold-down bail, 1—Flange.

CAUTION: All associated apparatus should be de-energized during installation of this assembly.

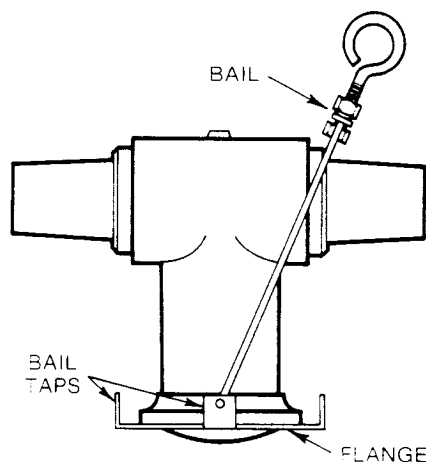
STEP 1.

Mate the ELASTIMOLD dead-end plug (150DP or K150DP) to the ELASTIMOLD tee connector (150T or K150T) according to the instructions supplied with the dead-end plug.



STEP 2.

Hold the flange under the dead-end plug so that the tabs point towards the tee connector. Now insert the bail into the tabs on the flange.

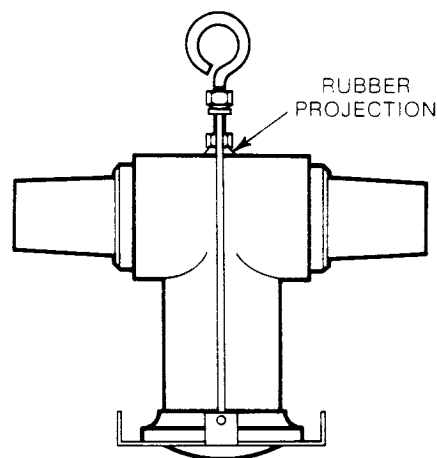


STEP 3.

Position the bail over the center of the tee connector and tighten it until the nut on the end of the eyebolt is snug with the rubber projection on the tee connector.

CAUTION: Do not overtighten the bail as you may then damage the tee connector.

The tee connector and dead-end plug are now secure and the assembly is ready to accommodate the other desired Elastimold mating products.



WARRANTY

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied:

ELASTIMOLD[®] Electrical Distribution Products are warranted to perform with the recommended operational ratings when installed and used in accordance with applicable operating instructions. ELASTIMOLD'S liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material.

In adjustment of any claims, inspection of the parts and the application will be required. This warranty is effective for two (2) years from the date of shipment by ELASTIMOLD.

15-0008

EDP-I-150TB-2
February 1973
Printed in U.S.A.

ELASTIMOLD DIVISION

ESNA Park • Hackettstown, N.J. 07840/(201) 852-1122

AMERACE-ESNA
CORPORATION

Installation Instructions 150TB-3 Bailing Assembly for Tee Connector and In-Line Junctions

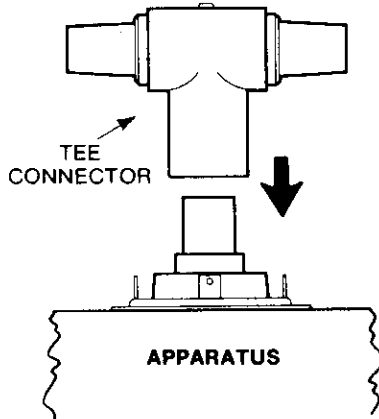
CONTENTS: 2—Bail Connectors

CAUTION: All associated apparatus must be de-energized during installation of this assembly.

FOR 150T or K150T TEE CONNECTOR

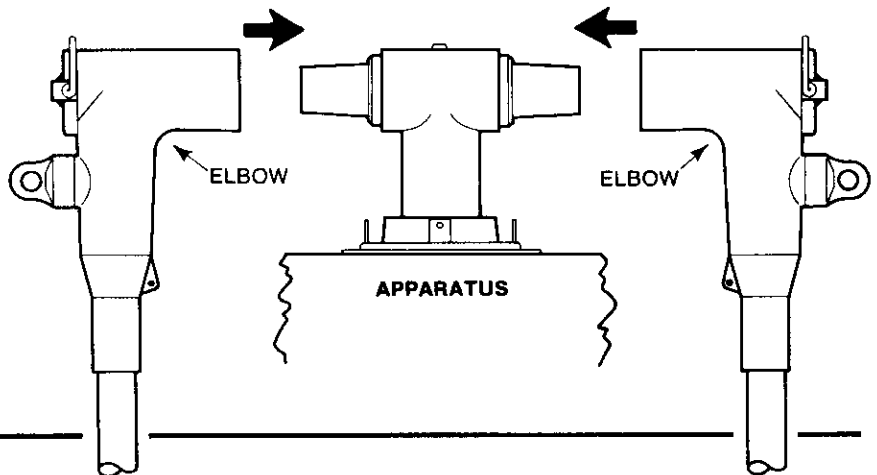
STEP 1.

Following the installation instructions packed with the ELASTIMOLD tee connector (150T or K150T), install it on the desired apparatus.



STEP 2.

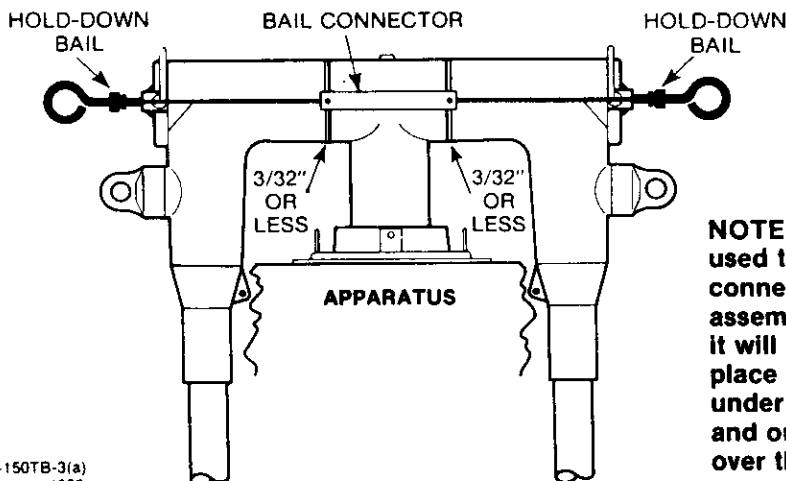
Following the installation instructions packed with the ELASTIMOLD non-loadbreak elbow connectors (154LR or K154LR) install both elbows on cable and then mate them to the tee connector. Be sure the cables in the elbow connectors are properly trained so the cable entrances are not strained. Care must be taken to insure that the cable entrance will remain at an angle of 90° from the center of the tee connector.



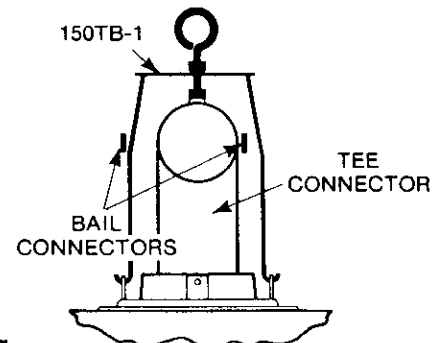
STEP 3.

A gap of 3/32" (2,4 mm) or less between the skirts of the elbow connectors and the recess of the tee connector assures proper installation. Position the hold-down bails which are supplied with the elbow connector kits over the elbows and then connect

them by using the bail connectors. With the elbows properly seated, tighten the eyebolts on each bail until both eyebolts touch the bail locator on the elbows. Then tighten each eyebolt an additional two turns.



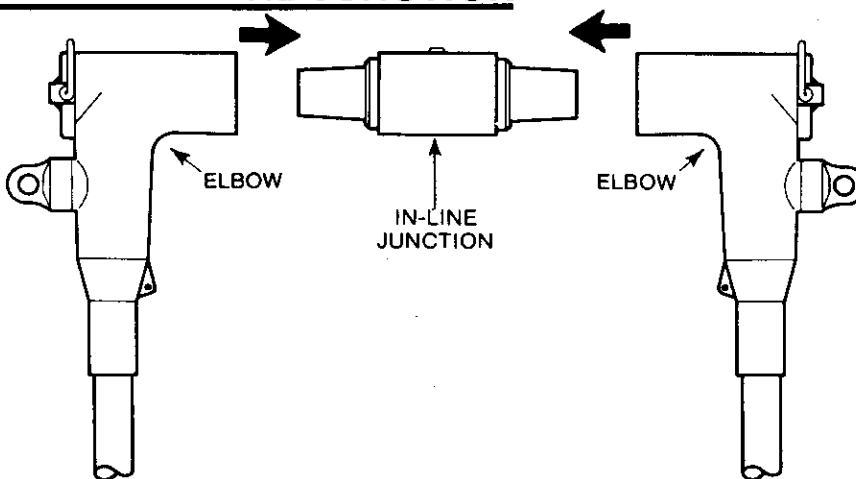
NOTE: If a 150TB-1 is used to secure the tee connector, then when assembling the 150TB-3 it will be necessary to place one bail connector under the 150TB-1 bail and one bail connector over the 150TB-1 bail.



FOR 150S or K150S IN-LINE JUNCTION

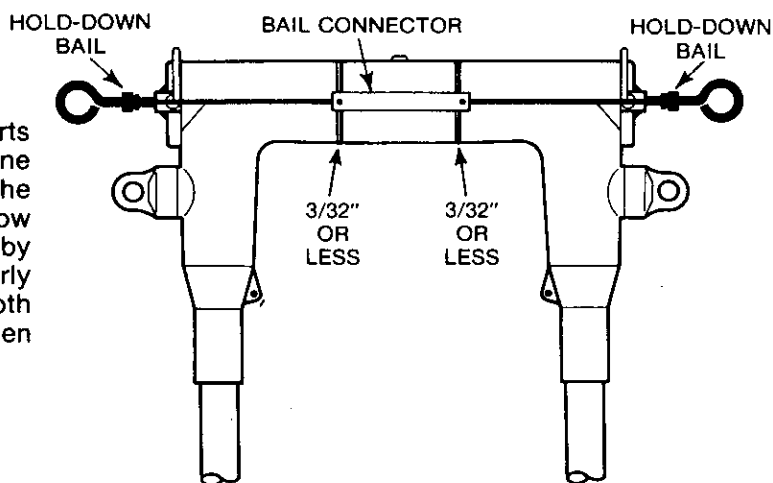
STEP 1.

Following the installation instructions packed with the ELASTIMOLD non-loadbreak elbow connectors (154LR or K154LR), install both elbows on cable and then mate them to the in-line junction. Be sure the cables in the elbow connectors are properly trained so the cable entrances are not strained. Care must be taken to insure that the cable entrances will remain at an angle of 90° from the center line of the in-line junction.



STEP 2.

A gap of 3/32" (2,4 mm) or less between the skirts of the elbow connectors and the recess of the in-line junction assures proper installation. Position the hold-down bails which are supplied with the elbow connector kits over the elbows and connect them by using the bail connectors. With the elbows properly seated, tighten the eyebolts on each bail until both eyebolts touch the bail locator on the elbows. Then tighten each eyebolt an additional two turns.



WARRANTY

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied:

ELASTIMOLD® Electrical Distribution Products are warranted to perform with the recommended operational ratings when installed and used in accordance with applicable operating instructions. ELASTIMOLD'S liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material.

In adjustment of any claims, inspection of the parts and the application will be required. This warranty is effective for two (2) years from the date of shipment by ELASTIMOLD.



**ELASTIMOLD
DIVISION**

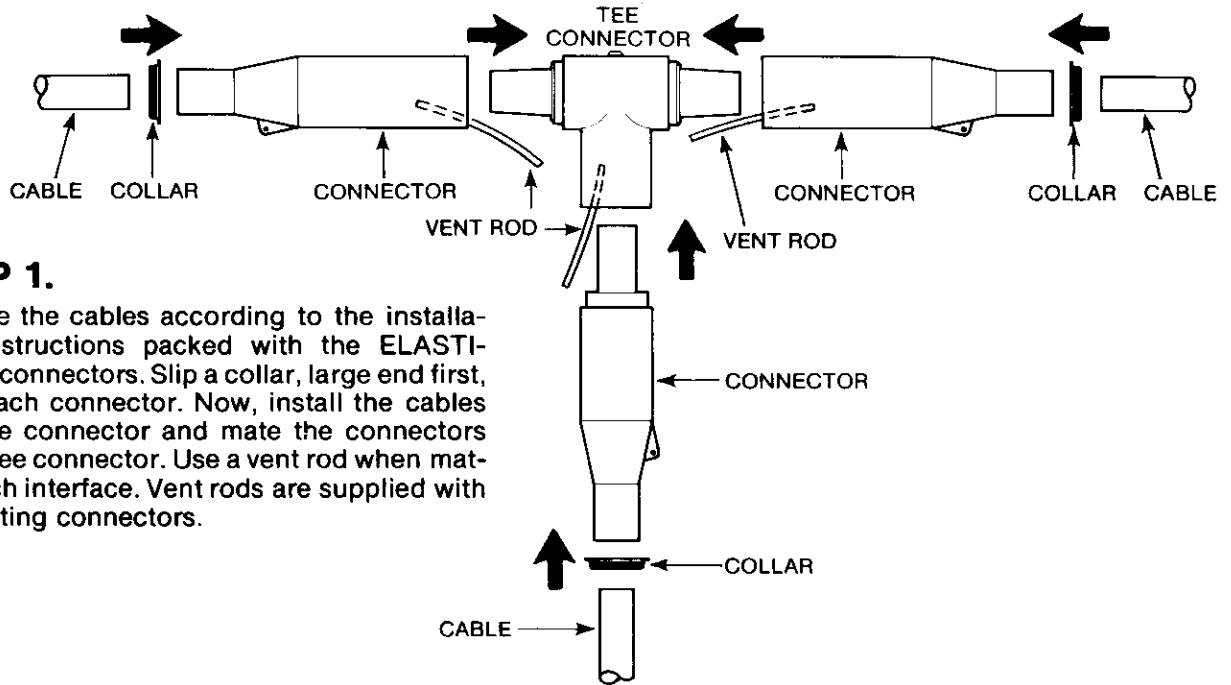
AMERACE CORPORATION, P.O. BOX 503, NEWBURG ROAD
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840, (201) 852-1122

Installation Instructions 150TB-4 Bailing Assembly for Tee Connectors and In-Line Junctions

CONTENTS: 3—Stainless steel collars, 3—Stainless steel straps.

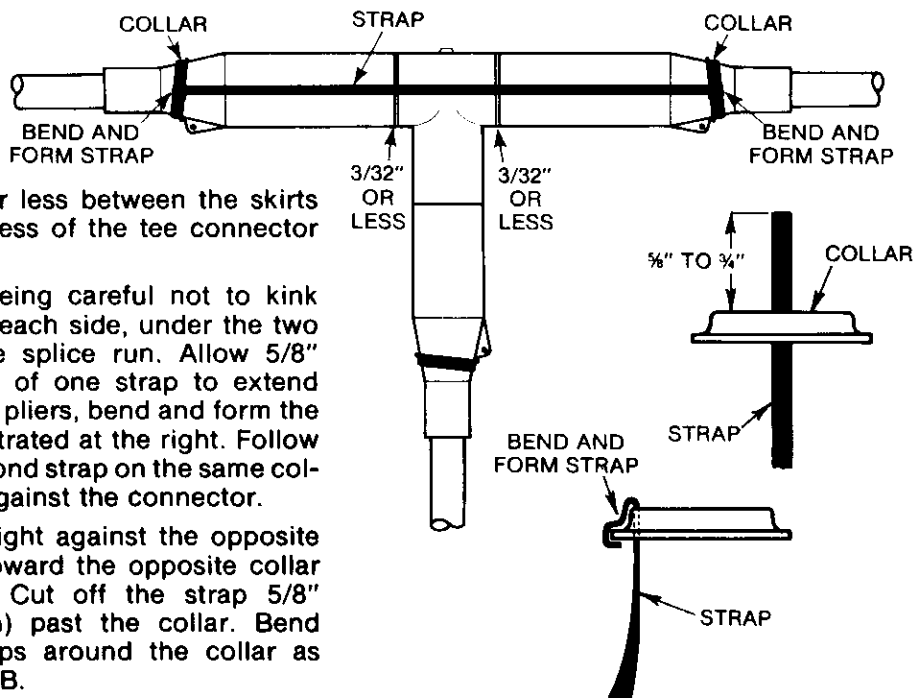
CAUTION: All associated apparatus must be de-energized during installation of this assembly.

FOR 150T or K150T TEE CONNECTOR



STEP 1.

Prepare the cables according to the installation instructions packed with the ELASTIMOLD connectors. Slip a collar, large end first, onto each connector. Now, install the cables into the connector and mate the connectors to the tee connector. Use a vent rod when mating each interface. Vent rods are supplied with the mating connectors.

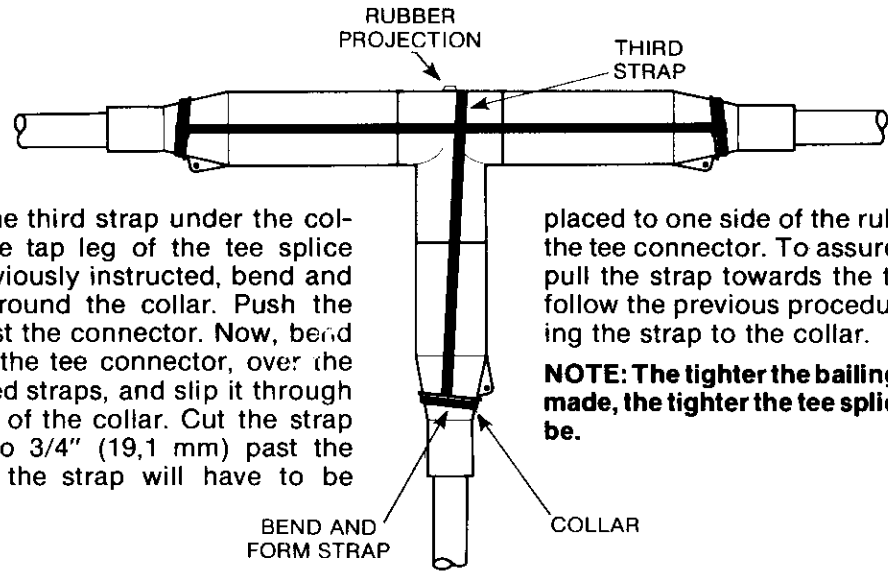


STEP 2.

A) A gap of 3/32" (2,4 mm) or less between the skirts of the connectors and the recess of the tee connector assures proper installation.

B) Unfold the three straps being careful not to kink them. Slip two straps, one on each side, under the two collars on the assembled tee splice run. Allow 5/8" (15,9 mm) to 3/4" (19,1 mm) of one strap to extend through the collar. Now, using pliers, bend and form the strap around the collar as illustrated at the right. Follow the same procedure for the second strap on the same collar. Push this assembly tight against the connector.

C) Push the opposite collar tight against the opposite connector. Pull both straps toward the opposite collar to assure a tight assembly. Cut off the strap 5/8" (15,9 mm) to 3/4" (19,1 mm) past the collar. Bend and form each of these straps around the collar as previously instructed in step 2B.



STEP 3.

Slip one end of the third strap under the collar located on the tap leg of the tee splice assembly. As previously instructed, bend and form the strap around the collar. Push the collar tight against the connector. Now, bend the strap around the tee connector, over the previously installed straps, and slip it through the opposite side of the collar. Cut the strap 5/8" (15,9 mm) to 3/4" (19,1 mm) past the collar. Note that the strap will have to be

placed to one side of the rubber projection on the tee connector. To assure a tight assembly, pull the strap towards the tee connector and follow the previous procedure used for securing the strap to the collar.

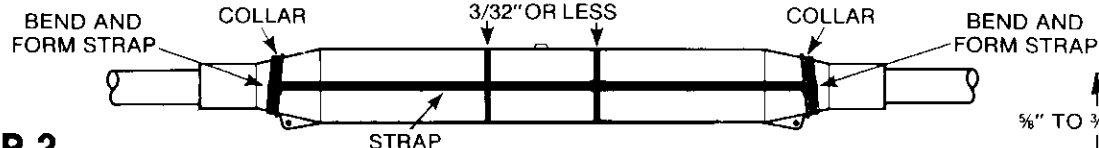
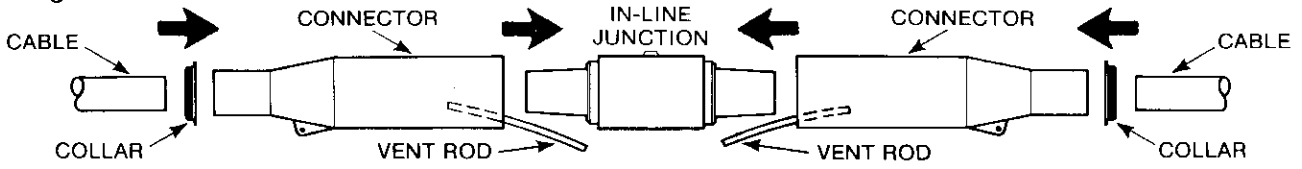
NOTE: The tighter the bailing assembly is made, the tighter the tee splice assembly will be.

FOR 150S or K150S IN-LINE JUNCTION

NOTE: For the 150S/K150S, only two of the three straps included in the assembly package are used.

STEP 1.

Prepare the cables according to the installation instructions packed with the ELASTIMOLD connectors. Slip a collar, large end first, onto each connector. Now, install the cables into the connectors and mate the connectors to the in-line junction. Use a vent rod when mating each interface. Vent rods are supplied with the mating connectors.



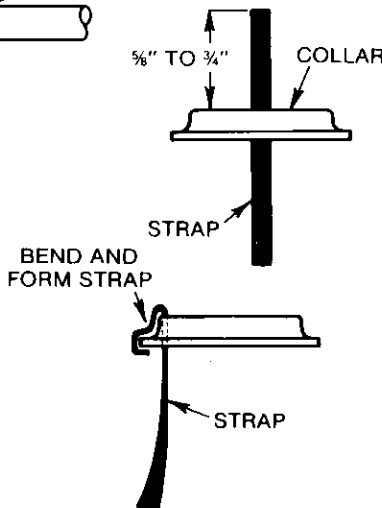
STEP 2.

A) A gap of 3/32" (2,4 mm) or less between the skirts of the connectors and the recess of the in-line junction assures proper installation.

B) Unfold the two straps, being careful not to kink them. Slip two straps, one on each side, under the two collars on the assembled splice run. Allow 5/8" (15,9 mm) to 3/4" (19,1 mm) of one strap to extend through the collar. Now, using pliers, bend and form the strap around the collar as illustrated at the right. Fol-

low the same procedure for the second strap on the same collar. Push this assembly tight against the connector.

C) Push the opposite collar tight against the opposite connector. Pull both straps toward the opposite collar to assure a tight assembly. Cut off the strap 5/8" (15,9 mm) to 3/4" (19,1 mm) past the collar. Bend and form each of these straps around the collar, as previously instructed in step 2B.



WARRANTY

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied: ELASTIMOLD® Electrical Distribution Products are warranted to perform with the recommended operational ratings when installed and used in accordance with applicable operating instructions. ELASTIMOLD'S liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material. In adjustment of any claims, inspection of the parts and the application will be required. This warranty is effective for two (2) years from the date of shipment by ELASTIMOLD.



AMERACE CORPORATION, P.O. BOX 503, NEWBURG ROAD, HACKETTSTOWN, NEW JERSEY, U.S.A. 07840. (201) 852-1122

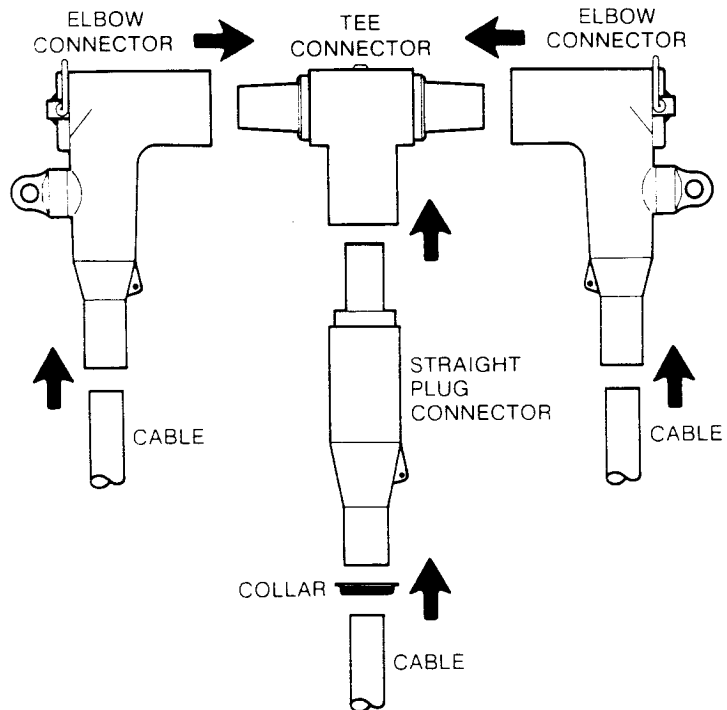
Installation Instructions 150TB-5 BAILING ASSEMBLY

CONTENTS: 1—Stainless steel strap, 1—Stainless steel collar, 2—Stainless steel bail connectors.

CAUTION: All associated apparatus should be de-energized during installation of this assembly.

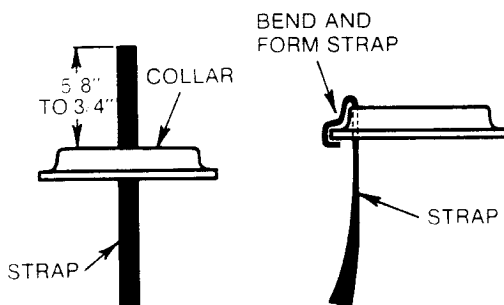
STEP 1.

Prepare the cables according to the installation instructions packed with the Elastimold connectors. Slip the collar, large end first, onto the straight plug connector. Now, install the cables into the connectors and mate the connectors to the tee connector.

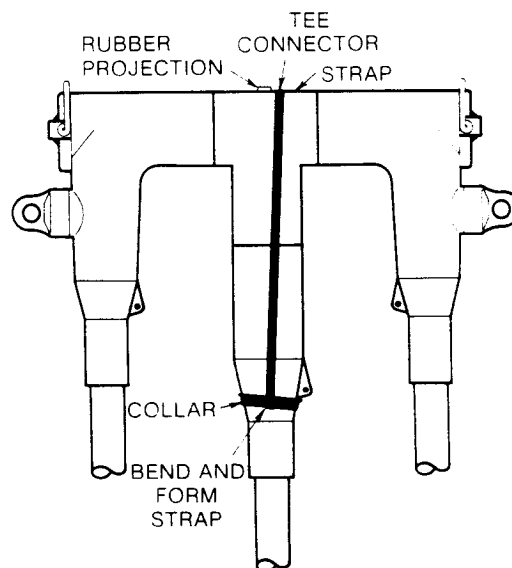


STEP 2.

A) Unfold the strap being careful not to kink it. Slip one end of the strap under the collar so that 5/8" to 3/4" extends through the collar. Now, using pliers, bend and form the strap around the collar as illustrated.

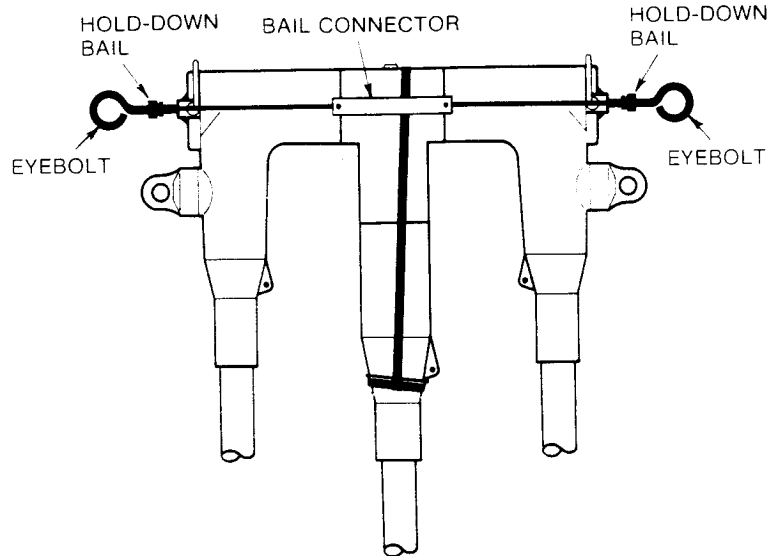


B) Bend the strap over the tee connector and slip the free end under the opposite side of the collar. Note that the strap will have to be placed to one side of the rubber projection on the tee connector. Cut the strap 5/8" to 3/4" past the collar. To assure a tight assembly, pull the strap towards the tee connector and bend the strap around the collar as previously instructed in Step 2A.



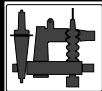
STEP 3.

Position the hold-down bails which are supplied with the elbow connector kits over the elbows and then connect them by using the bail connectors. Tighten the eyebolts on each bail to secure the assembly.



WARRANTY

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, expressed or implied: ELASTIMOLD® Electrical Distribution Products are warranted to perform with the recommended operational ratings when installed and used in accordance with applicable operating instructions. ELASTIMOLD'S liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material. In adjustment of any claims, inspection of the parts and the application will be required. This warranty is effective for two (2) years from the date of shipment by ELASTIMOLD.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

Cable Entrance Insulating Plug

ELASTIMOLD PART NUMBER

152EA-W

Application:

The ELASTIMOLD 152EA cable entrance insulating plug is designed to electrically insulate and water seal the cable entrances of the following ELASTIMOLD products:

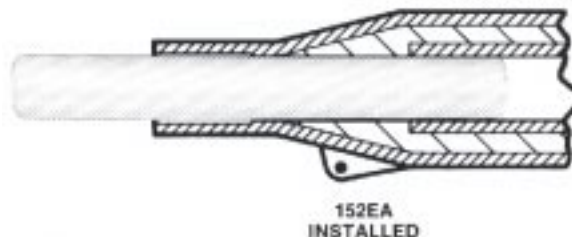
K151SP straight plug
K151SR straight receptacle

The 152EA insulating plug essentially provides an electrically and mechanically sound dead-end cable entrance on any of the above products.

The normal function of the above products can be changed temporarily or permanently with the use of the 152EA and then can be restored by simply removing the 152EA and replacing it with a cable. Using the 152EA provides system flexibility by eliminating the need for certain operating accessory products and the product needed to terminate a future cable installation is already in place.

Ordering Instruction:

To order, specify number **152EA-W**. The 152EA cable entrance insulating plug is available for the following Elastimold connector cable entrance size EB, EF, FA, FAB, FB, FG, GA, GAB, GB, GH and HA.



Step 1 (W)
152EA –

Cable Insulation Dia. Range		Housing
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB
.930 - 1.040	23,6 - 26,4	GH
.980 - 1.115	24,9 - 28,3	HA

The **152EA-W** cable entrance insulating plug includes the following:

1 – Insulated plug	152EA-W
1 – Lubricant	82-08
1 – Installation instruction	IS-152EA (D) 7/93

Installation Instructions 152EA Cable Entrance Insulating Plug

CONTENTS: Cable Entrance Insulating Plug, Lubricant (Do Not Substitute), Nylon Venting Rod, Installation Instructions.

The 152EA is designed for insulating a cable entrance of an Elastimold 25S, 25Y, and 1601CL. Verify that the product cable entrance and the insulating plug sized correspond.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

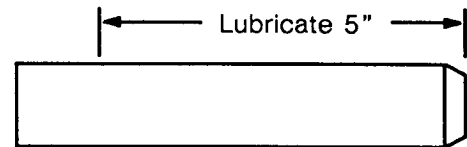
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Lightly lubricate the cable entrance insulating plug for a distance of approximately 5" from the chamfered end. Use the supplied lubricant. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating product(s).

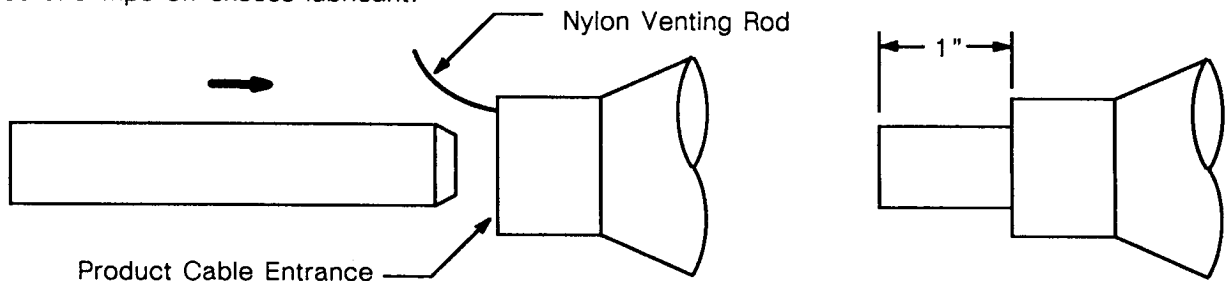


KEEP INSULATING PLUG CLEAN AT ALL TIMES

STEP 2

If the nylon venting rod is not required for installation of the product (refer to installation instructions packaged with the product), disregard the sentences referring to its use.

Insert nylon venting rod approximately 6" into the product cable entrance. Using a twisting motion, push the insulating plug into the product cable entrance until 1" remains protruding from the end of the cable entrance. Remove the nylon venting rod and wipe off excess lubricant.

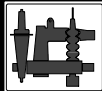


IS-0347

IS-152EA (Rev D)
1 July 1993
Printed in U.S.A.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.



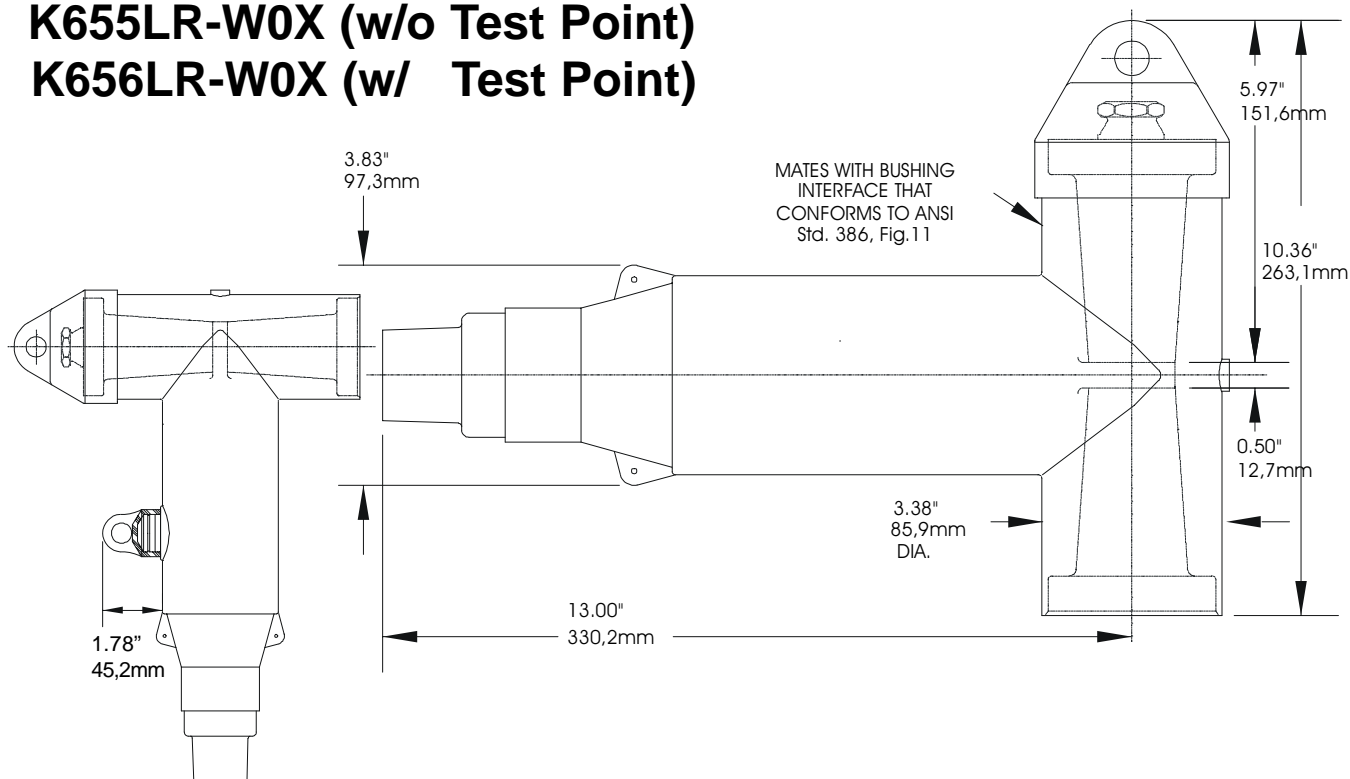
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25kV 600A Deadbreak Elbow

ELASTIMOLD PART NUMBER

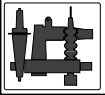
K655LR-W0X**K655LR-W0X (w/o Test Point)****K656LR-W0X (w/ Test Point)**

Application:

The K655LR (without test point) and the K656LR (with test point) are designed to provide fully-shielded, dead-front submersible cable connections to high-voltage apparatus. The K655LR/K656LR can be used through 25 kV with conductor range from 1/0 to 1000 kcmil for aluminum and copper conductors and insulation diameters from .640 " to 1.935 ". When used on metallic tape shield or drain wire cable, a 20MA or 21MA grounding device or an ECS cable seal is recommended.

Ratings:

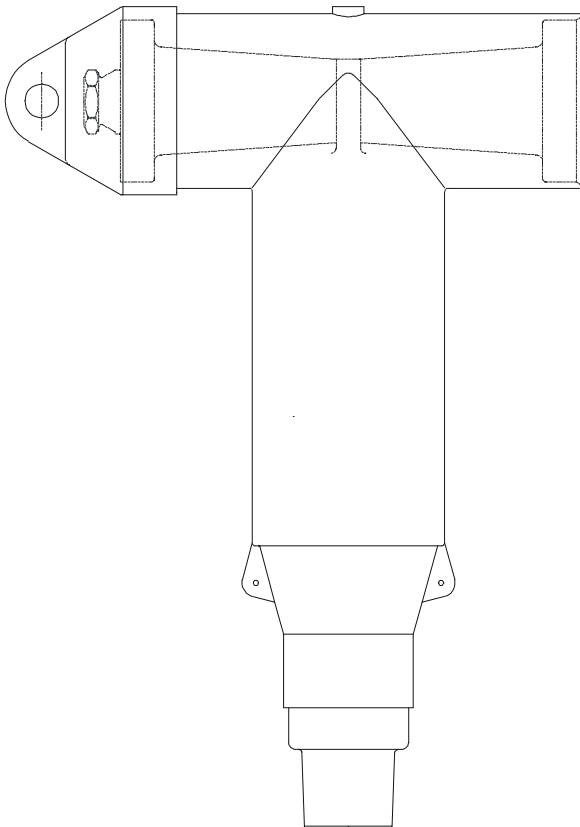
Exceeds ANSI/IEEE Standard 386
 25kV Voltage Class
 16.2kV Max Phase-to-Ground - Operating Voltage
 28kV Max Phase-to-Phase
 140kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 45kV AC - One minute Withstand
 84kV DC - 15 Minutes Withstand
 21.5kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current



15/25kV 600A Deadbreak Elbow

K655LR-W0X K656LR-W0X

Ordering Instruction:

**Step 1**

Specify K655LR without test point or K656LR with test point.

Step 2 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter from table 1. Insert code into catalog number.

Step 3 (X)

Choose the proper compression lug code according to the conductor size from table 2. Insert code into the catalog number .

or **K655LR** - - **0**
K656LR - -

Cable Insulation Dia. Range		Elbow Code
Inches	mm	
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P

Table 1

Conductor Size* (AWG or kcmil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	370	350
750	380	360
800	390	360
900	400	390
1000	410	400

*Cu or Al conductor

Table 2

The 600A elbow (without test point) Connector kit contains the following:

1 - Elbow connector housing	K655BLR
1 - Stud	650SA
1 - Compression lug	03700XXX (Table 1)
1 - Insulated Plug (w/cap)	K650BIP
3 - Tube, lubricant	82-08
1 - Cable adapter	655CA-W (Table 2)
1 - Installation instruction	IS-655LR 10/97
1 - Crimp chart	IS-03700CC 5/98

Example:

The ordering number for a 600A deadbreak elbow without test point for a 4/0 stranded, 175 mil wall cable with an insulation diameter of .940" (23.4 mm) is K655LR-H-0270.

Installation Instructions 655/675LR and K655/K675LR Elbow Connectors

CONTENTS: Elbow, Cable Adapter, Compression Lug, Insulating Plug, Lubricant, Stud Prepack, Crimp chart, Installation Instructions.

The 655/675LR and K655/K675LR connectors are designed to: 1) provide fully shielded, fully submersible deadfront cable connections to high voltage apparatus and 2) provide a means to splice and tap 600- -ampere (655/K655LR) or 900- -ampere (675/K675LR) systems. The connectors are rated for use on 15kV and 25kV class systems respectively.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

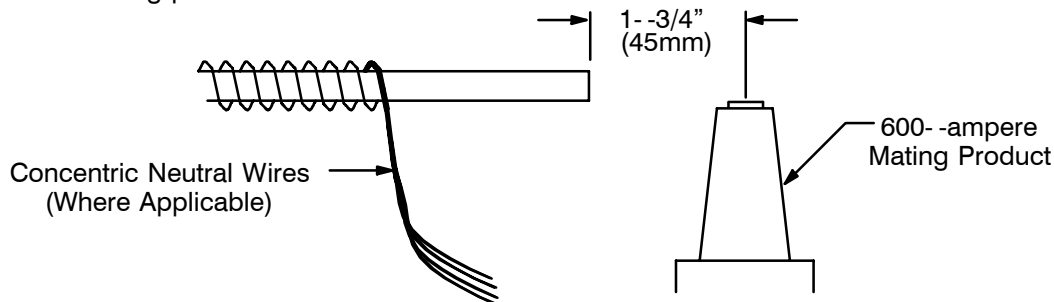
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
 2. Check all components to insure proper fit with cable and/or mating products.
 3. Read entire installation instructions before starting.
 4. Have all required tools at hand and maintain cleanliness throughout the procedure.
-

GENERAL INSTRUCTIONS

STEP 1

Position the cable so it is located in the final assembled position with enough slack to provide adequate clearance for removing the elbows. For concentric neutral cable, unwind the concentric neutral wires. Cut the cable 1-3/4" (45mm) from center line of the mating product.



STEP 2

Clean the outer surface of the cable a distance of 24" (610mm) or up to the bent back concentric neutral wires.



STEP 3 CABLE PREPARATION Follow the STEPS A, B or C that apply to the cable being prepared.

A. If a 20MA or 21MA grounding device or 600ECS Jacket Cable Seal is being used, refer to the Installation Instructions supplied with those products for removal of cable outer jacket, shield connection and grounding.

B. UNISHIELD* AND LEAD SHEATH CABLE

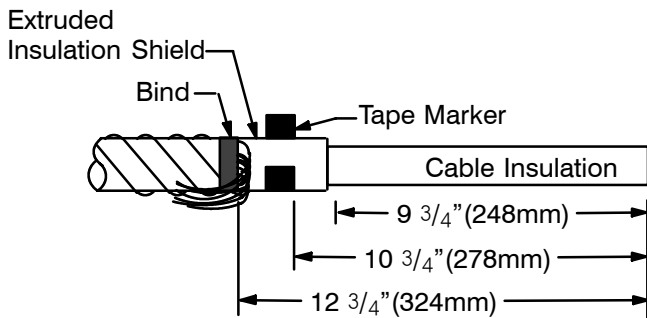
For UNISHIELD* or LEAD SHEATH cable a 10TL cable shield adapter is required. Refer to the Installation Instructions supplied with the 10TL cable shield adapter for cable preparation.

*Unishield is a registered Trade Mark of ANACONDA WIRE and CABLE COMPANY.

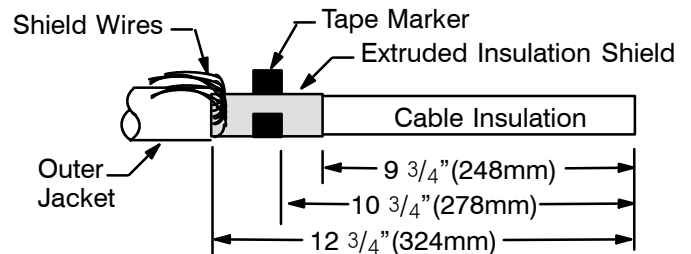
C. JACKETED AND NON-JACKETED CABLE

Remove the outer jacket (where applicable) and prepare cable as shown.

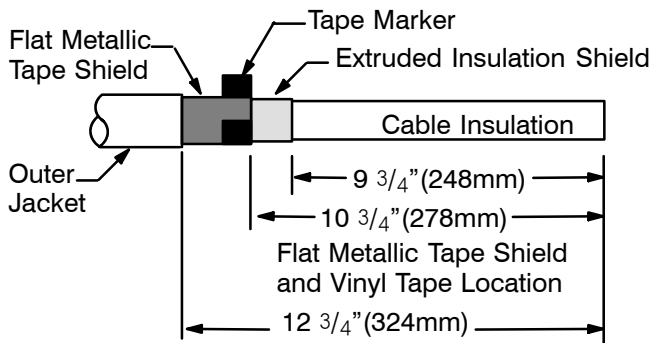
1. NON-JACKETED CONCENTRIC NEUTRAL WIRES



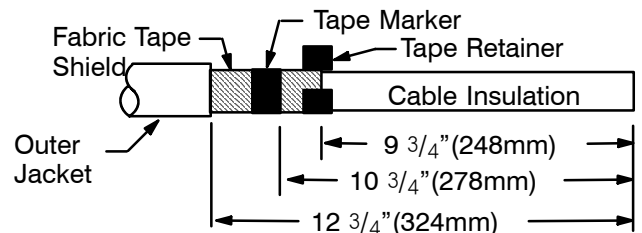
2. JACKETED SHIELD WIRES



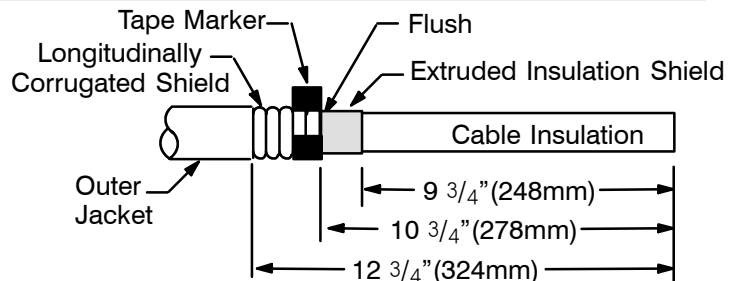
3. JACKETED FLAT METALLIC TAPE SHIELD



4. JACKETED FABRIC TAPE SHIELD

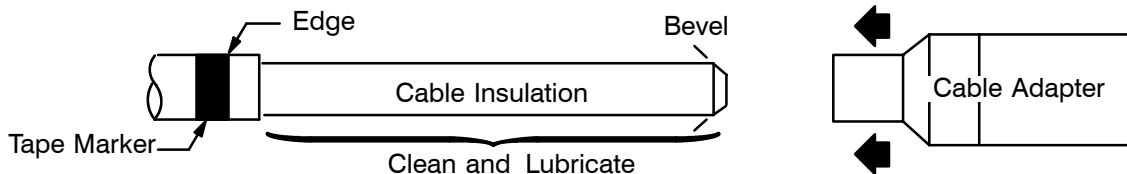


5. JACKETED LONGITUDINALLY CORRUGATED SHIELD



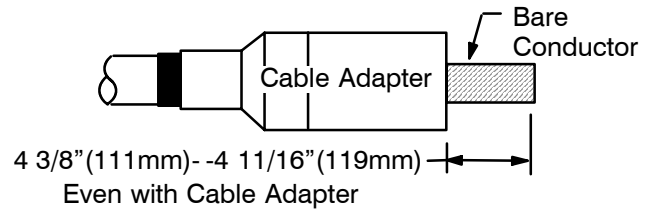
STEP 4 CABLE ADAPTER

Bevel the end of the cable insulation at a 45° angle, approximately 1/4" (6mm) back. Thoroughly clean, then lubricate cable insulation always working toward cable insulation shield. Install cable adapter, small end first, until it is flush with the edge of the tape marker.



STEP 5 CONDUCTOR

Remove the protruding cable insulation by cutting it even with the end of the cable adapter. Do not cut or nick the cable adapter or the conductor. The length of exposed conductor should be between 4 3/8" to 4 11/16". Otherwise redo assembly.

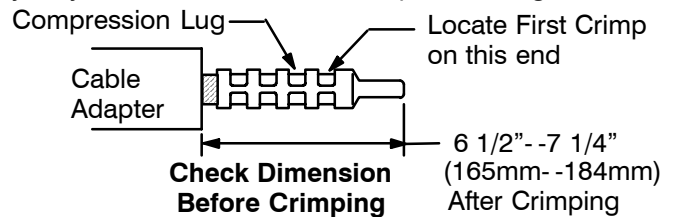


STEP 6 COMPRESSION LUG

Copper Conductor: Fully insert conductor into compression Lug.

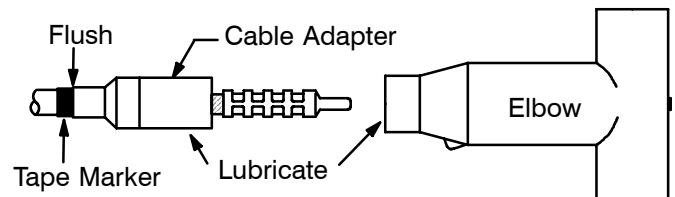
Aluminum Conductor: Wire brush conductor and immediately fully insert conductor into compression lug.

Measure the "Check Dimension" before crimping. This dimension should be less than 6 1/2" otherwise redo assembly. Crimp the compression lug following the crimping instructions supplied with the lug. Wipe all excess inhibitor from compression lug and cable adapter surface after crimping. The distance from the end of the compression lug to the cable adapter after crimping should be between 6 1/2" to 7 1/4" (165mm - 184mm). Otherwise redo assembly.



STEP 7 ELBOW

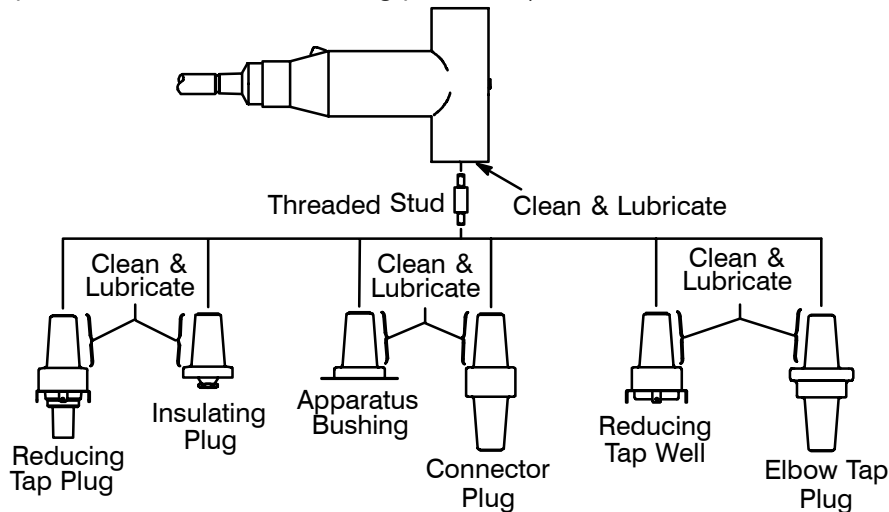
Lubricate cable adapter and inside of elbow cable entrance. Install elbow onto cable adapter until the elbow can not advance further. Make sure cable adapter is still flush with tape marker. If not, reposition cable adapter. Remove tape marker.



STEP 8 MATING PRODUCTS

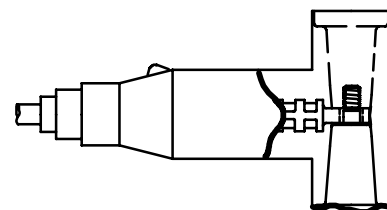
**DO NOT CONNECT OR DISCONNECT MATING PRODUCTS WHILE ENERGIZED.
 DO NOT ENERGIZE WHILE DISCONNECTED.**

Remove protective caps from the elbow and the mating part. Hand tighten the threaded stud supplied with the elbow into mating part, if the mating part is not equipped with a stud. Clean and lubricate both the elbow and the mating part with lubricant supplied. (Keep surfaces of elbow and mating part clean.)



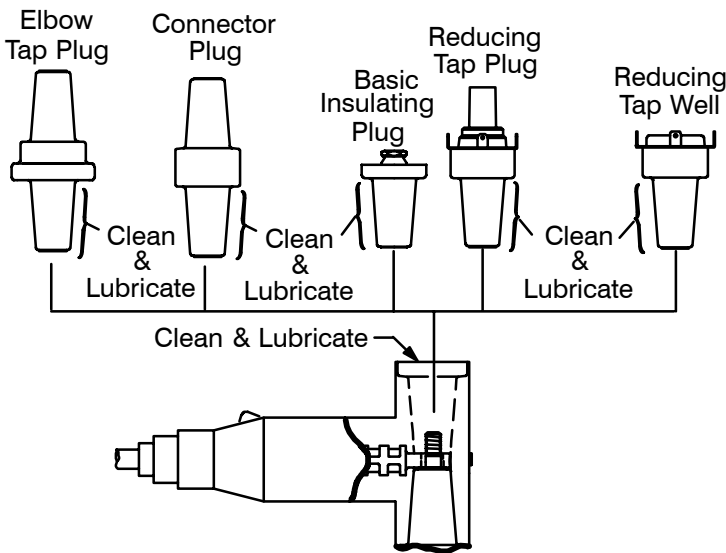
STEP 9

Push elbow onto mating part, lining up the hole in the compression lug with the stud on the mating part.



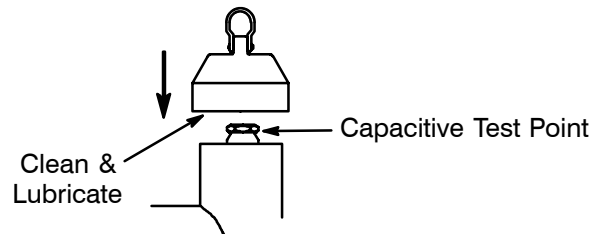
STEP 10

Clean and lubricate the mating part for the opposite end of the elbow. Insert the mating part into the elbow. Engage the threads and hand tighten. Torque mating part according to the instructions supplied with the mating part.



STEP 11

If an insulating plug is used as a mating part, clean and lubricate inner surface of the voltage detection cap and place on elbow. Push down hard until cap snaps into place. Follow voltage test directions below.

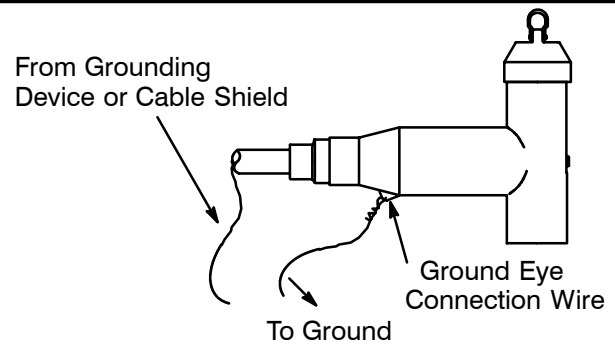


STEP 12

Insert one end of a piece of wire with ampacity at least equivalent to No. 14 AWG Copper through the grounding eye and twist to make a small loop. Do Not damage the eye. Connect wire to ground using a suitable connector.

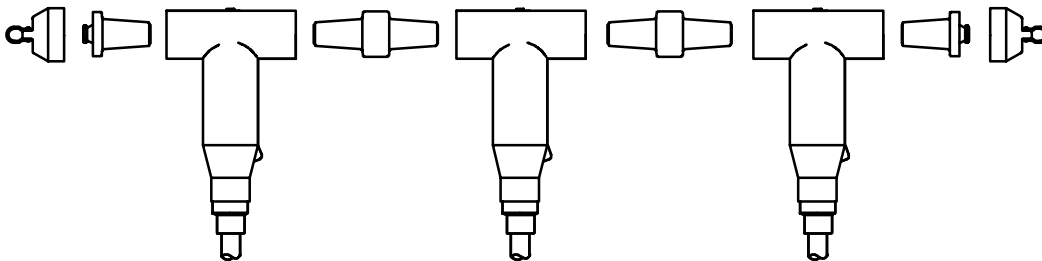
The shield of the cable must be grounded. Ground according to the instructions supplied with the grounding device. If no grounding device is used, the shield must be grounded through an alternate method.

It is also recommended that the jacket of the cable be waterproofed at this point to prevent moisture from entering the cable.



STEP 13

CAUTION: When constructing 600amp L- -Kits be sure to tighten each component to specified torque per instructions provided.



VOLTAGE TEST

The ELASTIMOLD elbow connector is equipped with a integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
CAUTION: The voltage test point is a capacitance device; it is not directly connected to the conductor. It requires the use of specially designed instruments. DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT; NO INDICATION WILL BE OBTAINED.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT. WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED ELBOW. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE ELBOW AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.**
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.

CRIMPING TOOLS & DIES RECOMMENDED FOR ELASTIMOLD 600AMP COMPRESSION CONNECTORS

ELASTIMOLD Symbol 03700XXX	Connector O.D.	Conductor Size Aluminum or Copper			T&B		Burndy			Kearney			CSA	
		Stranded Concentric Round	Compact	Solid	12 & 15 Ton	40 Ton	Die Index	Tool Y35 Dies	Tool Y45L* Dies	Tool Y48B Dies	Tool H-1 Dies	Tool H-2 Dies	Tool H-25 Dies	Die No.
180	.625"	6	5	5	54H	54	243 BG 14	U243 (2) UBG (3) U27RT (3)	U243 (2) UBG (3) U27RT (3)	—	9/16 (3) 572 (2)	9/16 (3) 572 (2)	—	22(2)
190	.850"	5	4	4	71H	71	298	U28ART (3)	U28ART (3)	C28AR (2)	840 (4)	840 (4)	—	24
200	.850"	4	3	3										
220	.850"	2	1	1										
230	.850"	1	1/0	1/0										
240	.850"	1/0	2/0	2/0										
250	.850"	2/0	3/0	3/0										
260	.850"	3/0	4/0	4/0										
270	.850"	4/0	250	—	66H	66								
280	1.152"	250	300	—	94H	94	299	U31ART (2)	U31ART (2)	C31AR (1)	—	—	—	—
290	1.152"	300	350	—										
300	1.152"	350	400	—										
310	1.320"	400	450/500	—	106H	106	300 M	U34ART (4)	U34ART (4)	C34AR (2)	—	1-5/16 (3)	1-5/16 (3)	—
320	1.320"	450	500/550	—										
330	1.320"	500	600	—										
340	1.320"	550	650	—										
350	1.320"	600	700	—										
360	1.320"	650	750/800	—										
380	1.620"	700/750	900	—	—	130	301 608	—	S39ART (6)***	C39AR (2) C608 (2)	—	—	1-1/2 (2)	32
390	1.620"	800	900	—										
400	1.840"	900	1000	—	—	150	302 292	—	S44ART (6)*** S292 (6)***	C44AR (2) C292	—	—	1-3/4 (2)	34
410	1.840"	1000	—	—										
420	1.840"	1100	—	—										
440	1.840"	1250	—	—										
470 **	2.250"	1500	—	—	—	187	478	—	—	C46AR(2)	—	—	2-1/4(2)	—

* U Dies require adapter No.6515.

** For 750BLR only.

*** Note: Certain cable constructions may cause excessive conductor/connector growth, check installation instructions for max. check dimension. If growth is excessive reduce the number of crimps to 4 min.

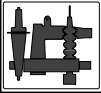
() Number of crimps (Minimum) without overlapping.

Rotate each successive crimp 90° or 180° to prevent excessive distortion.

Wire brush bared aluminum conductor before inserting into conductor contact.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



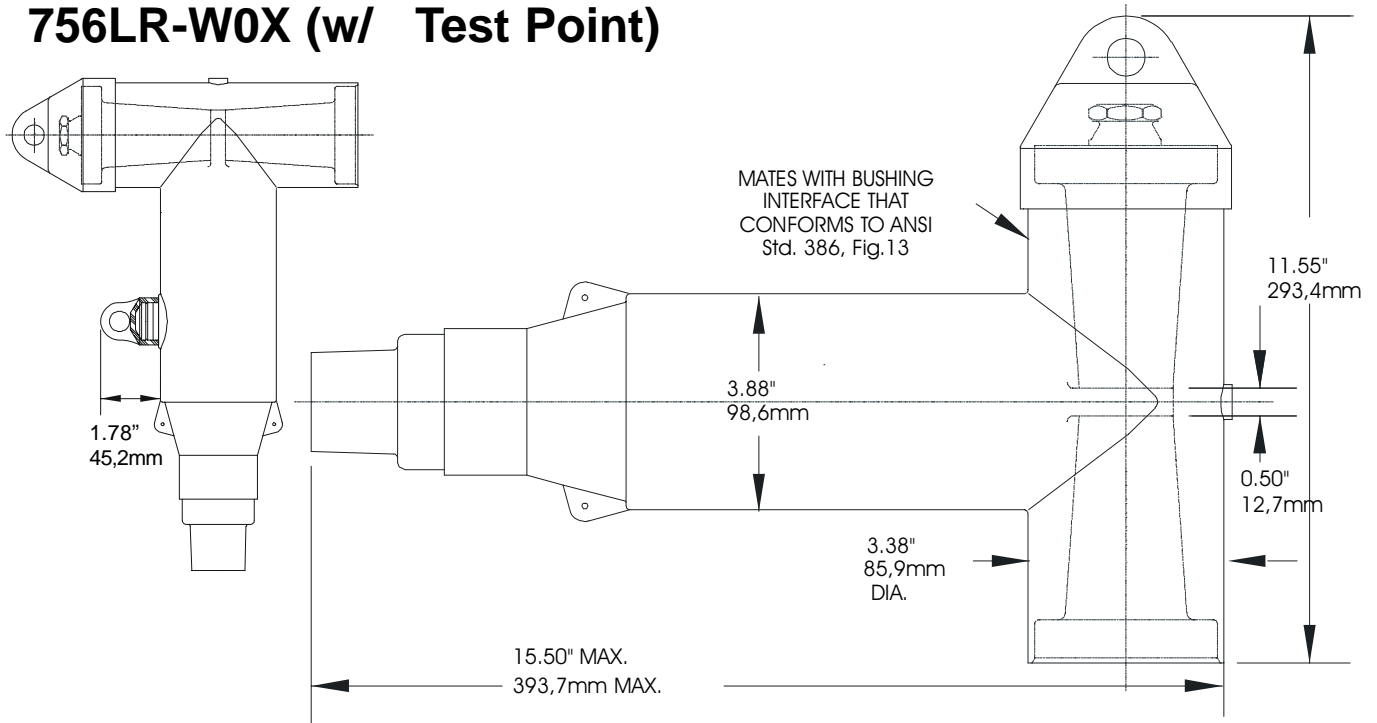
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

35kV 600A Deadbreak Elbow

ELASTIMOLD PART NUMBER

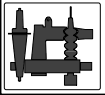
755LR-W0X**755LR-W0X (w/o Test Point)****756LR-W0X (w/ Test Point)**

Application:

The 755LR (without test point) and 756LR (with test point) are designed to provide fully-shielded, deadfront submersible cable connections to high-voltage apparatus. The 755LR and 756LR can be used through 35 kV with conductor range from 1/0 to 1000 kcmil for aluminum and copper conductors and insulation diameters from .640 " to 1.935 ". When used on metallic tape shield or drain wire cable, a 20MA or 21MA grounding device or an ECS cable seal is recommended.

Ratings:

per ANSI/IEEE Standard 386
 35kV Voltage Class
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current



35kV 600A Deadbreak Elbow

755LR-W0X 756LR-W0X

Ordering Instruction:

Step 1

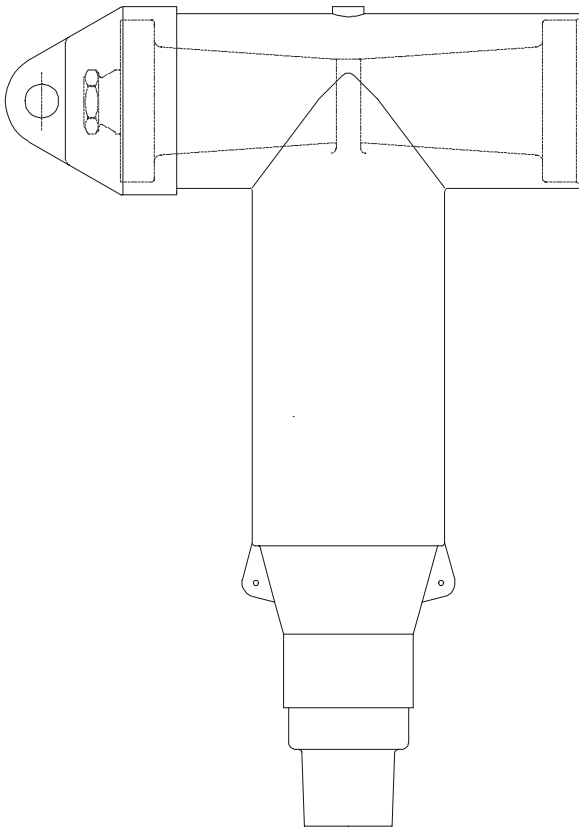
Specify K655LR without test point or K656LR with test point.

Step 2 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter from table 1. Insert code into catalog number.

Step 3 (X)

Choose the proper compression lug code according to the conductor size from table 2. Insert code into the catalog number.



or **K755LR** – Step 2 (W) – **0** – Step 3 (X)
K756LR – –

Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P
1.900 - 2.120	48,3 - 53,9	Q

Table 1

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	370	350
750	380	360
800	390	360
900	400	390
1000	410	400

*Cu or Al conductor

Table 2

The 600A elbow connector kit contains the following:

1 – Elbow connector housing	755BLR or 756BLR
1 – Stud	750SA
1 – Cable adapter	755CA-W (table 1)
1 – Bi-metal compression lug	03700XXX (table 2)
1 – Insulated Plug (w/cap)	750BIP
4 – Tube, lubricant	82-08
1 – Installation instruction	IS-Plug 3/91
1 – Installation instruction	IS-755LR 10/97
1 – Crimp chart	IS-03700CC 5/98

Example:

The ordering number for a 600A deabreak elbow without test point for a 500MCM stranded, 345 mil wall cable with an insulation diameter of .940" (23.4 mm) is 755LR-M-0330.

Installation Instructions 755/775LR Elbow Connectors

CONTENTS: Elbow, Cable Adapter, Compression Lug, Insulating Plug, Lubricant, Stud Prepack, Installation Instructions, Crimp chart.

The 755/775LR connectors are designed to: 1) provide fully shielded, fully submersible deadfront cable connections to high voltage apparatus and 2) provide a means to splice and tap 600- -ampere (755LR) or 900- -ampere (775LR) systems. The connectors are rated for use on 35kV class systems.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

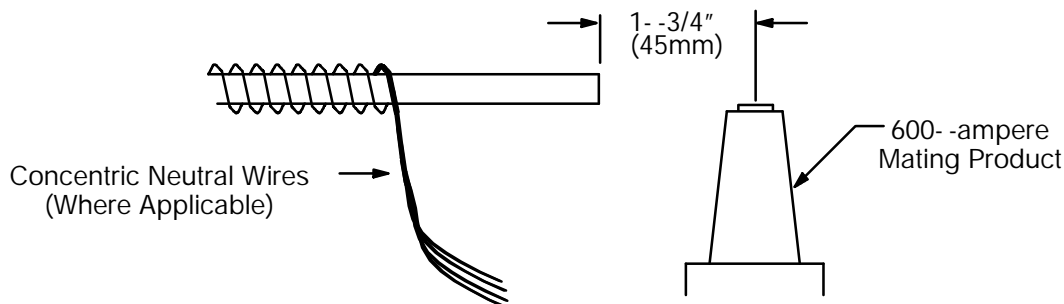
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

GENERAL INSTRUCTIONS

STEP 1

Position the cable so it is located in the final assembled position with enough slack to provide adequate clearance for removing the elbows. For concentric neutral cable, unwind the concentric neutral wires. Cut the cable 1- -3/4" (45mm) from center line of the mating product.



STEP 2

Clean the outer jacket of the cable a distance of 24" (610mm).

STEP 3 CABLE PREPARATION **NOTE:** Follow the STEPS A, B or C that apply to the cable being prepared.

A.

If a 20MA or 21MA grounding device or 600ECS Jacket Cable Seal is being used, refer to the Installation Instructions supplied with those products for removal of cable outer jacket, shield connection and grounding.

B. UNISHIELD* AND LEAD SHEATH CABLE

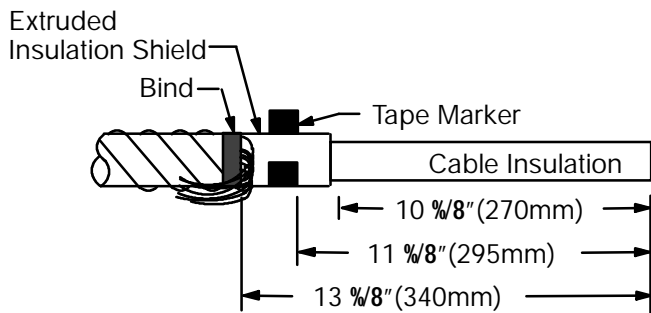
For UNISHIELD* or LEAD SHEATH cable a 10TL cable shield adapter is required. Refer to the Installation Instructions supplied with the 10TL cable shield adapter for cable preparation.

**Unishield is a registered Trade Mark of ANACONDA WIRE and CABLE COMPANY.*

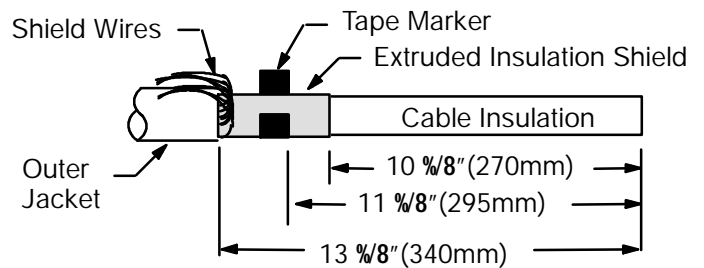
C. JACKETED AND NON--JACKETED CABLE

Remove the outer jacket (where applicable) and prepare cable as shown.

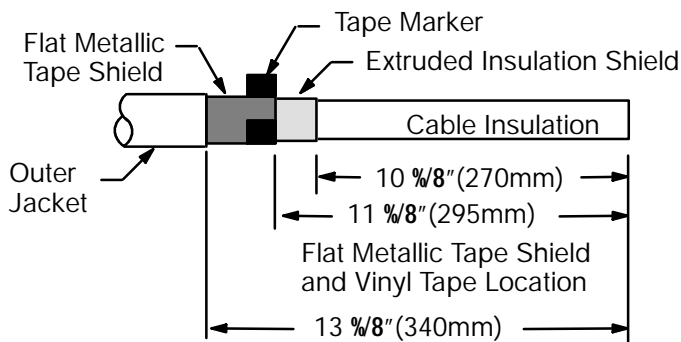
1. NON--JACKETED CONCENTRIC NEUTRAL WIRES



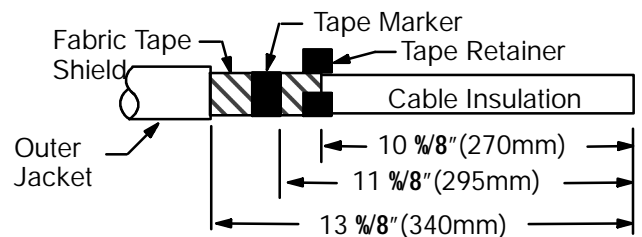
2. JACKETED SHIELD WIRES



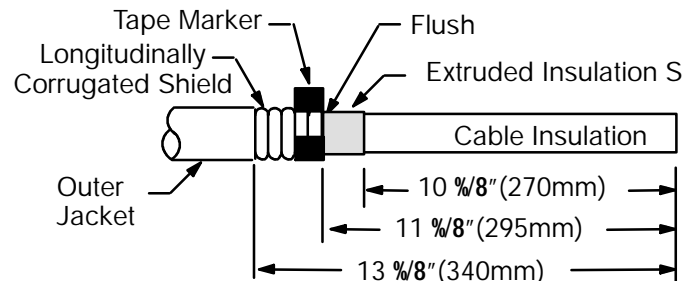
3. JACKETED FLAT METALLIC TAPE SHIELD



4. JACKETED FABRIC TAPE SHIELD

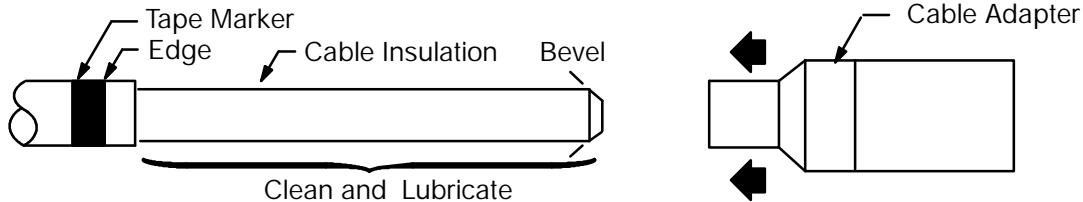


5. JACKETED LONGITUDINALLY CORRUGATED SHIELD



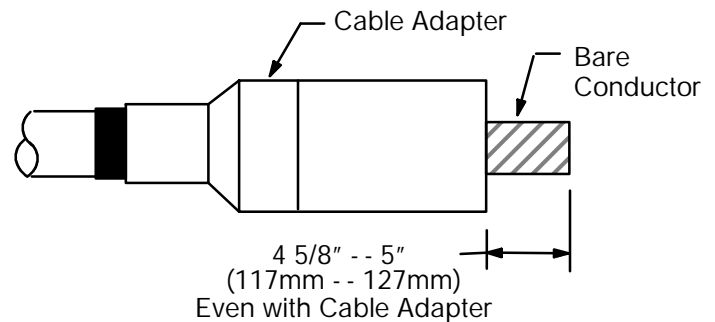
STEP 4 CABLE ADAPTER

Bevel the end of the cable insulation at a 45° angle, approximately 1/4" (6mm) back. Thoroughly clean, then lubricate cable insulation always working toward cable insulation shield. Install cable adapter, small end first, until it is flush with the edge of the tape marker.



STEP 5 CONDUCTOR

Remove the protruding cable insulation by cutting it even with the end of the cable adapter. Do not cut or nick the cable adapter or the conductor. The length of exposed conductor should be between 4 5/8" to 5" (117mm-127mm). Otherwise redo assembly.

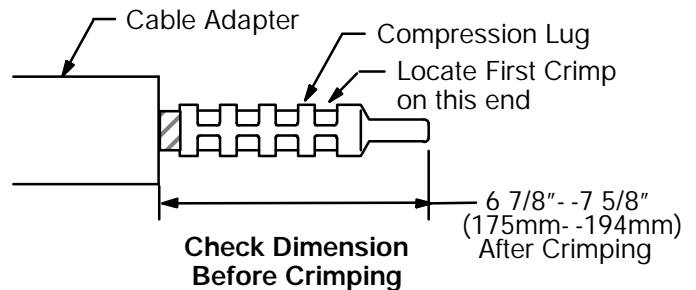


STEP 6 COMPRESSION LUG

Copper Conductor: Fully insert conductor into compression Lug.

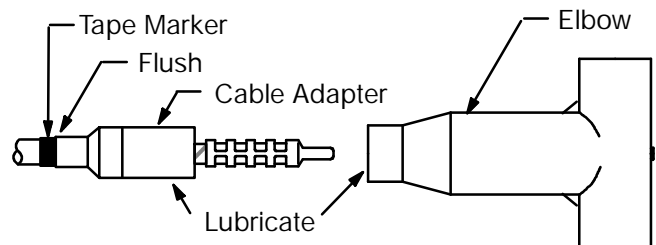
Aluminum Conductor: Wire brush conductor and immediately fully insert conductor into compression lug.

Measure the "Check Dimension" before crimping. This dimension should be less than 6 7/8" (175mm) otherwise redo assembly. Crimp the compression lug following the crimping instructions supplied with the lug. Wipe all excess inhibitor from compression lug and cable adapter surface after crimping. The distance from the end of the compression lug to the cable adapter after crimping should be between 6 7/8" to 7 5/8" (175mm - 194mm). Otherwise redo assembly.



STEP 7 ELBOW

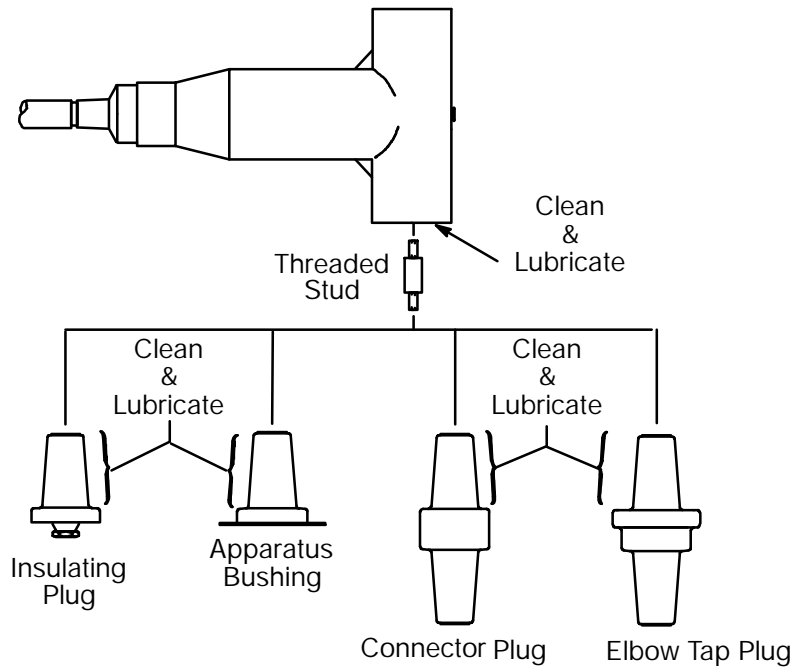
Lubricate cable adapter and inside of elbow cable entrance. Install elbow onto cable adapter until the elbow can not advance further. Make sure cable adapter is still flush with tape marker. If not, reposition cable adapter. Remove tape marker.



STEP 8 MATING PRODUCTS

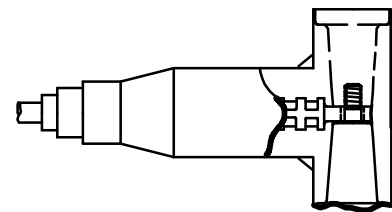
**DO NOT CONNECT OR DISCONNECT MATING PRODUCTS WHILE ENERGIZED.
DO NOT ENERGIZE WHILE DISCONNECTED.**

Remove protective caps from the elbow and the mating part. Hand tighten the threaded stud supplied with the elbow into mating part, if the mating part is not equipped with a stud. Clean and lubricate both the elbow and the mating part with lubricant supplied. (Keep surfaces of elbow and mating part clean.)



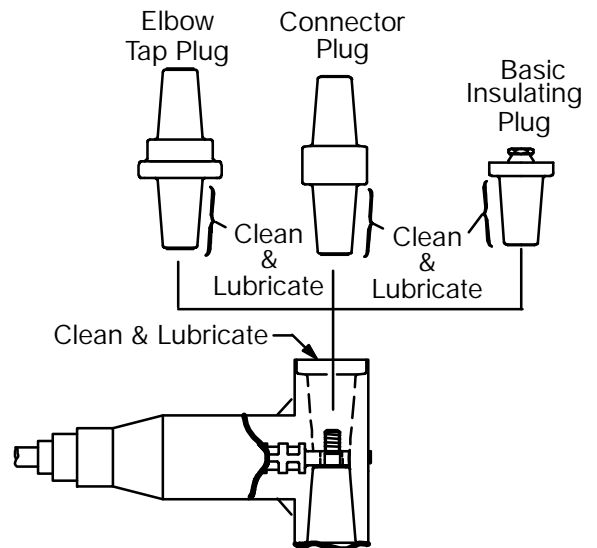
STEP 9

Push elbow onto mating part, lining up the hole in the compression lug with the stud on the mating part.



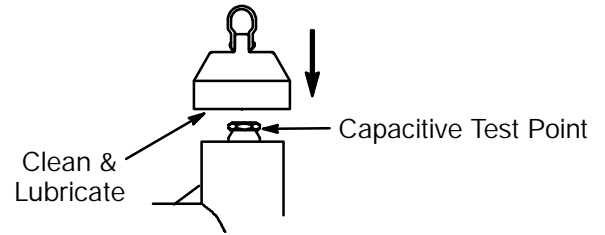
STEP 10

Clean and lubricate the mating part for the opposite end of the elbow. Insert the mating part into the elbow. Engage the threads and hand tighten. Torque mating part according to the instructions supplied with the mating part.



STEP 11

If an insulating plug is used as a mating part, clean and lubricate inner surface of the voltage detection cap and place on elbow. Push down hard until cap snaps into place.

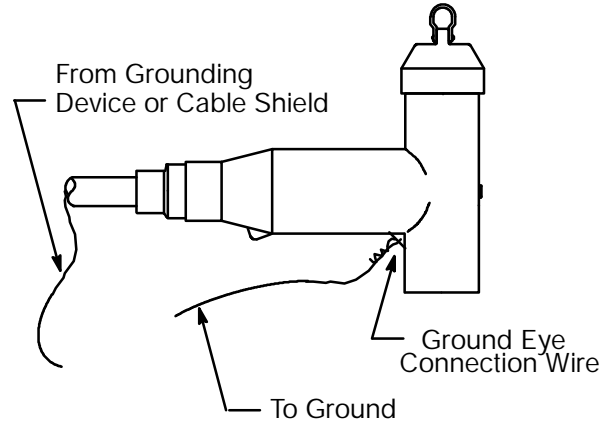


STEP 12

Insert one end of a piece of wire with ampacity at least equivalent to No. 14 AWG Copper through the grounding eye and twist to make a small loop. Do Not damage the eye. Connect wire to ground using a suitable connector.

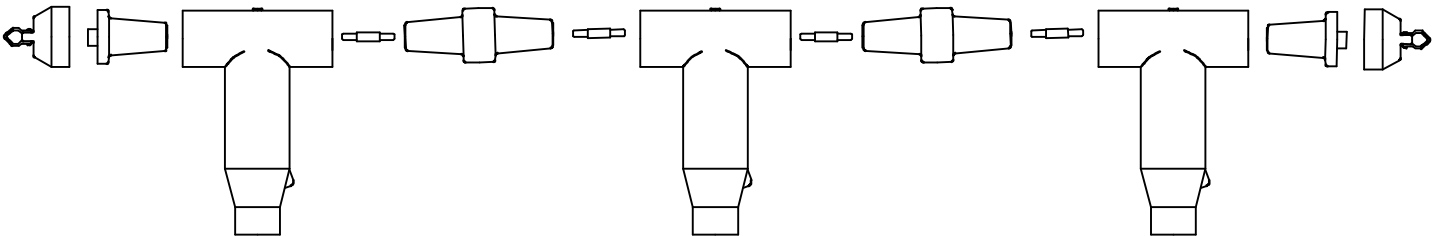
The shield of the cable must be grounded. Ground according to the instructions supplied with the grounding device. If no grounding device is used, the shield must be grounded through an alternate method.

It is also recommended that the jacket of the cable be waterproofed at this point to prevent moisture from entering the cable.



STEP 13

CAUTION: When constructing 600amp L- Kits be sure to tighten each component to specified torque per instructions provided with plug connectors



VOLTAGE TEST

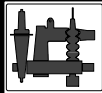
The ELASTIMOLD elbow connector is equipped with a integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
CAUTION: The voltage test point is a capacitance device; it is not directly connected to the connector. It requires the use of specially designed instruments. DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT; NO INDICATION WILL BE OBTAINED.
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT. WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED ELBOW. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE ELBOW AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.**
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

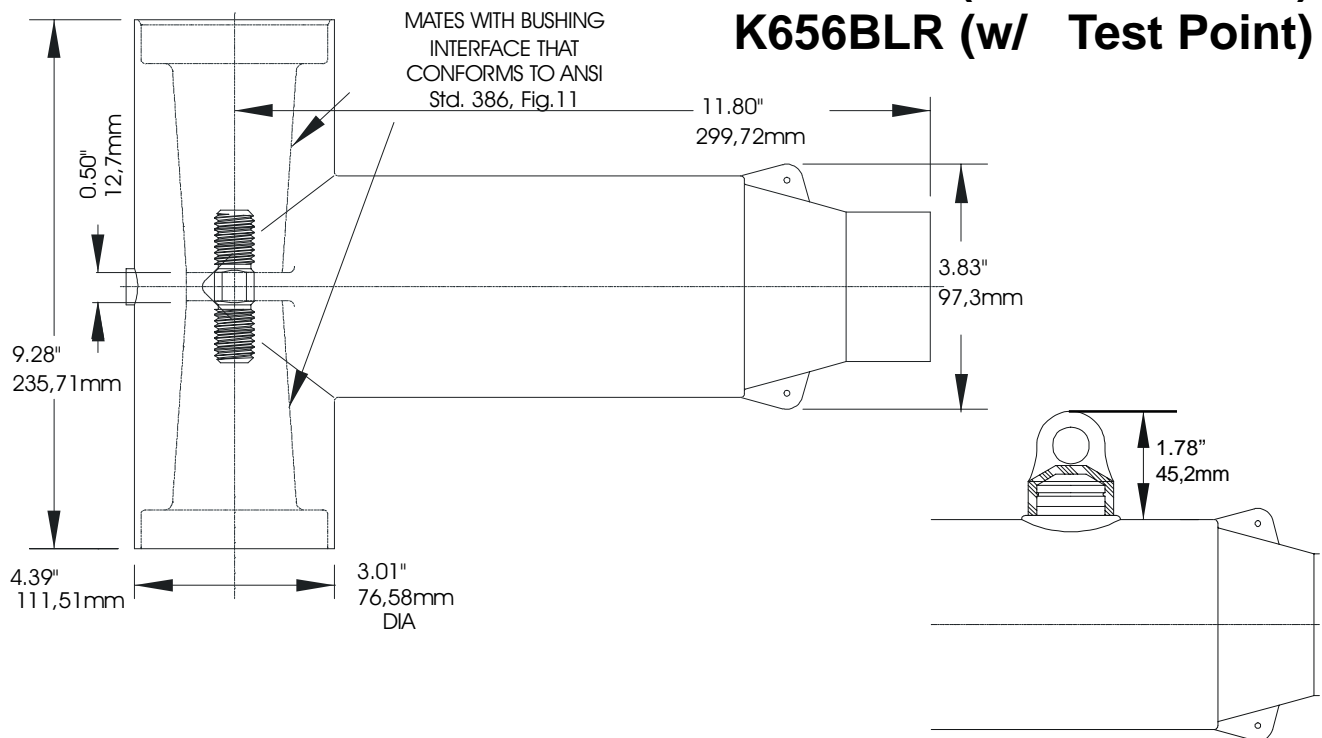


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 600A Deadbreak Elbow Housing

ELASTIMOLD PART NUMBER

K655BLR**K655BLR (w/o Test Point)****K656BLR (w/ Test Point)**

Application:

The K655BLR/K656BLR deadbreak elbow housings are a component of the Elastimold 600 Amp elbow product line. The K655BLR/K656BLR can be mated with the other Elastimold products including:

K650CP, K650BIP, K650RTP, K650RTW, K650S1, K650T1, K650 junction, 650ETP, K650ETP, 650LRTPA3, K650LRTPA2, 655CA-W cable adapter, 03700XXX connector and 03600XXX connector.

Ordering Instruction:

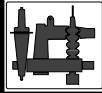
To order 15/25 kV 600A elbow housing without test point, please specify **K655BLR**. With test point, please specify **K656BLR**.

The 600A elbow Connector kit contains the following:

1 – Elbow connector housing	K655BLR or K656BLR
1 – Stud	650SA
1 – Tube, lubricant	82-08
1 – Installation instrucion	IS-655LR 10/97

Ratings:

Exceeds ANSI/IEEE Standard 386
 25kV Voltage Class
 16.2kV Max Phase-to-Ground - Operating Voltage
 28kV Max Phase-to-Phase
 140kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 45kV AC - One minute Withstand
 84kV DC - 15 Minutes Withstand
 21.5kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

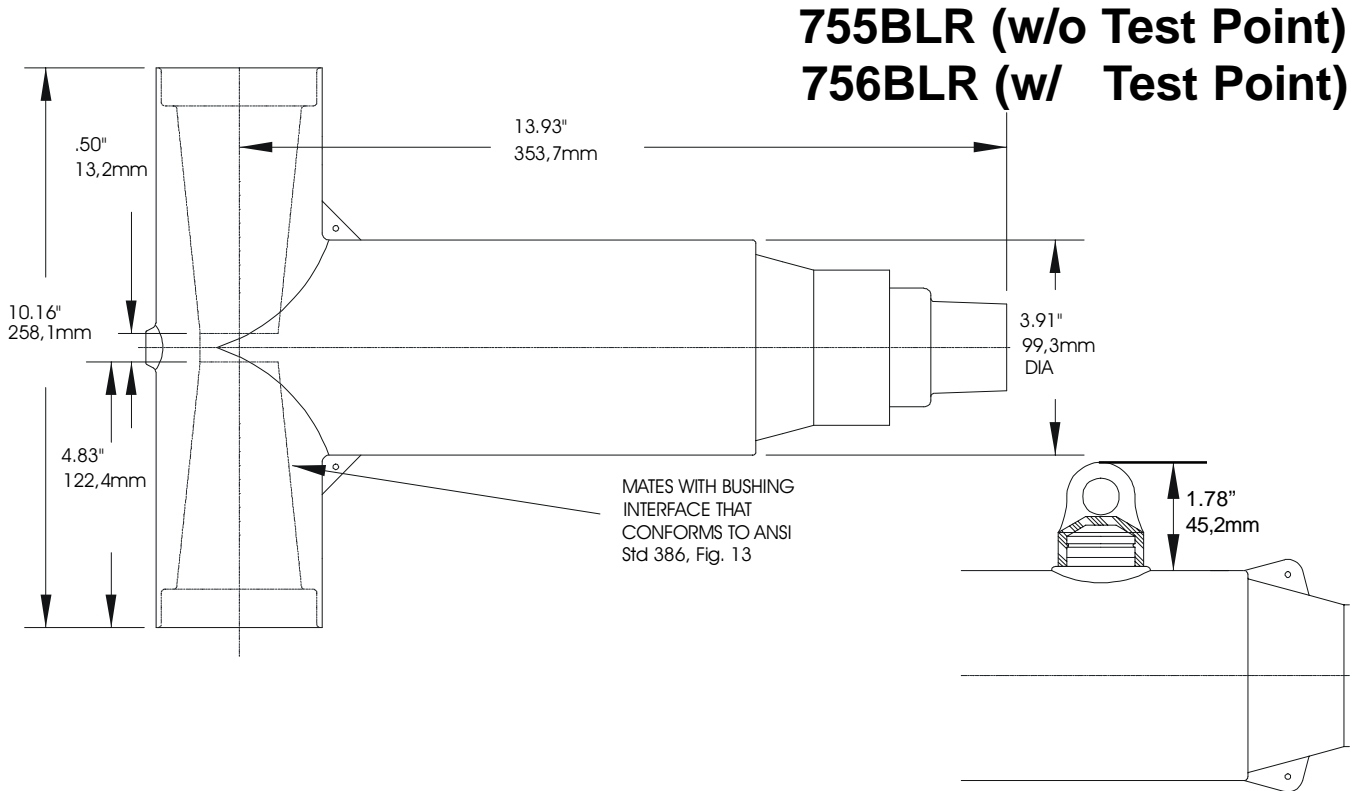
PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 600A Deadbreak Elbow Housing

ELASTIMOLD PART NUMBER

755BLR



Application:

The 755BLR and 756BLR are deadbreak elbow housing are a component of the Elastimold 35kV 60 Amp elbow product line. The 755BLR/756BLR can be mated with other Elastimold products including:

750CP, 750BIP, 750S1, 750T1, 750 junction, 750ETP, 750LRTPA2, 755CA-W cable adapter, 03700XXX connector and 03600XXX connector.

Ratings:

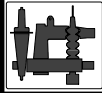
per ANSI/IEEE Standard 386
35kV Voltage Class
21.1kV Max Phase-to-Ground - Operating Voltage
36.6kV Max Phase-to-Phase
150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
50kV AC - One minute Withstand
103kV DC - 15 Minutes Withstand
26kV AC - Corona Extinction @ 3p.C.sensitivity
600 Amp - Continuous current
25kA sym, 10 cycles momentary current

Ordering Instruction:

To order 35 kV 600A elbow housing without test point, please specify **755BLR**. With test point specify **756BLR**.

The 35 kV, 600A elbow Connector kit contains the following:

- | | |
|-----------------------------|-----------------|
| 1 - Elbow connector housing | 755BLR or 756LR |
| 1 - Stud | 750SA |
| 1 - Tube, lubricant | 82-08 |
| 1 - Installation instrucion | IS-755LR 10/97 |



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

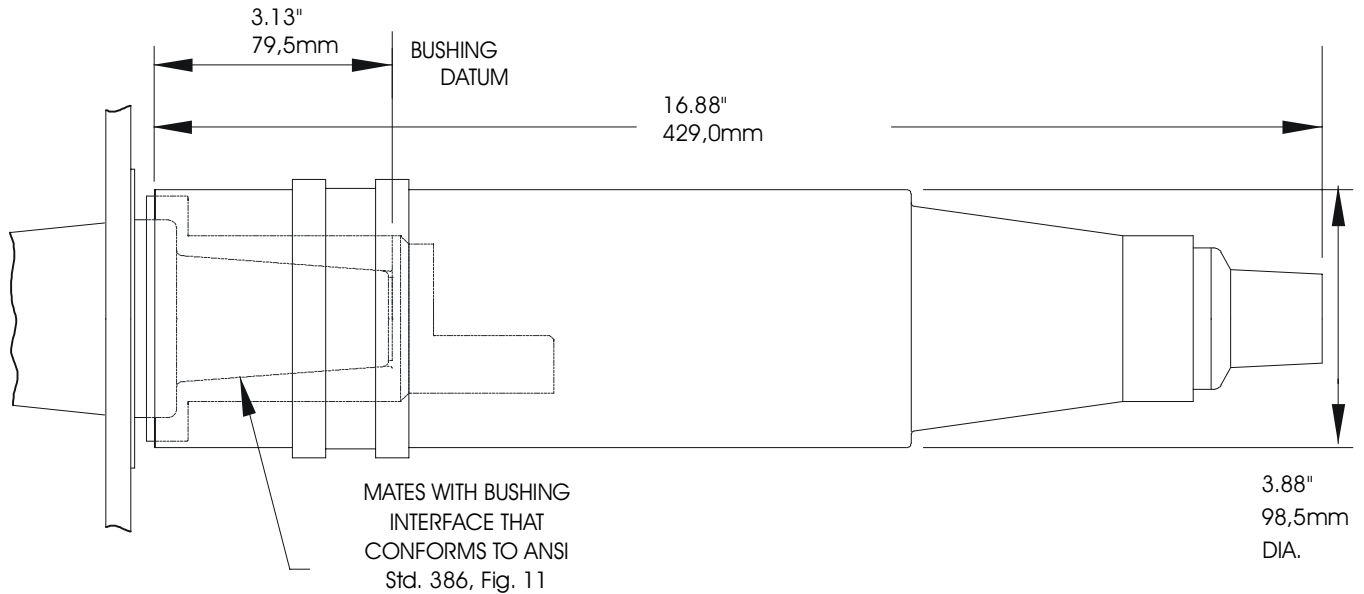
C I

DESCRIPTION

15/25kV 600A Straight Receptacle

ELASTIMOLD PART NUMBER

K655SR-W0X



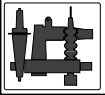
Application:

The K655SR is designed to provide a fully-shielded, submersible cable connection on 15/25kV high-voltage apparatus bushings. These connectors allow a straight cable connection on switchgear or electrical apparatus equipped with 600 Amp bushings.

The K655SR product range is from 1/0 to 1000 kcmil for aluminum and copper conductors with insulation diameters from .640 " to 1.935 ". When used on metallic tape shield or drain wire cable, a 20MA or 21MA grounding device or an ECS ground kit/cable seal is recommended.

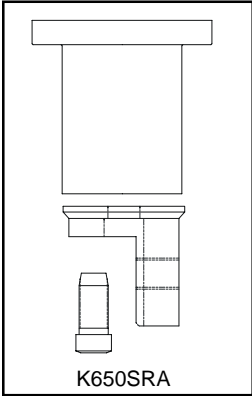
Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

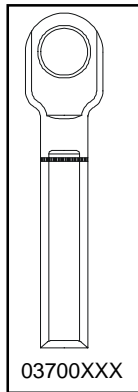


15/25kV 600A Straight Receptacle

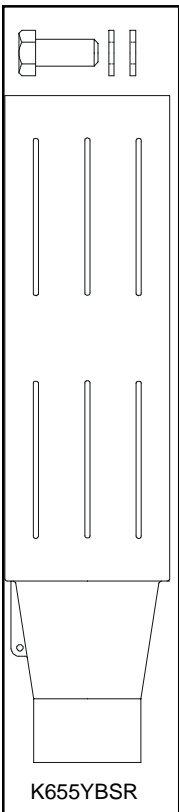
K655SR-W0X



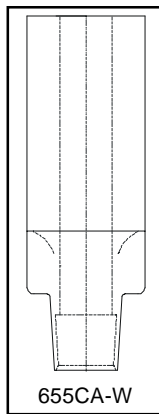
K650SRA



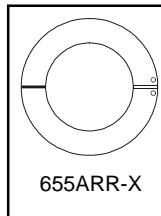
03700XXX



K655YBSR



655CA-W



655ARR-X

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter from table 1. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size from table 2. Insert code into the catalog number.

K655SR – – 0

Cable Insulation Dia. Range		Insul. Code
Inches	mm	
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P

Table 1

Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	370	350
750	380	360
800	390	360
900	400	390
1000	410	400

*Cu or Al conductor

Table 2

The **600A straight receptacle** kit contains the following:

- 1 – Straight receptacle housing K655YBSR
- 1 – Straight receptacle adapter K650SRA
- 1 – Bi-metal compression lug 03700XXX
- 1 – Cable adapter retaining ring 650ARR-X
- 1 – Cable adapter 655CA-W
- 3 – Tube, lubricant 82-08
- 1 – Installation instruction IS-650SR (A) 12/95
- 1 – Crimp chart IS-03700CC 5/98

Example:

The ordering number for a **600A straight receptacle** for a 4/0 stranded, 175 mil wall cable with an insulation diameter of .940" (23.4 mm) is K655SR-H-0270.

Installation Instructions K/655SR and M655SR Straight Receptacle

CONTENTS: Receptacle housing, Bushing adapter, Cable adapter, Aluminum holding collar, Hex head bolt, Hose clamp (35kV only), Crimp connector, Belleville washer, Flat washer, Hex wrench, Nylon venting rod, Lubricants, Brass bolt, Bushing converter contact, Installation Instructions, Crimp chart.

The 650SR and K650SR provide an in-line cable connection to a standard ANSI-386 600 amp 15kV or 25kV bushing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

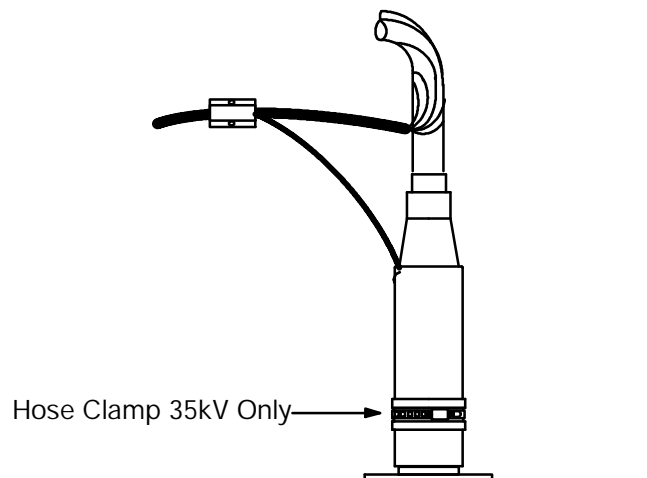
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

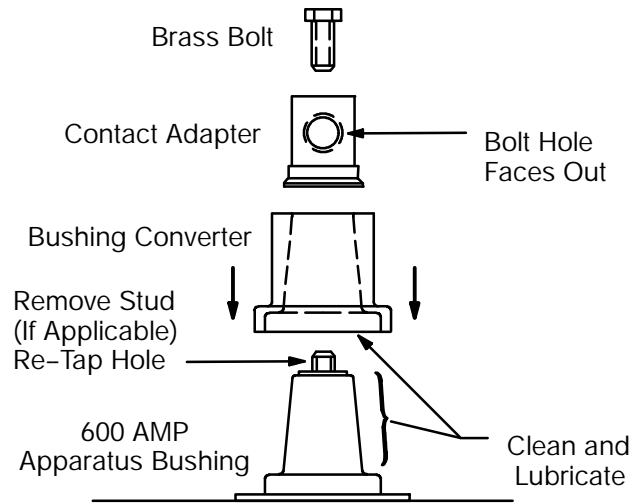
1. Check contents of package to insure they are complete and undamaged.
 2. Check all components to insure proper fit with cable and/or mating products.
 3. Read entire installation instructions before starting.
 4. Have all required tools at hand and maintain cleanliness throughout the procedure.
-



GENERAL INSTRUCTIONS

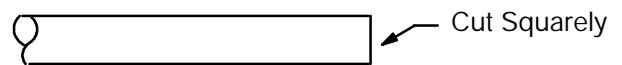
STEP 1

1. If stud is present in apparatus bushing, remove the stud and re-tap the hole using 5/8-11 tap.
2. Clean and lubricate apparatus bushing and bushing converter interface. Assemble bushing converter onto apparatus bushing. Apply 3-4 drops of Loctite to threads of brass bolt. Assemble contact adapter to apparatus bushing, with bolt hole facing out, using 5/8" brass bolt. Torque to 60 ft.-lbs.



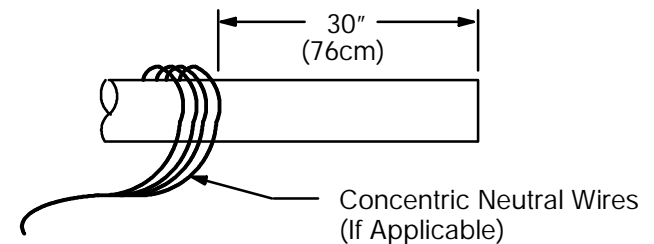
STEP 2

Train the cable end and straighten into final position. Cut squarely.



STEP 2A

Unwrap the concentric neutral wires (if applicable) a distance of 30" (76cm). **DO NOT CUT OFF.** Bend and fold back out of the way.

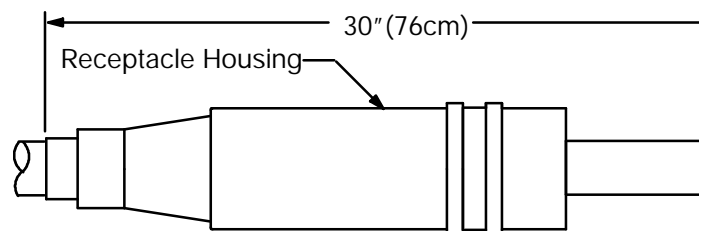


STEP 3

Wipe the outer jacket clean a distance of 38" (96.5cm) or up to concentric neutral wires.

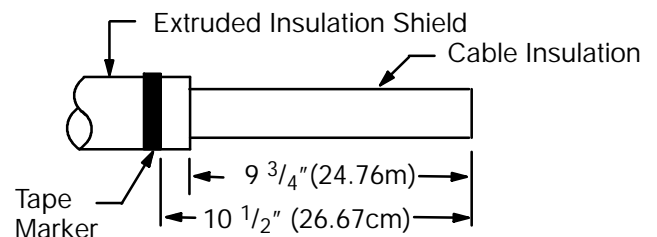
STEP 4

Slide receptacle housing onto the cable a distance of 30" (76cm).



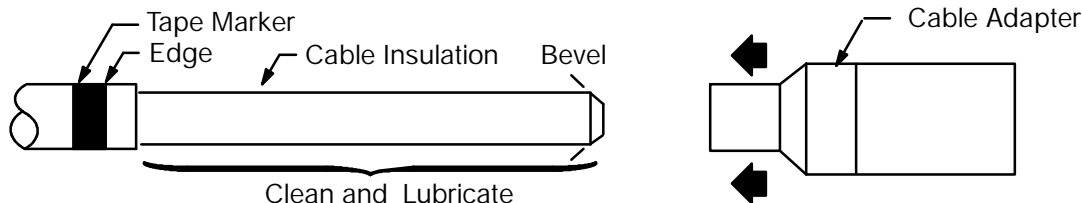
STEP 5 CABLE PREPARATION EXTRUDED INSULATION SHIELD

Remove extruded insulation shield and install tape marker to dimensions shown. Do not cut or nick the cable insulation.



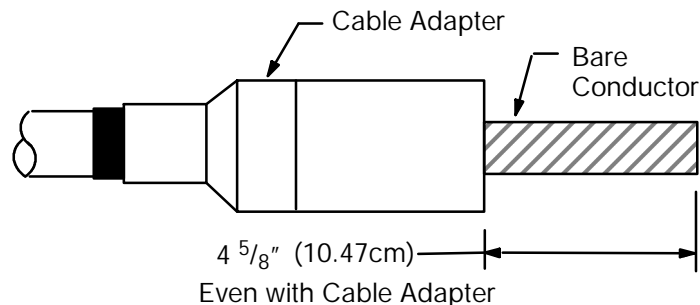
STEP 6 CABLE ADAPTER

Bevel the end of the cable insulation at a 45° angle, approximately 1/4" (6mm) back. Thoroughly clean, then lubricate cable insulation always working toward cable insulation shield. Install cable adapter, small end first, until it is flush with the edge of the tape marker.



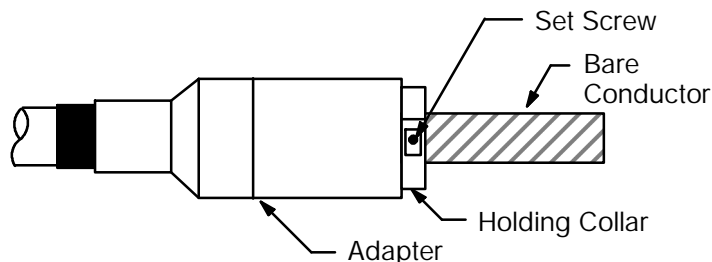
STEP 7 CONDUCTOR

Remove the protruding cable insulation by cutting it even with the end of the cable adapter. Do not cut or nick the cable adapter or the conductor. The length of exposed conductor should be between 4 5/8" (10.47cm). Otherwise redo assembly.



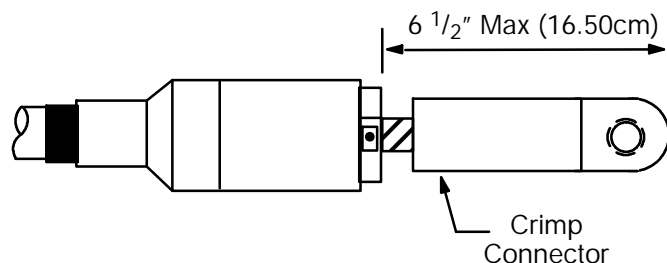
STEP 8

Position the holding collar over the conductor and flush against the cable adapter. Using the hex wrench supplied, tighten setscrew.



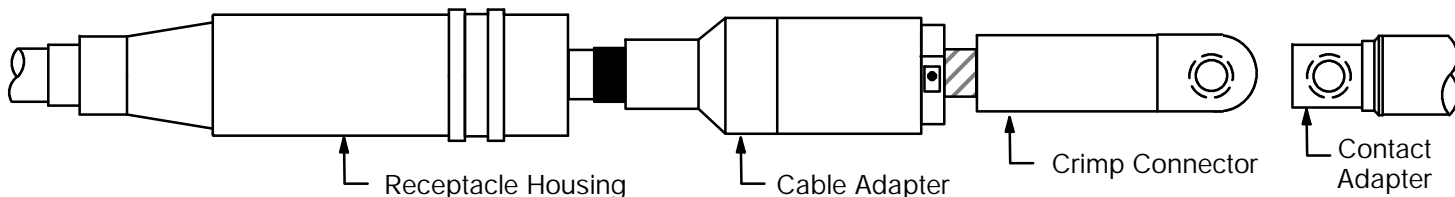
STEP 9

Remove the protective cap from the crimp connector. If using aluminum cable wire brush the conductor and immediately insert into the crimp connector which contains inhibitor. *Make sure conductor is fully inserted into the crimp barrel.* Measure the distance from the end of the connector to the holding collar. If the distance is over 6 1/2" (16.50cm) do not proceed. Recheck all previous work.



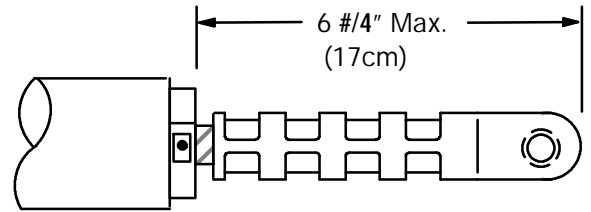
STEP 10

As a final check prior to crimping the connector, all components should be positioned as shown in the exploded view. CHECK THAT THE BOLT HOLE IN THE CRIMP CONNECTORS IS POSITIONED PROPERLY TO ALIGN WITH THE BOLT HOLE IN THE CONTACT ADAPTER.



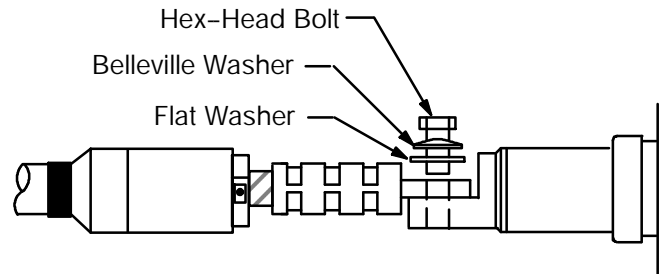
STEP 11

Crimp the connectors following the instructions packaged with the connectors. Rotate each crimp 90°. After crimping, measure the distance from the end of the connector to the holding collar. If the distance is over 6 #/4" (17cm) do not proceed. Recheck all previous work.



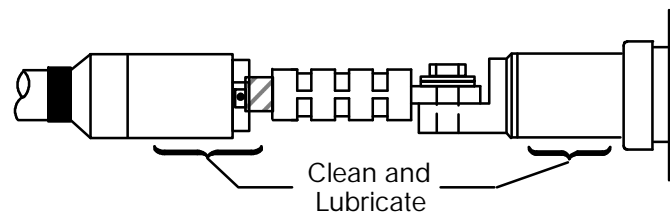
STEP 12

Assemble the washers and bolts as indicated, the flat washer against the spade contact, then the hex head bolt. Do not attempt to move or reposition any part of the assembly after the bolt is hand tightened. Using a torque wrench with a 15/16 socket, tighten to 50-60 ft.-lbs.



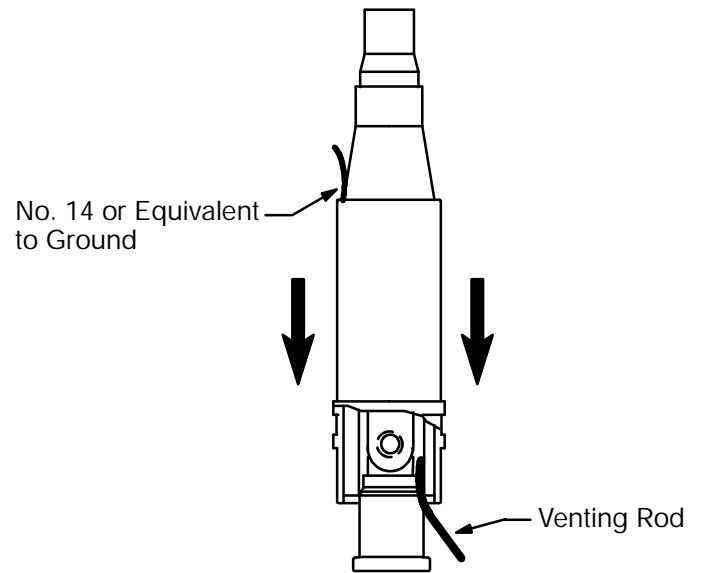
STEP 13

Apply supplied lubricant or ELASTIMOLD approved lubricant generously to the outside of the cable adapter and the area of the bushing adapter as shown. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating product.



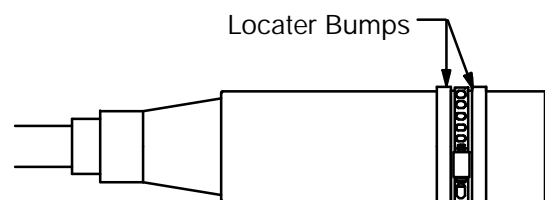
STEP 14

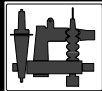
Slide the receptacle housing over the cable adapter and up to the position shown. Insert the nylon venting rod (supplied). Slide the receptacle housing onto the bushing converter until fully seated. Remove the venting rod. Connect a short piece of wire (No. 14 AWG) copper or equivalent to the grounding eye of the receptacle housing. Make a small loop and twist tightly, taking care not to damage the eye. Gather together the concentric neutral wires. Using a suitable connector, connect the neutral wires and the grounding wire.



STEP 15 FOR 35kV ONLY

Position hose clamp between locator bumps on receptacle housing. Tighten clamp until you hear it click.



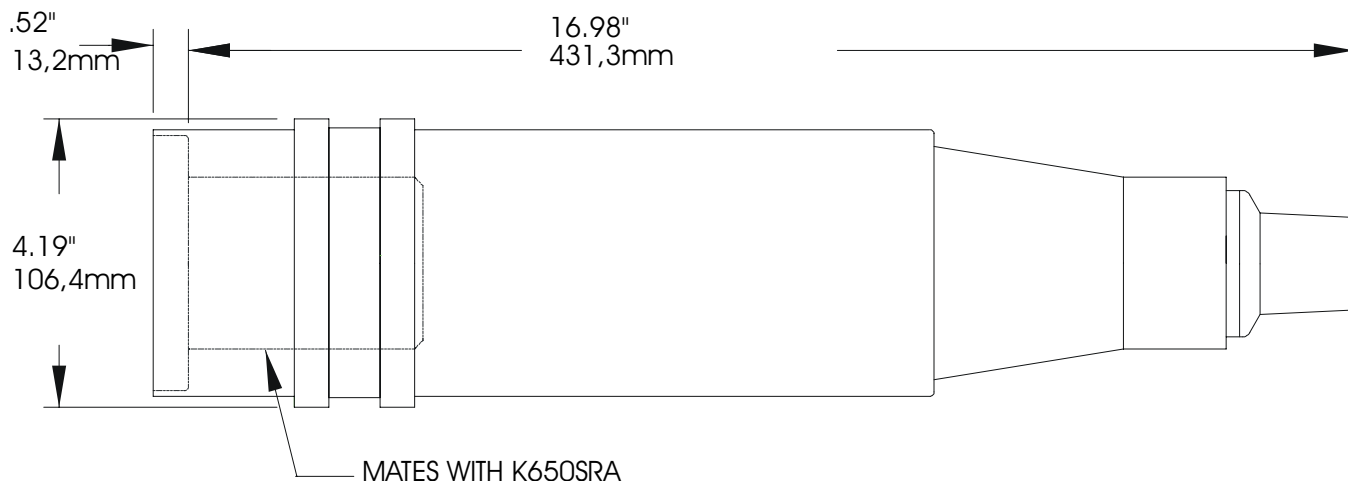


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Straight Receptacle Housing

ELASTIMOLD PART NUMBER

K655BSR

Ratings:

per ANSI/IEEE Standard 386

25kV Voltage Class

15.2kV Max Phase-to-Ground - Operating Voltage

26.3kV Max Phase-to-Phase

125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

40kV AC - One minute Withstand

78kV DC - 15 Minutes Withstand

19kV AC - Corona Extinction @ 3p.C.sensitivity

600 Amp - Continuous current

25kA sym, 10 cycles momentary current

Ordering Instruction:

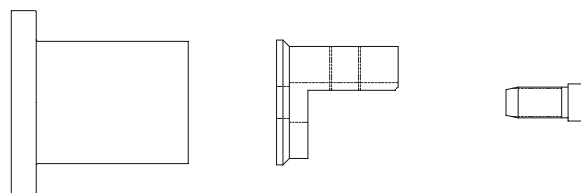
To order a 600A straight receptacle housing specify **K655BSR**.

The 600A straight receptacle housing kit contains the following:

- | | |
|---------------------------------|------------------|
| 1 - Straight receptacle housing | K655YBSR |
| 1 - Straight receptacle adapter | K650SRA |
| 4 - Tube, lubricant | 82-08 |
| 1 - Installation instruction | IS-SRA (A) 12/95 |



K655YBSR (w/ hardware) Housing



K650-SRA Straight Receptacle Adapter

Installation Instructions SRA Straight Receptacle Adaptor

CONTENTS: Contact Adaptor, Lubricant, Brass bolt, Bushing converter, Installation Instructions.

The K650SRA provides a means to adapt a 600amp bushing interface (ANSI 386, Fig. 10) to accept an in-line cable connector rated 15kV or 25kV.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

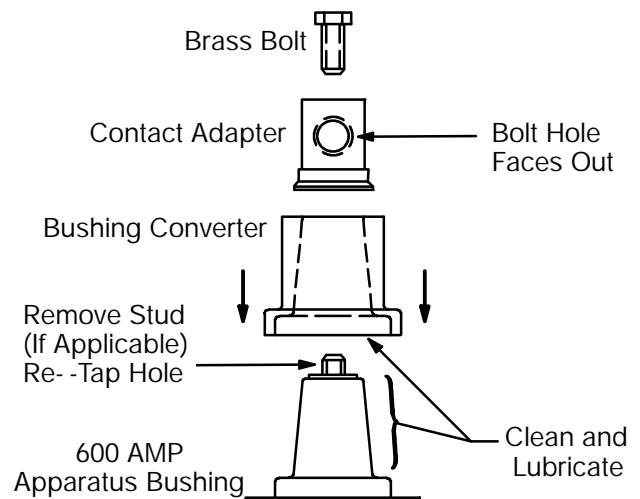
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

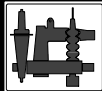
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

GENERAL INSTRUCTIONS

1. If stud is present in apparatus bushing, remove the stud and re-tap the hole using 5/8"-11 tap.
2. Clean and lubricate apparatus bushing and bushing converter interface. Assemble bushing converter onto apparatus bushing. Apply 3-4 drops of Loctite to threads of brass bolt. Assemble contact adapter to apparatus bushing, with bolt hole facing out, using 5/8" brass bolt. Torque to 60 ft.-lbs.



ELASTIMOLD

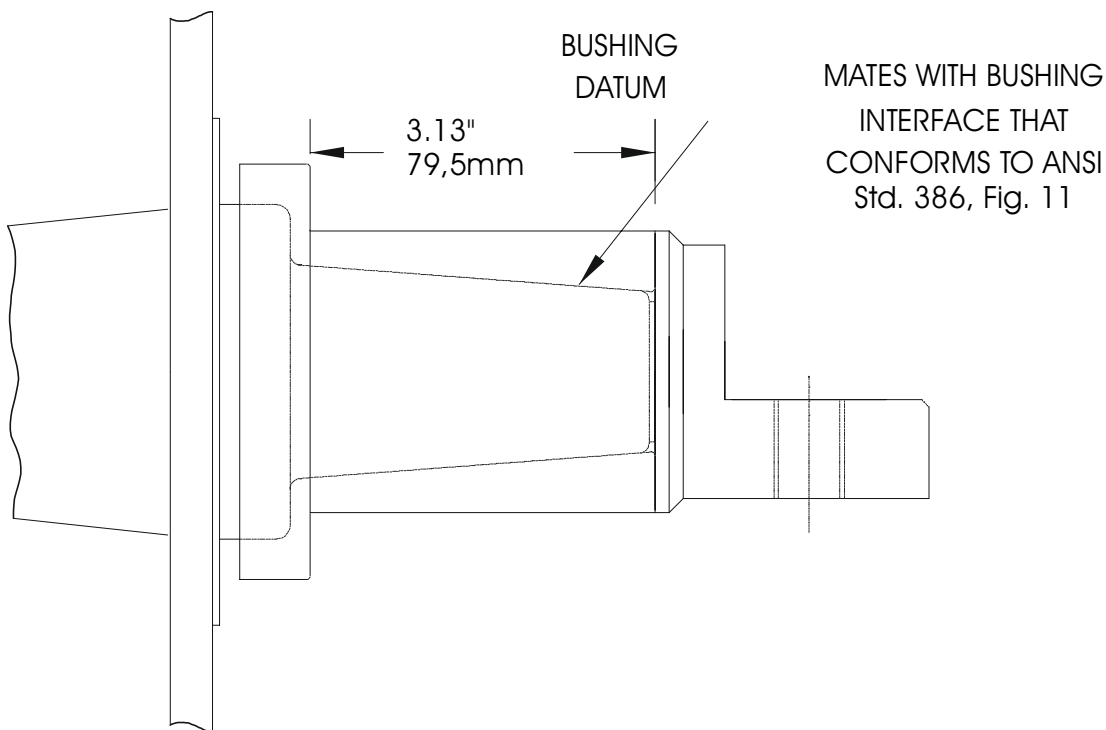


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Straight Receptacle Adapter

ELASTIMOLD PART NUMBER

K650SRA

Ordering Instruction:

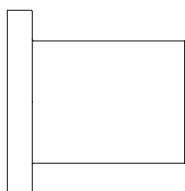
To order a 600A straight receptacle adapter specify **K650SRA**.

The 600A straight receptacle adapter kit contains the following:

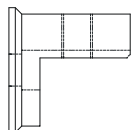
1 – Bushing converter contact	650-402
1 – Bushing adapter	650-400
1 – Bolt	650-401
1 – Tube, lubricant	82-08(L)
1 – Installation instruction	IS-SRA (A) 12/95

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current



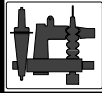
Bushing Adapter



Bushing Converter Contact



Bolt

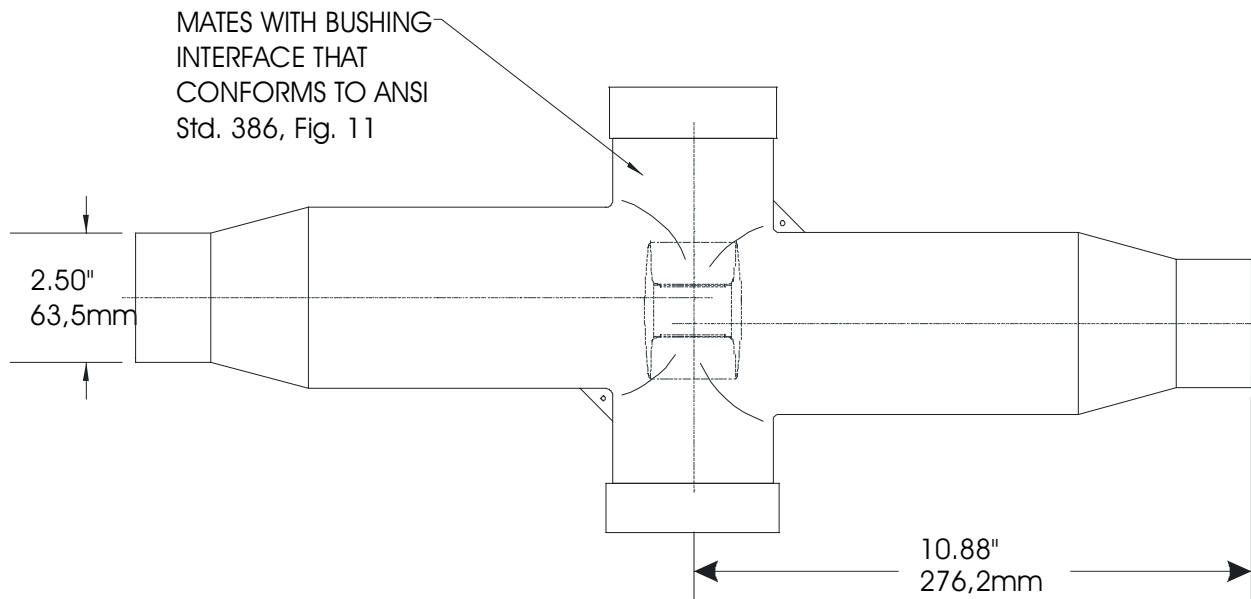


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 600A Valut Stretcher Housing

ELASTIMOLD PART NUMBER

K655BVS

Application:

The K655BVS vault stretcher housing is a component of the Vault Stretcher product line. The K655BVS can be mated with the following components:

K650CP, K650BIP, K650RTP, K650RTW, K650S1, K650T1, K650J junction, 650ETP, K650ETP, 650LRTPA3, K650LRTPA2, 655CA-W cable adapter, 03700XXX connector and 03600XXX connector.

Ratings

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order 25 kV 600A valut stretcher housing specify **K655BVS**.

The 600A Valut Stretcher Housing kit contains the following:

1 - Valut stretcher housing	K655BVS
1 - Stud	650SA
1 - Tube, lubricant	82-08
1 - Installation instructiton	IS-655VS

Installation Instructions 655VS / K655VS Vault Stretcher

CONTENTS: Vault Stretcher, 2- -Cable Adapters, 2- -Compression Lugs, 2- -Insulating Plugs, Lubricant, Stud Prepack, Installation Instructions, Crimp chart.

The 655VS and K655VS connectors are designed to: 1) provide fully shielded, fully submersible deadfront cable connections to high voltage apparatus and 2) provide a means to splice and tap 600- -ampere systems. The connectors are rated for use on 15kV and 25kV class systems respectively.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded connector before submerging or energizing the circuit.

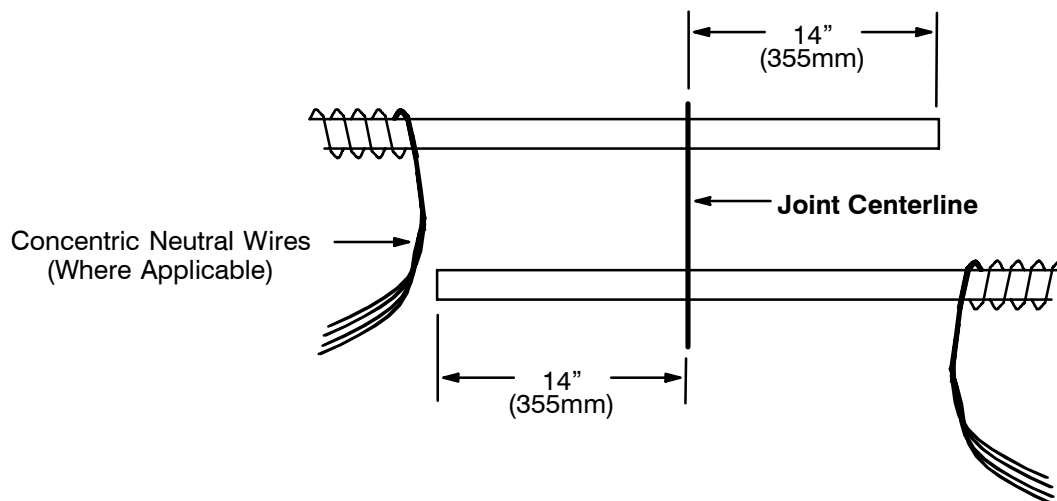
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

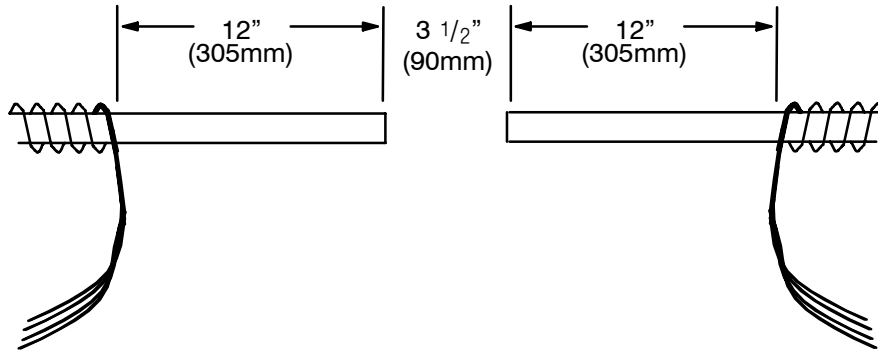
STEP 1

For concentric neutral cable, overlap both cables and cut to 14" (355mm) from center line of joint and bend back the concentric neutral wires.



STEP 2

Cut the cables to the dimension shown. DO NOT CUT the neutral wires. Unwrap the neutral wires a minimum of 12 inches from the cable ends and twist together. Bend the neutrals back.



STEP 3

Carefully remove the semiconductive cable insulation shield from each cable the distance "L" shown in Table I. DO NOT CUT OR NICK THE CABLE INSULATION.

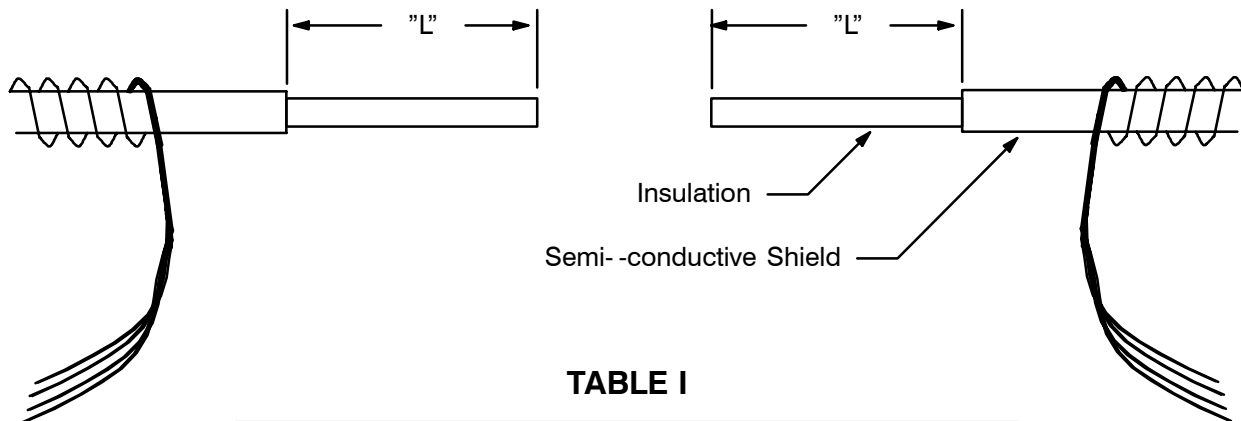
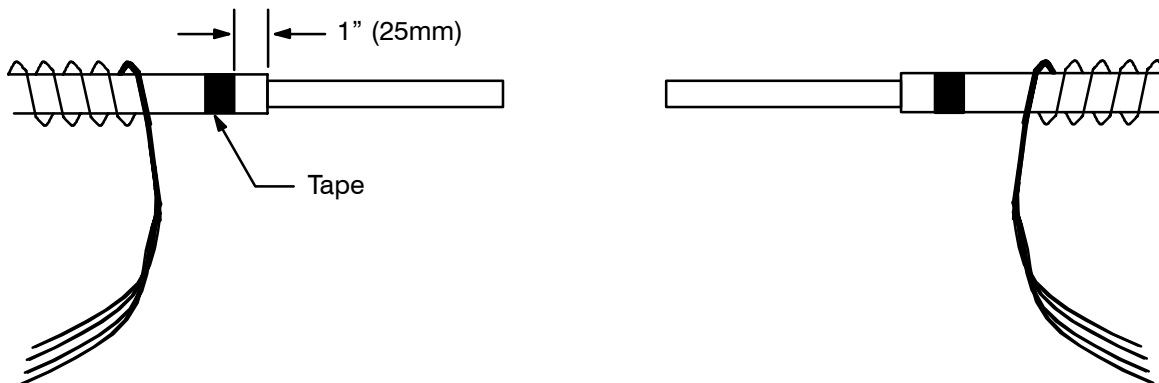


TABLE I

CONDUCTOR SIZE AWG	"L"
STR. AL/CU 1/0 AWG thru 250 kcmil Compact AL/CU 2/0 AWG thru 300 kcmil	9 1/4" (235mm)
STR. AL/CU 300 AWG thru 1000 kcmil Compact AL/CU 350 AWG thru 1000 kcmil	9 5/8" (244mm)

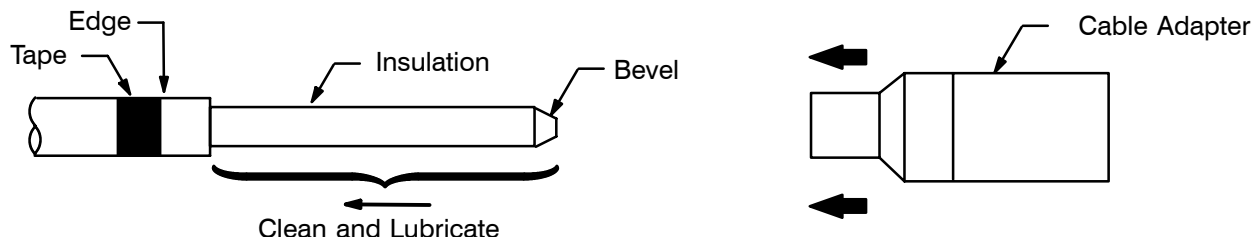
STEP 4

Measure 1" (25mm) from the end of each semi-conductive shield and wrap a layer of tape around the cable. This will act as a guide for installing the cable adapter, and will be removed later.



STEP 5

Bevel the end of the cable insulation at a 45° angle, approximately 1/4" (6mm) back. Thoroughly clean, then lubricate cable insulation working towards cable insulation shield. Install adapter, small end first, until it is flush with the edge of the tape marker.



STEP 6

Remove the protruding cable insulation by cutting it even with the end of the cable adapter. DO NOT NICK OR CUT THE CABLE ADAPTER OR THE CONDUCTOR. The length "A" of the exposed conductor should agree with the dimensions given in Table II. Otherwise redo assembly.

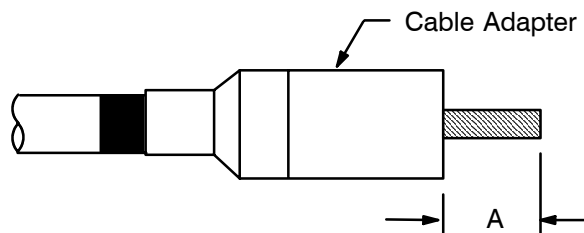
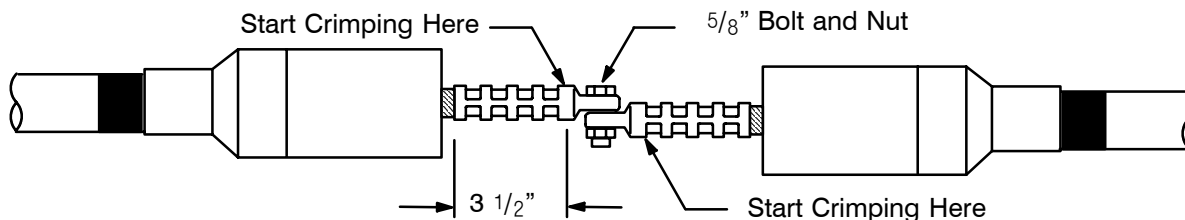


TABLE II

CONDUCTOR SIZE AWG	CHECK DISTANCE "A" (INCHES)
STR. AL/CU 1/0 AWG thru 250 kcmil Compact AL/CU 2/0 AWG thru 300 kcmil	3 3/4" to 4 1/16" (95- -103mm)
STR. AL/CU 300 AWG thru 1000 kcmil Compact AL/CU 350 AWG thru 1000 kcmil	4 1/8" to 4 1/2" (105- -114mm)

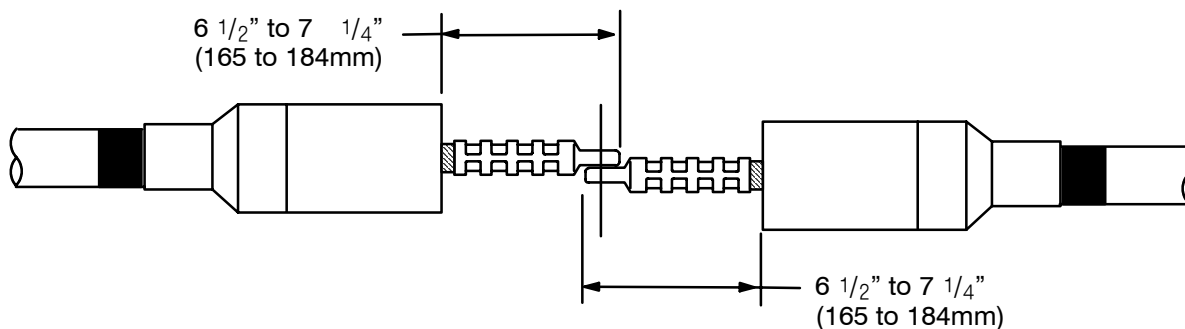
STEP 7

Wire brush the bare conductor and immediately fully insert it into the compression lug. Before making the first crimp, align the flat portions of the compression connector by using a 5/8" bolt as a temporary locator while crimping. Hold the compression connector in the proper position and make the crimp connection. Start the first crimp 3 1/2" from the open end of the compression fitting at the mark indicated on the connector.



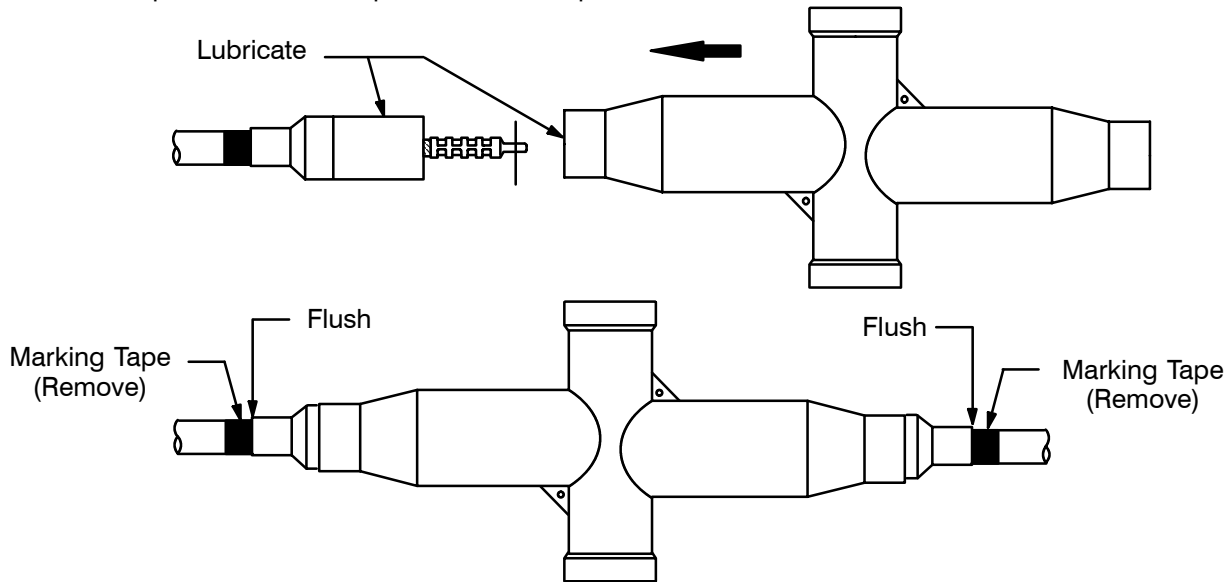
STEP 8

Rotate each successive crimp 180° to prevent bowing. Carefully wipe excess inhibitor from the outside of the connector and from the cable insulation. Check to ensure that the connector end is 6 1/2" to 7 1/4". Remove sharp flash, if any, from the crimp before inserting into the vault stretcher body.



STEP 9

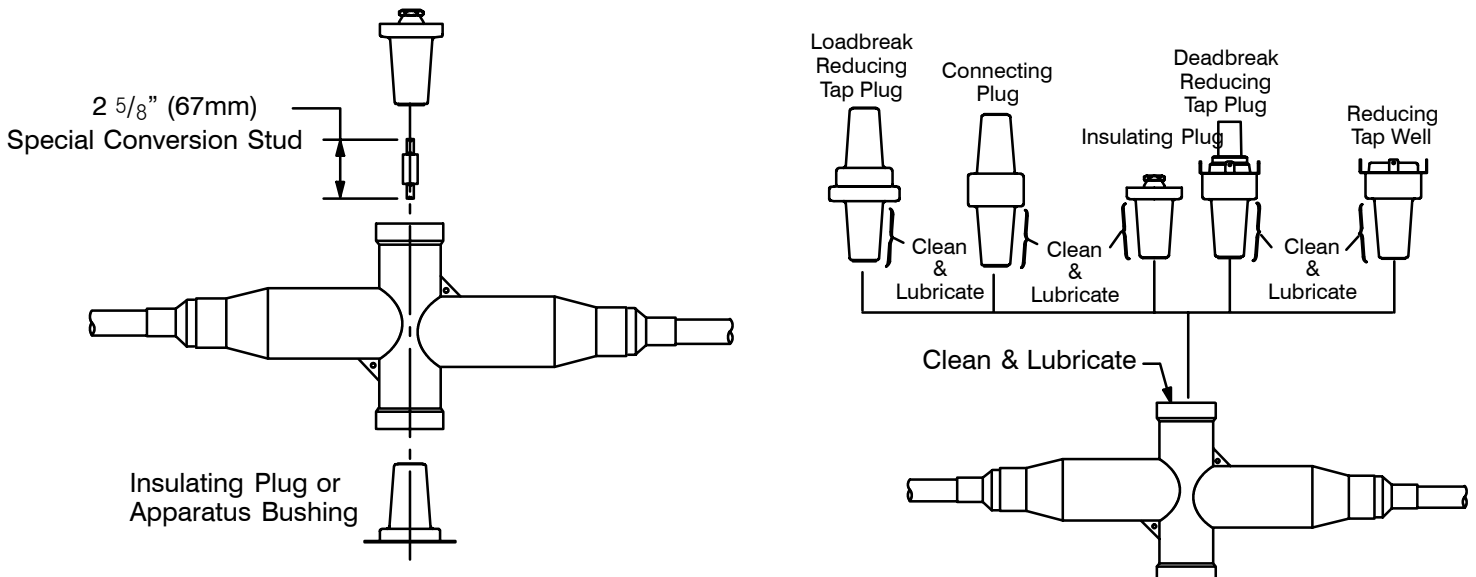
1. Lubricate the inside of the vault stretcher body and the outside of the cable adapter. Using a rotating motion, slip the body onto the cable adapter. Make sure the compression lug is aligned to seat with the inside mating portion of the vault stretcher. The compression lug should be pushed into the vault stretcher until it cannot advance further. The base of the adapter should still be aligned with the marking tape.
2. To install the compression lug and adapter in the other side, the vault stretcher and compression lug must be pushed sideways until the compression lug enters the open end of the vault stretcher body.
3. Slowly push both units toward their normal alignment, making sure the lubricated adapter is sliding into proper position in the vault stretcher. The location of the compression lug can be checked by looking in the tap hole of the vault stretcher. When compression lug is fully seated, make sure that both cable adapters are still flush with tape markers. If not, reposition cable adapters. Remove tape markers.



STEP 10

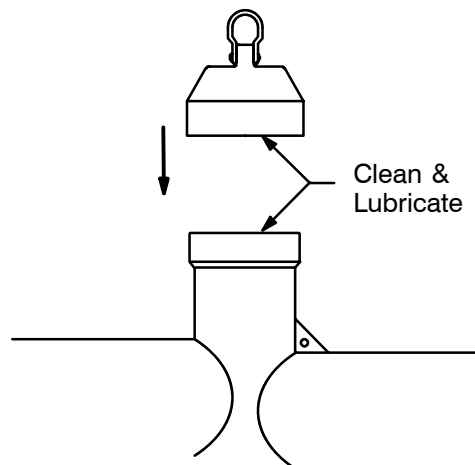
NOTE: A special stud (650VSA) $\frac{1}{2}$ " longer than the standard stud must be used with the vault stretcher.

1. DO NOT connect or disconnect mating products while energized. DO NOT energize while disconnected. Remove protective caps from the vault stretcher and the mating part. Hand tighten stud supplied with vault stretcher into one mating part. Clean and lubricate both the vault stretcher and the mating part with lubricant supplied. (Keep surfaces of vault stretcher and mating part clean).
 2. Clean and lubricate the mating part for the opposite end of the vault stretcher. Insert the mating part into the elbow. Engage the threads and hand tighten. Torque mating part according to the instructions supplied with the mating part.
- NOTE:** All mating parts must be operated in accordance with their operating instruction.



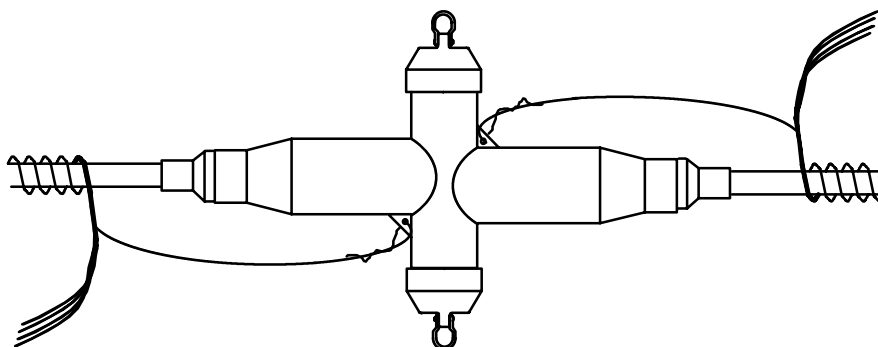
STEP 11

If an insulating plug is used as a mating part, clean and lubricate inner surface of the voltage detection cap and place on elbow. Push down hard until cap snaps into place.

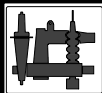


STEP 12 GROUNDING CONCENTRIC NEUTRAL CABLE

Insert one end of a piece of wire with ampacity at least equivalent to No. 14 AWG copper through grounding eye and twist to make a small loop. Repeat for other grounding eye. DO NOT damage the eyes. Connect wires to ground using suitable connectors.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2094

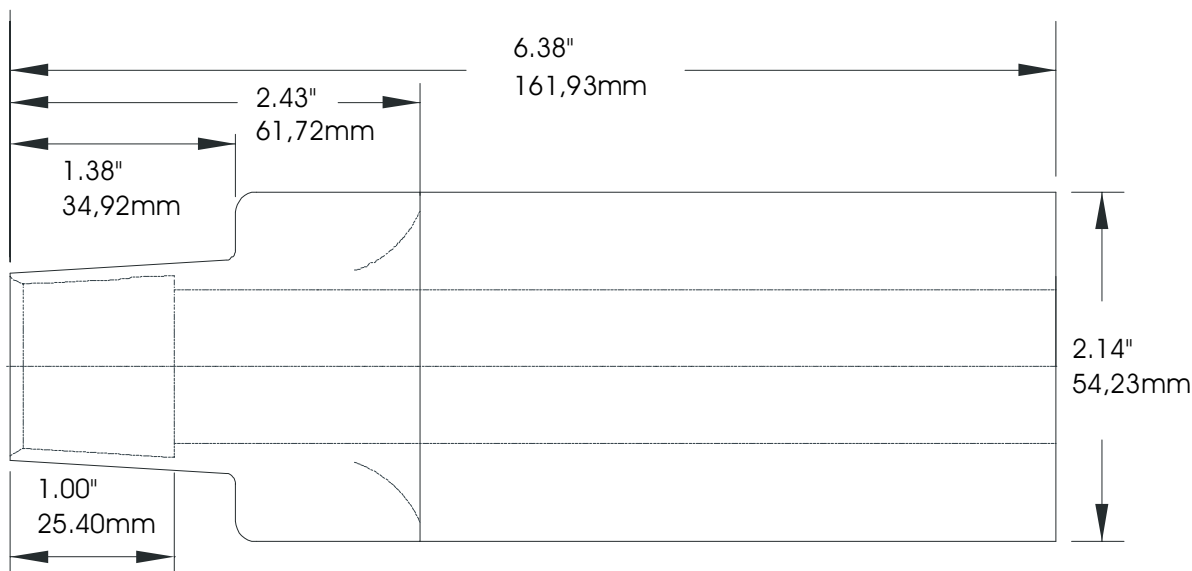


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 600A Cable Adapter

ELASTIMOLD PART NUMBER

655CA-W

655CA cable adapters mate with Elastimold 15/25kV 600A K655BLR, K655SR, K655I, K655CY, K655CH, K655BVS.

The Cable Adapter Kit contains the following:

- | | |
|---------------------|-------------------|
| 1 – Cable Adapter | 655CA-W (Table 1) |
| 1 – Tube, lubricant | 82-08 |

Example:

The ordering number for a cable adapter for a 500MCM stranded, 175 mil wall cable with an insulation diameter of 1.235" (31.3 mm) is 655CA-L.

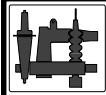
Ordering Instruction:**Step 1 (W)**

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

655CA — Step 1 (W)

Cable Insulation Dia. Range		Insul. Code
Inches	mm	
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P

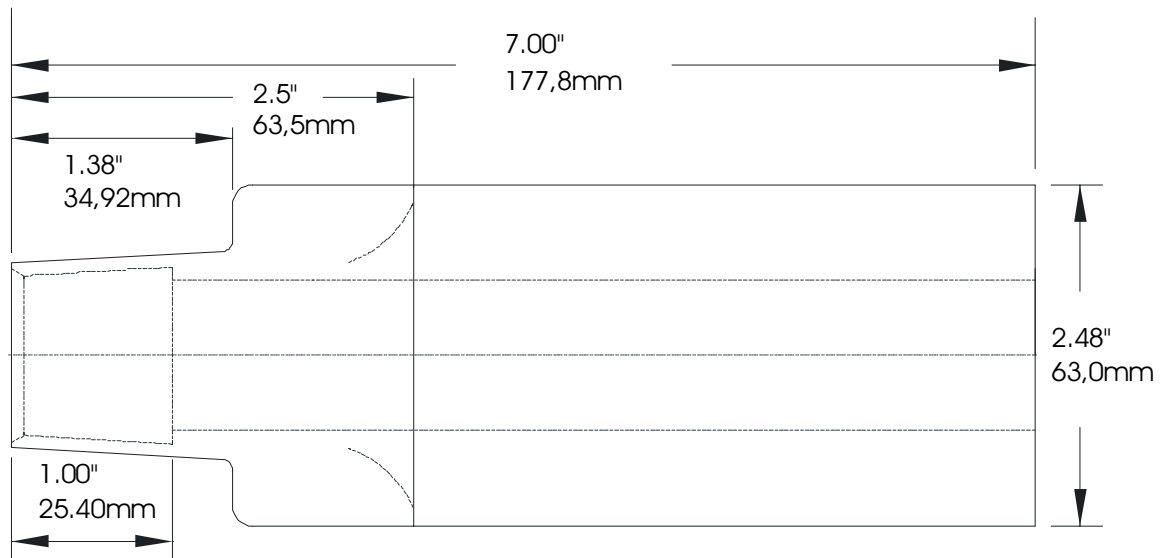
Table 1



DESCRIPTION

35kV 600A Cable Adapter

ELASTIMOLD PART NUMBER

755CA-W

755CA cable adapters mate with Elastimold 35kV 600A deadbreak elbow and splice including 755BLR.

The Cable Adapter Kit contains the following:

1 – Cable Adapter 755CA-W (Table 1)
 1 – Tube, lubricant 82-08

Example:

The ordering number for a cable adapter for a 500MCM stranded, 345 mil wall cable with an insulation diameter of 1.509" (40,4 mm) is 755CA-N.

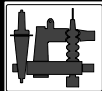
Ordering Instruction:**Step 1 (W)**

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

755CA — Step 1 (W)

Cable Insulation Dia. Range		Insul. Code
Inches	mm	
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P
1.900 - 2.120	48,3 - 53,9	Q

Table 1



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

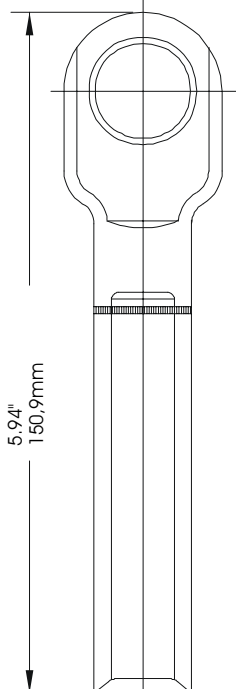
PRODUCT SPECIFICATION SHEET

C

DESCRIPTION

600A Crimp Connector - Aluminum

ELASTIMOLD PART NUMBER

03700XXX**Ordering Instruction:****Step 1 (X)**

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 1 (X)

03700 **Application:**

The **03700XXX** aluminum crimp barrel connector is designed to be used with Elastimold 15/25/35kV class 600 Amp deadbreak elbow & splice products. Connectors may be used with both copper and aluminum conductors.

The 03700XXX Connector kit contains the following:

- 1 – Connector 03700XXX
- 1 – Crimp chart IS-03700CC 5/98

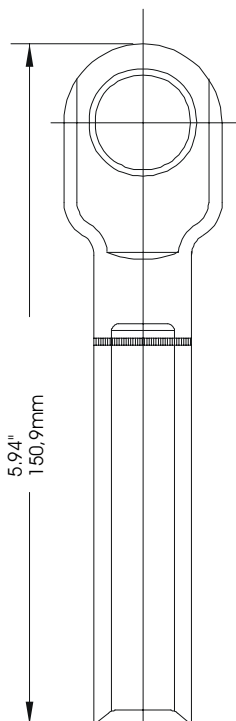
Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	03700220	03700210
1	03700230	03700220
1/0	03700240	03700230
2/0	03700250	03700240
3/0	03700260	03700250
4/0	03700270	03700260
250	03700280	03700270
300	03700290	03700280
350	03700300	03700290
400	03700310	03700300
450	03700320	03700310
500	03700330	03700320
550	03700340	03700320
600	03700350	03700330
650	03700360	03700340
700	03700380	03700350
750	03700380	03700360
800	03700390	03700360
900	03700400	03700380
1000	03700410	03700400
1250	03700440	03700420

*Cu or Al conductor

DESCRIPTION

900A Crimp Connector - Copper**C**

ELASTIMOLD PART NUMBER

03702XXX**Ordering Instruction:****Step 1 (X)**

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 1 (X)

03702 **Application:**

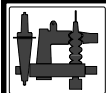
The **03702XXX** aluminum crimp barrel connector is designed to be used with Elastimold 15/25/35kV class 600 Amp deadbreak elbow & splice products thru 900 Amp. Connectors may be used with both copper conductors only.

The 03702XXX Connector kit contains the following:

- 1 – Connector 03702XXX
- 1 – Crimp chart IS-03702CC 5/98

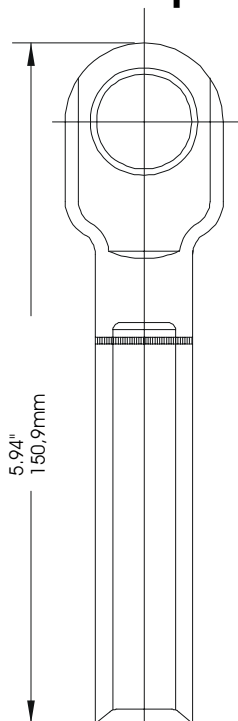
Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	03702220	03702210
1	03702230	03702220
1/0	03702240	03702230
2/0	03702250	03702240
3/0	03702260	03702250
4/0	03702270	03702260
250	03702280	03702270
300	03702290	03702280
350	03702300	03702290
400	03702310	03702300
450	03702320	03702310
500	03702330	03702320
550	03702340	03702320
600	03702350	03702330
650	03702360	03702340
700	03702380	03702350
750	03702380	03702360
800	03702390	03702360
900	03702400	03702380
1000	03702410	03702400
1250	03702440	03702420

* Copper Conductor Only.



DESCRIPTION

600A Stick-Op Crimp Connector - Aluminum

**Ordering Instruction:****Step 1 (X)**

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 1 (X)

03600

The **03600XXX** threaded aluminum crimp barrel connector is designed for use with Elastimold 15/25/35kV class, 600 Amp Stick-Op Elbows. Connectors may be used on copper or aluminum conductors.

The 03600XXX Connector kit contains the following:

- 1 – Connector 03600XXX
- 1 – Crimp chart IS-03600CC (G) 9/94

ELASTIMOLD PART NUMBER

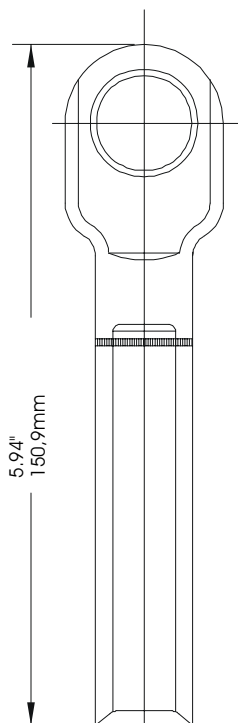
03600XXX

Conductor Size*	Compression Lug Code Number	
(AWG or kcmil)	Stranded/ Compr.	Solid/ Compact
2	03600220	03600210
1	03600230	03600220
1/0	03600240	03600230
2/0	03600250	03600240
3/0	03600260	03600250
4/0	03600270	03600260
250	03600280	03600270
300	03600290	03600280
350	03600300	03600290
400	03600310	03600300
450	03600320	03600310
500	03600330	03600320
550	03600340	03600320
600	03600350	03600330
650	03600360	03600340
700	03600380	03600350
750	03600380	03600360
800	03600390	03600360
900	03600400	03600380
1000	03600410	03600400
1250	03600440	03600420

*Cu or Al conductor

DESCRIPTION

900A Stick-Op Crimp Connector - Copper

**Ordering Instruction:****Step 1 (X)**

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 1 (X)

03602

The **03602XXX** threaded copper crimp barrel connector is designed for use with Elastimold 15/25/35kV class Stick-Op elbows thru 900 Amp. Connectors may be used on copper conductors only.

The 03602XXX Connector kit contains the following:

- 1 – Connector 03602XXX
- 1 – Crimp chart IS-03602CC 5/98

ELASTIMOLD PART NUMBER

03602XXX

Conductor Size*	Compression Lug Code Number	
(AWG or kcmil)	Stranded/ Compr.	Solid/ Compact
2	03602220	03602210
1	03602230	03602220
1/0	03602240	03602230
2/0	03602250	03602240
3/0	03602260	03602250
4/0	03602270	03602260
250	03602280	03602270
300	03602290	03602280
350	03602300	03602290
400	03602310	03602300
450	03602320	03602310
500	03602330	03602320
550	03602340	03602320
600	03602350	03602330
650	03602360	03602340
700	03602380	03602350
750	03602380	03602360
800	03602390	03602360
900	03602400	03602380
1000	03602410	03602400
1250	03602440	03602420

* Copper Conductor Only.

CRIMPING TOOLS AND DIES RECOMMENDED FOR ELASTIMOLD 600A/900A COMPRESSION CONNECTORS (FOR USE WITH COPPER CONDUCTOR ONLY)

CONNECTOR CATALOG 03602 03702	NOM. CONN O.D. IN.	CONNECTOR SIZE COPPER STR, COMPR COMPT		BURNDY							HOMAC		BLACKBURN			KEARNEY				T & B				
				TOOL Y34A Y34PR***	TOOL MD6 MD7	TOOL Y35 Y39	TOOL Y45* Y46**	TOOL Y48B		TOOL Y60 BHU	TOOL UT5	TOOL UT15	TOOL "O"	TOOL JB12A	TOOL JB60A	TOOL "O"	TOOL H1	TOOL H2	TOOL H25	TOOL TBM5	TOOL TBM8	TOOL TBM6	TOOL HYDRALIC TBM15	TOOL HYDRALIC 13642
				NEST	DIES	DIES	DIES	NEST***	DIES	DIES														
220	.625	#2 AWG	#1 AWG	A27D(1)	WBG(4) BNGNOSE(6)	U27RT(2)	U27RT(2)	---	---	---	TU(3)	49()	9/16(5)	B08CH(3)	---	5/8NOSE 620	5/8-1(3)	5/8-1	5/8-1	ORANGE(3)	ORANGE(3)	ORANGE{	50(3)	50{
230	.625	#1 AWG	1/0 AWG	A27D(1)	WBG(4) BNGNOSE(6)	U27RT(2)	U27RT(2)	---	---	---	TU(3)	49()	9/16(5)	B08CH(3)	---	5/8NOSE 620	5/8-1(3)	5/8-1	5/8-1	ORANGE(3)	ORANGE(3)	ORANGE{	50(3)	50{
240	.625	1/0 AWG	2/0 AWG	A27D(1)	WBG(4) BNGNOSE(6)	U27RT(2)	U27RT(2)	---	---	---	TU(3)	49()	9/16(5)	B08CH(3)	---	5/8NOSE 620	5/8-1(3)	5/8-1	5/8-1	ORANGE(3)	ORANGE(3)	ORANGE{	50(3)	50{
250	.625	2/0 AWG	3/0 AWG	A27D(1)	WBG(4) BNGNOSE(6)	U27RT(2)	U27RT(2)	---	---	---	TU(3)	49()	9/16(5)	B08CH(3)	---	5/8NOSE 620	5/8-1(3)	5/8-1	5/8-1	ORANGE(3)	ORANGE(3)	ORANGE{	50(3)	50{
260	.703	3/0 AWG	4/0 AWG	A28D(1)	W245(2)	U28RT(2)	U28RT(2)	---	---	---	TW--TYZ(3)	54H(3)	5/8-1(6)	B09CH(3)	---	---	---	---	---	PURPLE{	PURPLE(5)	PURPLE{	54H(3)	54{
270	.750	4/0 AWG	250 MCM	A29D(1)	W166(4)	U29RT(2)	U29RT(2)	---	---	---	TR(3)	62()	11/16(6)	B26CH(3)	---	737(5)	737(5)	737(5)	737(5)	YELLOW{	YELLOW(5)	YELLOW{	62{	62{
280	.813	250 MCM	300 MCM	A30D(2)	---	U30RT(2)	U30RT(2)	---	---	---	TV(3)	66(3)	---	B10CH1(3) B10CH(3)	---	781(5)	781(3)	781(3)	781(2)	WHITE{	WHITE(5)	WHITE{	66{	66H{
290	.859	300 MCM	350 MCM	A30D(2)	---	U30RT(2)	U30RT(2)	---	---	---	---	66(3)	---	B10CH1(3) B10CH(3)	---	---	---	---	---	---	WHITE(7)	WHITE{	66(3)	66H{
295	.906	---	K185mm ²	A31D(2)	---	U31RT(2)	U31RT(2)	C31D(2)	C31R(2)	L31RT(1)	TX(7)	71H(4)	---	B11CH(3)	---	---	---	---	---	---	RED(7)	RED{	71H(4)	71H{
300	.906	350 MCM	400 MCM	A31D(2)	---	U31RT(2)	U31RT(2)	C31D(2)	C31R(2)	L31RT(1)	TX(7)	71H(4)	---	B11CH(3)	---	---	---	---	---	---	RED(7)	RED{	71H(4)	71H{
310	.953	400 MCM	450 MCM	---	---	U32RT(3) U30ART(2) U29YDT(3)	U32RT(3) U30ART(2) U29YDT(3)	---	---	---	---	---	---	B11CH(2)	---	---	15/16()	15/16()	15/16()	---	---	---	---	---
315	1.060	---	240mm ²	A34D(2)	---	U34RT(2)	U34RT(2)	C34D(2)	C34R(2)	L34RT(1)	---	87()	---	B12CH1(4) B12CH(4)	---	---	---	---	---	---	---	---	87H{	87H{
320	1.040	450 MCM	500 MCM 550 MCM	A34D(2)	---	U34RT(2)	U34RT(2)	C34D(2)	C34R(2)	L34RT(1)	---	87()	---	B12CH1(4) B12CH(4)	---	---	---	---	---	---	---	---	87H{	87H{
330	1.095	500 MCM	600 MCM	A34D(2)	---	---	U34RT(5)	C34D(2)	C34R(2)	L34RT(2)	---	87()	---	B12CH1(4) B12CH(4)	---	---	---	---	---	---	---	---	87H(4)	87H{
340	1.188	550 MCM	650 MCM	---	---	U36RT U32ART	U36RT U32ART	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	94H{	---
360	1.314	650 MCM	750 MCM 800 MCM	---	---	---	U39RT(5)	---	C39R(2)	L39RT(2)	---	---	---	---	---	---	---	---	---	---	---	---	106{	106H{
365	1.350	400mm ²	---	---	---	---	S/P40RT()	---	C40R(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	107H{	107H{
380	1.350	750 MCM	---	---	---	---	S/P40RT()	---	C40R(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	107H{	107H{
400	1.549	900MCM	1000MCM	---	---	---	S/P44RT(5)	---	C44R(2)	L44RT(2)	---	125H(5)	---	---	---	---	---	1-1/2H(4)	1-1/2(2)	---	---	---	125H(5)	---
410	1.549	1000 MCM	---	---	---	---	S/P44RT(5)	---	C44R(2)	L44RT(2)	---	125H(5)	---	---	---	---	---	1-1/2H(4)	1-1/2(2)	---	---	---	125H(5)	---
440	1.705	1250 MCM	---	---	---	---	---	C45D(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
470	1.846	1500 MCM	---	---	---	---	---	C46D(2)	---	L46RT(3)	---	150H(5)	---	---	---	---	---	---	---	---	---	---	---	---

NOTE: ROTATE EACH SUCCESSIVE CRIMP 90_ OR 180_ TO PREVENT EXCESSIVE DISTORTION.

() MIN. NUMBER OF CRIMPS REQUIRED WITHOUT OVERLAPPING SHOWN IN PARENTHESES ABOVE.

* USES ADAPTER 6515 WITH "U" DIES.

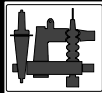
** USES ADAPTER P--UADP WITH "U" DIES.

*** 48PR INDENTER

{ DIES INDICATED USE MAXIMUM NUMBER OF CRIMPS WITHOUT OVERLAPPING.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



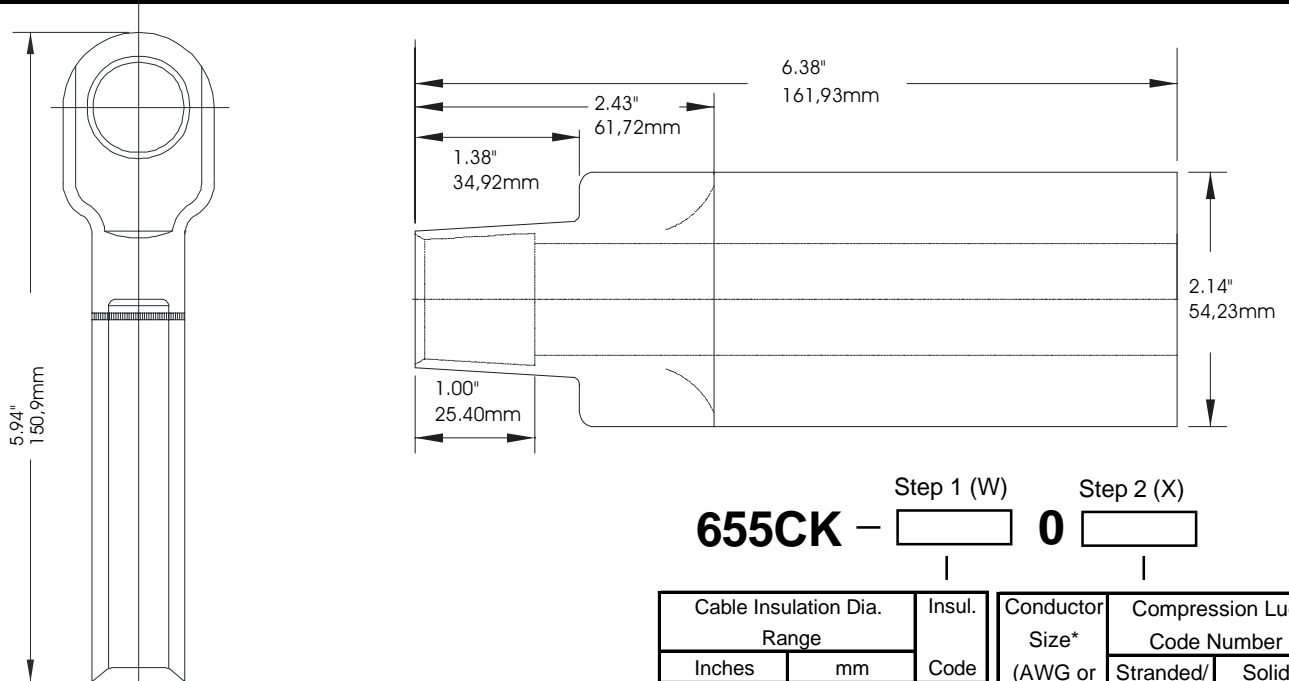
PRODUCT SPECIFICATION SHEET

C

DESCRIPTION

15/25kV 600 Amp Ebow Size Sensitive Kit

ELASTIMOLD PART NUMBER

655CK-W0X

Provides size sensitive components for all 15/25kV, 600 series connectors except Stick-Op and those products requiring a retaining ring. Kit includes, 655CA-W cable adapter and 03700XXX crimp connector.

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

The Size Sensitive Kit contains the following:

- 1 – Cable Adapter 655CA-W (Table 1)
- 1 – Compression lug 03700XXX (Table 2)
- 1 – Crimp chart IS-03700CC

Example:

The ordering number for a size sensitive kit for a 500MCM stranded, 175 mil wall cable with an insulation diameter of 1.235" (31.3 mm) is 655CK-L0330

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "0" in the compression lug code. The ordering number would be 655CK-L2330.

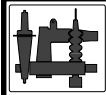
Step 1 (W) Step 2 (X)
655CK – **0**

Cable Insulation Dia. Range		Insul. Code	Conductor Size* (AWG or kcmil)	Compression Lug Code Number	
Inches	mm			Stranded/ Compr.	Solid/ Compact
.640 - .820	16,3 - 20,8	F	2	220	210
.760 - .950	19,3 - 24,1	G	1	230	220
.850 - 1.050	21,6 - 26,7	H	1/0	240	230
.980 - 1.180	24,9 - 30,0	J	2/0	250	240
1.090 - 1.310	27,7 - 33,3	K	3/0	260	250
1.180 - 1.465	30,0 - 37,2	L	4/0	270	260
1.280 - 1.430	32,5 - 36,3	LM	250	280	270
1.370 - 1.630	34,8 - 41,4	M	300	290	280
1.515 - 1.780	38,5 - 45,2	N	350	300	290
1.725 - 1.935	43,8 - 49,1	P	400	310	300
			450	320	310
			500	330	320
			550	340	320
			600	350	330
			650	360	340
			700	380	350
			750	380	360
			800	390	360
			900	400	380
			1000	410	400
			1250	440	420

Table 1

*Cu or Al conductor

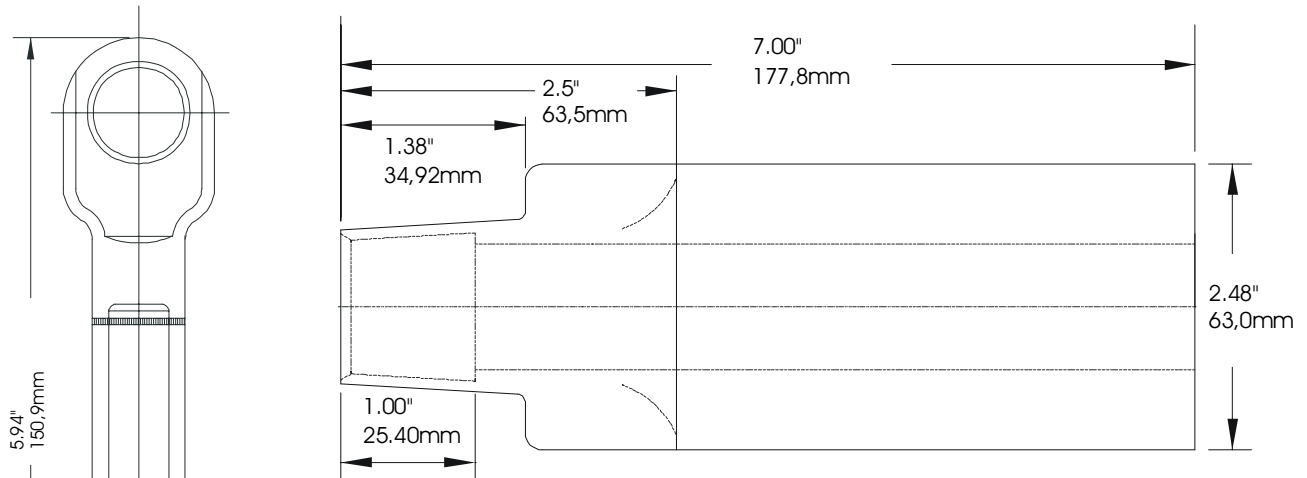
Table 2



DESCRIPTION

Stick-OP Size Sensitive Kit

ELASTIMOLD PART NUMBER

755CK-W0X

Step 1 (W) Step 2 (X)

755CK - **0**

Provides size sensitive components for all 35kV, 600 series connectors system except Stick-Op and those products requiring a retaining ring. Kit includes, 755CA-W cable adapter and 03700XXX crimp connector.

Ordering Instruction:**Step 1 (W)**

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

The Size Sensitive Kit contains the following:

- 1 - Cable Adapter 755CA-W (Table 1)
- 1 - Compression lug 03700XXX (Table 2)
- 1 - Crimp chart IS-03700CC

Example:

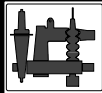
The ordering number for a size sensitive kit for a 500MCM stranded, 345 mil wall cable with an insulation diameter of 1.590" (40.4 mm) is 755CK-N0330

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "0" in the compression lug code. The ordering number would be 755CK-N2330.

Cable Insulation Dia. Range		Elbow Code	Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
Inches	mm			Stranded/Compr.	Solid/Compact
.760 - .950	19,3 - 24,1	G	1/0	240	230
.850 - 1.050	21,6 - 26,7	H	2/0	250	240
.980 - 1.180	24,9 - 30,0	J	3/0	260	250
1.090 - 1.310	27,7 - 33,3	K	4/0	270	260
1.180 - 1.465	30,0 - 37,2	L	250	280	270
1.280 - 1.430	32,5 - 36,3	LM	300	290	280
1.370 - 1.630	34,8 - 41,4	M	350	300	290
1.515 - 1.780	38,5 - 45,2	N	400	310	300
1.725 - 1.935	43,8 - 49,1	P	450	320	310
1.900 - 2.120	48,3 - 53,9	Q	500	330	320
			550	340	320
			600	350	330
			650	360	340
			700	380	350
			750	380	360
			800	390	360
			900	400	380
			1000	410	400
			1250	440	420

Table 1

*Cu or Al conductor
Table 2



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Straight Receptacle Housing

ELASTIMOLD PART NUMBER

K655YBSR

The **K655YBSR** 15/25kV straight receptacle housing kit is designed for use with I/Y/H splices and K655SR straight connectors.

The **K655YBSR** straight receptacle housing kit contains the following:

- | | |
|---|----------------|
| 1 – Straight receptacle housing | K655BSR (BIN) |
| 1 – Shipping protective cap, cable side | 1600-13-3 |
| 1 – Shipping protective cap, bushing side | 1600-13-7 |
| 1 – Hardware pre-pack bolt & washers | 650BAW |
| 3 – Tube, lubricant | 82-08(L) |
| 1 – Installation instruction | IS-YR 4/94 (L) |

Ratings:

per ANSI/IEEE Standard 386

25kV Voltage Class

15.2kV Max Phase-to-Ground - Operating Voltage

26.3kV Max Phase-to-Phase

125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

40kV AC - One minute Withstand

78kV DC - 15 Minutes Withstand

19kV AC - Corona Extinction @ 3p.C.sensitivity

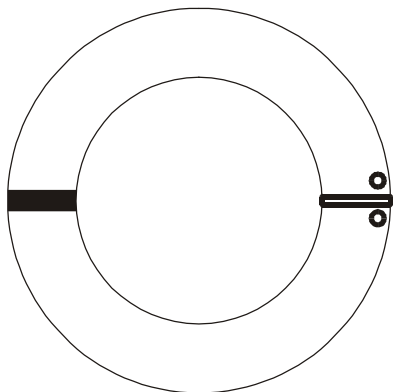
600 Amp - Continuous current

25kA sym, 10 cycles momentary current

DESCRIPTION

Adapter Retaining Ring

ELASTIMOLD PART NUMBER

650ARR-X

Ordering Instruction:

Step 1 (X)

Choose the proper retaining ring code according to the conductor size from the table. Insert code into the catalog number.

K650ARR –

Step 1 (X)

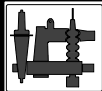
650ARR cable adapter retaining ring is designed to secure a cable adapter at proper position during installation of the housing.

Conductor Size* (AWG or kcMil)	Retaining Ring Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	380	350
750	380	360
800	390	360
900	400	380
1000	410	400
1250	440	420

ELASTIMOLD Route 24, Hackettstown, New Jersey 07840

Phone: (908) 852-1122 Fax: (908) 813-2108

Thomas & Betts



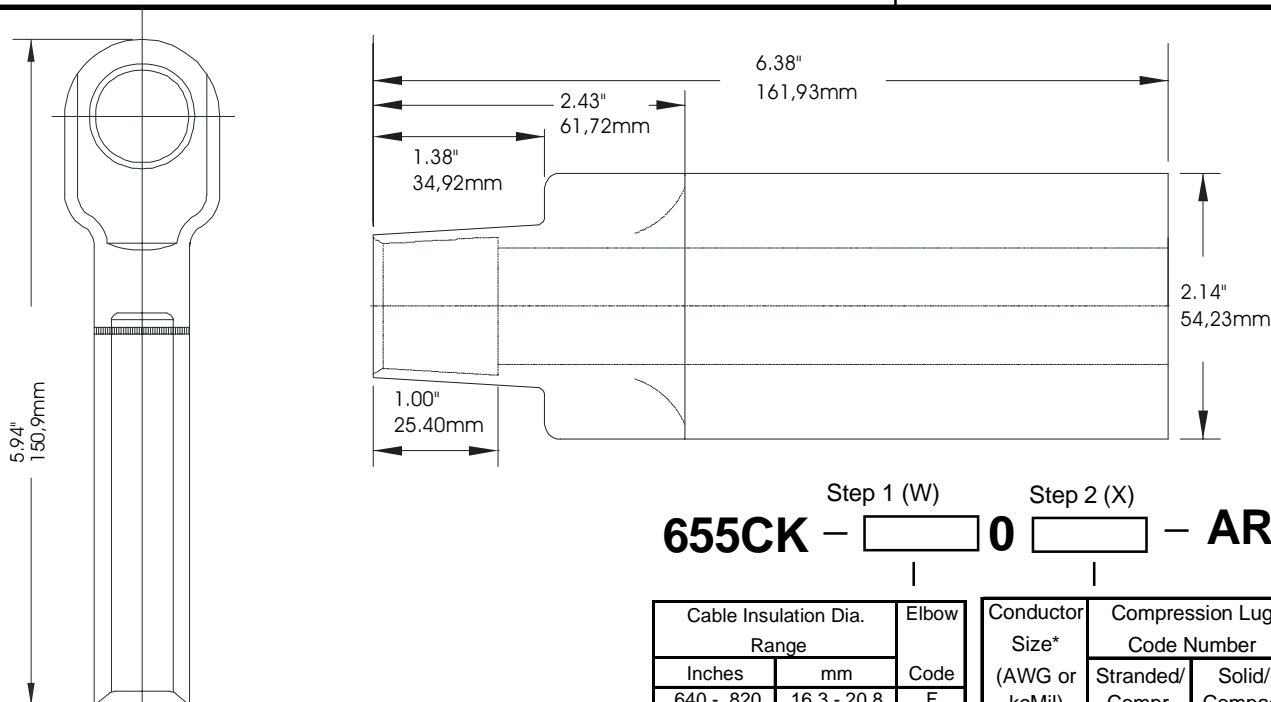
PRODUCT SPECIFICATION SHEET

C

DESCRIPTION

15/25kV 600 Amp Size Sensitive Kit w/ Retaining Ring

ELASTIMOLD PART NUMBER

655CK-W0X-ARR

Step 1 (W) Step 2 (X)

655CK - **0** - **ARR**

Size sensitive components for all 15/25kV, 600 series connectors that require a retaining ring such as K655SR, K656I, K656CY and K656CH. Kit includes, 655CA-W cable adapter, 03700XXX crimp connector and 650ARR-X retaining ring.

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

The Size Sensitive Kit contains the following:

- | | |
|---------------------|--------------------|
| 1 - Cable Adapter | 655CA-W (Table 1) |
| 1 - Compression lug | 03700XXX (Table 2) |
| 1 - Retaining Ring | 655ARR-X |
| 1 - Crimp chart | IS-03700CC |

Example:

The ordering number for a size sensitive kit for a 500MCM stranded, 175 mil wall cable with an insulation diameter of 1.235" (31.3 mm) is 655CK-L0330

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "0" in the compression lug code. The ordering number would be 655CK-L2330.

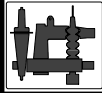
Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P

Table 1

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	380	350
750	380	360
800	390	360
900	400	380
1000	410	400
1250	440	420

*Cu or Al conductor

Table 2



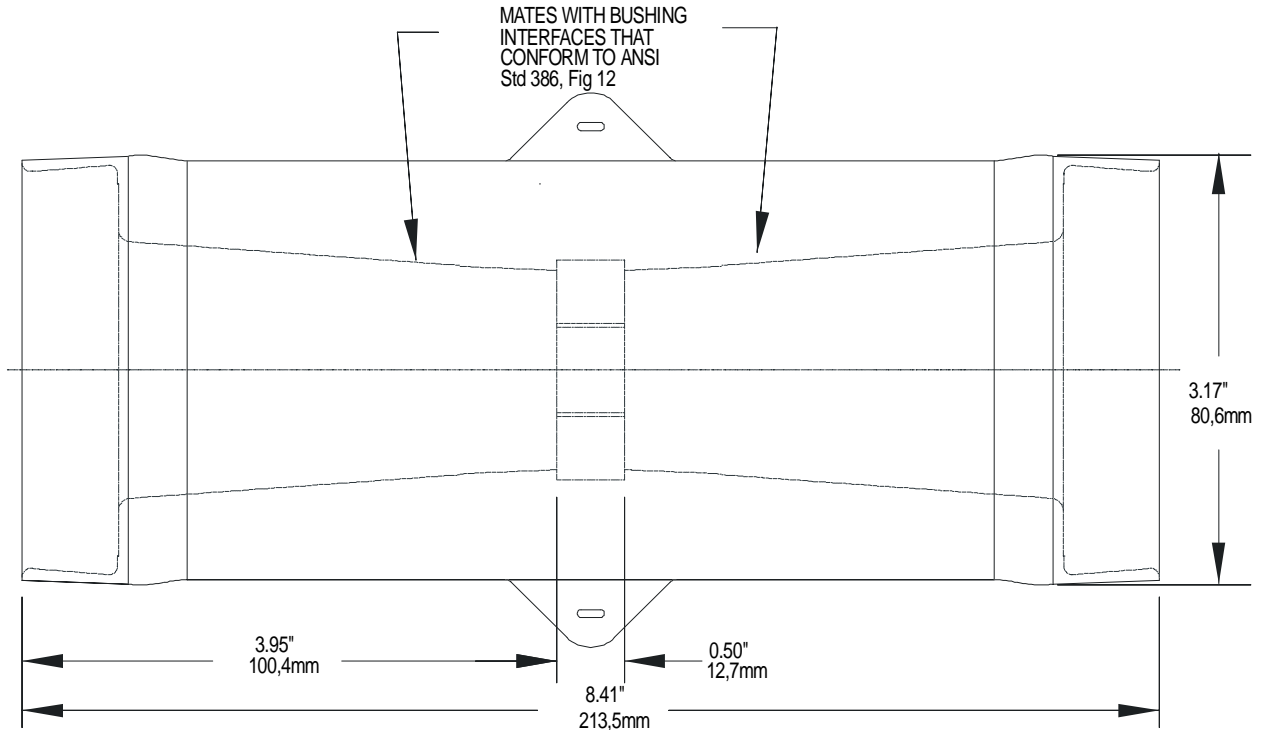
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

15/25kV 600A Bushing Extender

ELASTIMOLD PART NUMBER

K655BE

Application:

The Elastimold 15/25kV K655BE bushing extender increases the distance between the surface of a piece of apparatus and the point at which cable enters a 600 Amp elbow connection. It is fully shielded, submersible and supplied with a threaded stud attachment. The bushing extender can be used with other Elastimold products including:

K650CP, K650BIP, K650RTP, K650RTW, K650S1, K650T1, K650 junction, 650ETP, K650ETP, 650LRTPA3 and K650LRTPA2.

Ratings

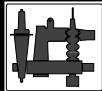
Exceeds ANSI/IEEE Standard 386
 25kV Voltage Class
 16.2kV Max Phase-to-Ground - Operating Voltage
 28kV Max Phase-to-Phase
 140kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 45kV AC - One minute Withstand
 84kV DC - 15 Minutes Withstand
 21.5kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order 15/25 kV 600A bushing extender housing specify **K655BE**.

The 600A bushing extender kit contains the following:

1 - Bushing Extender housing	K655BE
1 - Stud	650SA
1 - Tube, lubricant	82-08
1 - Installation instruction	IS-BE (A) 4/91



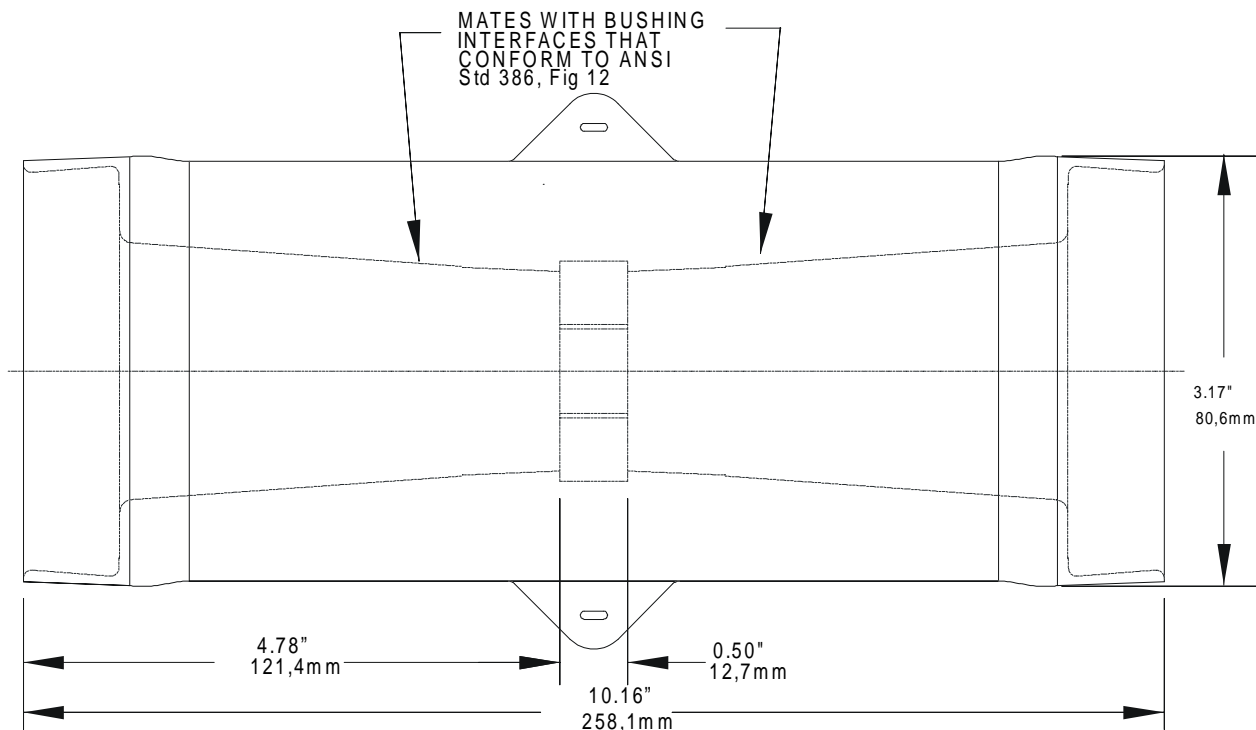
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

35kV 600A Bushing Extender

ELASTIMOLD PART NUMBER

755BE

Application:

The Elastimold 35kV 755BE bushing extender increases the distance between the surface of a piece of apparatus and the point at which cable enters a 600 Amp elbow connection. It is fully shielded, submersible and supplied with a threaded stud attachment. The bushing extender can be used with other Elastimold products including:

750CP, 750BIP, 750S1, 750T1, 775T1, 750 junction, 750ETP and 750LRTPA2.

Ratings:

per ANSI/IEEE Standard 386
 35kV Voltage Class
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order 35 kV 600A bushing extender housing specify **755BE**.

The 35kV 600A elbow bushing extender kit contains the following:

1 - Bushing Extender housing	755BE
1 - Stud	750SA
1 - Tube, lubricant	82-08
1 - Installation instruction	IS-BE (A) 4/91

Installation Instructions 15,25,35kV 600/900 AMP Bushing Extension

CONTENTS: Bushing Extension, Lubricant (DO NOT SUBSTITUTE), Installation Instruction, Stud Prepack

The bushing extensions with voltage and current ratings as indicated on the product when used with the appropriate mating components, can provide: 1) a 600/900 ampere bushing extension, 2) a 200 ampere tap or 3) an insulated shielded and water-tight cap for a 600/900 ampere bushing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

IMPORTANT

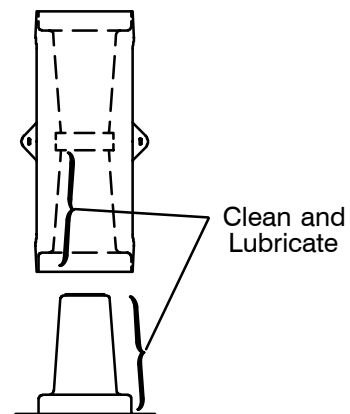
1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.

4. Have all required tools at hand and observe cleanliness throughout the procedure.

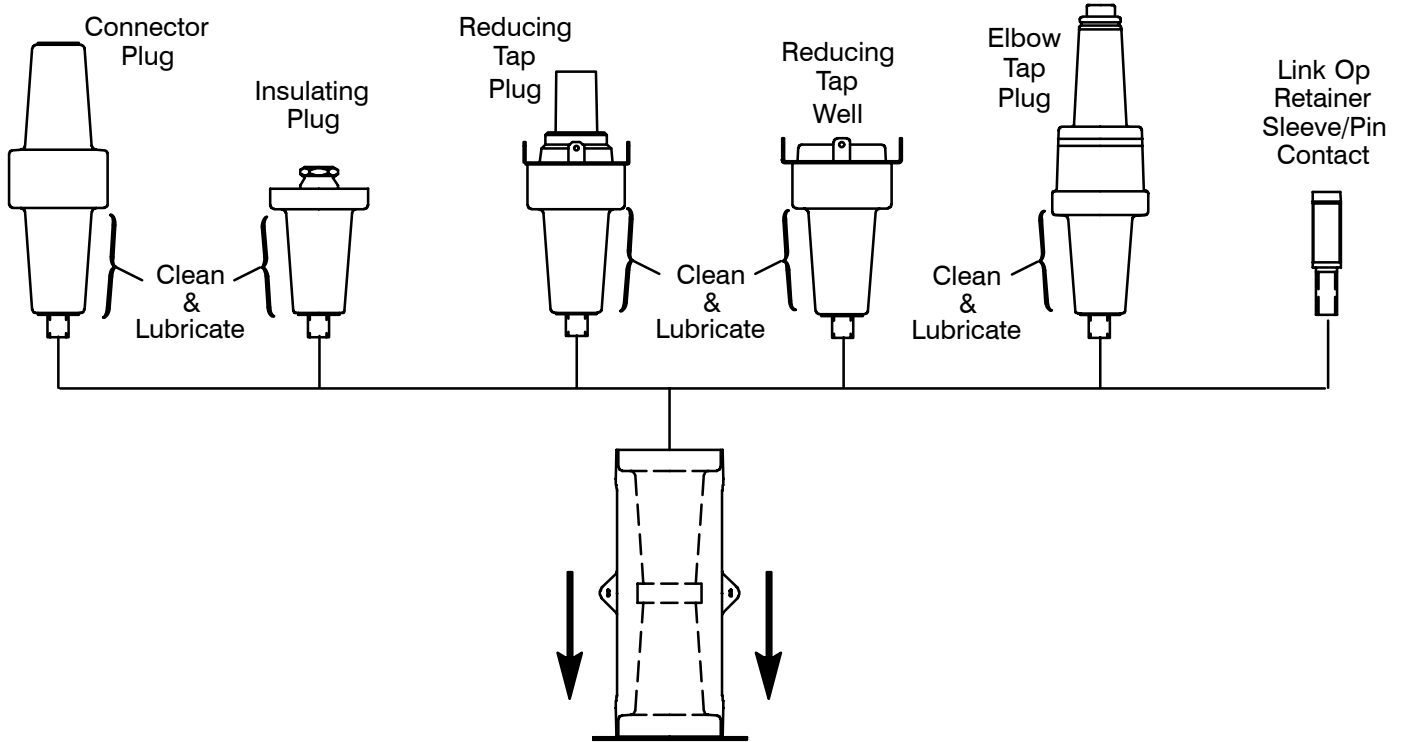
STEP 1

Remove protective caps from the bushing extension. Clean and lubricate the entire bushing extension interface as noted, with lubricant supplied or ELASTIMOLD approved lubricant. Keep mating surfaces of bushing and extension clean.



STEP 2

Clean and lubricate the entire interface of a connector plug, deadend plug, reducing tap plug, reducing tap well or elbow tap plug as noted with the lubricant supplied or ELASTIMOLD approved lubricant. Finger tighten the double ended stud supplied with the bushing extension into one of these mating products. Insert this product into the bushing extension. While pushing the assembly onto the bushing engage the threads and hand tighten.



STEP 3

Tighten assembly as follows:

FOR INSULATING PLUG, (K)650BIP, (K)675BIP, 750BIP, 775BIP

Use torque wrench and tighten exerting 50 to 60 foot- -pounds of torque.

FOR EPOXY CONNECTOR PLUG, (K)650CP, (K)675CP. REDUCING TAP PLUG, (K)650RTP, (K)675RTP or TAP WELL, (K)650RTW, (K)675RTW, Use torque wrench with an ELASTIMOLD 600SW spanner wrench and tighten to an indicated torque of 40 to 48 foot- -pounds.

FOR RETAINER SLEEVE/PIN CONTACT

Use 600- -AT and torque to 50 to 60 foot- -pounds using a suitable tool attached to the hex. (Refer to Link instruction sheet for remaining assembly).

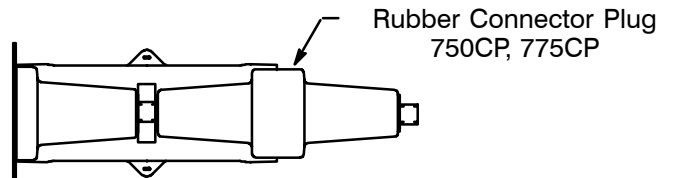
FOR ELBOW TAP PLUG, 750ETP

Use torque wrench with 600ATM and tighten exerting 50- -60 foot- -pounds of torque.

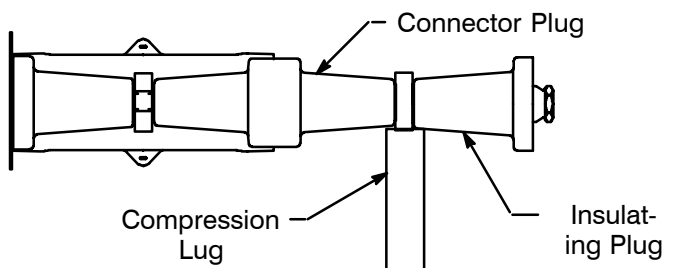
FOR RUBBER CONNECTOR PLUG, 750CP, 775CP

Proceed as follows:

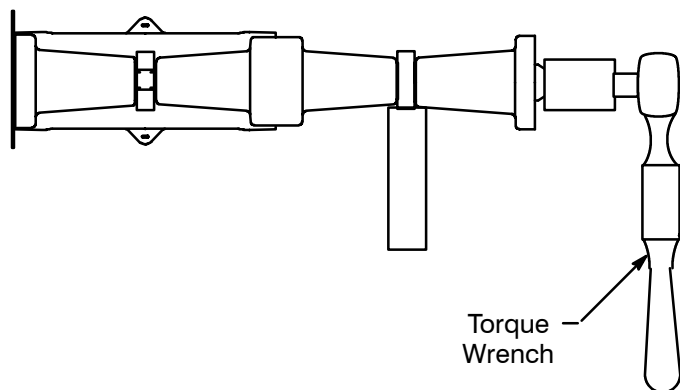
Assemble the components as shown. Hand tighten the rubber connecting plug.



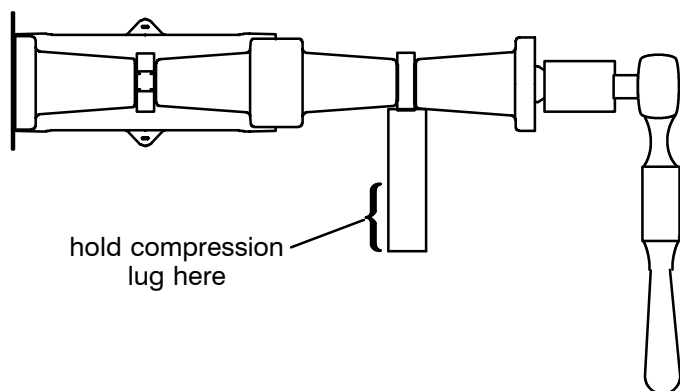
To provide a means of torquing the connector plug, temporarily install and hand tighten a compression lug and insulating plug as shown.



Use a torque wrench on the insulating plug nut and tighten, exerting 50 to 60 foot- pounds of torque.



To prevent the connector plug from loosening when removing the insulating plug, hold the compression lug and then break the torque at the insulating plug. Remove compression lug and insulating plug.



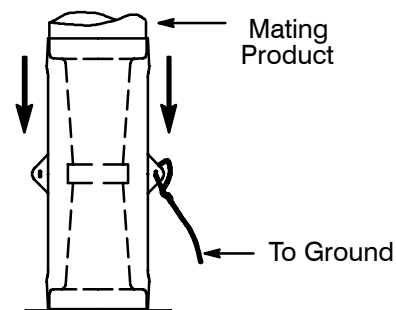
STEP 4

Clean and lubricate the remaining interface of the connector plug, reducing tap plug, reducing tap well or the elbow tap plug with the lubricant supplied or ELASTIMOLD approved lubricant. Assemble the appropriate mating component according to the instructions supplied with the product. For the insulating plug, assemble the protective cap included with it, as per its instructions.

STEP 5

Connect a short length of #14 AWG copper wire or equivalent to the grounding eye of the bushing extension. Make a small loop and twist tightly taking care not to damage the eye. Connect this wire to ground using suitable connector.

Mating components assembled in STEP 4 which require a ground should also be connected to ground in this manner.

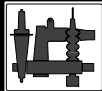


WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W--EE2).



Route 24, Hackettstown, New Jersey 07840 USA
(908)852- -1122 FAX: (908)852- -6158



PRODUCT SPECIFICATION SHEET

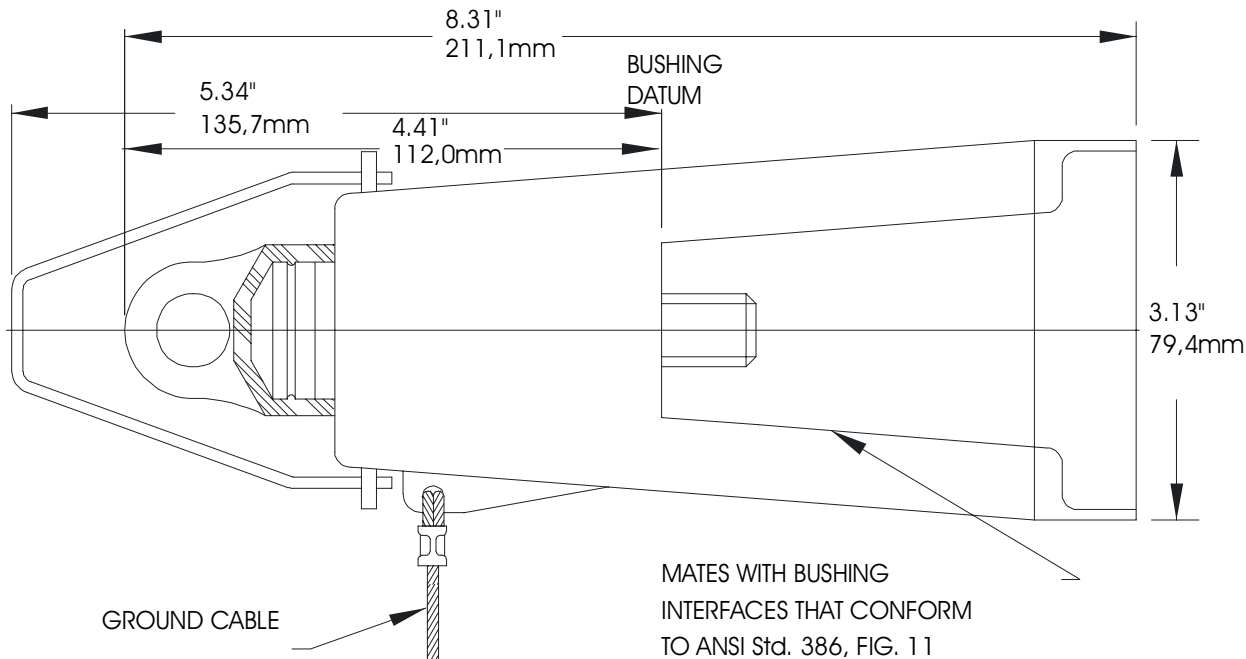
DESCRIPTION

15/25kV 600A Insulated Cap w/ Test

ELASTIMOLD PART NUMBER

K656DR

Point



Application:

The Elastimold insulated cap is designed to insulate, shield, and water seal 15/25kV, 600 Amp IEEE Std. 386 bushing interfaces. Units have a capacitance test point which can be used to check if the system is energized. A threaded stud attachment is standard.

Ordering Instruction:

To order 15/25 kV 600A insulated cap with test point, please specify **K656DR**.

The 600A insulated cap kit contains the following:

1 – Insualted Cap w/ T. P.	K656DR
1 – Stud	650SA
1 – Tube, lubricant	82-08
1 – Installation instruciton	IS-K656DR 5/97

Ratings

Exceeds ANSI/IEEE Standard 386
 25kV Voltage Class
 16.2kV Max Phase-to-Ground - Operating Voltage
 28kV Max Phase-to-Phase
 140kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 45kV AC - One minute Withstand
 84kV DC - 15 Minutes Withstand
 21.5kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Installation/Operating Instructions K656DR Insulated Cap with Test Point

CONTENTS: Insulated Cap, Lubricant (Do Not Substitute), Stud (if applicable), Installation Instructions.

The K656DR is designed for insulating, shielding and watersealing any ELASTIMOLD 15kV class (8.3kV phase-to-ground) and 25kV class (15.2 kV phase-to-ground) 600 amp deadbreak bushing interface.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

IMPORTANT

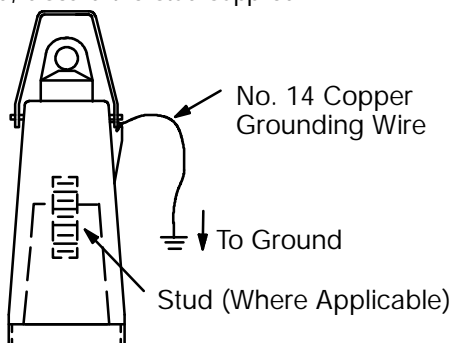
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

Installing The Insulating Cap

STEP 1

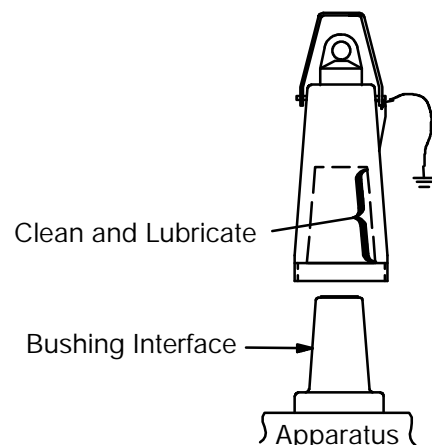
Insert a length of No. 14 AWG (2.5mm@) copper wire (or equivalent) through the grounding eye of the insulated cap. Make a small loop and twist tight, taking care not to damage the grounding eye. Connect free end of grounding wire to the system ground using a suitable connector. Length of grounding wire should be sufficient for the distance from the grounding point to the grounding eye of the insulated cap when installed.

If the bushing is not equipped with a stud, hand assemble the stud supplied into the insulated cap. If the bushing is equipped with a stud, discard the stud supplied.



STEP 2

In new installations, where the bushing is known to be de-energized, thoroughly wipe the bushing interface and the insulated cap interface clean of all contaminants. Lubricate above surfaces with the supplied lubricant or Elastimold approved lubricant. On circuits previously energized, clean and lubricate **only** the interface of the insulated cap.

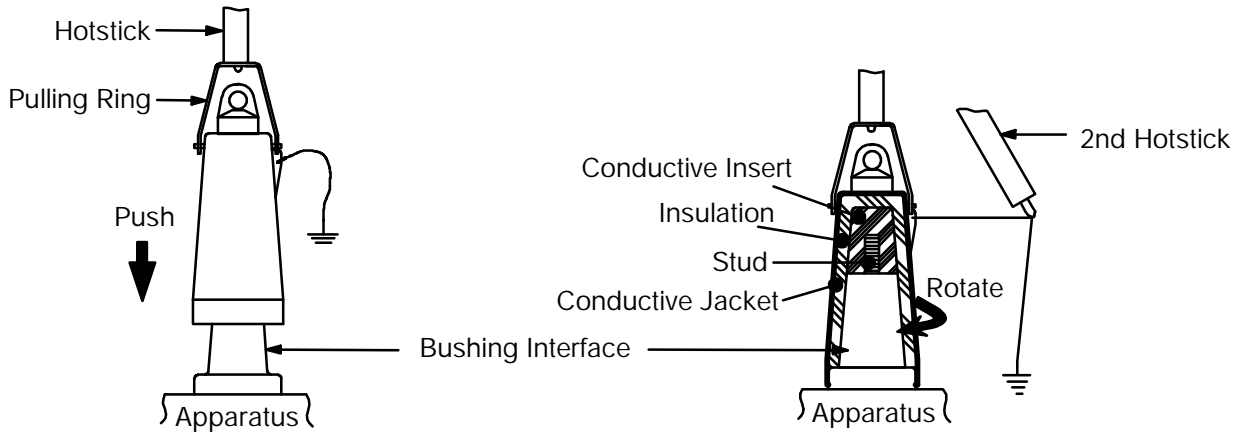


ELASTIMOLD

STEP 3

During installation of the insulated cap, the grounding wire will be wrapped around the body of the insulated cap. A second hotstick will be required to control the tension and position of the grounding wire. The wire should be wrapped loosely about the center of the insulated cap.

Attach the first hotstick tool to the insulated cap pulling ring and push receptacle onto bushing interface as far as it will go. With the second hotstick, engage grounding wire and establish slight tension (see illustration). With first hotstick, while pushing against the bushing interface, twist clockwise until the threads between bushing and insulated cap engage; continue turning without pushing until resistance is felt. **DO NOT OVERTIGHTEN.**



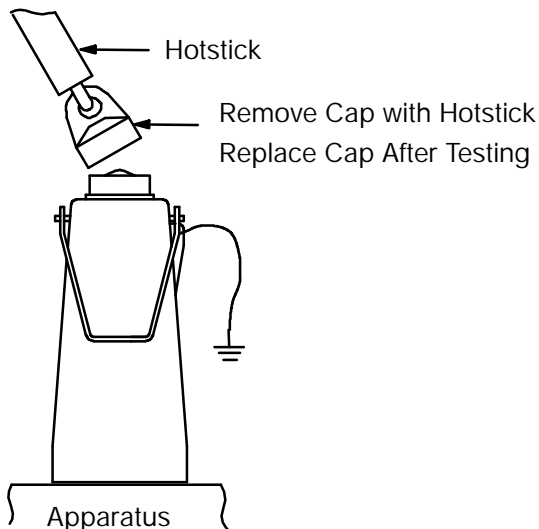
Removing The Insulated Cap

WARNING: DO NOT DISCONNECT WHILE ENERGIZED.

STEP 1

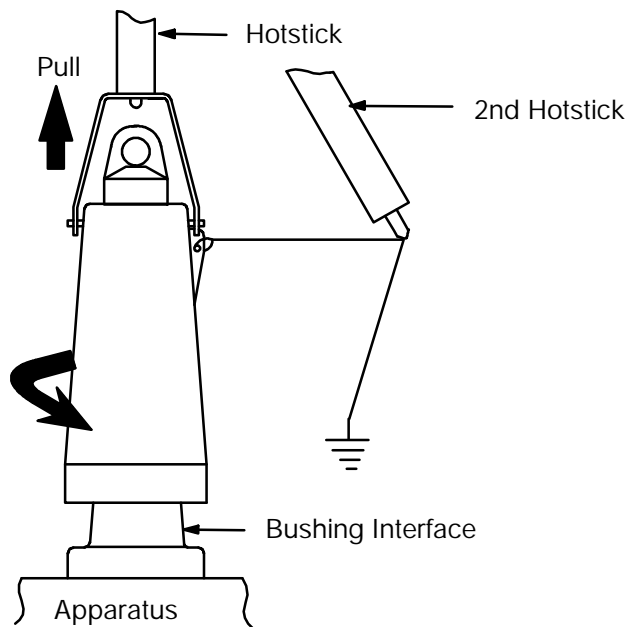
To determine if the system is energized, remove the voltage detection point cap with a hotstick. When removing cap, **PEEL OFF AT AN ANGLE** rather than pulling directly in line with the voltage detection assembly. Using an appropriate high impedance testing device, check the voltage detection point for indication of circuit condition. **Replace the voltage detection point cap.**

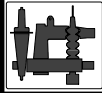
CAUTION: The voltage detection point is a capacitance device; it is not directly connected to the conductor. It requires the use of specially designed instruments. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT: NO INDICATION WILL BE OBTAINED. FOR CORRECT TEST POINT VOLTAGE INDICATION, THE INSULATED CAP HOUSING MUST BE GROUNDED.**



STEP 2

After the circuit is known to be de-energized, securely fasten a hotstick to the pulling ring. Without exerting any pulling force, rotate the receptacle **counter-clockwise** eight or nine turns. With a second hotstick tool, control the unwound ground wire so that the wire will not interfere with adjacent devices or entangle itself with the first hot stick tool. Then exert pulling force to remove the insulated cap from the bushing interface.





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

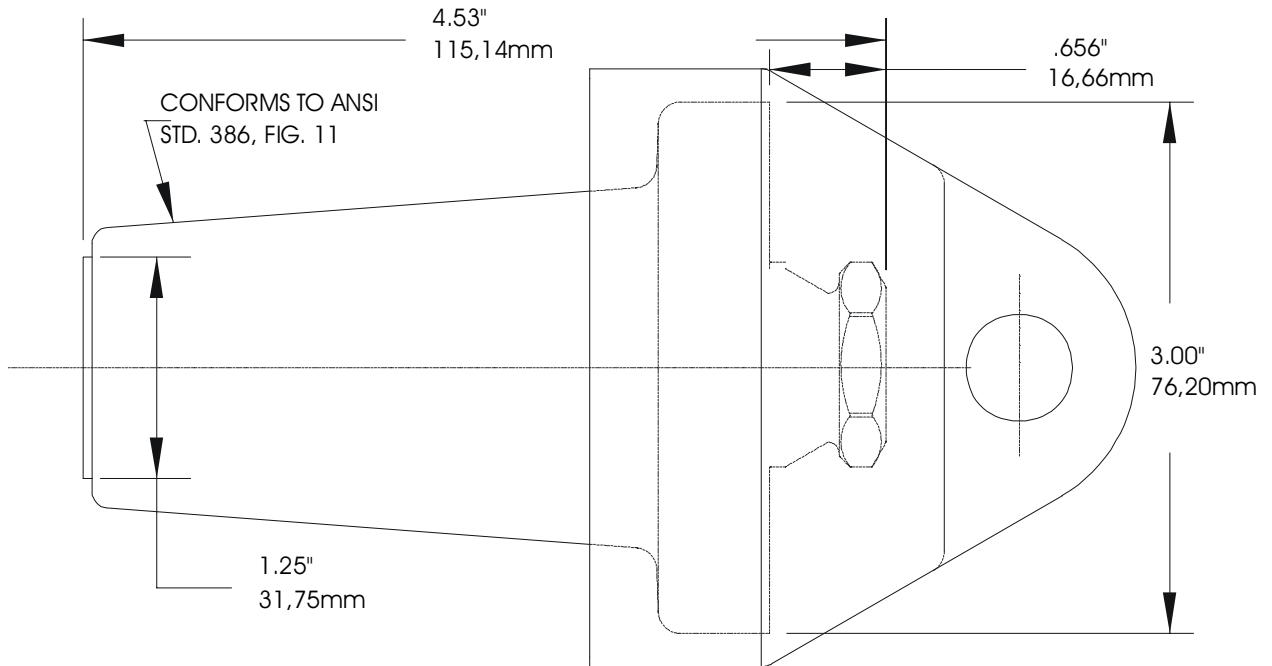
PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 600A Basic Insulated Plug

ELASTIMOLD PART NUMBER

K650BIP



Application:

The K650BIP, 15/25kV basic insulated plug attaches and insulates Elastimold K655BLR/K656BLR, K655BE and K655BVS 600 Amp connectors. It is equipped with a capacitive test point and an EPDM molded rubber sealing cap as standard.

Ordering Instruction:

To order 15/25 kV 600A basic insulated plug specify **K650BIP**.

The 600A basic insulated plug kit contains the following:

- | | |
|---------------------------------|--------------|
| 1 – Basic Insulating Plug w/cap | K650BIP |
| 1 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-PLUG 3/91 |

Ratings:

- Exceeds ANSI/IEEE Standard 386
- 25kV Voltage Class
- 16.2kV Max Phase-to-Ground - Operating Voltage
- 28kV Max Phase-to-Phase
- 140kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 45kV AC - One minute Withstand
- 84kV DC - 15 Minutes Withstand
- 21.5kV AC - Corona Extinction @ 3p.C.sensitivity
- 600 Amp - Continuous current
- 25kA sym, 10 cycles momentary current

Installation Instructions 15/25/35kV 600/900 AMP Plug and Well Products

CONTENTS: 1-Plug or Well, Lubricant (DO NOT SUBSTITUTE), 1-Installation Instructions.

The plug and well are power distribution product accessories designed for use on 600/900 ampere systems. They can be mated with a 600 ampere elbow or bushing extension. They can also be used on single phase laterals of 3 phase circuits. Refer to mating product installation instructions:

- 15/25/35kV 600/900 amp Elbows
- 15/25/35kV 600/900 amp Bushing Extensions

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

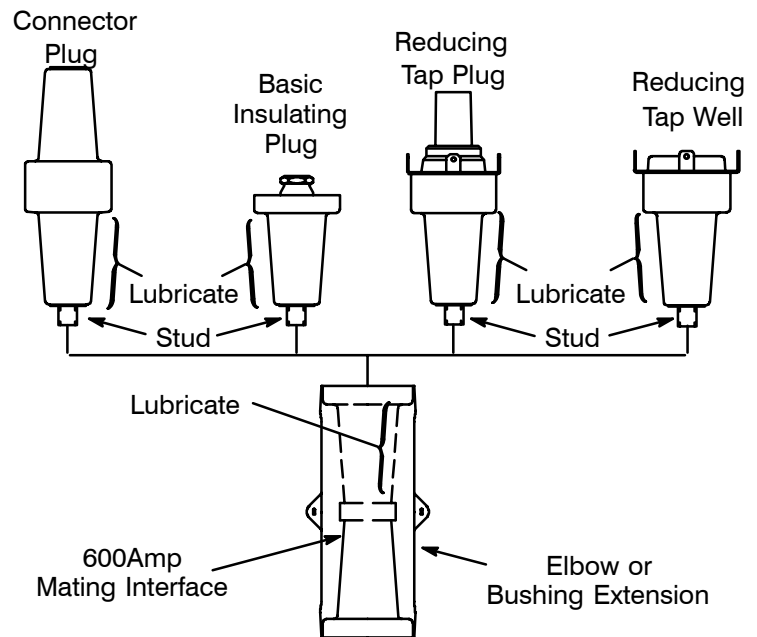
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Remove protective caps from the plug or well product. The elbow and bushing extension come packaged with a stud. Hand tighten the stud into a 600amp interface on the plug or well if the 600amp mating interface is not equipped with a stud. Lubricate both the elbow and its mating part as indicated with the lubricant supplied. DO NOT SUBSTITUTE. Other lubricants may be harmful to the products. Be sure to keep surfaces of elbow and mating parts clean.

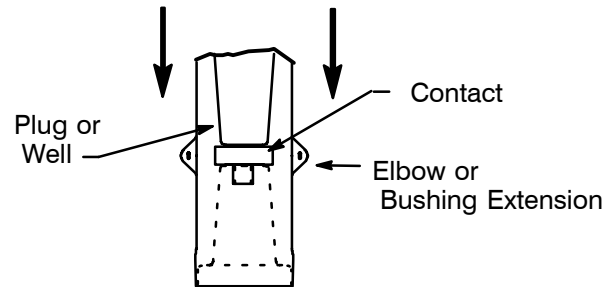


A Unit of Thomas & Betts

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147

STEP 2

Push the plug or well into the elbow or bushing extension and engage the threads.



STEP 3

FOR INSULATING PLUG:

Use torque wrench and tighten exerting 50 to 60 foot-pounds of torque.

FOR CONNECTOR PLUG, TAP PLUG OR TAP WELL:

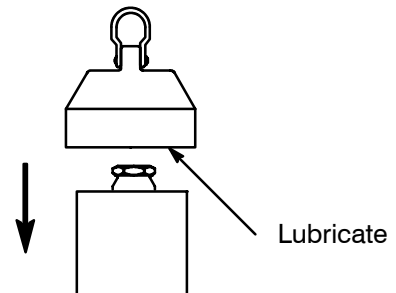
Use torque wrench with an ELASTIMOLD 600SW spanner wrench. Since the indicated torque reading is not the actual torque applied in this case, the indicated torque should be from 40 to 48 foot-pounds.

FOR 750 SERIES CONNECTING PLUG:

Refer to special instructions (IS-750CP) packaged with the 750CP connector plug.

STEP 4

For insulating plug lubricate inner surface of voltage detection cap and place on plug and elbow. Push down until cap "snaps" into place.



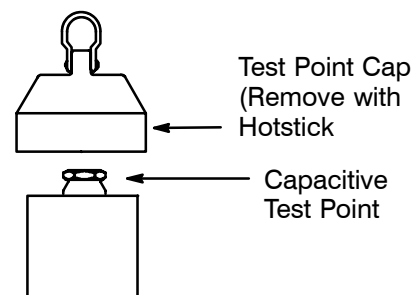
STEP 5 VOLTAGE TEST ON INSULATING PLUG

The ELASTIMOLD insulating plug is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick.
2. Using a suitable sensing device proceed to determine if cable is energized.

CAUTION: The voltage test point is a capacitance device; it is not directly connected to the connector. It requires the use of specially designed instruments. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT; NO INDICATION WILL BE OBTAINED.**

3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.

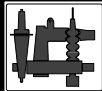


ELASTIMOLD

A Unit of Thomas & Betts

Esna Park Drive, Hackettstown, New Jersey 07840 USA

(908)852-1122 FAX: (908)813-2147



ELASTIMOLD

ISSUE DATE 0199

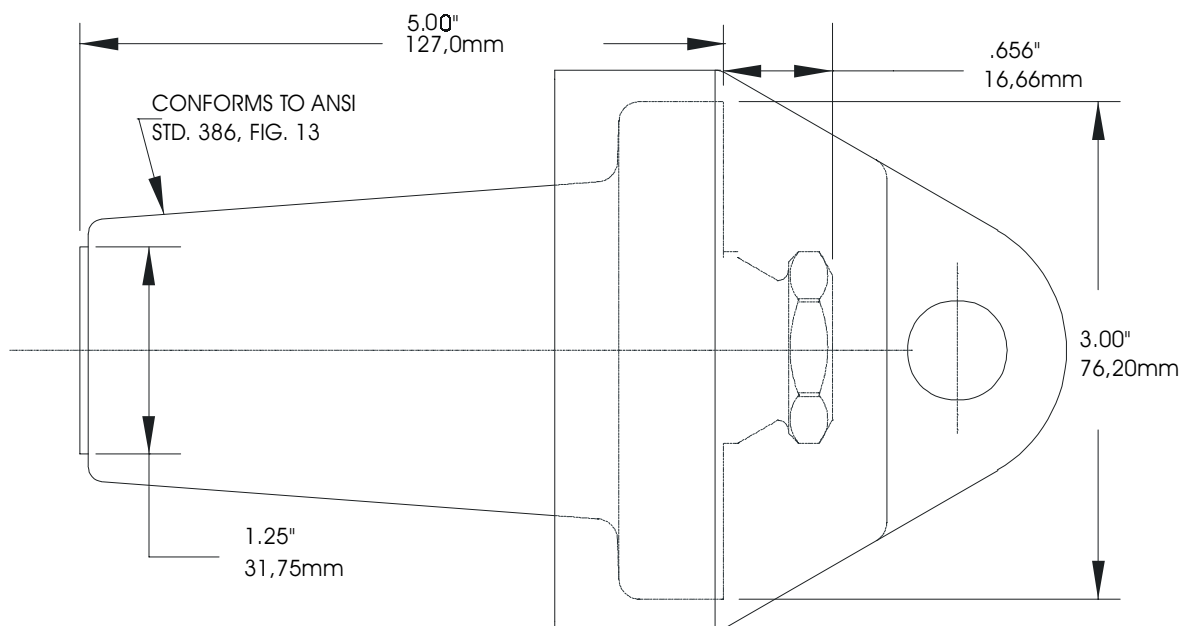
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 600A Basic Insulated Plug

ELASTIMOLD PART NUMBER

750BIP

Application:

The 750BIP, 35kV basic insulated plug attaches and insulates Elastimold 755BLR/756BLR, and 755BE 600 Amp connectors. It is equipped with a capacitive test point and a EPDM molded rubber sealing cap as standard.

Ordering Instruction:

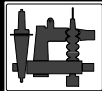
To order 35 kV 600A basic insulated plug specify **750BIP**.

The 600A basic insulated plug kit contains the following:

1 – Basic insulating plug w/cap	750BIP
1 – Tube, lubricant	82-08
1 – Installation instruction	IS-PLUG 3/91

Ratings:

per ANSI/IEEE Standard 386
 35kV Voltage Class
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minute Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current



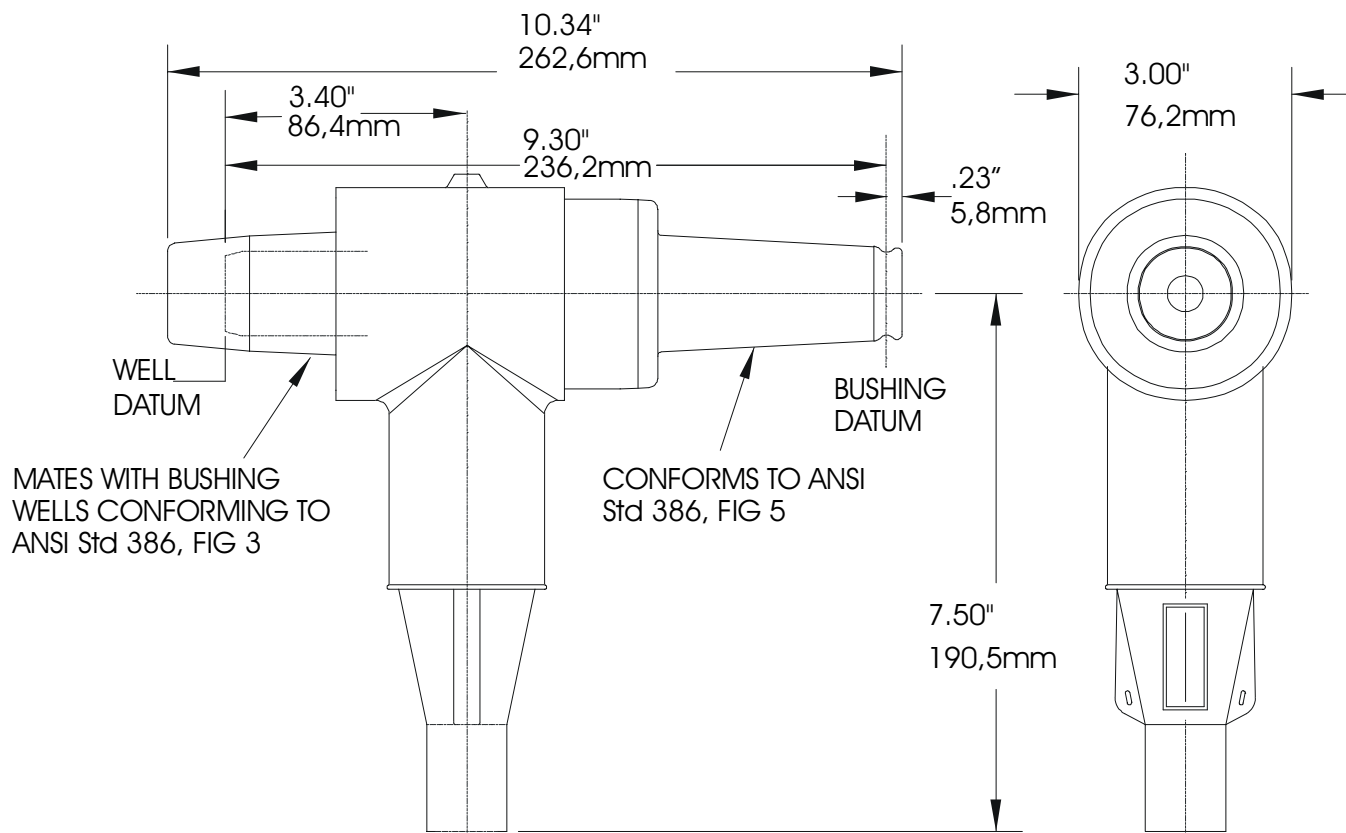
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15kV 200A Bolted Elbow

ELASTIMOLD PART NUMBER

167LRT-WX

The Elastimold 167LRT Bolted Elbow with Tap is a deadbreak elbow connector with a (D) loadbreak tap. It is rated as a 200 AMP, 15kV deadbreak connector. The 167LRT is installed using the installation tool supplied with the product kit. The loadbreak-rated tap point must be covered with an insulated cap when not in use.

Features

- 15kV, 200A Deadbreak Elbow Connector.
- 15kV, 200 Amp Loadbreak tap point.
- Fully-shielded, fully submersible molded rubber housing (when mated with the appropriate connector or insulated cap).
- Peroxide-cured insulation, insert and jacket.

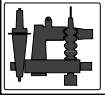
Ratings

per ANSI/IEEE Standard 386

- 15kV Voltage Class
- 8.3 kV Max Phase-to-Ground - Operating Voltage
- 14.4kV Max Phase-to-Phase
- 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 34kV AC - One minute Withstand
- 53kV DC - 15 Minute Withstand
- 11kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

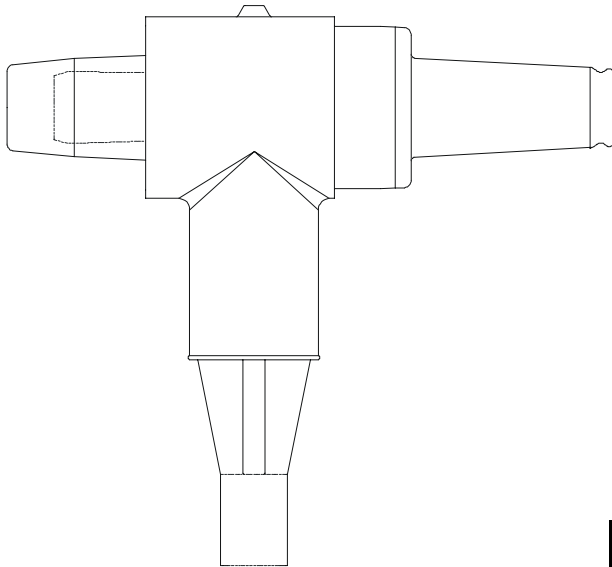
Applications

- The 167LRT Bolted Elbow with Tap is designed for connecting to and operating 15kV-class, 95BIL distribution apparatus.
- The 167LRT provides a fully-rated loadbreak operating interface for phasing, grounding, testing or arrester protection.



15kV 200A Bolted Elbow

167LRT-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number after the insulation code.

167LRT – – 5

Cable Insulation Dia. Range		Elbow Code
Inches	mm	Code
.760 - .950	19.30 – 24.13	G
.850 – 1.050	21.59 – 26.67	H
.980 – 1.180	24.89 – 29.97	J
1.090 – 1.310	27.69 – 33.27	K

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

*Cu or Al conductor

The Bolted Elbow kit contains the following:

1 – Elbow connector housing	167LRT-W
1 – Compression lug	02800X
1 – Stud extender (well contact)	167-112
1 – Lubricant	82-08
1 – Installation tool	200-15
1 – Wrench	271-94
1 – Installation instruction	IS-167LRT (A) 2/94
1 – Crimp chart	IS-02500CC 10/96

Example:

The ordering number for a Bolted Elbow for a 1/0 AWG, 200 mil wall cable with an insulation diameter of .875" (22,2mm) is 167LRT-G-5240.

For an all copper compression lug for use on copper cable only, substitute the prefix "2" instead of "5" in the compression lug code. The ordering number would be 167LRT-G-2240.

Installation Instructions 167LRT LOADBREAK BUSHING TAP

CONTENTS: *Bushing Tap Housing, Compression Lug, Socket Contact, Wrenches, Lubricant (Do Not Substitute), Well Contact, Installation Tool, Installation/Operating Instruction.*

The 167LRT is designed to terminate UD cable having concentric neutral and extruded insulation shielding. The bushing provides an operating interface for connecting of an Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) 200ampere loadbreak elbow or accessory device. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

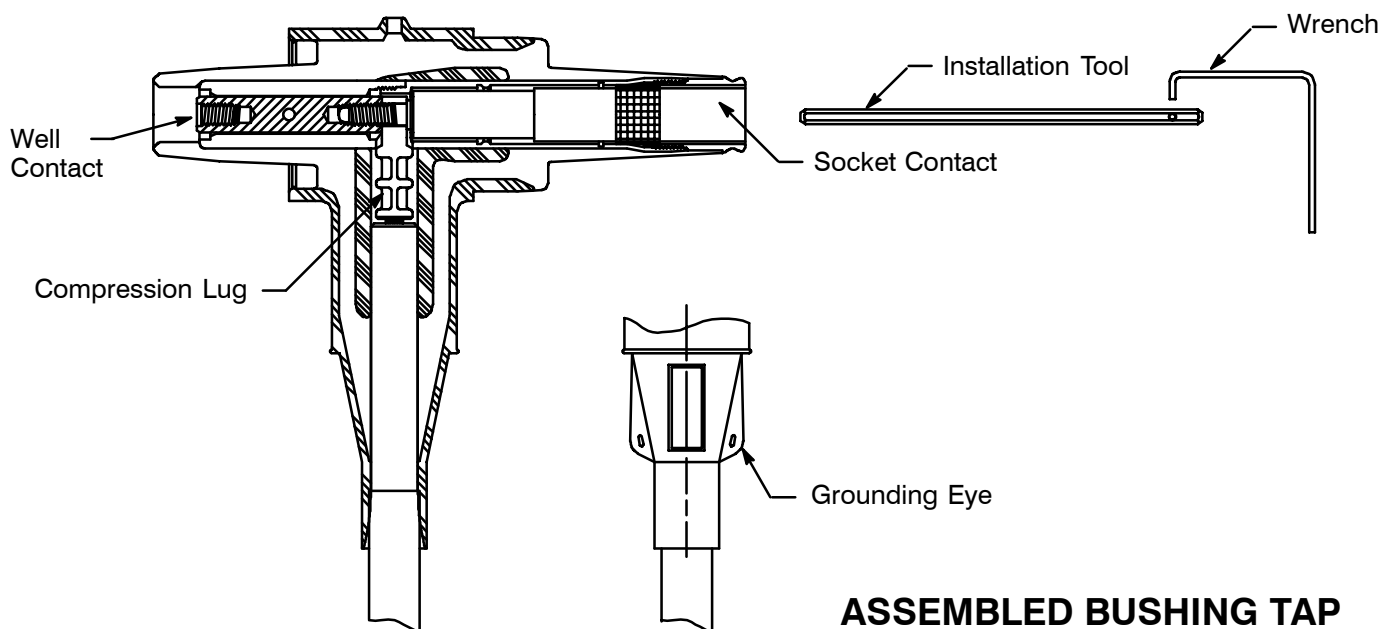
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cover. Remove the shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

IMPORTANT

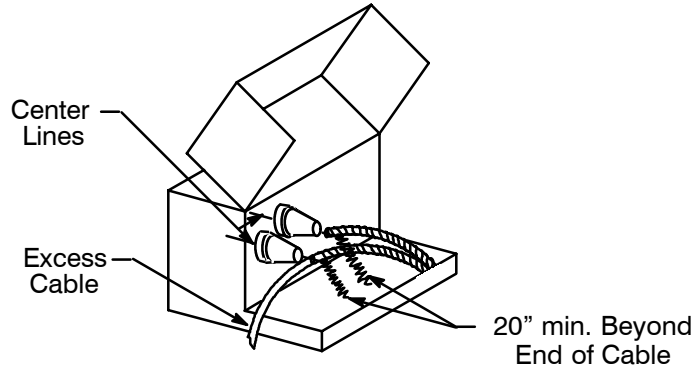
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



ELASTIMOLD

STEP 1 CABLE TRAINING

1. Train cable as shown to ease operation.
2. Cut excess cable squarely at center line of bushing.

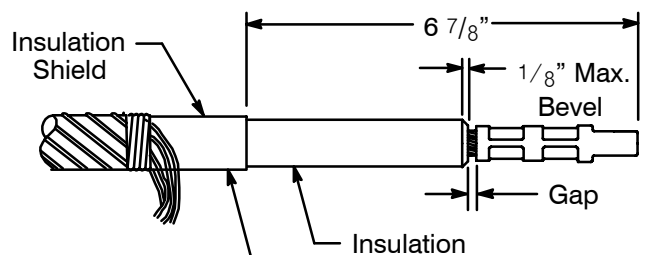
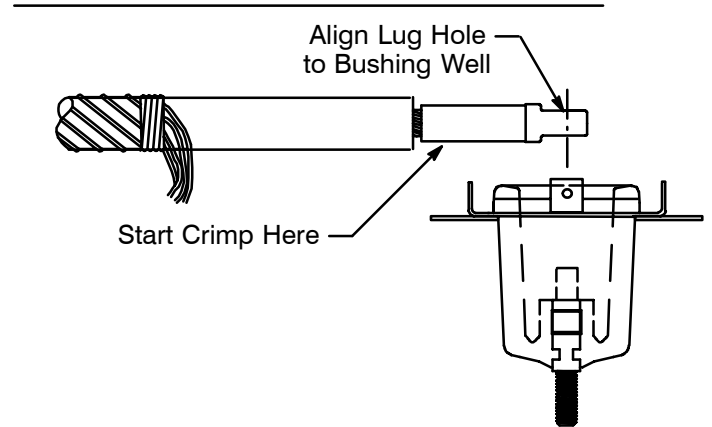
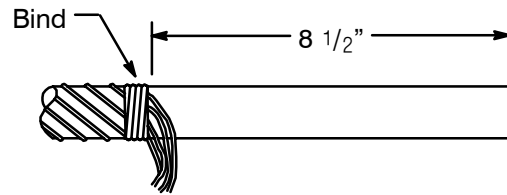


Pad Mount Transformer

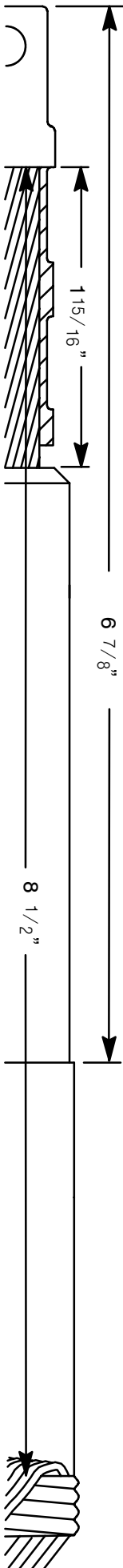
STEP 2 CABLE PREPARATION

(Use cable cut back template for dimensional guide.)

1. Unwrap and bind concentric neutral wires 8 1/2" back from end of cable.
2. Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.
3. Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor. Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information.) Start crimp at the crimp line mark. Rotate 180° each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.
4. Remove insulation shield as shown. Bevel insulation end !P8" max.
5. Thoroughly clean insulation to remove all traces of conductive residue.



Straight, Smooth & Squared
 Do not cut or nick insulation.



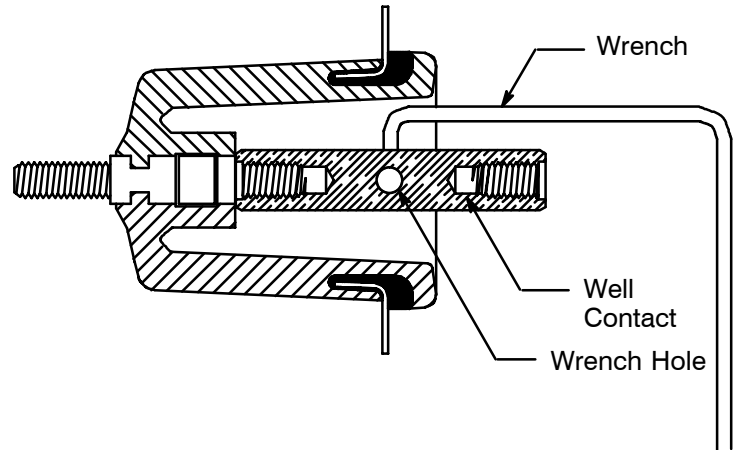
CABLE CUT BACK TEMPLATE

6 7/8"

8 1/2"

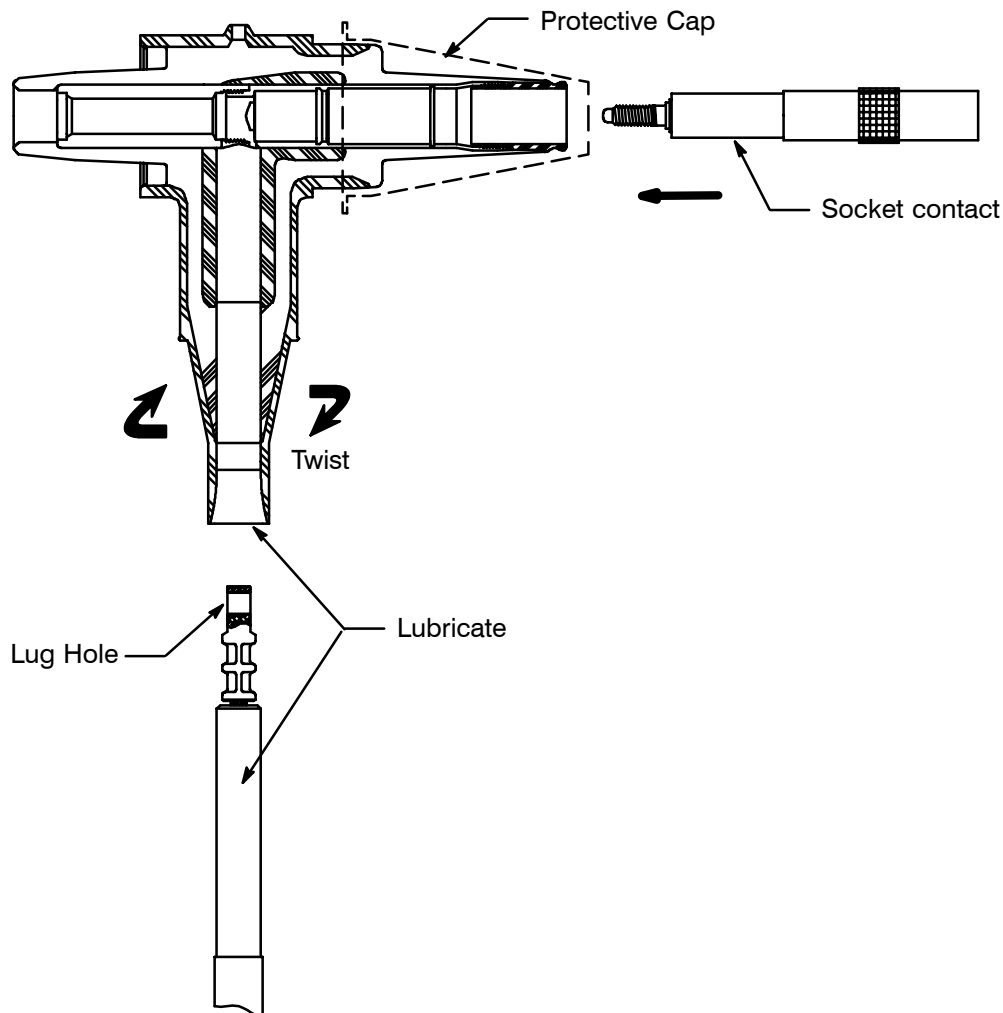
STEP 3 BUSHING WELL CONTACT ASSEMBLY

Thread well contact on-to bushing well stud by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.



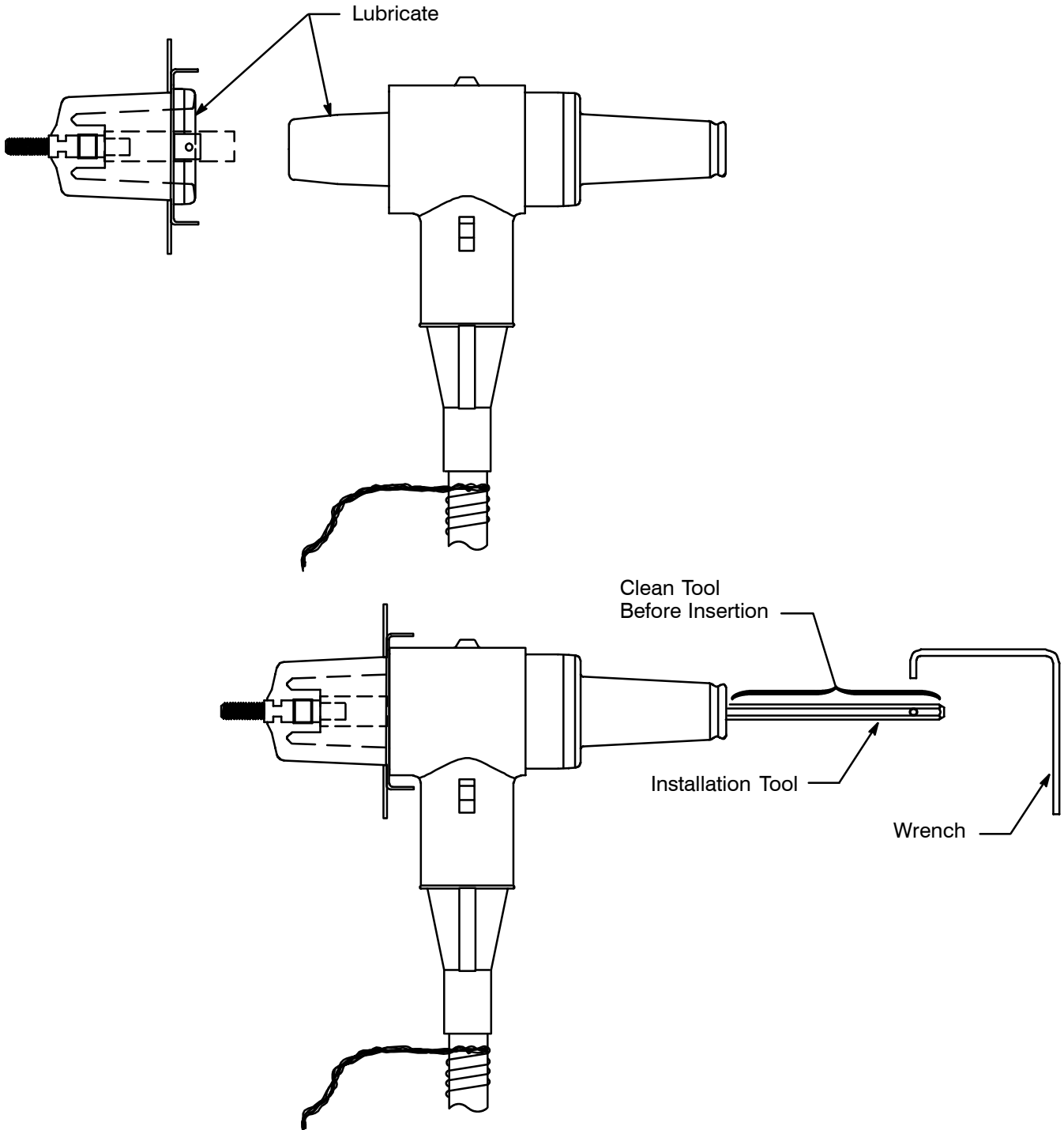
STEP 4 BUSHING TAP ASSEMBLY

1. Remove protective cap from bushing tap.
2. Remove socket contact stored inside of bushing tap housing.
3. Lubricate the cable insulation and inside the bushing housing with the lubricant supplied. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime. Do not use excess grease and do not introduce any grease into the gap between the lug and the insulation.
4. Slide the bushing tap onto the cable with a back and forth twisting motion. Wipe off all excess grease.
5. Align bushing with compression lug hole. Assemble socket contact into bushing tap. Socket contact stud must pass through lug hole.



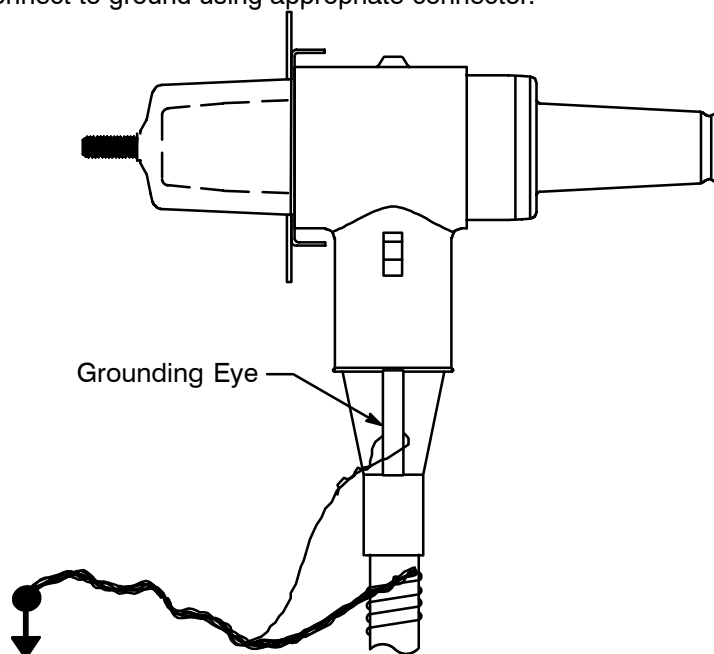
STEP 5 LUBRICATION AND MOUNTING

1. Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Lubricate the bushing well interface area of the bushing tap with the supplied lubricant or ELASTIMOLD approved lubricants.
2. Place the lubricated portion of the bushing tap in the apparatus bushing well. Insert the installation tool in the bore of the bushing tap until fully seated. Insert the wrench through the wrench hole of the tool and turn in a clockwise direction until the wrench bends signifying the proper assembly torque has been reached. Remove wrench and installation tool from bushing tap.



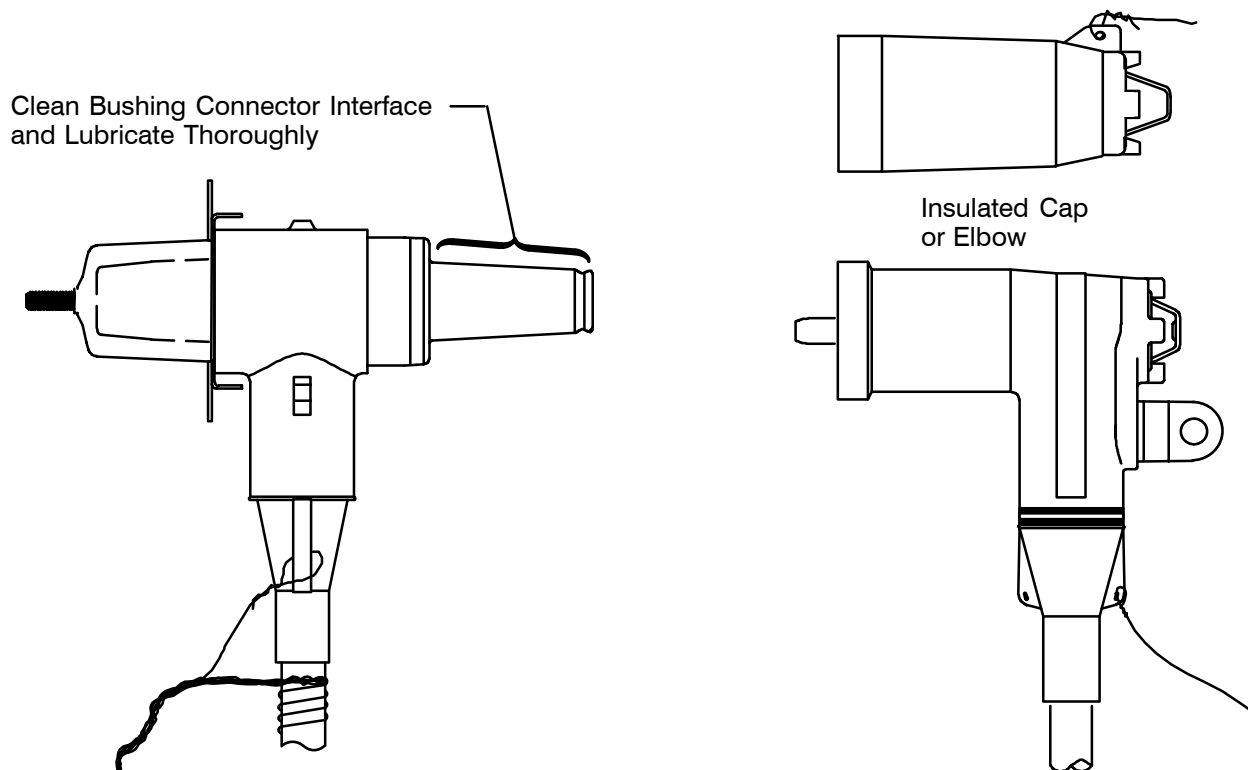
STEP 6 CONCENTRIC NEUTRAL CONNECTION

1. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through the grounding eye on the bushing tap. Twist tight taking care not to damage eye.
2. Twist neutral wires and connect to ground using appropriate connector.



STEP 7

Thoroughly wipe the bushing tap interface clean of any contaminants and apply a light, uniform coat of supplied lubricant, working thoroughly into surface. **CAUTION: EXCESS LUBRICANT** may prevent a loadbreak elbow from being fully seated in the "locked on" position. Install the mating products to the bushing tap following the instructions supplied with the mating products. If the bushing tap is not to be immediately mated with an elbow connector, insulated cap or grounding elbow connector, replace the shipping cap. Do not energize or submerge the apparatus with the shipping cap on the bushing tap. This is a protective cap only which is not insulated or water tight and only intended to keep the bushing tap surfaces clean during handling and installation.



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Loadbreak connectors must be operated with an eight foot long, fully insulated "hotstick" type of tool.

Remove Fluid Injection or Voltage Test Cap and install Insulated Cap following instructions packaged with these parts.

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

NOTE: Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2" apart).

NOTE: DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION, which will engage the internal lock on the elbow and bushing interface.

Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults.**
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.

NOTE: Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.

2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Division of Amerace Corporation



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

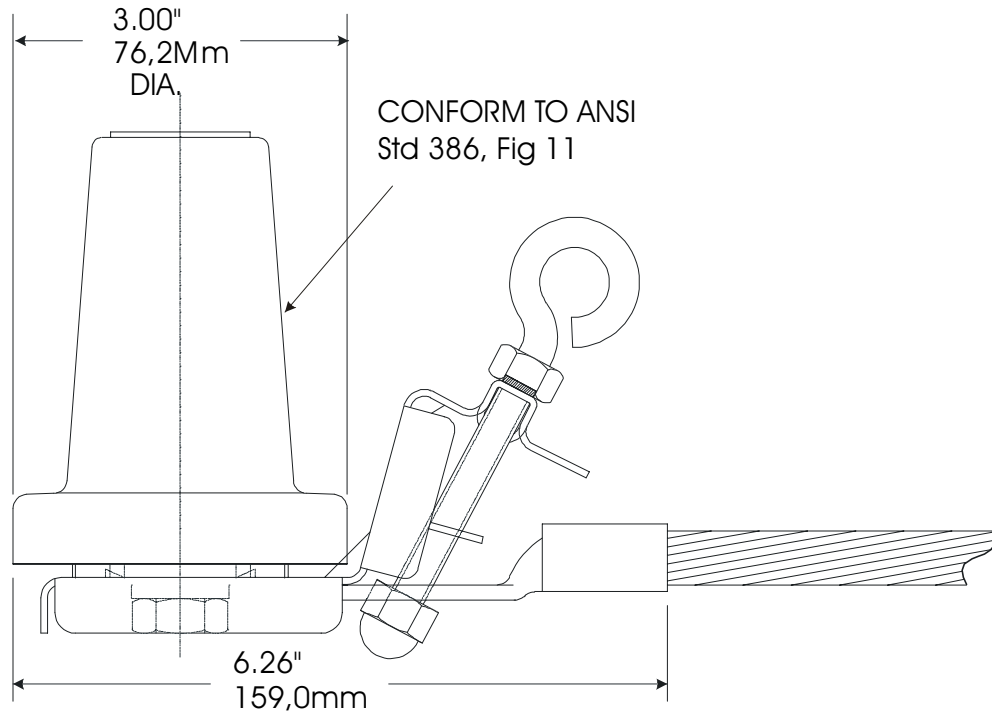
I

DESCRIPTION

15/25kV 600A Grounding Plug

ELASTIMOLD PART NUMBER

650GP



The Elastimold 650GP Grounding Plug is equipped with a 15/25kV class, 600 Amp interface, 6 feet (183cm) of 1/0 AWG grounding cable, stainless steel mounting bracket for inserting into a standard parking stand and hot stick operable mounting hardware. The 650GP Grounding Plug is inserted into a standard parking stand with an insulated hot stick and secure in place. Mating Elastimold K655LR/K656LR deadbreak elbows can then be placed on the 650GP Grounding Bushing to ground the circuit.

Features:

- Stainless Steel mounting bracket.
- 5/16"-18 stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the 650GP into the mating parking stand.

Ratings

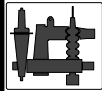
per ANSI/IEEE Standard 386
25kV Voltage Class
600 Amp - Continuous current
25kA sym, 10 cycles momentary current

Ordering Instructions:

To order, specify catalog number **650GP** Grounding Plug

The 650GP Grounding Plug includes the following:

1 - Grounding Plug	650GP
1 - Lubricant	82-08
1 - Operation instruction	IS-GP 7/91



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

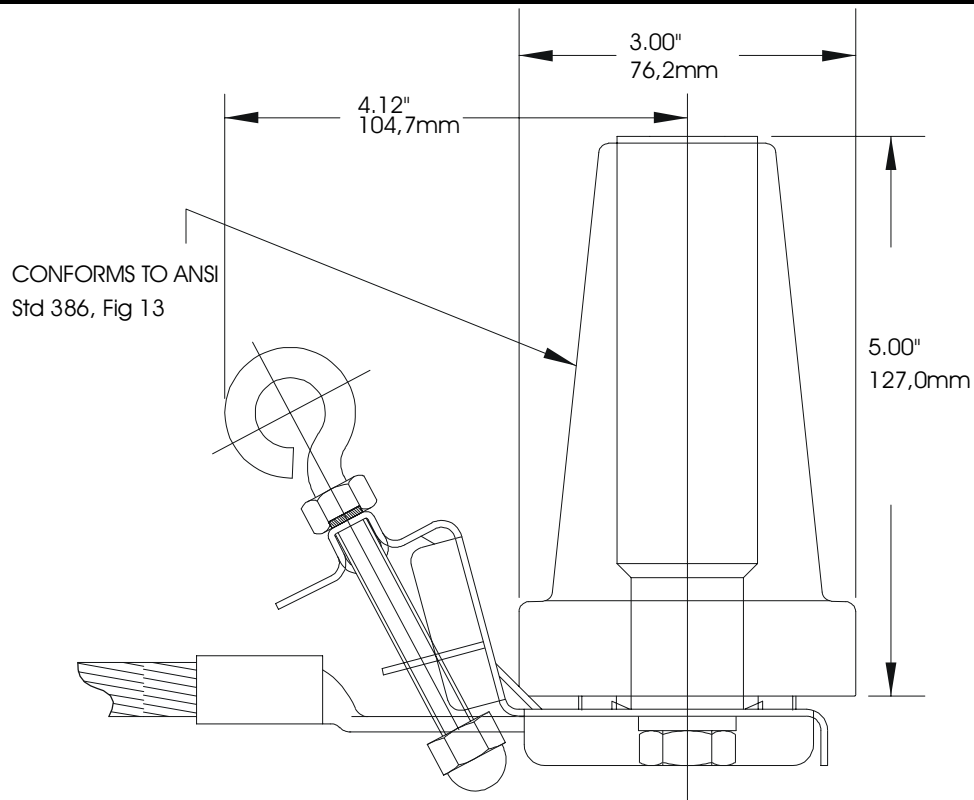
PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 600A Grounding Plug

ELASTIMOLD PART NUMBER

750GP



The Elastimold 750GP Grounding Plug is equipped with a 35kV class, 600 Amp interface, 6 feet (183cm) of 1/0 AWG grounding cable, stainless steel mounting bracket for inserting into a standard parking stand and hot stick operable mounting hardware. The 750GP Grounding Plug is inserted into a standard parking stand with an insulated hot stick and secure in place. Mating Elastimold 755LR/756LR deadbreak elbows can then be placed on the 650GP Grounding Bushing to ground the circuit.

Features:

- Stainless Steel mounting bracket.
- 5/16"-18 stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the 750GP into the mating parking stand.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instructions:

To order, specify catalog number **750GP** Grounding Plug

The 750GP Grounding Plug includes the following:

1 – Grounding Plug	750GP
1 – Lubricant	82-08
1 – Operation instruction	IS-GP 7/91

Operating Instructions 650GP and 750GP Grounding Plug

CONTENTS: *Grounding Plug (complete with mounting hardware), Lubricant, Operating Instructions.*

The Grounding Plug is designed to ground a cable terminated with a 600 ampere elbow.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.

2. Check all components to insure proper fit with cable and/or mating products.

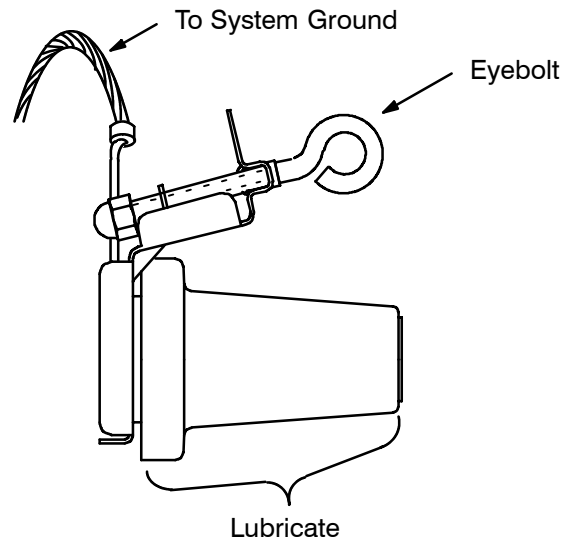
3. Read entire installation instructions before starting.

4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

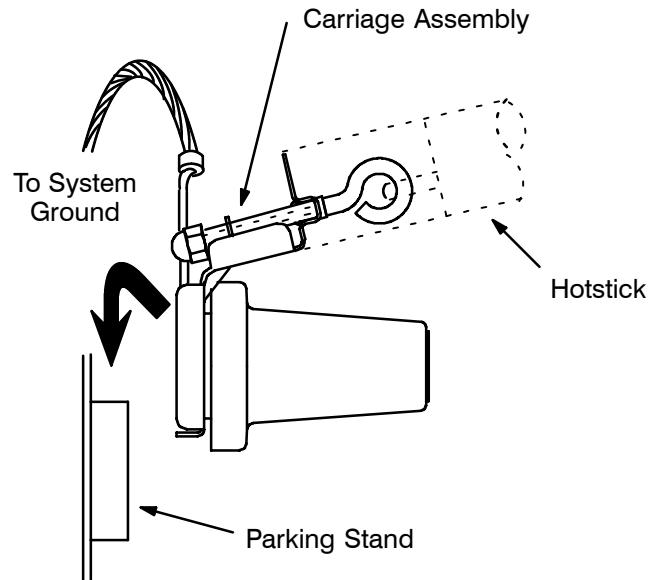
Connect the flexible lead of the grounding plug to system ground leaving enough slack to operate with a hotstick.

Clean the interface of the grounding plug. Lubricate this surface. Use only the supplied lubricant or ELASTIMOLD approved lubricants. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product and its mating products. Always replace the protective cap when the grounding plug is not in use.



STEP 2

Attach hotstick to the eye of the grounding plug carriage assembly. Slide carriage assembly into parking stand.



STEP 3

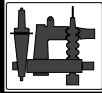
Follow the applicable instructions for the (K)655LR /755LR to determine that the elbow connector is de-energized before removing from the apparatus bushing. Remove elbow connector from apparatus bushing and place on grounding plug. **DO NOT REMOVE IF ELBOW CONNECTOR IS ENERGIZED.**

WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2).



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

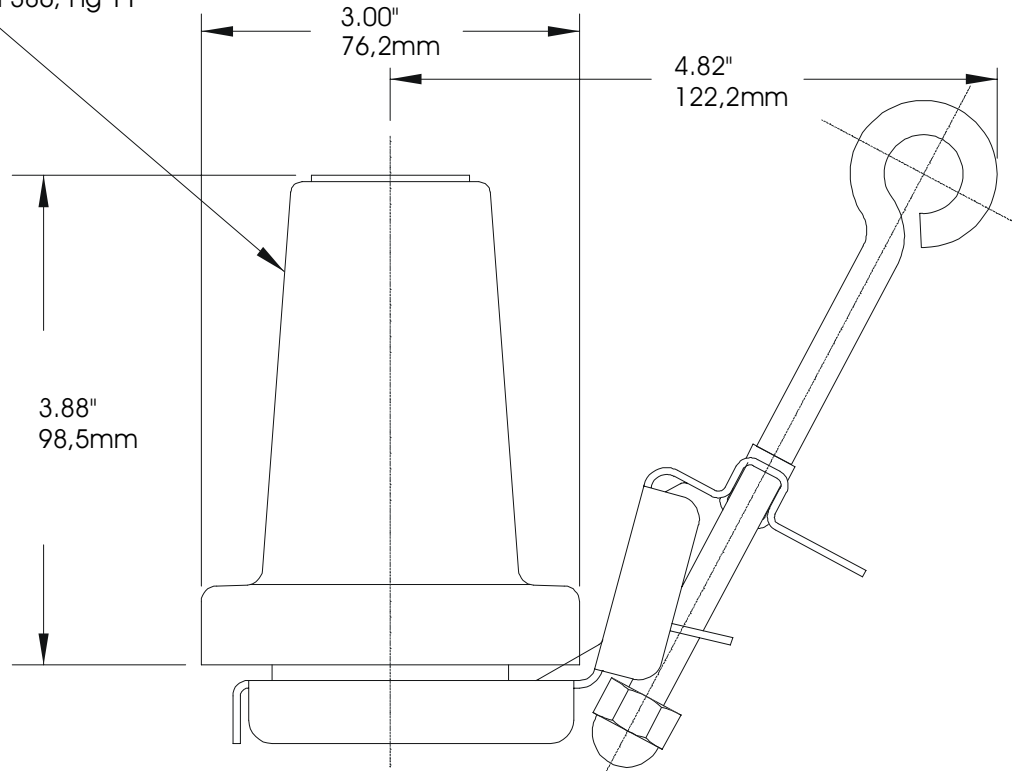
15/25kV 600A Insulated Parking Bushing

ELASTIMOLD PART NUMBER

K650SOP

CONFORMS TO ANSI

Std 386, Fig 11



Ratings

The Elastimold K650SOP Insulated Parking Bushing is equipped with a 15/25kV class, 600 Amp deadbreak interface, a stainless steel bracket for insertion into a standard parking stand and hot stick operable mounting hardware. The K650SOP is inserted into the parking stand with an insulated hot stick and secured in place. Mating Elastimold K655LR/K656LR deadbreak Elbows can then be placed on the K650SOP to provide a fully shielded and fully submersible connection. Provisions for grounding the K650SOP mounting bracket are included.

Exceeds ANSI/IEEE Standard 386

25kV Voltage Class

16.2kV Max Phase-to-Ground - Operating Voltage

28kV Max Phase-to-Phase

140kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

45kV AC - One minute Withstand

84kV DC - 15 Minutes Withstand

21.5kV AC - Corona Extinction @ 3p.C.sensitivity

600 Amp - Continuous current

25kA sym, 10 cycles momentary current

Features:

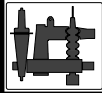
- Stainless Steel mounting bracket.
- 5/16"-18 stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the K650SOP into the mating parking stand.

Ordering Instructions:

To order, specify catalog number **K650SOP** insulated parking bushing.

The K650SOP insulated parking bushing includes the following:

1 - Insulated parking bushing	K650SOP
1 - Lubricant	82-08
1 - Operation instruction	IS-SOP 5/91



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

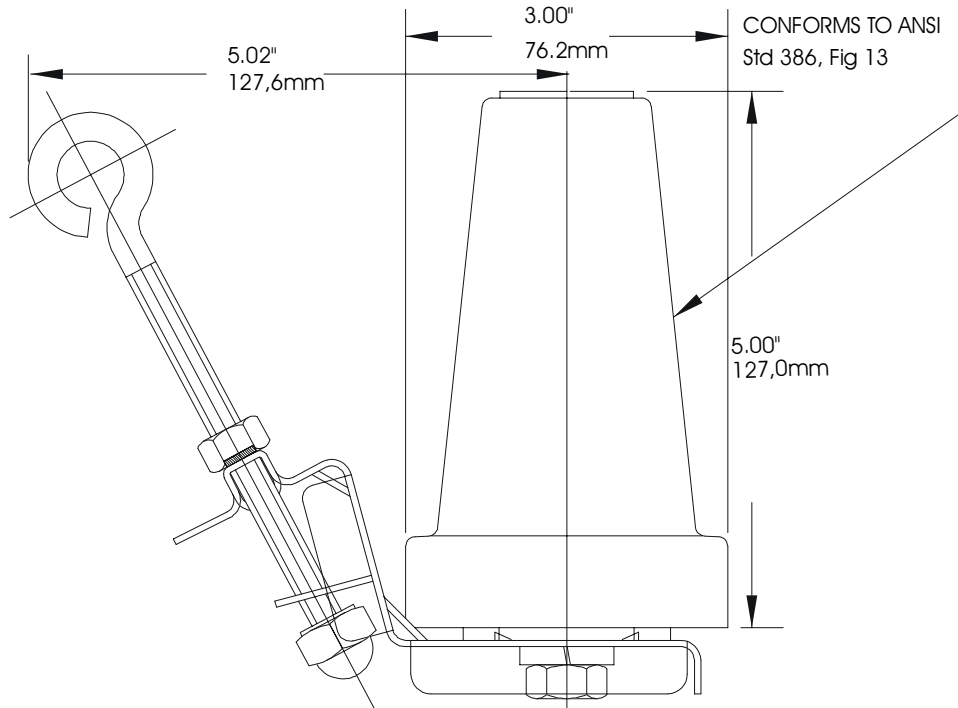
I

DESCRIPTION

35kV 600A Insulated Parking Bushing

ELASTIMOLD PART NUMBER

750SOP



The Elastimold 750SOP Insulated Parking Bushing is equipped with a 35kV class, 600 Amp deadbreak interface, a stainless steel bracket for insertion into a standard parking stand and hot stick operable mounting hardware. The 750SOP is inserted into the parking stand with an insulated hot stick and secured in place. Mating Elastimold 755LR/756LR deadbreak Elbows can then be placed on the 750SOP to provide a fully shielded and fully submersible connection. Provisions for grounding the 750SOP mounting bracket are included.

Features:

- Stainless Steel mounting bracket.
- 5/16"-18 stainless steel eyebolt with brass cap nut allows hot stick installation and firmly secures the 750SOP into the mating parking stand.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minute Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instructions:

To order, specify catalog number **750SOP** insulated parking bushing.

The 750SOP insulated parking bushing includes the following:

1 - Insulated parking bushing	750SOP
1 - Lubricant	82-08
1 - Operation instruction	IS-SOP 5/91

Operating Instructions 650SOP, K650SOP, and 750SOP Stand--Off Plugs

CONTENTS: 1--Stand off plug with stainless steel mounting hardware, Lubricant, 1--Instruction Sheet

The Elastimold 650SOP, K650SOP, and 750SOP stand--off plugs are used to isolate and Elastimold 655LR, K655LR, or 755LR elbow connector, respectively.

NOTE: THE STAND--OFF PLUG SHOULD ALWAYS BE MATED WITH EITHER AN INSULATED CAP (650SOP AND K650SOP), A BUSHING CONVERTER, OR AN ELBOW CONNECTOR WHEN NOT IN USE TO PREVENT CONTAMINATION OF THE INTERFACE.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

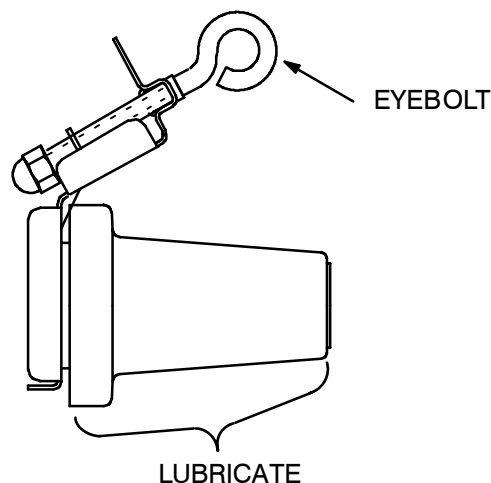
IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

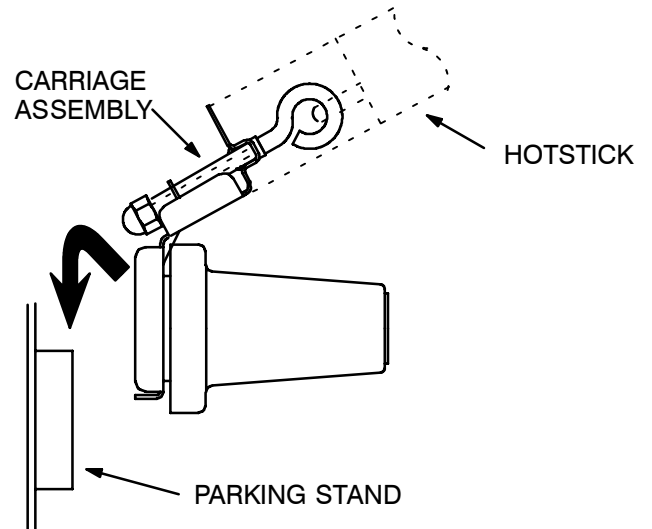
STEP 1

Lubricate the interface with lubricant supplied or ELASTIMOLD approved lubricant. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating products.



STEP 2

Attach hotstick to eyebolt of stand-off plug carriage assembly. Slide carriage assembly into parking stand and rotate eyebolt clockwise, until carriage assembly is snug against the apparatus surface. Remove hotstick from eyebolt.



STEP 3

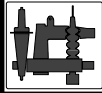
Continue according to overall operating procedure manual.

WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2).



Route 24, Hackettstown, New Jersey 07840 USA
(908)852--1122 FAX: (908)852--6158



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

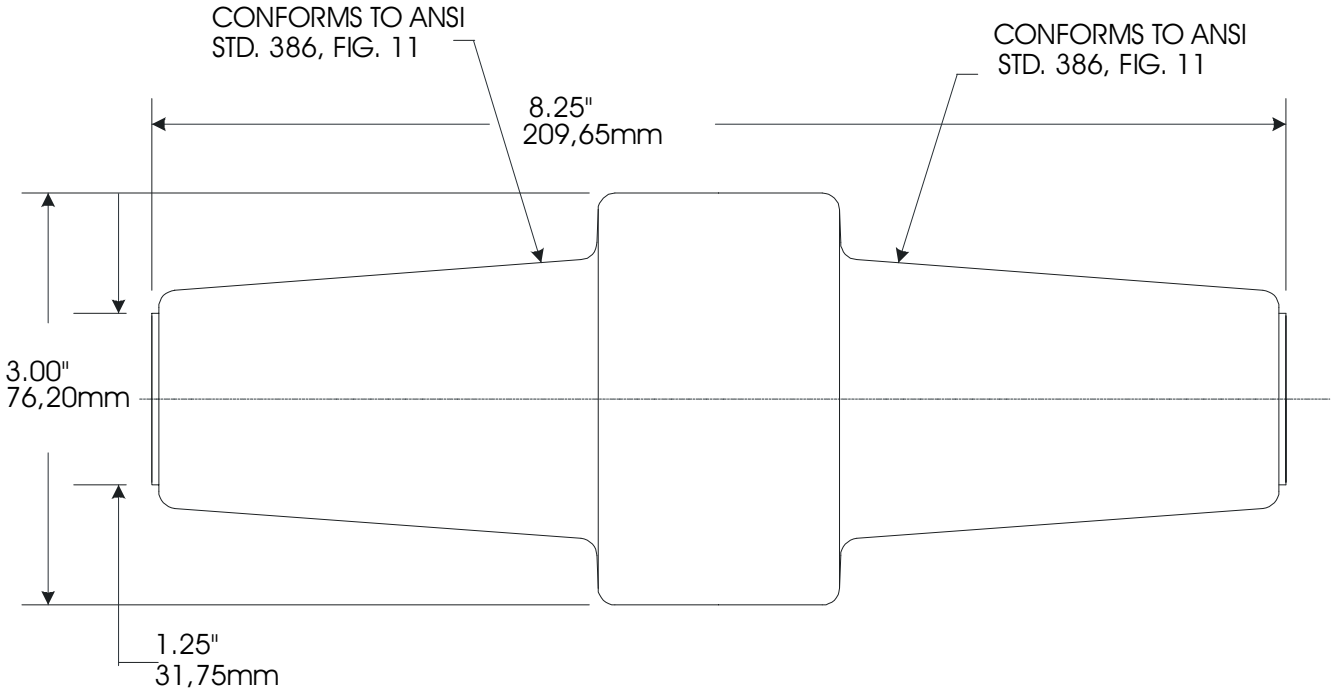
I

DESCRIPTION

15/25kV 600A Connecting Plug

ELASTIMOLD PART NUMBER

K650CP



Application:

The K650CP connecting plug is an insulated bus that is used to attach and connect two or more Elastimold K655LR/ K656LR 600 Amp connectors. Units use a 600SW spanner wrench for installation.

Ordering Instruction:

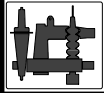
To order 15/25kV 600A connecting plug specify **K650CP**.

The 15/25kV 600A connecting plug kit contains the following:

- | | |
|------------------------------|--------------|
| 1 – Connecting plug | K650CP |
| 1 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-PLUG 3/91 |

Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 600 Amp - Continuous current
- 25kA sym, 10 cycles momentary current



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

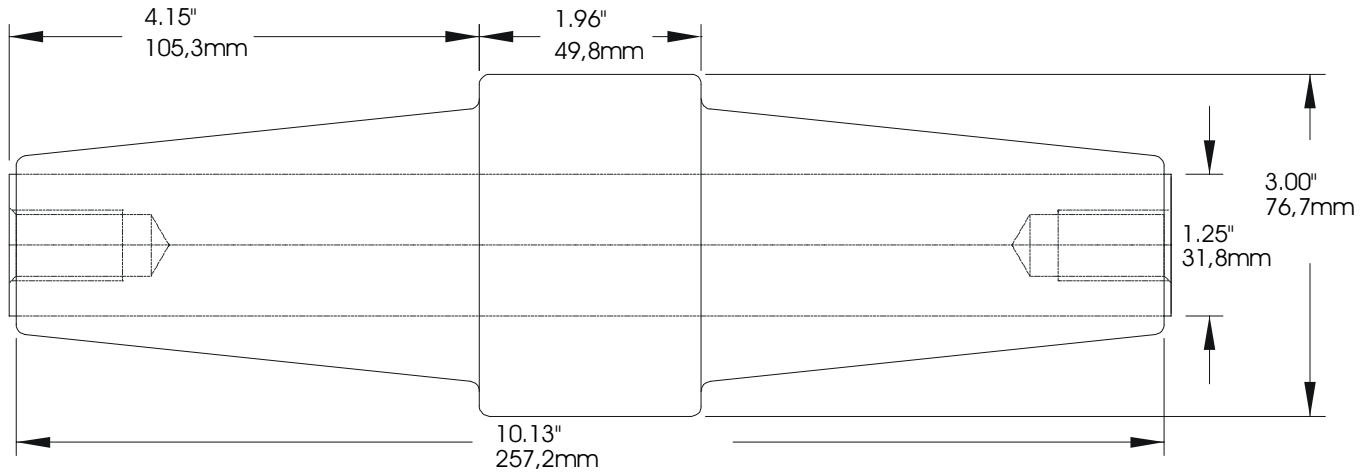
PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 600A Connecting Plug

ELASTIMOLD PART NUMBER

750CP



Application:

The 750CP, 35kV connecting plug is an insulated bus that is used to attach and connect two or more Elastimold 755LR/756LR 600 Amp connectors. Units use a 600SW spanner wrench for installation.

Ordering Instruction:

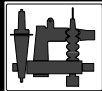
To order 35 kV 600A connecting plug, please specify **750CP**.

The 35kV 600A connecting plug kit contains the following:

1 – Connecting plug	750CP
1 – Tube, lubricant	82-08
1 – Installation instruction	IS-PLUG 3/91

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class
 26.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

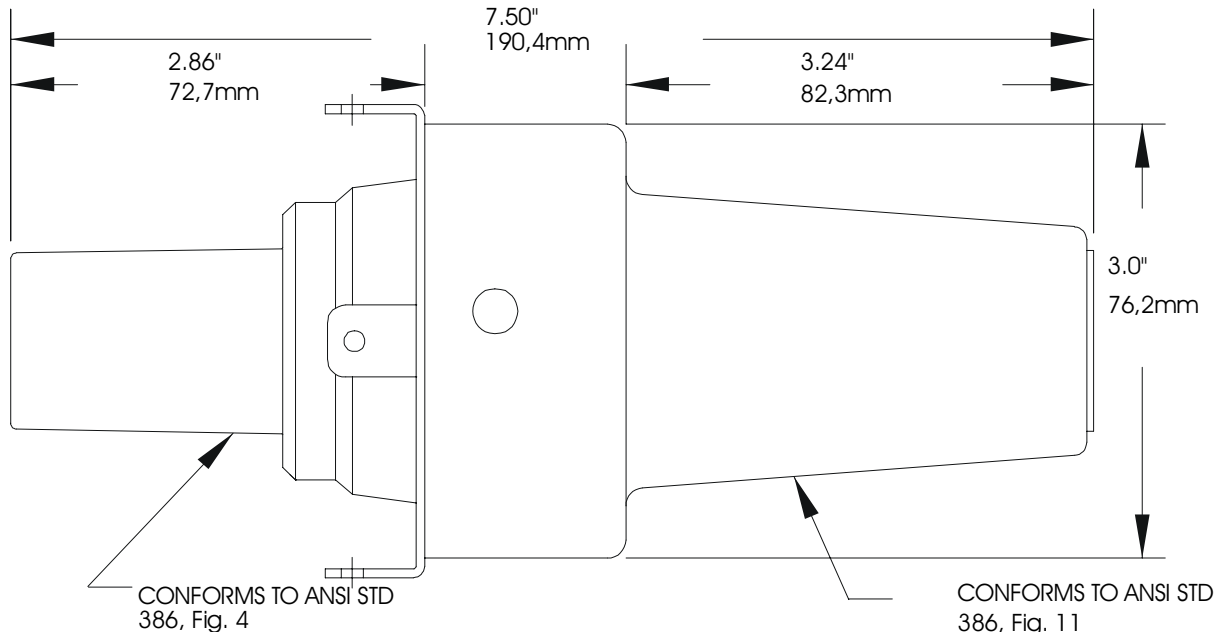
PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 600/200A Reducing Tap Plug

ELASTIMOLD PART NUMBER

K650RTP



Application:

The 15/25kV K650RTP permits a 200 Amp tap off of a 600 Amp connector. The K650RTP 200 Amp tap accepts Elastimold K150T connectors K151SR straight receptacles and 156LR elbows. For assembly a 600SW spanner wrench is required.

Ordering Instruction:

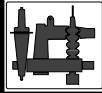
To order 15/25kV 600/200A reducing tap plug, please specify **K650RTP**.

The 15/25kV, 600/200A reducing tap plug kit contains the following:

- | | |
|------------------------------|--------------|
| 1 – Reducing tap plug | K650RTP |
| 1 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-PLUG 3/91 |

Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous current
- 10kA sym, 10 cycles momentary current



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

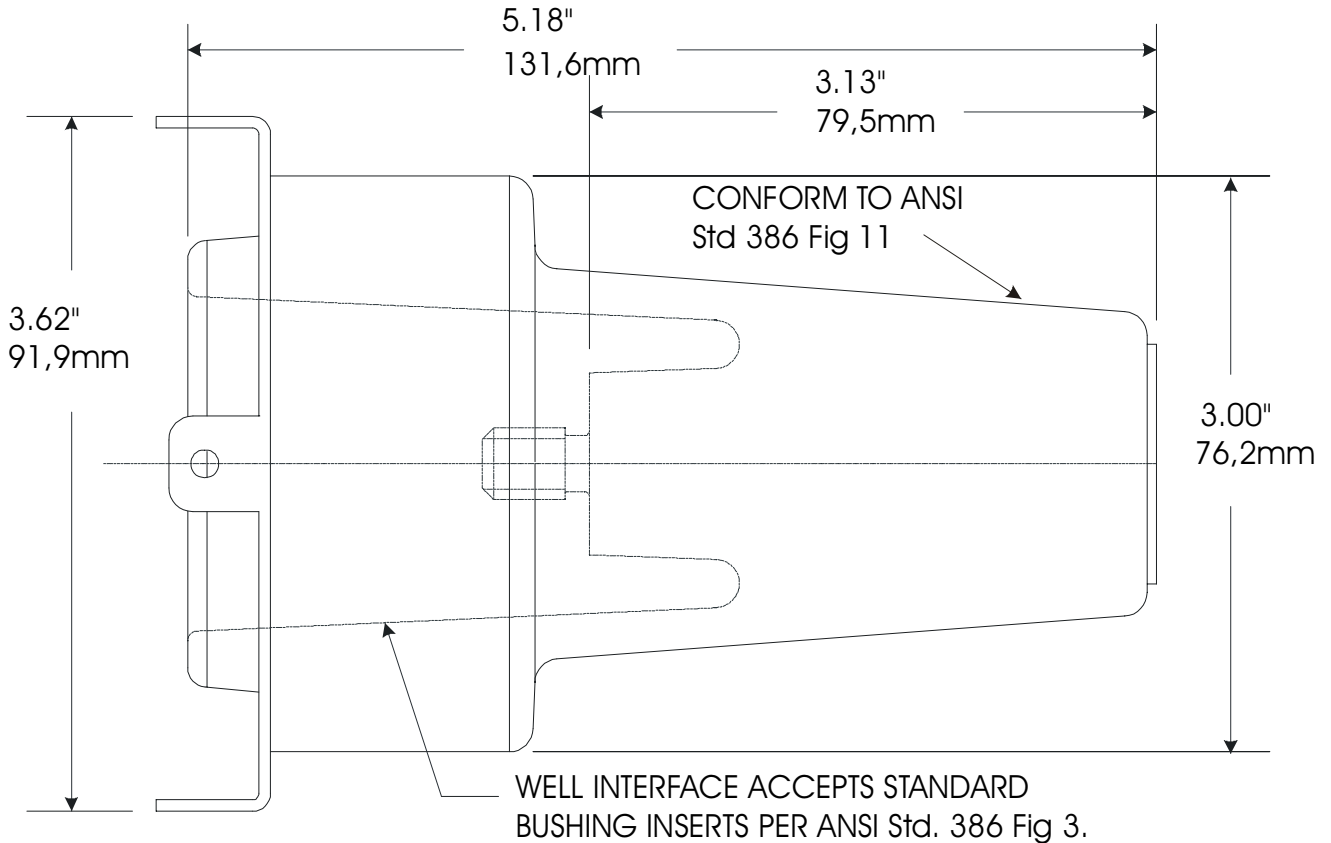
I

DESCRIPTION

15/25kV 600/200A Reducing Tap Well

ELASTIMOLD PART NUMBER

K650RTW



Application:

The 15/25kV K650RTW 600/200 Amp well permits 200 Amp tap off of Elastimold 600 Amp connectors. The well will accept either 200 Amp loadbreak or deadbreak inserts. For assembly a 600SW spanner wrench is required.

Ordering Instruction:

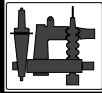
To order 15/25 kV 600/200A reducing tap well specify **K650RTW**.

The 25kV, 600/200A reducing tap well kit contains the following:

- | | |
|------------------------------|--------------|
| 1 – Reducing tap well | K650RTW |
| 1 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-PLUG 3/91 |

Ratings

- Exceeds ANSI/IEEE Standard 386
- 25kV Voltage Class
- 16.2kV Max Phase-to-Ground - Operating Voltage
- 28kV Max Phase-to-Phase
- 140kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 45kV AC - One minute Withstand
- 84kV DC - 15 Minutes Withstand
- 21.5kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous current
- 10kA sym, 10 cycles momentary current

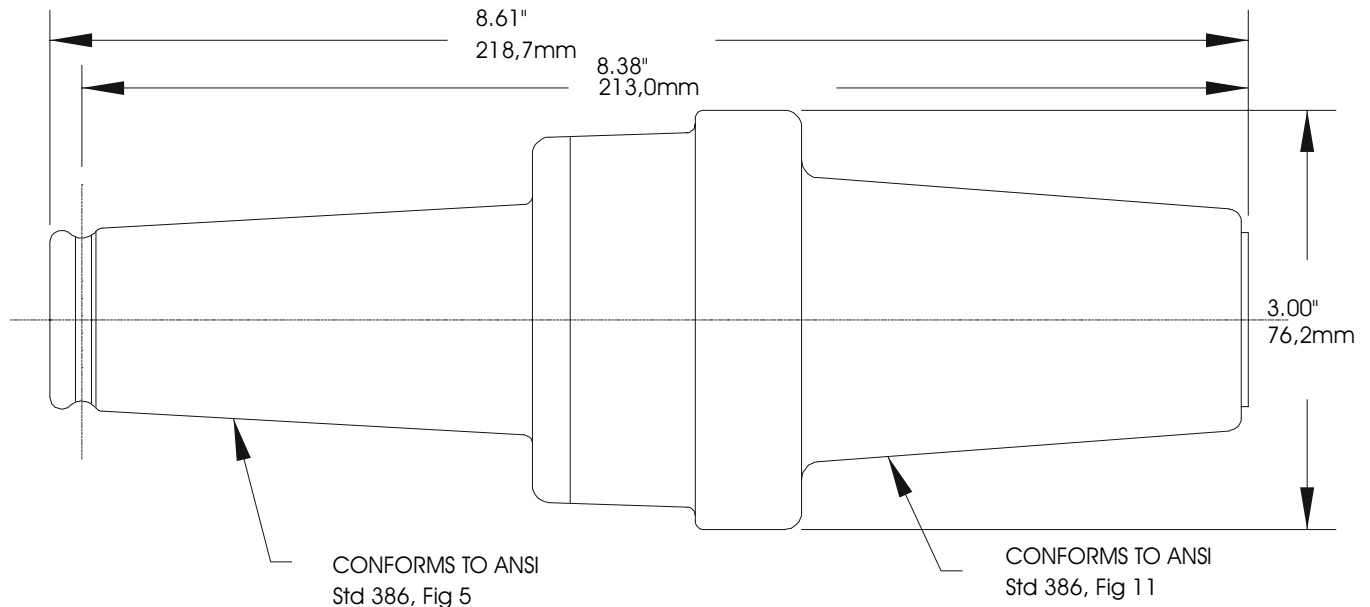


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

650ETP

The 15kV 650ETP elbow tap plug permits a 200-amp tap off of a mating 600 Amp connector using load-break elbows. The 650ETP is installed with a 600AT or 600ATM assembly tool.

Features:

- Includes hex-broach for torque in installation.
- Peroxide-cured insulation and jacket.
- Loadbreak interface is designed for energized operation.

Ratings

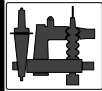
per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minute Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycle Momentary & Fault Close

Ordering Instruction:

To order, specify number **650ETP** reducing tap plug.

The 650ETP reducing tap plug includes the following:

1 - Reducing tap plug	650ETP
1 - Protective shipping cap	1601-APC-1
1 - Lubricant	82-08
1 - Installation instruction	IS-ETP 6/97

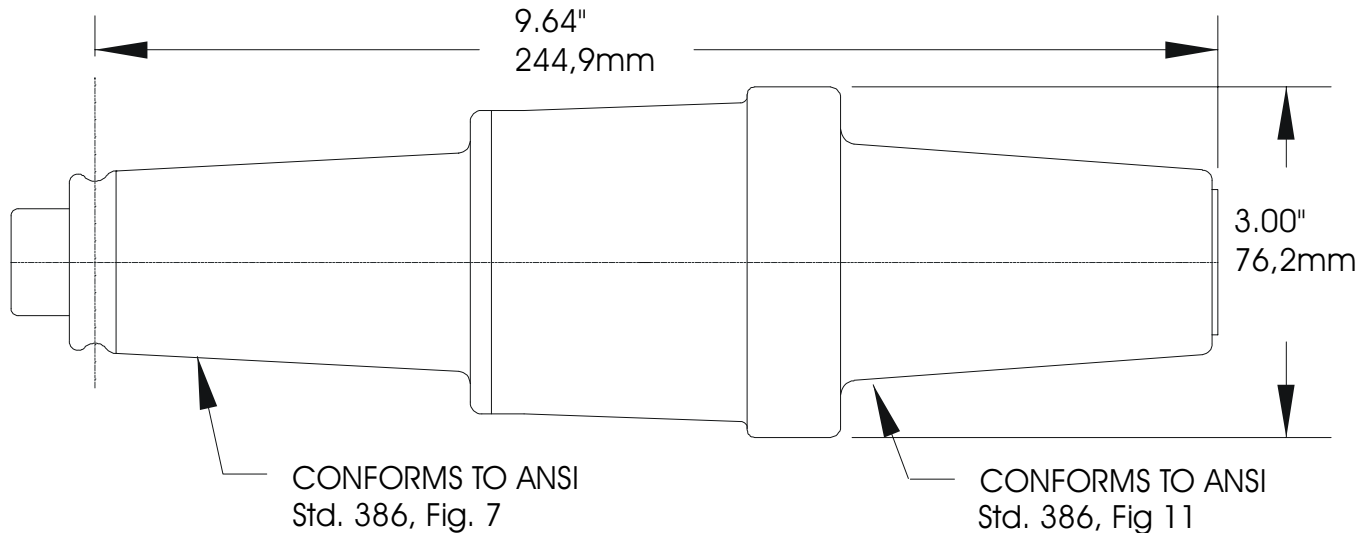


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

K650ETP

The 25kV K650ETP elbow tap plug permits a 200-amp tap off of a mating 600 Amp connector using load-break elbows. The K650ETP is installed with a 600AT or 600ATM assembly tool.

Features:

- Includes hex-broach for torque in installation.
- Peroxide-cured insulation and jacket.
- Loadbreak interface is designed for energized operation.

Ratings

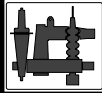
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instruction:

To order, specify number **K650ETP** reducing tap plug.

The K650ETP reducing tap plug includes the following:

1 - Reducing tap plug	K650ETP
1 - Protective shipping cap	2701-41
1 - Lubricant	82-08
1 - Installation instruction	IS-ETP 6/97

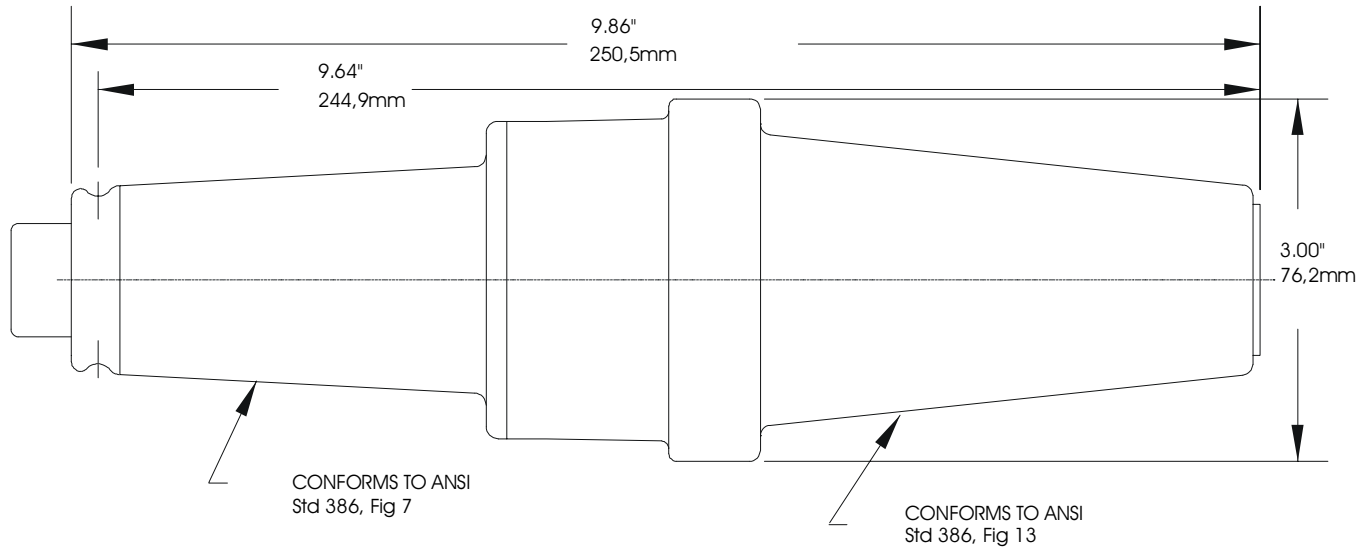


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

750ETP

The 35kV 750ETP elbow tap plug permits a 200-amp tap off of a mating 600 Amp connector using load-break elbows. The 750ETP is installed with a 600AT or 600ATM assembly tool.

Features

- Loadbreak is rated and designed for 1 Ø energized operation.
- Designed for energized operation.
- Includes hex-broach for torque in installation.
- Peroxide-cured insulation and jacket.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class, 1 Ø.
 21.1kV Max Phase-to-Ground - Operating Voltage
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minute Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycle Momentary & Fault Close

Ordering Instructions:

To order, specify number **750ETP** loadbreak reducing tap plug.

The 750ETP loadbreak reducing tap plug includes the following:

1 - Reducing tap plug	750ETP
1 - Protective shipping cap	2701-41
1 - Lubricant	82-08
1 - Installation instruction	IS-ETP 6/97

Installation Instructions ETP Elbow Tap Plug

CONTENTS: Tap Plug, Lubricant (DO NOT SUBSTITUTE), Stud (if applicable), Installation Instructions.

The ETP is designed to provide a 200 ampere loadbreak tap at system voltage as indicated on the ETP. **WARNING: THE AVAILABLE FAULT CURRENT MUST BE LIMITED TO 10,000 AMPERES WHEN USING THIS PRODUCT.**

WARNING: THE FOLLOWING RATINGS APPLY TO THIS PRODUCT:

600/900 Ampere Deadbreak Interface -- 600 or 900 amperes load current and 25,000 amperes short circuit current for 10 cycles.

200 Ampere Loadbreak Interface -- 200 amperes load current and 10,000 amperes fault--close current. For higher short circuit current: 1) this interface should only be operated de--energized; and 2) elbows used for taps or grounding must be adequately secured such as with a bail.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

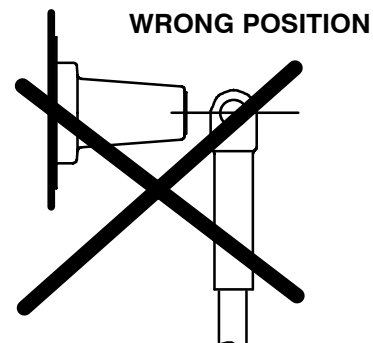
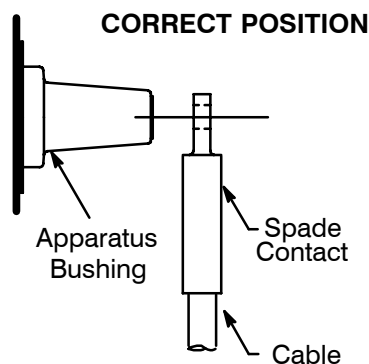
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

STEP 1

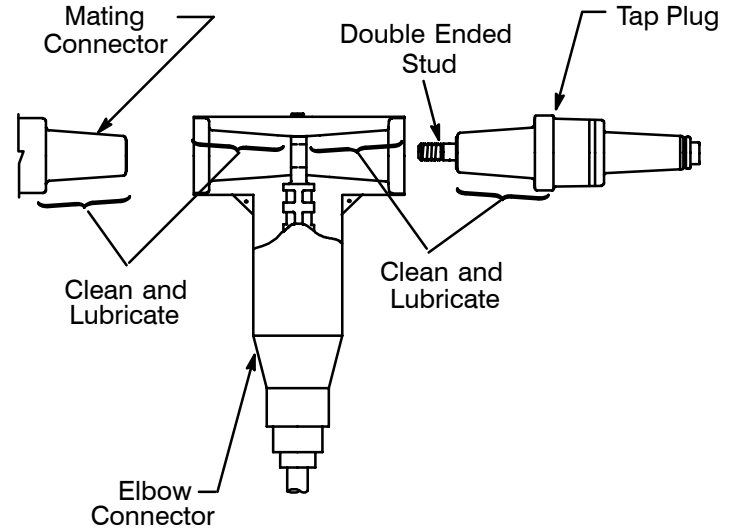
Prepare cable using spade contact and install elbow as described in the (K)650LR or 750LR installation instructions. **Before making first crimp on spade contact, align it on the cable so that the spade lies flat on the apparatus bushing contact.**



ELASTIMOLD

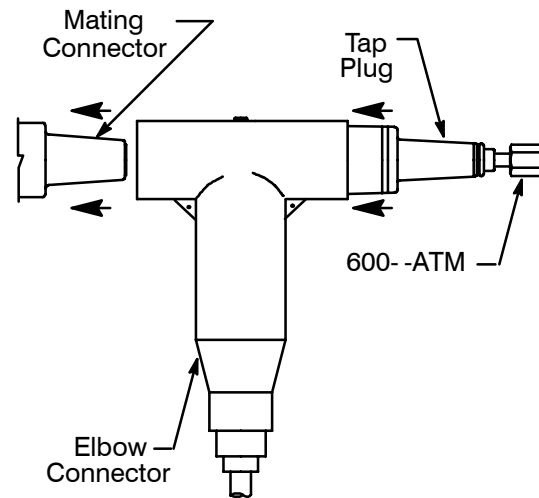
STEP 2

1. Remove the protective caps from the elbow connector and the tap plug.
2. Finger tighten double ended stud (if applicable) into the tap plug.
3. Clean, then lubricate the entire mating connector interface, elbow connector interfaces and the tap plug as noted with the lubricant supplied or ELASTIMOLD approved lubricant.



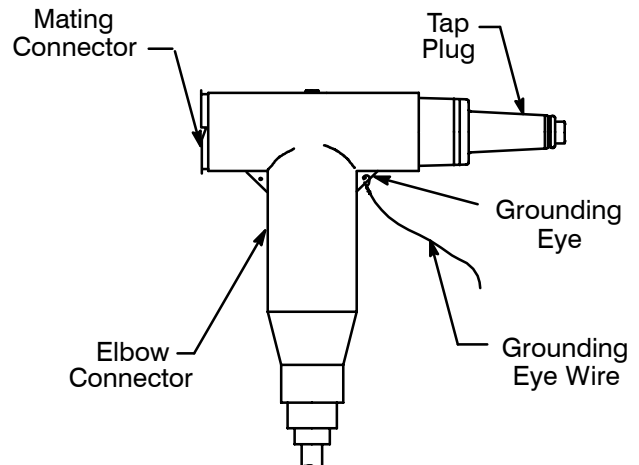
STEP 3

1. Assemble elbow connector on mating connector.
2. Assemble the tap plug into the elbow connector.
3. Insert the drive adapter into the tap plug. Turn in a clockwise direction while pushing the elbow and tap plug toward the mating connector.
4. Continue to rotate the drive adapter clockwise, with the appropriate tool to a torque of 50-60 ft-lbs. Remove the drive adapter from tap plug.



STEP 4

Insert one end of a length of #14AWG copper wire (or equivalent) through the grounding eye of the elbow, leaving sufficient length to allow movement of the elbow if required. Make a small loop and twist tightly, taking care not to damage the eye.



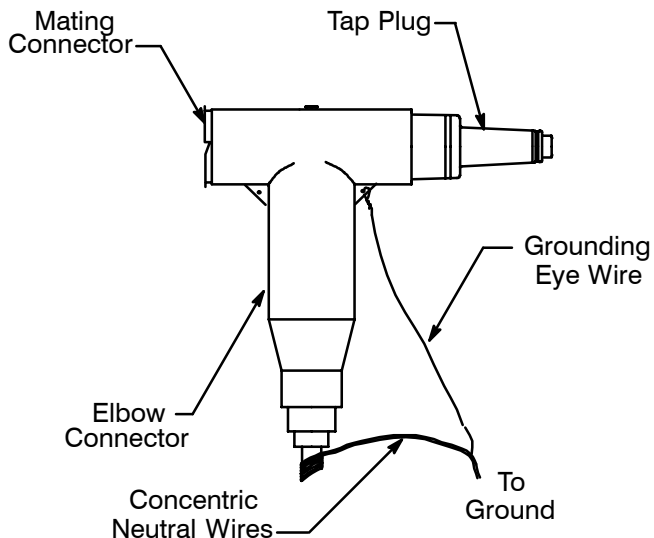
STEP 5A FOR CONCENTRIC WIRE SHIELDED CABLE

Twist the shield wires together. Connect them and the grounding eye wire to ground using an appropriate connector.

Leave sufficient length to allow movement of the elbow if required.

For three-phase installations, all grounds from all three phases must be tied to a common ground point.

If cable is jacketed, install appropriate waterproofing at jacket terminus to prevent moisture from entering.

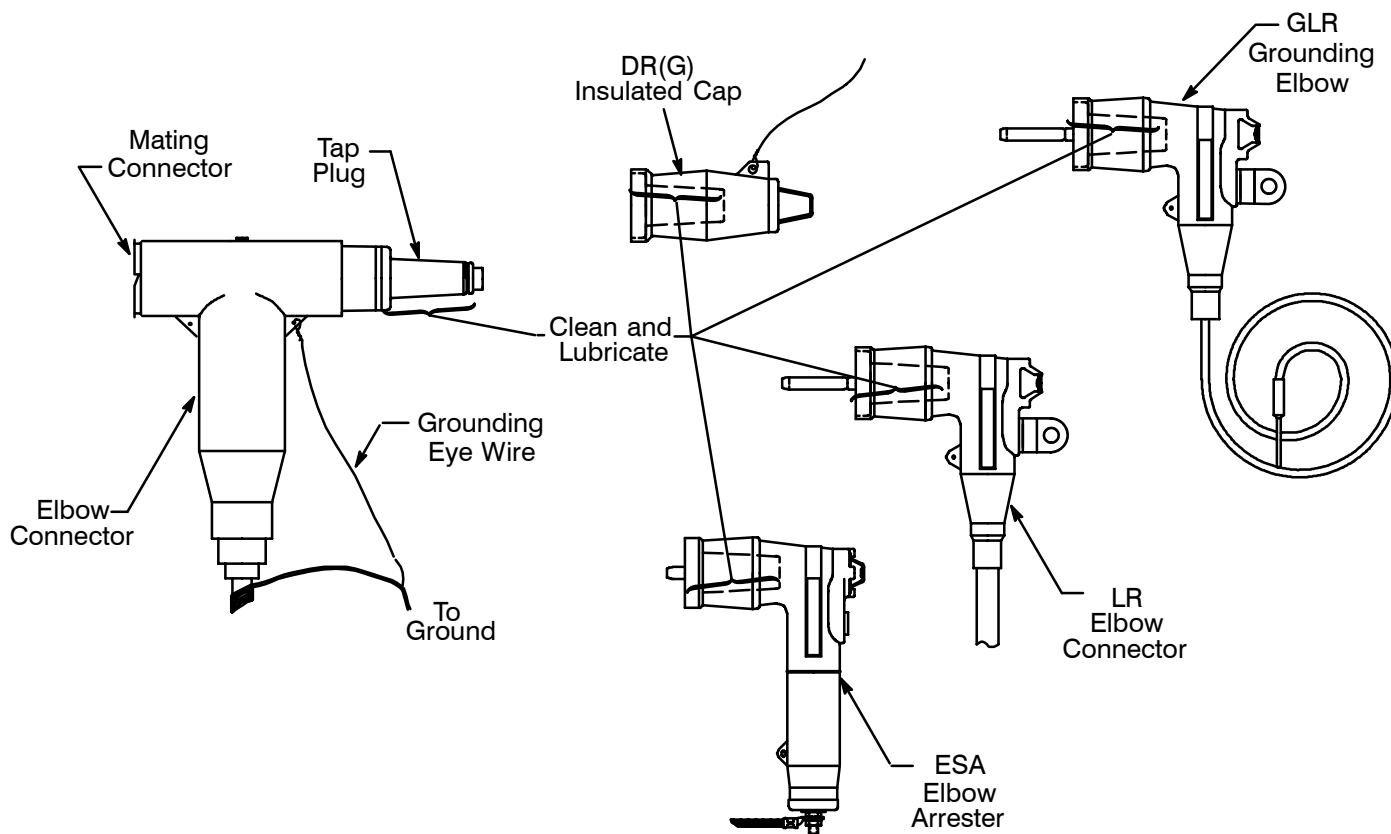


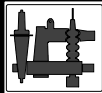
STEP 5B METALLIC TAPE SHIELDED CABLE

Connect the metallic shield of the cable to ground using a jumper of equivalent ampacity to the metallic shield. Install appropriate waterproofing at jacket terminus to prevent moisture from entering. Connect the elbow connector grounding eye wire to ground.

STEP 6

Clean and lubricate the entire tap plug interface and either a DR(G), ESA, GLR or LR of the appropriate voltage class with the lubricant supplied or ELASTIMOLD® approved lubricant. Install the DR(G), ESA, GLR or the LR to the tap plug interface following the instructions supplied with each of these products.



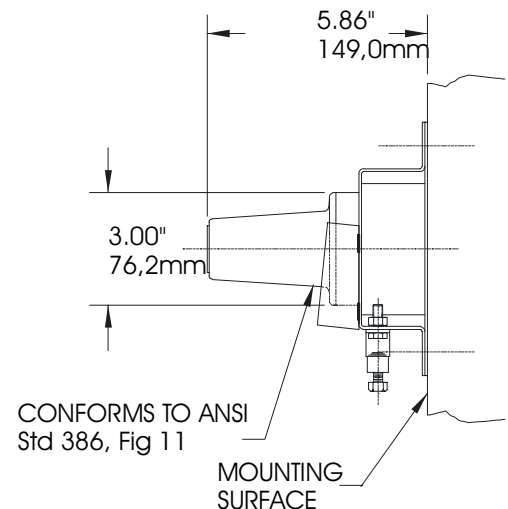
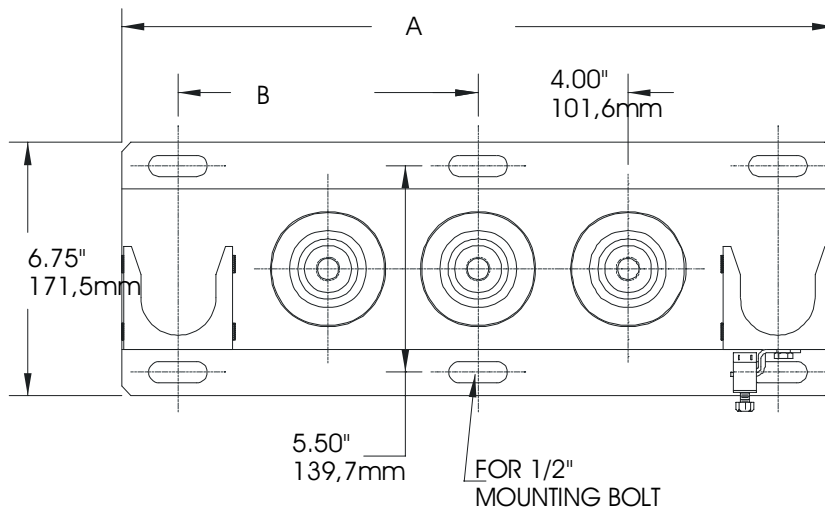


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 600A Junction

ELASTIMOLD PART NUMBER

K650JX

Junction	A DIM.		B DIM	
	inch	mm	inch	DIM
2-way	15.00	381,0	6.00	152,4
3-way	19.00	482,6	8.00	203,2
4-way	23.00	584,2	10.00	254,0

ELASTIMOLD 600 Amp junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping and equipment bypass. K650J junctions provide a fully shielded, fully submersible, separable, insulated assembly designed for dead-break operation. The K650J2, J3, J4 are for use through 25kV. Junctions are designed to mate with other Elastimold products including:

K655 LR	Power Distribution Connector
K655 BLR	Basic Shielded Elbow
K655 BE	Bushing Extension
K656 DR	Insulating Cap w/ Test Point
K650 RTP	Reducing Tap Plug
K650 BIP	Basic Insulating Plug
K650 RTW	Reducing Tap Well
K650 CP	Connecting Plug
650LRTP-W-X-DRG	Stick-Op System
K650LRTP-W-X-DRG	Stick-Op System
650 BEA3	Bushing Adapter
K650 BEA2	Bushing Adapter

Junctions are equipped with a stainless steel mounting bracket and back plate suitable for mounting on a flat surface.

Ratings:

Exceeds ANSI/IEEE Standard 386
 25kV Voltage Class
 16.2kV Max Phase-to-Ground - Operating Voltage
 28kV Max Phase-to-Phase
 140kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 45kV AC - One minute Withstand
 84kV DC - 15 Minutes Withstand
 21.5kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instructions:

Specify **K650J2** for 15/25kV, 600 Amp, 2-way junction
 Specify **K650J3** for 15/25kV, 600 Amp, 3-way junction
 Specify **K650J4** for 15/25kV, 600 Amp, 4-way junction

Add "-5" at the end of the catalog number for Junctions with "U" style mounting strap and back plate.

Add "-6" at the end of the catalog number for mounting bracket and back plate only.

The Junction kit contains the following:

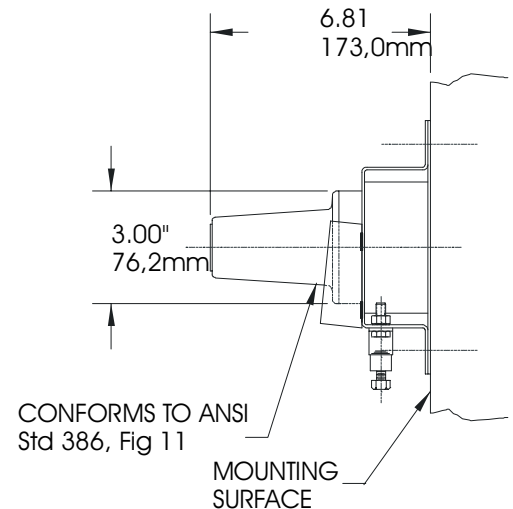
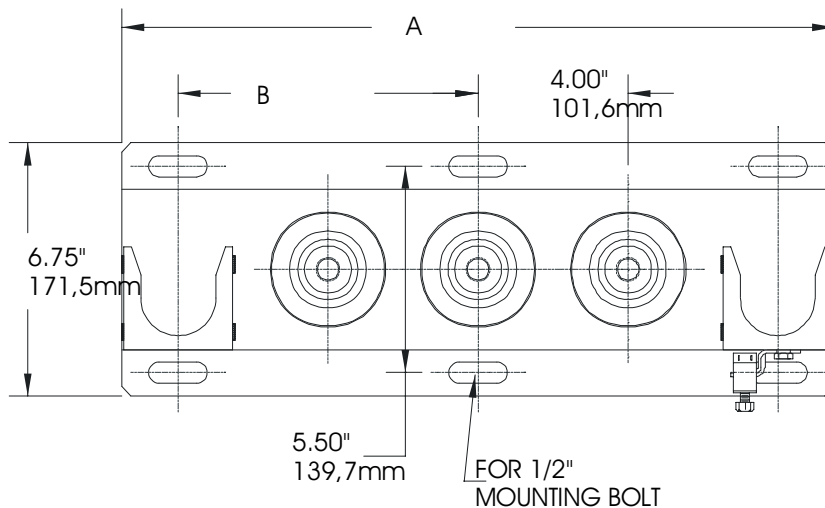
1	- Basic Molded Junction only	K650JX-4
1	- Mounting Hardware	K650JX-6
X	- Protective cap	650PPC
2	- Tube, lubricant	82-08
1	- Installation instruction	IS-60/900, J2, J3, J4 2/90



PRODUCT SPECIFICATION SHEET

DESCRIPTION
35kV 600A Junction

ELASTIMOLD PART NUMBER
750JX



Junction	A DIM.		B DIM	
	inch	mm	inch	DIM
2-way	15.00	381,0	6.00	152,4
3-way	19.00	482,6	8.00	203,2
4-way	23.00	584,2	10.00	254,0

ELASTIMOLD 600 Amp junctions are designed for subsurface, vault or padmount applications and can be used for sectionalizing, looping, tapping and equipment bypass. 750J junctions provide a fully shielded, fully submersible, separable, insulated assembly designed for dead-break operation. The 750J2, J3, J4 are for use at 35kV. Junctions are designed to mate with other Elastimold products including:

- | | |
|------------------|------------------------------|
| 755 LR | Power Distribution Connector |
| 755 BLR | Basic Shielded Elbow |
| 755 BE | Bushing Extension |
| 750 BIP | Basic Insulating Plug |
| 750 CP | Connecting Plug |
| 750 LRTP-W-X-DRG | Stick-Op System |
| 750 BEA2 | Bushing Adapter |

Junctions are equipped with a stainless steel mounting bracket and back plate suitable for mounting on a flat surface.

Ratings:

- per ANSI/IEEE Standard 386
- 35kV Voltage Class
- 26.1kV Max Phase-to-Ground - Operating Voltage
- 36.6kV Max Phase-to-Phase
- 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 50kV AC - One minute Withstand
- 103kV DC - 15 Minutes Withstand
- 26kV AC - Corona Extinction @ 3p.C.sensitivity
- 600 Amp - Continuous current
- 25kA sym, 10 cycles momentary current

Ordering Instructions:

- Specify **750J2** for 35kV, 600 Amp, 2-way junction
- Specify **750J3** for 35kV, 600 Amp, 3-way junction
- Specify **750J4** for 35kV, 600 Amp, 4-way junction

Add "-5" at the end of the catalog number for Junctions with "U" style mounting strap and back plate.

Add "-6" at the end of the catalog number for mounting bracket and back plate only.

The Junction kit contains the following:

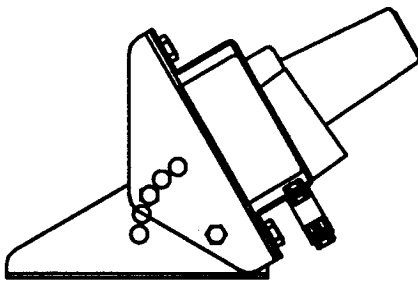
- 1 - Basic Molded Junction only 750JX-4
- 1 - Mounting Hardware 750JX-6
- X - Protective cap 750PPC-1
- 2 - Tube, lubricant 82-08
- 1 - Installation instruction IS-60/900, J2, J3, J4 2/90

Installation Instructions 15/25/35kV, 600/900 AMPERE Two-, Three- and Four-Point Junctions

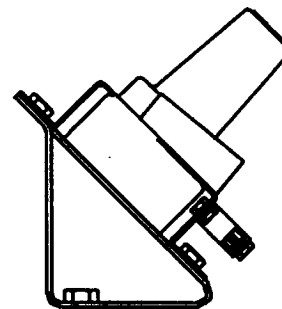
CONTENTS: The contents always include: 1-Deadbreak Junction, and 1-Installation Instruction plus Mounting Hardware for the specific installations listed below.

- A. Universal Mount: 1-Base Bracket, 1-Base Plate, 4-Universal Brackets, 1-Mounting Hardware Prepack.
- B. 45° Fixed Mount: 1-Base Bracket, 1-Base Plate, 2-45° Mounting Brackets, 1-Mounting Hardware Prepack.
- C. Flat Mount w/ Base Bracket: 1-Base Bracket, 1-Base Plate.
- D. Flat mount w/o Base Bracket: 1-Shield Plate, Hold Down Bracket(s) (as required).

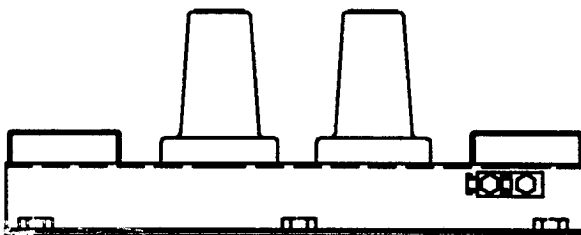
SECTION A
Universal Mount



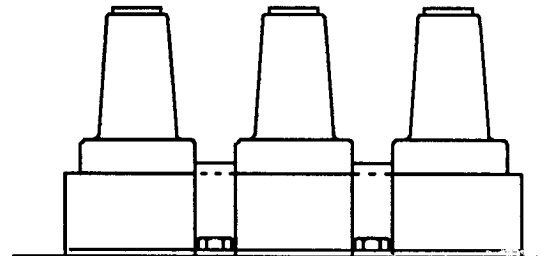
SECTION B
45° Fixed Mount



SECTION C
Flat Mount with Base Bracket



SECTION D
Flat Mount without Base Bracket



The two-, three- and four-point deadbreak junctions have voltage and current ratings as indicated on the junctions and are designed to interface with ELASTIMOLD deadbreak connectors for the purpose of sectionalizing, looping, tapping or for apparatus change out. The deadbreak junctions are designed for mounting on any flat surface.

DANGER

All apparatus must be de-energized during installation or removal of part(s) to avoid fatal shock.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel familiar with good safety practices in handling high voltage electrical equipment.

These instructions are not intended as a substitute for

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

adequate training or experience in such good safety practices.

These instructions do not attempt to provide for every possible contingency.

Install according to the following instructions.

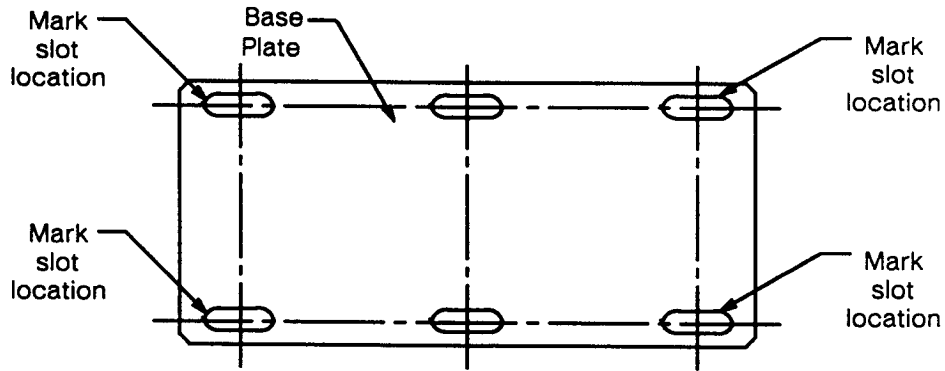
Failure to follow these instructions could result in damage to the product and serious or fatal injury.

Do not energize or submerge apparatus with shipping cap(s) on bushing(s).

Section A - Universal Mount

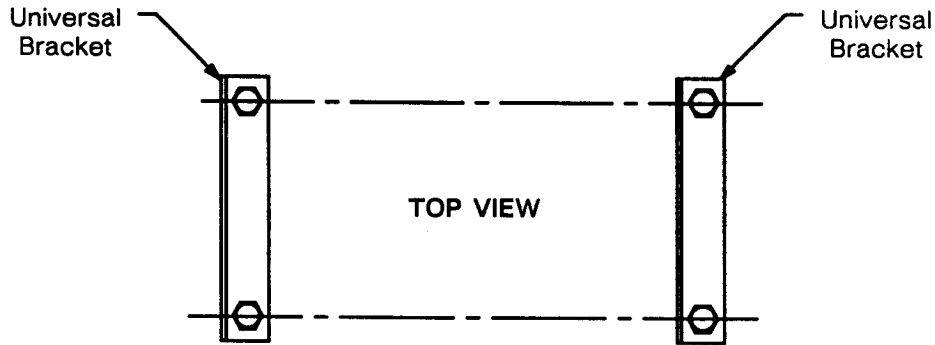
STEP 1

Determine the desired location of the junction assembly. Using the base plate as a template, place it on the surface that the junction is to be mounted and mark slot locations.



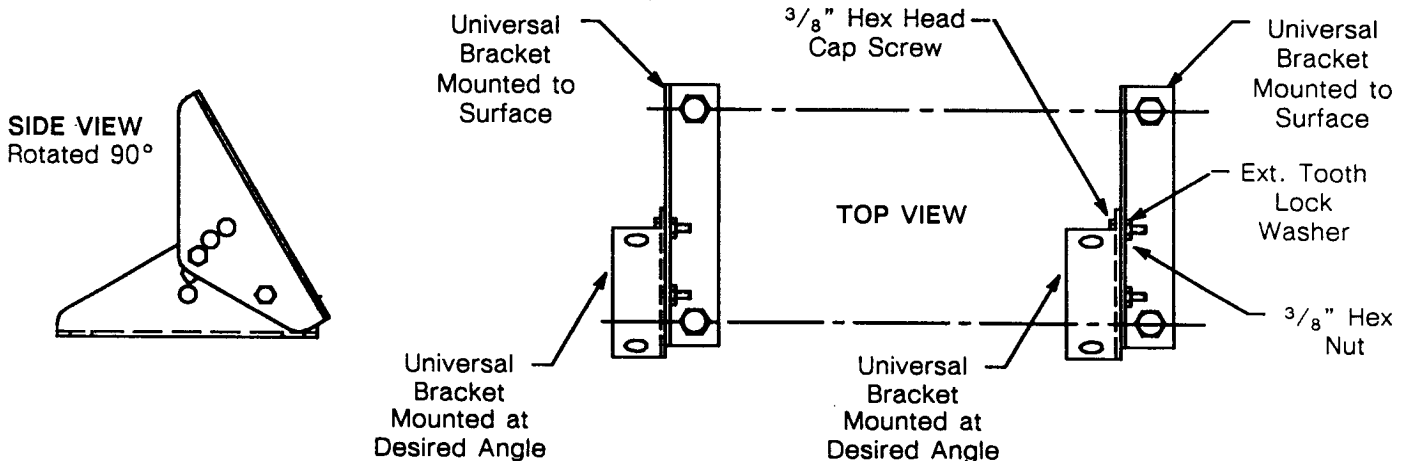
STEP 2

Attach two (2) universal brackets to flat surface using suitable fasteners and tighten securely to ensure no movement during operation.



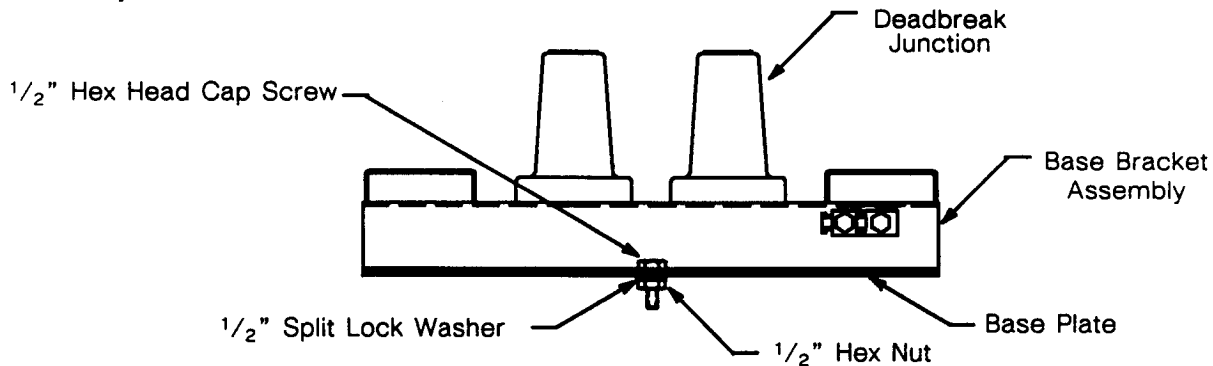
STEP 3

Attach the remaining two (2) universal brackets to the two (2) universal brackets mounted on the surface at desired angle using the hardware supplied. Tighten securely.



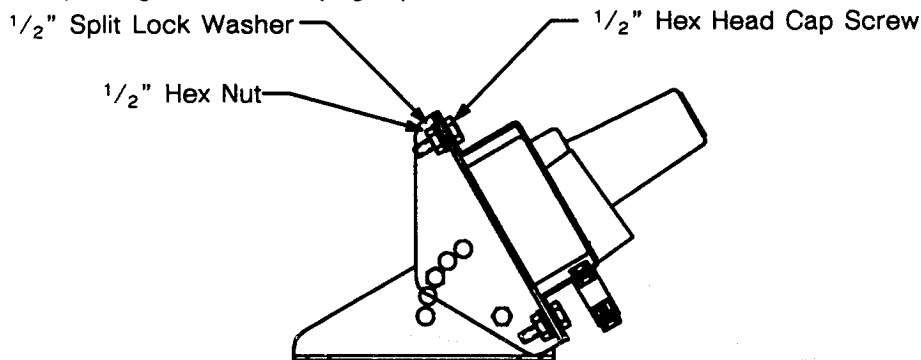
STEP 4

Assemble deadbreak junction to base bracket assembly and base plate using two (2) $\frac{1}{2}$ " hex head cap screws, two (2) $\frac{1}{2}$ " split lock washers, and two (2) $\frac{1}{2}$ " hex nuts attached to the center mounting holes on the bracket assembly. Tighten securely.



STEP 5

Attach the deadbreak junction assembly to the universal brackets using the hardware supplied. Tighten securely. Be sure parking stand is in upright position.



STEP 6

The base bracket assembly and junction's black conductive jacket must be grounded. A grounding lug is provided on the base bracket for this purpose. It accommodates wire sizes of No. 2 solid to 1/0 stranded.

STEP 7

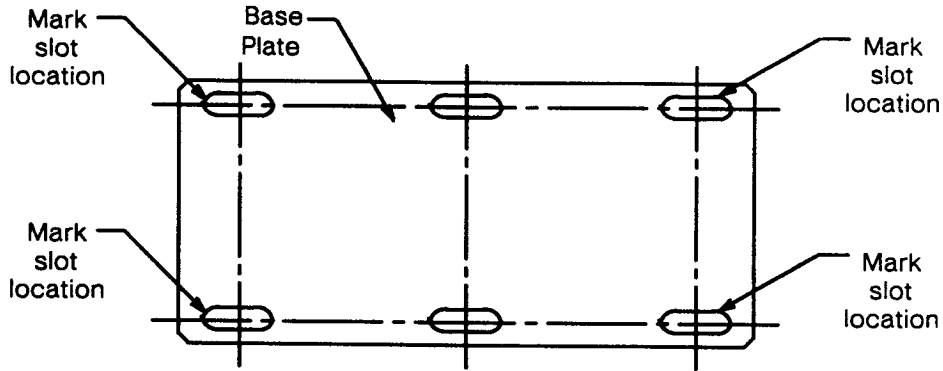
Operating Instructions

Go to page 7 of this installation instruction for operating instructions.

Section B - 45° Fixed Mount

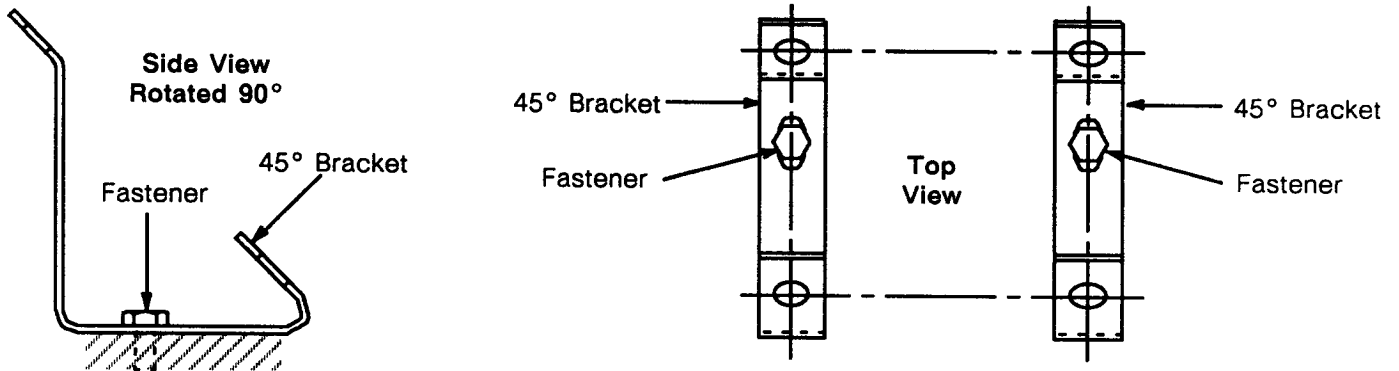
STEP 1

Determine the desired location of the junction assembly. Using the base plate as a template, place it on the surface that the junction assembly is to be mounted and mark slot locations.



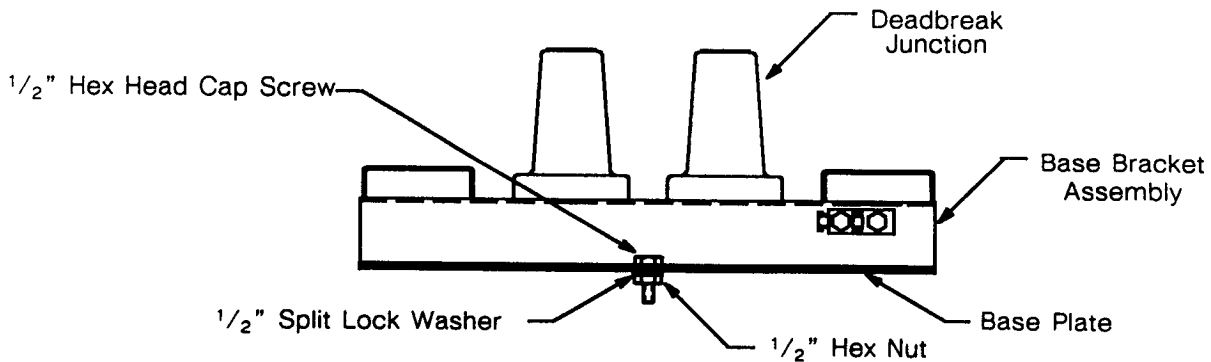
STEP 2

Attach the two (2) 45° brackets to the surface using suitable fasteners and tighten securely to ensure no movement during operation.



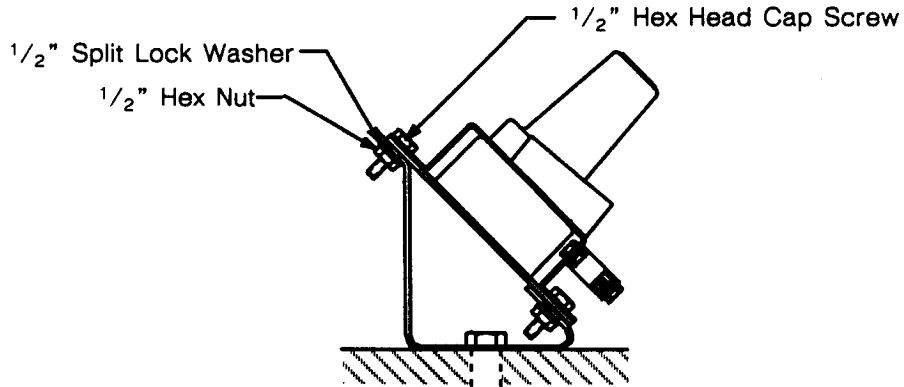
STEP 3

Assemble deadbreak junction to base bracket assembly and base plate using two (2) 1/2" hex head cap screws, two (2) 1/2" split lock washers and two (2) 1/2" hex nuts attached to the center mounting holes on the bracket assembly. Tighten securely.



STEP 4

Attach the junction assembly to the 45° brackets using the hardware supplied. Tighten securely. Be sure parking stand is in upright position.



STEP 5

The base bracket assembly and junction's black conductive jacket must be grounded. A grounding lug is provided on the base bracket for this purpose. It accommodates wire sizes of No. 2 solid to 1/0 stranded.

STEP 6

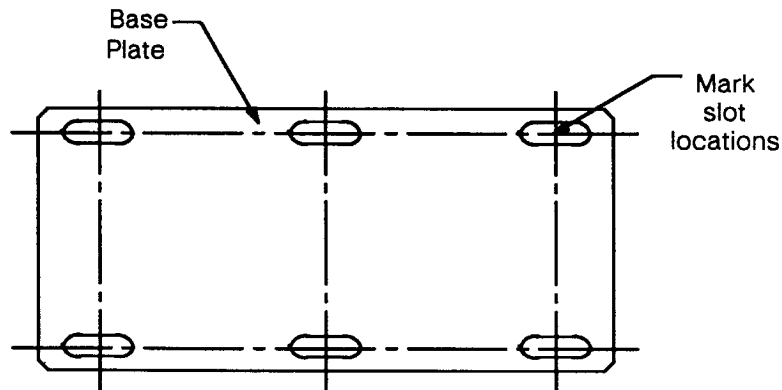
Operating Instructions

Go to page 7 of this installation instruction for operation instructions.

Section C – Flat Mount w/Base Bracket

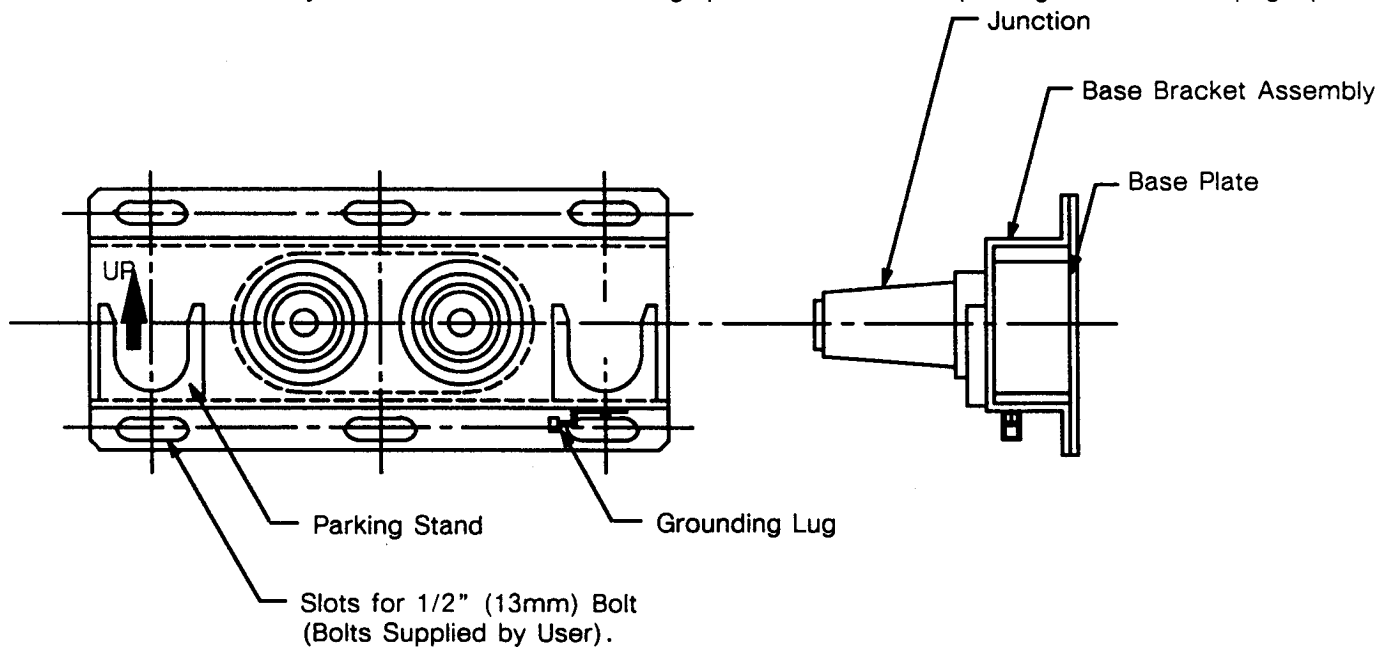
STEP 1

Determine the desired location of the junction assembly. Using the base plate as a template, place the base plate on the surface that the junction is to be mounted and mark all slot locations.



STEP 2

Assemble deadbreak junction to base bracket assembly and base plate with suitable fasteners, attach to flat surface and tighten all fasteners securely to insure no movement during operation. Make sure parking stand is in an upright position.



STEP 3

The base bracket assembly and junction's black conductive jacket must be grounded. A grounding lug is provided on the base bracket for this purpose. It accommodates wire sizes of No. 2 solid to 1/0 stranded.

STEP 4

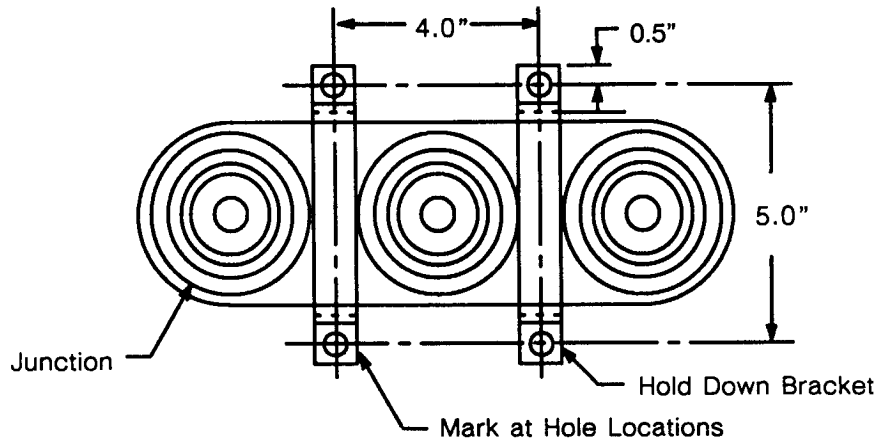
Operating Instructions

Go to page 7 of this installation instruction for operation instructions.

Section D – Flat Mount w/o Base Bracket

STEP 1

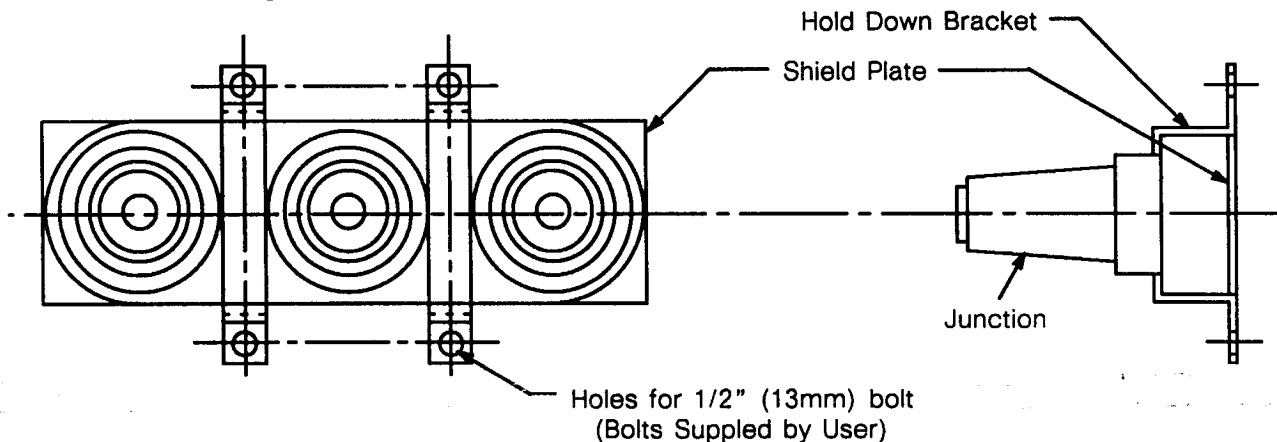
Determine the desired location of the junction assembly. Using the hold down bracket(s) assembled on the junction as a template, place the assembly on the surface that junction is to be mounted and mark all hole locations.



STEP 2

Assemble deadbreak junction, shield plate and hold down bracket(s) with suitable fasteners, attach to flat surface and tighten all fasteners securely to ensure no movement during operation.

IMPORTANT: Conductive jacket of junction and shield plate must be grounded through contact with grounding conductive mounting surface. If mounting surface is not grounded attach grounding lug to bracket bolt.



Operating Instructions

1. Remove all protective caps and clean the operating interfaces. Lubricate each interface with an ELASTIMOLD approved lubricants. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating product(s).
2. If all operating interfaces are not utilized, insulated caps must be installed on the unused bushing(s) before energization.
3. Do not use the protective shipping caps for this function as they are not insulated and are only intended to keep the operating interfaces clean during handling and installation.

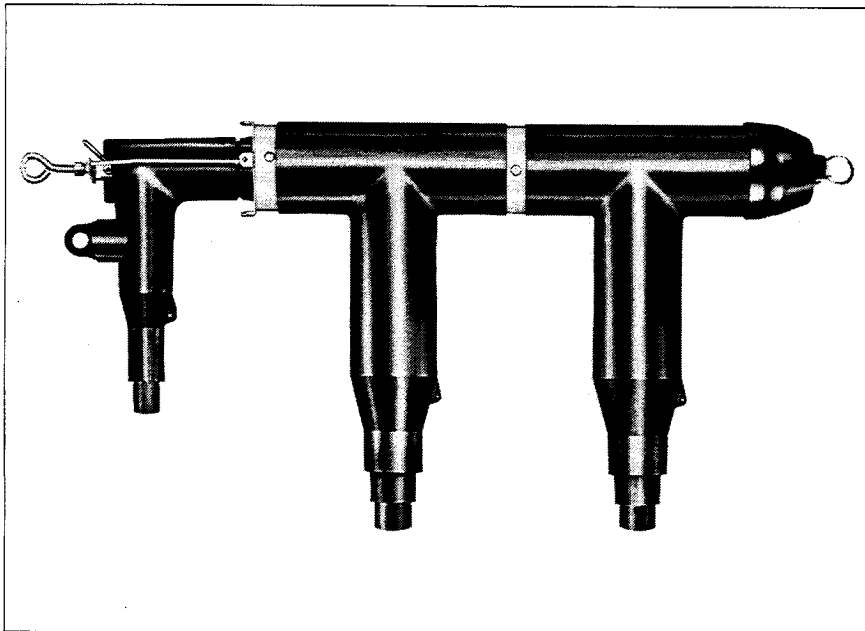
WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2).



**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ROUTE 24
HACKETTSTOWN, NEW JERSEY USA 07840 (201) 852-1122



655LR and K655LR Connectors for 600-Amp Splices and 600/200-Amp Taps

GENERAL INFORMATION

Splices, taps and dead-ends, in both 600-ampere and 200-ampere ratings, at 15 and 25 kv, can be made with this product family. Completed connections are insulated, shielded, water-proof and suitable for direct-burial or vault applications.

These connectors are designed for easy installation on extruded shield cable or metallic tape shielded cable. The conductor range is from 1/0 to 1000 kcmil for aluminum and copper. These modular splicing and tapping kits are designed for use on solid insulated cables with insulation diameters of .640" to 1.935".

A reliable 600-amp installation can be accomplished in the field with a minimum amount of skill. Various component parts are easily bolted together to complete splices. There is no taping or lead wiping required.

This product family is divided into various product groupings designated 655-L1 through 655-L14. The pages which follow contain application data pertaining to specific product configurations.

Ordering information is contained on page 2.

ELECTRICAL RATINGS		
	15kV RATINGS	25kV RATINGS
OPERATING VOLTAGE (max. continuous line-to-ground, 100% insulation system) -	8.3kV	15.2kV
BIL (@ 1.2x50 microsecond wave)	95kV	125kV
WITHSTAND VOLTAGE AC (1 minute) DC (15 minutes)	34kV 53kV	42kV 80kV
CORONA EXTINGUISHMENT LEVEL (min. @ 3pC)	11kV	19kV
CURRENT Continuous: Momentary:	600 Amps RMS** 25,000 Amps RMS, sym, 10 cycles	
**Designed for 90°C maximum continuous operating temperature. • Ratings are based on industry standards and do not reflect maximum levels. For compliance with other standards, consult your ELASTIMOLD representative.		



ELASTIMOLD

ORDERING INSTRUCTIONS

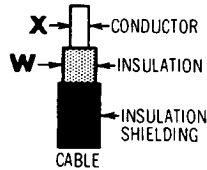
Refer to the suggested splicing guides and select the designation of the basic assembly required. For example: 655-L3, 655-L7, or 655-L12.

NOTE: The basic assembly designation includes all non-size-sensitive components (655CA cable adapters and 03700 conductor contacts plus 200-amp components) MUST be listed separately.

The size-sensitive components must be sized for the cable on which they will be installed.

STEP 1.

A. Determine the diameter over the cable insulation. Do not measure the diameter over the cable jacket, if any, or over the insulation shielding. From the insulation



diameter table below locate the range and associated symbol for **W** that locates the insulation OD nearest to the minimum point of the range. See note.
 B. From the conductor table below select the symbol for **X** that represents the size and type of cable conductor.

STEP 2.

Substitute the **W** and **X** symbols in the ordering formulas shown below:

655CA-W 03700-XXX

STEP 3.

Referring to the above instructions, the ordering formula for a complete splice assembly is as follows:

655L — (Basic Assembly Designation)
 655CA-W (Cable Adapter)
 03700-XXX (Conductor Contact)

ORDERING EXAMPLES

I. Product Grouping 655-L1 through 655-L4

A three-way splice is required. Cables to be spliced are as follows:

- 750 kcmil (compressed), insulation diameter 1.430"
- 500 kcmil (compact), insulation diameter 1.155"
- 250 kcmil (compressed), insulation diameter .995"

Referring to the suggested splicing guide for this product grouping, it can be seen that a 655-L3 assembly is required.

Referring to Tables **W** and **X** substitute the symbols for the cable insulation diameter and conductor sizes in the ordering formula and list separately:

655-L3 655CA-K 03700380 03700280
 655CA-M 655CA-H 03700320

II. Product Grouping 655-L5 through 655-L9

A two-way splice with a 200-amp tap is required. The cables to be spliced are as follows:

- 750 kcmil (compressed), insulation diameter 1.430"
- 500 kcmil (compact), insulation diameter 1.155"

Referring to the suggested splicing guide for this product grouping, it can be seen that 655-L7 assembly is required.

Referring to Tables **W** and **X**, substitute the symbols for the cable insulation diameters and conductor sizes in the ordering formula and list separately:

655-L7 655CA-K 03700320
 655CA-M 03700380

For the 200-amp tap connection, refer to the appropriate catalog page and follow the ordering instructions given. List this item separately. For example:

156LR-WX, 150 T or 151SR-WX.

III. Product Grouping 655-L10 through 655-L14

A two-way splice with a 200-amp tap is required. The cables to be spliced are as follows:

- 750 kcmil (compressed), insulation diameter 1.430"
- 500 kcmil (compact), insulation diameter 1.155"

Referring to the suggested splicing guide for this product grouping it can be seen that a 655-L12 assembly is required.

Referring to Tables **W** and **X**, substitute the symbols for the cable insulation diameters and conductor sizes in the ordering formula and list separately:

655-L12 655CA-K 03700320
 655CA-M 03700380

For 200-amp loadbreak or non-loadbreak inserts and specific mating parts, refer to the applicable catalog sheets for these products and follow the ordering instructions given. List these items separately.

NOTES:

1. Operational ratings of all 200-amp taps and their mating components are shown on each product catalog sheet.
2. A spanner wrench is required for the assembly of splicing assemblies 655-L2 through 655-L14. Order a 600SW.
3. A torque wrench with a 1" hex socket attachment is necessary for all assemblies.

FOR 25KV APPLICATIONS—Prefix all (except 200-amp components which are 25kV rated) ordering numbers with "K." For example, K655-L2, K655-L12.

600-AMP INSULATION DIAMETER TABLE

INSULATION RANGE				SYMBOL for W
INCHES		mm		
MIN.	MAX.	MIN.	MAX.	
.640	.820	16,3	20,8	F
.760	.950	19,3	24,1	G
.850	1.050	21,6	26,7	H
.980	1.180	24,9	30,0	J
1.090	1.310	27,7	33,3	K
1.180	1.465	30,0	37,2	L
1.280	1.430	32,5	36,3	LM
1.370	1.630	34,8	41,4	M
1.515	1.780	38,5	45,2	N
1.725	1.935	43,8	49,1	P

Note:
 When selecting W, the insulation diameter (minus any tolerance) must be greater than the minimum of the range selected. If it is less than the range minimum, select the next size smaller.

600-AMP CONDUCTOR TABLE

Conductor Size - AWG or kcmil				Catalog Number
Stranded	Compressed	Compact	Solid	
1/0	1/0	2/0	2/0	03700240
2/0	2/0	3/0	3/0	03700250
3/0	3/0	4/0	4/0	03700260
4/0	4/0	250	---	03700270
250	250	300	---	03700280
300	300	350	---	03700290
350	350	400	---	03700300
400	400	450	---	03700310
450	450	500,550	---	03700320
500	500	600	---	03700330
550	550	650	---	03700340
600	600	700	---	03700350
650	650	750,800	---	03700360
700	700	---	---	03700370
750	750	---	---	03700380
800	800	900	---	03700390
900	900	1000	---	03700400
1000	1000	---	---	03700410

PRODUCT GROUPING 655-L1 through 655-L4

APPLICATION

The ELASTIMOLD 655-L1 through -L4 product grouping is designed to provide, for 600-amp, 15-kv and 25-kv systems, four different splice arrangements. All the arrangements are built up from the basic components which are joined together to form a fully-shielded, fully-submersible, cable connection. Typical applications would include splicing or tapping on new cable installations, or adding a tap to an existing cable installation.

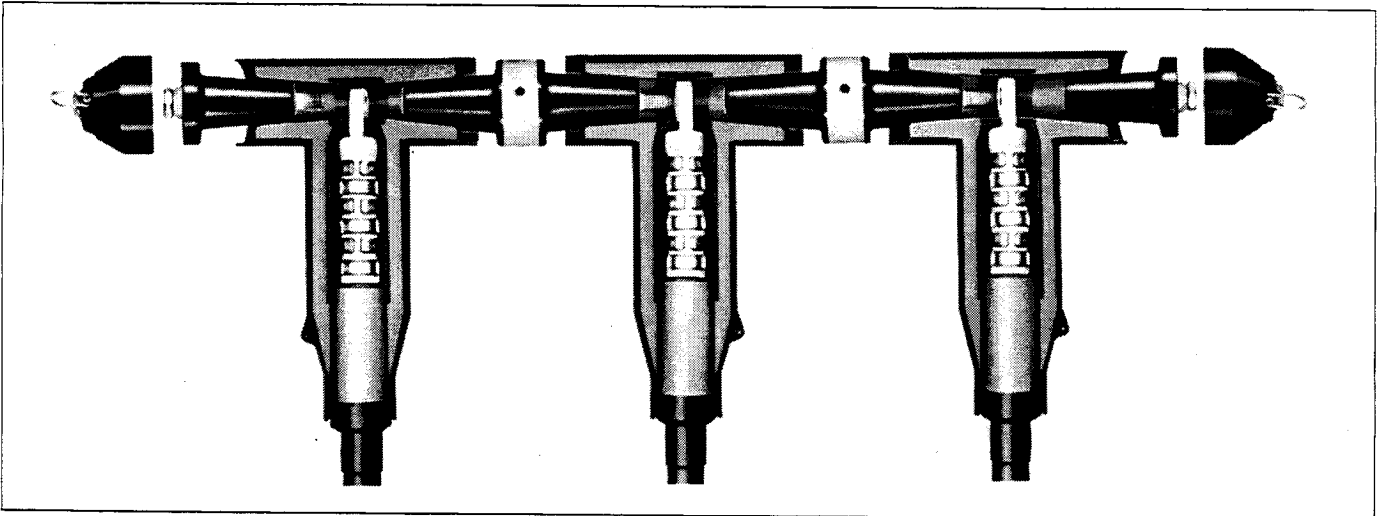
The 655-L1 through -L4 grouping will accept aluminum and copper conductors from 1/0 to 1000 kcmil and insulation diameters from .640" to 1.935". The cable adapter concept permits the use of the 655-L1 through -L4 grouping with any solid dielectric constructed cable. For moisture proofing of the outer jacket of the cable and grounding of the cable metallic shield refer to Section 600 for information on the 20MA and 21MA grounding devices. For lead-jacketed solid

dielectric insulation the 10TL cable shield adapter as shown in Section 600 is recommended.

INSTALLATION

Installation, after cable preparation, is accomplished by crimping a spade contact to the conductors. These are then inserted into the elbow housings. The epoxy plugs at the ends of the housings are bolted together to form the desired configuration. It is necessary that these bolted connections be tightened to a torque level of 60 ft.-lb. This installation procedure requires the use of a torque wrench having a 1" hex socket attachment, plus the use of an ELASTIMOLD 600SW spanner wrench when component part 650CP (connector plug) is used.

NOTE: For electrical ratings refer to page 1; for ordering information refer to page 2.



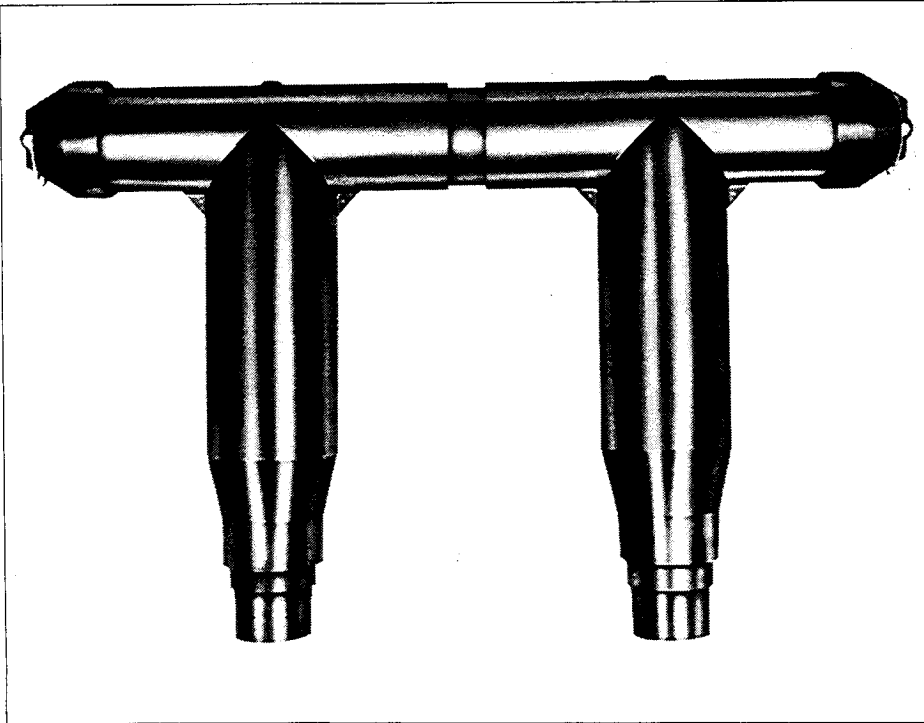
SUGGESTED SPLICING FUNCTION GUIDE		14"		24"		31"		38"	
		600-AMP DEAD-END 655-L1		600-AMP SPLICE 655-L2*		600-AMP 3-WAY SPLICE 655-L3*		600 AMP 4-WAY SPLICE 655-L4*	
BASIC ASSEMBLY	655BLR**	1	2	3	4				
	650CP	1	2	2	3				
	650BIP	2	2	2	2				

When ordering, the following should be listed separately.

655CA-W	1	2	3	4
03700-X	1	2	3	4

*600SW spanner wrench required for assembly. **650SA threaded stud is included with the 655BLR.

Elastimold®



755LR 35-kV Connectors for 600-Amp Splices and 600/200-Amp Taps

GENERAL INFORMATION

Splices, taps, and dead-ends with 600- and 200-ampere ratings, at 35 kv, can be made with this product family. Completed connections are insulated, shielded, waterproof, and suitable for direct-burial or vault applications.

These splices and taps are designed for easy installation on either extruded shield or tape shielded cable with insulation diameters of .760" to 2.120". The conductor size range is from 1/0 to 1000 kcmil in aluminum and copper.

A reliable 600-amp installation can be accomplished in the field with a minimum amount of skill. Various component parts are easily bolted together to complete splices. There is no taping or lead wiping required.

This product family is divided into various product groupings designated 755-L1 through 755-L4. The pages which follow contain application data pertaining to specific product configurations.

Ordering information is contained on page 2.

ELECTRICAL RATINGS

OPERATING VOLTAGE (max. continuous line-to-ground, 100% insulation system)	21.1kV
BIL (@ 1.2 x 50 microsecond wave)	150kV
WITHSTAND VOLTAGE AC (1 minute) DC (15 minutes)	50kV 103kV
CORONA EXTINCTION LEVEL (min. @ 3pC)	26kV
CURRENT Continuous: Momentary:	600 Amps RMS** 25,000 Amps RMS, sym, 10 cycles

**Designed for 90°C maximum continuous operating temperature.
• Ratings are based on industry standards and do not reflect maximum levels. For compliance with other standards, consult your ELASTIMOLD representative.



ELASTIMOLD

ORDERING INSTRUCTIONS

Refer to the suggested splicing guides and select the designation of the basic assembly required. For example: 755-L3, 755-L4.

NOTE: The basic assembly designation includes all non-size-sensitive components (755CA cable adapters and 03700 conductor contacts plus 200-amp components) MUST be listed separately.

The size-sensitive components must be sized for the cable on which they will be installed.

STEP 1.

A. Determine the diameter over the cable insulation. Do not measure the diameter over the cable jacket, if any, or over the insulation shielding. From the insulation diameter table below locate the range and associated symbol for W that locates the insulation OD nearest to the minimum point of the range. See note.

B. From the conductor table below select the symbol for X that represents the size and type of cable conductor.

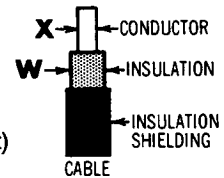
STEP 2.

Substitute the W and X symbols in the ordering formulas: 755CA-W 03700-X

STEP 3.

Referring to the above instructions, an ordering formula for a complete splice assembly is as follows:

755L — (Basic Assembly Designation) 755CA-W (Cable Adapter) 03700-X (Conductor Contact)



ORDERING EXAMPLES

Product Grouping 755-L1 through 755-L4

A three-way splice is required. Cables to be spliced are as follows:

- 750 kcmil (compressed), insulation diameter 1.785"
- 500 kcmil (compact), insulation diameter 1.510"
- 250 kcmil (compressed), insulation diameter 1.350"

Referring to the suggested splicing guide for this product grouping, it can be seen that a 755-L3 assembly is required.

Referring to Tables W and X substitute the symbols for the cable insulation diameter and conductor sizes in the ordering formula and list separately:

755-L3 755CA-P 755CA-M 755CA-L 03700380 03700320 03700280

NOTE: Table W contains both inches and millimeters.

TABLE W

INSULATION RANGE				SYMBOL for W
INCHES		mm		
MIN.	MAX.	MIN.	MAX.	
.760	.950	19,3	24,1	G
.850	1.050	21,6	26,7	H
.980	1.180	24,9	30,0	J
1.090	1.310	27,7	33,3	K
1.180	1.465	30,0	37,2	L
1.370	1.630	34,8	41,4	M
1.515	1.780	38,5	45,2	N
1.725	1.935	43,8	49,1	P
1.900	2.120	48,3	53,9	Q

Note: When selecting W, the insulation diameter (minus any tolerance) must be greater than the minimum of the range selected. If it is less than the range minimum, select the next size smaller.

TABLE X

Conductor Size - AWG or kcmil				Catalog Number
Stranded	Compressed	Compact	Solid	
1/0	1/0	2/0	2/0	03700240
2/0	2/0	3/0	3/0	03700250
3/0	3/0	4/0	4/0	03700260
4/0	4/0	250	---	03700270
250	250	300	---	03700280
300	300	350	---	03700290
350	350	400	---	03700300
400	400	450	---	03700310
450	450	500,550	---	03700320
500	500	600	---	03700330
550	550	650	---	03700340
600	600	700	---	03700350
650	650	750,800	---	03700360
700	700	---	---	03700370
750	750	---	---	03700380
800	800	900	---	03700390
900	900	1000	---	03700400
1000	1000	---	---	03700410

PRODUCT GROUPING 755-L1 through 755-L4

APPLICATION

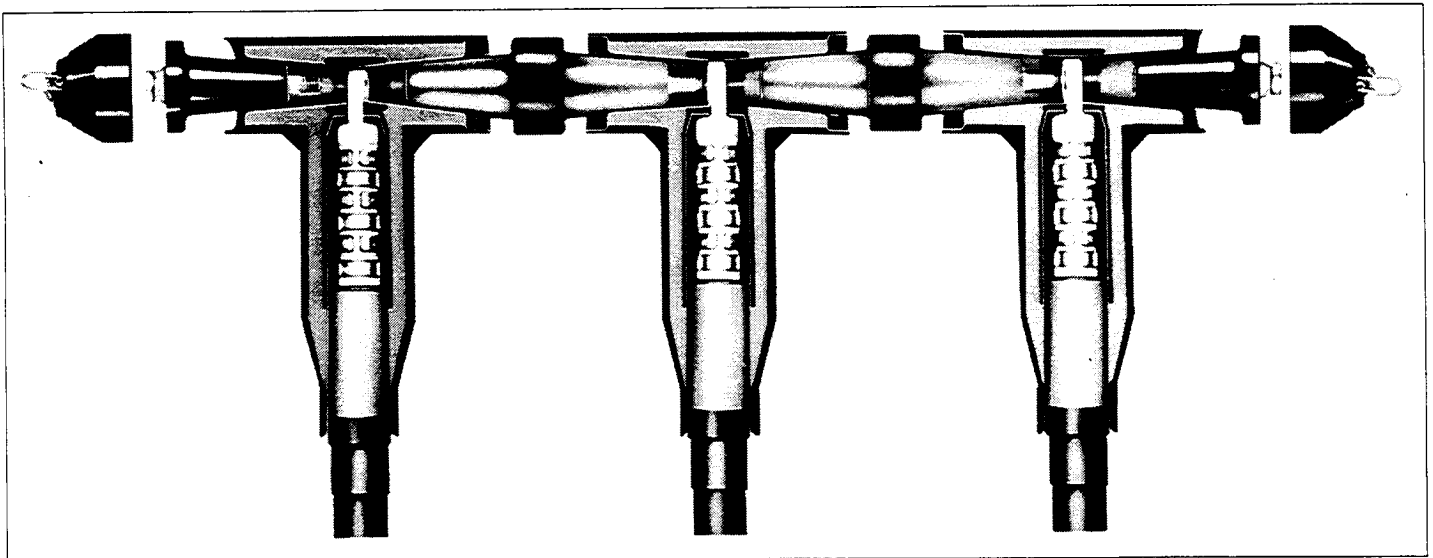
The ELASTIMOLD 755-L1 through -L4 product grouping designed to provide, for 600-amp, 35-kv systems, four different splice arrangements. All the arrangements are built up from the basic components which are joined together to form a fully-shielded, fully-submersible, cable connection. Typical applications would include splicing on new cable installations.




The 755-L1 through -L4 grouping will accept aluminum and copper conductors from 1/0 to 1000 kcmil and insulation diameters from .760" to 2.120". The cable adapter concept permits the use of the 755-L1 through -L4 grouping with any solid dielectric constructed cable.

INSTALLATION

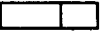
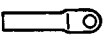
Installation, after cable preparation, is accomplished by crimping a spade contact to the conductors. These are then inserted into the elbow housings. The epoxy plugs at the ends of the housings are bolted together to form the desired configuration. It is necessary that these bolted connections be tightened to a torque level of 60 ft.-lb. This installation procedure requires the use of a torque wrench having a 1" hex socket attachment.

NOTE: For electrical ratings refer to page 1; for ordering information refer to page 2.

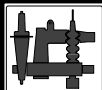


SUGGESTED SPLICING FUNCTION GUIDE		14"	24½"	35¼"	46"
		600-AMP DEAD END 755-L1	600-AMP SPLICE 755-L2	600-AMP 3-WAY 755-L3	600 AMP 4-WAY 755-L4
BASIC ASSEMBLY	 755BLR**	1	2	3	4
	 750CP		1	2	3
	 750BIP	2	2	2	2

When ordering, the following should be listed separately.

 755CA-W	1	2	3	4
 03700-X	1	2	3	4

**750SA threaded stud is included with the 755BLR.



PRODUCT SPECIFICATION SHEET

I

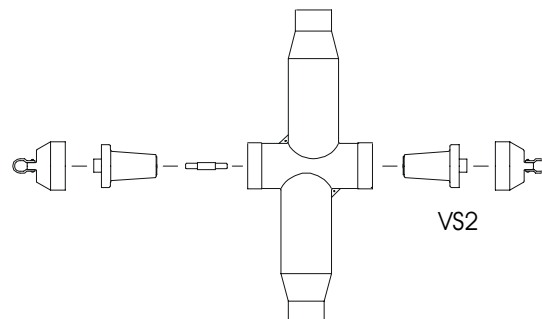
DESCRIPTION

15/25kV 600A Valut Stretcher Kit

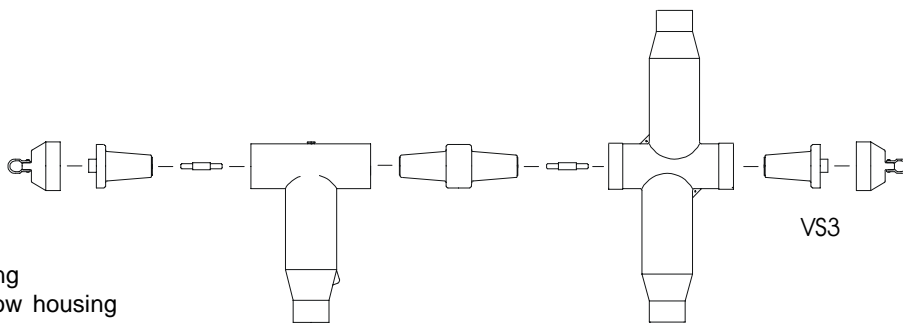
ELASTIMOLD PART NUMBER

K655VSX**2-way, includes:**

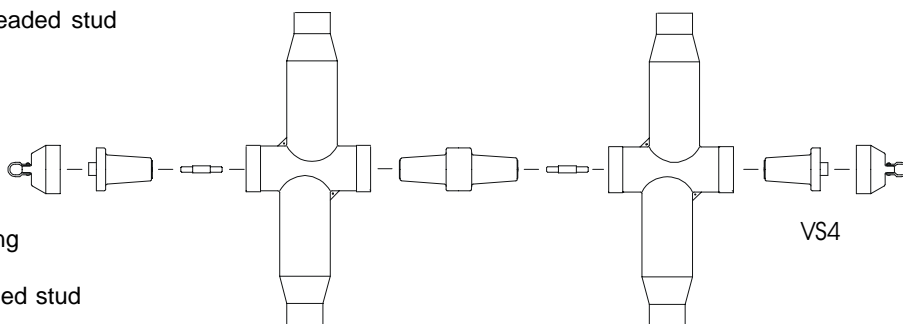
- 2- K6550BIP Basic insulating plug
- 1 - K655BVS Vault stretcher housing
- 1 - 650VSA Vault stretcher threaded stud

**3-way, includes:**

- 2- K6550BIP Basic insulating plug
- 1 - K655BVS Vault stretcher housing
- 1 - K655BLR 600A deadbreak elbow housing
- 1 - K650CP Connecting plug
- 1 - 650VSA Vault stretcher threaded stud
- 1 - 650SA 600 series elbow threaded stud

**4-way, includes:**

- 2- K6550BIP Basic insulating plug
- 1 - K655BVS Vault stretcher housing
- 1 - K650CP Connecting plug
- 2 - 650VSA Vault stretcher threaded stud

**Application:**

The Elastimold K655VSX series vault stretcher connector are designed to eliminate extra space needed for cable bending and training. The K655VS vault stretcher allows adding additional taps in the future.

Ordering Instruction:

- To order 15/25 kV 600A 2-way VS-Kit specify **K655VS2**
- To order 15/25 kV 600A 3-way VS-Kit specify **K655VS3**
- To order 15/25 kV 600A 4-way VS-Kit specify **K655VS4**

Note, cable adapter and crimp connector are ordered separately.

Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 600 Amp - Continuous current
- 25kA sym, 10 cycles momentary current

Installation Instructions 655VS / K655VS Vault Stretcher

CONTENTS: Vault Stretcher, 2- -Cable Adapters, 2- -Compression Lugs, 2- -Insulating Plugs, Lubricant, Stud Prepack, Installation Instructions, Crimp chart.

The 655VS and K655VS connectors are designed to: 1) provide fully shielded, fully submersible deadfront cable connections to high voltage apparatus and 2) provide a means to splice and tap 600- -ampere systems. The connectors are rated for use on 15kV and 25kV class systems respectively.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded connector before submerging or energizing the circuit.

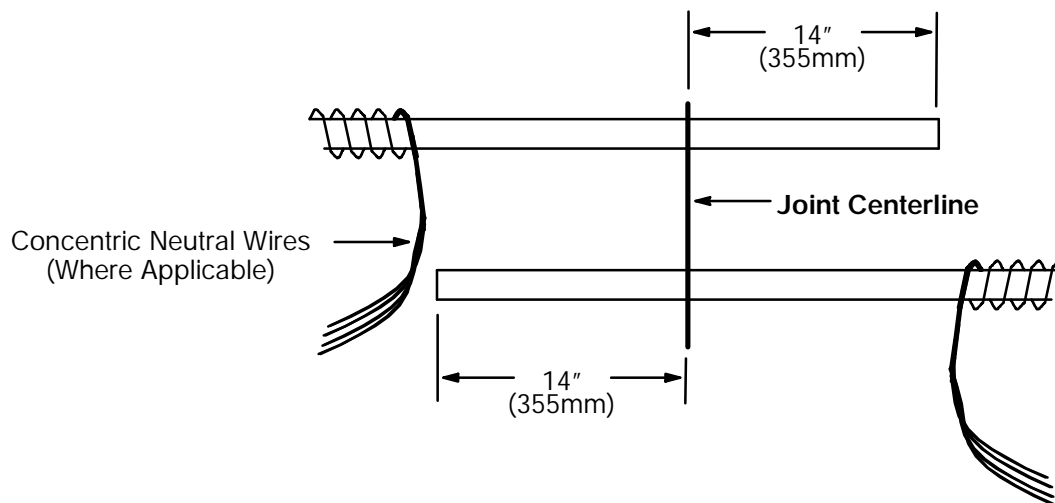
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

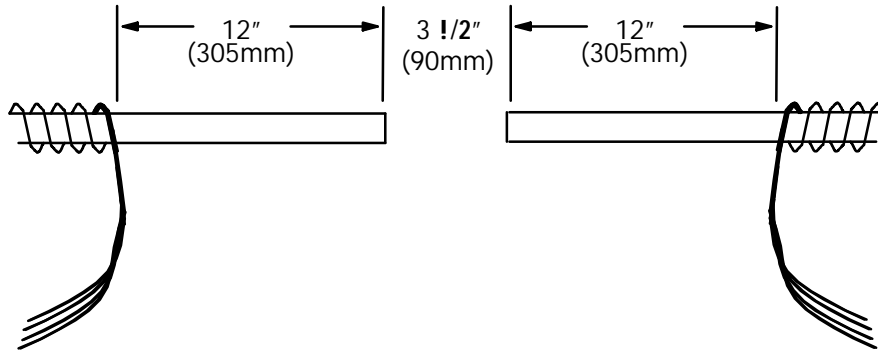
STEP 1

For concentric neutral cable, overlap both cables and cut to 14" (355mm) from center line of joint and bend back the concentric neutral wires.



STEP 2

Cut the cables to the dimension shown. DO NOT CUT the neutral wires. Unwrap the neutral wires a minimum of 12 inches from the cable ends and twist together. Bend the neutrals back.



STEP 3

Carefully remove the semiconductive cable insulation shield from each cable the distance "L" shown in Table I. DO NOT CUT OR NICK THE CABLE INSULATION.

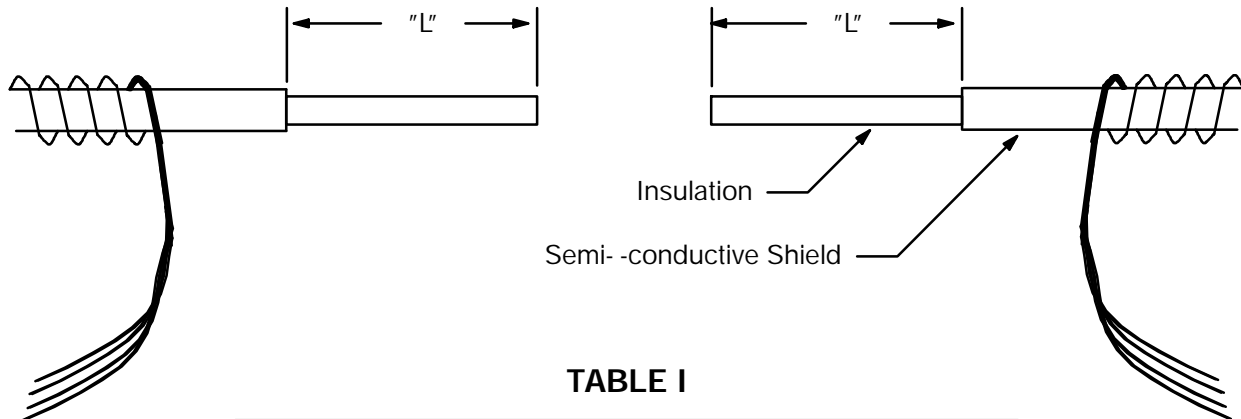
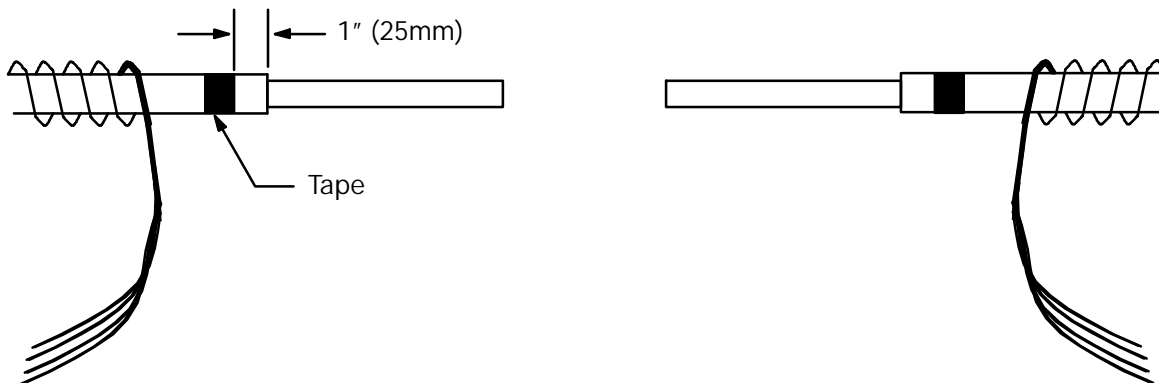


TABLE I

CONDUCTOR SIZE AWG	"L"
STR. AL/CU 1/0 AWG thru 250 kcmil Compact AL/CU 2/0 AWG thru 300 kcmil	9 1/4" (235mm)
STR. AL/CU 300 AWG thru 1000 kcmil Compact AL/CU 350 AWG thru 1000 kcmil	9 5/8" (244mm)

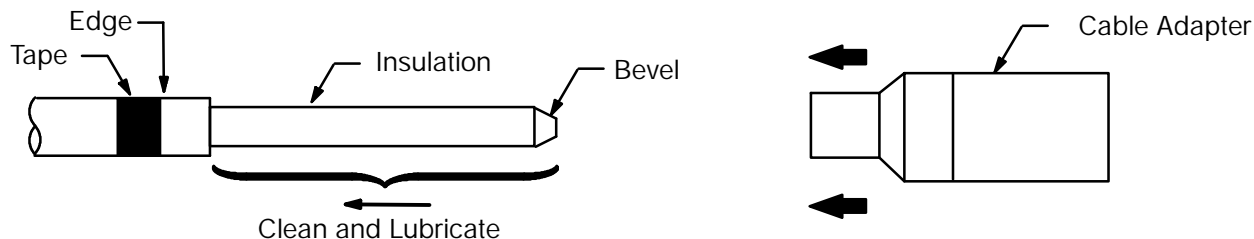
STEP 4

Measure 1" (25mm) from the end of each semi-conductive shield and wrap a layer of tape around the cable. This will act as a guide for installing the cable adapter, and will be removed later.



STEP 5

Bevel the end of the cable insulation at a 45° angle, approximately 1/4" (6mm) back. Thoroughly clean, then lubricate cable insulation working towards cable insulation shield. Install adapter, small end first, until it is flush with the edge of the tape marker.



STEP 6

Remove the protruding cable insulation by cutting it even with the end of the cable adapter. DO NOT NICK OR CUT THE CABLE ADAPTER OR THE CONDUCTOR. The length "A" of the exposed conductor should agree with the dimensions given in Table II. Otherwise redo assembly.

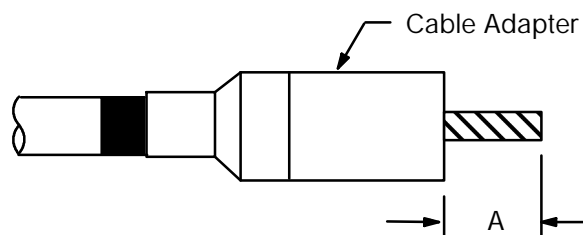
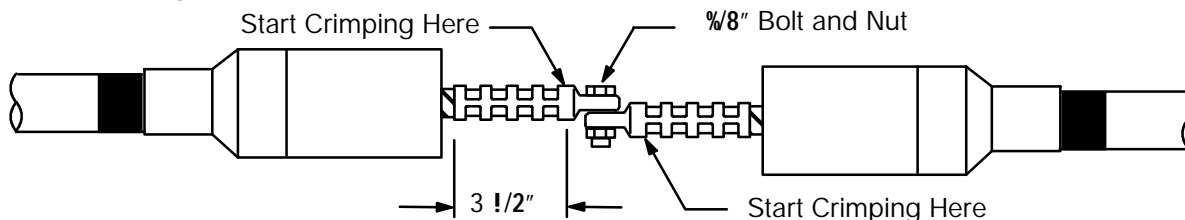


TABLE II

CONDUCTOR SIZE AWG	CHECK DISTANCE "A" (INCHES)
STR. AL/CU 1/0 AWG thru 250 kcmil Compact AL/CU 2/0 AWG thru 300 kcmil	3 3/4" to 4 1/16" (95- -103mm)
STR. AL/CU 300 AWG thru 1000 kcmil Compact AL/CU 350 AWG thru 1000 kcmil	4 1/8" to 4 1/2" (105- -114mm)

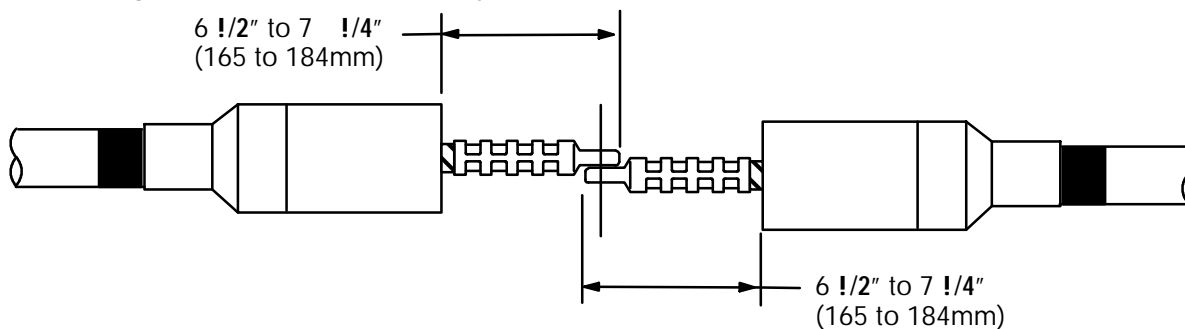
STEP 7

Wire brush the bare conductor and immediately fully insert it into the compression lug. Before making the first crimp, align the flat portions of the compression connector by using a 3/8" bolt as a temporary locator while crimping. Hold the compression connector in the proper position and make the crimp connection. Start the first crimp 3 1/2" from the open end of the compression fitting at the mark indicated on the connector.



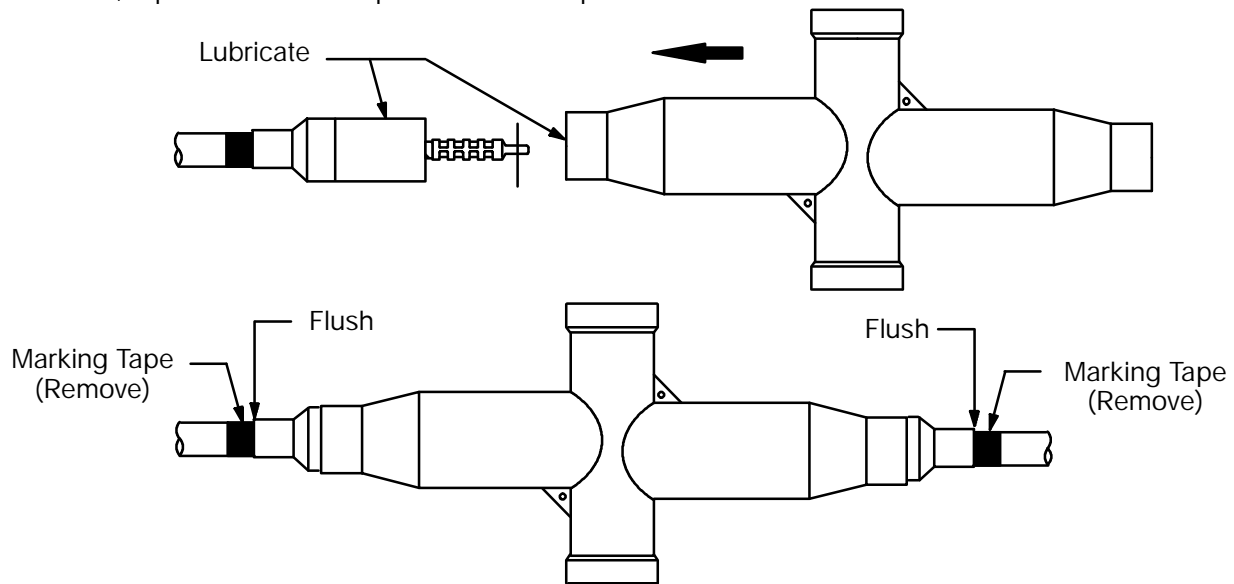
STEP 8

Rotate each successive crimp 180° to prevent bowing. Carefully wipe excess inhibitor from the outside of the connector and from the cable insulation. Check to ensure that the connector end is 6 1/2" to 7 1/4". Remove sharp flash, if any, from the crimp before inserting into the vault stretcher body.



STEP 9

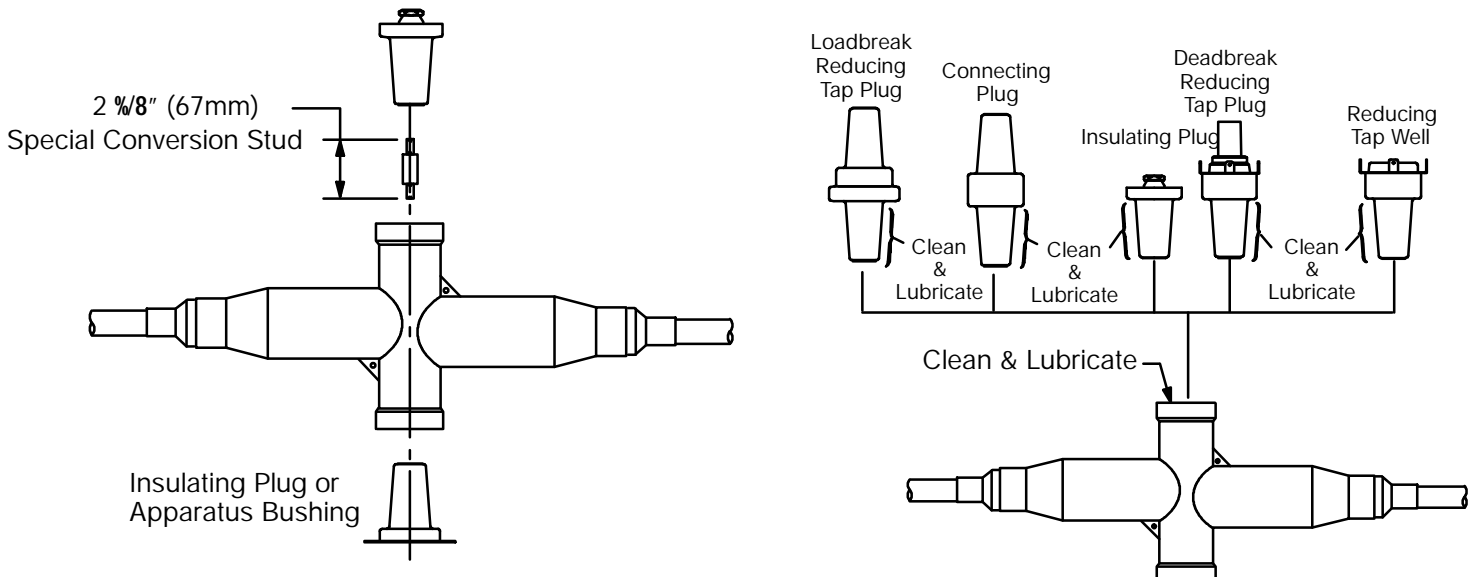
1. Lubricate the inside of the vault stretcher body and the outside of the cable adapter. Using a rotating motion, slip the body onto the cable adapter. Make sure the compression lug is aligned to seat with the inside mating portion of the vault stretcher. The compression lug should be pushed into the vault stretcher until it cannot advance further. The base of the adapter should still be aligned with the marking tape.
2. To install the compression lug and adapter in the other side, the vault stretcher and compression lug must be pushed sideways until the compression lug enters the open end of the vault stretcher body.
3. Slowly push both units toward their normal alignment, making sure the lubricated adapter is sliding into proper position in the vault stretcher. The location of the compression lug can be checked by looking in the tap hole of the vault stretcher. When compression lug is fully seated, make sure that both cable adapters are still flush with tape markers. If not, reposition cable adapters. Remove tape markers.



STEP 10

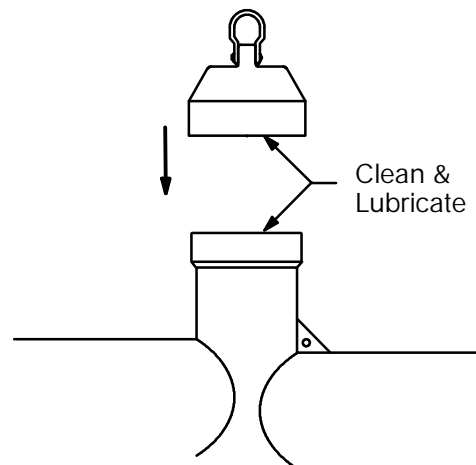
NOTE: A special stud (650VSA) $1/2$ " longer than the standard stud must be used with the vault stretcher.

1. DO NOT connect or disconnect mating products while energized. DO NOT energize while disconnected. Remove protective caps from the vault stretcher and the mating part. Hand tighten stud supplied with vault stretcher into one mating part. Clean and lubricate both the vault stretcher and the mating part with lubricant supplied. (Keep surfaces of vault stretcher and mating part clean).
 2. Clean and lubricate the mating part for the opposite end of the vault stretcher. Insert the mating part into the elbow. Engage the threads and hand tighten. Torque mating part according to the instructions supplied with the mating part.
- NOTE:** All mating parts must be operated in accordance with their operating instruction.



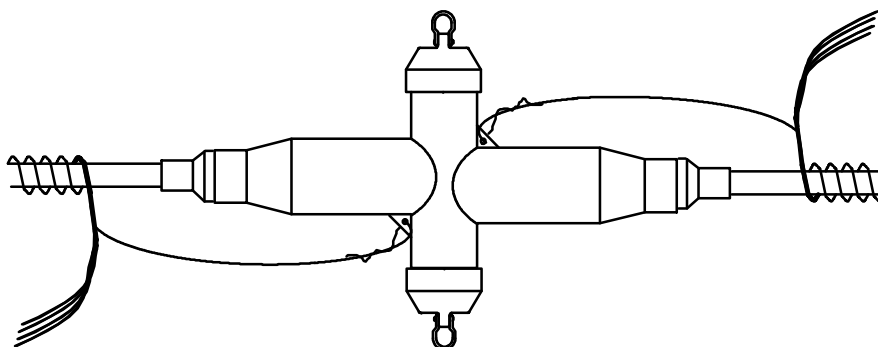
STEP 11

If an insulating plug is used as a mating part, clean and lubricate inner surface of the voltage detection cap and place on elbow. Push down hard until cap snaps into place.

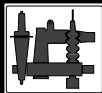


STEP 12 GROUNDING CONCENTRIC NEUTRAL CABLE

Insert one end of a piece of wire with ampacity at least equivalent to No. 14 AWG copper through grounding eye and twist to make a small loop. Repeat for other grounding eye. DO NOT damage the eyes. Connect wires to ground using suitable connectors.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852- -1122 FAX: (908)813- -2094



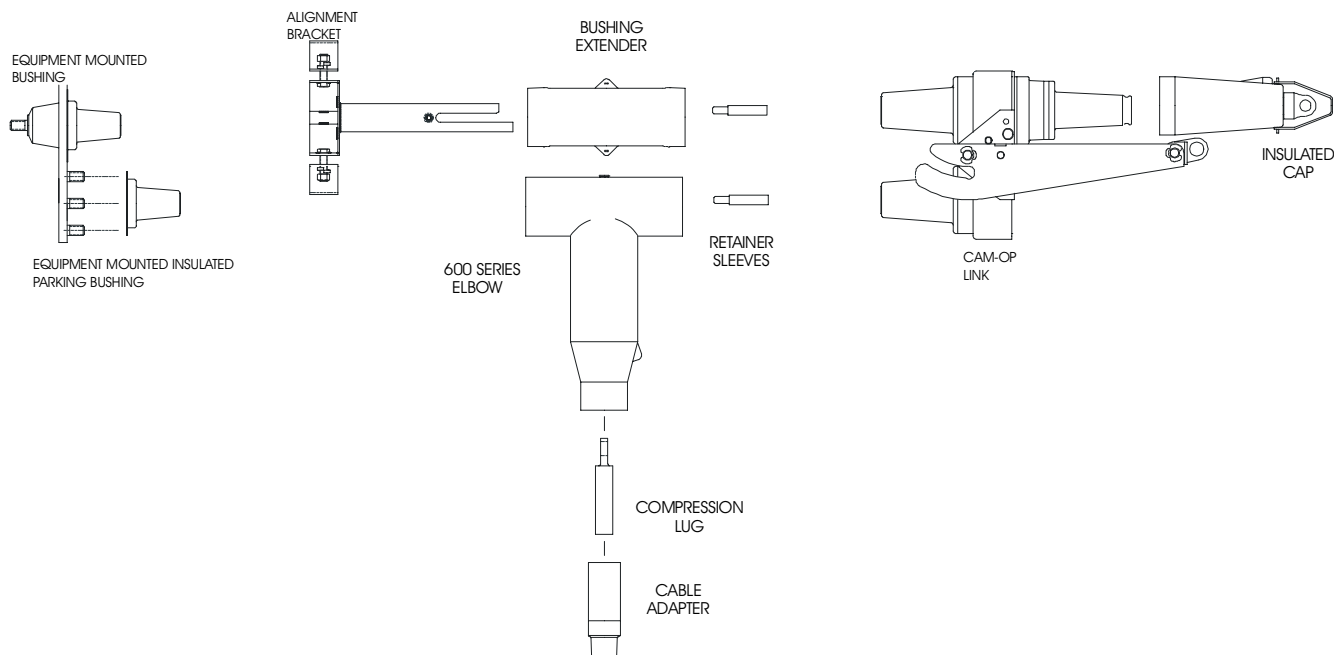
PRODUCT SPECIFICATION SHEET

C I

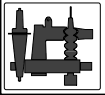
DESCRIPTION

15/25/35kV Cam-Op Connector Kit

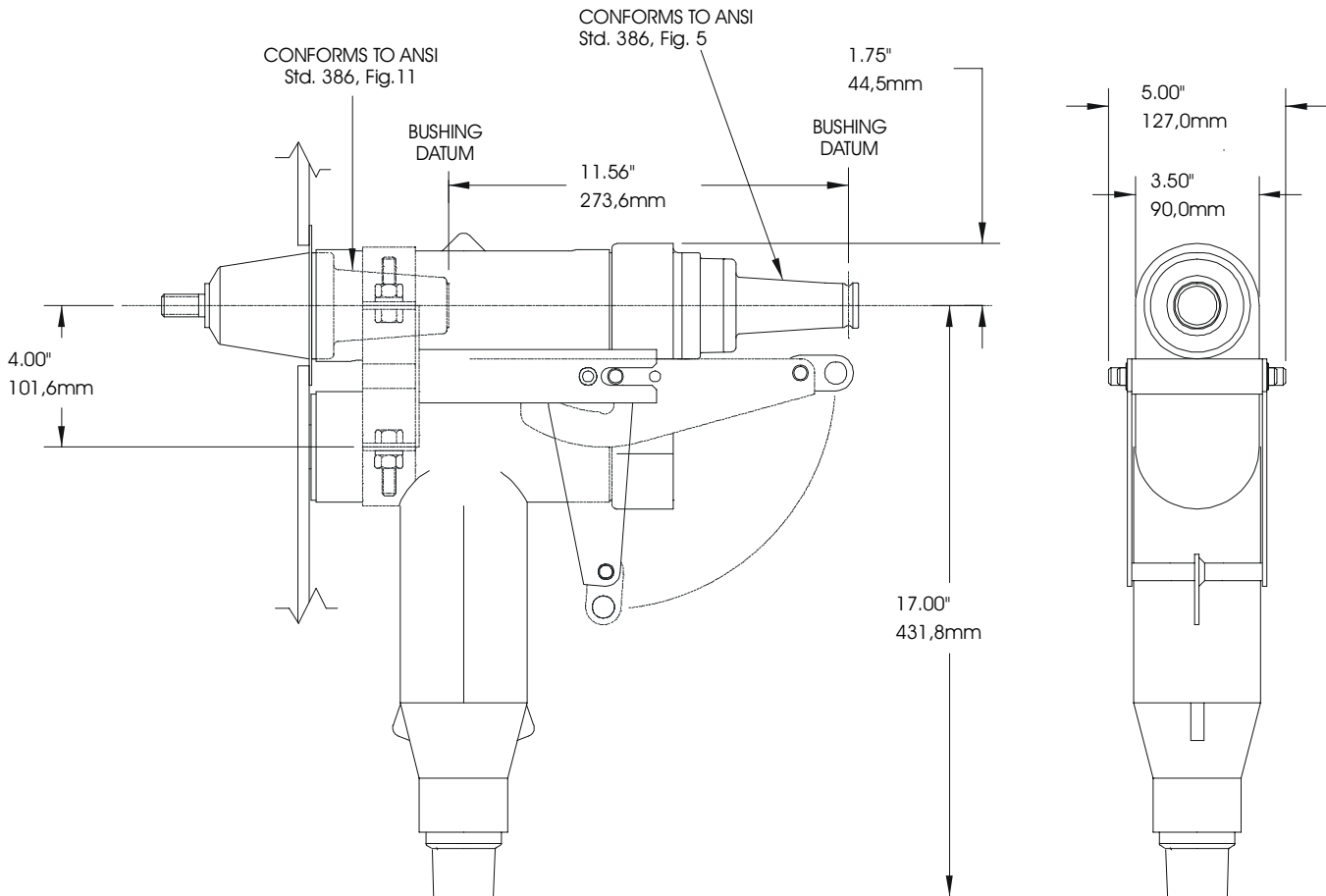
ELASTIMOLD PART NUMBER

655LINK-C-LR-W0X-B-DRG**K655LINK-C-LR-W0X-B-DRG****755LINK-C-LR-W0X-B-DRG****The Cam-Op Connector kit contains the following:**

- | | |
|---------------------------------------|---|
| 1 – Cam-Op link | 650LK-C-VB (15kV), K650LK-C-VB (25kV), or 750LK-C-VB (35kV) |
| 1 – Elbow connector housing (W/ STUD) | K655BLR (15kV & 25kV), or 755BLR (35kV) |
| 1 – Cable adapter | 655CA-W (15kV & 25kV), or 755CA-W (35kV) |
| 1 – Compression lug | 03700XXX |
| 1 – Bushing Extender | K655BE (15kV & 25kV), or 755BE (35kV) |
| 2 – Retainer sleeves | 650RSC |
| 1 – Insulated cap | 167DRG (15kV), 273DRG (25kV), or 375DRG (35kV) |
| 1 – Mountable insulated bushing | K650LBM-3 (15kV & 25kV), or 750LBM-3 (35kV) |
| 1 – Alignment bracket | 650CAB (15kV), K650CAB (25kV), or 750CAB (35kV) |
| 4 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-Link-C |
| 1 – Crimp chart | IS-03700CC 5/98 |



15kV Cam-Op Outline Dimension 655LINK-C-LR-W0X-B-DRG



For Reference Only

Installation Instructions

LINK--C

CAM LINK OPERABLE CONNECTOR SYSTEM

The Link is a 600 amp, connector designed to: 1.) provide a fully shielded, fully submersible hot stick operable connection between the cable and the apparatus. 2.) provide 200 ampere tap, for 15kV and 25kV.

WARNING: The following ratings apply to this product:

600 Ampere Deadbreak Interface -- 600 or amperes load current and 25,000 amperes short circuit current for 10 cycles.

200 Ampere Loadbreak Interface -- 200 amperes load current and 10,000 amperes fault--close current. For higher short circuit current: 1) this interface should only be operated de--energized; and 2) elbows used for taps or grounding must be adequately secured such as with a bail.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with the appropriate HV insulated caps or connectors before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Using the Component List, check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

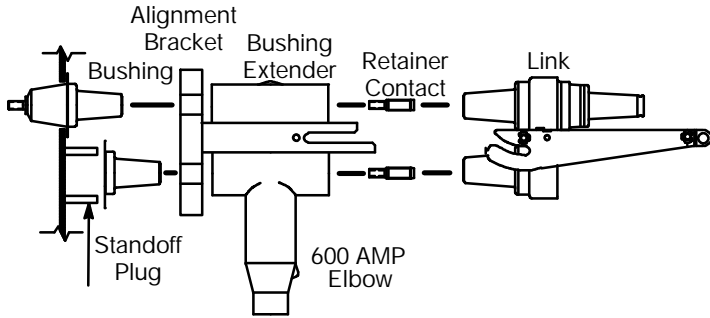
STEP 1

Install the 600 amp elbow onto the cable according to the installation instructions supplied with the elbow, such that it will align with the stand--off plug.



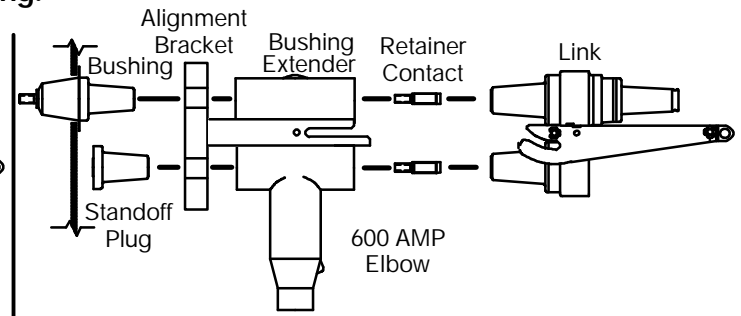
STEP 2

Determine which mounting type you will be installing.



Welded Stud (3)
 For SOP

**ALIGNMENT BRACKET WITH
 BOLTED STAND--OFF PLUG
 PROCEED TO STEP 3**

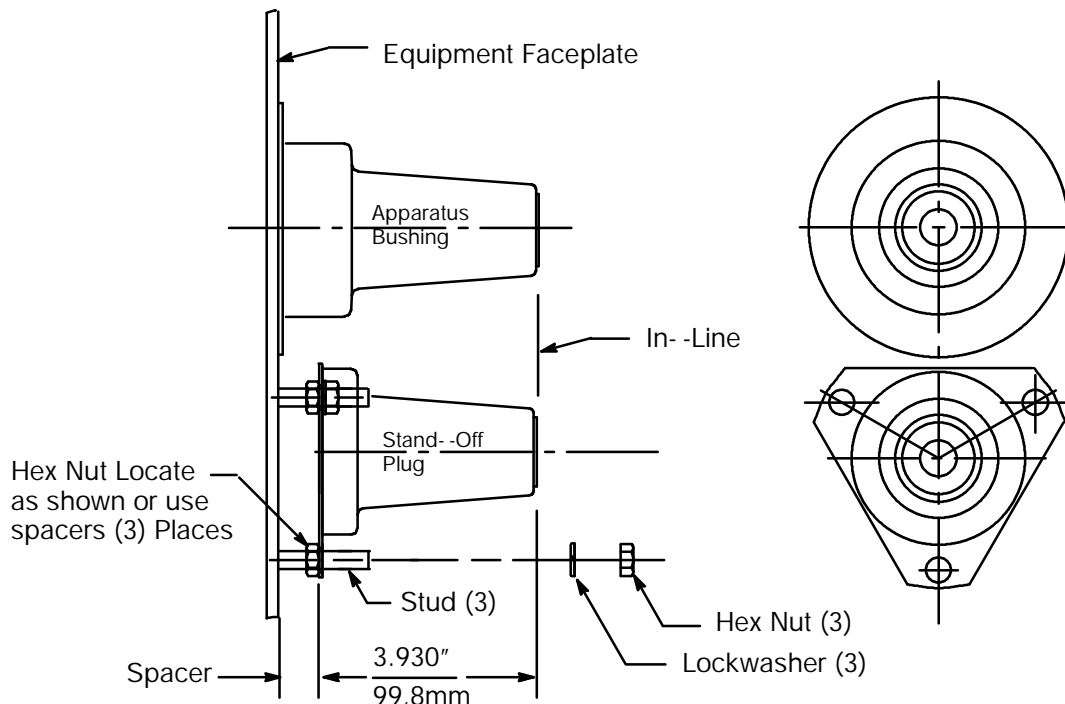


**ALIGNMENT BRACKET
 PROCEED TO STEP 4**

IF RETROFITTING FROM STICK--OP OR BOLTED LINK PROCEED TO RETROFIT SUPPLEMENT PAGE 7.

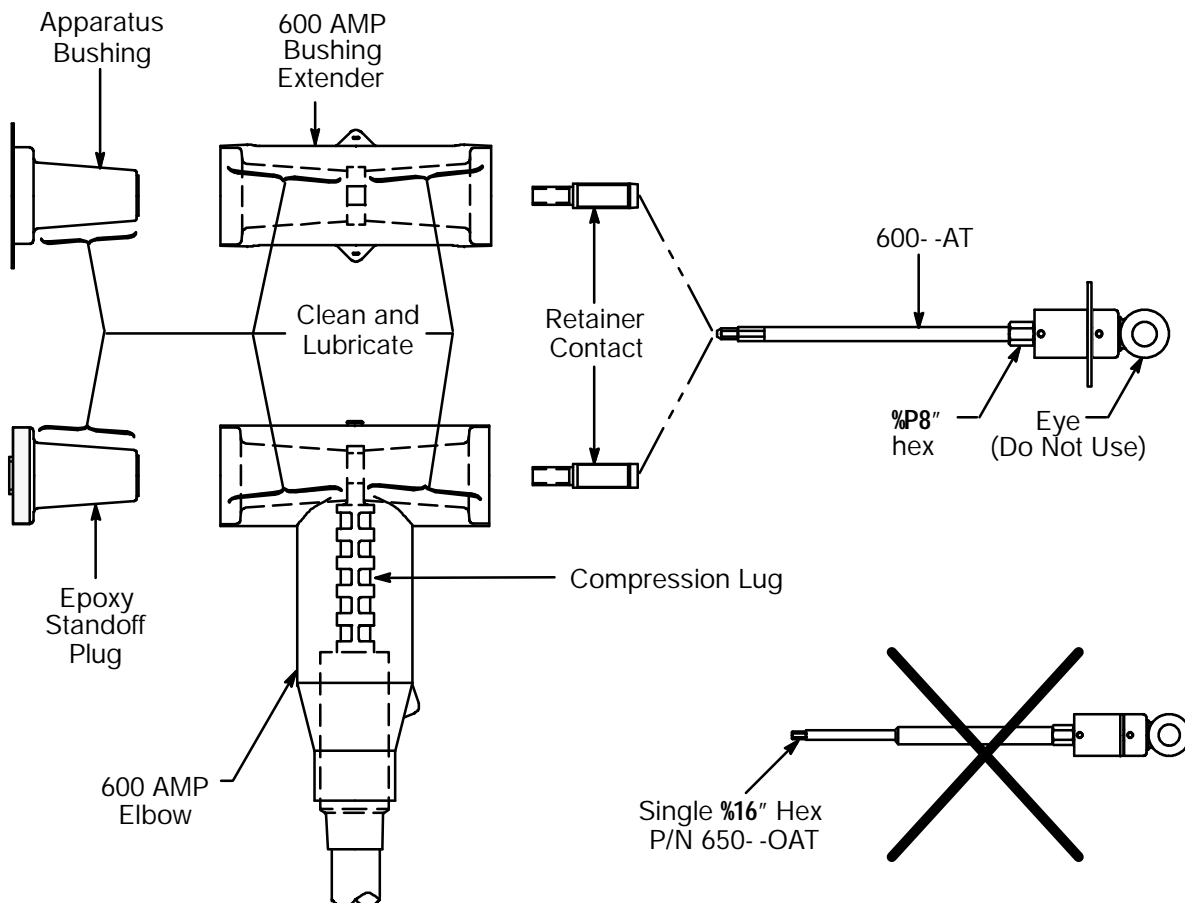
STEP 3 MOUNTED STAND--OFF PLUG INSTALLATION (Where Applicable)

1. Check prepack for the following: 6 hex nuts and 3 lockwashers.
2. Install the 3 hex nuts onto the 3 studs per the dimensions indicated or use (3) spacers (not supplied). The 3 hex nuts are needed to support the stand--off plug so that it is in--line with the bushing. These supports (nuts) may not be needed if the bushing in your application are welded Elastimold bushings.
3. Install SOP over the 3 studs and resting on the nuts or spacers.
4. Install lockwasher and hex nut on each of the 3 studs and tighten to 12 foot lbs torque. The top surfaces of the bushing and stand--off plug must be in--line, if not re--adjust the nuts as required.



STEP 4

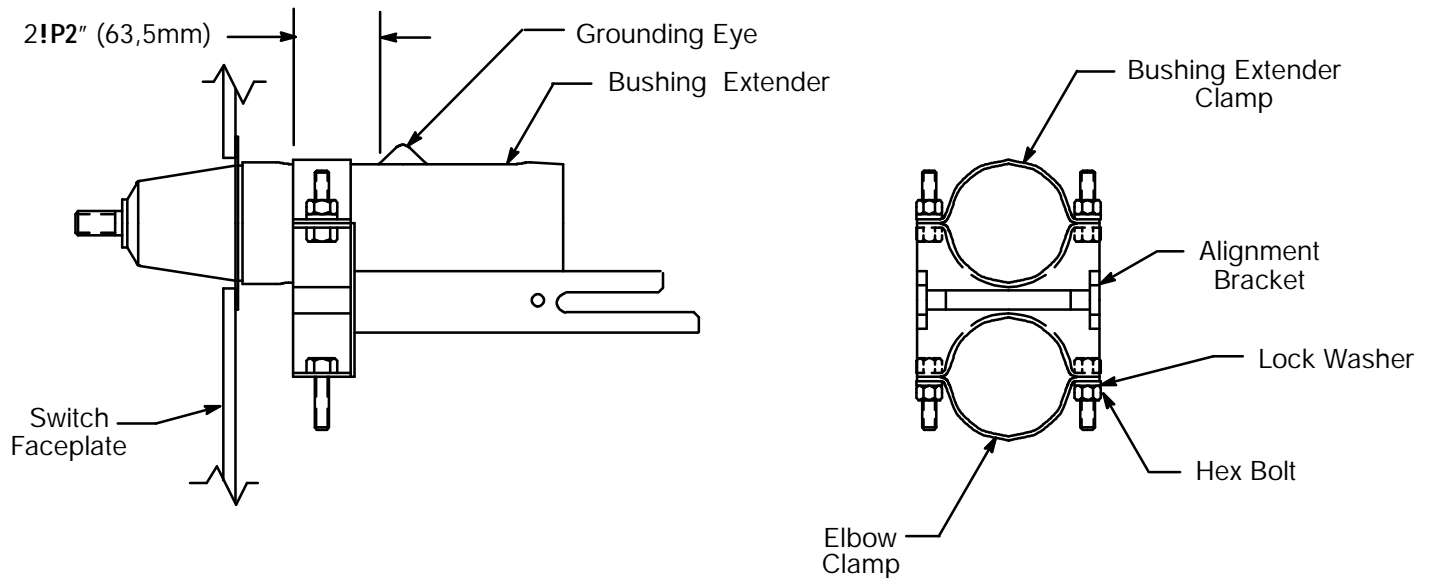
1. Clean and lubricate the apparatus bushing and both interfaces of the 600 amp bushing extender with ELASTIMOLD supplied lubricant. **IMPORTANT:** Bushing extender interfaces must be thoroughly lubricated to allow for proper removal of the link.
2. Install bushing extender onto the apparatus bushing. Insert the 600--AT into the retainer contact and engage the internal hex broach.
3. Insert the retainer contact into the bushing extender and thread into apparatus bushing using a suitable tool applied to the $\frac{5}{8}$ " hex portion of the 600--AT, torque to 50--60 ft--lbs. **IMPORTANT:** Do not use eye of 600--at. the required assembly torque of 50--60 ft--lbs can only be achieved by using $\frac{5}{8}$ " hex as described.
4. Clean and lubricate the epoxy standoff plug and both interfaces of the 600 amp elbow with ELASTIMOLD supplied lubricant. **IMPORTANT:** Elbow interfaces must be thoroughly lubricated to allow for proper removal of the link.
5. Install the elbow onto the epoxy standoff plug. Insert the 600--AT into the retainer contact and engage the internal hex broach.
6. Insert the retainer contact into the 600 amp elbow through the hole in the compression lug and thread into the epoxy standoff plug using a suitable tool applied to the $\frac{5}{8}$ " hex portion of the 600--AT, torque to 50--60 ft--lbs. **IMPORTANT:** Do not use eye of 600--at. the required assembly torque of 50--60 ft--lbs can only be achieved by using $\frac{5}{8}$ " hex as described.



IMPORTANT: The 650--OAT is for use with the Stick--Opt systems only. The 650--OAT must not be used with the Link--Op system, because it will damage the internal components of the link. The 600--AT is compatible with both systems. The 600--AT has both a $\frac{5}{16}$ " hex & a $\frac{3}{8}$ " hex stacked.

STEP 5 -- ALIGNMENT BRACKET INSTALLATION

1. Remove the bushing extender clamp and elbow clamp from alignment bracket.
2. Position the alignment bracket on bushing extender to a dimension of 2 !P2" (63.5mm) from grounding eye.
3. Assemble bushing extender clamp to the alignment bracket with hardware supplied and torque by alternating sides until clamp tabs are flush with each other and tight on both sides.

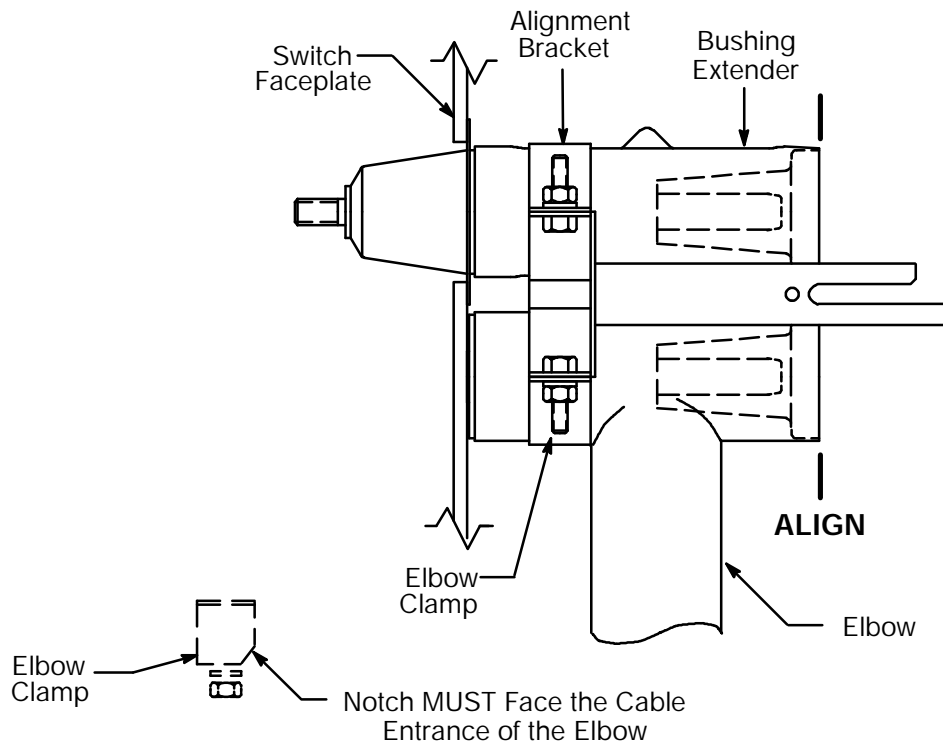


STEP 6

IMPORTANT:

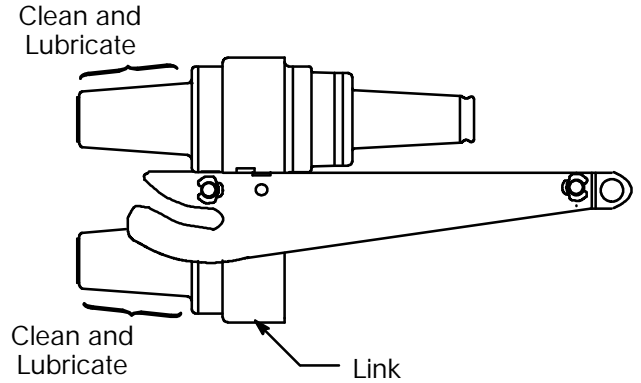
Position the elbow in the alignment bracket such that the elbow cuff is lined up evenly with the bushing extender cuff.

Assemble the elbow clamp to the alignment bracket with hardware supplied and torque by alternating sides until clamp tabs are flush with each other and tight on both sides.

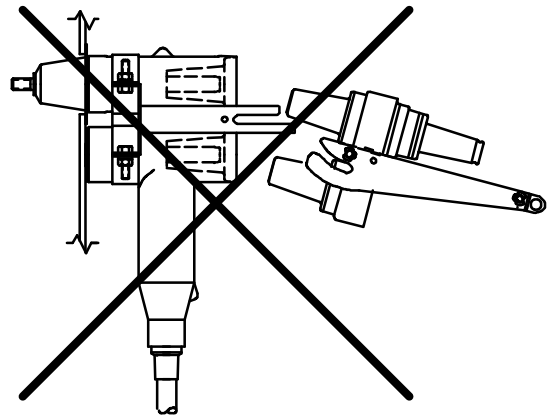


STEP 7

1. Clean and lubricate both 600 ampere interfaces of the Link with ELASTIMOLD supplied lubricant.
IMPORTANT: Interfaces must be thoroughly lubricated to allow for proper removal of the link.

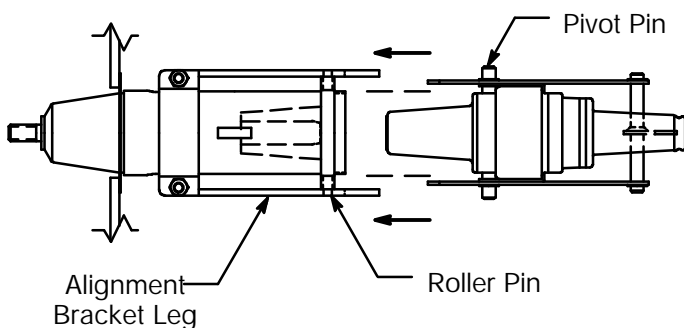


2. Align the Link such that when inserted into the bushing extender and elbow the Link is perpendicular to the switch faceplate.

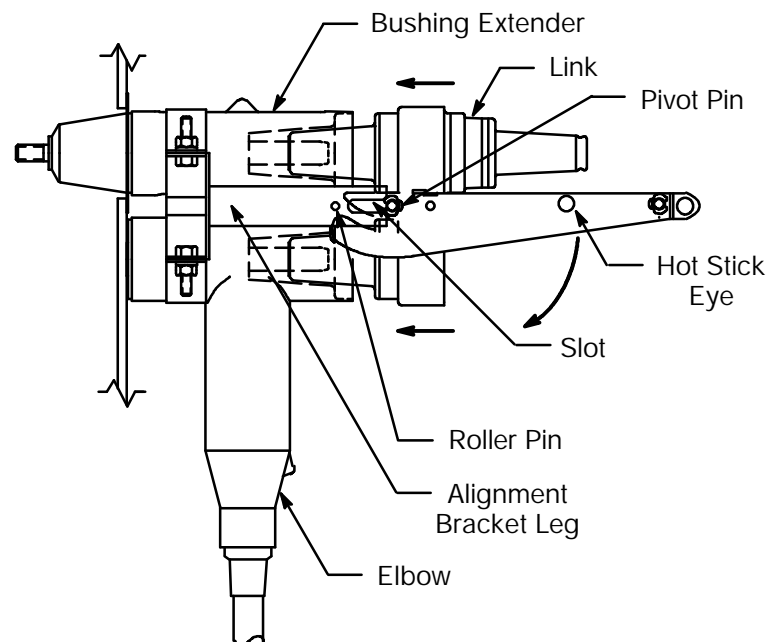


3. Insert the link into the bushing extender and elbow making sure both lever arms are on the inside of the alignment bracket legs.
4. Engage the pivot pin into the slots in the alignment bracket legs. While pushing inward, move the lever arms downward by use of the hot stick eye thus engaging the roller pin and moving the link inward. Continue moving lever arms until perpendicular to the alignment bracket leg.

TOP VIEW



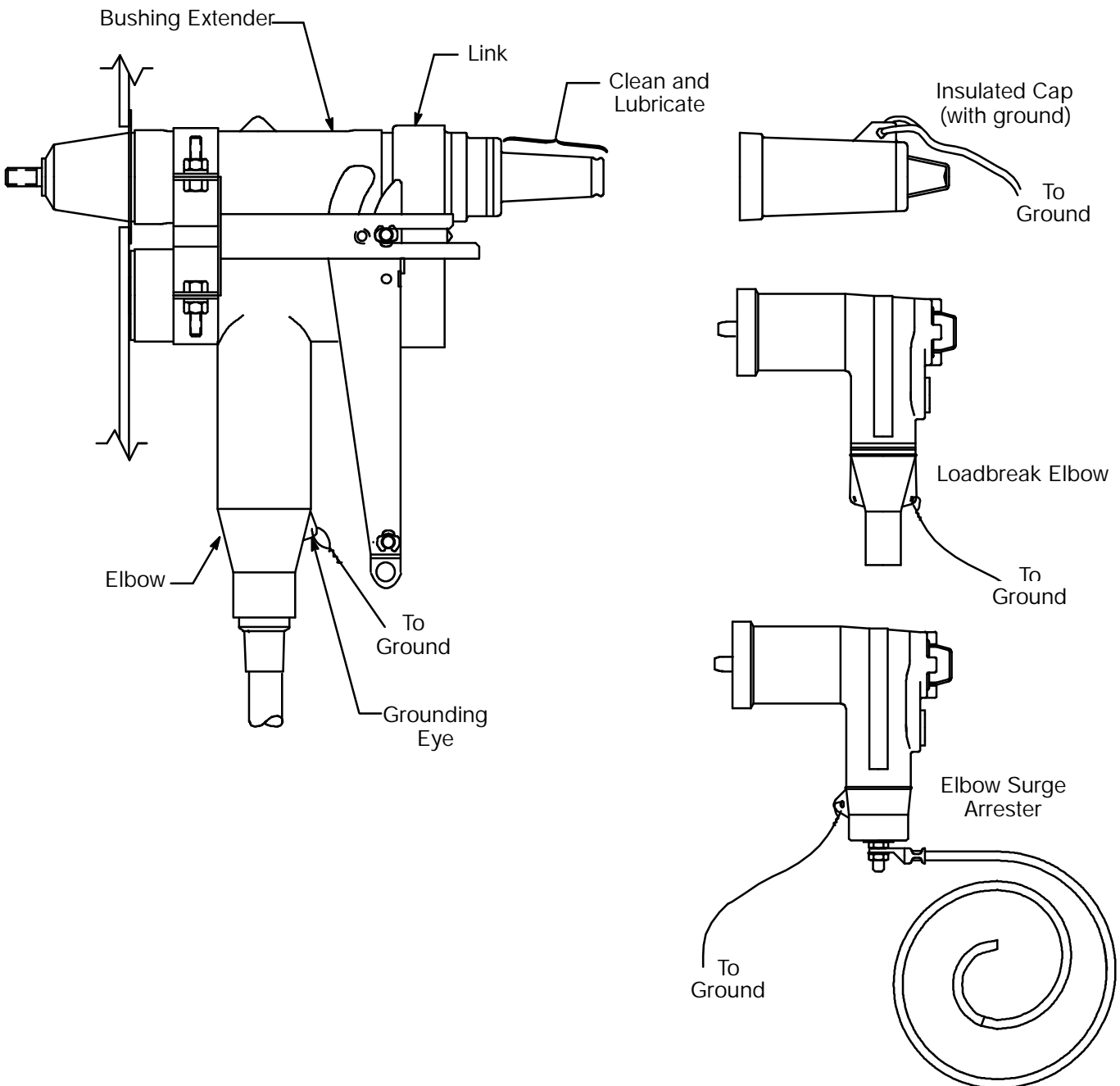
SIDE VIEW



STEP 8

1. The elbow must be grounded. Feed a #14 AWG or #12 AWG solid copper wire through the grounding eye on the elbow, twist tight and connect to ground.
2. Clean and lubricate the 200 amp interface on the Link.
3. Ground, then install the desired mating product on the 200 amp interface per the installation instructions supplied with the mating product.
4. The cable must be grounded:
 - D if concentric neutral cable is used, twist the concentric neutral wires together and connect to ground using an appropriate connector.
 - D if 20MA or 21MA grounding devices are used, connect the ground lead from the 20/21MA device to ground using a suitable connector.

For three--phase installations all grounds from all three phases must be tied to a common ground point.



STEP 9

For operation of the Link and 200 ampere mating products, refer to the applicable operating instructions.

RETROFIT SUPPLEMENT

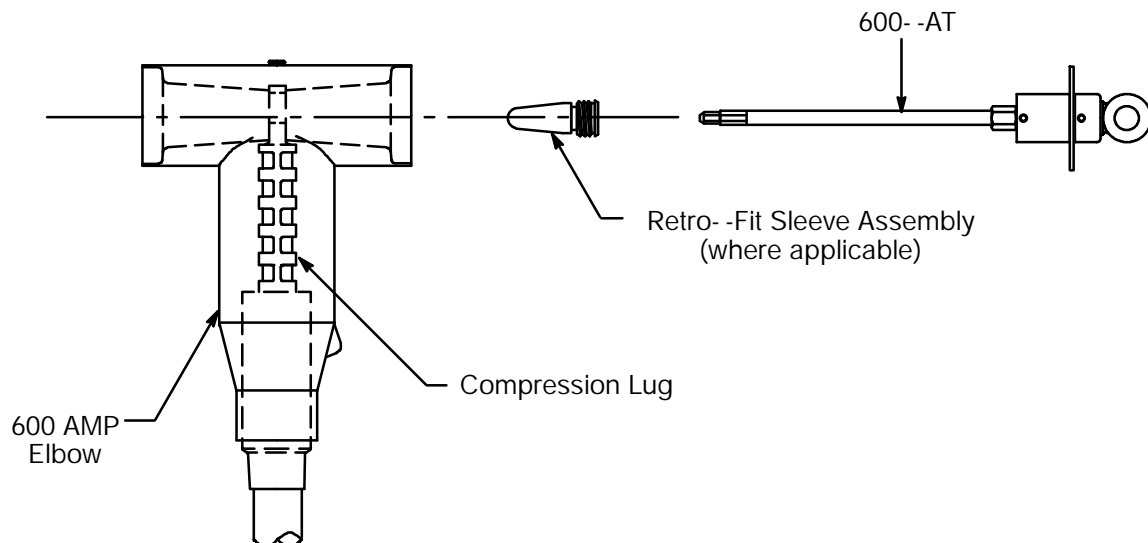
FROM STICK--OP TO CAM LINK

STEP A

Remove elbow from bushing. Remove the LRTP from the elbow using a 650 ET (extracting tool) following the instructions supplied with the tool.

STEP B

1. Using the 600--AT, engage the internal hex of the plastic nose on the retro--fit sleeve assembly.
2. Guide the plastic nose through the threaded hole in the compression lug inside the 600 amp elbow and engage the threads on the retro--fit sleeve. **IMPORTANT:** Retro--fit sleeve assembly must be installed into the elbow on the side opposite the apparatus.
3. Hand tighten the retro--fit sleeve into the compression lug until fully seated. **Take care not to crossthread the retro--fit sleeve.**
4. Push the plastic nose out the apparatus side of the 600 amp elbow. Discard plastic nose.

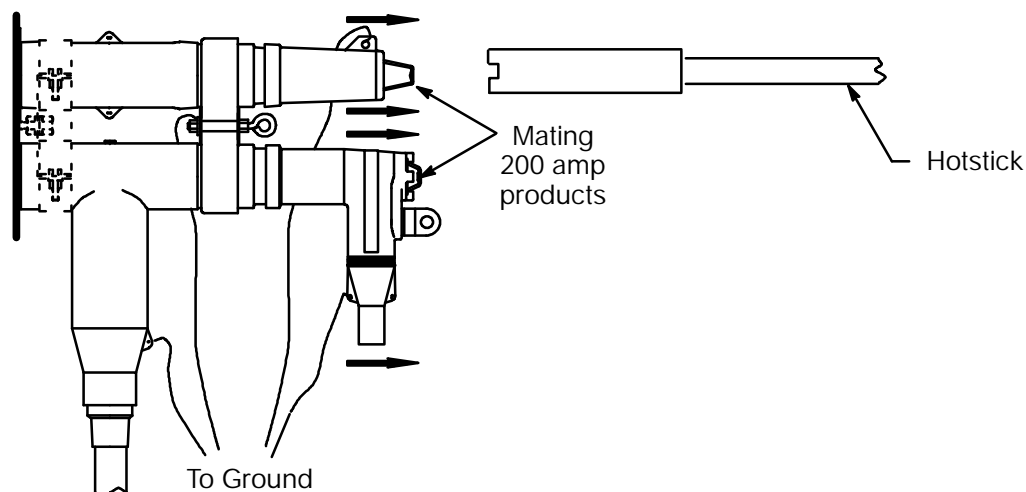


PROCEED TO STEP 4

FROM BOLTED LINK TO CAM LINK

STEP A

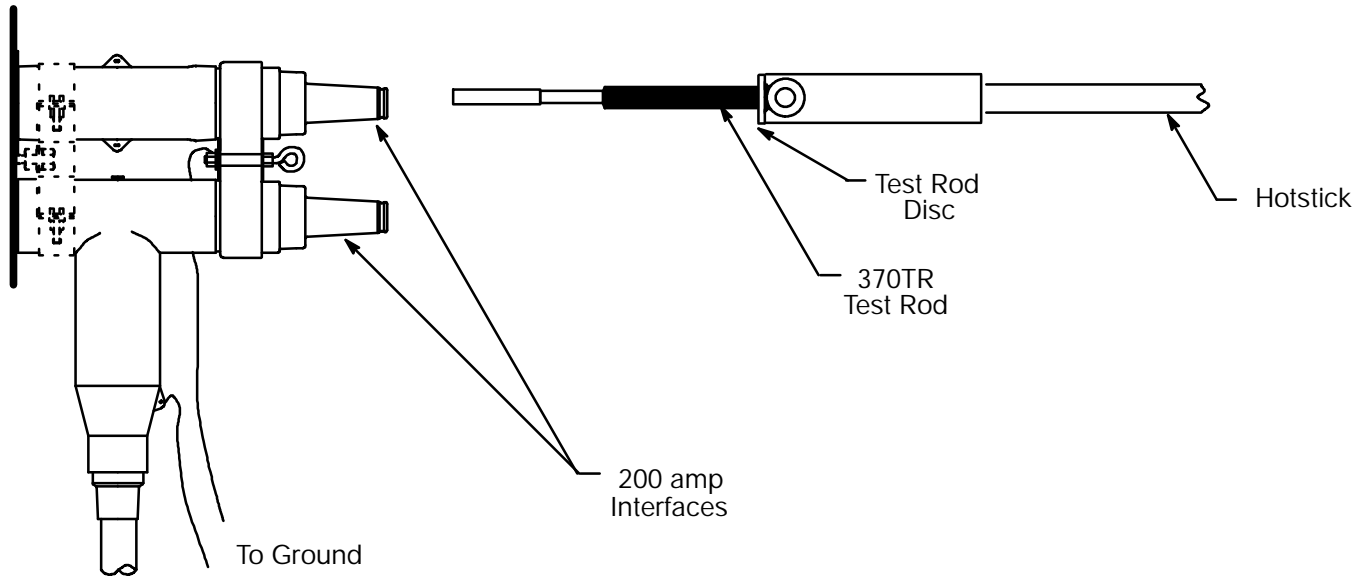
Using a hot stick, remove the mating 200 amp products from the Link, exposing the 200 amp interfaces.



STEP B

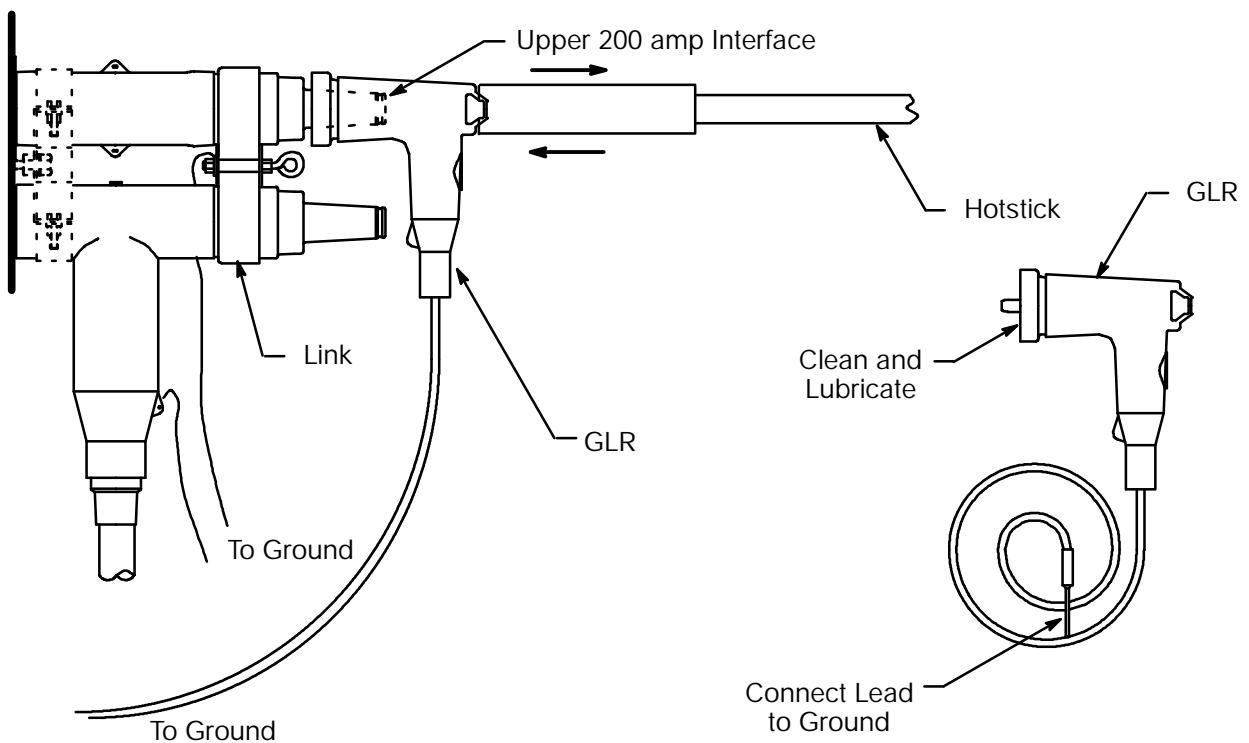
Using approved test apparatus or a 370TR test rod (in conjunction with an appropriate meter) test each elbow tap plug to insure that the conductor system is de-energized.

IMPORTANT: Follow established utility procedures for keeping all potentially live test areas clear of ground until the system is tested de-energized. If the system is energized, do not continue. See DANGER and IMPORTANT comments on front page.



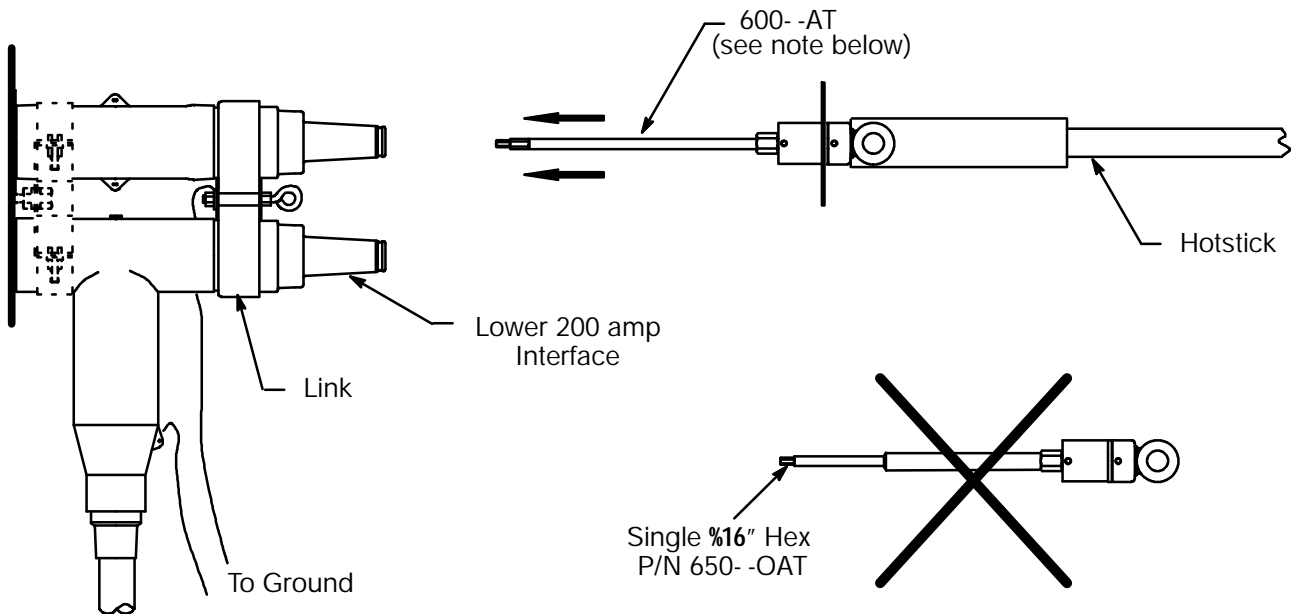
STEP C

1. Clean and lubricate the GLR, grounding elbow, interfaces with ELASTIMOLD supplied lubricant.
2. Connect the leads on the GLR, grounding elbow, to ground. Using the hotstick install a GLR onto either 200 amp interfaces of the Link until fully seated (This will ensure the system is de-energized). Remove the grounding elbow.



STEP D

Attach the hotstick to the eye of the 600- -AT, Operating Tool, and insert into the top 200 amp interface to engage the internal bolt. Turn in a counter clockwise direction, approximately 13- -15 turns, to fully disengage threads. Remove the 600- -AT from interface.



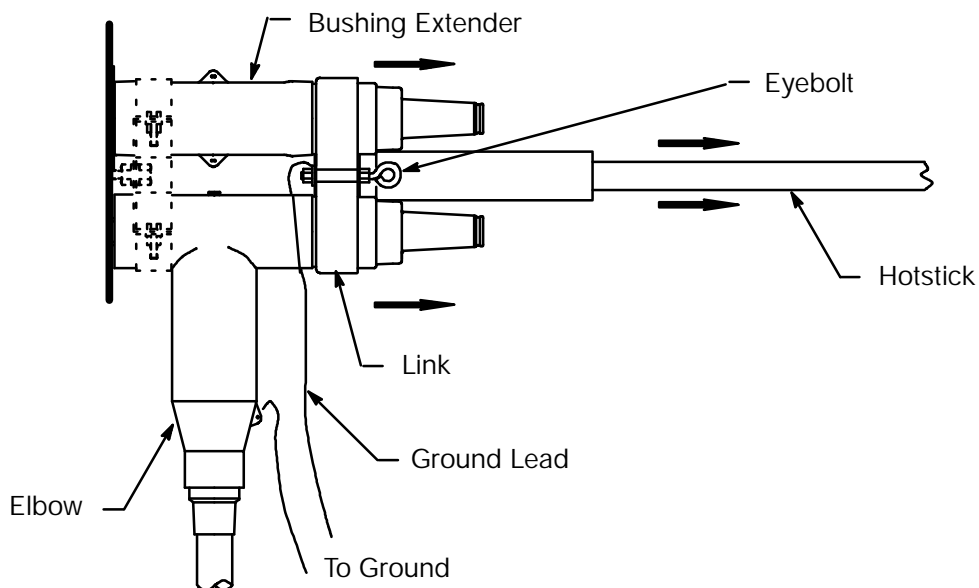
IMPORTANT: The 650- -OAT is for use with the Stick- -Opt systems only. The 650- -OAT must not be used with the Link- -Op system, because it will damage the internal components of the link. The 600- -AT is compatible with both systems. The 600- -AT has both a 5/16" hex & a 3/8" hex stacked.

STEP E

Repeat STEP D on lower 200 amp interface.

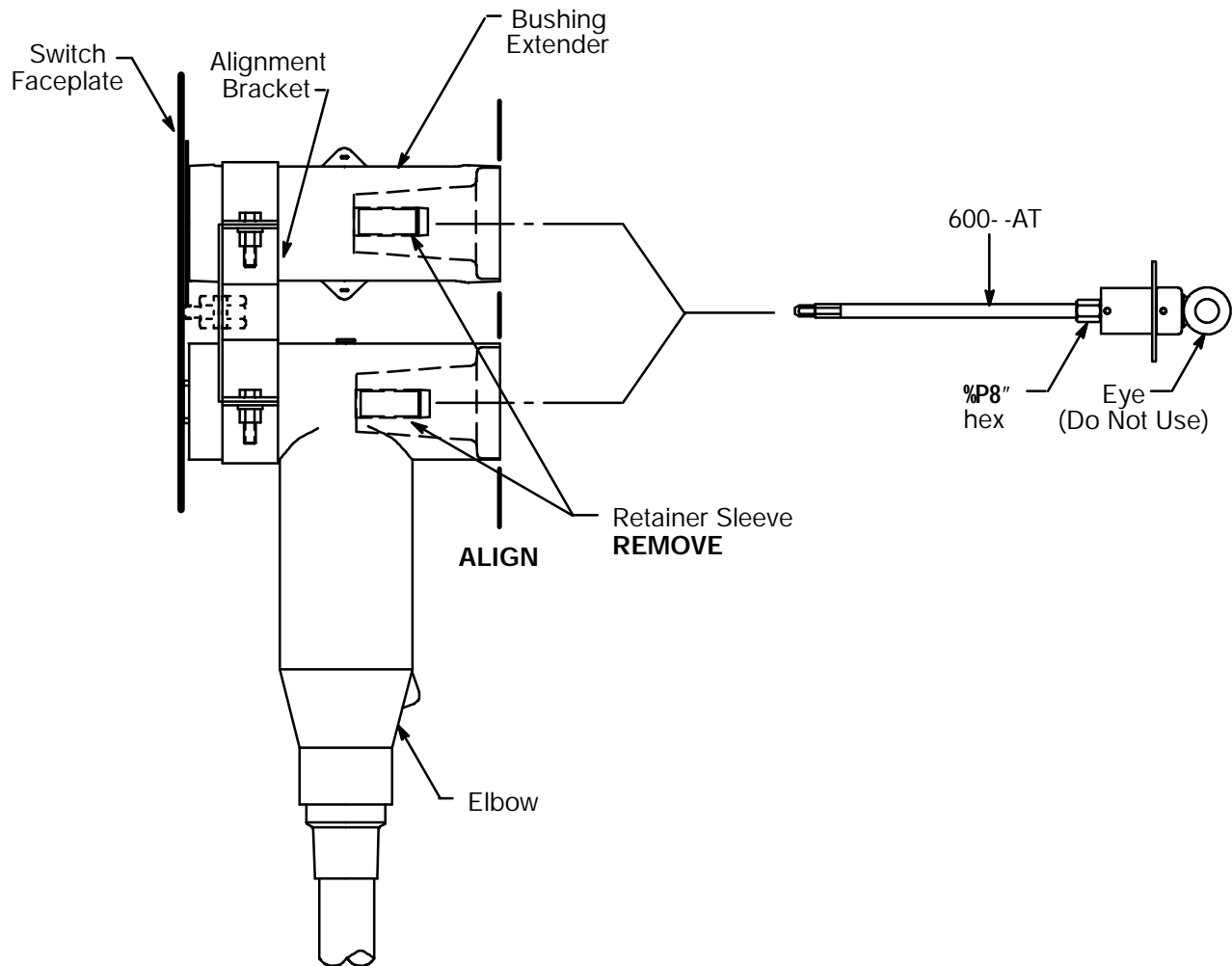
STEP F

Attach the hotstick to the eyebolt of the link bracket. Pull on the hotstick, at approximately 30_ off of the two 200 amp interfaces to remove link from bushing extender and elbow. Once removed, disconnect the ground lead from the Link.



STEP G

1. Insert the 600--AT into the hex in the retainer sleeve in the bushing extender. Using the 5/8" hex portion of the 600--AT unscrew the retainer sleeve.
2. Repeat STEP G 1 for the elbow retainer sleeve.



STEP H

Remove the alignment bracket

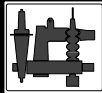
PROCEED TO STEP 4 of LINK--C Instructions.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852--1122 FAX: (908)813--2147

A Unit of Thomas & Betts Corporation



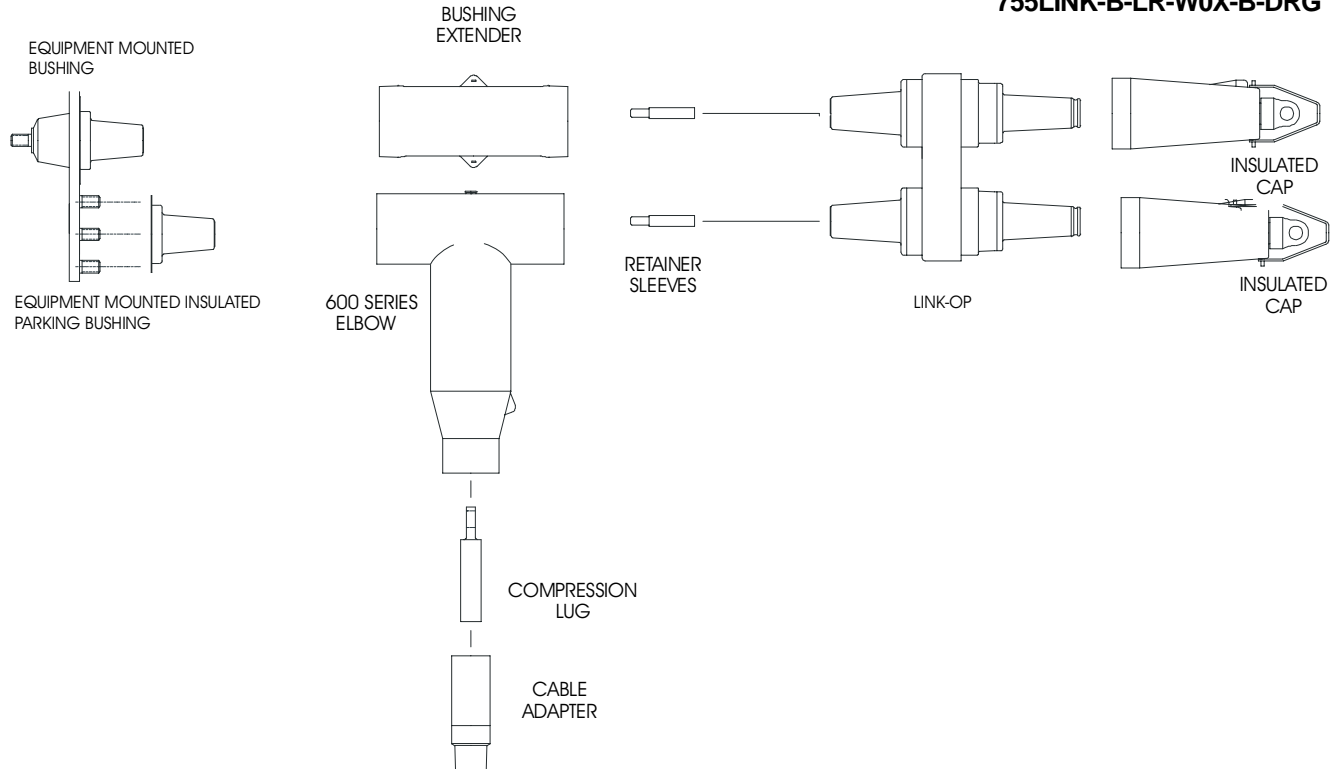
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV Link-Op Connector Kit

ELASTIMOLD PART NUMBER

655LINK-B-LR-W0X-B-DRG**K655LINK-B-LR-W0X-B-DRG****755LINK-B-LR-W0X-B-DRG**

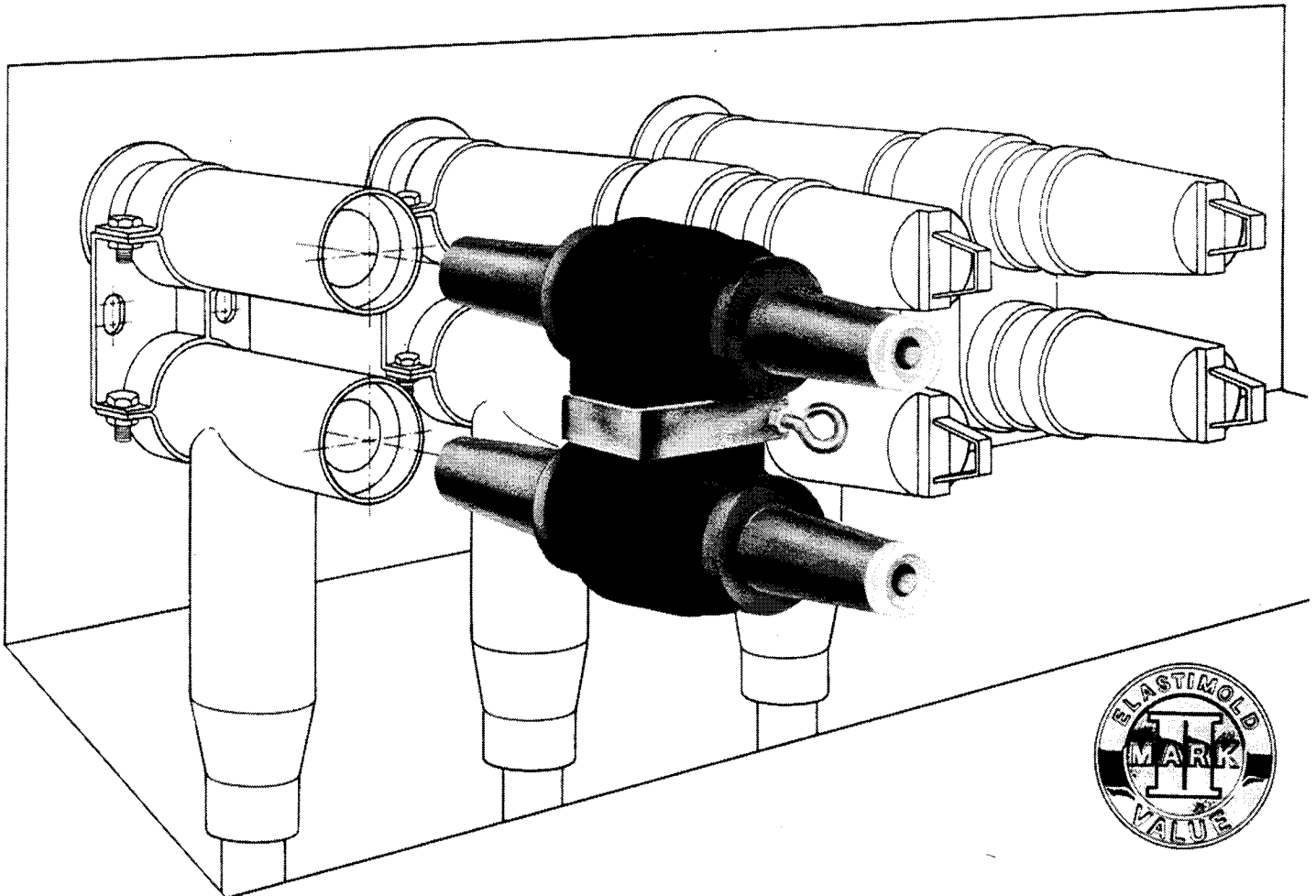
Refer to the following pages for details concerning design, construction and operation.

The Link-Op Connector kit contains the following:

1 – Link-Op link	650LK-B-VB, K650LK-B-VB (25kV), or 750LK-B-VB (35kV)
1 – Elbow connector housing (W/ STUD)	K655BLR (15/25kV), or 755BLR (35kV)
1 – Cable adapter	655CA-W (15/25kV), or 755CA-W (35kV)
1 – Compression lug	03700XXX
1 – Bushing Extender	K655BE (15/25kV), or 755BE (35kV)
2 – Retainer sleeves	650RSC
2 – Insulated cap	167DRG, 273DRG (25kV), or 375DRG (35kV)
1 – Mountable insulated bushing	K650LBM-3 (15/25kV), or 750LBM-3 (35kV)
4 – Tube, lubricant	82-08
1 – Installation instruction	IS-Link-B
1 – Crimp chart	IS-03700CC 5/98

ELASTIMOLD®

LINK-OP™ Operable Connector System for 15kV-CLASS APPLICATIONS

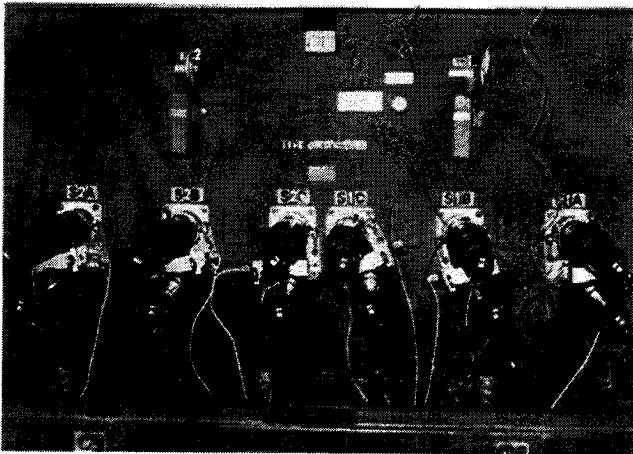


General Description	2
Application	2
Electrical Ratings	2
Components	3
Operation Overview	4
Dimensional Data/Apparatus Faceplate Application	5
Ordering Information	6

LINK-OP™

Operable Connector System

The LINK-OP system is a fully-shielded, fully-submersible, dead-front, operable connector system for 15kV, 600 Amp class circuits. It consists of removable Links used in conjunction with standard ELASTIMOLD Elbow Connectors and Operating Accessories. The system is designed to permit **direct-testing, grounding, and visible-break isolation without necessitating cable movement.** The 15kV version can be connected to a standard 600 Amp apparatus bushing interface (ANSI/IEEE 386) and to cables with an insulation diameter from .760" to 1.935" and a conductor range from 1/0 to 1000 kcmil.



Typical LINK-OP system installed on a pad-mounted switch.

ELECTRICAL RATINGS* - 655 LINK-B 15kV 600 Amp Class Connector System

OPERATING VOLTAGE (max. continuous line-to-ground, 100% insulation system)	8.3kV
BIL (@ 1.2 x 50 microsecond wave)	95kV
WITHSTAND VOLTAGE AC (1 minute) DC (15 minutes)	34kV 53kV
CORONA EXTINCTION LEVEL (min. @ 3pC)	11kV
CURRENT	
Continuous:	600 Amps RMS**
Momentary:	25,000 Amps RMS, sym, 10 cycles
Fault Close:	10,000 Amps RMS, sym, 10 cycles

** Designed for 90°C maximum continuous operating temperature.

* Ratings are based on industry standards and do not reflect maximum levels. For compliance with other standards, consult your ELASTIMOLD representative.

• Easy To Operate

- Hot-stick operable with one crewperson
- No need to move stiff 600 Amp cables

• Easy To Install

- Fits your existing switchgear
- Specify with new equipment

• Cost Effective

- Maintenance-free dead-front design
- Compact faceplate can reduce equipment size

• Reliable

- Based on field-proven ELASTIMOLD components
- Hi-performance peroxide-cured EPDM insulation

APPLICATION

Cable-to-Apparatus connections

The LINK-OP system is ideally suited for cable-to-apparatus connections. It can be easily installed on existing switchgear or transformers (as a retrofit) or it can be specified with new apparatus. The system does not require parking stands which is a space-saving advantage for apparatus design.

Most standard 600 Amp class switchgear and transformer faceplates can be fitted with the LINK-OP system. In addition to basic horizontally-spaced bushing layouts, staggered or radial layouts are adaptable if the bushing spacing is adequate. The layout characteristics will also determine whether an Alignment Bracket can be utilized or if an Insulated Parking Bushing should be mounted to the apparatus faceplate. See page 5 for minimum recommended spacing requirements.

INSTALLATION

To install the LINK-OP system, the apparatus bushing is fitted with a Bushing Extender and the corresponding cable is terminated with a standard 600 Amp Elbow Connector. The Elbow Connector is then supported by an Alignment Bracket or a Mounted Insulated Parking Bushing. The current path is completed when the Link is bolted to the Bushing Extender and Elbow Connector. The exposed 200 Amp interfaces are then covered with Insulated Caps. See installation instruction sheet for complete details.

ACCESSORIES

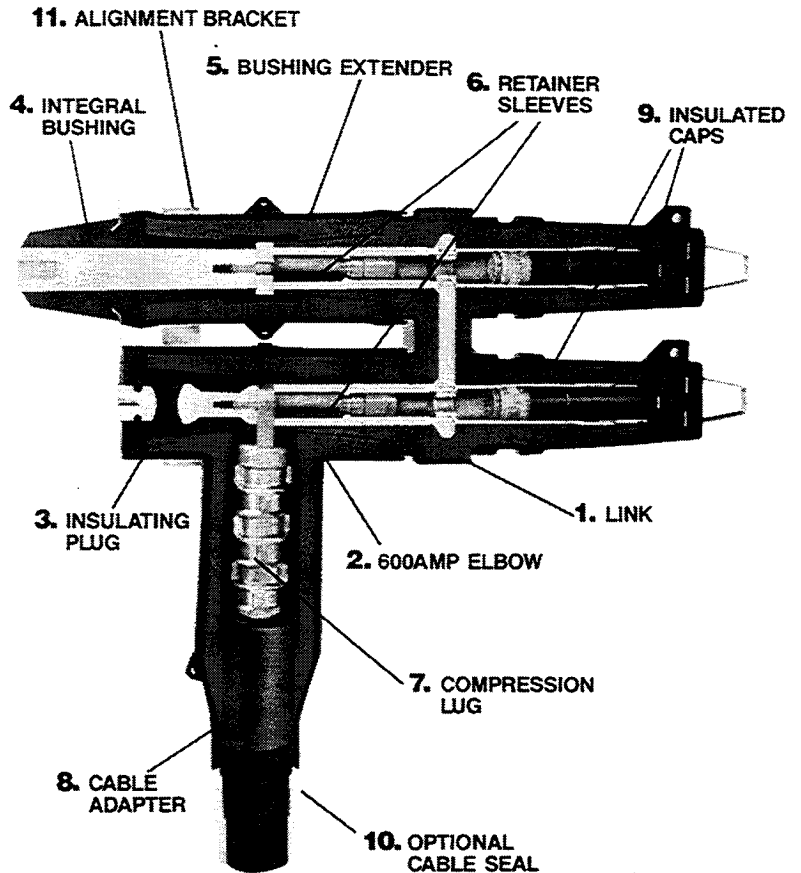
The LINK-OP system requires the use of basic operating accessories to achieve visible break isolation, direct testing and grounding. See page 6 for suggested components for a three-phase operating kit.

When the insulated caps are removed from the Link, the exposed 200 Amp interfaces become access points for Grounding Elbows. The Link is removable using an Assembly Tool and hotstick. It can be replaced by two Link-Op Tap Plugs with Insulated Caps in order to create a visible break in the circuit.

In addition to the basic operating accessories, other accessory options are available. A standard ELASTIMOLD Elbow Surge Arrester can easily be installed on the 200 Amp interface.

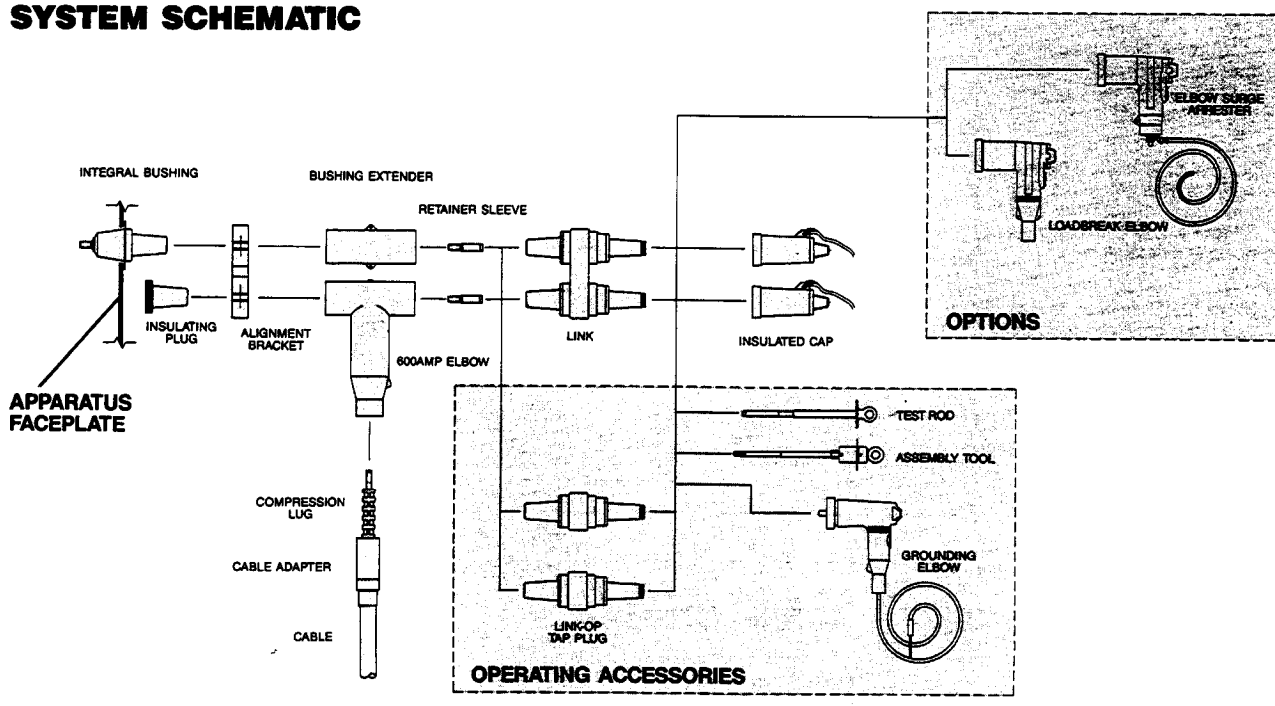
LINK-OP ASSEMBLY COMPONENTS

1. **LINK**—The Link is the key element in the LINK-OP system. It allows the connection to be made between the Elbow Connector and the Integral Bushing. The premolded EPDM Link also provides 200 Amp loadbreak interfaces for attaching a grounding elbow or other 200 Amp system connectors. It is assembled and removed using an Assembly Tool and an insulated Hotstick.
2. **600 AMP ELBOW CONNECTOR**—A standard ELASTIMOLD 600 Amp Elbow Connector Housing is used to insulate and seal the cable connection.
3. **INSULATING PLUG**—An epoxy Insulating Plug seals the elbow interface opposite the Link.
4. **INTEGRAL BUSHING**—Epoxy Integral Bushing can be welded or clamped to the apparatus. It is normally supplied on the apparatus by the manufacturer per your specification.
5. **BUSHING EXTENDER**—A Bushing Extender is connected to the Integral Bushing to provide the matching interface for the Link.
6. **RETAINER SLEEVES**—Retainer Sleeves are included with each LINK package. These sleeves are used to secure the bushing extender to the Integral Bushing and to secure the 600 Amp Elbow Housing to the Insulating Plug through the compression lug.
7. **COMPRESSION LUG**—The Compression Lug is sized for the specific cable conductor used. It is crimped on with standard tools and crimping dies.
8. **CABLE ADAPTER**—A standard ELASTIMOLD Stress Relief Cable Adapter is sized to the cable insulation diameter. It provides stress relief for the terminated shield.
9. **INSULATED CAP**—A fully-shielded, hotstick-operable device used to insulate and protect a loadbreak interface whether energized or de-energized.
10. **CABLE SEAL**—The optional cable seal provides means of resealing the cable jacket of jacketed cable.



11. **ALIGNMENT BRACKET**—An Alignment Bracket provides support and alignment of the 600 Amp Elbow Connector and Bushing Extender. It is used in conjunction with an Insulating Plug. (Not required for a Mounted Insulated Parking Bushing application).

SYSTEM SCHEMATIC

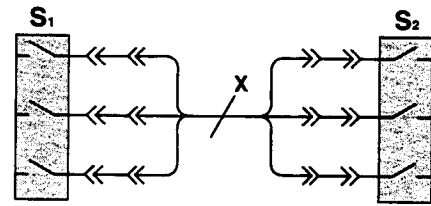


OPERATION

(See instruction sheet IS-650LINK-OK for complete details and specific sequence of operation).

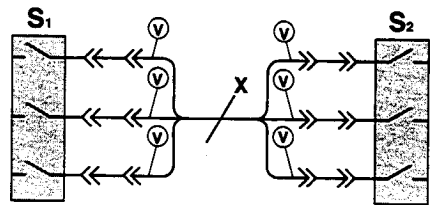
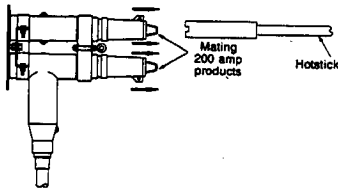
The following operation overview highlights key points of the LINK-OP operating procedure. It entails isolation, testing and grounding of a specific portion of the system, and achieving essential visible breaks mandated by standard operating procedures prior to work assignments.

For example, a typical work assignment could be adding a tap to the cable (at point X on the schematic). After the switches (S1 and S2) are opened by conventional procedures, the cable between the switches is still considered to be live until the LINK-OP operation is completed.



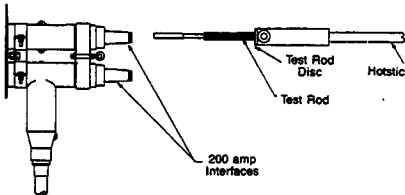
HOTSTICK OPERABILITY

All components of the LINK-OP system are hotstick operable with one crewperson. The first step is to remove the insulating caps, exposing the 200 Amp loadbreak interfaces.



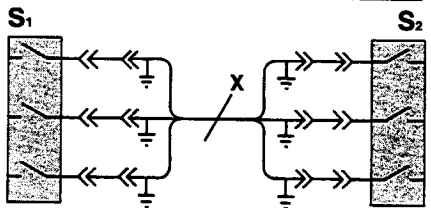
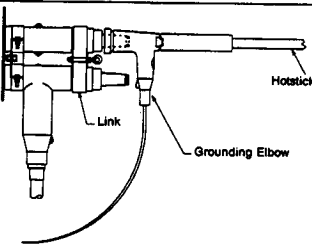
DIRECT TESTING

With the 200 Amp interfaces exposed, direct testing is now possible. A Test Rod may be required with some meters.



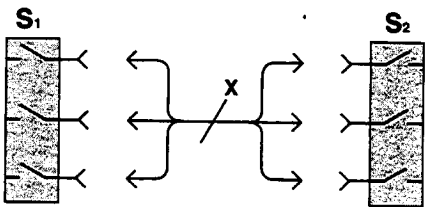
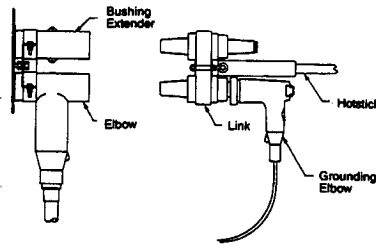
VISIBLE GROUNDING

The system can now be grounded using a Grounding Elbow. After the ground lead is connected to the ground, the Grounding Elbow is connected to the 200 Amp loadbreak interface.

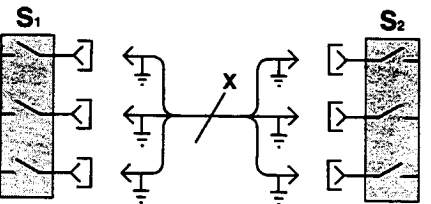
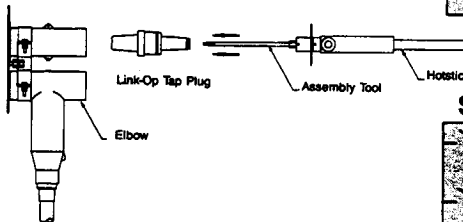


VISIBLE BREAK ISOLATION

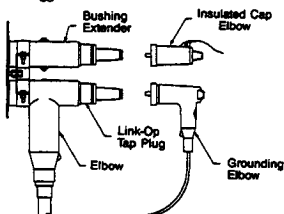
The LINK-OP system allows the cable to be isolated from the equipment whereby a visible break is achieved without moving the cable. First the LINK is unbolted from the Elbow Connector and Bushing Extender (after moving the Grounding Elbow) by using the Assembly Tool. The hotstick is then affixed to the LINK eyebolt and the LINK is removed from the assembly.



The Elbow Connector and Bushing Extender are individually connected to LINK-OP Tap Plugs using the Assembly Tool.



A Grounding Elbow can then be used in conjunction with an Insulating Cap to ground and shield the system. This will allow a work assignment to be completed in accordance with standard operating procedures.



Dimensional Data

APPARATUS FACEPLATE APPLICATION

1. FACEPLATE - HORIZONTAL LAYOUT
The standard faceplate with horizontally spaced bushings can easily accommodate the LINK-OP system with the Alignment Bracket or a mounted Insulated Parking Bushing.

B₁-Spacing with 650AB Alignment Bracket
B₂-Spacing with a mounted, Insulated Parking Bushing

DIMENSIONS	
	MINIMUM
A	5" (127mm)
B ₁	6" (152mm)
B ₂	5" (127mm)

2. FACEPLATE - STAGGERED LAYOUT
Some staggered designs may require a mounted, Insulated Parking Bushing.

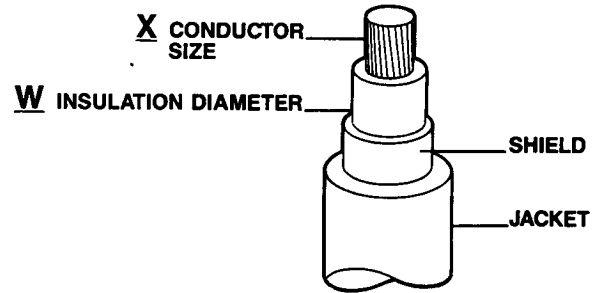
B₁-Spacing with 650AB Alignment Bracket
B₂-Spacing with a mounted, Insulated Parking Bushing
C₁-Spacing with an Alignment Bracket
C₂-Spacing with a mounted, Insulated Parking Bushing

DIMENSIONS	
	MINIMUM
A	5" (127mm)
B ₁	6" (152mm)
B ₂	4" (102mm)
C ₁	5" (127mm)
C ₂	5" (127mm)

3. FACEPLATE - RADIAL LAYOUT
Radial layouts can also accommodate a LINK-OP system. Consult ELASTIMOLD engineering or apparatus manufacturer for specific application suitability.

ORDERING INSTRUCTIONS

To order a standard 15kV Class LINK-OP system complete the following ordering formula. A complete connector assembly should be ordered for each apparatus bushing that requires a connection.



655LINK-B-LR-W-X-Y-Z-S

The symbol 'S' indicates that a cable seal is required.

NOTE: See Cat. Section-620-11,12 for grounding devices to adapt tape and drain wire shields.

Indicates a 15kV Class LINK-OP assembly with bolted connections. Standard 600 Amp deadbreak and 8.3kV, 200 Amp loadbreak interfaces per ANSI/IEEE 386.

DRG: Includes two Insulated Caps as standard offering - Consult ELASTIMOLD for optional accessories.

INSULATION RANGE				SYMBOL
INCHES		mm		
MIN.	MAX.	MIN.	MAX.	
.760	.950	19.3	24.1	G
.850	1.050	21.6	26.7	H
.980	1.180	24.9	30.0	J
1.090	1.310	27.7	33.3	K
1.180	1.465	30.0	37.2	L
1.370	1.630	34.8	41.4	M
1.515	1.780	38.5	45.2	N
1.725	1.935	43.8	49.1	P

Conductor Size - AWG or kcmil				Symbol for X
Stranded	Compressed	Compact	Solid	
1/0	1/0	2/0	2/0	0240
2/0	2/0	3/0	3/0	0250
3/0	3/0	4/0	4/0	0260
4/0	4/0	250	---	0270
250	250	300	---	0280
300	300	350	---	0290
350	350	400	---	0300
400	400	450	---	0310
450	450	500,550	---	0320
500	500	600	---	0330
550	550	650	---	0340
600	600	700	---	0350
650	650	750,800	---	0360
700	700	---	---	0370
750	750	---	---	0380
800	800	900	---	0390
900	900	1000	---	0400
1000	1000	---	---	0410

A. Alignment Bracket Application

B. Mounted Insulated Parking Bushing Application

STEP 1: W

Determine the minimum diameter of the cable insulation. Do not measure the diameter over the cable jacket, if any, or over the insulation shielding. From Table 'W', select the symbol for the insulation range wherein the minimum diameter of the cable insulation is nearest the low end of the range. Insert this symbol in the ordering formula.

STEP 2: X

From Table 'X', select the symbol that represents the size and type of cable conductor. Insert this four digit symbol in the ordering formula.

STEP 3: Y

Substitute the symbol 'A' in the ordering formula to indicate that an Alignment Bracket is required. Substitute the symbol 'B' if this is a mounted Insulated Parking Bushing application.

STEP 4: Z

Insert the symbol 'DRG' to indicate that Insulated Caps (with ground) are to be included as part of the standard assembly. Consult Elastimold for optional accessories.

STEP 5: S

Add the symbol 'S' to include a Cable Seal for the Elbow Connector.

EXAMPLE: The ordering formula for a standard 15kV LINK-OP assembly with an Alignment Bracket to connect a cable with a 750 kcmil stranded conductor and an insulation diameter of 1.430" (36,3mm) is 655LINK-B-LR-M-0380-A-DRG.

For new applications, consult ELASTIMOLD to review your specific engineering requirements.

OPERATING KIT ORDERING INSTRUCTIONS

Operating the LINK-OP system requires the use of basic operating accessories which can be carried by the linecrew. These accessories are ordered as individual components.



BG-1 (LINK-OP) Carry Case

QUANTITY	PART No.	DESCRIPTION
6	650LT-B	Link-Op Tap Plug
3	160GLR	Grounding Elbow
1	600AT	Operating Assembly Tool
1	370TR	Test Rod
1	BG-1 (LINK-OP)	Carry Case
1	SL-5	Silicone Lubricant (5oz.)
1	IS-650LINK-OK	Instructions



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
A Unit of Eagle Industries, Inc.

Installation Instructions LINK--B LINK OPERABLE CONNECTOR SYSTEM (BOLTED)

CONTENTS: See Component List

The Link is a 600 amp, connector designed to: 1.) provide a fully shielded, fully submersible hot stick operable connection between the cable and the apparatus. 2.) provide 200 ampere taps.

WARNING: The following ratings apply to this product:

600/900 Ampere Deadbreak Interface -- 600 or 900 amperes load current and 25,000 amperes short circuit current for 10 cycles.

200 Ampere Loadbreak Interface -- 200 amperes load current and 10,000 amperes fault--close current. For higher short circuit current: 1) this interface should only be operated de--energized; and 2) elbows used for taps or grounding must be adequately secured such as with a bail.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping caps. Remove these shipping caps and replace with the appropriate HV insulated/shielded deadend caps or connectors before submerging or energizing the circuit.

IMPORTANT

1. Using the Component List, check contents of package to insure it is complete and undamaged.

2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.

4. Have all required tools at hand and observe cleanliness throughout the procedure.

STEP 1

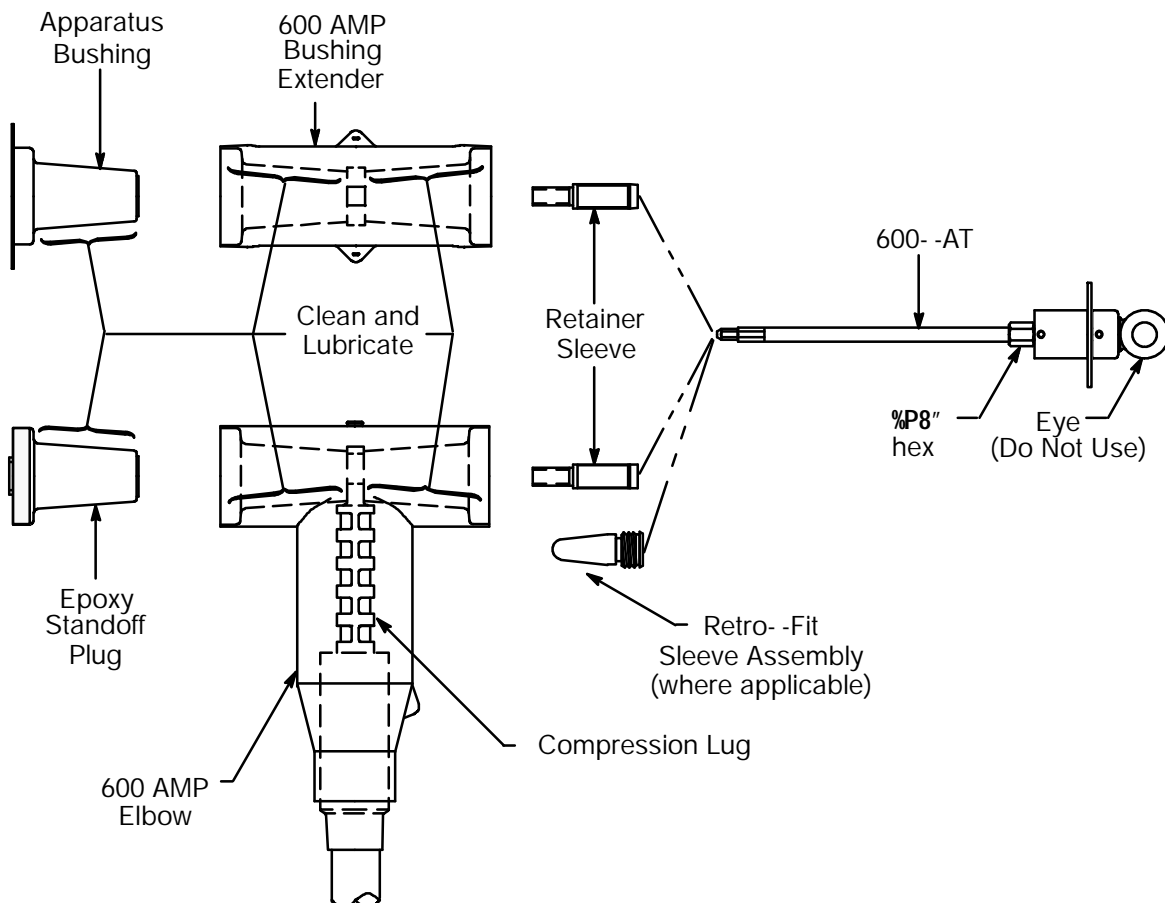
Install the 600 amp elbow onto the cable according to the installation instructions supplied with the elbow.

NOTE: If retrofitting existing apparatus and using the existing elbow, go to Step 2 of this Installation instruction.



STEP 2

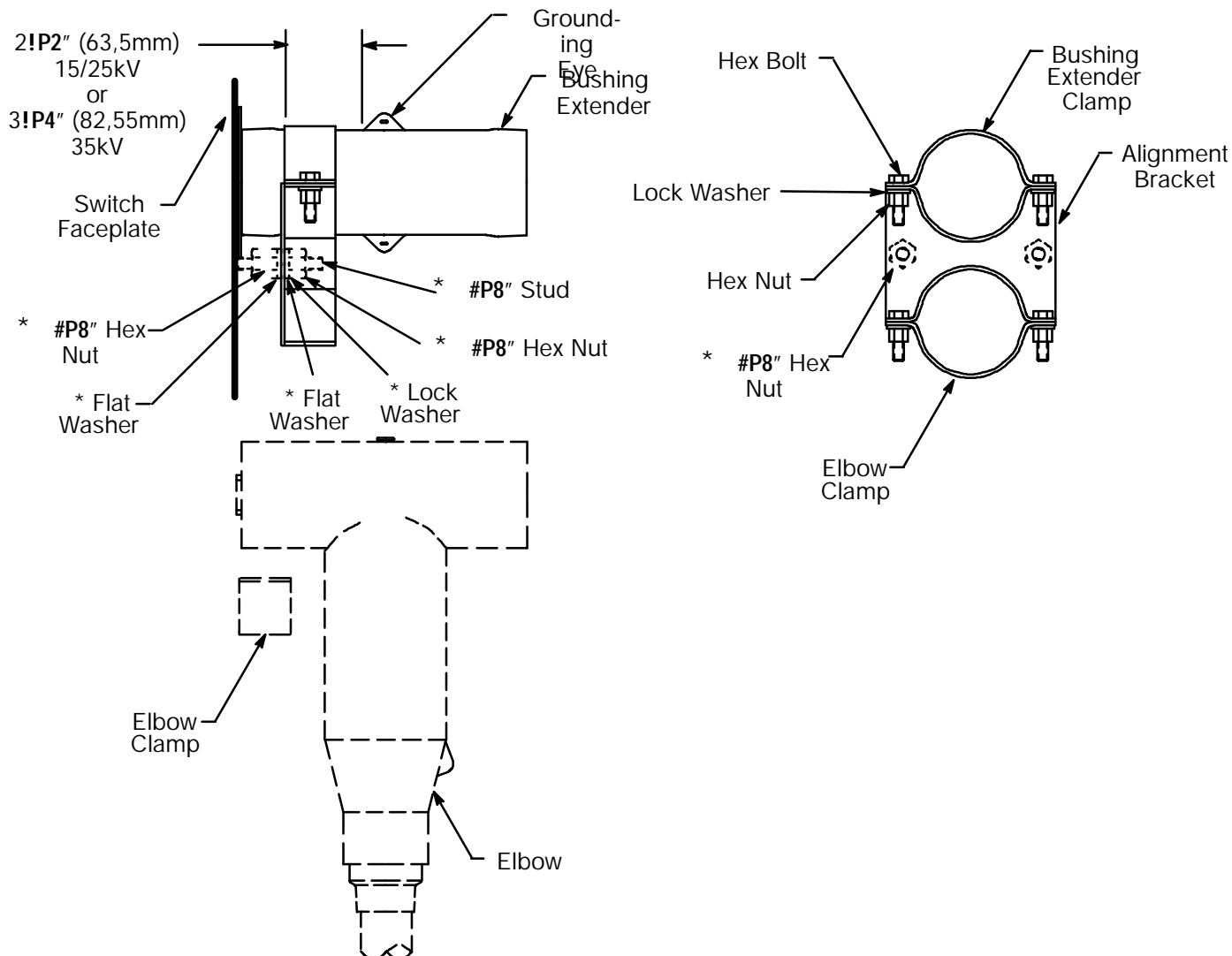
1. Clean and lubricate the apparatus bushing and both interfaces of the 600 amp bushing extender with ELASTIMOLD supplied lubricant. **IMPORTANT: BUSHING EXTENDER INTERFACES MUST BE THOROUGHLY LUBRICATED TO ALLOW FOR PROPER REMOVAL OF THE LINK.**
2. Install bushing extender onto the apparatus bushing. Insert the 600- -AT into the retainer sleeve and engage the internal hex broach.
3. Insert the retainer sleeve into the bushing extender and thread into apparatus bushing using a suitable tool applied to the $\frac{1}{8}$ " hex portion of the 600- -AT, torque to 50- -60 ft- -lbs. **IMPORTANT: DO NOT USE EYE OF 600- -AT. THE REQUIRED ASSEMBLY TORQUE OF 50- -60 FT- -LBS CAN ONLY BE ACHIEVED BY USING $\frac{5}{8}$ " HEX AS DESCRIBED.**
4. If retrofitting a stick- -op system follow Steps 2.4.a through 2.4.d. Go to Step 2.5 for all other assemblies.
Note: If retrofitting a stick- -op system, an extracting tool (p/n 650ET) is required for removal of the stick- -op LRTP from the 600amp elbow.
 - a) Using the 600- -AT, engage the internal hex broach of the plastic nose on the retro- -fit sleeve assembly.
 - b) Guide the plastic nose through the threaded hole in the compression lug inside the 600 amp elbow and engage the threads on the retro- -fit sleeve. **IMPORTANT:** Retro- -fit sleeve assembly must be installed into the elbow on the side opposite the apparatus.
 - c) Hand tighten the retro- -fit sleeve into the compression lug until fully seated. **Take care not to crossthread the retro- -fit sleeve.**
 - d) Push the plastic nose out the apparatus side of the 600 amp elbow. Discard plastic nose.
5. If apparatus is equipped with studs for mounting SOP to faceplate, install SOP onto studs using the hex nuts and lock washers supplied with the SOP. Finger tighten the hex nuts. Do not torque at this time.
6. Clean and lubricate the epoxy standoff plug and both interfaces of the 600 amp elbow with ELASTIMOLD supplied lubricant. **IMPORTANT: ELBOW INTERFACES MUST BE THOROUGHLY LUBRICATED TO ALLOW FOR PROPER REMOVAL OF THE LINK.**
7. Install the elbow onto the epoxy standoff plug. Insert the 600- -AT into the retainer sleeve and engage the internal hex broach.
8. Insert the retainer sleeve into the 600 amp elbow through the hole in the compression lug and thread into the epoxy standoff plug using a suitable tool applied to the $\frac{1}{8}$ " hex portion of the 600- -AT, torque to 50- -60 ft- -lbs. **IMPORTANT: DO NOT USE EYE, See Step 2.3.**



STEP 3 -- ALIGNMENT BRACKET INSTALLATION (WHERE APPLICABLE)

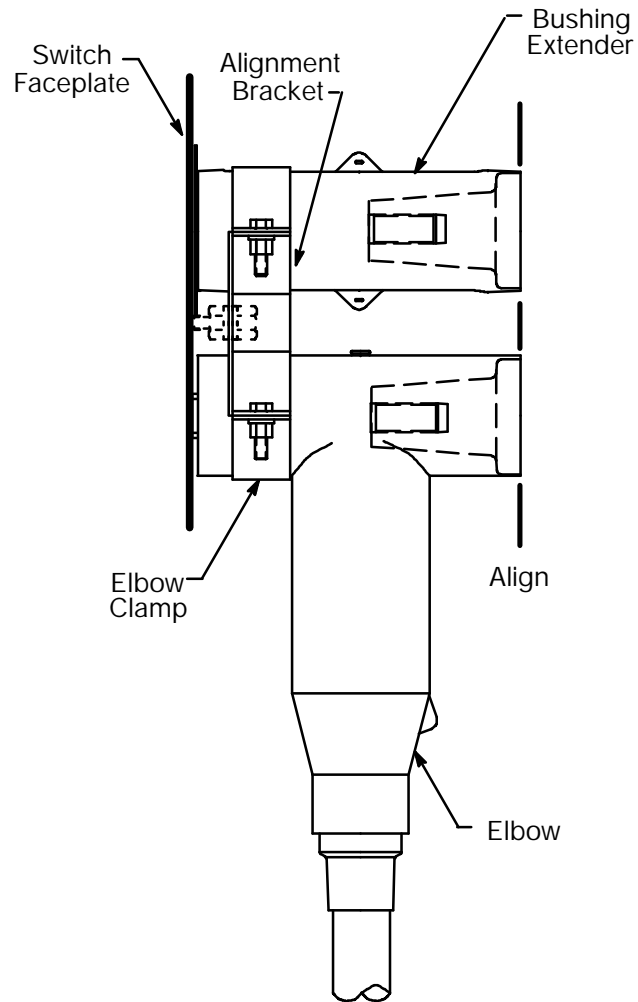
IMPORTANT: IF APPARATUS IS EQUIPPED WITH STUDS FOR MOUNTING AN SOP TO FACEPLATE THE ALIGNMENT BRACKET IS NOT REQUIRED. IF THIS IS THE CASE, PROCEED TO STEP 5 OF THIS INSTALLATION INSTRUCTION.

1. Check to ensure that the following hardware is assembled to the alignment bracket: 4- -Hex Bolts, 4- -Hex Nuts, 4- -lock washers.
 - * 2. Check prepack for the following: 2- -Lock Washers, 4- -Hex Nuts, 4- -Flat Washers.
 - * 3. Install one (1) hex nut onto each stud close to the switch faceplate.
 - * 4. Place one (1) flat washer onto each stud in front of the hex nuts.
 5. Remove the bushing extender clamp and elbow clamp from alignment bracket.
 - * 6. Install alignment bracket onto studs and position on bushing extender to a dimension of 2 !P2" (63,5mm) from grounding eye. Note: For 35kV installations use 3 !P4" (82,55mm).
 7. Assemble bushing extender clamp to the alignment bracket with hardware supplied and torque by alternating sides until clamp tabs are flush with each other and tight on both sides.
 - * 8. Place one (1) flat washer then one (1) lock washer onto each stud.
 - * 9. Install one (1) hex nut onto each stud and tighten until the hex nut,lock washer and flat washer of each stud comes in contact with the alignment bracket.
 - * 10. Thread the hex nut on each stud from the stored position by faceplate up to the back of the alignment bracket.
 - * 11. Tighten both hex nuts on each stud together to clamp the alignment bracket such that it is parallel to the switch faceplate at a distance of 2 !P2" (63,5mm) from the grounding eye of bushing extender. Note: For 35kV installations use 3 !P4" (82,55mm).
- * If the apparatus is not equipped with studs for alignment bracket support, disregard all reference to the studs.



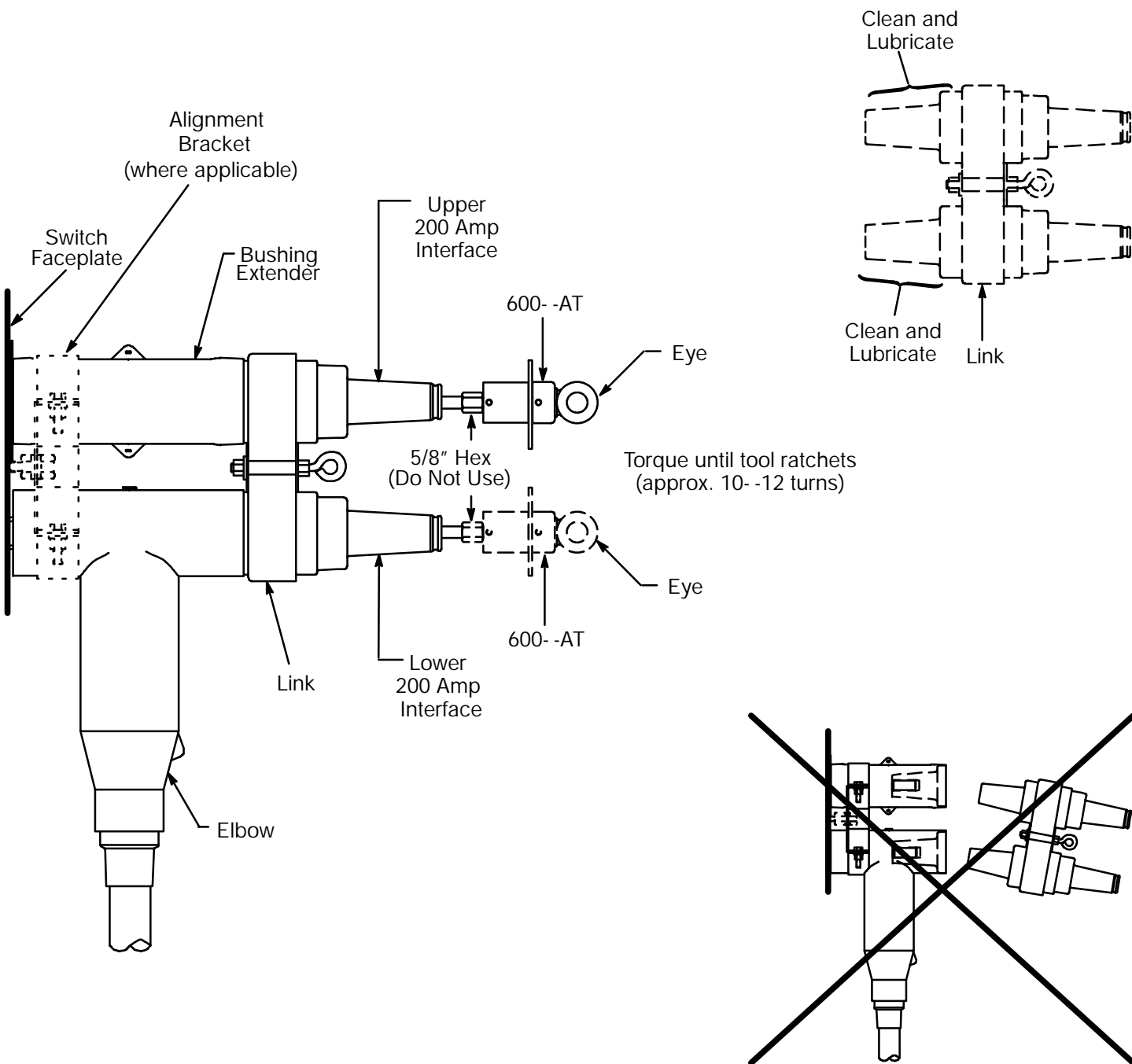
STEP 4

1. Position the elbow in the alignment bracket such that the elbow cuff is lined up evenly with the bushing extender cuff.
2. Assemble the elbow clamp to the alignment bracket with hardware supplied and torque by alternating sides until clamp tabs are flush with each other and tight on both sides.



STEP 5

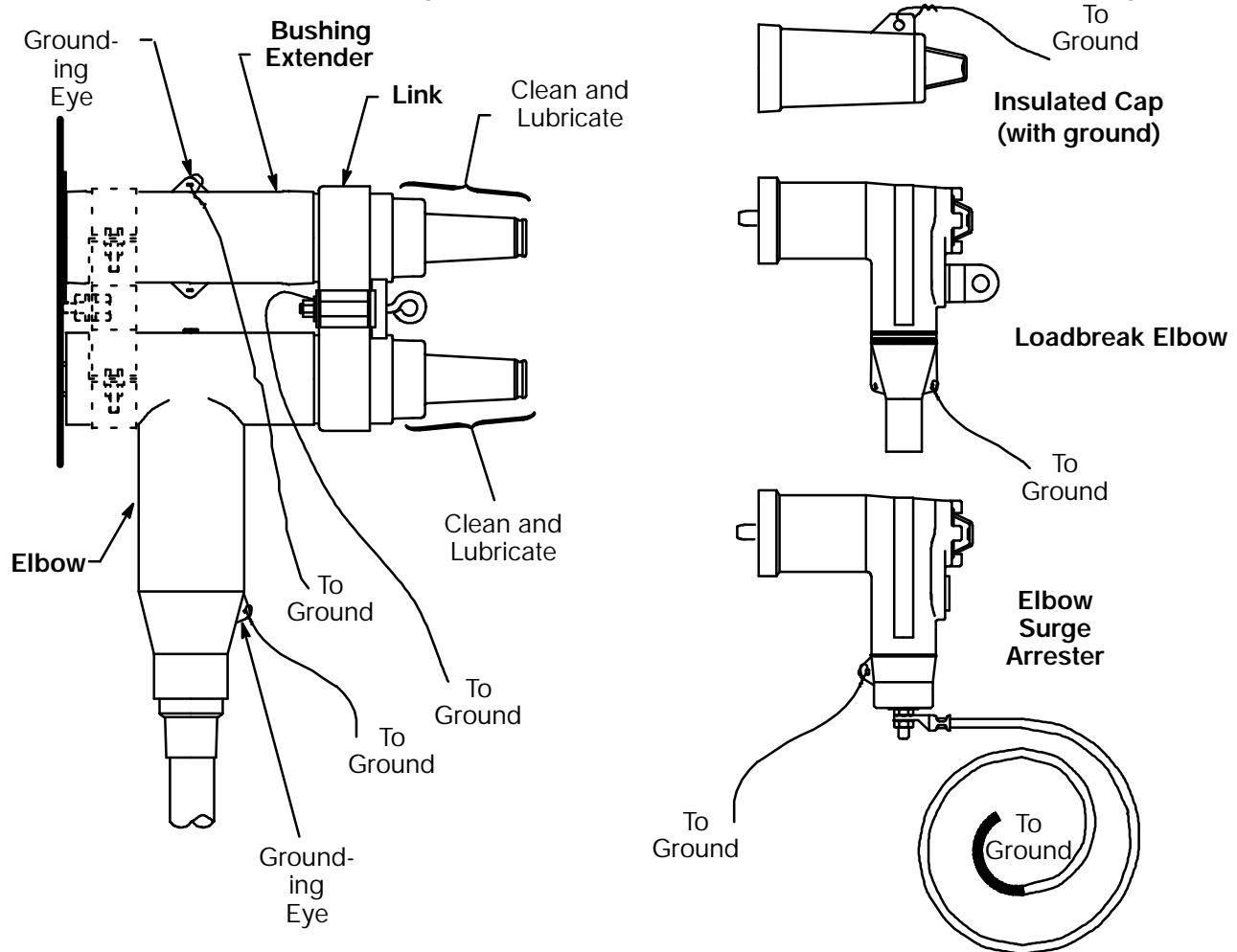
1. Clean and lubricate both 600 ampere interfaces of the Link with ELASTIMOLD supplied lubricant. **IMPORTANT: INTERFACES MUST BE THOROUGHLY LUBRICATED TO ALLOW FOR PROPER REMOVAL OF THE LINK.**
2. Align the Link such that when inserted into the bushing extender and elbow the Link is perpendicular to the switch faceplate. (**NOTE: The Link is symmetrical therefore, it does not matter which way the Link is oriented when installed**). Insert the Link into the bushing extender and elbow.
3. Using the 600- -AT assembly tool, engage the internal bolt within the upper 200 amp interface. Rotate the eye of the 600- -AT clockwise until it begins to ratchet signifying the proper assembly torque has been reached. **Do not use 5/8" hex.** (**NOTE: The assembly tool will require approximately 10- -12 turns before it ratchets from the time the internal bolt starts threading**).
4. Repeat for the lower 200 amp interface.
IMPORTANT: BOTH INTERFACES MUST BE TIGHTENED. FAILURE TO DO SO WILL RESULT IN FAILURE OF THE ASSEMBLY.
5. If the alignment bracket is not used, securely tighten the hex nuts on the SOP at this time.



STEP 6

1. Clean and lubricate both 200 amp interfaces on the Link.
2. Install the desired mating product(s) on each of the 200 amp interfaces per the installation instructions supplied with the mating product and ground according to product installation instructions.
3. The Link must be grounded. A grounding lug has been provided on the Link for this purpose. Attach the ground lead (supplied) to the ground lug and connect to ground.
4. The elbow and bushing extender must be grounded. Feed a #14 AWG or #12 AWG solid copper wire through the grounding eyes on the elbow and bushing extender, twist tight and connect to ground.
5. The cable must be grounded:
 - D if concentric neutral cable is used, twist the concentric neutral wires together and connect to ground using an appropriate connector.
 - D if 20MA or 21MA grounding devices are used, connect the ground lead from the 20/21MA device to ground using a suitable connector.

Note: For three-phase installations all grounds from all three phases must be tied to a common ground point.



STEP 7

For operation of the Link and 200 ampere mating products, refer to the applicable operating instructions.

WARRANTY

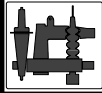
This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W--EE2).



**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ROUTE 24
NEW JERSEY USA 07840 (201) 852-1122

HACKETTSTOWN,



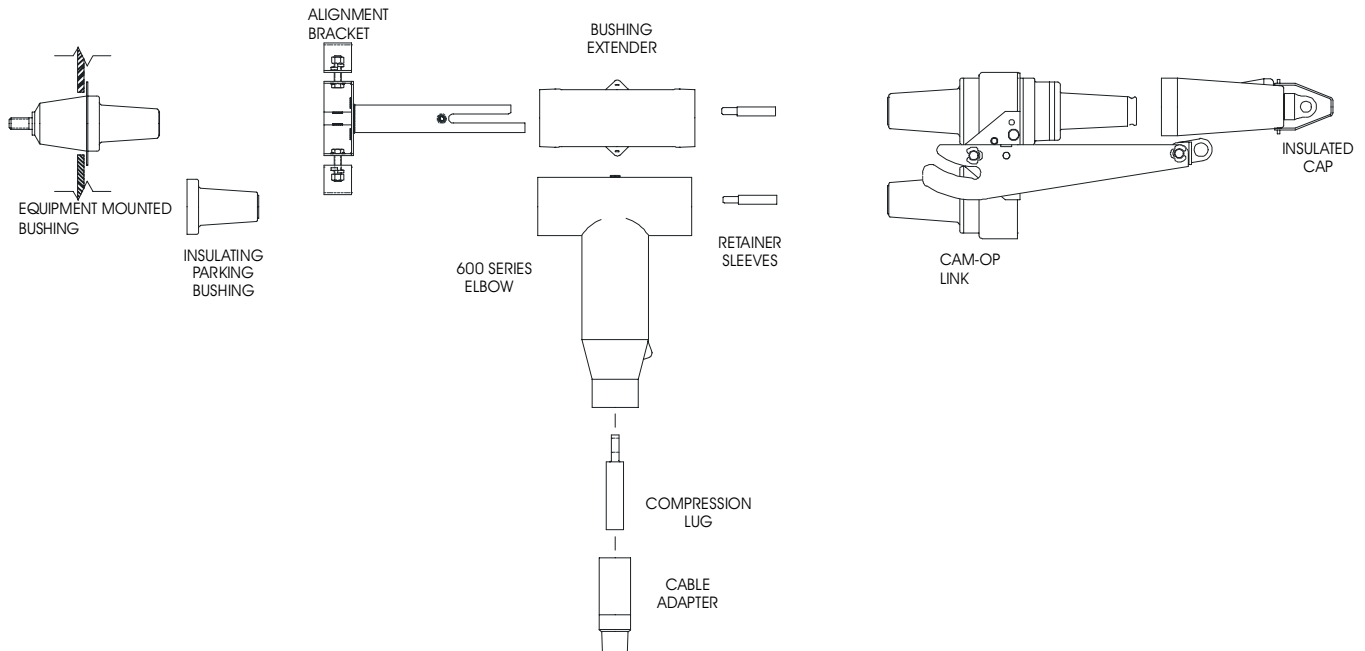
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV Retrofit Cam-Op Connector Kit

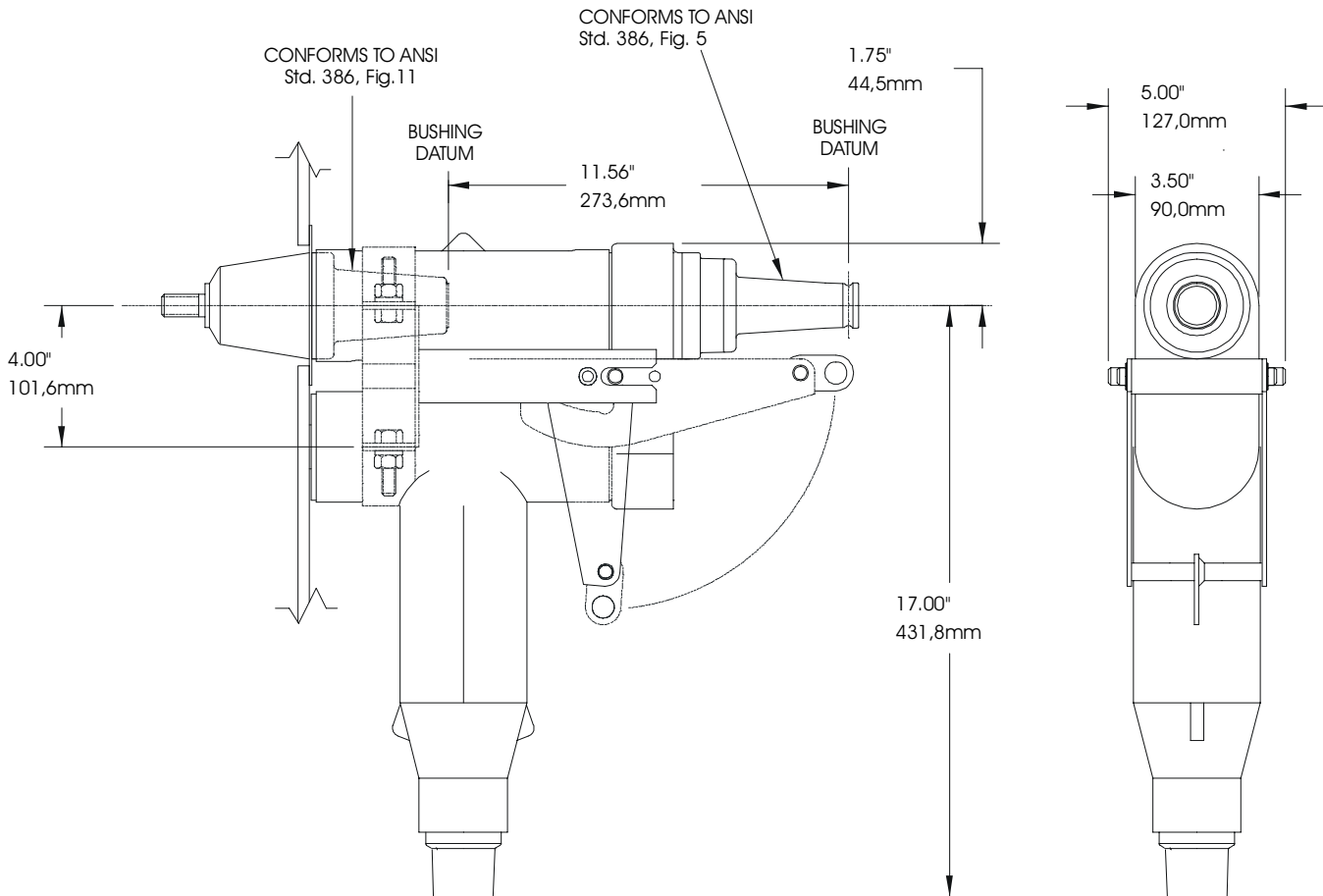
ELASTIMOLD PART NUMBER

655LINK-C-LR-W0X-A-DRG**K655LINK-C-LR-W0X-A-DRG****755LINK-C-LR-W0X-A-DRG****The Retrofit Cam-Op Connector kit contains the following:**

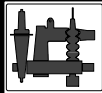
- | | |
|---------------------------------------|---|
| 1 – Cam-Op link | 650LK-C-VB (15kV), K650LK-C-VB (25kV), or 750LK-C-VB (35kV) |
| 1 – Elbow connector housing (W/ STUD) | K655BLR (15kV& 25kV), or 755BLR (35kV) |
| 1 – Cable adapter | 655CA-W (15kV& 25kV), or 755CA-W (35kV) |
| 1 – compression lug | 03700XXX |
| 1 – Bushing Extender | K655BE (15kV & 25kV), or 755BE (35kV) |
| 2 – Retainer sleeves | 650RSC |
| 1 – Insulated cap | 167DRG (15kV), 273DRG (25kV), or 375DRG (35kV) |
| 1 – Insulating Plug | K650LB (15kV & 25kV), or 750LB (35kV) |
| 1 – Alignment bracket | 650CAB (15kV), K650CAB (25kV), or 750CAB (35kV) |
| 4 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-Link-C |
| 1 – Crimp chart | IS-03700CC 5/98 |



15kV Cam-Op Outline Dimension 655LINK-C-LR-W0X-B-DRG



For Reference Only



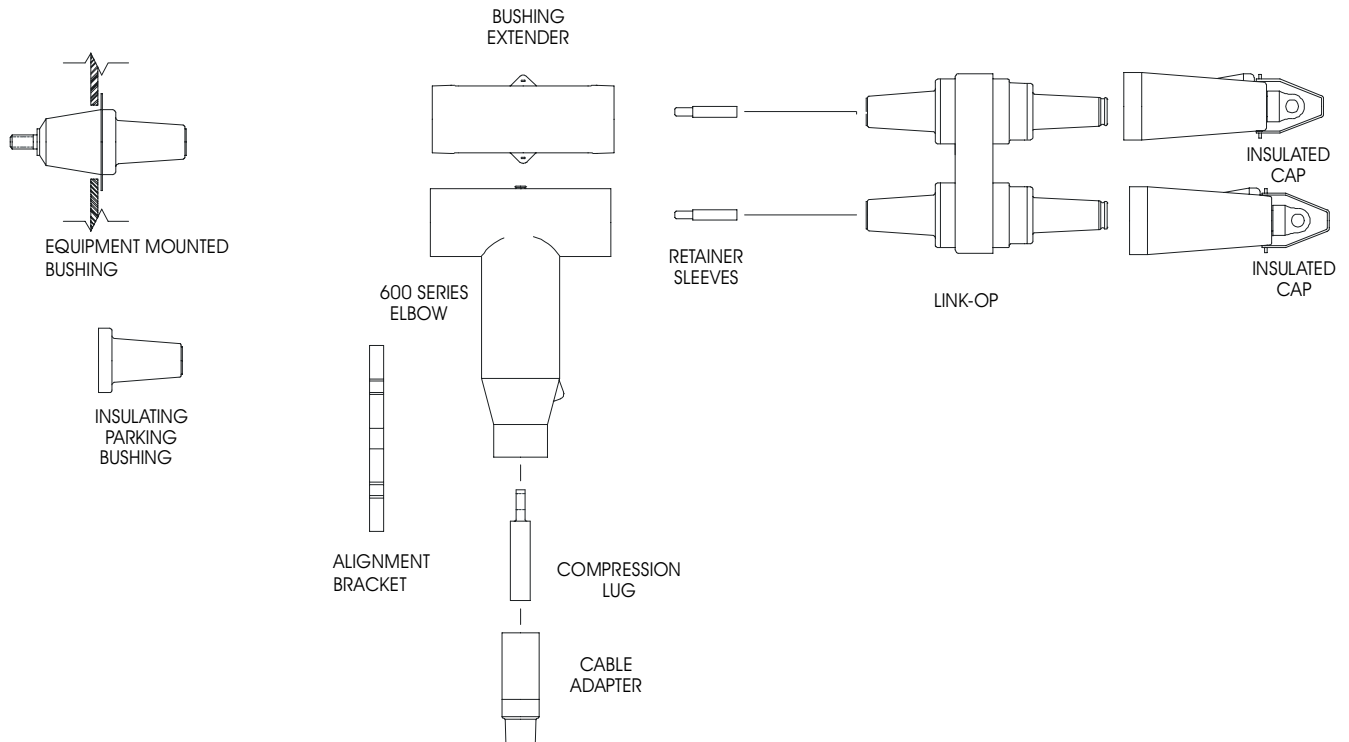
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV Retrofit Link-Op Connector Kit

ELASTIMOLD PART NUMBER

655LINK-B-LR-W0X-A-DRG**K655LINK-B-LR-W0X-A-DRG****755LINK-B-LR-W0X-A-DRG**

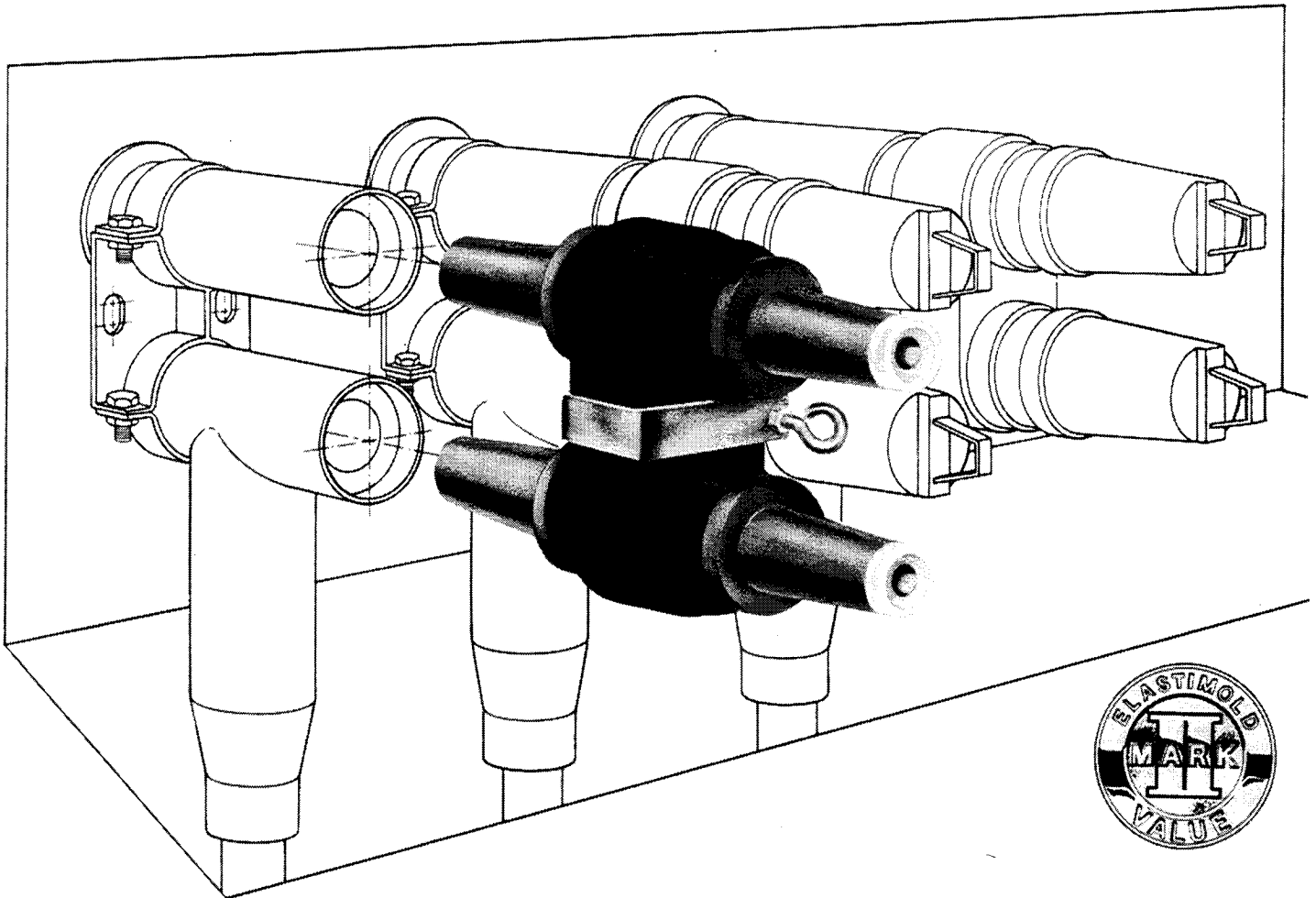
Refer to the following pages for details concerning design, construction and operation.

The Retrofit Link-Op Connector kit contains the following:

1 – Link-Op link	650LK-B-VB, K650LK-B-VB (25kV), or 750LK-B-VB (35kV)
1 – Elbow connector housing (W/ STUD)	K655BLR (15/25kV), or 755BLR (35kV)
1 – Cable adapter	655CA-W (15/25kV), or 755CA-W (35kV)
1 – Bi-metal compression lug	03700XXX
1 – Bushing Extender	K655BE (15/25kV), or 755BE (35kV)
2 – Retainer sleeves	650RSC
2 – Insulated cap	167DRG, 273DRG (25kV), or 375DRG (35kV)
1 – Insulating plug	K650LB (15/25kV), 05 750LB (35kV)
1 – Alignment bracket	650AB or 650ABV (vertical mount for bushing horizontal space less than 5")
4 – Tube, lubricant	82-08
1 – Installation instruction	IS-Link-B
1 – Crimp chart	IS-03700CC 5/98

ELASTIMOLD®

LINK-OP™ Operable Connector System for 15kV-CLASS APPLICATIONS

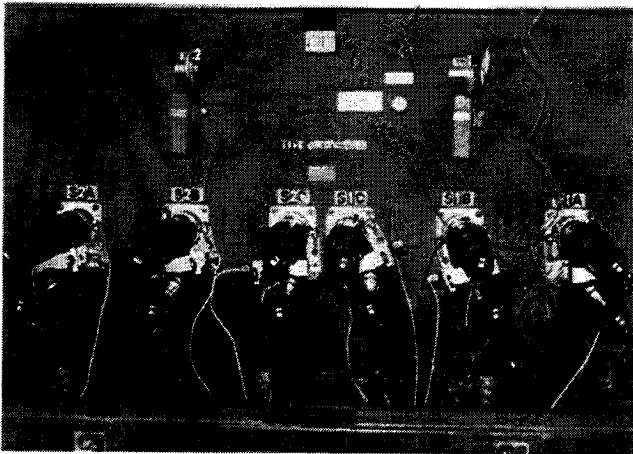


General Description	2
Application	2
Electrical Ratings	2
Components	3
Operation Overview	4
Dimensional Data/Apparatus Faceplate Application	5
Ordering Information	6

LINK-OP™

Operable Connector System

The LINK-OP system is a fully-shielded, fully-submersible, dead-front, operable connector system for 15kV, 600 Amp class circuits. It consists of removable Links used in conjunction with standard ELASTIMOLD Elbow Connectors and Operating Accessories. The system is designed to permit **direct-testing, grounding, and visible-break isolation without necessitating cable movement.** The 15kV version can be connected to a standard 600 Amp apparatus bushing interface (ANSI/IEEE 386) and to cables with an insulation diameter from .760" to 1.935" and a conductor range from 1/0 to 1000 kcmil.



Typical LINK-OP system installed on a pad-mounted switch.

ELECTRICAL RATINGS* - 655 LINK-B 15kV 600 Amp Class Connector System	
OPERATING VOLTAGE (max. continuous line-to-ground, 100% insulation system)	8.3kV
BIL (@ 1.2 x 50 microsecond wave)	95kV
WITHSTAND VOLTAGE AC (1 minute) DC (15 minutes)	34kV 53kV
CORONA EXTINCTION LEVEL (min. @ 3pC)	11kV
CURRENT	
Continuous:	600 Amps RMS**
Momentary:	25,000 Amps RMS, sym, 10 cycles
Fault Close:	10,000 Amps RMS, sym, 10 cycles
** Designed for 90°C maximum continuous operating temperature.	
* Ratings are based on industry standards and do not reflect maximum levels. For compliance with other standards, consult your ELASTIMOLD representative.	

• Easy To Operate

- Hot-stick operable with one crewperson
- No need to move stiff 600 Amp cables

• Easy To Install

- Fits your existing switchgear
- Specify with new equipment

• Cost Effective

- Maintenance-free dead-front design
- Compact faceplate can reduce equipment size

• Reliable

- Based on field-proven ELASTIMOLD components
- Hi-performance peroxide-cured EPDM insulation

APPLICATION

Cable-to-Apparatus connections

The LINK-OP system is ideally suited for cable-to-apparatus connections. It can be easily installed on existing switchgear or transformers (as a retrofit) or it can be specified with new apparatus. The system does not require parking stands which is a space-saving advantage for apparatus design.

Most standard 600 Amp class switchgear and transformer faceplates can be fitted with the LINK-OP system. In addition to basic horizontally-spaced bushing layouts, staggered or radial layouts are adaptable if the bushing spacing is adequate. The layout characteristics will also determine whether an Alignment Bracket can be utilized or if an Insulated Parking Bushing should be mounted to the apparatus faceplate. See page 5 for minimum recommended spacing requirements.

INSTALLATION

To install the LINK-OP system, the apparatus bushing is fitted with a Bushing Extender and the corresponding cable is terminated with a standard 600 Amp Elbow Connector. The Elbow Connector is then supported by an Alignment Bracket or a Mounted Insulated Parking Bushing. The current path is completed when the Link is bolted to the Bushing Extender and Elbow Connector. The exposed 200 Amp interfaces are then covered with Insulated Caps. See installation instruction sheet for complete details.

ACCESSORIES

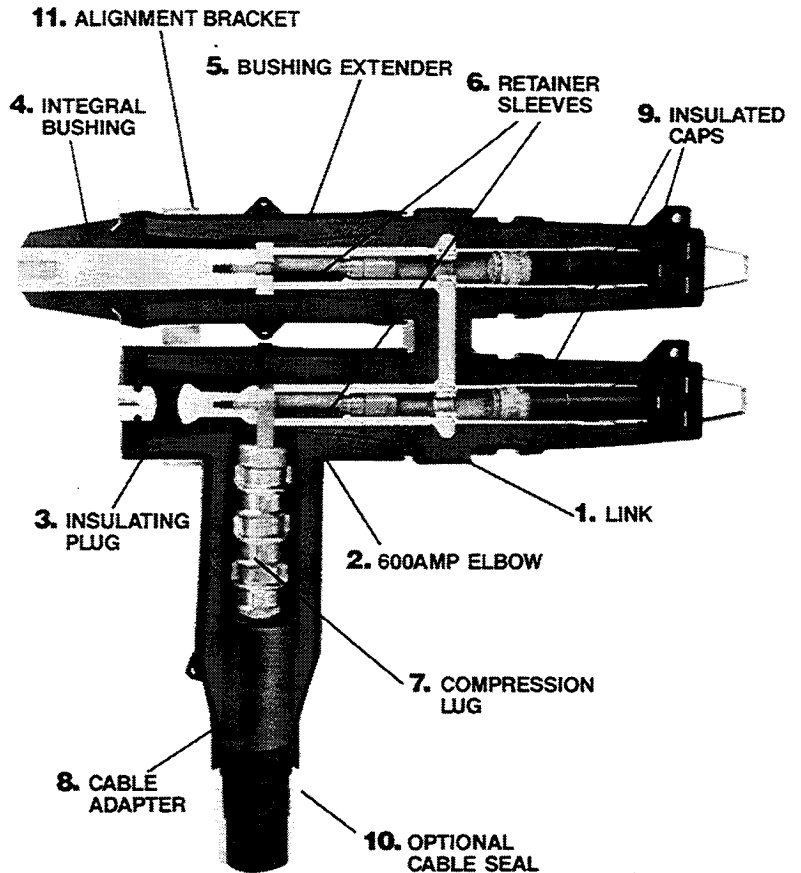
The LINK-OP system requires the use of basic operating accessories to achieve visible break isolation, direct testing and grounding. See page 6 for suggested components for a three-phase operating kit.

When the insulated caps are removed from the Link, the exposed 200 Amp interfaces become access points for Grounding Elbows. The Link is removable using an Assembly Tool and hotstick. It can be replaced by two Link-Op Tap Plugs with Insulated Caps in order to create a visible break in the circuit.

In addition to the basic operating accessories, other accessory options are available. A standard ELASTIMOLD Elbow Surge Arrester can easily be installed on the 200 Amp interface.

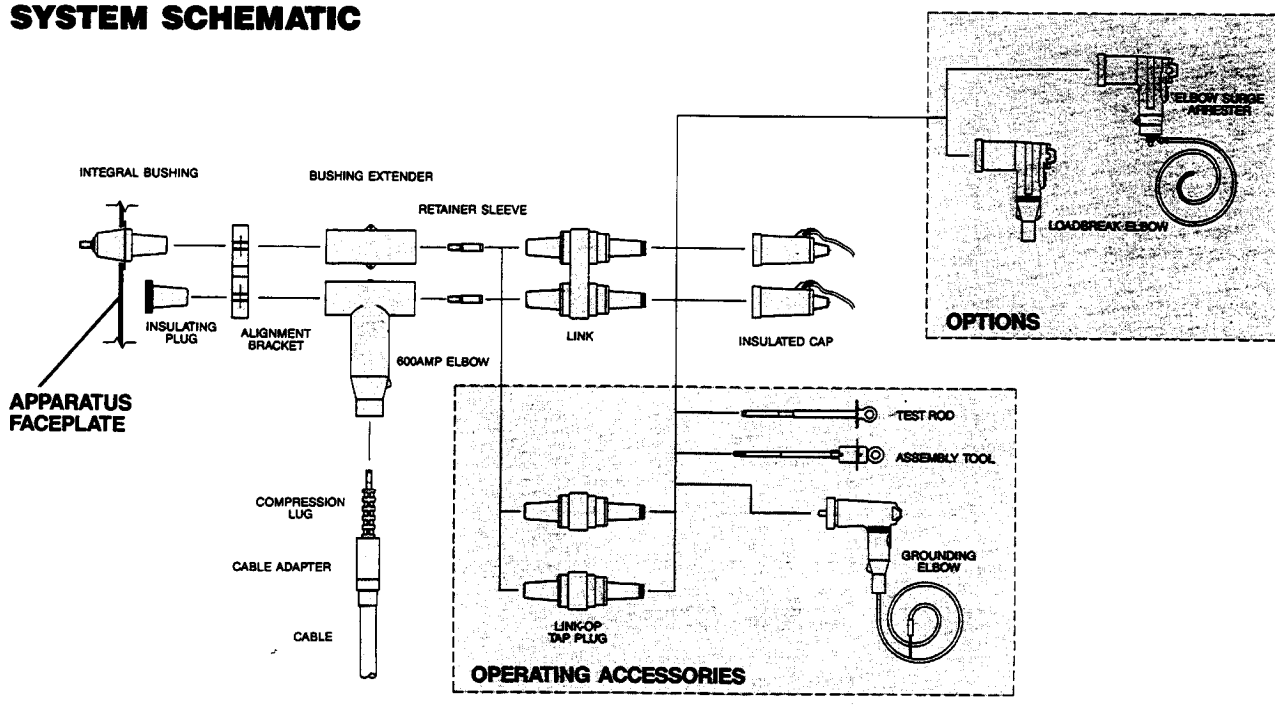
LINK-OP ASSEMBLY COMPONENTS

1. **LINK**—The Link is the key element in the LINK-OP system. It allows the connection to be made between the Elbow Connector and the Integral Bushing. The premolded EPDM Link also provides 200 Amp loadbreak interfaces for attaching a grounding elbow or other 200 Amp system connectors. It is assembled and removed using an Assembly Tool and an insulated Hotstick.
2. **600 AMP ELBOW CONNECTOR**—A standard ELASTIMOLD 600 Amp Elbow Connector Housing is used to insulate and seal the cable connection.
3. **INSULATING PLUG**—An epoxy Insulating Plug seals the elbow interface opposite the Link.
4. **INTEGRAL BUSHING**—Epoxy Integral Bushing can be welded or clamped to the apparatus. It is normally supplied on the apparatus by the manufacturer per your specification.
5. **BUSHING EXTENDER**—A Bushing Extender is connected to the Integral Bushing to provide the matching interface for the Link.
6. **RETAINER SLEEVES**—Retainer Sleeves are included with each LINK package. These sleeves are used to secure the bushing extender to the Integral Bushing and to secure the 600 Amp Elbow Housing to the Insulating Plug through the compression lug.
7. **COMPRESSION LUG**—The Compression Lug is sized for the specific cable conductor used. It is crimped on with standard tools and crimping dies.
8. **CABLE ADAPTER**—A standard ELASTIMOLD Stress Relief Cable Adapter is sized to the cable insulation diameter. It provides stress relief for the terminated shield.
9. **INSULATED CAP**—A fully-shielded, hotstick-operable device used to insulate and protect a loadbreak interface whether energized or de-energized.
10. **CABLE SEAL**—The optional cable seal provides means of resealing the cable jacket of jacketed cable.



11. **ALIGNMENT BRACKET**—An Alignment Bracket provides support and alignment of the 600 Amp Elbow Connector and Bushing Extender. It is used in conjunction with an Insulating Plug. (Not required for a Mounted Insulated Parking Bushing application).

SYSTEM SCHEMATIC

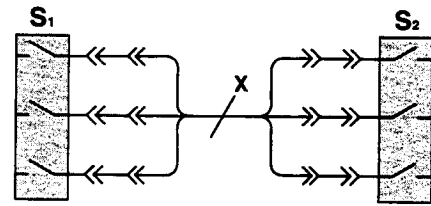


OPERATION

(See instruction sheet IS-650LINK-OK for complete details and specific sequence of operation).

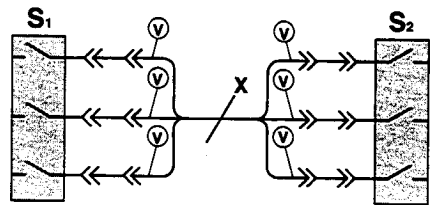
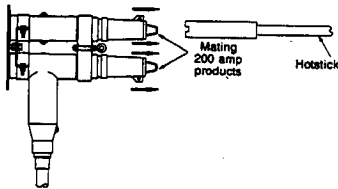
The following operation overview highlights key points of the LINK-OP operating procedure. It entails isolation, testing and grounding of a specific portion of the system, and achieving essential visible breaks mandated by standard operating procedures prior to work assignments.

For example, a typical work assignment could be adding a tap to the cable (at point X on the schematic). After the switches (S1 and S2) are opened by conventional procedures, the cable between the switches is still considered to be live until the LINK-OP operation is completed.



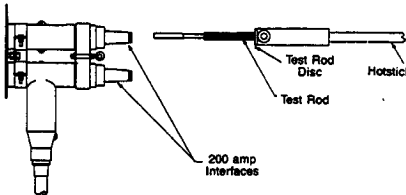
HOTSTICK OPERABILITY

All components of the LINK-OP system are hotstick operable with one crewperson. The first step is to remove the insulating caps, exposing the 200 Amp loadbreak interfaces.



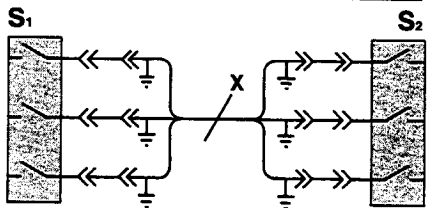
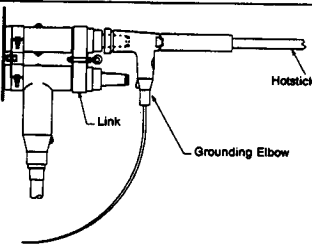
DIRECT TESTING

With the 200 Amp interfaces exposed, direct testing is now possible. A Test Rod may be required with some meters.



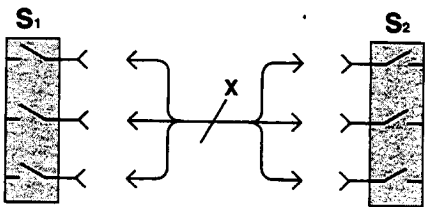
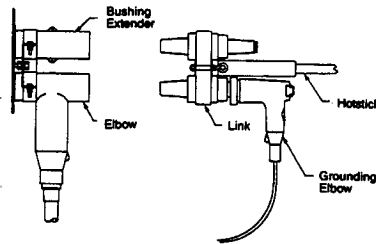
VISIBLE GROUNDING

The system can now be grounded using a Grounding Elbow. After the ground lead is connected to the ground, the Grounding Elbow is connected to the 200 Amp loadbreak interface.

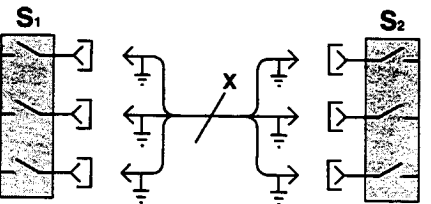
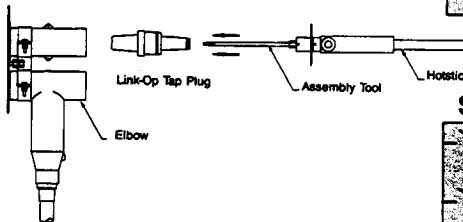


VISIBLE BREAK ISOLATION

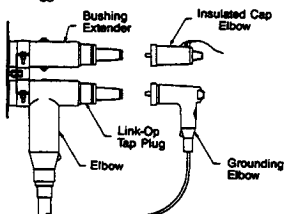
The LINK-OP system allows the cable to be isolated from the equipment whereby a visible break is achieved without moving the cable. First the LINK is unbolted from the Elbow Connector and Bushing Extender (after moving the Grounding Elbow) by using the Assembly Tool. The hotstick is then affixed to the LINK eyebolt and the LINK is removed from the assembly.



The Elbow Connector and Bushing Extender are individually connected to LINK-OP Tap Plugs using the Assembly Tool.



A Grounding Elbow can then be used in conjunction with an Insulating Cap to ground and shield the system. This will allow a work assignment to be completed in accordance with standard operating procedures.



Dimensional Data

APPARATUS FACEPLATE APPLICATION

1. FACEPLATE - HORIZONTAL LAYOUT
The standard faceplate with horizontally spaced bushings can easily accommodate the LINK-OP system with the Alignment Bracket or a mounted Insulated Parking Bushing.

B₁-Spacing with 650AB Alignment Bracket
B₂-Spacing with a mounted, Insulated Parking Bushing

DIMENSIONS

	MINIMUM
A	5'' (127mm)
B ₁	6'' (152mm)
B ₂	5'' (127mm)

2. FACEPLATE - STAGGERED LAYOUT
Some staggered designs may require a mounted, Insulated Parking Bushing.

B₁-Spacing with 650AB Alignment Bracket
B₂-Spacing with a mounted, Insulated Parking Bushing
C₁-Spacing with an Alignment Bracket
C₂-Spacing with a mounted, Insulated Parking Bushing

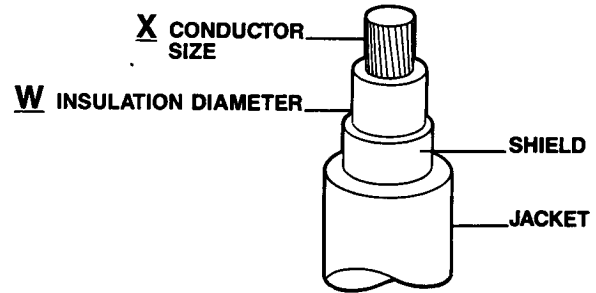
DIMENSIONS

	MINIMUM
A	5'' (127mm)
B ₁	6'' (152mm)
B ₂	4'' (102mm)
C ₁	5'' (127mm)
C ₂	5'' (127mm)

3. FACEPLATE - RADIAL LAYOUT
Radial layouts can also accommodate a LINK-OP system. Consult ELASTIMOLD engineering or apparatus manufacturer for specific application suitability.

ORDERING INSTRUCTIONS

To order a standard 15kV Class LINK-OP system complete the following ordering formula. A complete connector assembly should be ordered for each apparatus bushing that requires a connection.



655LINK-B-LR-W-X-Y-Z-S

The symbol 'S' indicates that a cable seal is required.

NOTE: See Cat. Section-620-11,12 for grounding devices to adapt tape and drain wire shields.

Indicates a 15kV Class LINK-OP assembly with bolted connections. Standard 600 Amp deadbreak and 8.3kV, 200 Amp loadbreak interfaces per ANSI/IEEE 386.

DRG: Includes two Insulated Caps as standard offering - Consult ELASTIMOLD for optional accessories.

INSULATION RANGE				SYMBOL
INCHES		mm		
MIN.	MAX.	MIN.	MAX.	
.760	.950	19.3	24.1	G
.850	1.050	21.6	26.7	H
.980	1.180	24.9	30.0	J
1.090	1.310	27.7	33.3	K
1.180	1.465	30.0	37.2	L
1.370	1.630	34.8	41.4	M
1.515	1.780	38.5	45.2	N
1.725	1.935	43.8	49.1	P

Conductor Size - AWG or kcmil				Symbol for X
Stranded	Compressed	Compact	Solid	
1/0	1/0	2/0	2/0	0240
2/0	2/0	3/0	3/0	0250
3/0	3/0	4/0	4/0	0260
4/0	4/0	250	---	0270
250	250	300	---	0280
300	300	350	---	0290
350	350	400	---	0300
400	400	450	---	0310
450	450	500,550	---	0320
500	500	600	---	0330
550	550	650	---	0340
600	600	700	---	0350
650	650	750,800	---	0360
700	700	---	---	0370
750	750	---	---	0380
800	800	900	---	0390
900	900	1000	---	0400
1000	1000	---	---	0410

A. Alignment Bracket Application

B. Mounted Insulated Parking Bushing Application

STEP 1: W

Determine the minimum diameter of the cable insulation. Do not measure the diameter over the cable jacket, if any, or over the insulation shielding. From Table 'W', select the symbol for the insulation range wherein the minimum diameter of the cable insulation is nearest the low end of the range. Insert this symbol in the ordering formula.

STEP 2: X

From Table 'X', select the symbol that represents the size and type of cable conductor. Insert this four digit symbol in the ordering formula.

STEP 3: Y

Substitute the symbol 'A' in the ordering formula to indicate that an Alignment Bracket is required. Substitute the symbol 'B' if this is a mounted Insulated Parking Bushing application.

STEP 4: Z

Insert the symbol 'DRG' to indicate that Insulated Caps (with ground) are to be included as part of the standard assembly. Consult Elastimold for optional accessories.

STEP 5: S

Add the symbol 'S' to include a Cable Seal for the Elbow Connector.

EXAMPLE: The ordering formula for a standard 15kV LINK-OP assembly with an Alignment Bracket to connect a cable with a 750 kcmil stranded conductor and an insulation diameter of 1.430" (36,3mm) is **655LINK-B-LR-M-0380-A-DRG**.

For new applications, consult ELASTIMOLD to review your specific engineering requirements.

OPERATING KIT ORDERING INSTRUCTIONS

Operating the LINK-OP system requires the use of basic operating accessories which can be carried by the linecrew. These accessories are ordered as individual components.



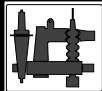
BG-1 (LINK-OP) Carry Case

QUANTITY	PART No.	DESCRIPTION
6	650LT-B	Link-Op Tap Plug
3	160GLR	Grounding Elbow
1	600AT	Operating Assembly Tool
1	370TR	Test Rod
1	BG-1 (LINK-OP)	Carry Case
1	SL-5	Silicone Lubricant (5oz.)
1	IS-650LINK-OK	Instructions



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
A Unit of Eagle Industries, Inc.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 600A Insulated Plug

ELASTIMOLD PART NUMBER

K650LB

The Elastimold K650LB Insulated plug is equipped with a 15/25kV class, 600 Amp deadbreak interface. It is designed to be used as an insulated plug with Link-Op or Camp-Op systems.

Ratings

per ANSI/IEEE Standard 386

25kV Voltage Class

16.2kV Max Phase-to-Ground - Operating Voltage

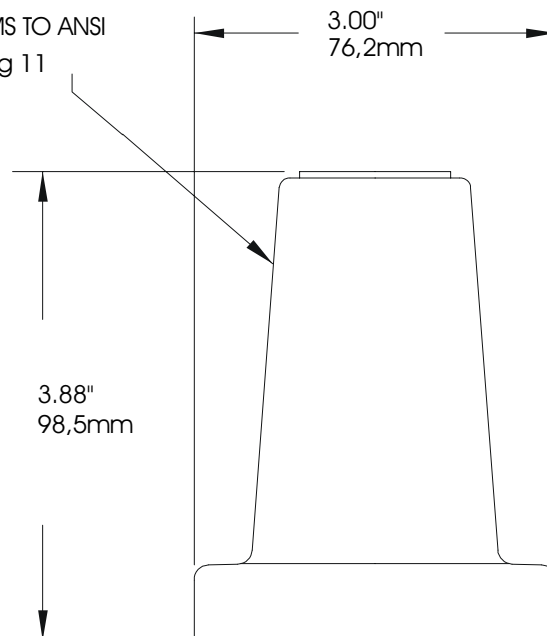
Ordering Instructions:

To order, specify catalog number **K650LB** insulated plug.

The **K650LB** insulated plug includes the following:

1 – Grounding Plug K650LB

CONFORMS TO ANSI
Std 386, Fig 11



DESCRIPTION

35kV 600A Insulated Plug

ELASTIMOLD PART NUMBER

750LB

The Elastimold 750LB Insulated plug is equipped with a 35kV class, 600 Amp deadbreak interface. It is designed to be used as an insulated plug with Link-Op or Cam-Op systems.

Ratings

per ANSI/IEEE Standard 386

35kV Voltage Class

26.1kV Max Phase-to-Ground - Operating Voltage

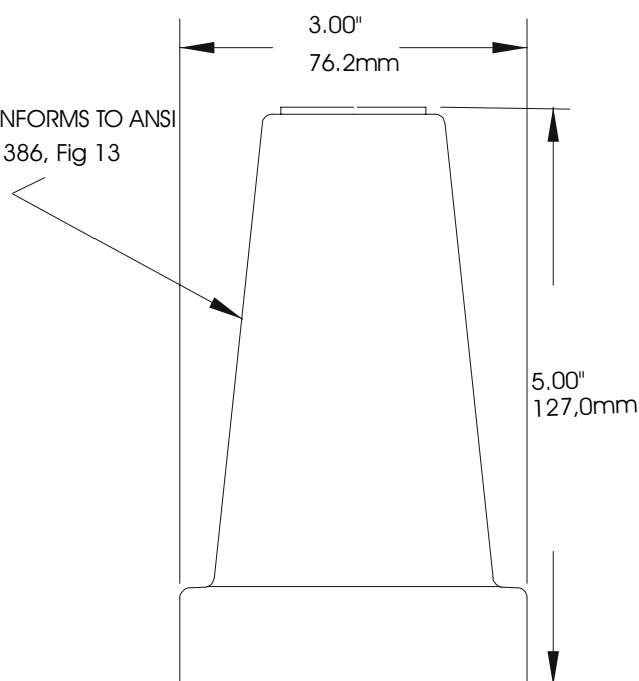
Ordering Instructions:

To order, specify catalog number **750LB** insulated plug.

The **750LB** insulated plug includes the following:

1 – Grounding Plug 750LB

CONFORMS TO ANSI
Std 386, Fig 13



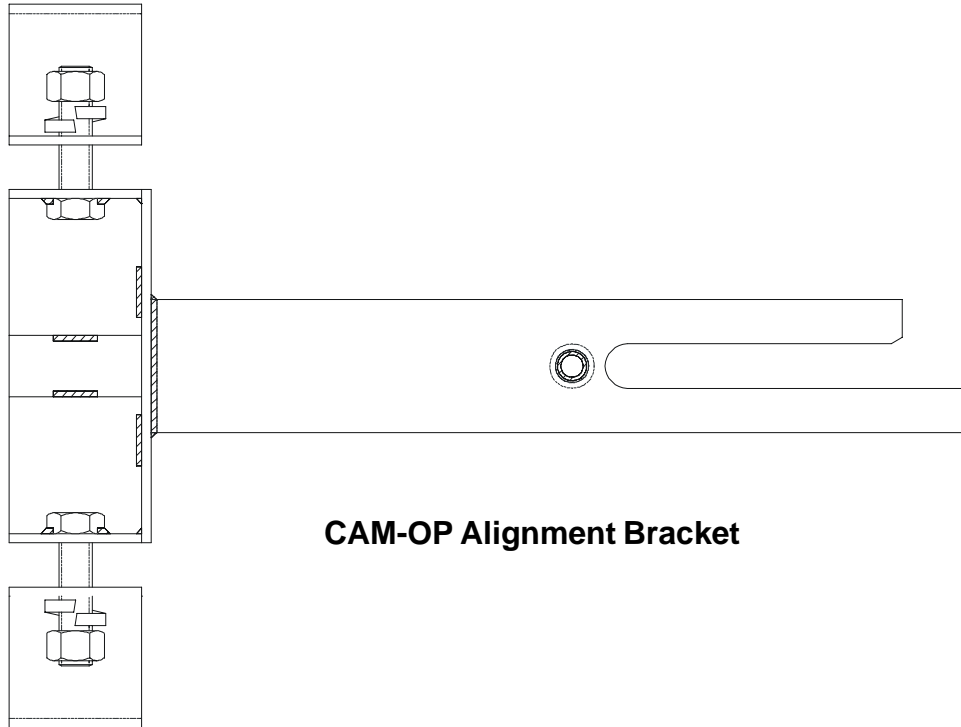


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25/35kV CAM-OP Alignment Bracket

ELASTIMOLD PART NUMBER

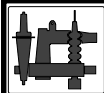
650CAB**K650CAB****750CAB**

CAM-OP Alignment Bracket

Ordering Instruction:

To order a CAM-OP Alignment Bracket for 15 kV, specify **650CAB**
To order a CAM-OP Alignment Bracket for 25 kV, specify **K650CAB**
To order a CAM-OP Alignment Bracket for 35 kV, specify **750CAB**

****Detail of this page is still under construction.****



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25/35kV CAM-OP Retaining Sleeve

ELASTIMOLD PART NUMBER

650RSC

Detail of this page is still under construction, please contact your local sales representative for more information.

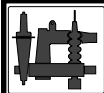
DESCRIPTION

15/25/35kV Link-OP Retaining Sleeve

ELASTIMOLD PART NUMBER

650RS

Detail of this page is still under construction, please contact your local sales representative for more information.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Mountable Insulated Bushing

ELASTIMOLD PART NUMBER

K650LBM-3

Detail of this page is still under construction, please contact your local sales representative for more information.

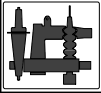
DESCRIPTION

35kV Mountable Insulated Bushing

ELASTIMOLD PART NUMBER

750LBM-3

Detail of this page is still under construction, please contact your local sales representative for more information.



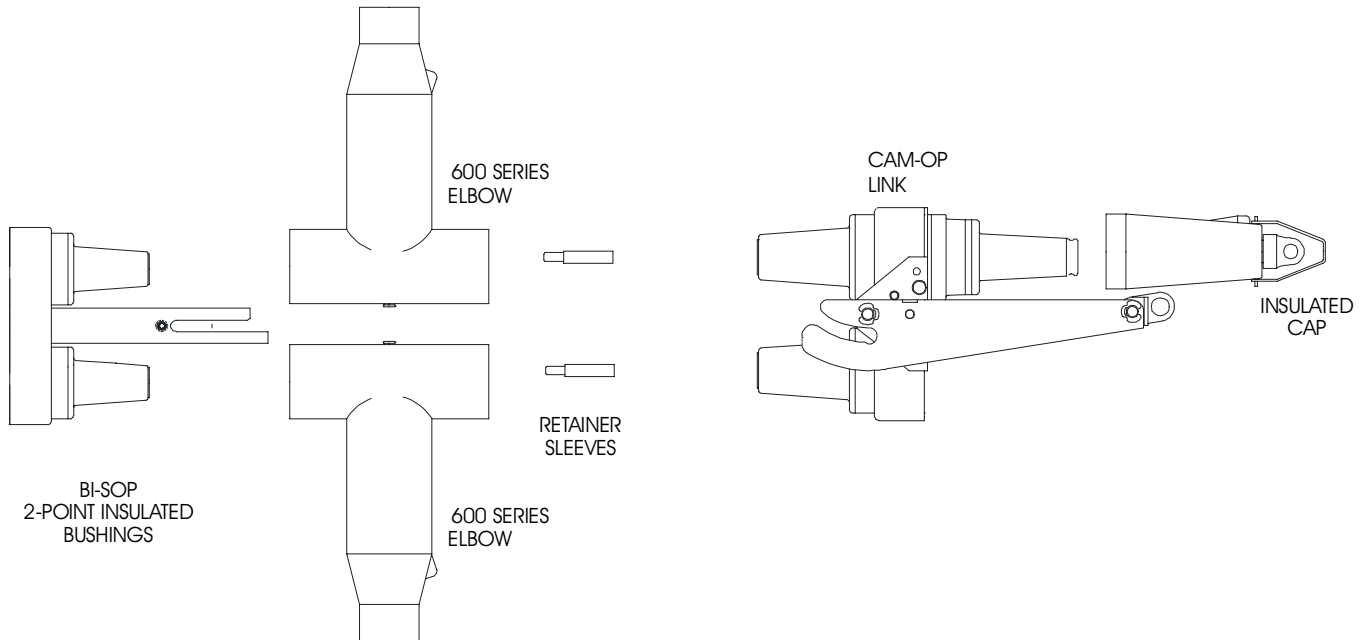
PRODUCT SPECIFICATION SHEET

C I

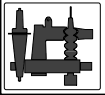
DESCRIPTION

15/25/35kV Cam-Op Cable Joint Kit

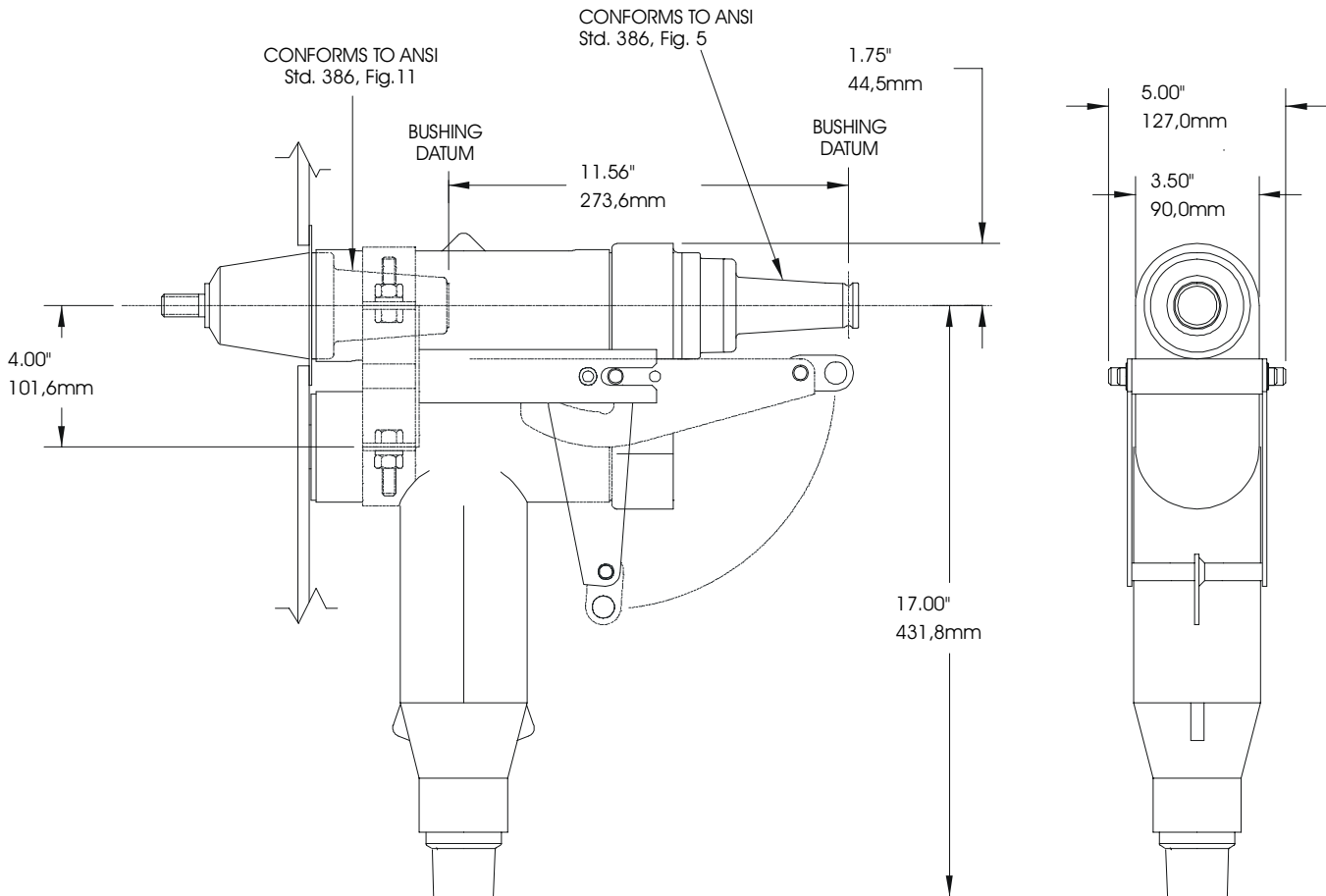
ELASTIMOLD PART NUMBER

655BI-LINK-C-LR-W0X-DRG**K655BI-LINK-C-LR-W0X-DRG****755BI-LINK-C-LR-W0X-DRG****The Cam-Op cable joint contains the following:**

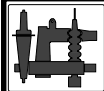
- | | |
|------------------------------|---|
| 1 – Cam-Op link | 650LK-C-VB (15kV), K650LK-C-VB (25kV), or 750LK-C-VB (35kV) |
| 1 – Cam-Op BI-SOP | 650SOP-2-4-1, or 750SOP-2-4-1 |
| 2 – 600A elbow housing | K655BLR (15kV& 25kV), or 755BLR (35kV) |
| 2 – Cable adapter | 655CA-W (15kV& 25kV), or 755CA-W (35kV) |
| 2 – Compression lug | 03700XXX |
| 2 – Retainer sleeves | 650RSC |
| 1 – Insulated cap | 167DRG (15kV), 273DRG (25kV), or 375DRG (35kV) |
| 4 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-Link-C |
| 1 – Crimp chart | IS-03700CC 5/98 |



15kV Cam-Op Outline Dimension 655LINK-C-LR-W0X-B-DRG



For Reference Only



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

Link-Op Alignment Bracket

ELASTIMOLD PART NUMBER

650AB

Detail of this page is still under construction, please contact your local sales representative for more information.

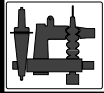
DESCRIPTION

Link-Op Alignment Bracket

ELASTIMOLD PART NUMBER

650ABV

Detail of this page is still under construction, please contact your local sales representative for more information.



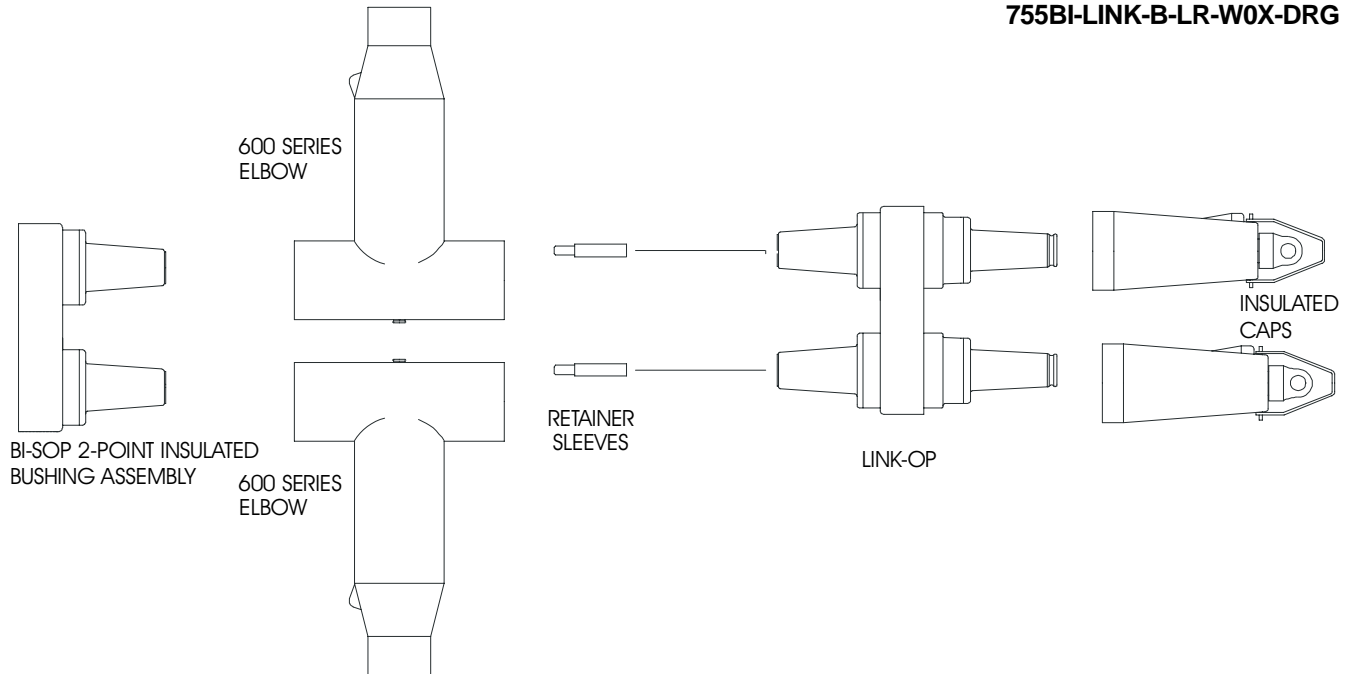
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV Link-Op Cable Joint Kit

ELASTIMOLD PART NUMBER

655BI-LINK-B-LR-W0X-DRG**K655BI-LINK-B-LR-W0X-DRG****755BI-LINK-B-LR-W0X-DRG**

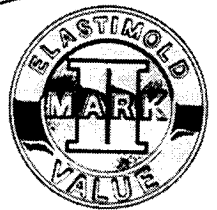
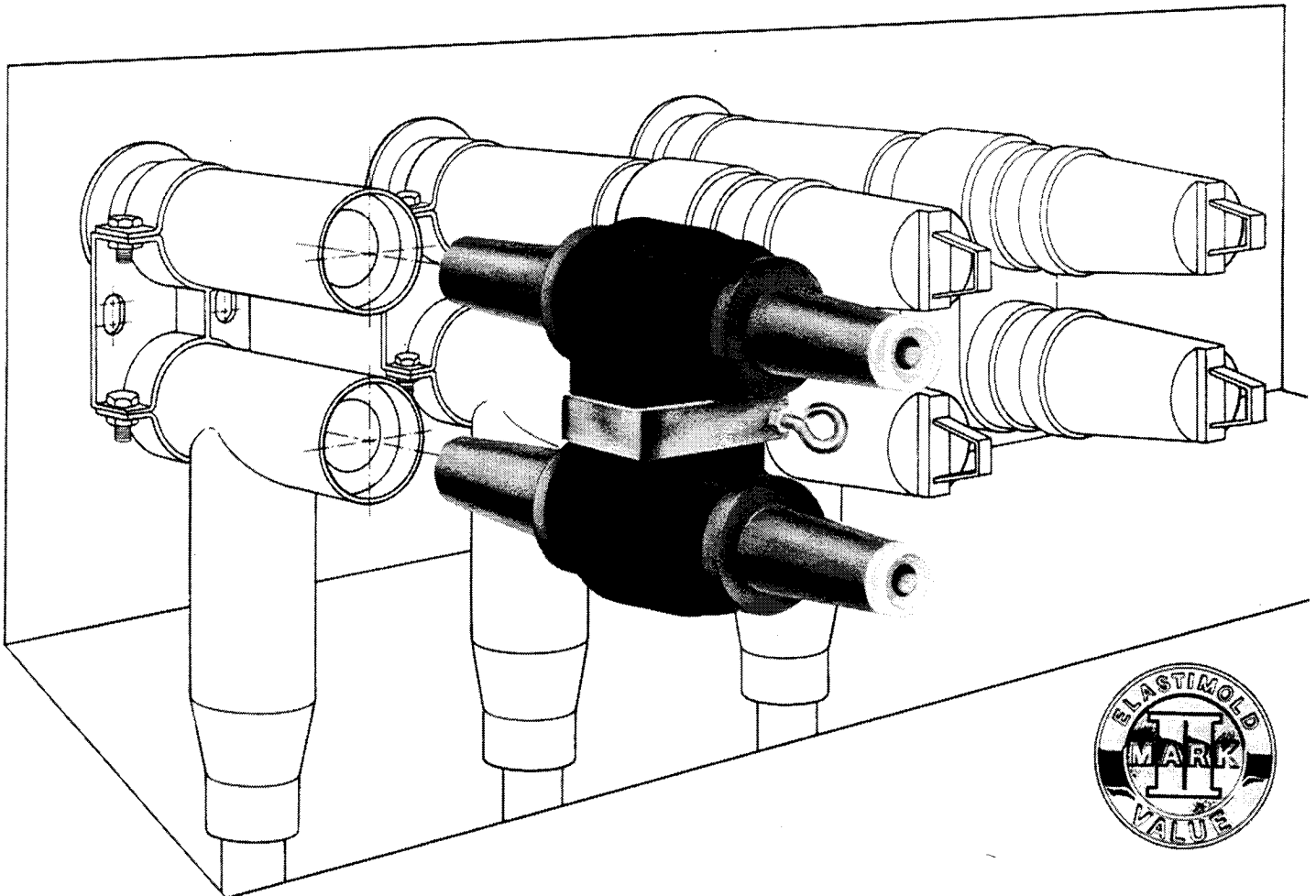
Refer to the following pages for details concerning design, construction and operation.

The Link-Op Connector kit contains the following:

- | | |
|------------------------------|---|
| 1 – Link-Op link | 650LK-B-VB (15kV), K650LK-B-VB (25kV), or 750LK-B-VB (35kV) |
| 1 – BI-SOP | 650SOP-2-4-1, or 750SOP-2-4-1 |
| 2 – 600A elbow housing | K655BLR (15kV& 25kV), or 755BLR (35kV) |
| 2 – Cable adapter | 655CA-W (15kV& 25kV), or 755CA-W (35kV) |
| 2 – Compression lug | 03700XXX |
| 2 – Retainer sleeves | 650RSC |
| 2 – Insulated cap | 167DRG (15kV), 273DRG (25kV), or 375DRG (35kV) |
| 4 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-Link-B |
| 1 – Crimp chart | IS-03700CC 5/98 |

ELASTIMOLD®

LINK-OP™ Operable Connector System for 15kV-CLASS APPLICATIONS

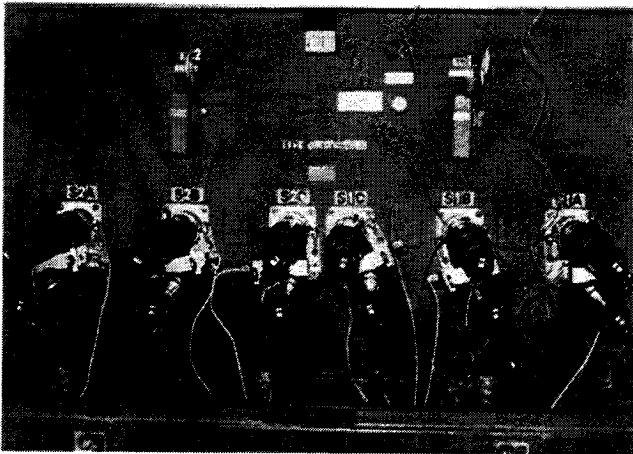


General Description	2
Application	2
Electrical Ratings	2
Components	3
Operation Overview	4
Dimensional Data/Apparatus Faceplate Application	5
Ordering Information	6

LINK-OP™

Operable Connector System

The LINK-OP system is a fully-shielded, fully-submersible, dead-front, operable connector system for 15kV, 600 Amp class circuits. It consists of removable Links used in conjunction with standard ELASTIMOLD Elbow Connectors and Operating Accessories. The system is designed to permit **direct-testing, grounding, and visible-break isolation without necessitating cable movement.** The 15kV version can be connected to a standard 600 Amp apparatus bushing interface (ANSI/IEEE 386) and to cables with an insulation diameter from .760" to 1.935" and a conductor range from 1/0 to 1000 kcmil.



Typical LINK-OP system installed on a pad-mounted switch.

ELECTRICAL RATINGS* - 655 LINK-B 15kV 600 Amp Class Connector System	
OPERATING VOLTAGE (max. continuous line-to-ground, 100% insulation system)	8.3kV
BIL (@ 1.2 x 50 microsecond wave)	95kV
WITHSTAND VOLTAGE AC (1 minute) DC (15 minutes)	34kV 53kV
CORONA EXTINCTION LEVEL (min. @ 3pC)	11kV
CURRENT	
Continuous:	600 Amps RMS**
Momentary:	25,000 Amps RMS, sym, 10 cycles
Fault Close:	10,000 Amps RMS, sym, 10 cycles
** Designed for 90°C maximum continuous operating temperature.	
* Ratings are based on industry standards and do not reflect maximum levels. For compliance with other standards, consult your ELASTIMOLD representative.	

• Easy To Operate

- Hot-stick operable with one crewperson
- No need to move stiff 600 Amp cables

• Easy To Install

- Fits your existing switchgear
- Specify with new equipment

• Cost Effective

- Maintenance-free dead-front design
- Compact faceplate can reduce equipment size

• Reliable

- Based on field-proven ELASTIMOLD components
- Hi-performance peroxide-cured EPDM insulation

APPLICATION

Cable-to-Apparatus connections

The LINK-OP system is ideally suited for cable-to-apparatus connections. It can be easily installed on existing switchgear or transformers (as a retrofit) or it can be specified with new apparatus. The system does not require parking stands which is a space-saving advantage for apparatus design.

Most standard 600 Amp class switchgear and transformer faceplates can be fitted with the LINK-OP system. In addition to basic horizontally-spaced bushing layouts, staggered or radial layouts are adaptable if the bushing spacing is adequate. The layout characteristics will also determine whether an Alignment Bracket can be utilized or if an Insulated Parking Bushing should be mounted to the apparatus faceplate. See page 5 for minimum recommended spacing requirements.

INSTALLATION

To install the LINK-OP system, the apparatus bushing is fitted with a Bushing Extender and the corresponding cable is terminated with a standard 600 Amp Elbow Connector. The Elbow Connector is then supported by an Alignment Bracket or a Mounted Insulated Parking Bushing. The current path is completed when the Link is bolted to the Bushing Extender and Elbow Connector. The exposed 200 Amp interfaces are then covered with Insulated Caps. See installation instruction sheet for complete details.

ACCESSORIES

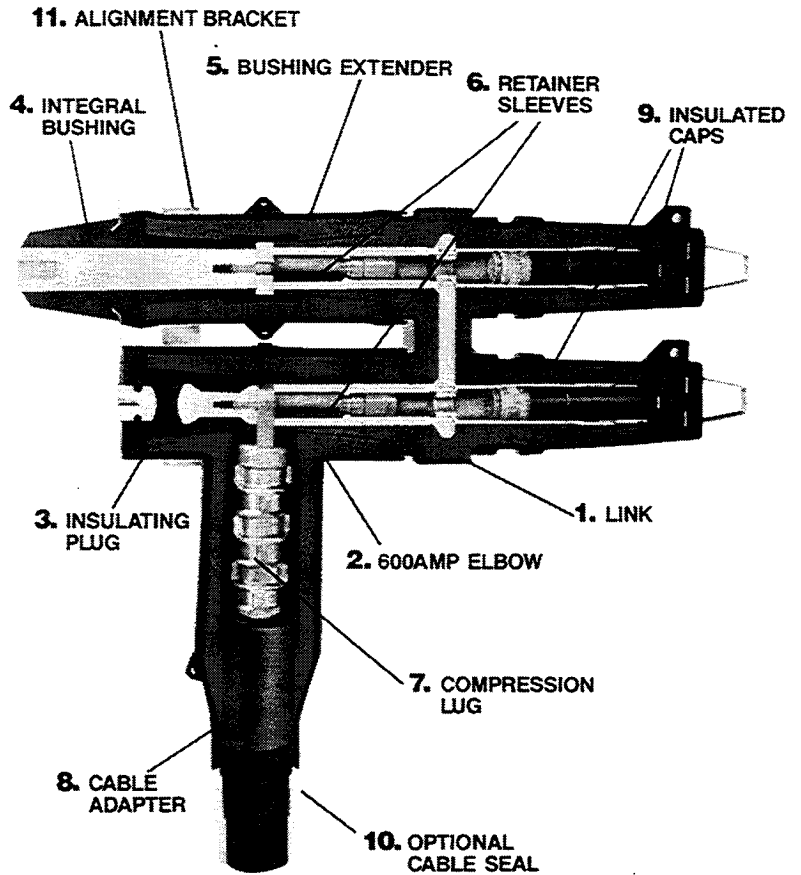
The LINK-OP system requires the use of basic operating accessories to achieve visible break isolation, direct testing and grounding. See page 6 for suggested components for a three-phase operating kit.

When the insulated caps are removed from the Link, the exposed 200 Amp interfaces become access points for Grounding Elbows. The Link is removable using an Assembly Tool and hotstick. It can be replaced by two Link-Op Tap Plugs with Insulated Caps in order to create a visible break in the circuit.

In addition to the basic operating accessories, other accessory options are available. A standard ELASTIMOLD Elbow Surge Arrester can easily be installed on the 200 Amp interface.

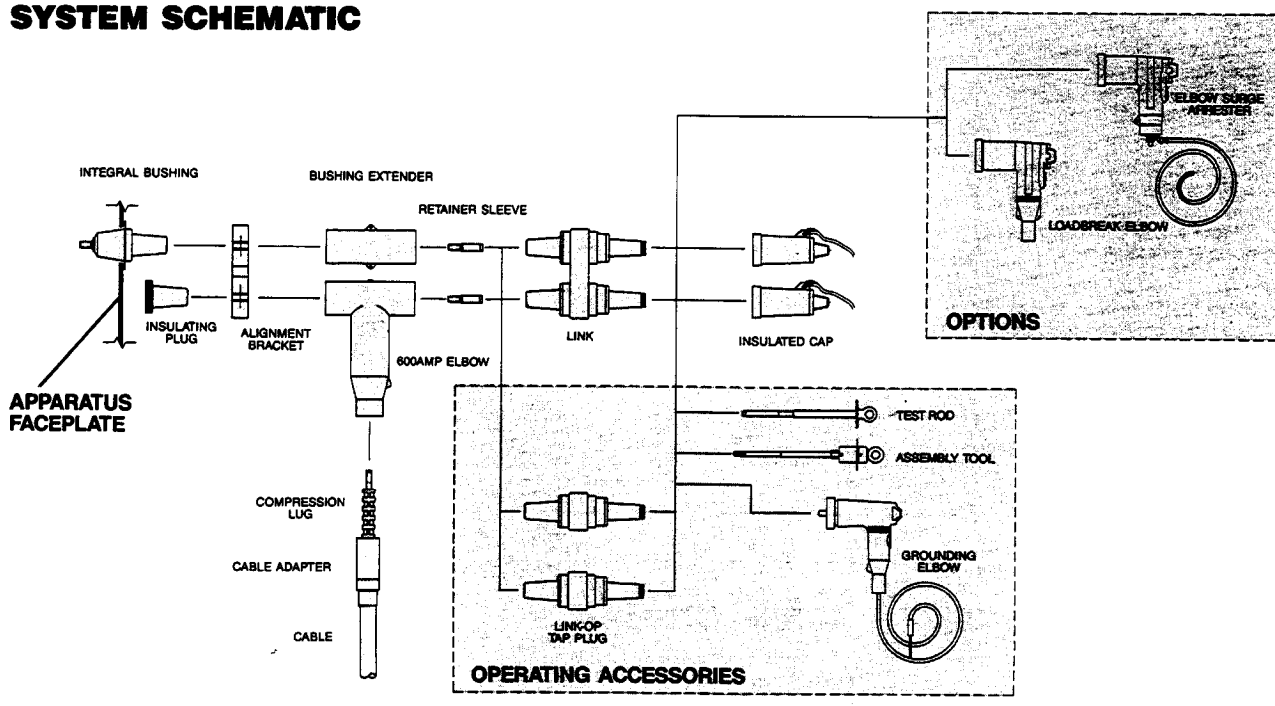
LINK-OP ASSEMBLY COMPONENTS

1. **LINK**—The Link is the key element in the LINK-OP system. It allows the connection to be made between the Elbow Connector and the Integral Bushing. The premolded EPDM Link also provides 200 Amp loadbreak interfaces for attaching a grounding elbow or other 200 Amp system connectors. It is assembled and removed using an Assembly Tool and an insulated Hotstick.
2. **600 AMP ELBOW CONNECTOR**—A standard ELASTIMOLD 600 Amp Elbow Connector Housing is used to insulate and seal the cable connection.
3. **INSULATING PLUG**—An epoxy Insulating Plug seals the elbow interface opposite the Link.
4. **INTEGRAL BUSHING**—Epoxy Integral Bushing can be welded or clamped to the apparatus. It is normally supplied on the apparatus by the manufacturer per your specification.
5. **BUSHING EXTENDER**—A Bushing Extender is connected to the Integral Bushing to provide the matching interface for the Link.
6. **RETAINER SLEEVES**—Retainer Sleeves are included with each LINK package. These sleeves are used to secure the bushing extender to the Integral Bushing and to secure the 600 Amp Elbow Housing to the Insulating Plug through the compression lug.
7. **COMPRESSION LUG**—The Compression Lug is sized for the specific cable conductor used. It is crimped on with standard tools and crimping dies.
8. **CABLE ADAPTER**—A standard ELASTIMOLD Stress Relief Cable Adapter is sized to the cable insulation diameter. It provides stress relief for the terminated shield.
9. **INSULATED CAP**—A fully-shielded, hotstick-operable device used to insulate and protect a loadbreak interface whether energized or de-energized.
10. **CABLE SEAL**—The optional cable seal provides means of resealing the cable jacket of jacketed cable.



11. **ALIGNMENT BRACKET**—An Alignment Bracket provides support and alignment of the 600 Amp Elbow Connector and Bushing Extender. It is used in conjunction with an Insulating Plug. (Not required for a Mounted Insulated Parking Bushing application).

SYSTEM SCHEMATIC

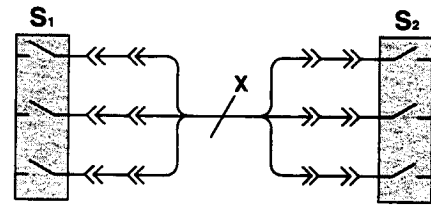


OPERATION

(See instruction sheet IS-650LINK-OK for complete details and specific sequence of operation).

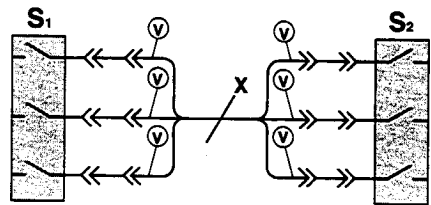
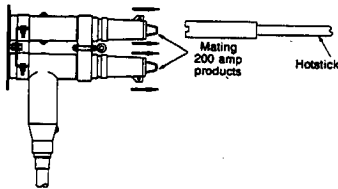
The following operation overview highlights key points of the LINK-OP operating procedure. It entails isolation, testing and grounding of a specific portion of the system, and achieving essential visible breaks mandated by standard operating procedures prior to work assignments.

For example, a typical work assignment could be adding a tap to the cable (at point X on the schematic). After the switches (S1 and S2) are opened by conventional procedures, the cable between the switches is still considered to be live until the LINK-OP operation is completed.



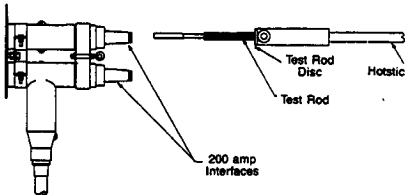
HOTSTICK OPERABILITY

All components of the LINK-OP system are hotstick operable with one crewperson. The first step is to remove the insulating caps, exposing the 200 Amp loadbreak interfaces.



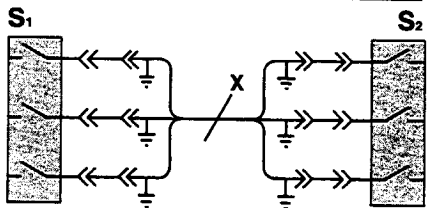
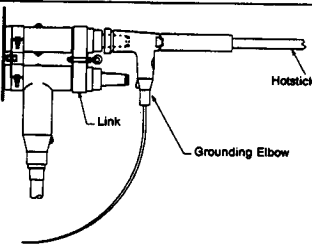
DIRECT TESTING

With the 200 Amp interfaces exposed, direct testing is now possible. A Test Rod may be required with some meters.



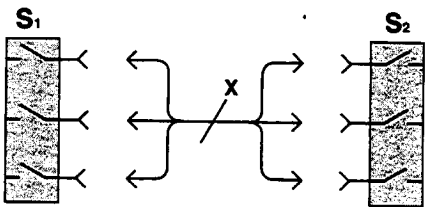
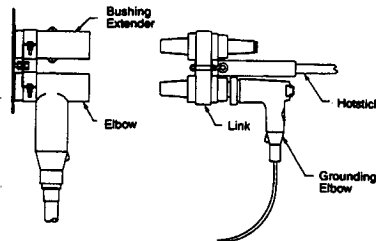
VISIBLE GROUNDING

The system can now be grounded using a Grounding Elbow. After the ground lead is connected to the ground, the Grounding Elbow is connected to the 200 Amp loadbreak interface.

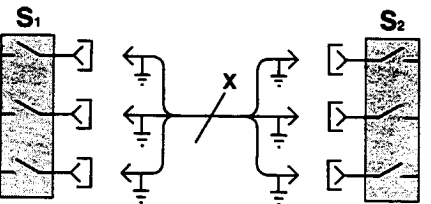
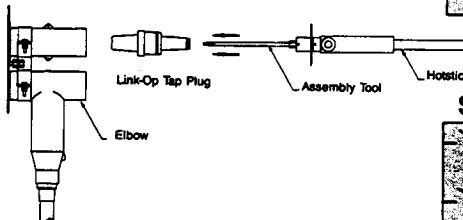


VISIBLE BREAK ISOLATION

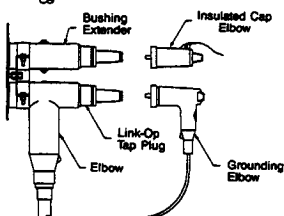
The LINK-OP system allows the cable to be isolated from the equipment whereby a visible break is achieved without moving the cable. First the LINK is unbolted from the Elbow Connector and Bushing Extender (after moving the Grounding Elbow) by using the Assembly Tool. The hotstick is then affixed to the LINK eyebolt and the LINK is removed from the assembly.



The Elbow Connector and Bushing Extender are individually connected to LINK-OP Tap Plugs using the Assembly Tool.



A Grounding Elbow can then be used in conjunction with an Insulating Cap to ground and shield the system. This will allow a work assignment to be completed in accordance with standard operating procedures.



Dimensional Data

APPARATUS FACEPLATE APPLICATION

1. FACEPLATE - HORIZONTAL LAYOUT
The standard faceplate with horizontally spaced bushings can easily accommodate the LINK-OP system with the Alignment Bracket or a mounted Insulated Parking Bushing.

B₁-Spacing with 650AB Alignment Bracket
B₂-Spacing with a mounted, Insulated Parking Bushing

DIMENSIONS	
	MINIMUM
A	5" (127mm)
B ₁	6" (152mm)
B ₂	5" (127mm)

2. FACEPLATE - STAGGERED LAYOUT
Some staggered designs may require a mounted, Insulated Parking Bushing.

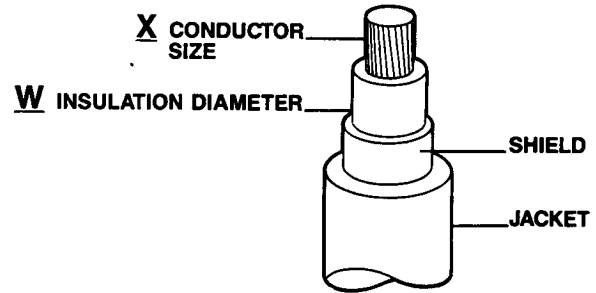
B₁-Spacing with 650AB Alignment Bracket
B₂-Spacing with a mounted, Insulated Parking Bushing
C₁-Spacing with an Alignment Bracket
C₂-Spacing with a mounted, Insulated Parking Bushing

DIMENSIONS	
	MINIMUM
A	5" (127mm)
B ₁	6" (152mm)
B ₂	4" (102mm)
C ₁	5" (127mm)
C ₂	5" (127mm)

3. FACEPLATE - RADIAL LAYOUT
Radial layouts can also accommodate a LINK-OP system. Consult ELASTIMOLD engineering or apparatus manufacturer for specific application suitability.

ORDERING INSTRUCTIONS

To order a standard 15kV Class LINK-OP system complete the following ordering formula. A complete connector assembly should be ordered for each apparatus bushing that requires a connection.



655LINK-B-LR-W-X-Y-Z-S

The symbol 'S' indicates that a cable seal is required.

NOTE: See Cat. Section-620-11,12 for grounding devices to adapt tape and drain wire shields.

Indicates a 15kV Class LINK-OP assembly with bolted connections. Standard 600 Amp deadbreak and 8.3kV, 200 Amp loadbreak interfaces per ANSI/IEEE 386.

DRG: Includes two Insulated Caps as standard offering - Consult ELASTIMOLD for optional accessories.

INSULATION RANGE				SYMBOL
INCHES		mm		
MIN.	MAX.	MIN.	MAX.	
.760	.950	19.3	24.1	G
.850	1.050	21.6	26.7	H
.980	1.180	24.9	30.0	J
1.090	1.310	27.7	33.3	K
1.180	1.465	30.0	37.2	L
1.370	1.630	34.8	41.4	M
1.515	1.780	38.5	45.2	N
1.725	1.935	43.8	49.1	P

Conductor Size - AWG or kcmil				Symbol for X
Stranded	Compressed	Compact	Solid	
1/0	1/0	2/0	2/0	0240
2/0	2/0	3/0	3/0	0250
3/0	3/0	4/0	4/0	0260
4/0	4/0	250	---	0270
250	250	300	---	0280
300	300	350	---	0290
350	350	400	---	0300
400	400	450	---	0310
450	450	500,550	---	0320
500	500	600	---	0330
550	550	650	---	0340
600	600	700	---	0350
650	650	750,800	---	0360
700	700	---	---	0370
750	750	---	---	0380
800	800	900	---	0390
900	900	1000	---	0400
1000	1000	---	---	0410

A. Alignment Bracket Application

B. Mounted Insulated Parking Bushing Application

STEP 1: W

Determine the minimum diameter of the cable insulation. Do not measure the diameter over the cable jacket, if any, or over the insulation shielding. From Table 'W', select the symbol for the insulation range wherein the minimum diameter of the cable insulation is nearest the low end of the range. Insert this symbol in the ordering formula.

STEP 2: X

From Table 'X', select the symbol that represents the size and type of cable conductor. Insert this four digit symbol in the ordering formula.

STEP 3: Y

Substitute the symbol 'A' in the ordering formula to indicate that an Alignment Bracket is required. Substitute the symbol 'B' if this is a mounted Insulated Parking Bushing application.

STEP 4: Z

Insert the symbol 'DRG' to indicate that Insulated Caps (with ground) are to be included as part of the standard assembly. Consult Elastimold for optional accessories.

STEP 5: S

Add the symbol 'S' to include a Cable Seal for the Elbow Connector.

EXAMPLE: The ordering formula for a standard 15kV LINK-OP assembly with an Alignment Bracket to connect a cable with a 750 kcmil stranded conductor and an insulation diameter of 1.430" (36,3mm) is 655LINK-B-LR-M-0380-A-DRG.

For new applications, consult ELASTIMOLD to review your specific engineering requirements.

OPERATING KIT ORDERING INSTRUCTIONS

Operating the LINK-OP system requires the use of basic operating accessories which can be carried by the linecrew. These accessories are ordered as individual components.



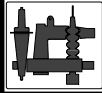
BG-1 (LINK-OP) Carry Case

QUANTITY	PART No.	DESCRIPTION
6	650LT-B	Link-Op Tap Plug
3	160GLR	Grounding Elbow
1	600AT	Operating Assembly Tool
1	370TR	Test Rod
1	BG-1 (LINK-OP)	Carry Case
1	SL-5	Silicone Lubricant (5oz.)
1	IS-650LINK-OK	Instructions



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
A Unit of Eagle Industries, Inc.



ELASTIMOLD

ISSUE DATE 0199

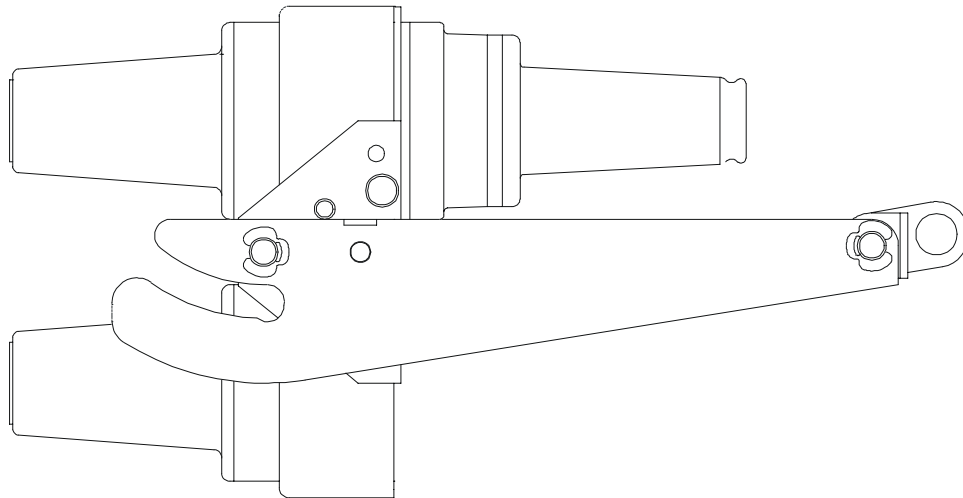
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION
15kV CAM-OP Link

ELASTIMOLD PART NUMBER
650LK-C-VB

with Visible Break and 200 Amp Loadbreak Tap



Application:

The 650LK-C-VB 15kV CAM-OP Link provides a 200 Amp loadbreak tap and a visible break feature for use when operating a Cam-Op system.

Ordering Instruction:

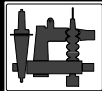
To order, specify **650LK-C-VB**.

The CAM-OP Loadbreak Reducing Tap Plug kit contains the following:

- 1 – CAM-OP Link
- 3 – Tube, lubricant
- 1 – Installation instruction

Ratings

- per ANSI/IEEE Standard 386
- 15kV Voltage Class
- 8.3kV Max Phase-to-Ground - Operating Voltage
- 14.4kV Max Phase-to-Phase
- 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 34kV AC - One minute Withstand
- 53kV DC - 15 Minutes Withstand
- 11kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close



ELASTIMOLD

ISSUE DATE 0199

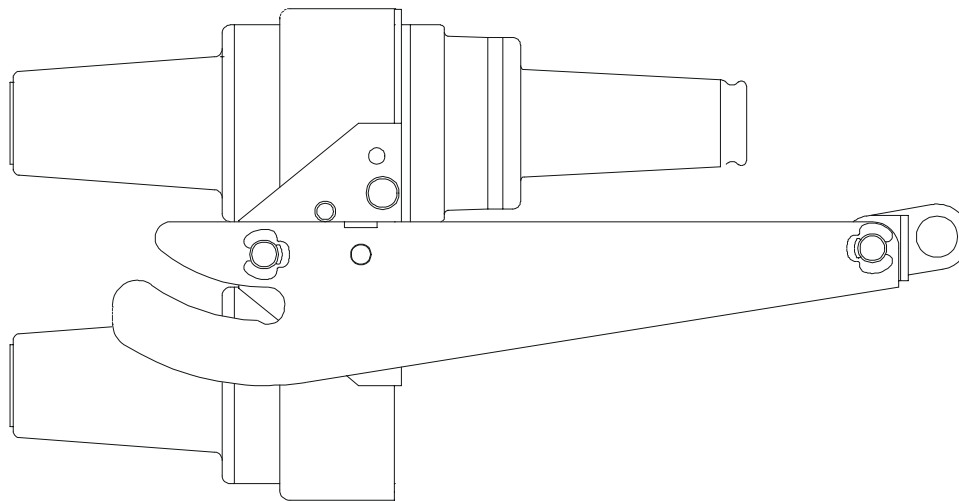
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV CAM-OP Link

ELASTIMOLD PART NUMBER

K650LK-C-VB**with Visible Break and 200 Amp Loadbreak Tap**

Application:

The K650LK-C-VB 25kV CAM-OP Link provides a 200 Amp loadbreak tap and a visible break feature for use when operating a Cam-Op system.

Ordering Instruction:

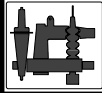
To order, specify **K650LK-C-VB**.

The CAM-OP kit contains the following:

- 1 – CAM-OP LB reducing tap plug
- 3 – Tube, lubricant
- 1 – Installation instruction

Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

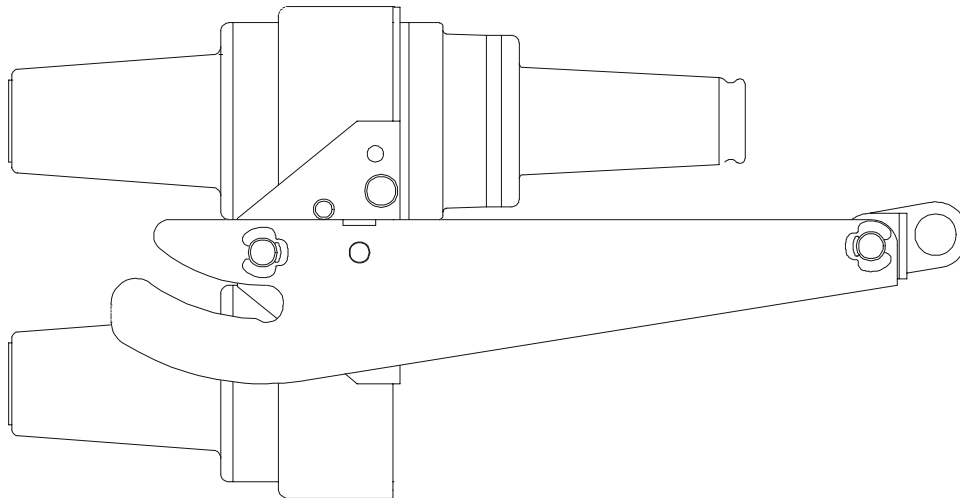


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV CAM-OP Link

ELASTIMOLD PART NUMBER

750LK-C-VB**with Visible Break and 200 Amp Loadbreak Tap**

Application:

The 750LK-C-VB 35kV CAM-OP Link provides a 200 Amp loadbreak tap and a visible break feature for use when operating a Cam-Op system.

Ordering Instruction:

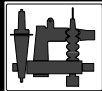
To order, specify **750LK-C-VB**.

The CAM-OP 750LK-C-VB kit contains the following:

- 1 – CAM-OP LB reducing tap plug
- 3 – Tube, lubricant
- 1 – Installation instruction

Ratings

- per ANSI/IEEE Standard 386
- 35kV Voltage Class
- 21.1kV Max Phase-to-Ground - Operating Voltage
- 36.6kV Max Phase-to-Phase
- 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 50kV AC - One minute Withstand
- 103kV DC - 15 Minutes Withstand
- 26kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

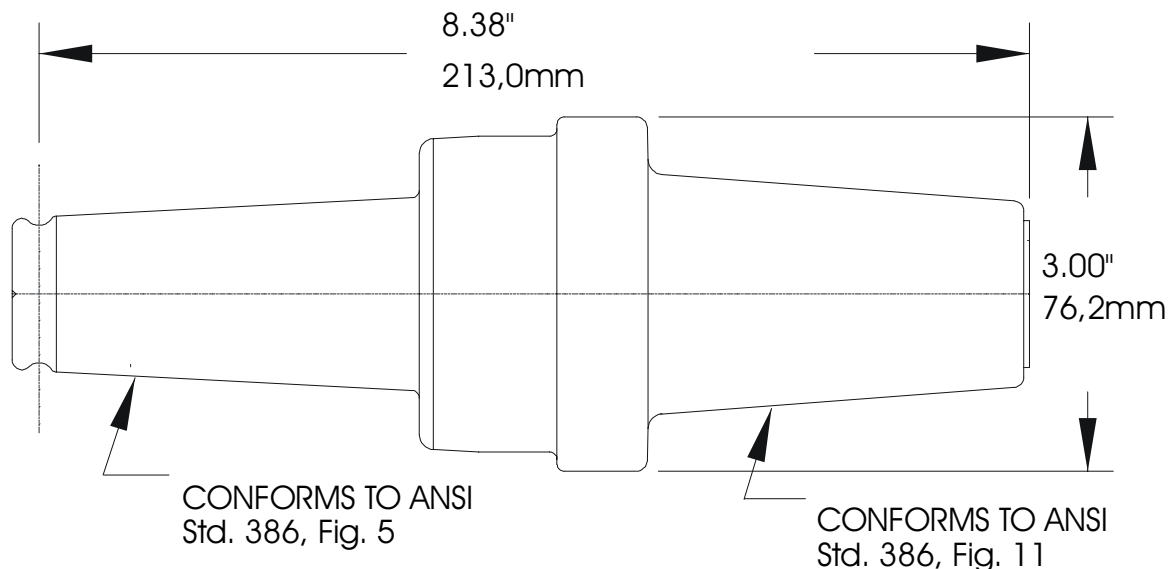
PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Link-OP Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

650LT-B



Application:

The 650LT-B is a component of the Elastimold Link-Op system. It mates with a 600 Amp interface and provides a 200 Amp loadbreak tap for connecting grounding elbows or other accessories.

Ordering Instruction:

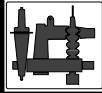
To order 15 kV Link-OP Loadbreak Reducing Tap Plug, specify **650LT-B**.

The Link-OP Loadbreak Reducing Tap Plug kit contains the following:

- | | |
|-------------------------------|---------|
| 1 – Link-OP reducing tap plug | 650LT-B |
| 2 – Tube, lubricant | 82-08 |

Ratings

- per ANSI/IEEE Standard 386
- 15kV Voltage Class
- 8.3kV Max Phase-to-Ground - Operating Voltage
- 14.4kV Max Phase-to-Phase
- 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 34kV AC - One minute Withstand
- 53kV DC - 15 Minutes Withstand
- 11kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

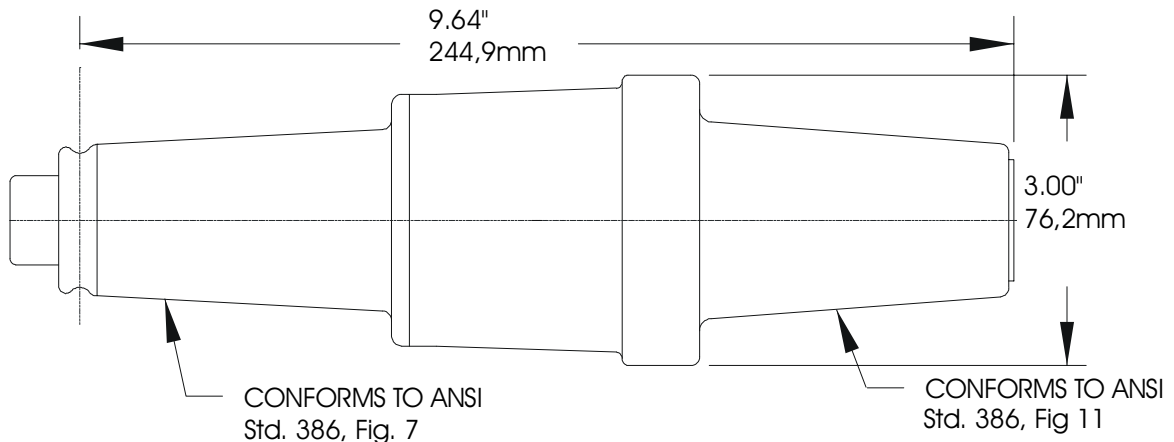
PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Link-OP Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

K650LT-B



Application:

The K650LT-B is a component of the Elastimold Link-Op system. It mates with a 600 Amp interface and provides a 200 Amp loadbreak tap for connecting grounding elbows or other accessories.

Ordering Instruction:

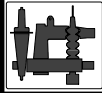
To order 25 kV Link-OP Loadbreak Reducing Tap Plug, please specify **K650LT-B**.

The Link-OP Loadbreak Reducing Tap Plug kit contains the following:

- | | |
|-------------------------------|----------|
| 1 – Link-OP reducing tap plug | K650LT-B |
| 2 – Tube, lubricant | 82-08 |

Ratings

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak for the loadbreak tap.
- 10kA Sym - 10 Cycles Momentary & Fault Close



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

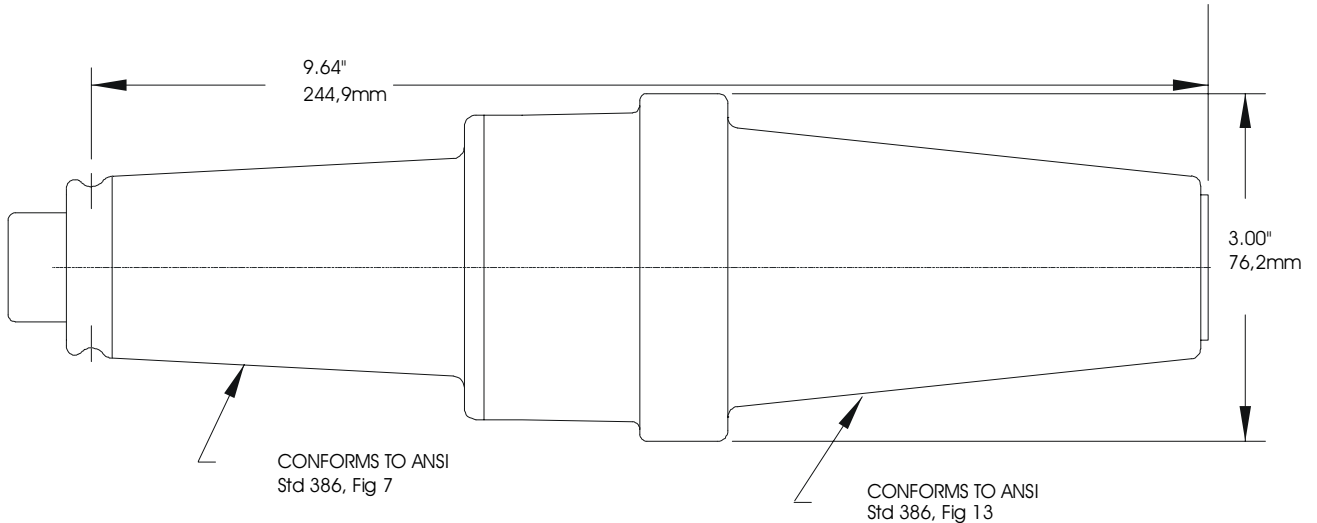
PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV Link-OP Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

750LT-B



Application:

The 750LT-B is a component of the Elastimold Link-Op system. It mates with a 600 Amp interface and provides a 200 Amp loadbreak tap for connecting grounding elbows or other accessories.

Ordering Instruction:

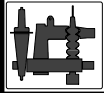
To order 35 kV Link-OP Loadbreak Reducing Tap Plug, please specify **750LT-B**.

The Link-OP Loadbreak Reducing Tap Plug kit contains the following:

- | | |
|-------------------------------|---------|
| 1 – Link-OP reducing tap plug | 750LT-B |
| 2 – Tube, lubricant | 82-08 |

Ratings

- per ANSI/IEEE Standard 386
- 35kV Voltage Class
- 21.1kV Max Phase-to-Ground - Operating Voltage
- 36.6kV Max Phase-to-Phase
- 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 50kV AC - One minute Withstand
- 103kV DC - 15 Minutes Withstand
- 26kV AC - Corona Extinction @ 3p.C.sensitivity
- 200Amp - Continuous and Loadbreak for the loadbreak tap.
- 10kA Sym - 10 Cycles Momentary & Fault Close

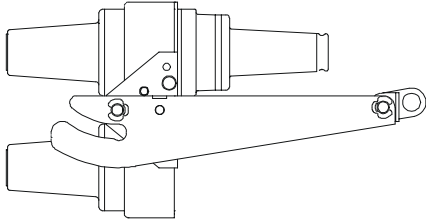
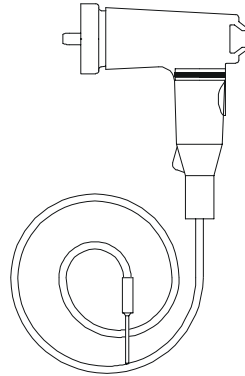
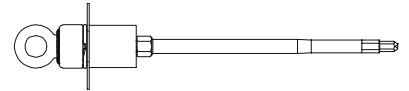
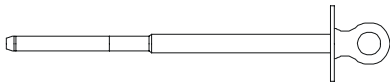


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Cam-Op Operating Kit

ELASTIMOLD PART NUMBER

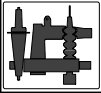
650CAM-OK**(3) 650LK-C-VB****(3) 160GLR****(1) 600AT****(1) 370TR**

Application:

The Cam-Op operating kit includes accessories that enable visible break, direct testing, isolation and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 15kV Cam-Op operating kit contains the following:

3 – Cam-Op link	650LK-C-VB
3 – Grounding elbow	160GLR
1 – Assembly tool	600AT
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5
1 – Instruction	IS-650CAM-OK

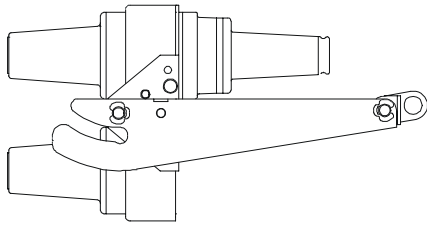
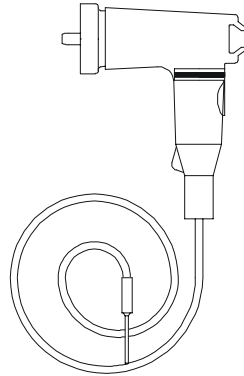
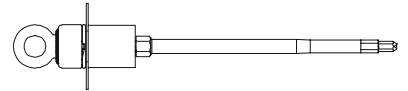
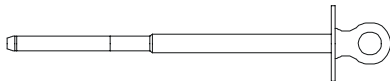


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Cam-Op Operating Kit

ELASTIMOLD PART NUMBER

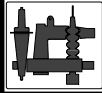
K650CAM-OK**(3) K650LK-C-VB****(3) 370GLR****(1) 600AT****(1) 370TR**

Application:

The Cam-Op operating kit includes accessories that enable visible break, direct testing, isolation and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 25kV Cam-Op operating kit contains the following:

3 – Cam-Op link	K650LK-C-VB
3 – Grounding elbow	370GLR
1 – Assembly tool	600AT
1 – Test rod	370TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5
1 – Instruction	IS-K650CAM-OK

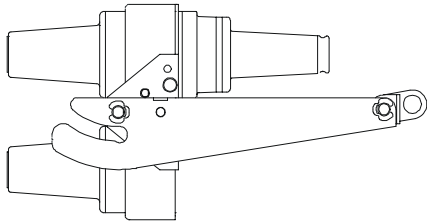
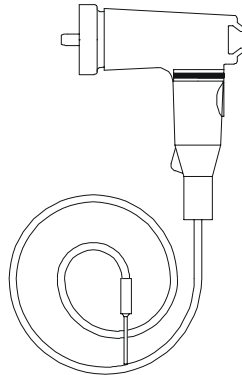
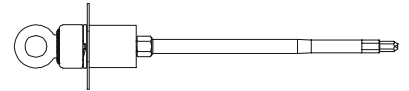
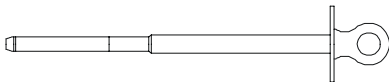


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV Cam-Op Operating Kit

ELASTIMOLD PART NUMBER

750CAM-OK**(3) 750LK-C-VB****(3) 370GLR****(1) 600AT****(1) 370TR**

Application:

The Cam-Op operating kit includes accessories that enable visible break, direct testing, isolation and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 35kV Cam-Op operating kit contains the following:

3 – Cam-Op link	750LK-C-VB
3 – Grounding elbow	370GLR
1 – Assembly tool	600AT
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5
1 – Instruction	IS-750CAM-OK

Operating Instructions LINK--C--OK OPERATING KIT

The Link--C--OK is an operating kit for the Cam Link operable connector system. It provides the tools to deadend the apparatus and the cable ends.

WARNING: The following ratings apply to this product:

600 Ampere Deadbreak Interface	600 or amperes load current and 25,000 amperes short circuit current for 10 cycles.
200 Ampere Loadbreak Interface	200 amperes load current and 10,000 amperes fault--close current. For higher short circuit current: 1) this interface should only be operated de--energized; and 2) elbows used for taps or grounding must be adequately secured such as with a bail.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

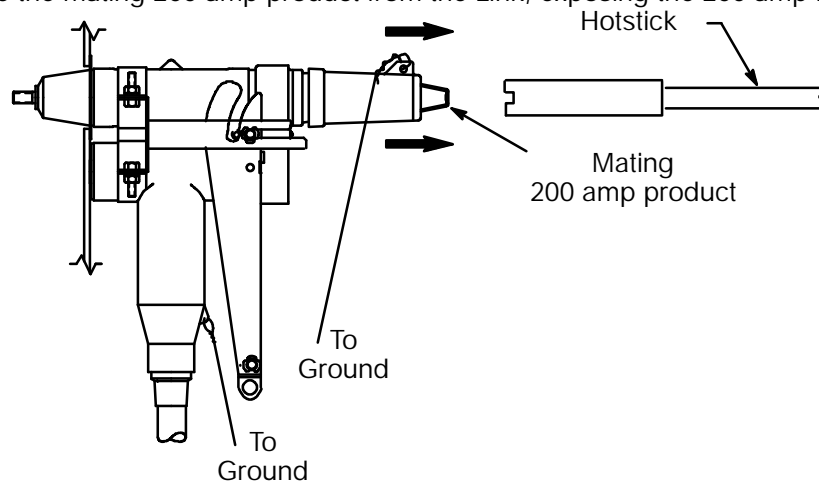
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

INSURE THAT THE CABLE RUNS TO BE WORKED ON AND THEIR ASSOCIATED APPARATUS ARE DE--ENERGIZED. THE FOLLOWING OPERATING STEPS ARE TO BE PERFORMED ON EACH PHASE AT BOTH ENDS OF THE CABLE RUN.

STEP 1

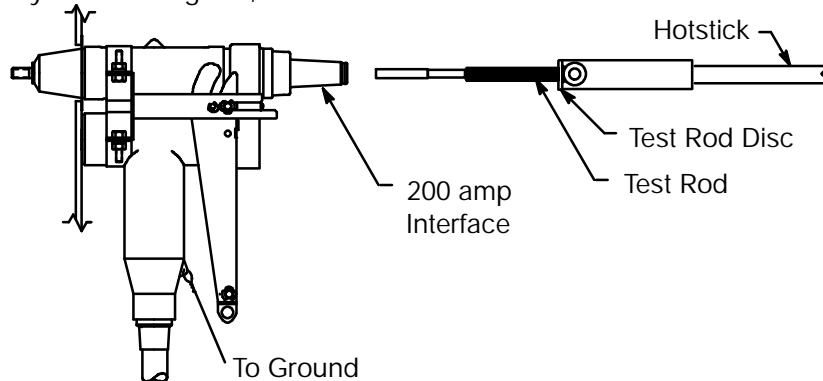
Using a hot stick, remove the mating 200 amp product from the Link, exposing the 200 amp interface.



STEP 2

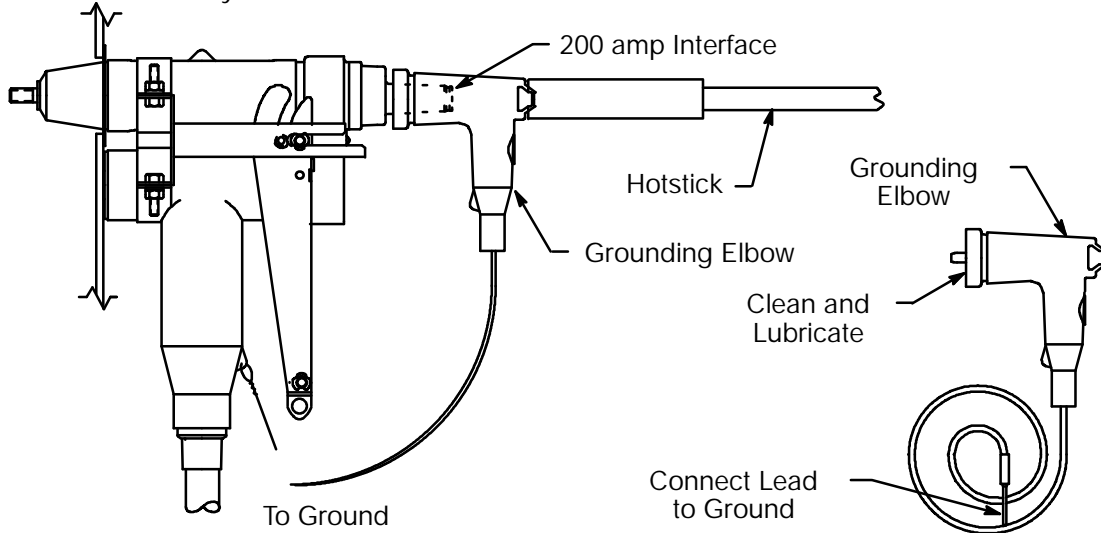
Using approved test apparatus or a 370TR test rod (in conjunction with an appropriate meter) test to insure that the conductor system is de-energized.

IMPORTANT: Follow established utility procedures for keeping all potentially live test areas clear of ground until the system is tested "dead". If the system is energized, do not continue. See DANGER and IMPORTANT comments on front page.



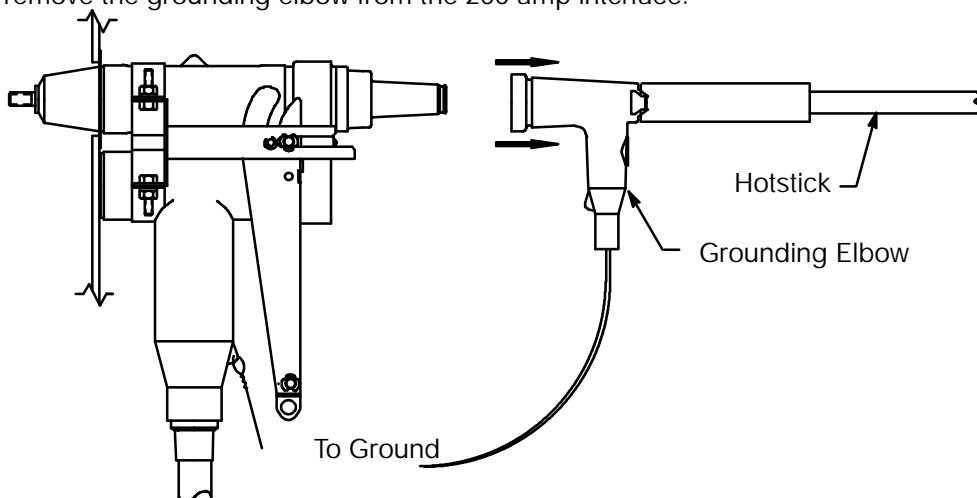
STEP 3

1. Clean and lubricate the grounding elbow interface with ELASTIMOLD supplied lubricant.
2. Connect the leads on the grounding elbow to ground. Using the hotstick install the grounding elbow onto the 200 amp interface until fully seated.



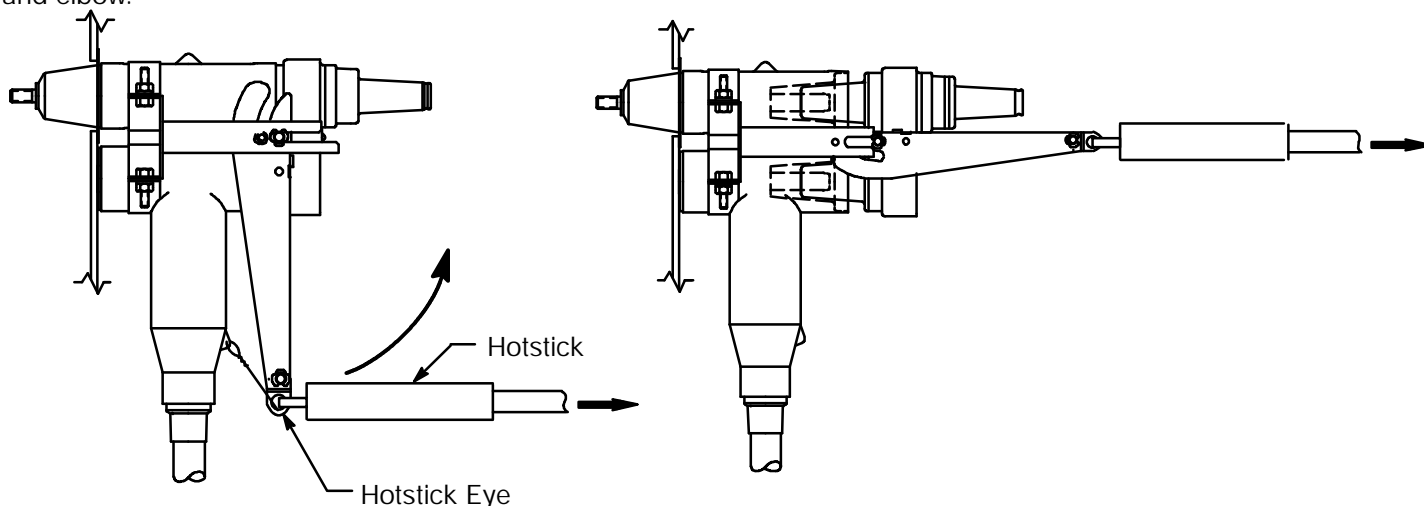
STEP 4A

Using the hotstick remove the grounding elbow from the 200 amp interface.



STEP 4B

Attach the hotstick to the hotstick eye of the link bracket. Pull out on the hotstick to remove link from bushing extender and elbow.

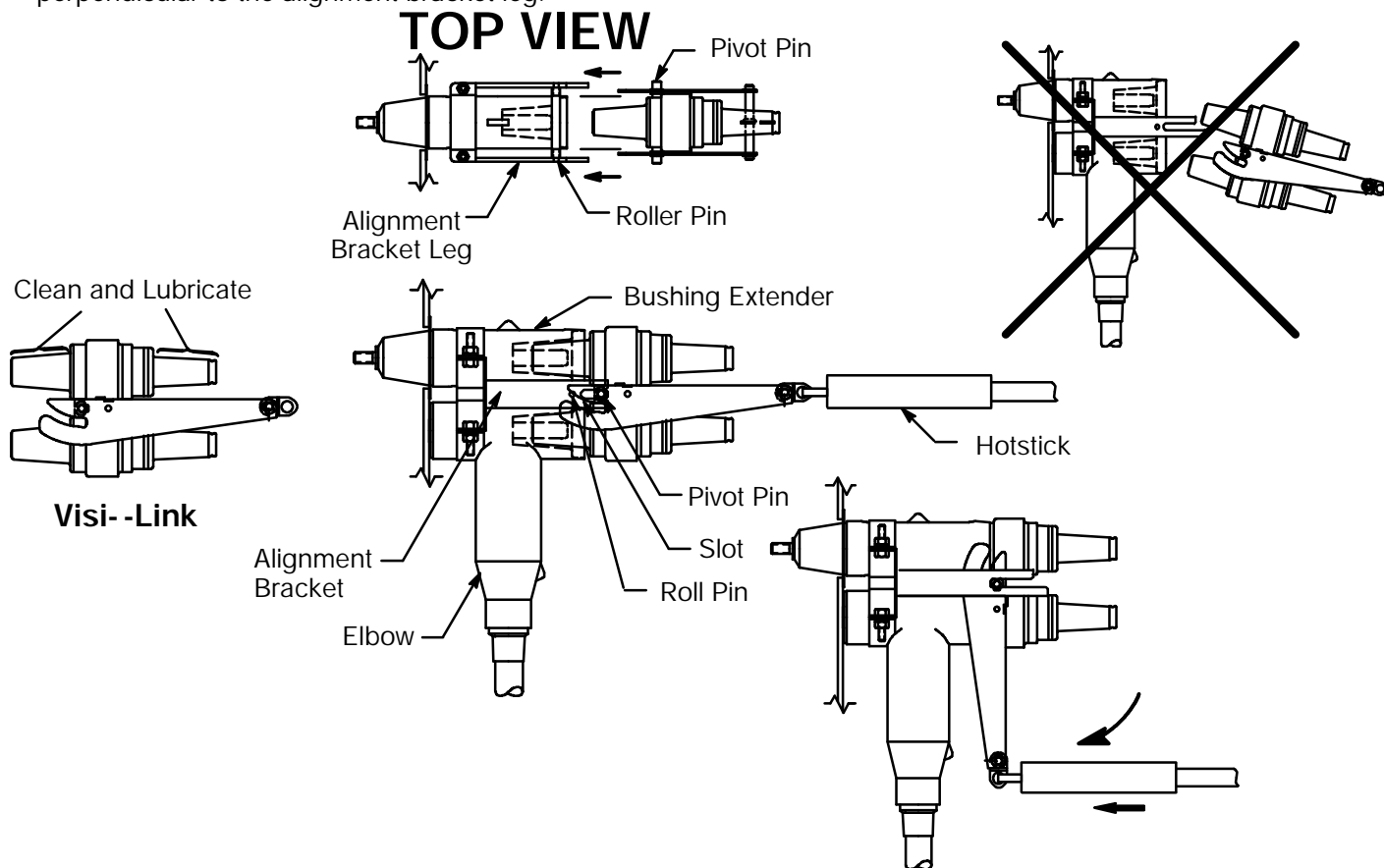


STEP 5

Repeat Steps 1 thru 4 for **ALL** phases on both ends of cable run.

STEP 6

1. Clean and lubricate both 600 ampere interfaces of the Visi-Link with ELASTIMOLD supplied lubricant.
IMPORTANT: Interfaces must be thoroughly lubricated to allow for proper removal of the visi-link.
2. Align the Visi-Link such that when inserted into the bushing extender and elbow the Visi-Link is perpendicular to the switch faceplate.
3. Insert the Visi-Link into the bushing extender and elbow making sure both lever arms are on the inside of the alignment bracket legs.
4. Engage the pivot pin into the slots in the alignment bracket legs. While pushing, move the lever arms downward by use of the hot stick eye thus engaging the roller pin and moving the Visi-Link inward. Continue moving lever arms until perpendicular to the alignment bracket leg.

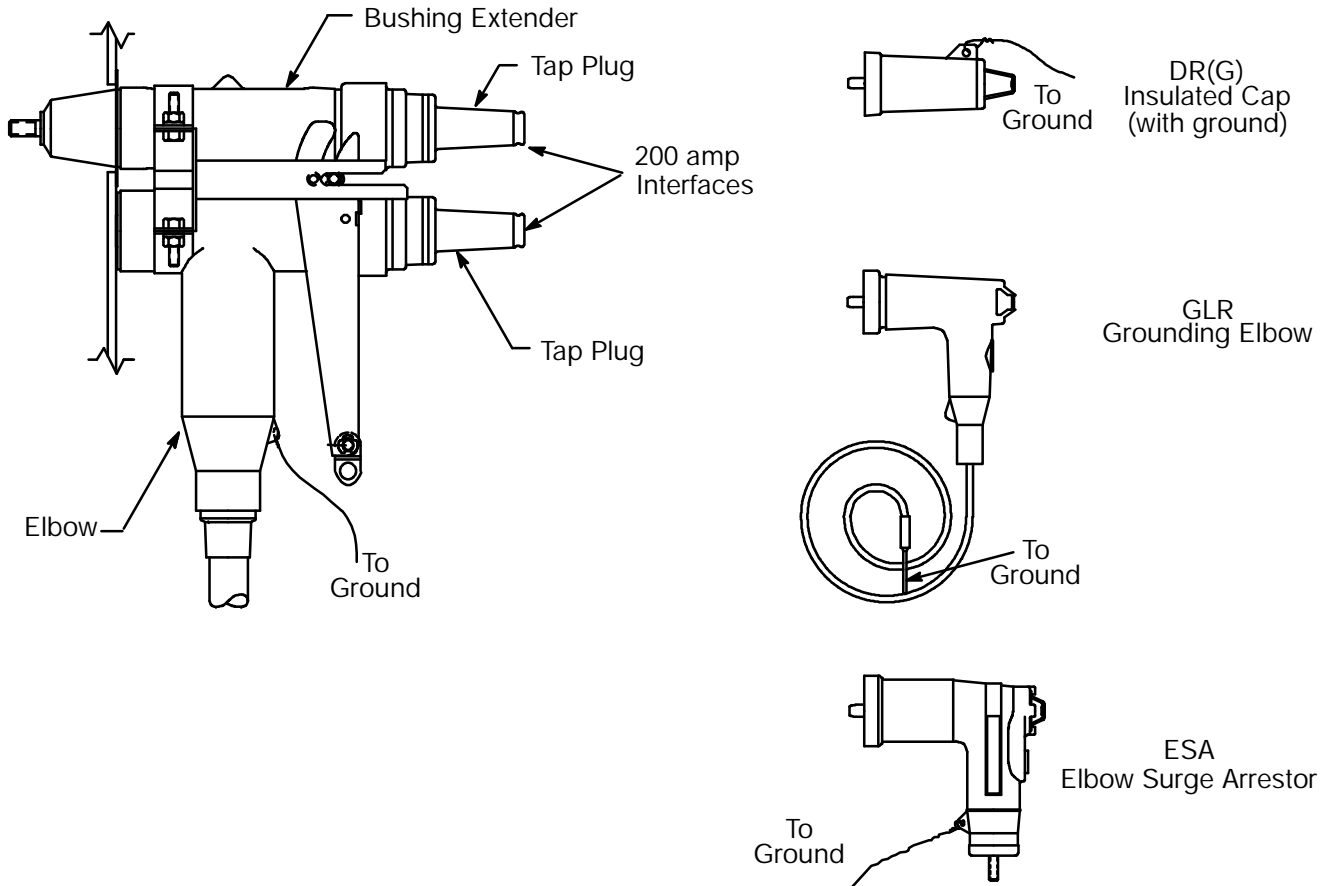


STEP 7

Repeat Step 6 and on **ALL** phases at both ends of the cable run.

STEP 8

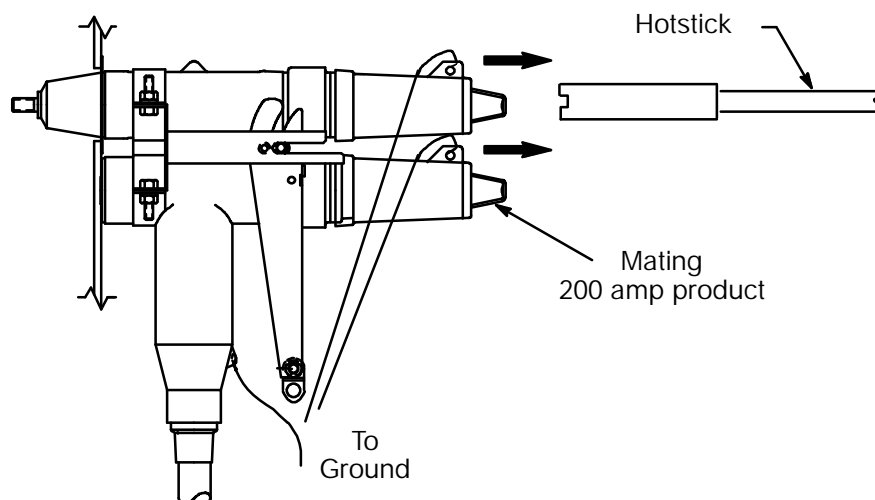
Install the appropriate insulated caps, grounding elbows or elbow surge arresters.



RECONNECTION OF APPARATUS TO CABLES

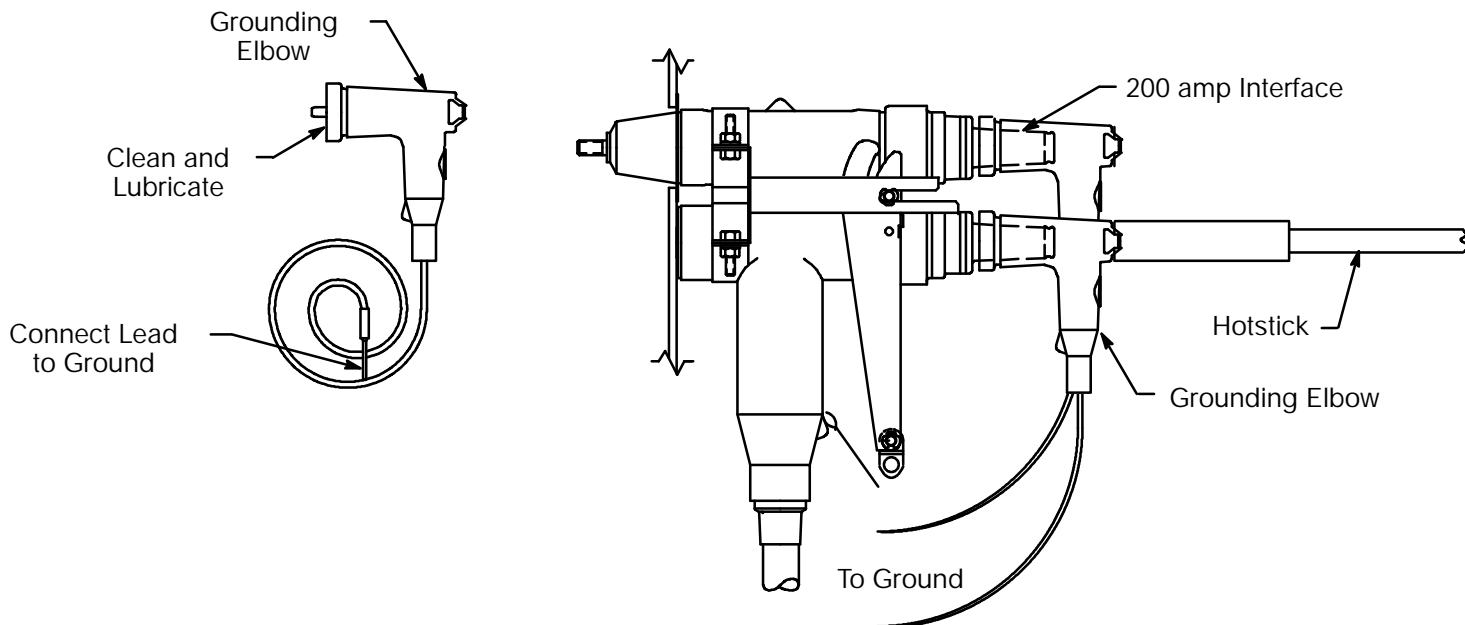
STEP 9

1. Using a hotstick, remove the mating 200 amp products from each Visi-Link tool.
2. Using approved test apparatus or a 370TR test rod (in conjunction with an appropriate meter) test **each** interface to insure that the conductor system is de-energized.



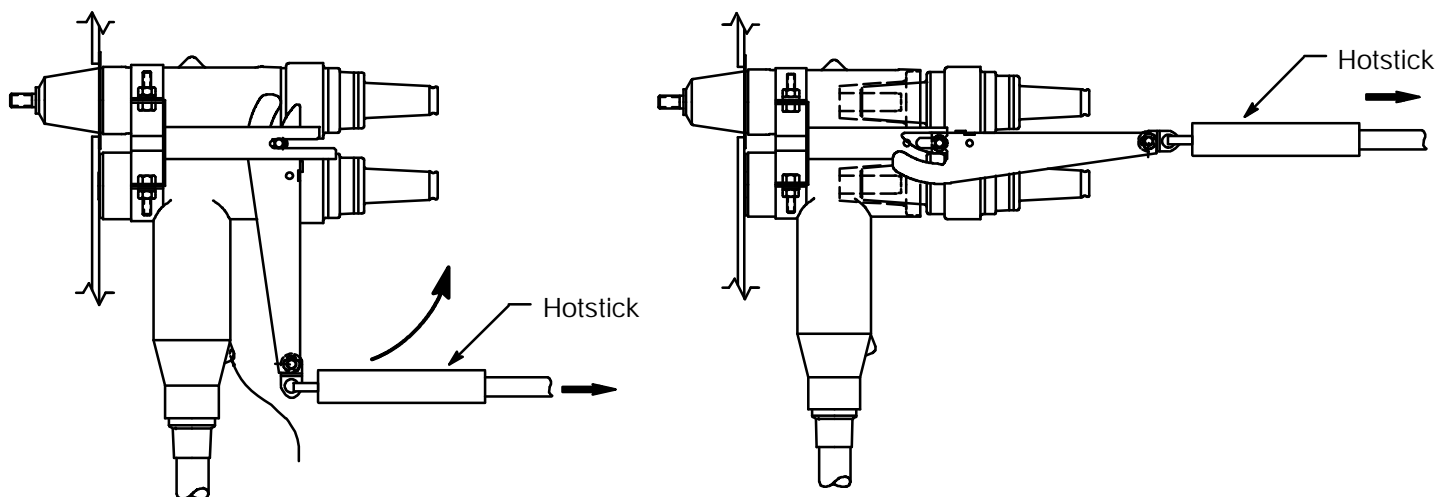
STEP 10

1. Clean and lubricate the grounding elbow interface with Elastimold supplied lubricant.
2. Connect the leads on the grounding elbow to ground. Using a hotstick, install the grounding elbow onto the upper 200 amp interface of the link until fully seated.
3. Using hotstick, remove grounding elbow from upper 200 amp interface and install on lower 200 amp interface until fully seated. **IMPORTANT:** Grounding elbow must be installed on **each** 200 amp interface, this will ensure the system is dead. Remove the grounding elbow.



STEP 11

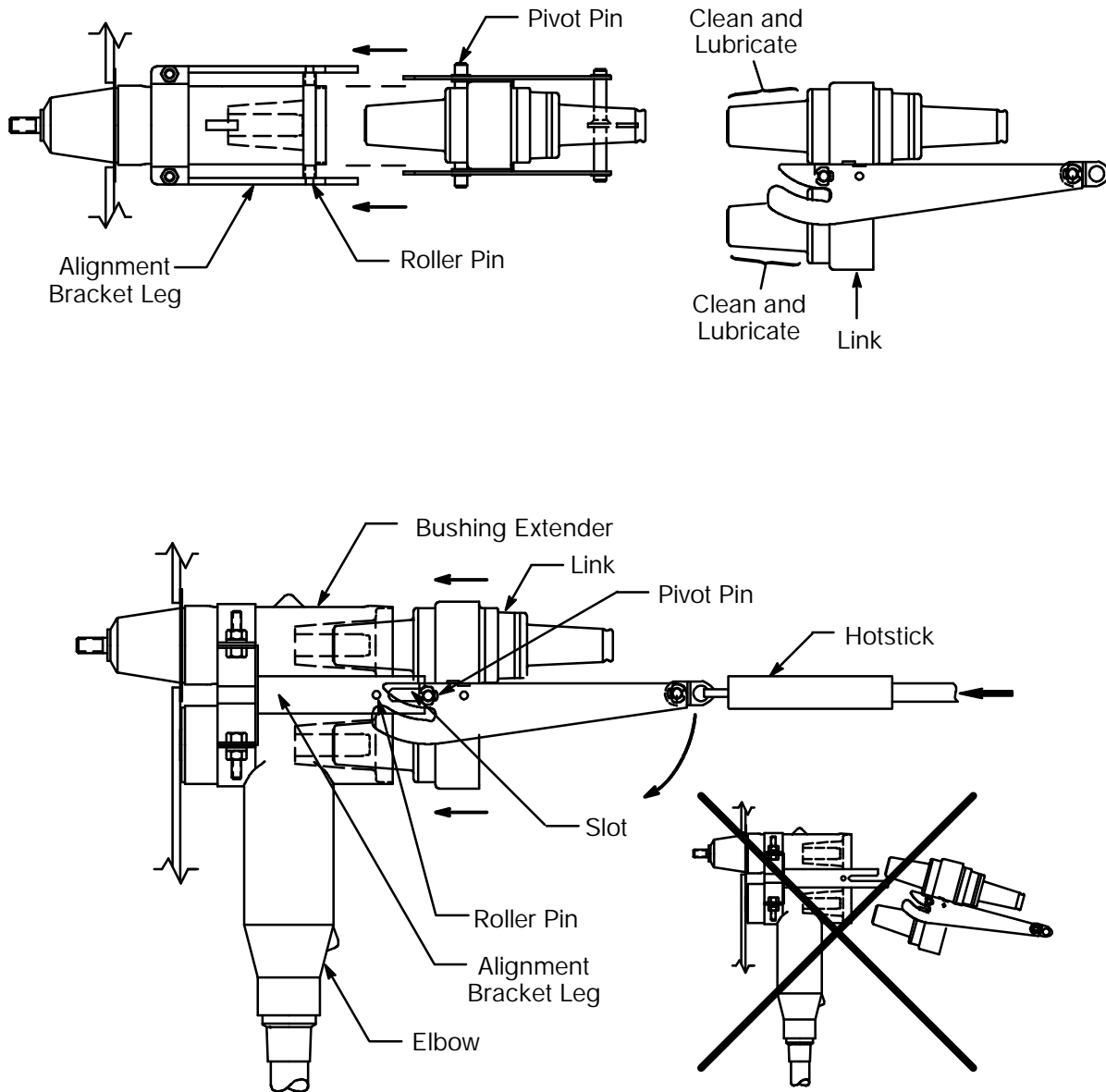
Attach the hotstick to the hotstick eye of the Visi-Link bracket. Pull out on the hotstick to remove Visi-Link from bushing extender and elbow.



STEP 12

1. Clean and lubricate both 600 ampere interfaces of the Link with ELASTIMOLD supplied lubricant.
IMPORTANT: Interfaces must be thoroughly lubricated to allow for proper removal of the link.
2. Align the Link such that when inserted into the bushing extender and elbow the Link is perpendicular to the switch faceplate.
3. Insert the link into the bushing extender and elbow making sure both lever arms are on the inside of the alignment bracket legs.
4. Engage the pivot pin into the slots in the alignment bracket legs. While pushing, move the lever arms downward by use of the hot stick eye thus engaging the roller pin and moving the link inward. Continue moving lever arms until perpendicular to the alignment bracket leg.

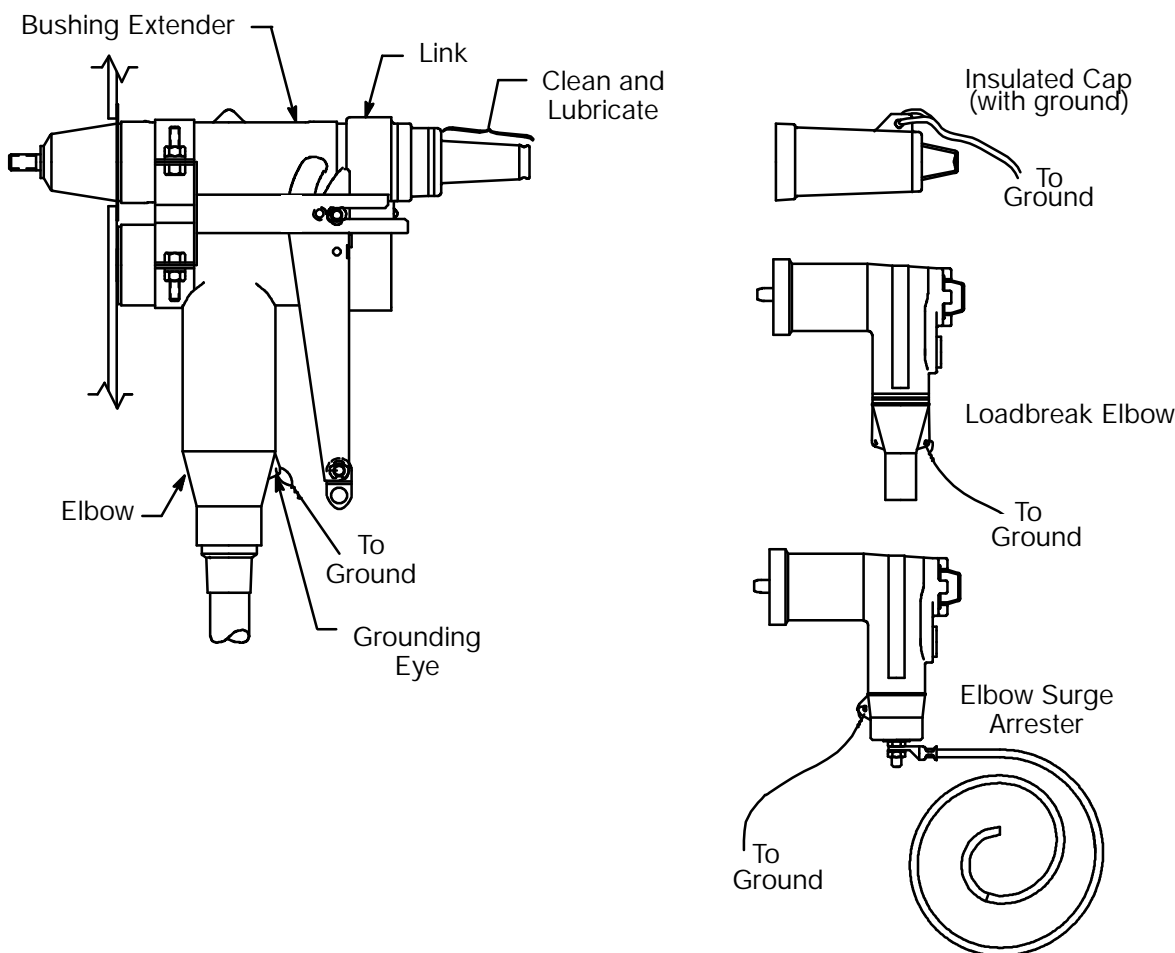
TOP VIEW



STEP 13

1. Clean and lubricate the 200 amp interface on the Link.
2. The elbow must be grounded. Feed a #14 AWG or #12 AWG solid copper wire through the grounding eye on the elbow, twist tight and connect to ground.
3. Install the desired mating product on the 200 amp interface per the installation instructions supplied with the mating product and ground according to product installation instructions.
4. The cable must be grounded:
 - D if concentric neutral cable is used, twist the concentric neutral wires together and connect to ground using an appropriate connector.
 - D if 20MA or 21MA grounding devices are used, connect the ground lead from the 20/21MA device to ground using a suitable connector.

Note: For three-phase installations all grounds from all three phases must be tied to a common ground point.



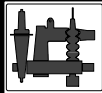
STEP 14

Repeat Step 9 thru Step 13 on **ALL** phases at both ends of the cable run.

For operation of the link and 200 ampere mating product, refer to the applicable operation instructions.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

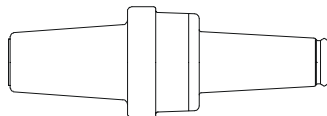
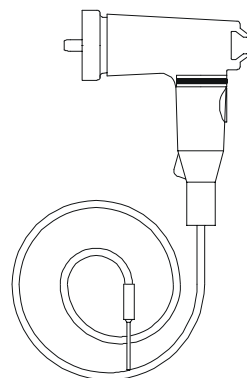
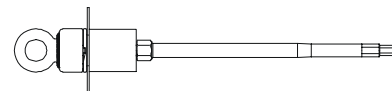
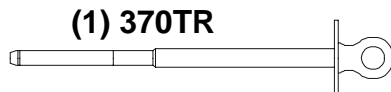


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Link-Op Operating Kit

ELASTIMOLD PART NUMBER

650LINK-OK**(6) 650LT-B****(3) 160GLR****(1) 600AT****(1) 370TR**

Application:

The Link-Op operating kit includes accessories that enable visible break, direct testing, isolation and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 15kV Link-Op operating kit contains the following:

6 – Link-Op loadbreak reducing tap plug	650LT-B
3 – Grounding elbow	160GLR
1 – Assembly tool	600AT
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5
1 – Instruction	IS-Link-OK

Operating Instructions LINK--OK OPERATING KIT

CONTENTS: See Component List

The Link--OK is an operating kit for the link operable connector system. It provides the tools to deadend the apparatus and the cable ends.

WARNING: The following ratings apply to this product:

600/900 Ampere Deadbreak Interface -- 600 or 900 amperes load current and 25,000 amperes short circuit current for 10 cycles.

200 Ampere Loadbreak Interface -- 200 amperes load current and 10,000 amperes fault--close current. For higher short circuit current: 1) this interface should only be operated de--energized; and 2) elbows used for taps or grounding must be adequately secured such as with a bail.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with protective shipping caps. Remove these shipping caps and replace with appropriate HV insulated/shielded deadend caps or connectors before submerging or energizing the circuit.

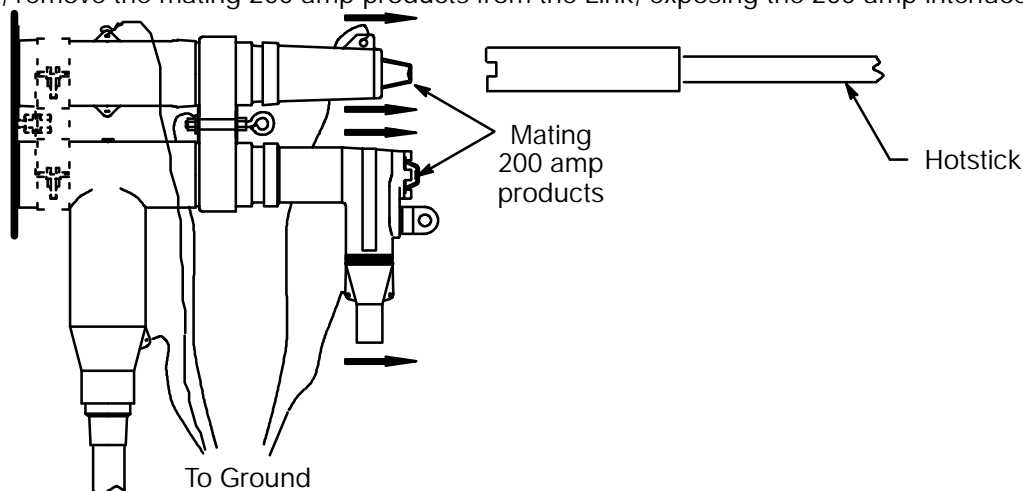
IMPORTANT

INSURE THAT THE CABLE RUNS TO BE WORKED ON AND THEIR ASSOCIATED APPARATUS ARE DE--ENERGIZED.

THE FOLLOWING OPERATING STEPS ARE TO BE PERFORMED ON EACH PHASE AT BOTH ENDS OF THE CABLE RUN.

STEP 1

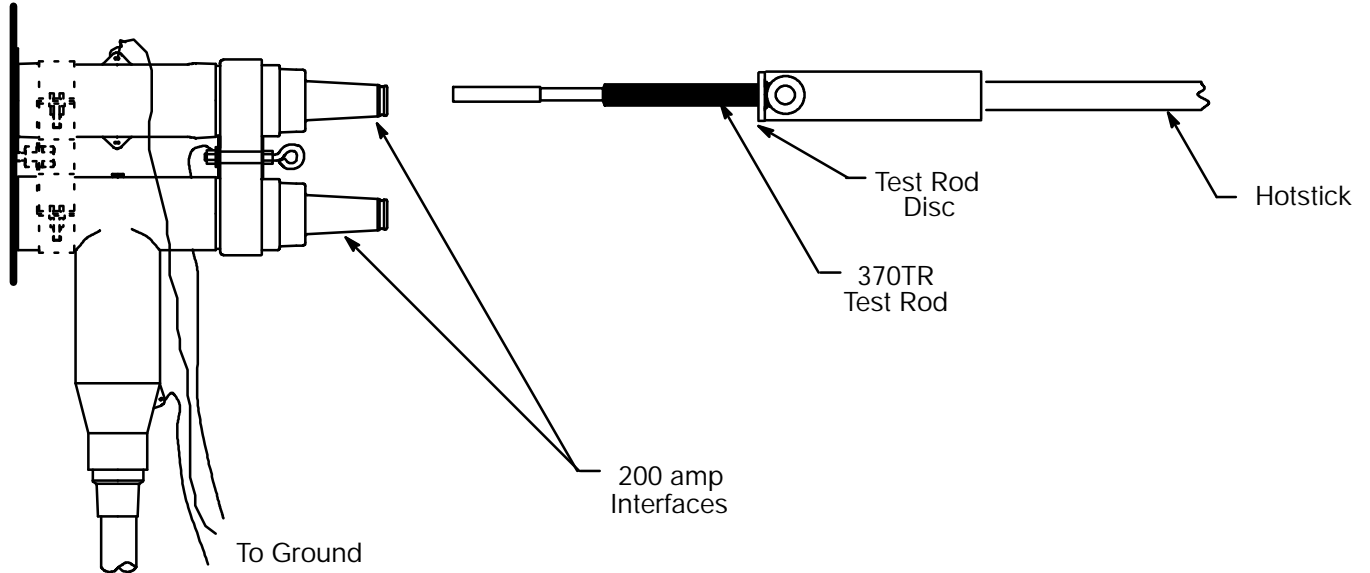
Using a hot stick, remove the mating 200 amp products from the Link, exposing the 200 amp interfaces.



STEP 2

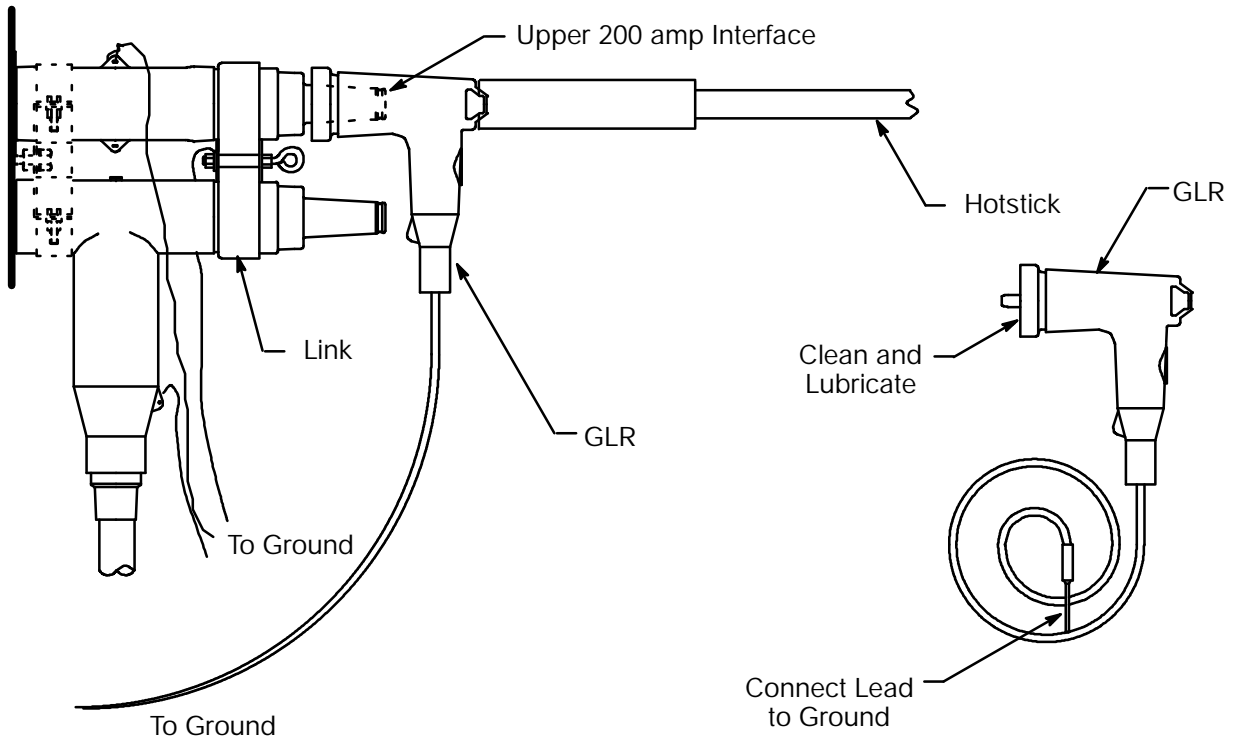
Insert test rod into loadbreak interface. NOTE, outside surface of test rod will be at line voltage if the system is energized. Using appropriate test apparatus for direct line readings, test the link to insure that the conductor system is de-energized.

IMPORTANT: Follow established utility procedures for keeping all potentially live test areas clear of ground until the system is tested "dead". If the system is energized, do not continue. See DANGER and IMPORTANT comments on front page.



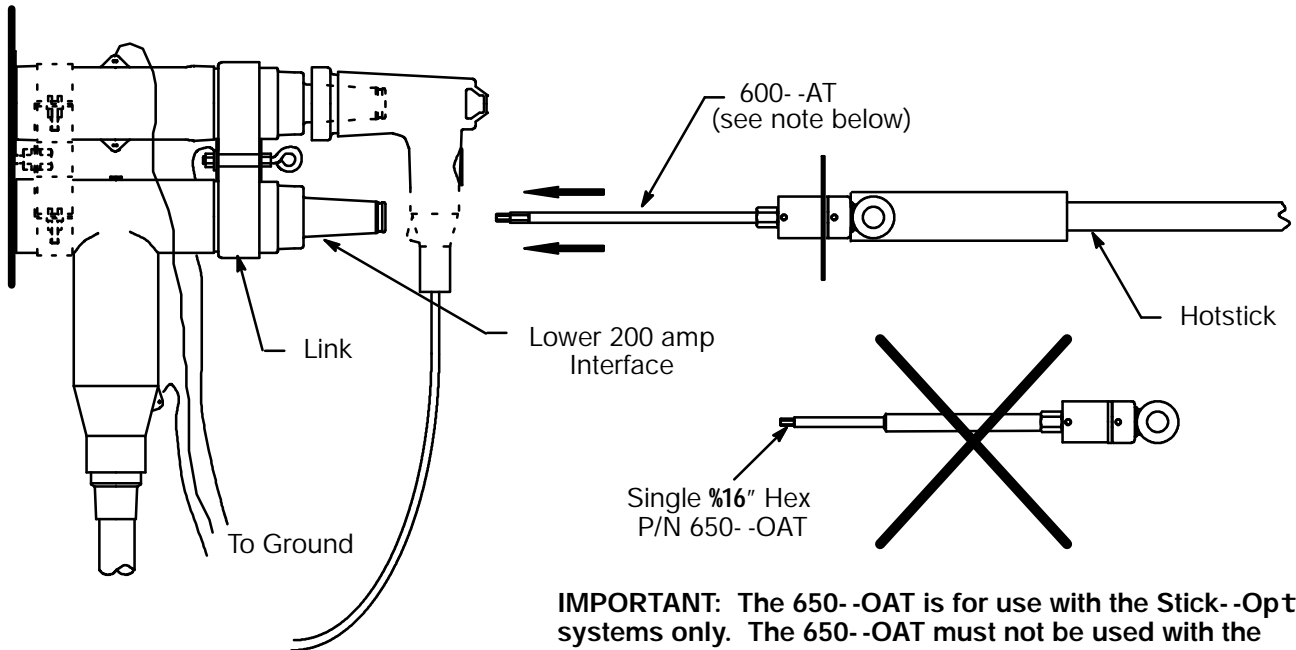
STEP 3

1. Clean and lubricate the GLR, grounding elbow, interfaces with ELASTIMOLD supplied lubricant.
2. Connect the leads on the GLR, grounding elbows, to ground. Using the hotstick install a GLR onto the upper 200 amp interface of each Link until fully seated.



STEP 4A

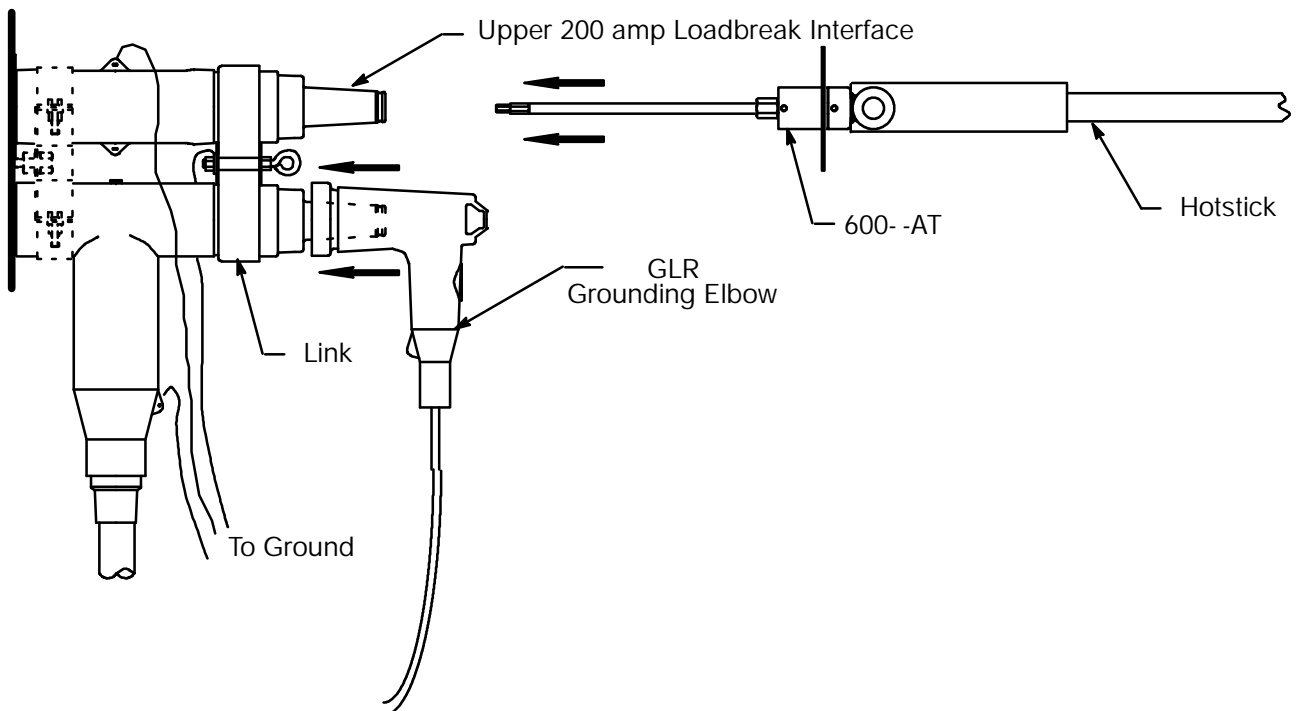
Attach the hotstick to the eye of the 600--AT, Operating Tool, and insert into the lower 200 amp interface to engage the internal bolt. Turn in a counter clockwise direction, approximately 13- 15 turns, to fully disengage threads. Remove the 600--AT from interface.



IMPORTANT: The 650--OAT is for use with the Stick--Opt systems only. The 650--OAT must not be used with the Link--Op system, because it will damage the internal components of the link. The 600--AT is compatible with both systems. The 600--AT has both a 5/16" hex & a 3/8" hex stacked.

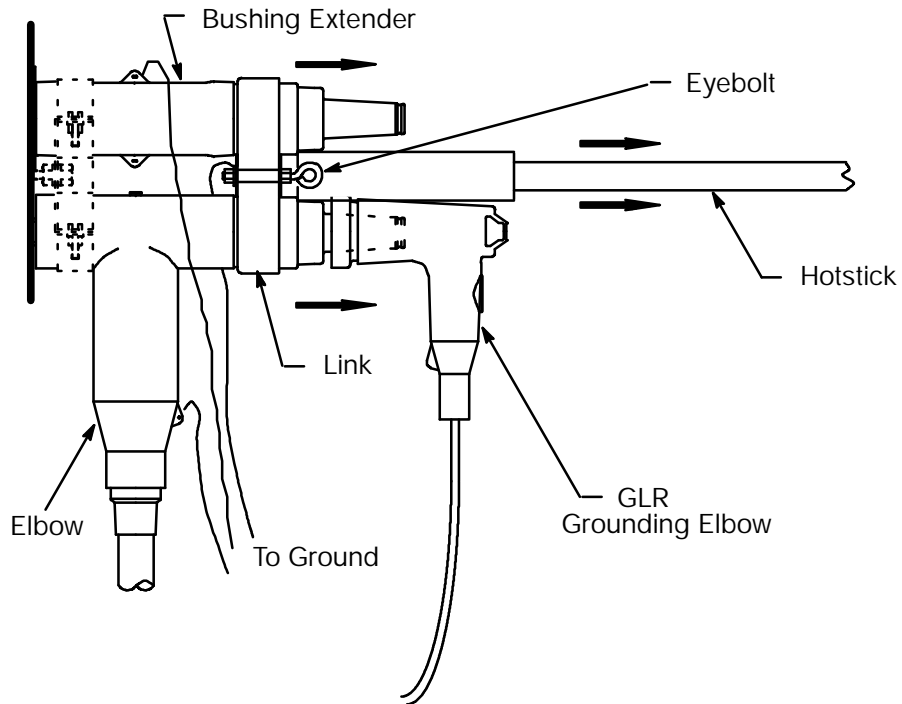
STEP 4B

Using the hotstick remove the GLR, grounding elbow, from the upper 200 amp interface and install onto the lower 200 amp interface until fully seated. Attach the 600--AT to the hotstick. Insert into the upper interface to engage the internal bolt. Turn in a counter clockwise direction approximately 13- 15 turns, to fully disengage threads. Remove the 600--AT from interface.



STEP 4C

Attach the hotstick to the eyebolt of the link bracket. Pull on the hotstick, at approximately 30° off of the two 200 amp interfaces to remove link from bushing extender and elbow. Once removed, disconnect the ground lead from the Link.

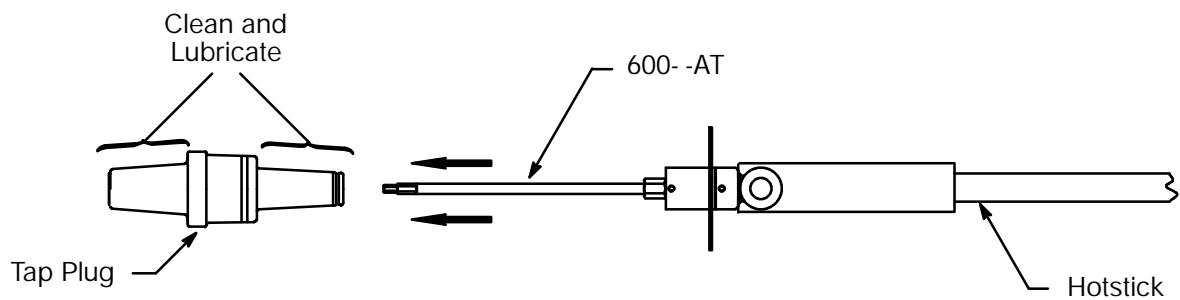


STEP 5

Repeat Steps 4A, 4B & 4C for all phases on both ends of cable run.

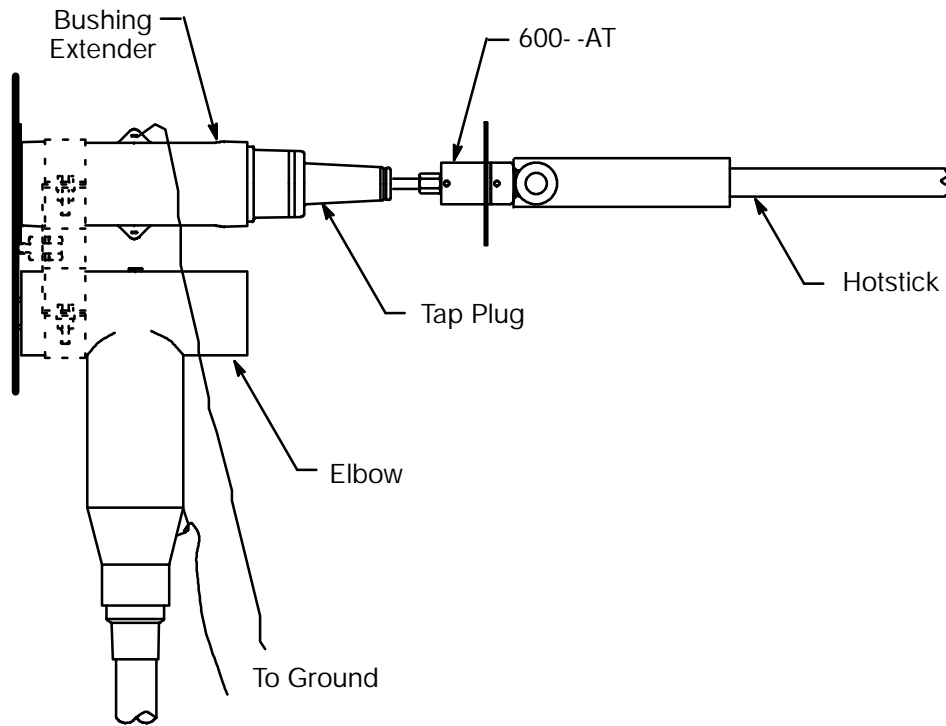
STEP 6

Clean and lubricate both interfaces of the Link--Op, tap plug, with ELASTIMOLD supplied lubricant. Attach the hotstick to the eye of the 600--AT operating tool and insert the 600--AT into the 200 amp interface of the Link--Op tap plug to engage internal bolt.



STEP 7

Insert the Link-Op, tap plug, into the bushing extender on all phases at both ends of the cable run. Rotate the hotstick in a clockwise direction until it begins to ratchet signifying the proper assembly torque has been reached. (Note: the 600--AT requires approximately 10--12 turns before it ratchets from the time the internal bolt starts threading.)

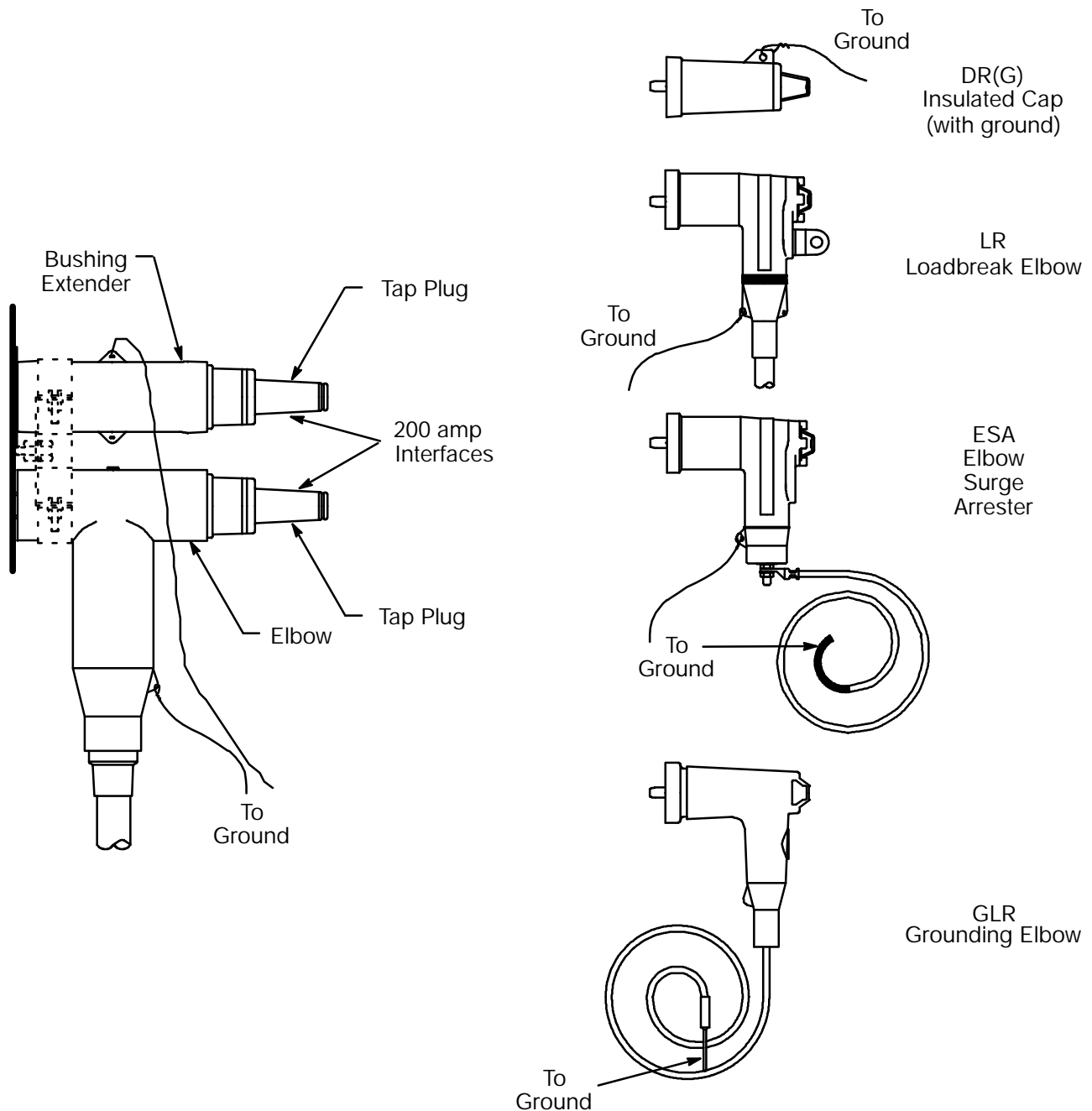


STEP 8

Repeat Step 6 and Step 7 for the elbow on all phases at both ends of the cable run.

STEP 9

Install the appropriate loadbreak elbow, insulated cap or elbow surge arrester to each tap plug interence following the instructions supplied with that product. At this point one or both interfaces may be energized. If none of the interfaces are to be energized then the appropriate GLR may be installed following the instructions supplied with the grounding elbow.



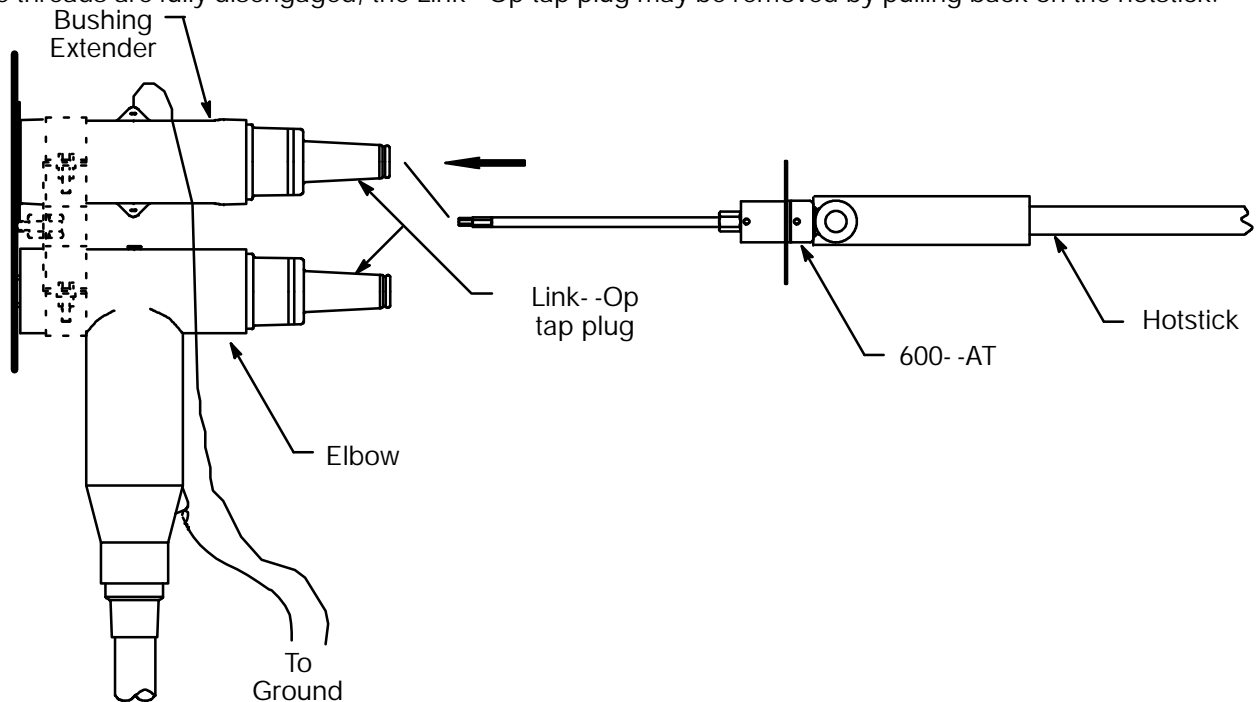
RECONNECTION OF APPARATUS TO CABLES

STEP 10

1. Using a hotstick, remove the mating 200 amp product(s) from each Link--Op tap plug.
 2. Using approved test apparatus or a 370TR test rod (in conjunction with an appropriate meter) test each elbow tap plug to insure that the conductor system is de--energized.
-

STEP 11

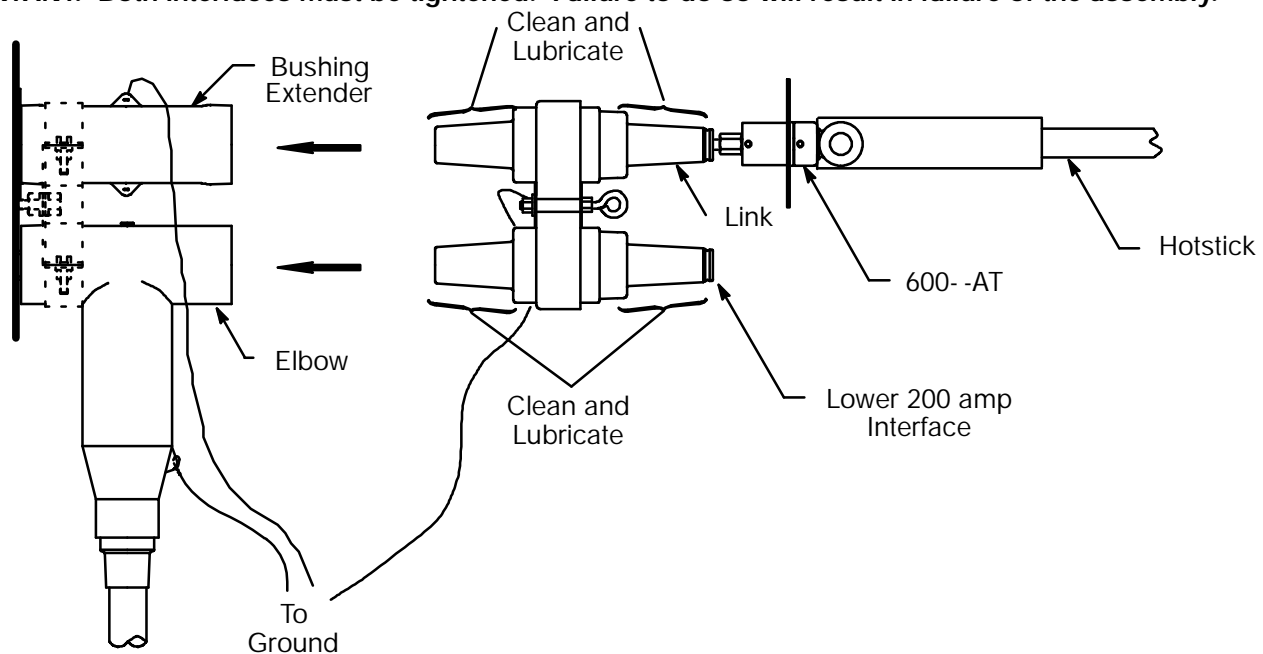
1. Using the hotstick, insert the 600- -AT operating tool into the Link- -Op tap plug to engage the internal bolt.
2. Rotate the hotstick counter clockwise (approximately 13- 15 turns) to fully disengage threads.
3. Once the threads are fully disengaged, the Link- -Op tap plug may be removed by pulling back on the hotstick.



STEP 12

1. Reconnect ground lead to terminal lug on the Link.
2. Clean and lubricate each 600 amp interface and each 200 amp interface of the link with ELASTIMOLD supplied lubricant.
3. Attach the 600- -AT operating tool to the hotstick. Insert the 600- -AT into the upper 200 amp interfaces of the Link. Using the hotstick, insert the Link into the bushing extender and elbow.
4. While pushing the hotstick in line with the bushing extender, rotate the hotstick in a clockwise direction until the 600- -AT begins to ratchet. (Note: the assembly tool will require approximately 10- 12 turns before it ratchets from the time the internal bolt starts threading).
5. Repeat for the lower 200 amp interface of the Link.

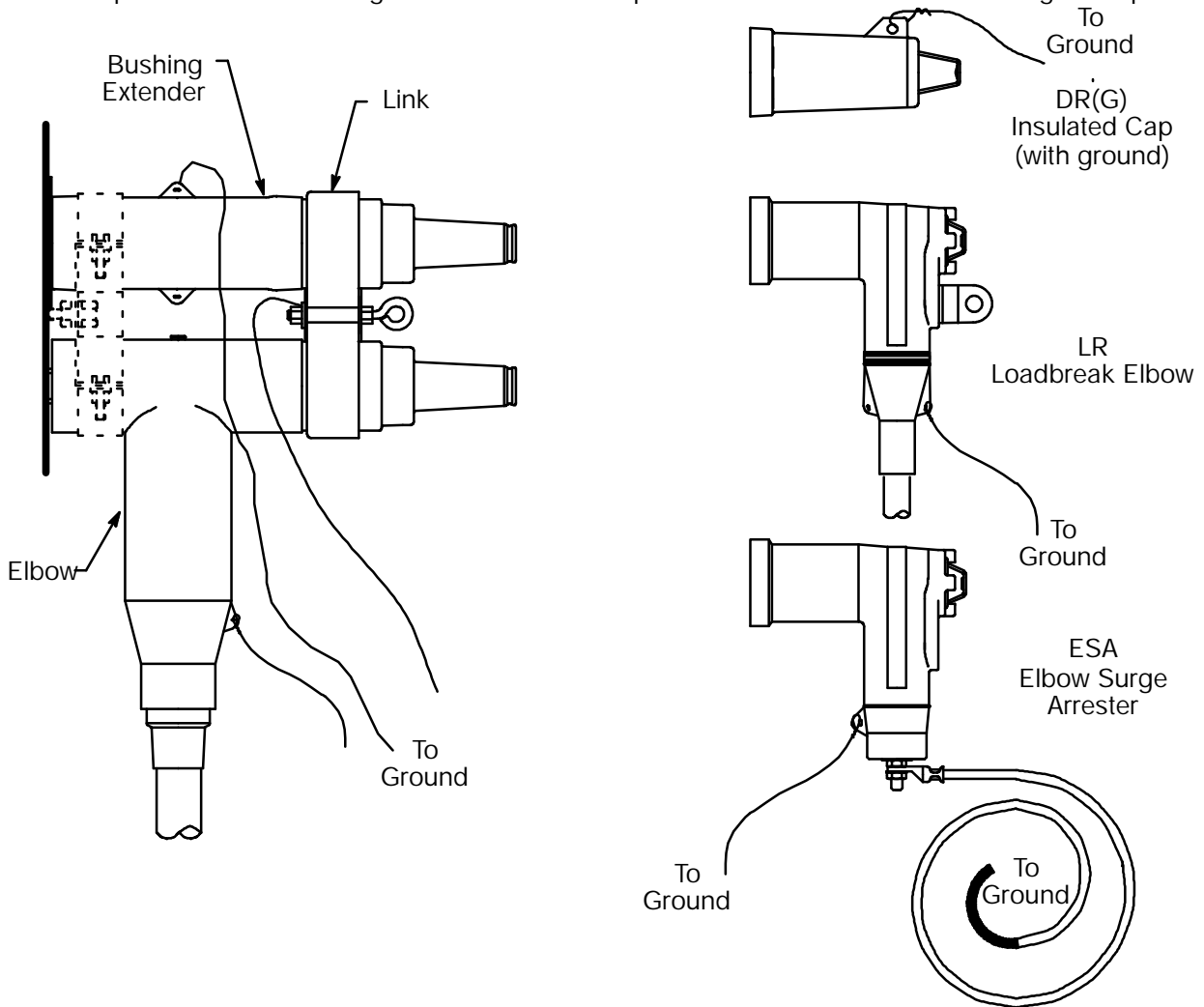
IMPORTANT: Both interfaces must be tightened. Failure to do so will result in failure of the assembly.



STEP 13

On each of the 200 amp interfaces of the Link, reinstall and ground the desired mating products per the installation instructions supplied with those parts.

NOTE: For three-phase installations all grounds from all three phases must be tied to a common ground point.



STEP 14

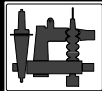
Repeat Step 10 thru Step 13 on all phases at both ends of the cable run.

WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W--EE2).



Route 24, Hackettstown, New Jersey 07840 USA
(908)852--1122 FAX: (908)852--6158

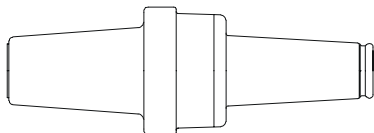
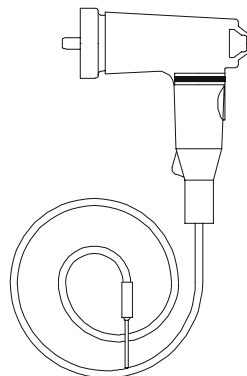
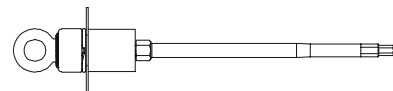
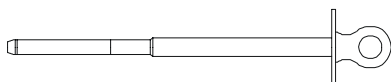


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Link-Op Operating Kit

ELASTIMOLD PART NUMBER

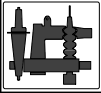
K650LINK-OK**(6) K650LT-B****(3) 370GLR****(1) 600AT****(1) 370TR**

Application:

The Link-Op operating kit includes accessories that enable visible break, direct testing, isolation and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 25kV Link-Op operating kit contains the following:

6 – Link-Op loadbreak reducing tap plug	K650LT-B
3 – Grounding elbow	370GLR
1 – Assembly tool	600AT
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5
1 – Instruction	IS-Link-OK



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

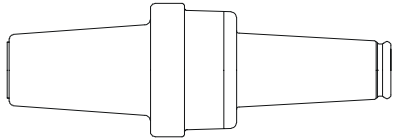
PRODUCT SPECIFICATION SHEET

DESCRIPTION

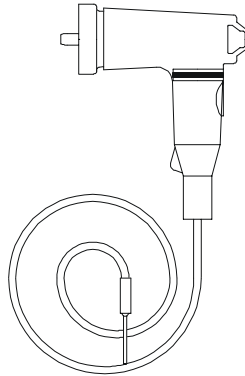
35kV Link-Op Operating Kit

ELASTIMOLD PART NUMBER

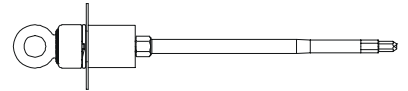
750LINK-OK



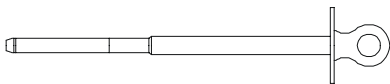
(6) 750LT-B



(3) 370GLR



(1) 600AT



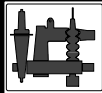
(1) 370TR

Application:

The Link-Op operating kit includes accessories that enable visible break, direct testing, isolation and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 35kV Link-Op operating kit contains the following:

6 – Link-Op loadbreak reducing tap plug	750LT-B
3 – Grounding elbow	370GLR
1 – Assembly tool	600AT
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5
1 – Instruction	IS-Link -OK



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

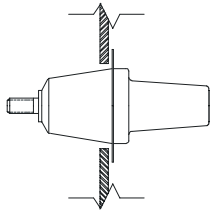
15/25/35kV Window-Op 600 Amp Copnnector Kits

ELASTIMOLD PART NUMBER

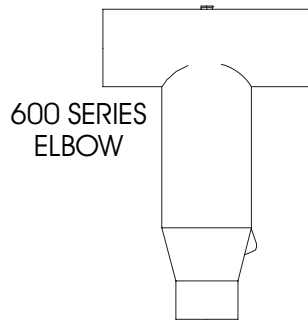
655ETP-W0X-DRG

K655ETP-W0X-DRG

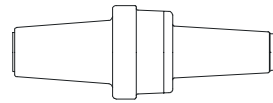
755ETP-W0X-DRG



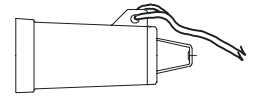
EQUIPMENT MOUNTED BUSHING



600 SERIES ELBOW



WINDOW-OP LOADBREAK REDUCING TAP PLUG



INSULATED CAP



COMPRESSION LUG



CABLE ADAPTER

Refer to the individual specification sheets for the components listed below for details concerning design, construction, ratings, dimensions and ordering information.

The Window-Op Connector kit contains the following:

- | | |
|---------------------------------|---|
| 1 – Window-Op reducing tap plug | 650ETP (15kV), K650ETP (25kV), or 750ETP (35kV) |
| 1 – 600A elbow housing | K655BLR (15kV & 25kV), or 755BLR (35kV) |
| 1 – Cable adapter | 655CA-W (15kV & 25kV), or 755CA-W (35kV) |
| 1 – Compression lug | 03700XXX |
| 1 – Insulated cap | 167DRG (15kV), 273DRG (25kV), or 375DRG (35kV) |
| 3 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-ETP 6/97 |
| 1 – Crimp chart | IS-03700CC 5/98 |

Installation Instructions ETP Elbow Tap Plug

CONTENTS: Tap Plug, Lubricant (DO NOT SUBSTITUTE), Stud (if applicable), Installation Instructions.

The ETP is designed to provide a 200 ampere loadbreak tap at system voltage as indicated on the ETP. **WARNING: THE AVAILABLE FAULT CURRENT MUST BE LIMITED TO 10,000 AMPERES WHEN USING THIS PRODUCT.**

WARNING: THE FOLLOWING RATINGS APPLY TO THIS PRODUCT:

600/900 Ampere Deadbreak Interface -- 600 or 900 amperes load current and 25,000 amperes short circuit current for 10 cycles.

200 Ampere Loadbreak Interface -- 200 amperes load current and 10,000 amperes fault--close current. For higher short circuit current: 1) this interface should only be operated de--energized; and 2) elbows used for taps or grounding must be adequately secured such as with a bail.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

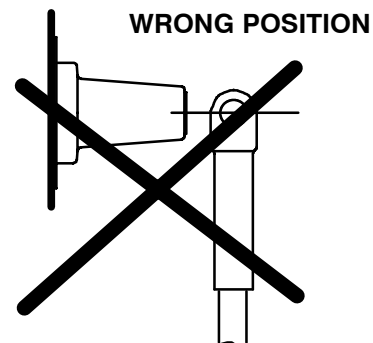
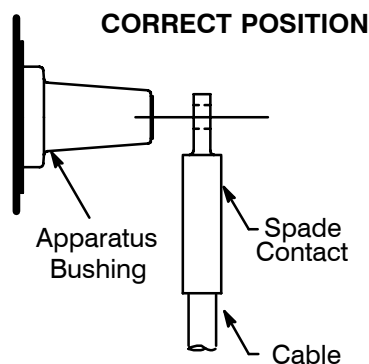
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

STEP 1

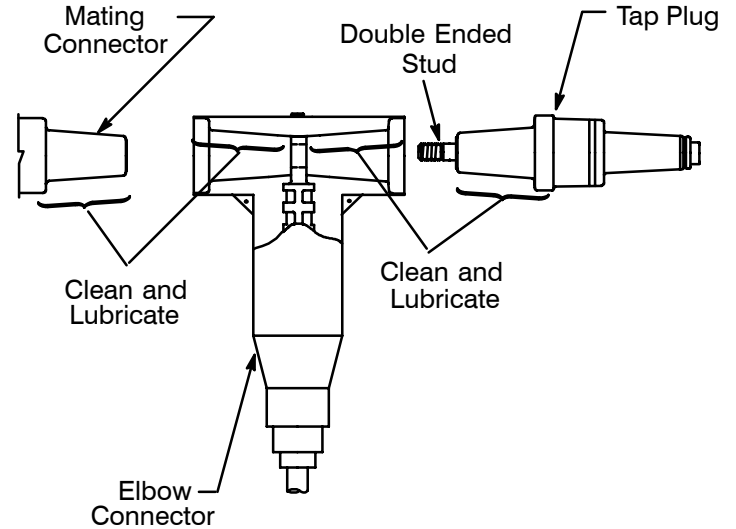
Prepare cable using spade contact and install elbow as described in the (K)650LR or 750LR installation instructions. **Before making first crimp on spade contact, align it on the cable so that the spade lies flat on the apparatus bushing contact.**



ELASTIMOLD

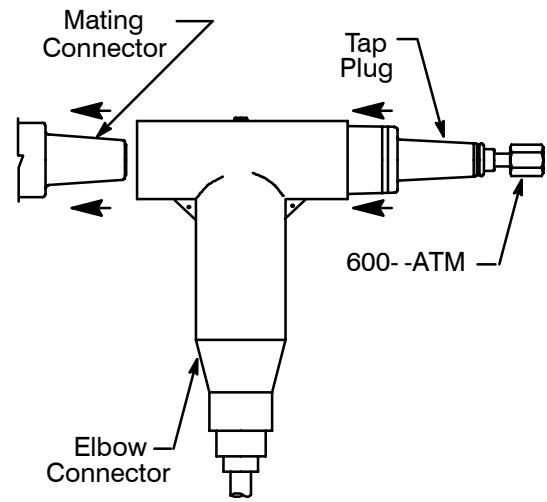
STEP 2

1. Remove the protective caps from the elbow connector and the tap plug.
2. Finger tighten double ended stud (if applicable) into the tap plug.
3. Clean, then lubricate the entire mating connector interface, elbow connector interfaces and the tap plug as noted with the lubricant supplied or ELASTIMOLD approved lubricant.



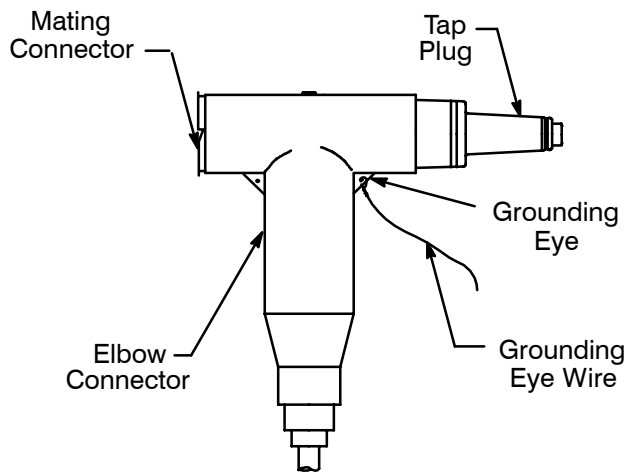
STEP 3

1. Assemble elbow connector on mating connector.
2. Assemble the tap plug into the elbow connector.
3. Insert the drive adapter into the tap plug. Turn in a clockwise direction while pushing the elbow and tap plug toward the mating connector.
4. Continue to rotate the drive adapter clockwise, with the appropriate tool to a torque of 50-60 ft-lbs. Remove the drive adapter from tap plug.



STEP 4

Insert one end of a length of #14AWG copper wire (or equivalent) through the grounding eye of the elbow, leaving sufficient length to allow movement of the elbow if required. Make a small loop and twist tightly, taking care not to damage the eye.



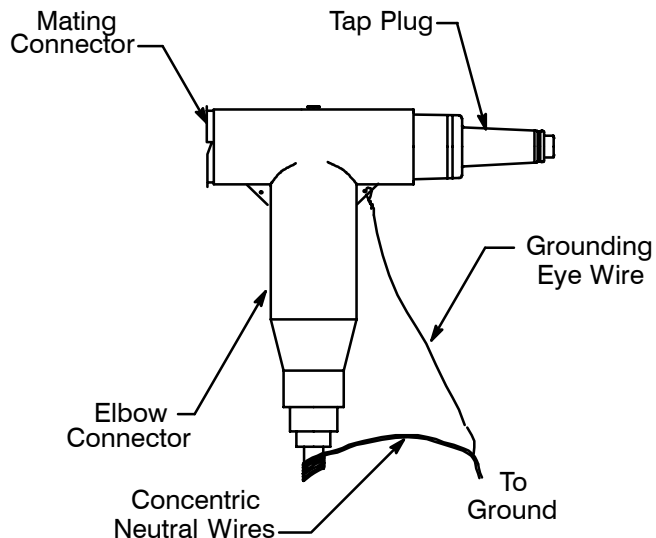
STEP 5A FOR CONCENTRIC WIRE SHIELDED CABLE

Twist the shield wires together. Connect them and the grounding eye wire to ground using an appropriate connector.

Leave sufficient length to allow movement of the elbow if required.

For three-phase installations, all grounds from all three phases must be tied to a common ground point.

If cable is jacketed, install appropriate waterproofing at jacket terminus to prevent moisture from entering.

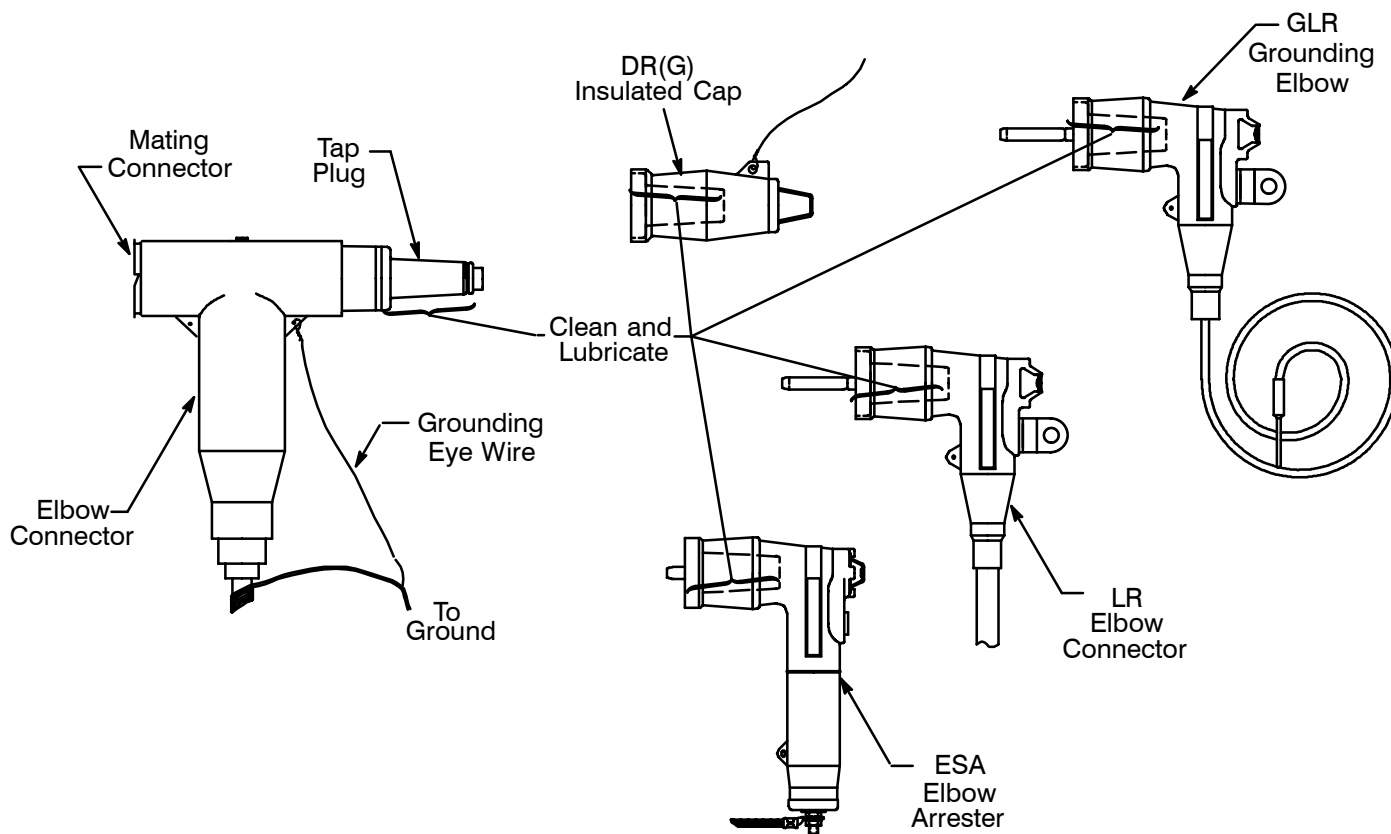


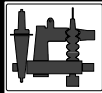
STEP 5B METALLIC TAPE SHIELDED CABLE

Connect the metallic shield of the cable to ground using a jumper of equivalent ampacity to the metallic shield. Install appropriate waterproofing at jacket terminus to prevent moisture from entering. Connect the elbow connector grounding eye wire to ground.

STEP 6

Clean and lubricate the entire tap plug interface and either a DR(G), ESA, GLR or LR of the appropriate voltage class with the lubricant supplied or ELASTIMOLD® approved lubricant. Install the DR(G), ESA, GLR or the LR to the tap plug interface following the instructions supplied with each of these products.





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

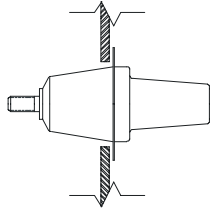
15/25/35 Stick-Op 600 Amp Connector Kits

ELASTIMOLD PART NUMBER

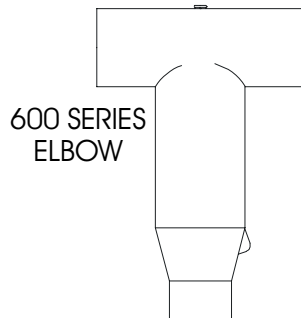
655LRTP-W0X-DRG

K655LRTP-W0X-DRG

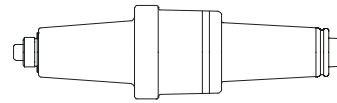
755LRTP-W0X-DRG



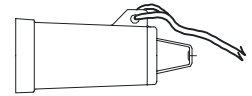
EQUIPMENT MOUNTED
BUSHING



600 SERIES
ELBOW



STICK-OP LOADBREAK
REDUCING TAP PLUG



INSULATED CAP

STICK-OP THREADED
COMPRESSION LUG



CABLE ADAPTER



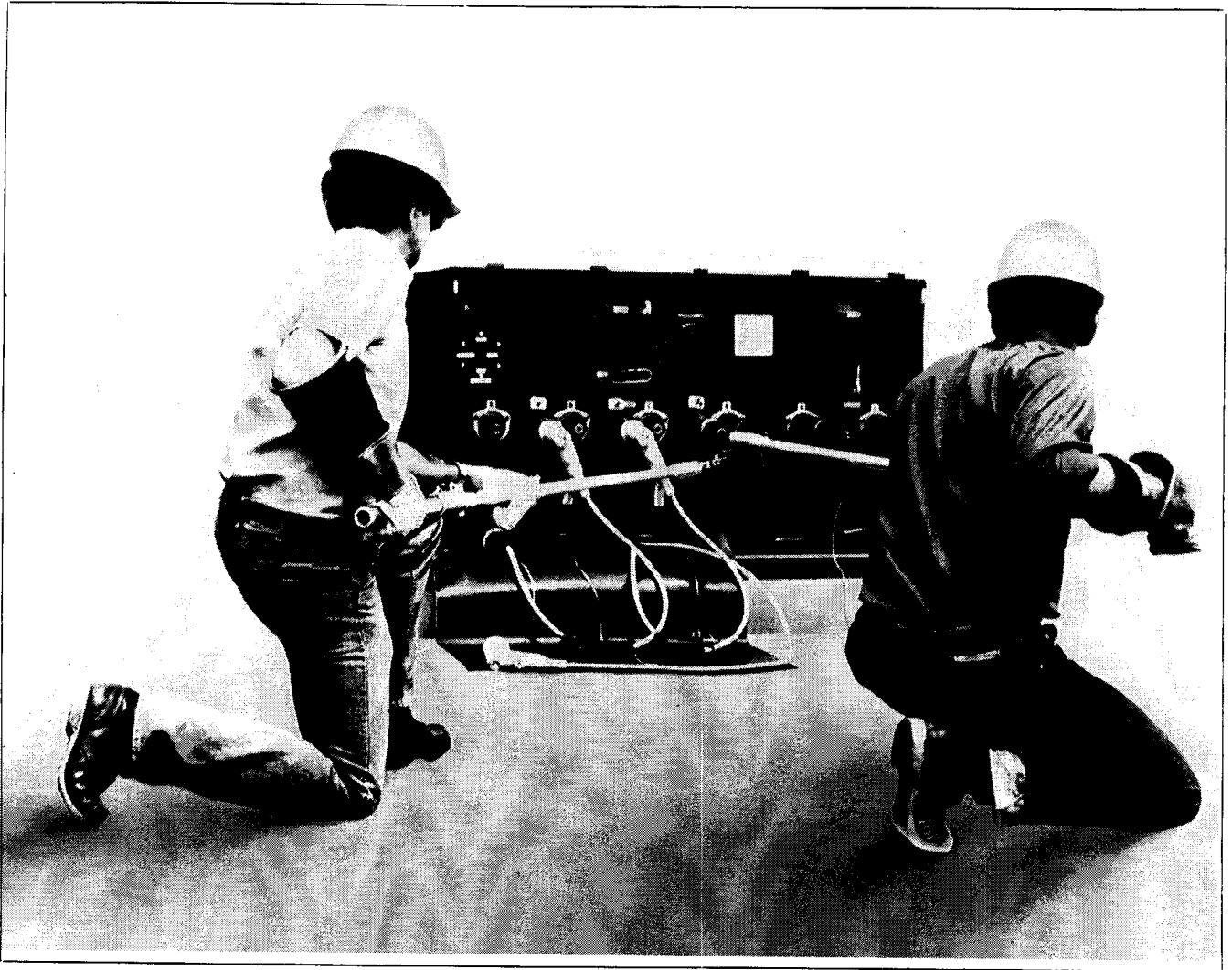
Refer to the following pages for details concerning design, construction, ratings, operation and ordering information.

The Stick-Op Connector kit contains the following:

- | | |
|--------------------------------|--|
| 1 – Stick-Op reducing tap plug | 650LRTPA3 (15kV), K650LRTPA2 (25kV), or 750LRTPA2 (35kV) |
| 1 – 600A elbow housing | K655BLR (15kV & 25kV), or 755BLR (35kV) |
| 1 – Cable adapter | 655CA-W (15kV & 25kV), or 755CA-W (35kV) |
| 1 – Compression lug | 03600XXX |
| 1 – Insulated cap | 167DRG (15kV), 273DRG (25kV), or 375DRG (35kV) |
| 3 – Tube, lubricant | 82-08 |
| 1 – Installation instruction | IS-15/25/35LRTP 12/89 |
| 1 – Crimp chart | IS-03600CC (G) 9/94 |

ELASTIMOLD[®]

STICK-OPERABLE 600-Amp Connector Systems



For Safe Operation of Deadfront Apparatus



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
A Unit of Eagle Industries, Inc.

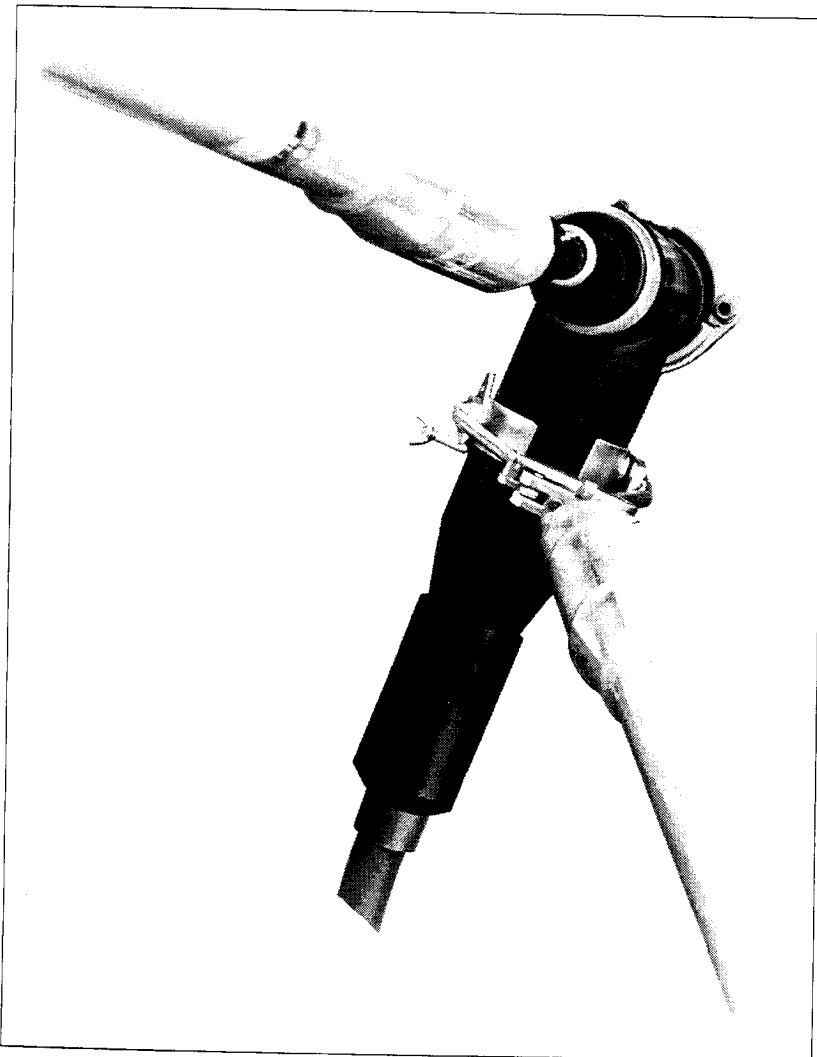
The field-proven apparatus connection that gives you full operating flexibility with complete operator safety

The ELASTIMOLD® STICK-OPERable Connector System resolves both your power-circuit termination problems, and your concerns for operator safety, in a wide variety of deadfront-type electrical apparatus, operating at potentials up to 35 kilovolts. Installed on apparatus, this remarkably convenient system permits you to take full advantage of the greater safety inherent in deadfront construction, with its reduced space requirements — a particularly significant factor at the higher voltage levels.

These "hot-stick"-operated systems have been designed around our field-proven 600-ampere deadbreak power connectors, which have been employed successfully on underground distribution systems since 1969. They give you the same reliable current-carrying connection, plus the freedom and flexibility of using these connectors as operating points: repair, maintenance and circuit-expansion work can be performed with minimal service interruptions, and, as you will see, with new high degrees of protection for personnel and equipment.

The fundamental purpose of 600-ampere deadfront cable connectors is to make a current-carrying connection to the apparatus, while maintaining insulation and shielding integrity. If this were all, the connection would not need to be readily disconnectable, once properly installed. However, the expanding use of premolded 600-amp separable connectors in recent

SAFETY: First,



years, because of their easy, simple assembly requirements and their high reliability and flexibility, has inevitably lead to their use as operating points. This, of course, imposes a new set of demands, as well as important restrictions, on connectors intended for such service.

The connector mechanism must be one that provides a strong, low-resistance connection when engaged, yet can be quickly and easily released for disconnection. It must be able to stand up to frequent disconnection, transfer, and reconnection, without mechanical deterioration, or impairment of the electrical continuity in any way. It must be designed for efficient, hot-stick removal and transfer of the cable connector from the apparatus terminal or bushing to an adjacent support fitting, to establish a visible break. Isolating, testing and grounding functions must be effectively integrated into the system design. Above all, complete protection for operator and apparatus must be maintained throughout the operating sequences, and deadfront conditions must be easy to establish and maintain. How well the ELASTIMOLD STICK-OPERable Connector System satisfies these criteria can be seen in the description given below, and in the illustrations that follow.

Figure 1 shows, on the left, a cross-sectional view of a standard 600-amp deadfront cable connector, assembled to the mating bushing on a piece of apparatus. When the connector is completely installed and tightened, it can perform its current-carrying function in a fully insulated and shielded mode. The connector is designed

to be separable, but is separated very infrequently — when the apparatus is to be replaced, or the cable system is to be dismantled and a revised system installed, for example. Both the apparatus bushing and cable must be de-energized before the cable connectors can be separated.

The growing interest in using these 600-amp separable connectors as operating points, involving more-frequent disconnection and reconnection for maintenance, repair, and system revisions led to the development of the connector system shown at the right in Figure 1. It accommodates the necessary additional functional requirements efficiently, as will be described and illustrated in the pages that follow. Just as important, it optimizes the safety for the operator at every step. Safety-engineered connector modifications and hot-stick tools have been devised to simplify and safeguard the accomplishment of all operational functions.

SAFETY PRECAUTIONS

The first precaution incorporated into the STICK-OPERable system is, as its name implies, the use of insulating "hot sticks" to maintain a safe distance between personnel and equipment. All desired circuit conditions are attainable by using these tools to transfer the connectors from one position to another. The three other safety precautions usually employed in various degrees and sequences according to established operating practices — test, ground, and visible break — are also provided in the ELASTIMOLD STICK-OPERable Connector System.

TEST. Since the connectors are designed for total deadbreak operation, the circuit must be tested to confirm that it is indeed de-energized, prior to the attachment of any grounding device. The loadbreak reducing tap plug provided in the connector (Figure 1) includes an accessible bushing point for insertion of a standard 200-ampere test rod, as a meter contact point. You would follow your established procedures for performance of this test.

GROUND. Grounding requirements are met by connecting ELASTIMOLD loadbreak-type grounding elbows to the ELASTIMOLD connector at both ends of a cable run. Should the circuit accidentally become re-energized, the grounding elbows shunt the current to ground and prevent excessive voltage from appearing on the conductors.

VISIBLE BREAK. Many operating practices stipulate that operating personnel must be able to see directly that the portion of the circuit on which they are working is unquestionably disconnected from the remainder of the circuit, as a positive safety measure. Physical isolation of the circuit element also permits circuit testing prior to re-energizing the circuit, for an added measure of safety. The ELASTIMOLD STICK-OPERable connector System makes visible separation of connections a simple, safe, and efficient process, as the following procedures will demonstrate. Movement of the connector cable assembly is the simplest method of obtaining a visible break.

Last, and at Every Point Between

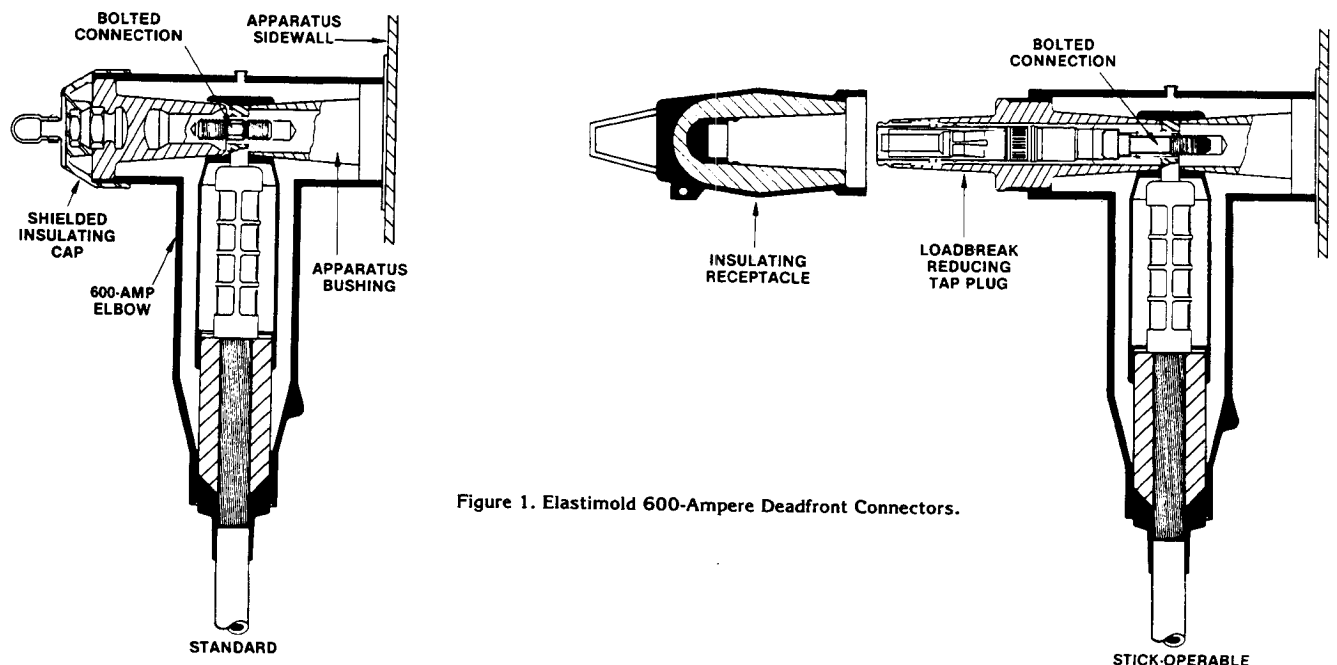


Figure 1. Elastimold 600-Ampere Deadfront Connectors.

A Safety-Engineered Operating Point in Action

We have selected a typical sequence of operations, as performed on a conventional three-phase AC power-connection system, to show the ELASTIMOLD STICK-OPERable Connector System in use. It entails isolating, testing, and grounding a specific portion of the system, then achieving the essential visible breaks mandated by standard operating procedures, prior to performing a work assignment.

Operating Sequence

For the purpose of illustration, assume that you are preparing a section of a three-phase loop feeder (Figure 2) for creating a tap at point X. S1 and S2 are three-phase switches equipped with 600-amp connector bushings; to de-energize the cable section to be tapped, both switches are opened (Figure 3), using conventional procedures, to isolate the section from the remainder of the energized circuit. By nearly all standards, the cable between the switches is considered to be live until the other operations are completed. The procedure is summarized schematically in the diagrams at right, and illustrated in detail in the photographs that follow.

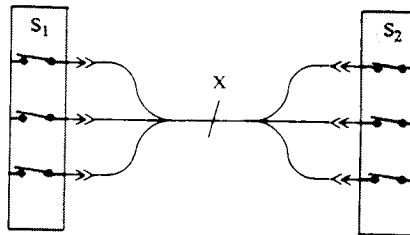


Figure 2. Section of an existing 3 ϕ loop feeder, energized. A tap is to be created at point X.

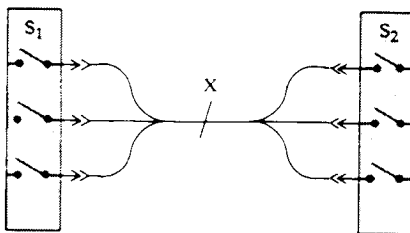


Figure 3. Switches S1 and S2 are opened, de-energizing the section and isolating it from the remainder of the system.

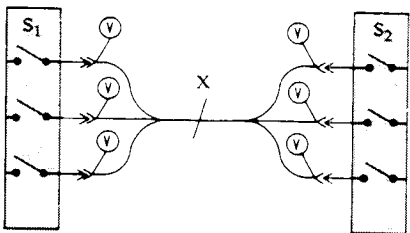


Figure 4. Each phase is tested at each switch, to insure that the section is indeed de-energized.

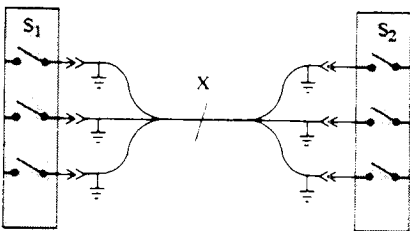


Figure 5. Grounding elbows are applied to ensure that the cable system is de-energized and remains in that condition.

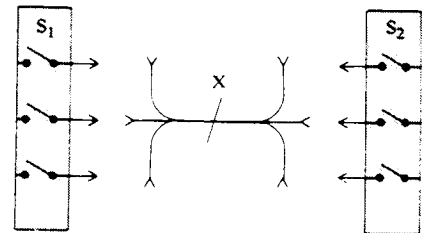


Figure 6. A visible break is obtained by separating the cable from the switches. This prevents the cable from becoming energized while operators are working on the tap. But the visible breaks may be remote from the work area, and some reliance on remote cable identification is necessary to ensure that the work cable is the one opened. The precaution shown in Figure 7 is still better.

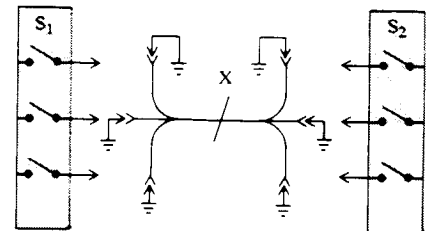


Figure 7. Grounding elbows are attached to both ends of all cables which have been visibly broken from the system.

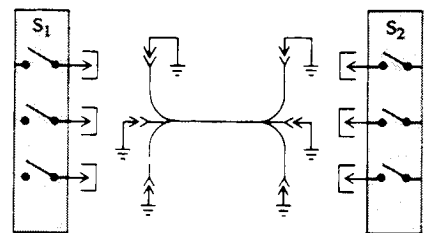


Figure 8. The switch bushings are covered with insulating caps, for protection of personnel and equipment. As an alternative, the bushings could be grounded for additional protection.

The System In Practice

A typical step-by-step procedure for implementing the operations outlined on page 2 is described and illustrated photographically at right. For simplicity, operations on only one of the three phases will be shown. In practice, each operation is performed on all three phases sequentially, to avoid inadvertent omissions, improving both safety and efficiency.

Figure 9 shows the input and output connections of a three-phase line to bushings on a three-phase apparatus switch, as they would be in normal circuit operation. As indicated in Figure 1, the STICK-OPERABLE Connector elbow is equipped with a loadbreak reducing tap plug (which presents a standard 200-amp loadbreak interface at its outer end), capped off by a standard 200-amp insulating cap. Small metal mounting brackets ("parking stands") are installed on the apparatus wall adjacent to each connector; these will be used in supporting the dismantled connectors during the subsequent operations.

1. De-energizing The System

The first step is to de-energize and isolate the cable section by opening the switches at both ends of the cable run (reference Figure 3).

The conductor system is then tested (reference Figure 4) to ascertain that it actually is de-energized.

Each switch is opened, using a standard hot stick (Figure 10) and padlocked (Figure 11) to prevent operator error.

A hot stick is used to remove the insulating caps, exposing the reducing tap plug, and each phase is tested for voltage (Figure 12).

Figure 13 shows the equivalent test operation made on livefront apparatus, for comparison; the improvement in inherent safety offered by the STICK-OPERABLE System over livefront operation is obvious.

The above operational sequence is repeated for all phases, at both ends of the cable run. Once all phases have been tested and found to be de-energized, each phase can be grounded (reference Figure 5) by connecting an ELASTIMOLD loadbreak grounding elbow, using a hot stick (Figure 14). The equivalent grounding of a livefront system is shown in Figure 15.

The loadbreak reducing tap is a fully rated loadbreak product, and has a substantial fault-close rating. This affords the operators additional protection, should the circuit accidentally become energized after the test, or if the test should be erroneous. Once all phases have been grounded at both ends, they should remain grounded, except when specifically being operated.

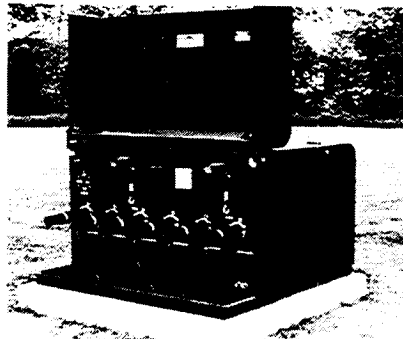


Figure 9. Three-Phase Apparatus Switch — Normal Operating Conditions

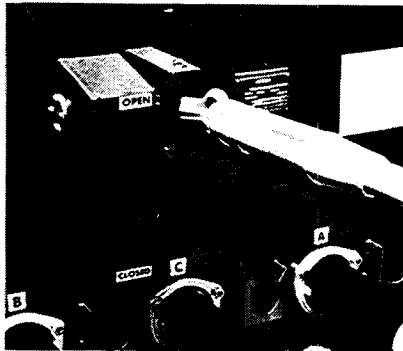


Figure 10. Opening the Switch.

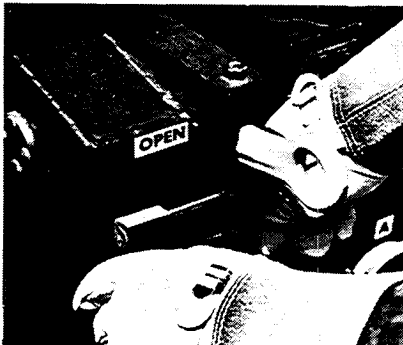


Figure 11. Padlocking the Switch.



Figure 12. Testing for Voltage.

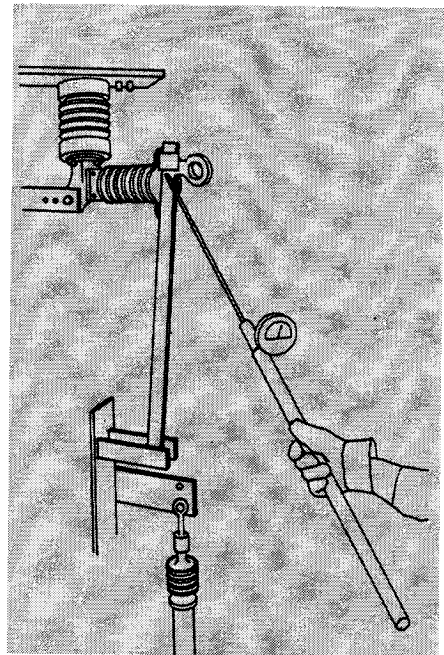


Figure 13. Livefront Voltage Test.

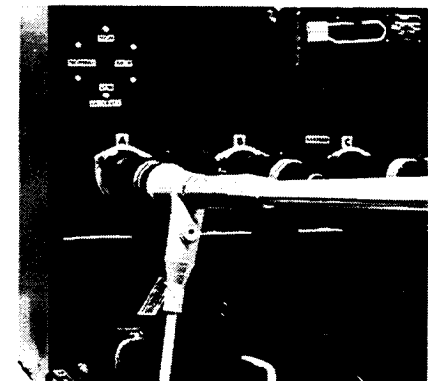


Figure 14. Installing a Grounding Elbow.

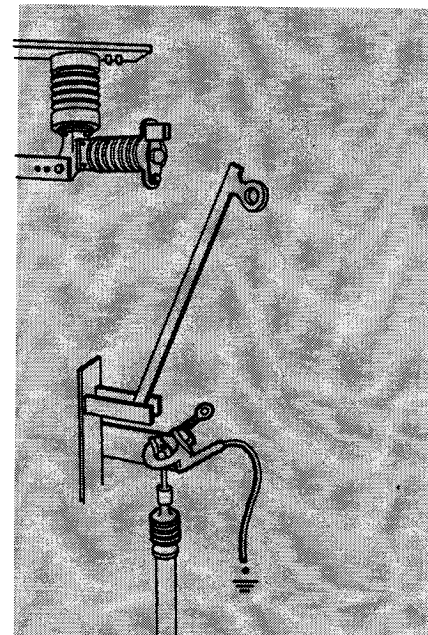


Figure 15. Grounding a Livefront System.

The System In Practice (cont.)

2. Achieving A Visible Break

Now that all phases have been grounded (Figure 16) at both ends of the run, the cable run can be disconnected from the switch bushings (reference Figures 6 & 7). Using a hot stick for all operations, the operator installs a 600-amp insulating plug (or a grounding plug) in the "parking stand" adjacent to each connection, removes the grounding elbow from one phase, and inserts an ELASTIMOLD Operating Tool into the loadbreak reducing tap. Figure 17 shows both an insulating plug and an operating tool in place. The tool, which is similar to an Allen wrench, engages the internal bolt that secures the elbow connector to the apparatus bushing, and can be rotated to free the connector. Using a "clamshell" clamp operated by a hot stick, a second operator grips the connector shank firmly as the bolt is loosened (Figure 18).

When the bolt is free of the apparatus bushing, the operators transfer the assembly to the adjacent insulating plug (Figure 19), and tighten it in place to maintain the insulation and shield integrity. A grounding elbow can then be reinstalled on the connector (Figure 20).

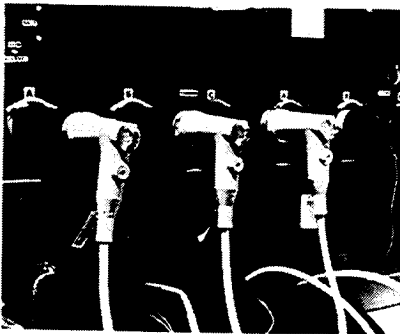


Figure 16. Three phases grounded.

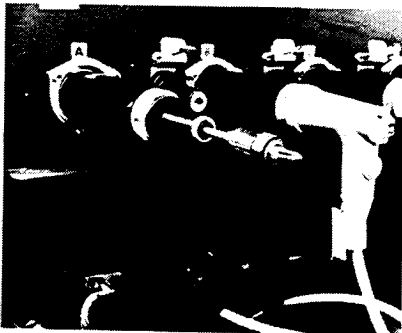


Figure 17. Plug and tool in place.

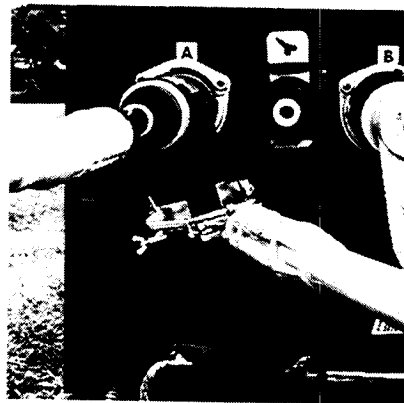


Figure 18. Clamshell clamp in position.

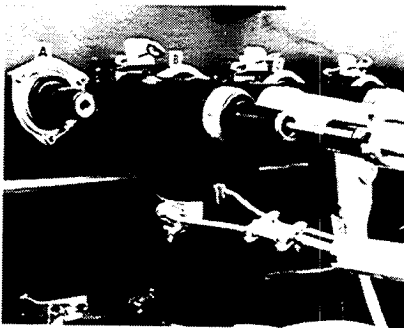


Figure 19. Connector transferred to insulating plug.

For increased protection, the switch bushing is capped by installing an ELASTIMOLD Bushing Extender (Figure 21), which includes a loadbreak reducing plug, and capping it with the insulating receptacle (Figure 22). Figure 23 shows all three phases treated in this manner — an arrangement (reference Figure 8) that permits convenient testing of the switch bushings before the cable assemblies are reinstalled on the switch. When the three phases on the other end of the cable run are disconnected and transferred using this same procedure, the operators can see these visible breaks that ensure their safety while working on the isolated cables. Figure 24 shows the equivalent visible break in a livefront system.

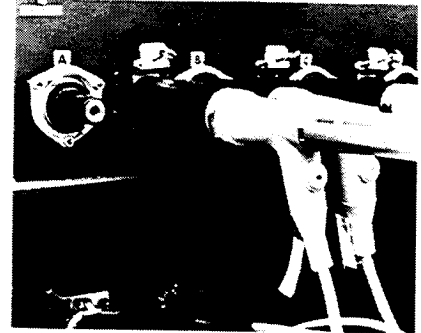


Figure 20. Reinstalling grounding elbow.

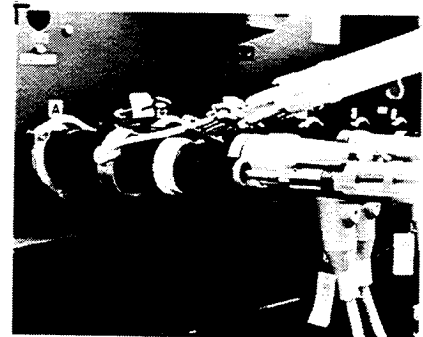


Figure 21. Installing bushing adapter.

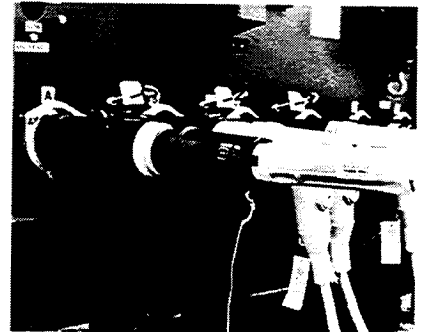


Figure 22. Installing insulating receptacle on bushing adapter completes the covering of the apparatus bushing.

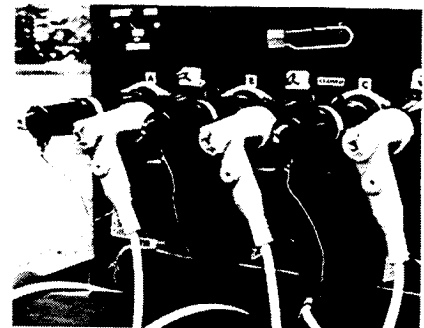


Figure 23. Three phases completed. Cable isolated and grounded, apparatus bushings covered.

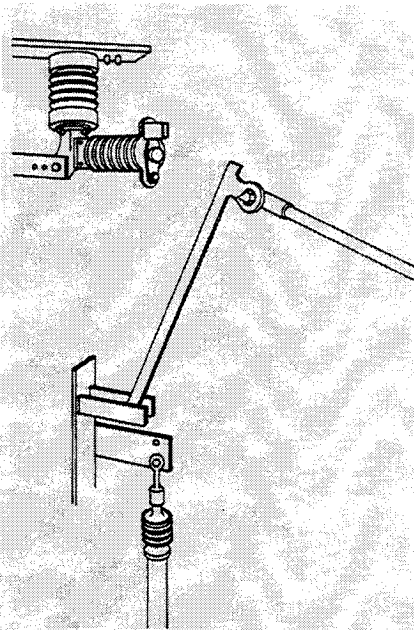


Figure 24. Live-Front Visible Break.

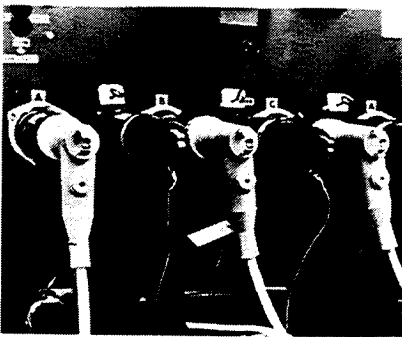


Figure 25. Apparatus Bushings Grounded.

3. System Tests

The arrangement shown in Figure 23 facilitates injection of test signals and performance of tests on the apparatus and/or the cable. Figure 25 shows another arrangement, in which the switch bushings are grounded through grounding elbows connected to the bushing extenders, while the cable connectors are capped with insulating receptacles. If the connectors have been parked on insulating plugs rather than grounding plugs, this arrangement permits injection of test signals and performing tests on the disconnected cables before and after installation of the proposed tap.

Regardless of the arrangement used, test connections can be made as shown in Figure 26, by inserting a standard ELASTIMOLD Test Rod into the loadbreak reducing tap plug, shown in the close-up view of Figure 27, and connecting the instrumentation to this rod. Figure 28 shows the equivalent test connection in livefront apparatus.

Obviously, other sequences than those presented here can be used, depending upon your established operating practices with such deadfront connectors. But only with the ELASTIMOLD STICK-OPERable Connector System do you obtain this unique flexibility of operation and the high-protection features that mean a tremendous increase in the safety and confidence afforded your operating personnel.



Figure 26. Testing a Cable.

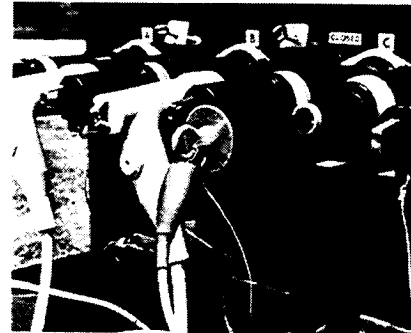


Figure 27. Close-Up Of Test Rod.

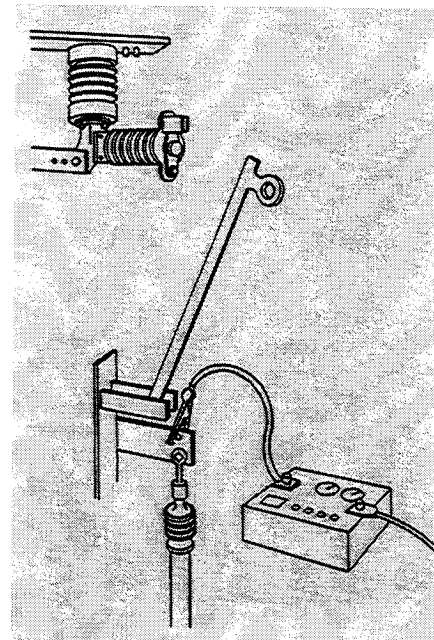


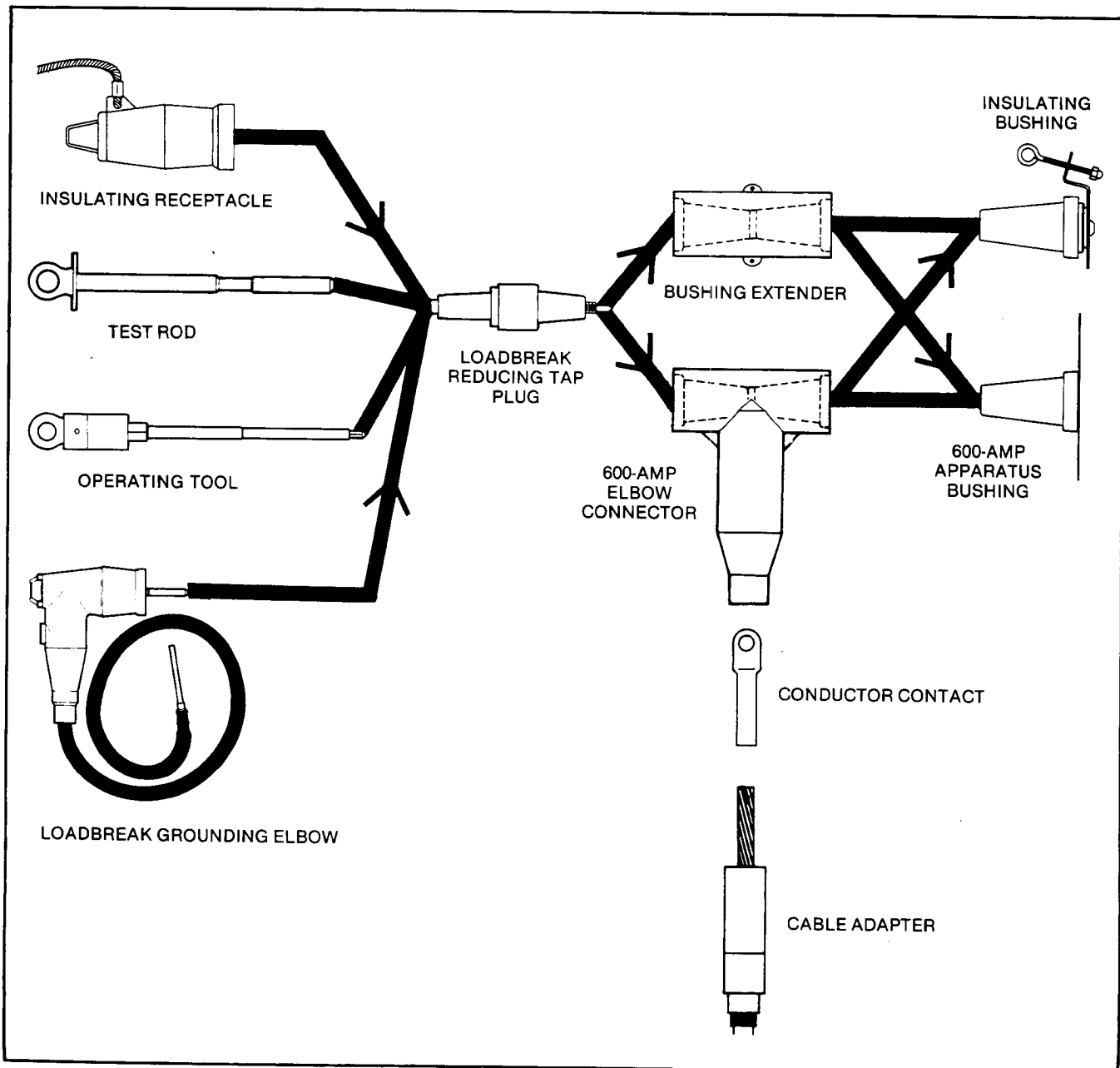
Figure 28. Live-Front Testing.

STICK-OPERABLE System Components

One of the prime design goals of the STICK-OPERABLE System was to utilize existing field-proven connector products, thereby enabling you to use the connections in your 600-amp feeder circuits as operating points for a variety of essential functions. This goal was achieved in the development of the **loadbreak reducing tap plug** (see below). This key component mates with a standard 600-amp elbow, or tee connector, and provides the vital transition from the 600-amp deadbreak components to the 200-amp loadbreak components, giving the System its inherent safety and efficiency of operation.

The elements comprising the ELASTIMOLD STICK-OPERABLE Connector System, and their inter-relationships, are depicted below.

The elements are identified by description, applicable to 15kV, 25kV, and 35kV power systems; for specific part numbers according to voltage classification refer to the ordering information on pages 11 and 12.



600-amp STICK-OPERABLE Connector Assembly for Normal Circuit Operation

1. Loadbreak Reducing Tap Plug.

The heart of the ELASTIMOLD STICK-OPERABLE System is this molded rubber connector, which mates with the 600-amp connector housing, and presents a 200-amp loadbreak interface at its outer end. It also provides the bolted connection that joins the conductor contact, apparatus bushing, and tap plug in a solid, low-resistance assembly when tightened. A hole bored through the tap plug provides access to the bolt by the Type 600AT operating tool.

2. Basic Elbow-Connector Housing.

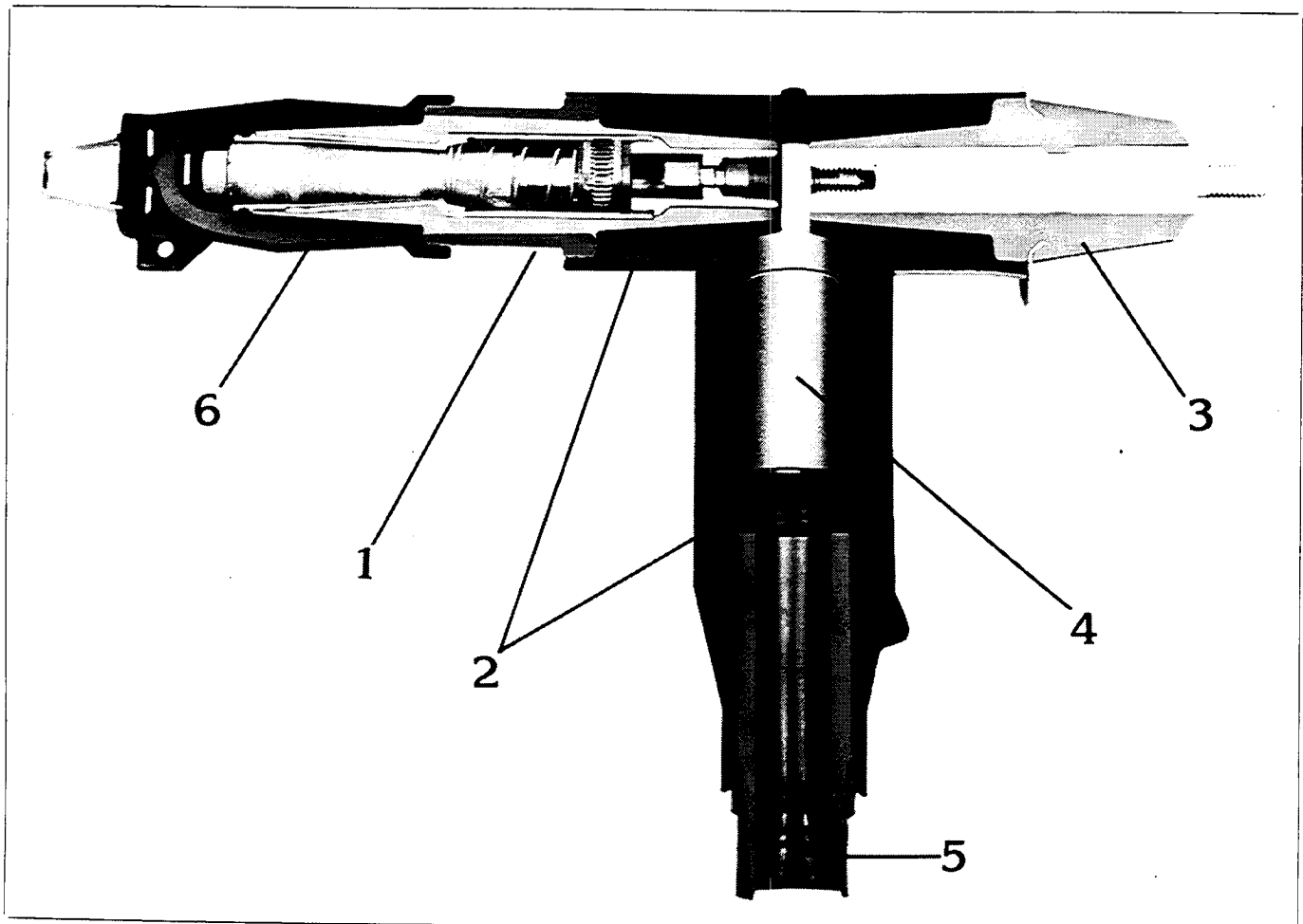
A pre-molded EPDM rubber connector, complete with molded conductive EPDM ground shield to maintain true deadfront construction. This molded shield is a patented ELASTIMOLD feature, and meets IEEE Std. 592-1977.

3. Apparatus Bushing. This bushing is made from high-temperature, low-distortion epoxy, for years of reliable, hazard-free service. It can be welded or clamped to the apparatus, and is normally supplied on the manufacturer's equipment per your specification.

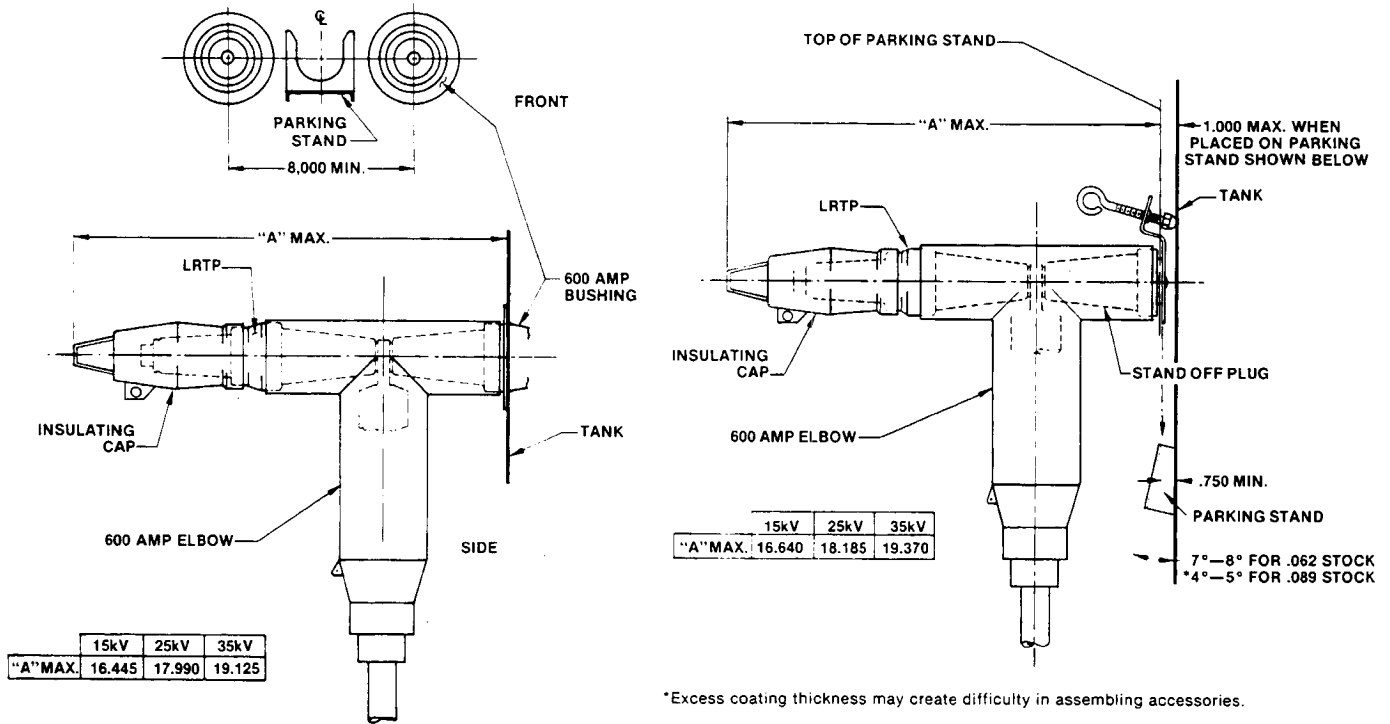
4. Conductor Contact. A semi-permanent, crimp-bolted connector sized for the specific conductor used. It is crimped on with standard tools and dies.

5. Stress-Relief Adapter. A molded rubber adapter, sized to the cable insulation, and providing stress relief for the terminated shield. The radial pressure exerted on the cable shield by the adapter precludes the presence of air at the start of the stress surface. Suitable for installation on both extruded-shield and tape-type-shield cable.

6. Loadbreak Insulating Receptacle. A fully shielded, hot-stick-operable device used to insulate and protect a loadbreak interface whether energized or de-energized.



Projection Dimensions



NOTES:

1. Apparatus bushing clamping bolts must not interfere with STICK-OPERable connector installation.
2. Apparatus front-plate projection to the closed high-voltage compartment door should allow for the over-all dimension requirements of the total connector assembly: apparatus bushing, basic elbow housing, loadbreak reducing tap plug, and loadbreak insulating receptacle.
3. The apparatus should also accommodate the total connector assembly when bolted to a 600-amp grounding plug or a 600-amp stand-off plug (shown above, right). This is necessary to permit securing the apparatus cabinet door at the end of the work day, leaving the cable runs grounded.

Electrical Ratings

Characteristic	15kV Class	25kV Class	35kV Class
OPERATING VOLTAGE (max. continuous line-to-ground, 100% insulation system)	8.3kV	15.2kV	21.1kV
BIL	95kV	125kV	150kV
WITHSTAND VOLTAGE (1 min.)			
AC	34kV	40kV	50kV
DC	53kV	78kV	103kV
CORONA EXTINCTION LEVEL (min.)	11kV	19kV	26kV
CURRENT Continuous Momentary and Fault-Close*	600 amperes RMS 10,000 amperes RMS, asymmetrical		

*If your system fault currents exceed 10kA, consult factory for application data.

How To Order

A complete connector assembly should be ordered for each switch bushing requiring connection. Select the ordering formula appropriate to your system kV Class, and substitute for **W** and **X** the proper symbols for your cable insulation diameter and cable size from the table below.

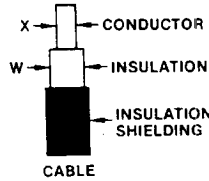
kV Class

- 15
- 25
- 35

ORDERING FORMULA

- 655LRTP-W-X-DRG
- K655LRTP-W-X-DRG
- 755LRTP-W-X-DRG

W is the symbol for your cable insulation diameter



X is the symbol for your cable conductor size.

TABLE W
600-AMP INSULATION DIAMETER TABLE

INSULATION RANGE				SYMBOL for W
INCHES		mm		
MIN.	MAX.	MIN.	MAX.	
.640	.820	16,3	20,8	F*
.760	.950	19,3	24,1	G
.850	1.050	21,6	26,7	H
.980	1.180	24,9	30,0	J
1.090	1.310	27,7	33,3	K
1.180	1.465	30,0	37,2	L
1.280	1.430	32,5	36,3	LM*
1.370	1.630	34,8	41,4	M
1.515	1.780	38,5	45,2	N
1.725	1.935	43,8	49,1	P
1.900	2.120	48,3	53,9	Q**

*Available for 15kV and 25kV applications only.
**Q size is available for 35kV applications only.

Note: When selecting W, the insulation diameter (minus any tolerance) must be greater than the minimum of the range selected. If it is less than the range minimum, select the next size smaller.


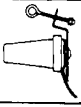
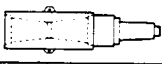

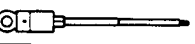
TABLE X
600-AMP CONDUCTOR TABLE

Conductor Size - AWG or kcmil				Symbol for X
Stranded	Compressed	Compact	Solid	
1/0	1/0	2/0	2/0	0240
2/0	2/0	3/0	3/0	0250
3/0	3/0	4/0	4/0	0260
4/0	4/0	250	---	0270
250	250	300	---	0280
300	300	350	---	0290
350	350	400	---	0300
400	400	450	---	0310
450	450	500,550	---	0320
500	500	600	---	0330
550	550	650	---	0340
600	600	700	---	0350
650	650	750,800	---	0360
700	700	---	---	0370
750	750	---	---	0380
800	800	900	---	0390
900	900	1000	---	0400
1000	1000	---	---	0410

Components


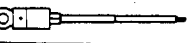

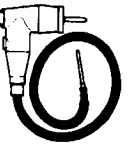
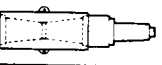
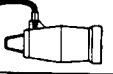
COMPONENT	COMPONENT ORDERING NUMBER		
	15-kV CLASS SYSTEM	25-kV CLASS SYSTEM	35-kV CLASS SYSTEM
BASIC ELBOW CONNECTOR	655BLR	K655BLR	755BLR
LOADBREAK REDUCING TAP PLUG	650LRTPA3	K650LRTPA2	750LRTPA2
LOADBREAK INSULATING RECEPTACLE	160DRG	270DRG	370DRG
CONDUCTOR CONTACT	03600-X	03600-X	03600-X
CABLE STRESS RELIEF ADAPTER	655CA-W	655CA-W	755CA-W

Operating Accessories

ACCESSORY	ACCESSORY ORDERING NUMBER		
	15-kV CLASS SYSTEM	25-kV CLASS SYSTEM	35-kV CLASS SYSTEM
 STAND-OFF PLUG	650SOP	K650SOP	750SOP
 GROUND PLUG	650GP	650GP	750GP
 BUSHING ADAPTER	655BEA3	K655BEA2	755BEA2
 GROUNDING ELBOW	160GLR	370GLR	370GLR
 OPERATING TOOL	600AT	600AT	600AT

Suggested Components for 3-Phase Operating Kits

Appropriate kits for fully operating one end of a three-phase feeder can be provided for your operating personnel by ordering the parts indicated in the table below.

ACCESSORY	SUGGESTED QUANTITY OF ACCESSORIES FOR KIT		
	15-kV CLASS SYSTEM	25-kV CLASS SYSTEM	35-kV CLASS SYSTEM
 CASE (BG-1)	1	1	1
 OPERATING TOOL	1	1	1
 STAND-OFF PLUGS	3	3	3
 GROUNDING ELBOW	3	3	3
 BUSHING ADAPTERS	3	3	3
 INSULATING RECEPTACLE	3	3	3



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
A Unit of Eagle Industries, Inc.

ELASTIMOLD®

Installation Instructions 15/25/35LRTP Elbow Reducing Tap Plug

CONTENTS: 1-Reducing Tap Plug, Lubricant (DO NOT SUBSTITUTE), 1-Guide Pin, 1-Installation Instruction

The elbow reducing tap plugs have voltage ratings as indicated on the product and are designed for a 600/900 ampere stick-operable system, with a 200 ampere tap.

WARNING: The following ratings apply to this product:

600/900 Ampere Deadbreak Interface - 600 or 900 amperes load current and 25,000 amperes short circuit current for 10 cycles.

200 Ampere Loadbreak Interface - 200 amperes load current and 10,000 amperes fault-close current. For higher short circuit current: 1) this interface should only be operated de-energized; and 2) elbows used for taps or grounding must be adequately secured such as with a bail.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

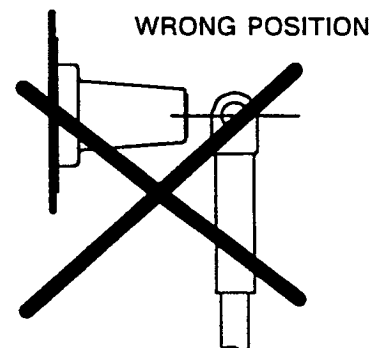
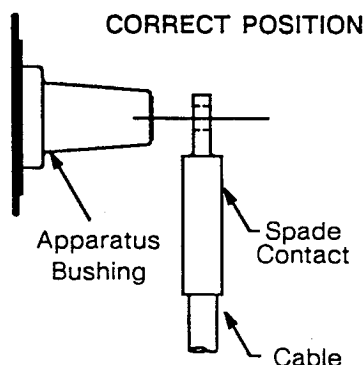
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

STEP 1

Prepare cable using spade contact (03600XXX) and install elbow as described in the 600 amp LR, elbow connector installation instructions. Before making first crimp on spade contact, align it on the cable so that the spade lies flat on the apparatus bushing contact.



15-0187

IS-15/25/35LRTP
1 December 1989
Printed in U.S.A.

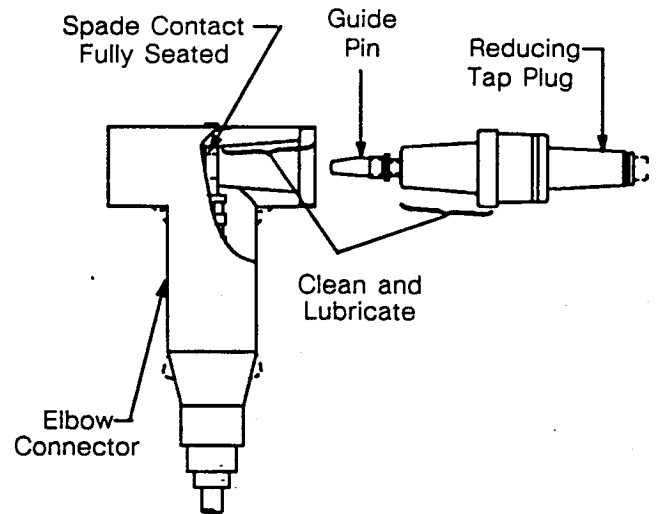


ELASTIMOLD
DIVISION

AMERACE CORPORATION, ROUTE 24
HACKETTSTOWN, NEW JERSEY USA 07840 (201) 852-1122

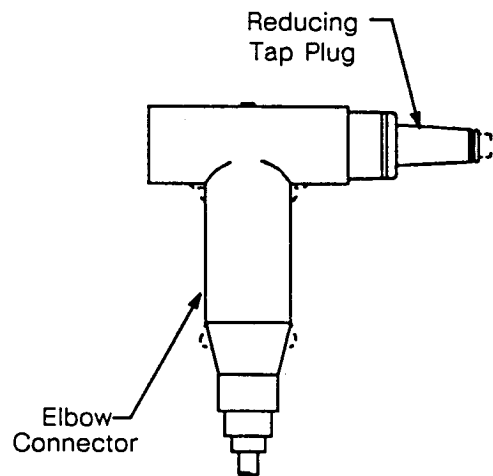
STEP 2

Remove the protective cap from the reducing tap plug and the elbow. Clean and lubricate the entire elbow connector interface and reducing tap plug interface as indicated with the lubricant supplied or ELASTIMOLD approved lubricant. **IMPORTANT: CHECK TO BE SURE THE SPADE CONTACT IN THE ELBOW CONNECTOR IS FULLY SEATED AGAINST THE TOP OF THE HOUSING.** Insert the reducing tap plug into the elbow connector.



STEP 3

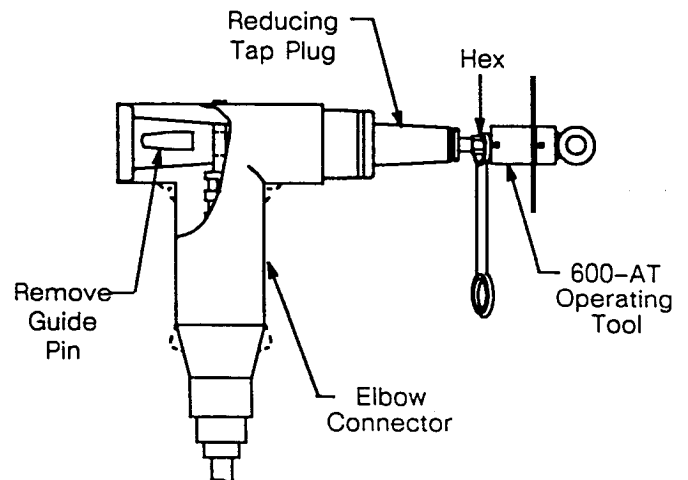
Assemble the reducing tap plug to the elbow connector in a clockwise direction. Hand tighten the reducing tap plug.



STEP 4

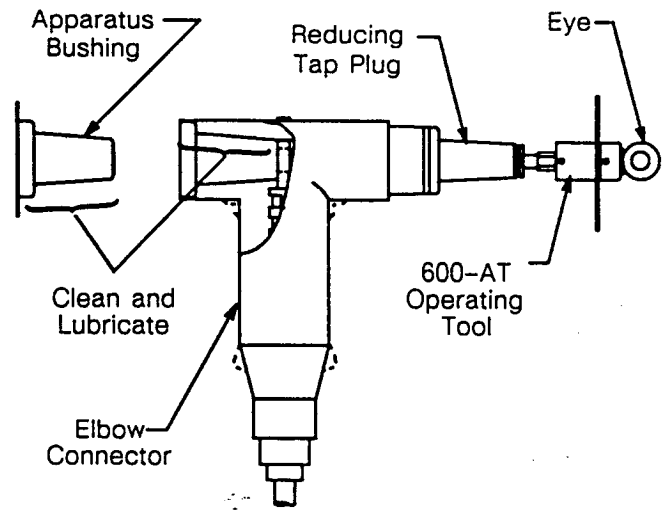
Slowly insert the 600-AT, operating tool, into the reducing tap plug until fully seated. Torque the reducing tap plug in a clockwise direction to the elbow connector with a suitable tool applied to the hex portion of the 600-AT, operating tool. At some point during torquing operation the guide pin will separate from the reducing tap plug. Continue torquing UNTIL THE INTERNAL SHEAR PIN BREAKS. (Note: This will require 15 to 18 complete revolutions and a torque of 35 to 50 foot-pounds.)

Remove guide pin and continue with assembly instructions.



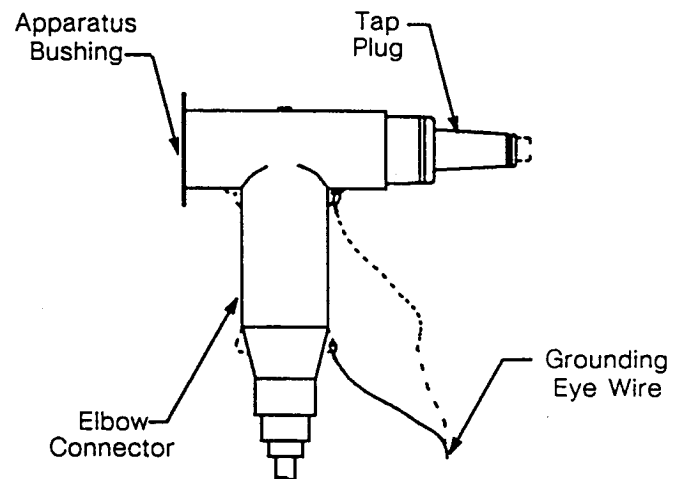
STEP 5

Clean and lubricate the entire apparatus bushing interface and remaining elbow connector interface with the lubricant supplied or ELASTIMOLD approved lubricant. Assemble the elbow connector on the apparatus bushing with the 600-AT by inserting a suitable rod through the eye of the tool and turning in a clockwise direction. This must be done while pushing the elbow toward the apparatus bushing. Continue to rotate the eye of the 600-AT, clockwise, until it begins to ratchet signifying the proper assembly torque has been reached. Remove 600-AT from the reducing tap plug.



STEP 6

Insert one end of a length of #14AWG copper wire (or equivalent) through a convenient grounding eye of the elbow, leaving sufficient length to allow movement of the elbow to the appropriate parking stand. Make a small loop and twist tightly, taking care not to damage the eye.

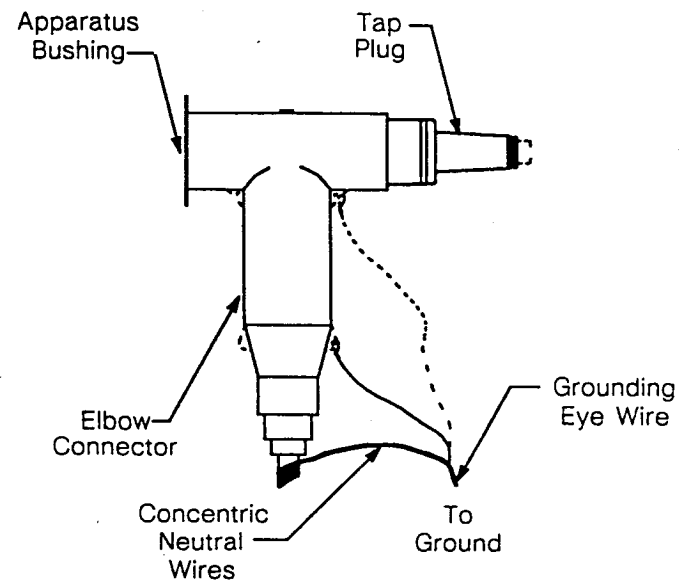


STEP 7A FOR CONCENTRIC NEUTRAL CABLE

Twist the concentric neutral wires together. Connect them and the grounding eye wire to ground using an appropriate connector.

Leave sufficient length to allow movement of the elbow to the appropriate parking stand.

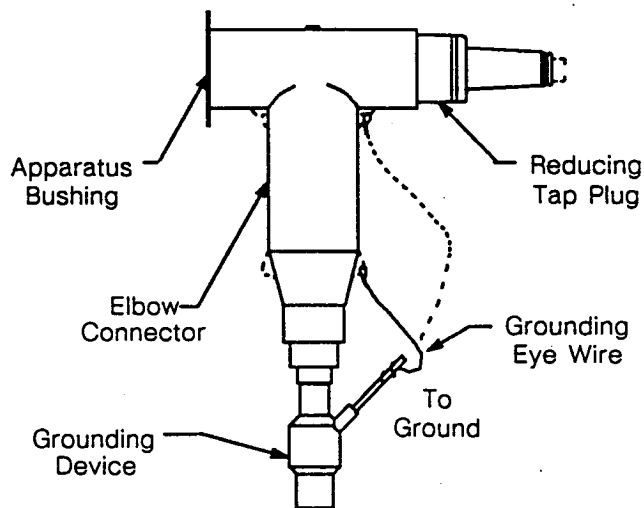
For three-phase installations, all grounds from all three phases must be tied to a common ground point.



STEP 7B FOR CABLES USING GROUNDING DEVICES.

Connect both the grounding eye wire and the ground lead from the grounding device to ground using a suitable connector. Be sure the ampacity of the ground leads are equal to or larger than that of the grounding device. Leave sufficient length to allow movement of the elbow to the appropriate parking stand.

For three-phase installations, all grounds from all three phases must be tied to a common ground.

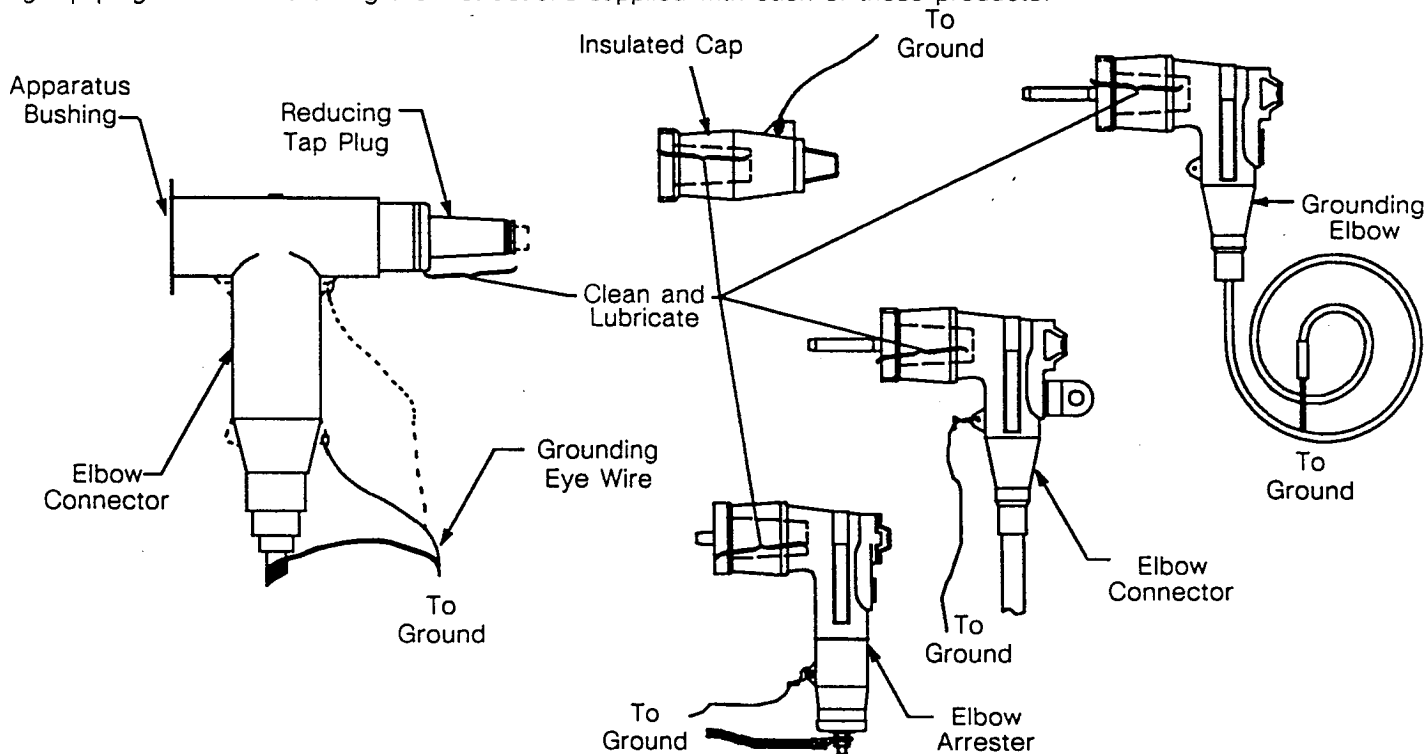


STEP 7C JACKETED, METALLIC SHIELDED CABLE WITHOUT GROUNDING DEVICE

Connect the metallic shield of the cable to ground using a jumper of equivalent ampacity to the metallic shield. Waterproof the jacket at this point to prevent moisture from entering. Connect the elbow connector grounding eye wire to ground.

STEP 8

Clean and lubricate the entire reducing tap plug interface and either an insulating cap, elbow arrester, loadbreak elbow or grounding elbow with the lubricant supplied or ELASTIMOLD approved lubricant. Install the mating product to the reducing tap plug interface following the instructions supplied with each of these products.



WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2).



**ELASTIMOLD
 DIVISION**

AMERACE CORPORATION, ROUTE 24
 HACKETTSTOWN, NEW JERSEY USA 07840 (201) 852-1122

CRIMPING TOOLS AND DIES RECOMMENDED FOR ELASTIMOLD 600AMP STICK--OP CONNECTORS

ELASTIMOLD Symbol 03600XXX	Connector O.D.	Conductor Size Aluminum or Copper			Burndy			Kearney			CSA	
		Stranded Concentric Round	Compact	Solid	Die Index	Tool Y35 Dies	Tool Y45L* Dies	Tool Y48B Dies	Tool H--1 Dies	Tool H--2 Dies	Tool H--25 Dies	Die No.
220	.850"	2	1	1	298	U28ART (3)	U28ART (3)	C28ART (2)	840 (4)	840 (4)	---	24
230		1	1/0	1/0								
240		1/0	2/0	2/0								
250		2/0	3/0	3/0								
260		3/0	4/0	4/0								
270		4/0	250	---								
280	1.152"	250	300	---	299	U31ART (2)	U31ART (2)	C31ART (1)	1--1/8--1 (2)	1--1/8--1 (2)	---	---
290		300	350	---	705	U705 (2)	U705 (2)	C705 (2)				
300		350	400	---	654	U654 (2)	U654 (2)	C654 (1)				
310	1.320"	400	450/500	---	300 M	U34ART (4)	U34ART (4)	C34ART (2)	---	1--5/16 (3)	1--5/16 (3)	---
320		450	500/550	---								
330		500	600	---								
340		550	650	---								
350		600	700	---								
360		650	750/800	---								
360- -CS871	1.620"	650	750/800	---	301 608	---	S39ART (4)	C39ART (2) C608 (2)	---	---	1--1/2 (2)	32
380		700/750	900	---								
390		800	900	---								
400	1.840"	900	1000	---	302 292	---	S44ART (4) S292 (4)	C44ART (2) C292 (2)	---	---	1--3/4 (2)	34
410		1000	---	---								
420		1100	---	---								
440		1250	---	---								
**470	2.250"	1500	---	---	478	---	---	C46AR (2)	---	---	2--1/4 (2)	---

* U Dies require adapter No.6515.

** For 750BLR only.

() Number of crimps

Rotate each successive crimp 90_ or 180_ to prevent excessive distortion.

Wire brush bared aluminum conductor before inserting into conductor contact.

CSA DIE NOTICE:

RE USE OF CSA DIE FOR CRIMPING

Engineering calculations denote the results of crimping with the suggested C.S.A. dies should have a completely satisfactory connection. However, recommendations for suitable C.S.A. dies to crimp these connectors, were determined, mathematically, from tests done on certain selected crimp connectors. Complete testing has not been done on all sizes.

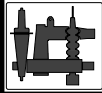
AVIS POUR LA COMPRESSION SELON L'ACNOR

REF: Utilisation de la matrice ACNOR pour la compression

Les calculs d'ingénierie démontrent que les compressions avec les matrices suggérées de l'ACNOR résulteraient en un raccordement complètement satisfaisant. Toutefois, pour recommander des matrices ACNOR appropriées pour compresser ces connecteurs, nous avons déterminé mathématiquement selon des essais exécutés sur un certain nombre de connecteurs compressés sélectionnés. Les essais n'ont pas été complétés sur tous les calibres.



ELASTIMOLD

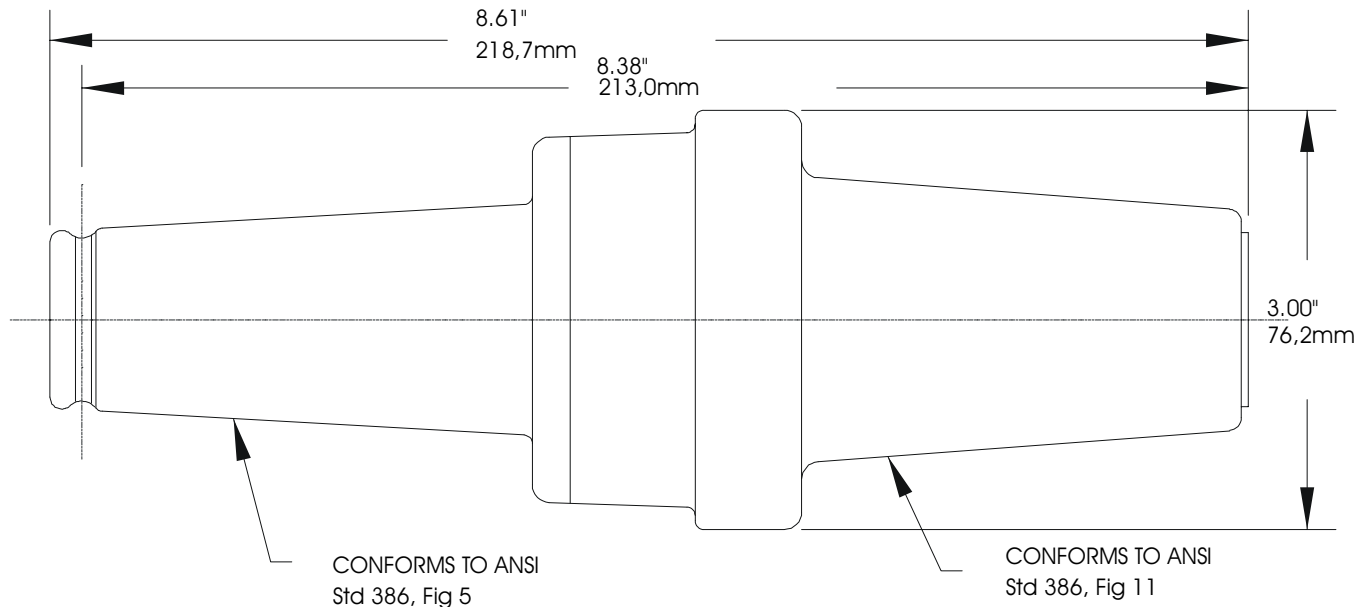


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

650ETP

The 15kV 650ETP elbow tap plug permits a 200-amp tap off of a mating 600 Amp connector using load-break elbows. The 650ETP is installed with a 600AT or 600ATM assembly tool.

Features:

- Includes hex-broach for torque in installation.
- Peroxide-cured insulation and jacket.
- Loadbreak interface is designed for energized operation.

Ratings

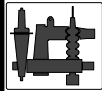
per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minute Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycle Momentary & Fault Close

Ordering Instruction:

To order, specify number **650ETP** reducing tap plug.

The 650ETP reducing tap plug includes the following:

1 - Reducing tap plug	650ETP
1 - Protective shipping cap	1601-APC-1
1 - Lubricant	82-08
1 - Installation instruction	IS-ETP 6/97

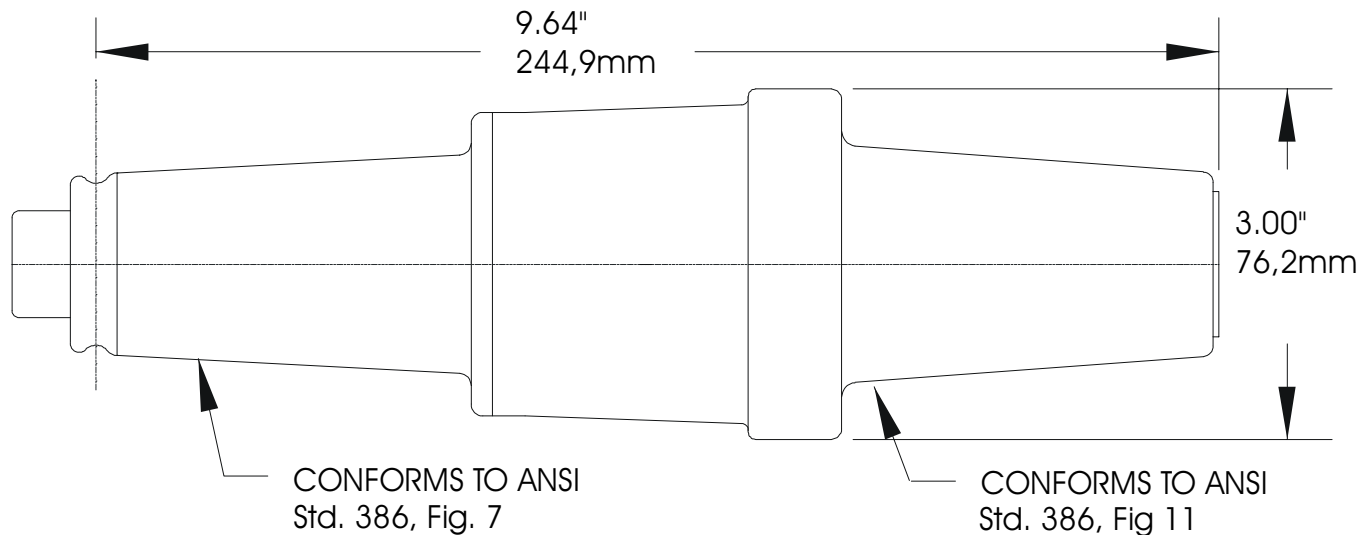


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

K650ETP

The 25kV K650ETP elbow tap plug permits a 200-amp tap off of a mating 600 Amp connector using load-break elbows. The K650ETP is installed with a 600AT or 600ATM assembly tool.

Features:

- Includes hex-broach for torque in installation.
- Peroxide-cured insulation and jacket.
- Loadbreak interface is designed for energized operation.

Ratings

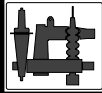
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instruction:

To order, specify number **K650ETP** reducing tap plug.

The K650ETP reducing tap plug includes the following:

1 - Reducing tap plug	K650ETP
1 - Protective shipping cap	2701-41
1 - Lubricant	82-08
1 - Installation instruction	IS-ETP 6/97

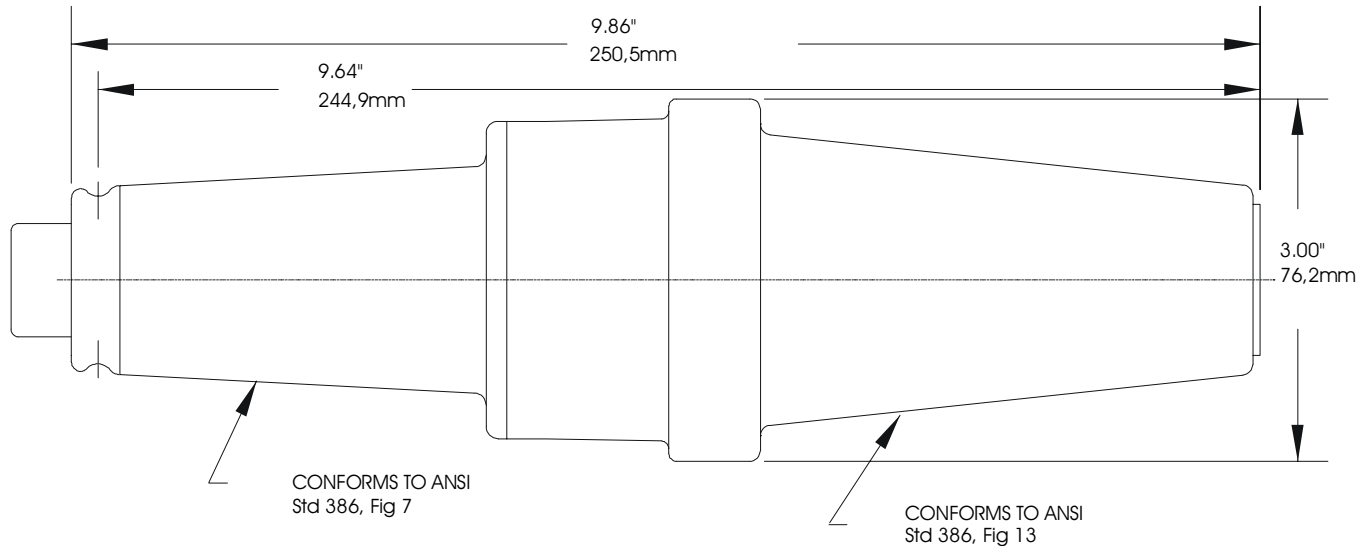


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

750ETP

The 35kV 750ETP elbow tap plug permits a 200-amp tap off of a mating 600 Amp connector using load-break elbows. The 750ETP is installed with a 600AT or 600ATM assembly tool.

Features

- Loadbreak is rated and designed for 1 Ø energized operation.
- Designed for energized operation.
- Includes hex-broach for torque in installation.
- Peroxide-cured insulation and jacket.

Ratings

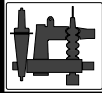
per ANSI/IEEE Standard 386
 35kV Voltage Class, 1 Ø.
 21.1kV Max Phase-to-Ground - Operating Voltage
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minute Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycle Momentary & Fault Close

Ordering Instructions:

To order, specify number **750ETP** loadbreak reducing tap plug.

The 750ETP loadbreak reducing tap plug includes the following:

1 - Reducing tap plug	750ETP
1 - Protective shipping cap	2701-41
1 - Lubricant	82-08
1 - Installation instruction	IS-ETP 6/97

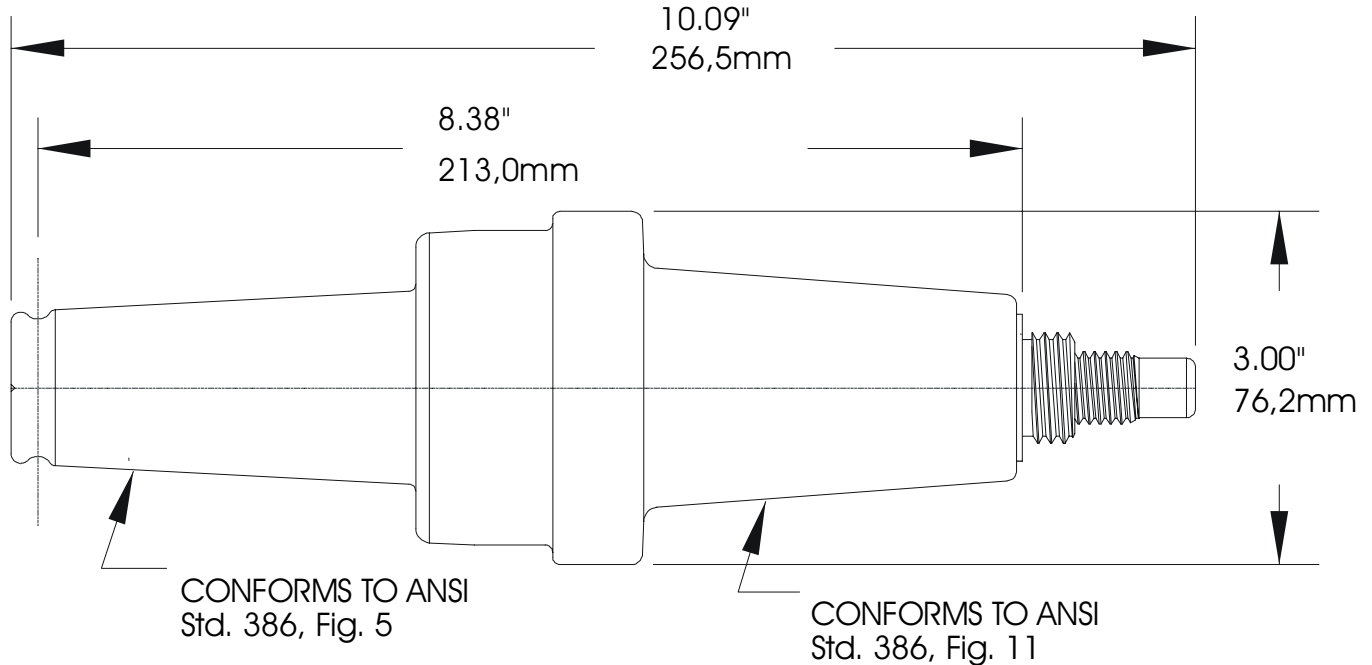


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Stick-Op Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

650LRTPA3

The 650LRTPA3 loadbreak reducing tap plug is constructed of EPDM molded rubber and is used in conjunction with the Elastimold stick operable 600 Amp deadbreak connector system. The unit mates with a 600 Amp elbow interface and provides a 200 Amp loadbreak tap, an access hole thru the bore of the reducing tap plug allows use of a 600AT operating tool to bolt and secure the component to a mating 600 Amp elbow and apparatus bushing.

Ratings

per ANSI/IEEE Standard 386
 15kV Voltage Class
 8.3kV Max Phase-to-Ground - Operating Voltage
 14.4kV Max Phase-to-Phase
 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute Withstand
 53kV DC - 15 Minutes Withstand
 11kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **650LRTPA3**.

The 650LRTPA3 loadbreak reducing tap plug includes the following:

1 - Elbow tap plug	650LRTPA3
2 - Lubricant	82-08
1 - Installation instruction	IS-15/25/35LRTP 12/89

Installation Instructions 15/25/35LRTP Elbow Reducing Tap Plug

CONTENTS: 1-Reducing Tap Plug, Lubricant (DO NOT SUBSTITUTE), 1-Guide Pin, 1-Installation Instruction

The elbow reducing tap plugs have voltage ratings as indicated on the product and are designed for a 600/900 ampere stick-operable system, with a 200 ampere tap.

WARNING: The following ratings apply to this product:

600/900 Ampere Deadbreak Interface - 600 or 900 amperes load current and 25,000 amperes short circuit current for 10 cycles.

200 Ampere Loadbreak Interface - 200 amperes load current and 10,000 amperes fault-close current. For higher short circuit current: 1) this interface should only be operated de-energized; and 2) elbows used for taps or grounding must be adequately secured such as with a bail.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

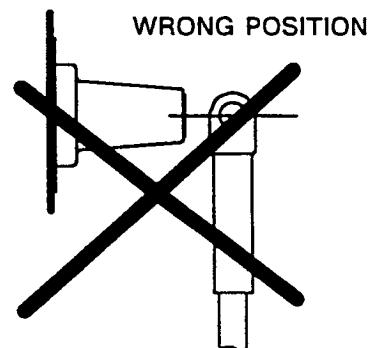
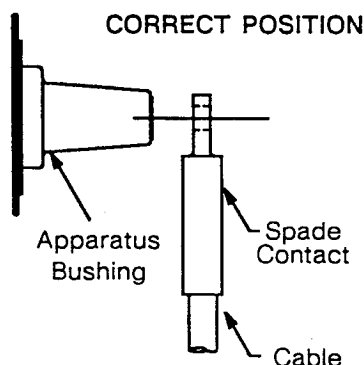
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

STEP 1

Prepare cable using spade contact (03600XXX) and install elbow as described in the 600 amp LR, elbow connector installation instructions. Before making first crimp on spade contact, align it on the cable so that the spade lies flat on the apparatus bushing contact.



15-0187

IS-15/25/35LRTP
1 December 1989
Printed in U.S.A.



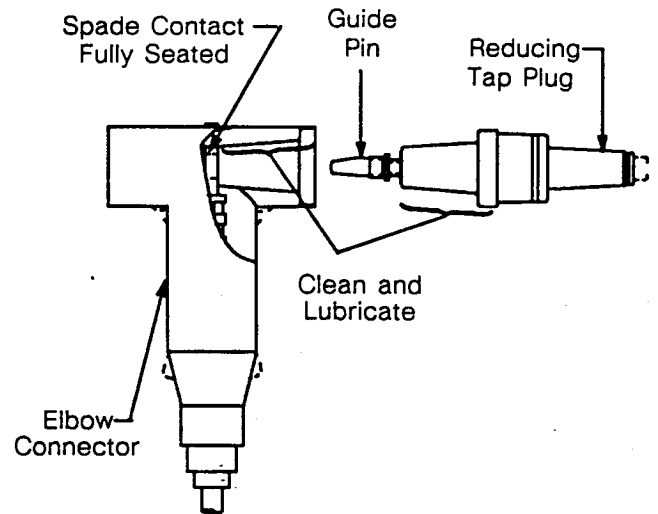
amerace

ELASTIMOLD
DIVISION

AMERACE CORPORATION, ROUTE 24
HACKETTSTOWN, NEW JERSEY USA 07840 (201) 852-1122

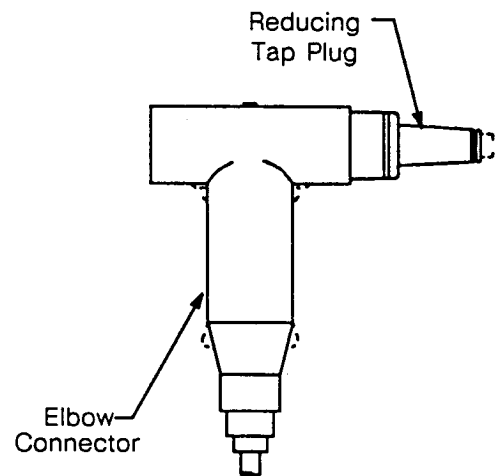
STEP 2

Remove the protective cap from the reducing tap plug and the elbow. Clean and lubricate the entire elbow connector interface and reducing tap plug interface as indicated with the lubricant supplied or ELASTIMOLD approved lubricant. **IMPORTANT: CHECK TO BE SURE THE SPADE CONTACT IN THE ELBOW CONNECTOR IS FULLY SEATED AGAINST THE TOP OF THE HOUSING.** Insert the reducing tap plug into the elbow connector.



STEP 3

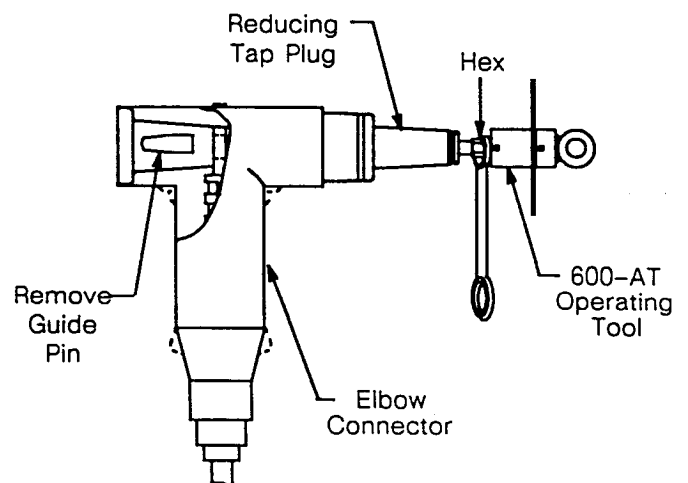
Assemble the reducing tap plug to the elbow connector in a clockwise direction. Hand tighten the reducing tap plug.



STEP 4

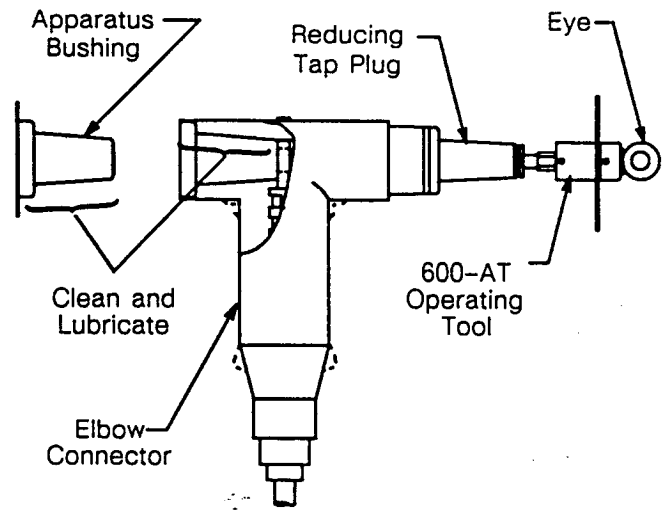
Slowly insert the 600-AT, operating tool, into the reducing tap plug until fully seated. Torque the reducing tap plug in a clockwise direction to the elbow connector with a suitable tool applied to the hex portion of the 600-AT, operating tool. At some point during torquing operation the guide pin will separate from the reducing tap plug. Continue torquing UNTIL THE INTERNAL SHEAR PIN BREAKS. (Note: This will require 15 to 18 complete revolutions and a torque of 35 to 50 foot-pounds.)

Remove guide pin and continue with assembly instructions.



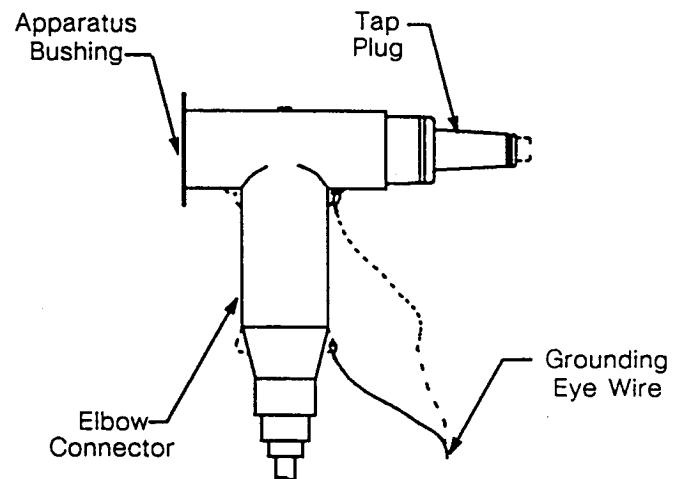
STEP 5

Clean and lubricate the entire apparatus bushing interface and remaining elbow connector interface with the lubricant supplied or ELASTIMOLD approved lubricant. Assemble the elbow connector on the apparatus bushing with the 600-AT by inserting a suitable rod through the eye of the tool and turning in a clockwise direction. This must be done while pushing the elbow toward the apparatus bushing. Continue to rotate the eye of the 600-AT, clockwise, until it begins to ratchet signifying the proper assembly torque has been reached. Remove 600-AT from the reducing tap plug.



STEP 6

Insert one end of a length of #14AWG copper wire (or equivalent) through a convenient grounding eye of the elbow, leaving sufficient length to allow movement of the elbow to the appropriate parking stand. Make a small loop and twist tightly, taking care not to damage the eye.

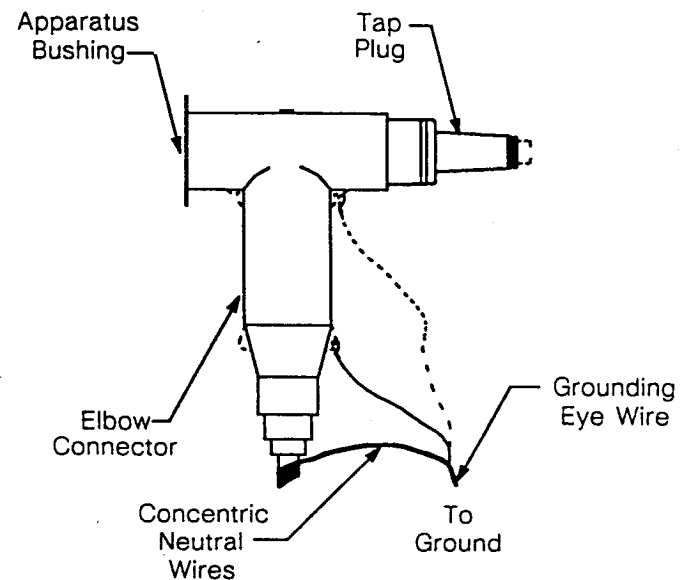


STEP 7A FOR CONCENTRIC NEUTRAL CABLE

Twist the concentric neutral wires together. Connect them and the grounding eye wire to ground using an appropriate connector.

Leave sufficient length to allow movement of the elbow to the appropriate parking stand.

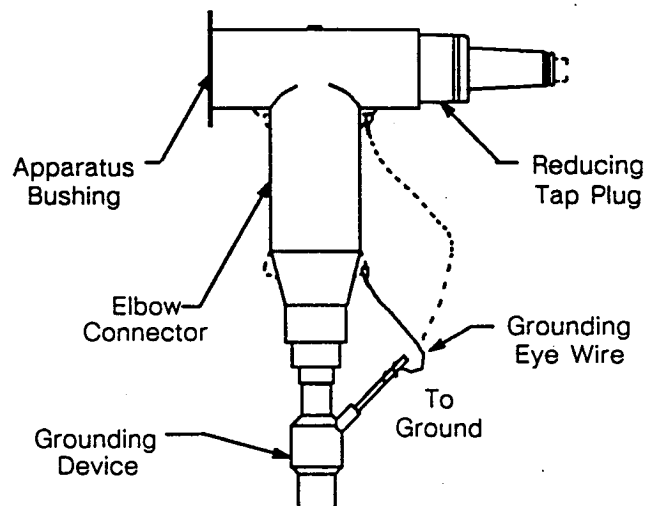
For three-phase installations, all grounds from all three phases must be tied to a common ground point.



STEP 7B FOR CABLES USING GROUNDING DEVICES.

Connect both the grounding eye wire and the ground lead from the grounding device to ground using a suitable connector. Be sure the ampacity of the ground leads are equal to or larger than that of the grounding device. Leave sufficient length to allow movement of the elbow to the appropriate parking stand.

For three-phase installations, all grounds from all three phases must be tied to a common ground.

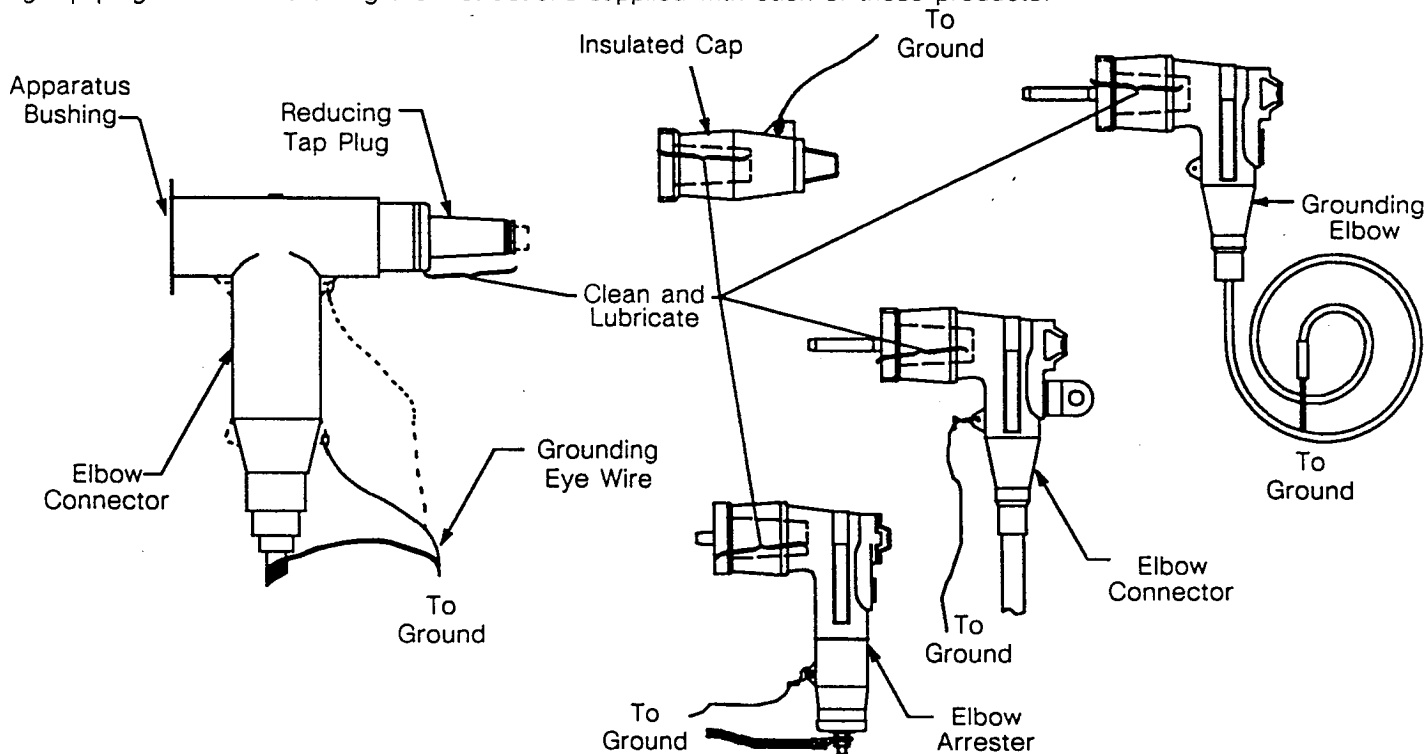


STEP 7C JACKETED, METALLIC SHIELDED CABLE WITHOUT GROUNDING DEVICE

Connect the metallic shield of the cable to ground using a jumper of equivalent ampacity to the metallic shield. Waterproof the jacket at this point to prevent moisture from entering. Connect the elbow connector grounding eye wire to ground.

STEP 8

Clean and lubricate the entire reducing tap plug interface and either an insulating cap, elbow arrester, loadbreak elbow or grounding elbow with the lubricant supplied or ELASTIMOLD approved lubricant. Install the mating product to the reducing tap plug interface following the instructions supplied with each of these products.



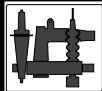
WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2).



**ELASTIMOLD
 DIVISION**

AMERACE CORPORATION, ROUTE 24
 HACKETTSTOWN, NEW JERSEY USA 07840 (201) 852-1122



ELASTIMOLD

ISSUE DATE 0199

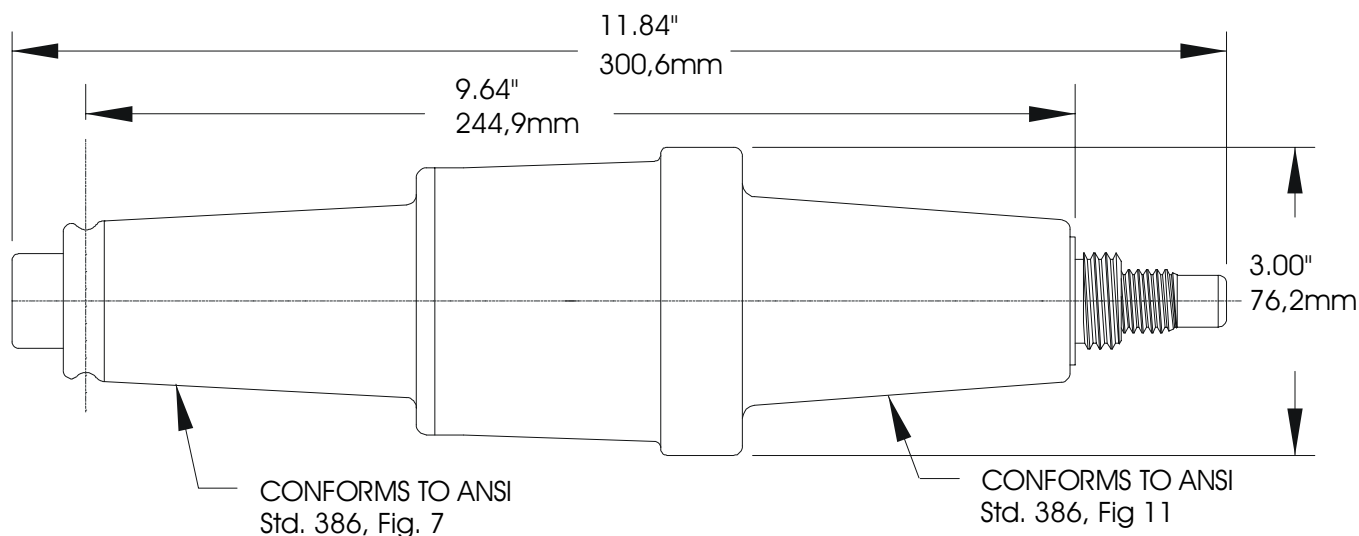
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Stick-Op Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

K650LRTPA2

The K650LRTPAs loadbreak reducing tap plug is constructed of EPDM molded rubber and is used in conjunction with the Elastimold stick operable 600 Amp deadbreak connector system. The unit mates with a 600 Amp elbow interface and provides a 200 Amp loadbreak tap, an access hole thru the bore of the reducing tap plug allows use of a 600AT operating tool to bolt and secure the component to a mating 600 Amp elbow and apparatus bushing.

Ratings

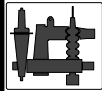
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

Ordering Instructions:

To order, specify number **K650LRTPA2**.

The K650LRTPA2 loadbreak reducing tap plug includes the following:

1 - Elbow tap plug	K650LRTPA2
2 - Lubricant	82-08
1 - Installation instruction	IS-15/25/35LRTP 12/89



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

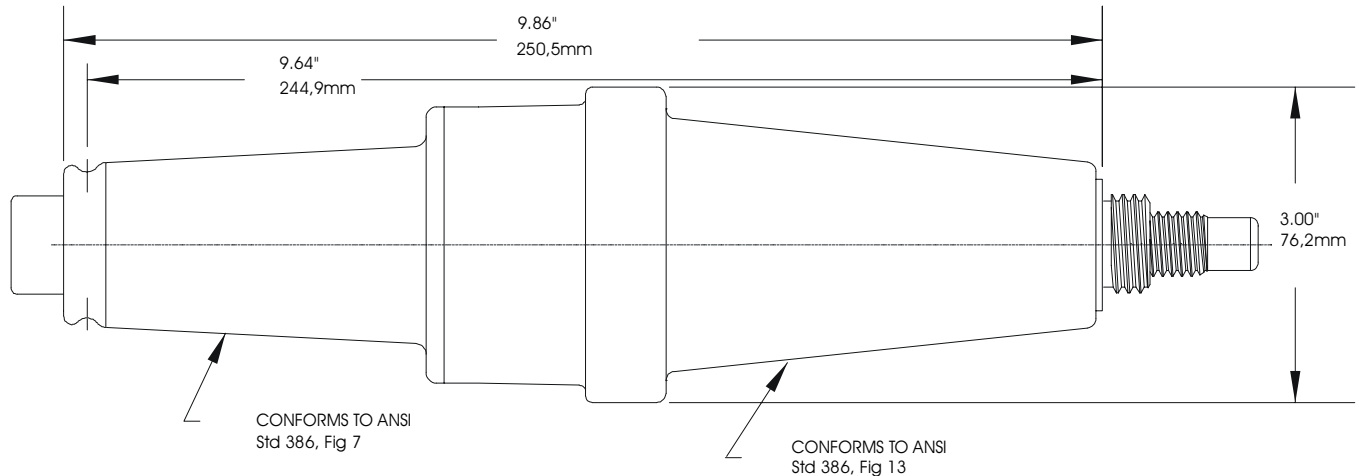
I

DESCRIPTION

35kV Stick-Op Loadbreak Reducing Tap Plug

ELASTIMOLD PART NUMBER

750LRTPA2



The 750LRTPA2 loadbreak reducing tap plug is constructed of EPDM molded rubber and is used in conjunction with the Elastimold stick operable 600 Amp deadbreak connector system. The unit mates with a 600 Amp elbow interface and provides a 200 Amp loadbreak tap, an access hole thru the bore of the reducing tap plug allows use of a 600AT operating tool to bolt and secure the component to a mating 600 Amp elbow and apparatus bushing.

Ratings

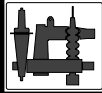
per ANSI/IEEE Standard 386
 35kV Voltage Class, 1 Ø.
 21.1kV Max Phase-to-Ground - Operating Voltage
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minute Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycle Momentary & Fault Close

Ordering Instructions:

To order, specify number **750LRTPA2**.

The **750LRTPA2** loadbreak reducing tap plug includes the following:

1 - Elbow tap plug	750LRTPA2
2 - Lubricant	82-08
1 - Installation instruction	IS-15/25/35LRTP 12/89

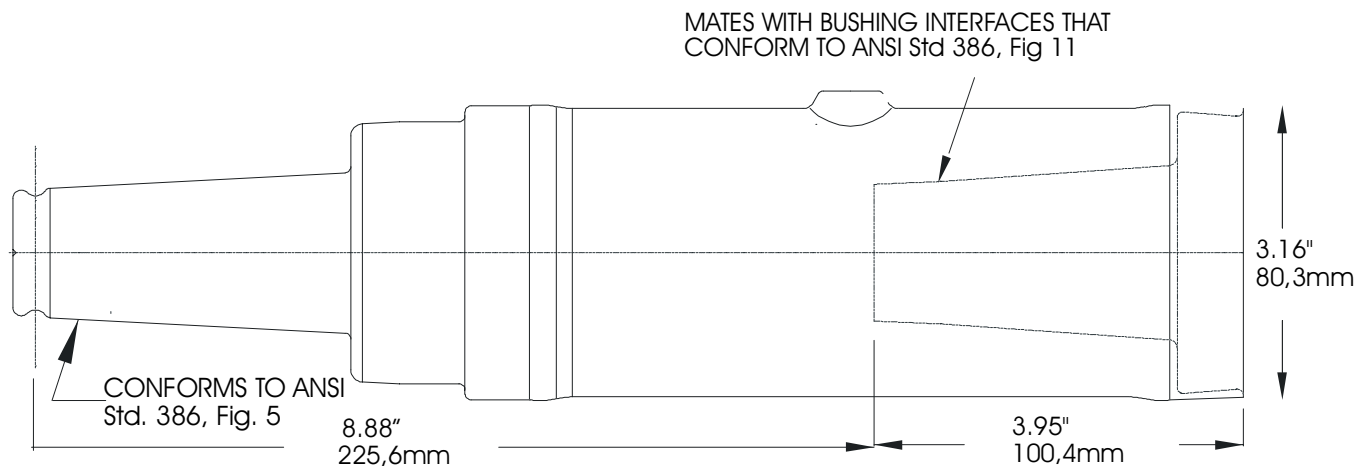


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Stick-Op Bushing Adapter

ELASTIMOLD PART NUMBER

650BEA3

The 650BEA3 is a component of the Elastimold Stick Operable System. It is used to transformer 600A bushing into a 200A loadbreak interface for connecting grounding elbows or other accessories. Units consist of a 650LRTPA3 and a K655BE pre-assembled in the factory.

Ordering Instructions:

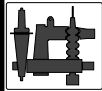
To order, specify number **650BEA3**.

The **650BEA3** stick-op bushing adapter includes the following:

- | | |
|------------------------------|-----------------|
| 1 – Stick-Op bushing adapter | 650BEA2 |
| 2 – Lubricant | 82-08 |
| 1 – Installation instruction | IS-15/25/35 BEA |

Ratings

- per ANSI/IEEE Standard 386
- 15kV Voltage Class
 - 8.3kV Max Phase-to-Ground - Operating Voltage
 - 14.4kV Max Phase-to-Phase
 - 95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 - 34kV AC - One minute Withstand
 - 53kV DC - 15 Minutes Withstand
 - 11kV AC - Corona Extinction @ 3p.C.sensitivity
 - 200 Amp - Continuous and Loadbreak
 - 10kA Sym - 10 Cycles Momentary & Fault Close



ELASTIMOLD

ISSUE DATE 0199

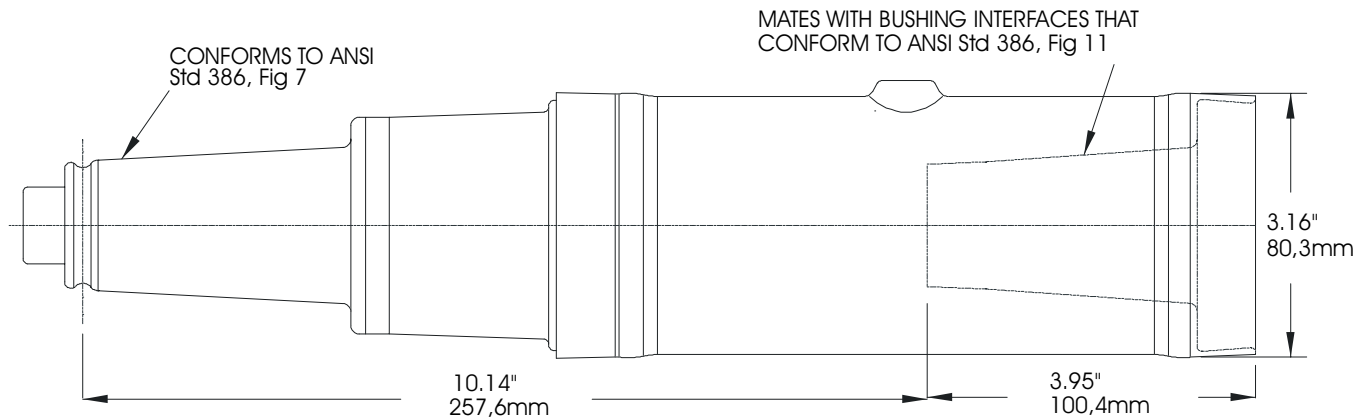
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Stick-Op Bushing Adapter

ELASTIMOLD PART NUMBER

K650BEA2

The K650BEA2 is a component of the Elastimold Stick Operable System. It is used to transformer 600A bushing into a 200A loadbreak interface for connecting grounding elbows or other accessories. Units consist of a K650LRTPA2 and a K655BE pre-assembled in the factory.

Ordering Instructions:

To order, specify number **K650BEA2**.

The **K650BEA2** stick-op bushing adapter includes the following:

- | | |
|------------------------------|-----------------|
| 1 – Stick-Op bushing adapter | K650BEA2 |
| 2 – Lubricant | 82-08 |
| 1 – Installation instruction | IS-15/25/35 BEA |

Ratings

per ANSI/IEEE Standard 386

25kV Voltage Class

15.2kV Max Phase-to-Ground - Operating Voltage

26.3kV Max Phase-to-Phase

125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

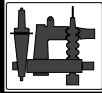
40kV AC - One minute Withstand

78kV DC - 15 Minutes Withstand

19kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

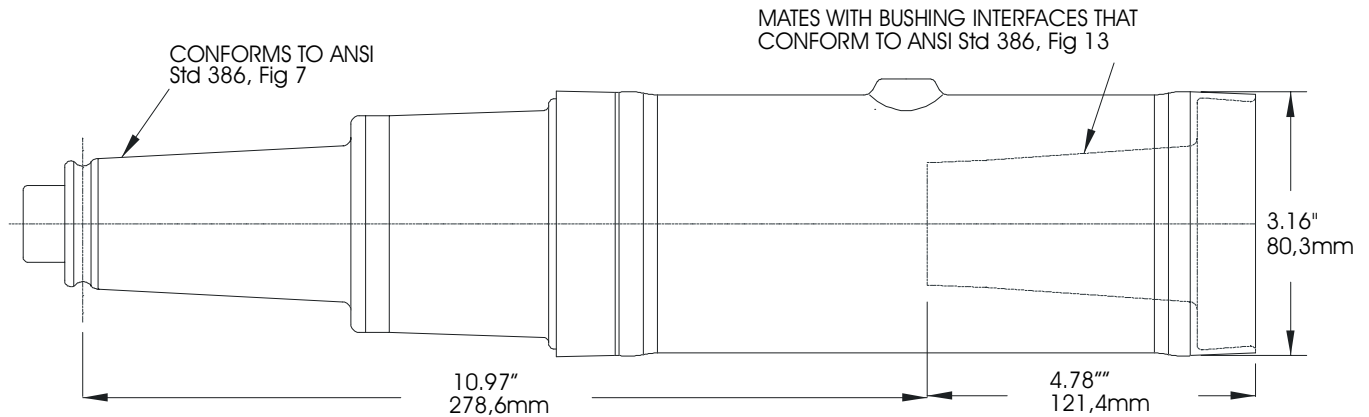
PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV Stick-Op Bushing Adapter

ELASTIMOLD PART NUMBER

750BEA2



The 750BEA2 is a component of the Elastimold Stick Operable System. It is used to transformer 600A bushing into a 200A loadbreak interface for connecting grounding elbows or other accessories. Units consist of a 750LRTPA2 and a 755BE pre-assembled in the factory.

Ordering Instructions:

To order, specify number **750BEA2**.

The 750BEA2 loadbreak reducing tap plug includes the following:

- | | |
|------------------------------|-----------------|
| 1 – Elbow tap plug | 750BEA2 |
| 2 – Lubricant | 82-08 |
| 1 – Installation instruction | IS-15/25/35 BEA |

Ratings

- per ANSI/IEEE Standard 386
- 35kV Voltage Class, 1 Ø.
- 21.1kV Max Phase-to-Ground - Operating Voltage
- 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 50kV AC - One minute Withstand
- 103kV DC - 15 Minutes Withstand
- 26kV AC - Corona Extinction @ 3p.C.sensitivity
- 200 Amp - Continuous and Loadbreak
- 10kA Sym - 10 Cycles Momentary & Fault Close

Installation & Operating Instructions (K)650BEA, 750BEA, (K)675BEA, 775BEA Bushing Converters

CONTENTS: 1--Bushing Converter, Lubricant (DO NOT SUBSTITUTE), 1--Installation & Operating Instruction

The bushing converter, with a rated voltage and current as indicated on the product when used with the appropriate 200 ampere device, is designed to provide a fully shielded, fully submersible method of obtaining: 1) a fully hot--stick operable method of dead--ending a 600/900 ampere bushing, 2) a 200 ampere tap off a 600/900 ampere system, 3) surge protection.

THE AVAILABLE FAULT CURRENT MUST BE LIMITED TO 10,000 AMPERES WHEN USING THIS PRODUCT.

DANGER

All apparatus must be de--energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded deadend cap or connector before submerging or energizing the circuit.

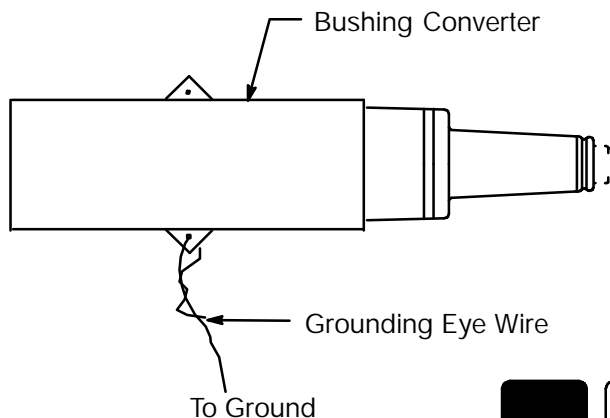
IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.

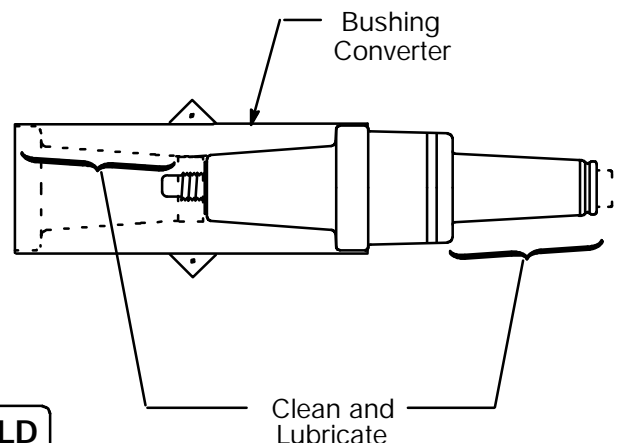
STEP 1

Insert one end of a length of a #14 AWG copper wire (or equivalent) through the grounding eye of the bushing converter, leaving sufficient length to allow movement to the apparatus bushing. Make a small loop and twist tightly, taking care not to damage the eye. Connect this wire to system ground using a suitable connector.



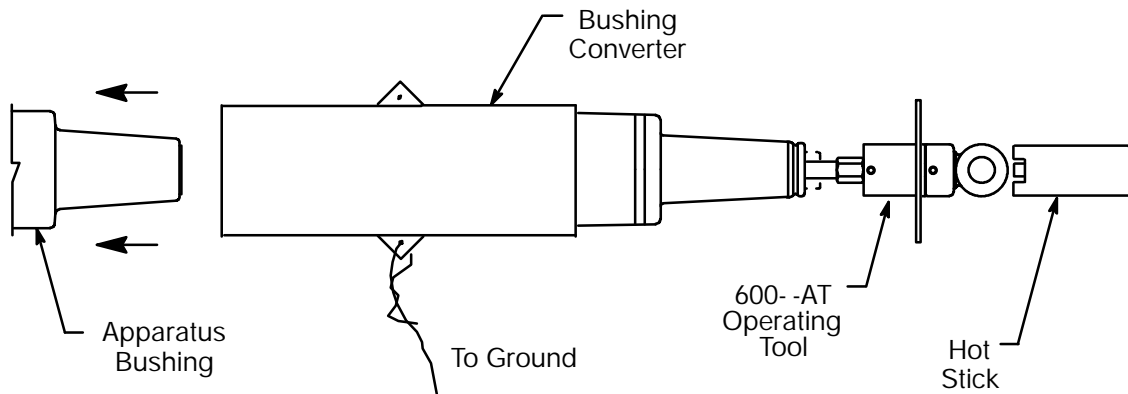
STEP 2

Clean and lubricate the bushing converter interfaces, as noted, with lubricant supplied or ELASTIMOLD approved lubricant. Keep all mating surfaces clean.



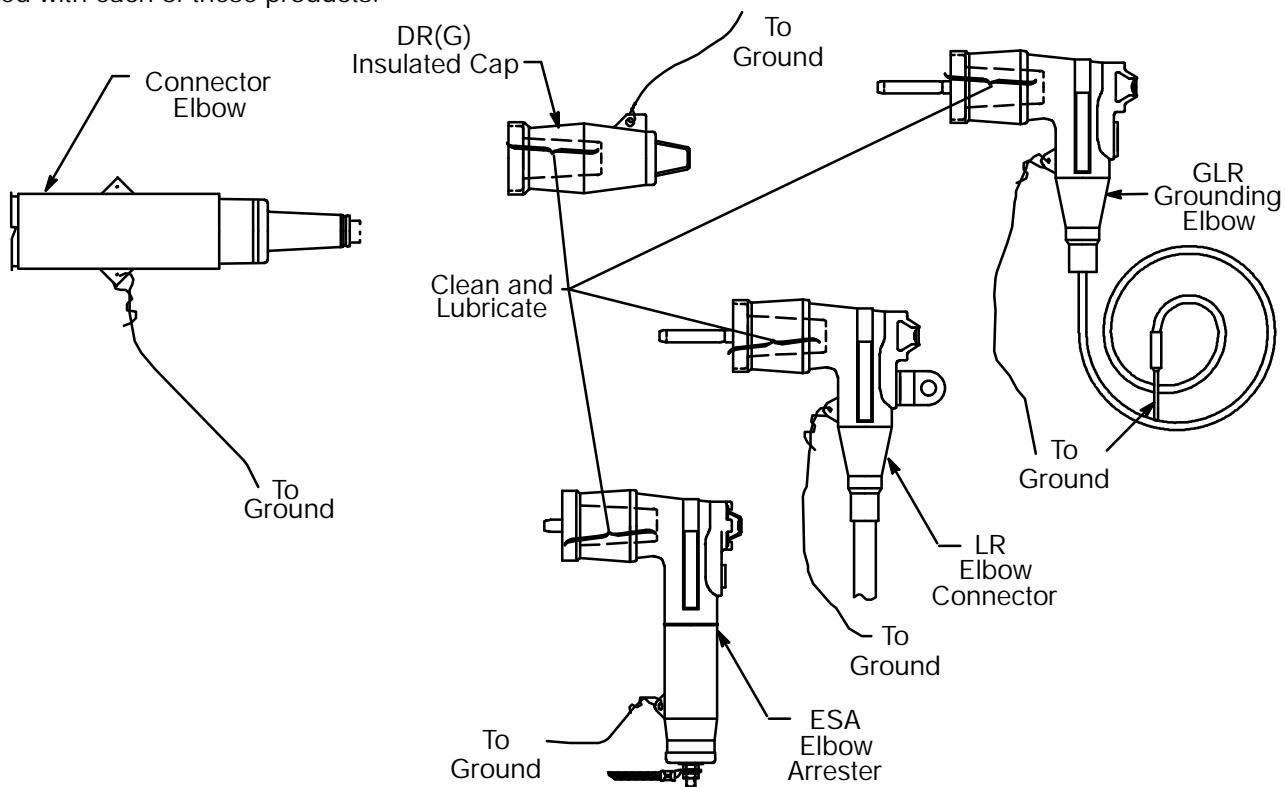
STEP 3

Insert 600- -AT, operating tool, into the tap plug until fully seated. Attach a hot- -stick to eye of 600- -AT. Assemble bushing converter on apparatus bushing by turning hot- -stick in a clockwise direction. This must be done while pushing the bushing converter toward the apparatus bushing. Continue to rotate the hot- -stick, clockwise, until it begins to ratchet signifying the proper assembly torque has been reached. Remove 600- -AT from bushing converter.



STEP 4

Clean and lubricate an insulated cap, grounding elbow, loadbreak elbow or elbow arrester as noted below with the lubricant supplied or ELASTIMOLD[®] approved lubricant. Install the mating product to the bushing interface following the instructions supplied with each of these products.



WARRANTY

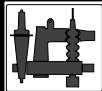
This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W--EE2).



**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ROUTE 24
NEW JERSEY USA 07840 (201) 852-1122

HACKETTSTOWN,



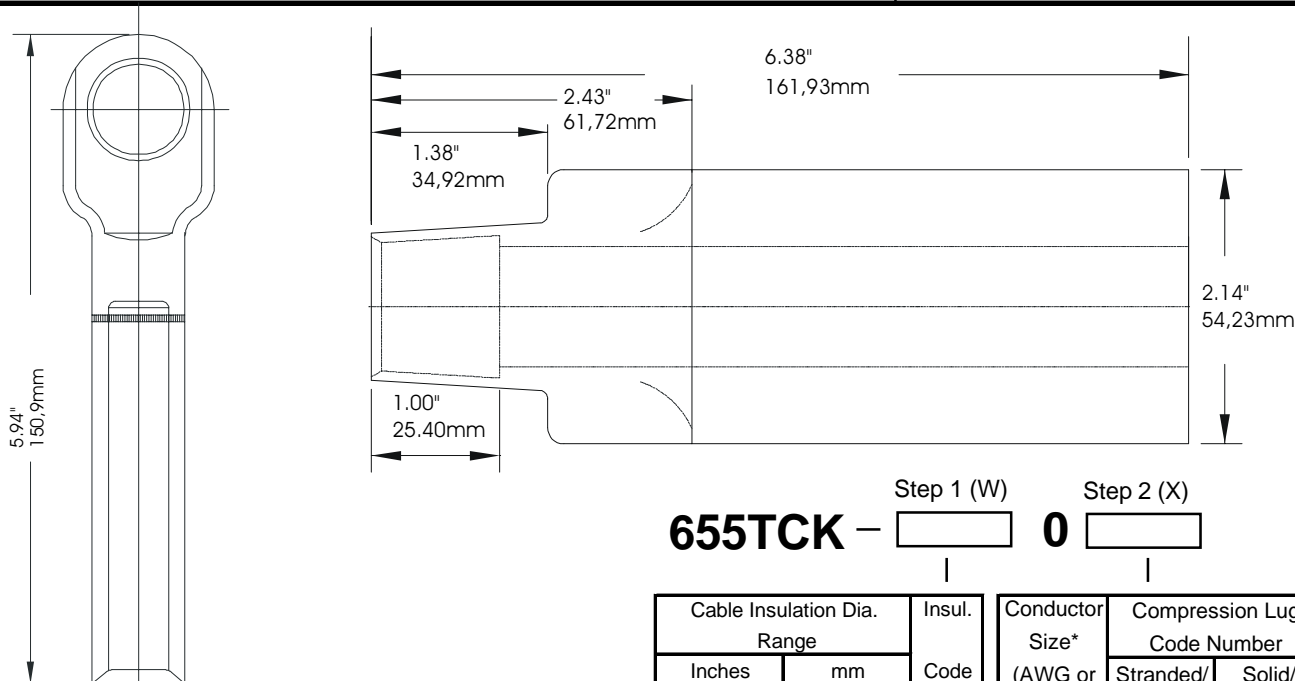
PRODUCT SPECIFICATION SHEET

C

DESCRIPTION

15/25kV Stick-OP Size Sensitive Kit

ELASTIMOLD PART NUMBER

655TCK-W0X

Provides size sensitive components for all 15/25kV Stick Operable System, Kit includes, 655CA-W cable adapter and 03600XXX crimp connector.

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

The Size Sensitive Kit contains the following:

- 1 – Cable Adapter 655CA-W
- (Table 1)
- 1 – Compression lug 03600XXX (Table 2)
- 1 – Tube, lubricant 82-08
- 1 – Crimp chart IS-03600CC (G) 9/94

Example:

The ordering number for a size sensitive kit for a 500MCM stranded, 175 mil wall cable with an insulation diameter of 1.235" (31.3 mm) is 655TCK-L0330

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "0" in the compression lug code. The ordering number would be 655TCK-L2330.

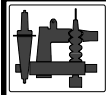
Cable Insulation Dia. Range		Insul. Code
Inches	mm	
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P

Table 1

Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	380	350
750	380	360
800	390	360
900	400	380
1000	410	400
1250	440	420

*Cu or Al conductor

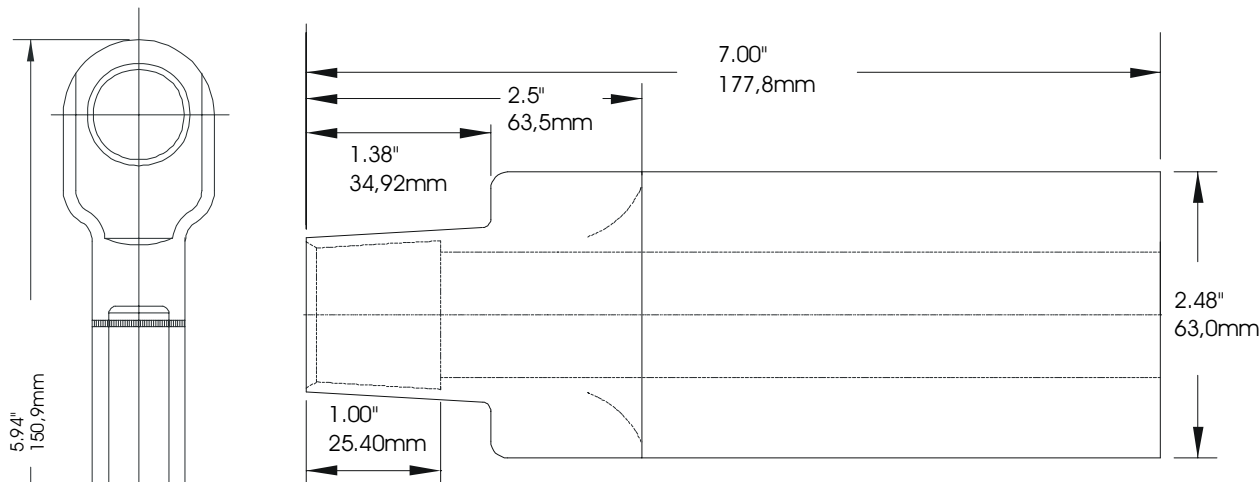
Table 2



DESCRIPTION

Stick-OP Size Sensitive Kit

ELASTIMOLD PART NUMBER

755TCK-W0X

755TCK - **0**

Step 1 (W) Step 2 (X)

Provides size sensitive components for 35kV Stick Opeable System, Kit includes, 755CA-W cable adapter and 03600XXX crimp connector.

Ordering Instruction:**Step 1 (W)**

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Cable Insulation Dia. Range		Elbow Code	Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
Inches	mm			Stranded/ Compr.	Solid/ Compact
.760 - .950	19,3 - 24,1	G	1/0	240	230
.850 - 1.050	21,6 - 26,7	H	2/0	250	240
.980 - 1.180	24,9 - 30,0	J	3/0	260	250
1.090 - 1.310	27,7 - 33,3	K	4/0	270	260
1.180 - 1.465	30,0 - 37,2	L	250	280	270
1.280 - 1.430	32,5 - 36,3	LM	300	290	280
1.370 - 1.630	34,8 - 41,4	M	350	300	290
1.515 - 1.780	38,5 - 45,2	N	400	310	300
1.725 - 1.935	43,8 - 49,1	P	450	320	310
1.900 - 2.120	48,3 - 53,9	Q	500	330	320
			550	340	320
			600	350	330
			650	360	340
			700	380	350
			750	380	360
			800	390	360
			900	400	380
			1000	410	400
			1250	440	420

Table 1

The Size Sensitive Kit contains the following:

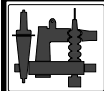
- 1 - Cable Adapter 755CA-W (Table 1)
- 1 - Compression lug 03600XXX (Table 2)
- 1 - Tube, lubricant 82-08
- 1 - Crimp chart IS-03600CC (G) 9/94

*Cu or Al conductor

Example:

The ordering number for a size sensitive kit for a 500MCM stranded, 345 mil wall cable with an insulation diameter of 1.590" (40.4 mm) is 755TCK-N0330

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "0" in the compression lug code. The ordering number would be 755TCK-N2330.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

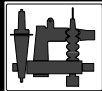
DESCRIPTION

Extraction Tool

ELASTIMOLD PART NUMBER

600ET

Detail of this page is still under construction, please contact your local sales representative for more information.

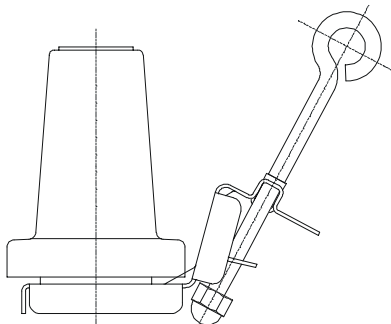
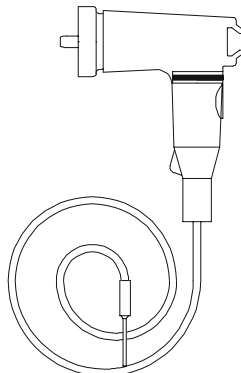
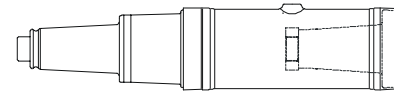
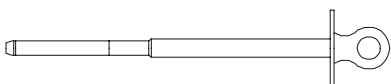
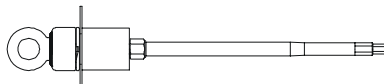


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Stick-Op Operating Kit

ELASTIMOLD PART NUMBER

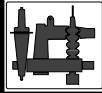
650STICK-OK**(3) K650SOP****(3) 160GLR****(3) 650BEA3****(1) 370TR****(1) 600AT**

Application:

The Stick-Op Operating Kit includes accessories that enable visible break, direct testing, isolation, and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 15kV Stick-Op Operating kit contains the following:

3 – Insulated parking bushing	K650SOP
3 – Grounding elbow	160GLR
3 – Bushing adapter	650BEA3
1 – Assembly tool	600AT
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5

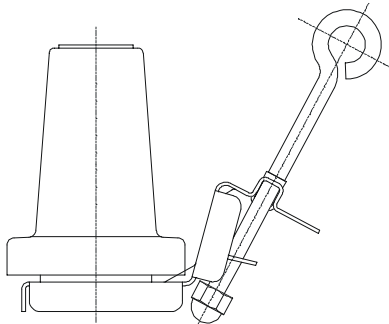
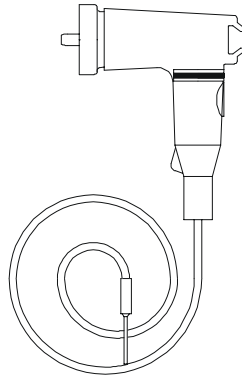
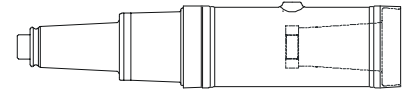
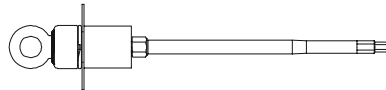


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Stick-Op Operating Kit

ELASTIMOLD PART NUMBER

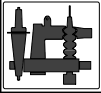
K650STICK-OK**(3) K650SOP****(3) 370GLR****(3) K650BEA2****(1) 370TR****(1) 600AT**

Application:

The Stick-Op Operating Kit includes accessories that enable visible break, direct testing, isolation, and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 25kV Stick-Op Operating kit contains the following:

3 – Insulated parking bushing	K650SOP
3 – Grounding elbow	370GLR
3 – Bushing adapter	K650BEA2
1 – Assembly tool	600AT
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5

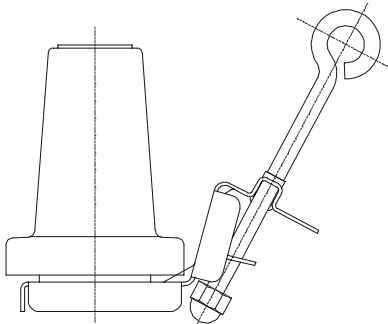
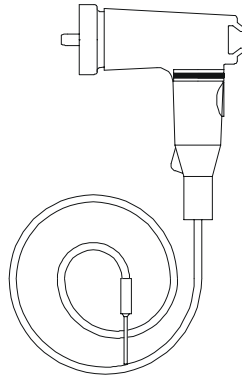
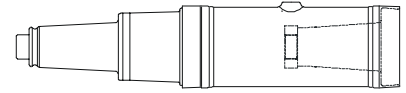
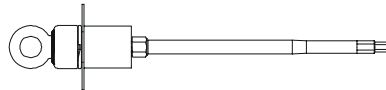


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV Stick-Op Operating Kit

ELASTIMOLD PART NUMBER

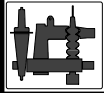
750STICK-OK**(3) 750SOP****(3) 370GLR****(3) 750BEA2****(1) 370TR****(1) 600AT**

Application:

The Stick-Op Operating Kit includes accessories that enable visible break, direct testing, isolation, and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 35kV Stick-Op Operating kit contains the following:

3 – Insulated parking bushing	750SOP
3 – Grounding elbow	370GLR
3 – Bushing adapter	7550BEA2
1 – Assembly tool	600AT
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5

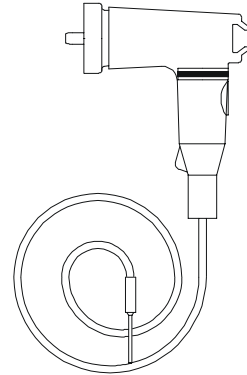


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Window-Op Operating Kit

ELASTIMOLD PART NUMBER

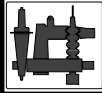
650WINDOW-OK**(1) 370TR****(3) 160GLR**

Application:

The Window-Op Operating Kit includes accessories that enable visible break, direct testing, isolation, and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 15kV Window-Op Operating kit contains the following:

3 – Grounding elbow	160GLR
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5

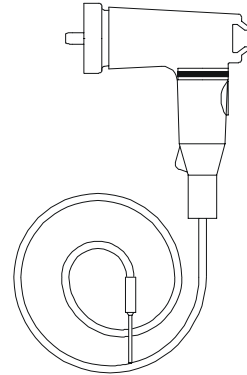


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV Window-Op Operating Kit

ELASTIMOLD PART NUMBER

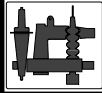
K650WINDOW-OK**(1) 370TR****(3) 370GLR**

Application:

The Window-Op Operating Kit includes accessories that enable visible break, direct testing, isolation, and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 25kV Window-Op Operating kit contains the following:

3 – Grounding elbow	370GLR
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5

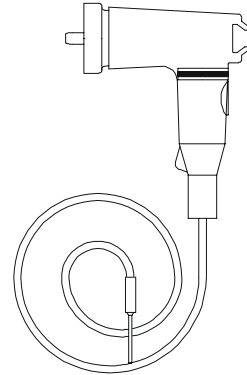


PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV Window-Op Operating Kit

ELASTIMOLD PART NUMBER

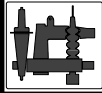
750WINDOW-OK**(1) 370TR****(3) 370GLR**

Application:

The Window-Op Operating Kit includes accessories that enable visible break, direct testing, isolation, and grounding functions to be performed. All components are contained in a carrying case for easy transport and usage.

The 35kV Window-Op Operating kit contains the following:

3 – Grounding elbow	370GLR
1 – Test rod	300TR
1 – Carry case	BG-1
1 – Tube, lubricant	SL5



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

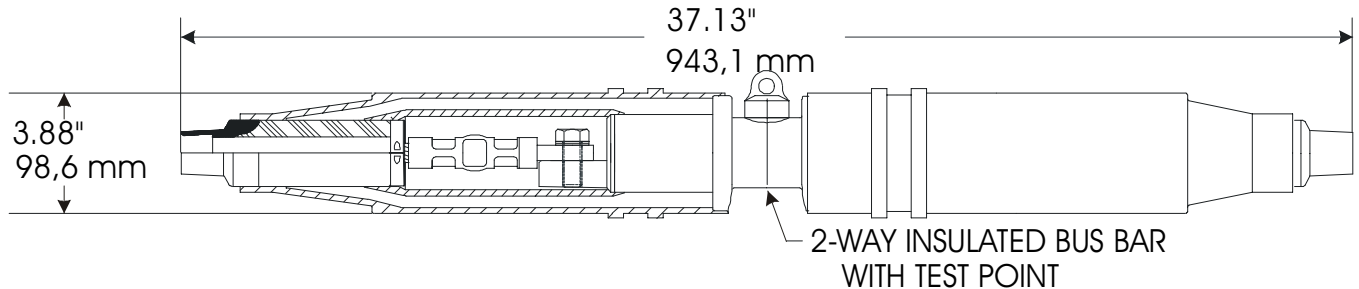
C I

DESCRIPTION

15/25kV Separable "I" Joint - 2 Way

ELASTIMOLD PART NUMBER

K656I-W0X



Application:

Elastimold 600 Amp separable cable joints are modular kits 2-way, 3-way or 4-way insulated bus bars and retractable straight receptacle housings. The K656I Separable "I" Joint is based on the 2-way bus bar. The cables are bolted via compression lugs to the bus bar. The straight receptacle housings slide over the connections to form a fully shielded, fully submersible 2-way disconnectable cable joint.

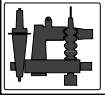
The K656I Joint is used to join cables in a disconnectable 2-way joint. It is suitable for small vaults and manholes due to its compact size. The K656I is modular and ideal where separable components are required to accommodate future system circuit changes or expansions. The K656I can also be used in direct-buried applications.

Feature:

- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components. Aluminum lugs accommodate aluminum or copper cable conductors.
- Includes integral capacitive test point.
- Optional accessories including caps and plugs for dead-ending, isolating and grounding of circuit connections.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

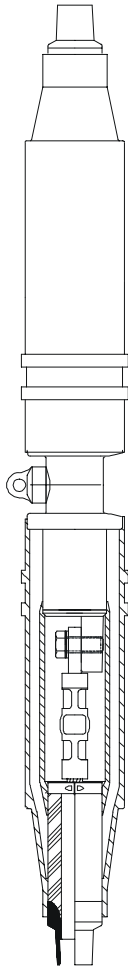
Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current



15/25kV Separable "I" Joint - 2 Way

K656I-W0X



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter from table 1. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size from table 2. Insert code into the catalog number.

When splicing different cable sizes, list each cable size "W" and "X" in the catalog number. See example below.

K656CI — Step 1 (W) 0 Step 2 (X)

Cable Insulation Dia. Range		Insul. Code	Conductor Size* (AWG or kcmil)	Compression Lug Code Number	
Inches	mm			Stranded/ Compr.	Solid/ Compact
.640 - .820	16,3 - 20,8	F	2	220	210
.760 - .950	19,3 - 24,1	G	1	230	220
.850 - 1.050	21,6 - 26,7	H	1/0	240	230
.980 - 1.180	24,9 - 30,0	J	2/0	250	240
1.090 - 1.310	27,7 - 33,3	K	3/0	260	250
1.180 - 1.465	30,0 - 37,2	L	4/0	270	260
1.280 - 1.430	32,5 - 36,3	LM	250	280	270
1.370 - 1.630	34,8 - 41,4	M	300	290	280
1.515 - 1.780	38,5 - 45,2	N	350	300	290
1.725 - 1.935	43,8 - 49,1	P	400	310	300
			450	320	310
			500	330	320
			550	340	320
			600	350	330
			650	360	340
			700	370	350
			750	380	360
			800	390	360
			900	400	390
			1000	410	400

Table 1

*Cu or Al conductor

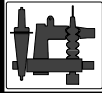
Table 2

The 2-way compact joint kit contains the following:

- 1 – 2-way insulated bus bar w/ T.P. K656I-BUS
- 2 – Straight receptacle housing K655YBSR
- 2 – Bolt & washer 650BAW
- 2 – Cable adapter 655CA-W (Table 1)
- 2 – Compression lug 03700XXX (Table 2)
- 2 – Adapter retain ring 650ARR-X (Table 2)
- 2 – Tube, lubricant 82-08
- 1 – Installation instruction IS-K655/K656CY,CH,I
- 1 – Crimp chart IS-03700CC 5/98

Example:

The order number for a Separable "I" Joint to connect a 500 MCM stranded conductor cable with 220 mil wall insulation (1.325" OD) to a 4/0 stranded conductor cable with a 220 mil insulation wall (1.085" OD) is K656I-L0330-J0270. (The "0" before the 3-digit conductor size code indicates a standard aluminum compression lug suitable for aluminum or copper cable. For copper compression lugs use a "2" prefix.)



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

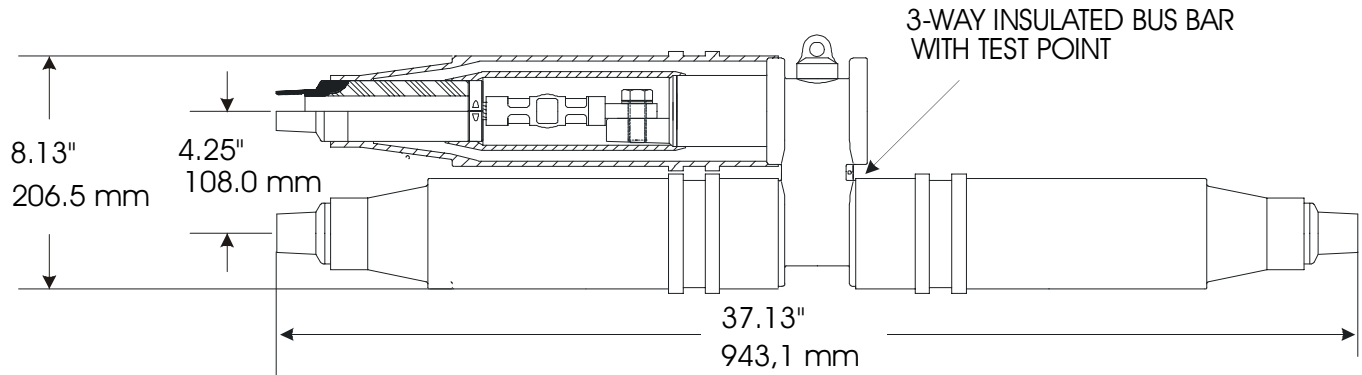
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25kV Separable "Y" Joint - 3 Way

ELASTIMOLD PART NUMBER

K656CY-W0X

Application:

Elastimold 600 Amp separable cable joints are modular kits 2-way, 3-way or 4-way insulated bus bars and retractable straight receptacle housings. The K656CY Separable "Y" Joint is based on the 3-way bus bar. The cables are bolted via compression lugs to the bus bar. The straight receptacle housings slide over the connections to form a fully shielded, fully submersible 3-way disconnectable cable joint.

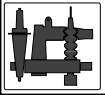
The K656CY Joint is used to join cables in a disconnectable 3-way joint. It is suitable for small vaults and manholes due to its compact size. The K656CY is modular and ideal where separable components are required to accommodate future system circuit changes or expansions. It can also be used initially as a 2-way joint with insulated caps on the unused interface. The K656CY can also be used in direct-buried applications.

Feature:

- Compact design is suitable for small vaults and manholes. 4-1/4" (108mm) cable center-to-center distance reduces rack space required.
- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components. Aluminum lugs accommodate aluminum or copper cable conductors.
- Includes integral capacitive test point.
- Optional accessories including caps and plugs for dead-ending isolating and grounding of circuit connections.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

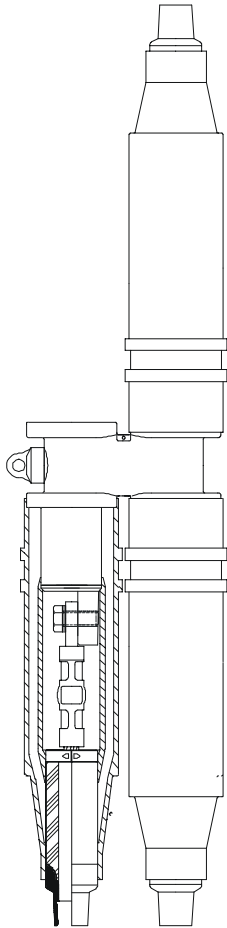
Ratings:

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 600 Amp - Continuous current
- 25kA sym, 10 cycles momentary current



15/25kV Separable "Y" Joint - 3 Way

K656CY-W0X



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter from table 1. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size from table 2. Insert code into the catalog number.

When splicing different cable sizes, list each cable size "W" and "X" in the catalog number. See example below.

Step 1 (W) Step 2 (X)
K656CY — **0**

Cable Insulation Dia. Range		Insul. Code
Inches	mm	
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P

Table 1

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	370	350
750	380	360
800	390	360
900	400	390
1000	410	400

*Cu or Al conductor

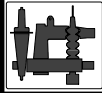
Table 2

The 3-way compact joint kit contains the following:

- 1 – 3-way insulated bus bar w/ T.P. K656CY-BUS
- 3 – Straight receptacle housing K655YBSR
- 3 – Bolt & washer 650BAW
- 3 – Cable adapter 655CA-W (Table 1)
- 3 – Compression lug 03700XXX (Table 2)
- 3 – Adapter retain ring 650ARR-X (Table 2)
- 3 – Tube, lubricant 82-08
- 1 – Installation instruction IS-K655/K656CH,CY,I
- 1 – Crimp chart IS-03700CC 5/98

Example:

The order number for a Separable "Y" Joint to connect two cables with 500 MCM stranded conductors and 220 mil wall insulation (1.325" OD) to one 15kV cable with a 4/0 stranded conductor and a 220 mil insulation wall (1.085" OD) is K656CY-L0330-L0330-J0270. (The "0" before the 3-digit conductor size code indicates standard aluminum compression lug suitable for aluminum or copper cable. For copper compression lugs use a "2" prefix.)



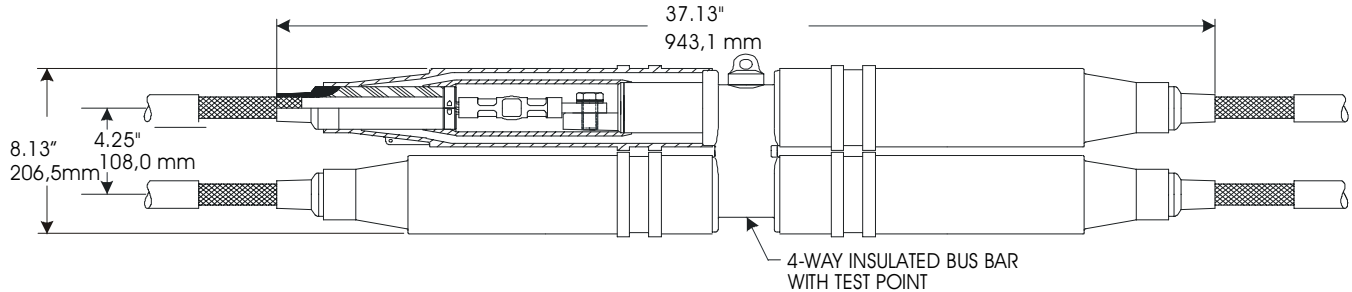
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25kV Separable "H" Joint - 4 Way

ELASTIMOLD PART NUMBER

K656CH-W0X

Application:

Elastimold 600 Amp separable cable joints are modular kits 2-way, 3-way or 4-way insulated bus bars and retractable straight receptacle housings. The K656CH Separable "H" Joint is based on the 4-way bus bar. The cables are bolted via compression lugs to the bus bar. The straight receptacle housings slide over the connections to form a fully shielded, fully submersible 4-way disconnectable cable joint.

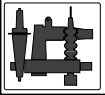
The K656CH Joint is used to join cables in a disconnectable 4-way joint. It is suitable for small vaults and manholes due to its compact size. The K656CH is modular and ideal where separable components are required to accommodate future system circuit changes or expansions. It can also be used initially as a 2-way or 3-way joint with insulated caps on the unused interfaces. The K656CH can also be used in direct-buried applications.

Feature:

- Compact design is suitable for small vaults and manholes. 4-1/4" (108mm) cable center-to-center distance reduces rack space required.
- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components. Aluminum lugs accommodate aluminum or copper cable conductors.
- Includes integral capacitive test point.
- Optional accessories including caps and plugs for dead-ending isolating and grounding of circuit connections.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

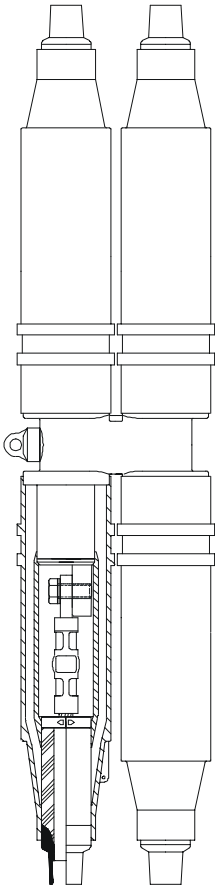
Ratings:

per ANSI/IEEE Standard 386
25kV Voltage Class
15.2kV Max Phase-to-Ground - Operating Voltage
26.3kV Max Phase-to-Phase
125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
40kV AC - One minute Withstand
78kV DC - 15 Minutes Withstand
19kV AC - Corona Extinction @ 3p.C.sensitivity
600 Amp - Continuous current
25kA sym, 10 cycles momentary current



15/25kV Separable "H" Joint - 4 Way

K656CH-W0X



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter from table 1. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size from table 2. Insert code into the catalog number.

When splicing different cable sizes, list each cable size "W" and "X" in the catalog number. See example below.

Step 1 (W) Step 2 (X)
K656CH - **0**

Cable Insulation Dia. Range		Insul. Code
Inches	mm	
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P

Table 1

Conductor Size* (AWG or kcmil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	370	350
750	380	360
800	390	360
900	400	390
1000	410	400

*Cu or Al conductor

Table 2

The 4-way compact joint kit contains the following:

- | | |
|-------------------------------------|----------------------------|
| 1 - 4-way insulated bus bar w/ T.P. | <u>K656CH-BUS</u> |
| 4 - Straight receptacle housing | <u>K655YBSR</u> |
| 4 - Bolt & washer | <u>650BAW</u> |
| 4 - Cable adapter | <u>655CA-W (Table 1)</u> |
| 4 - Compression lug | <u>03700XXX (Table 2)</u> |
| 4 - Adapter retain ring | <u>650ARR-X (Table 2)</u> |
| 4 - Tube, lubricant | <u>82-08</u> |
| 1 - Installation instruction | <u>IS-K655/K656CH,CY,I</u> |
| 1 - Crimp chart | <u>IS-03700CC 5/98</u> |

Example:

The order number for a Separable "H" Joint to connect two cables with 500 MCM stranded conductors and 220 mil wall insulation (1.325" OD) to two 15kV cable with a 4/0 stranded conductor and a 220 mil insulation wall (1.085" OD) is K656CH-L0330-L0330-J0270-J0270. (The "0" before the 3-digit conductor size code indicates a standard aluminum compression lug suitable for aluminum or copper cable. For copper compression lugs use a "2" prefix.)

Installation Instructions K/655/656CY, K/655/656CH and K/655/656I

CONTENTS: *Receptacle housings, Cable adapters, I, Wye or H Center sections, Aluminum holding collars, Lubricant Hex-head bolts, Crimp connectors, Belleville washers, Flat washers, Hex wrench, Nylon venting rod, Installation instructions.*

The 655/656CY and K655/K656CY three way wye splices, the 655/656CH and K655/K656CH four way splices and the 655/656I and K655/K656I two way splices are designed to splice and tap solid dielectric type cables rated for 600 ampere at 15kV and 25kV respectively.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

These products are supplied with protective shipping covers. Remove these shipping covers prior to installing on the appropriate HV insulated connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

These instructions illustrate the installation of one leg of the "I", "Y" or "H" connector. A complete installation requires repeating the instructions for the total number of cable required (two for the "I", three for the "Y" and four for the "H").

These instructions are applicable to concentric neutral cables and flat metallic shielded cable with extruded shield. For installation on other cable constructions call the nearest Elastimold office.

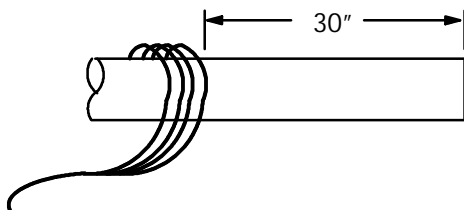
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

GENERAL INSTRUCTIONS

STEP 1

Train the cable ends and straighten them in their final position and cut squarely. Unwrap the outer wires a distance of 30". **DO NOT CUT OFF.** Bend and fold back out of the way.



STEP 2

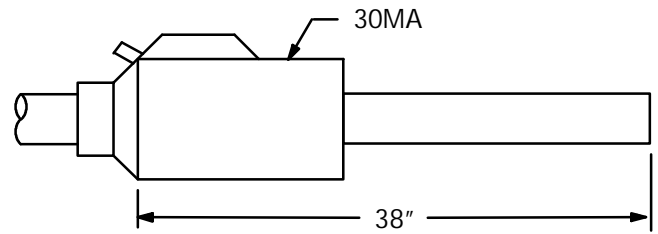
Wipe the outer jacket clean a distance of 38" (30" for concentric neutral cable).



ELASTIMOLD

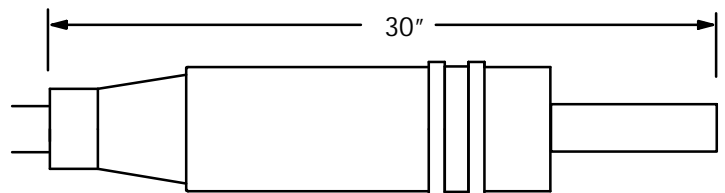
STEP 3

If a 30MA grounding device is being used, apply supplied lubricant or ELASTIMOLD approved lubricant to the inside of the device. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product. Slide the grounding device on to the cable a distance of 38".



STEP 4

Slide receptacle housing onto the cable a distance of 30".



STEP 5

REFER TO THE SPECIAL CABLE PREPARATION SUPPLEMENT INCLUDED WITH THESE INSTRUCTIONS AND FOLLOW THE PROCEDURE FOR THE TYPE OF CABLE BEING USED.

PART A – Concentric Neutral Cable (page 6)

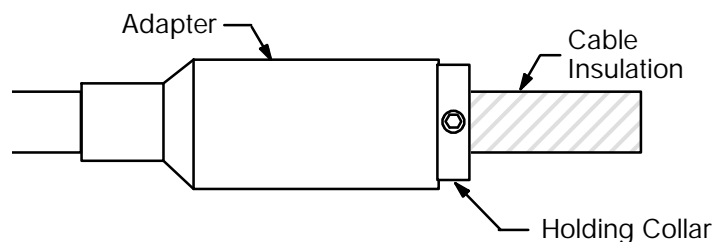
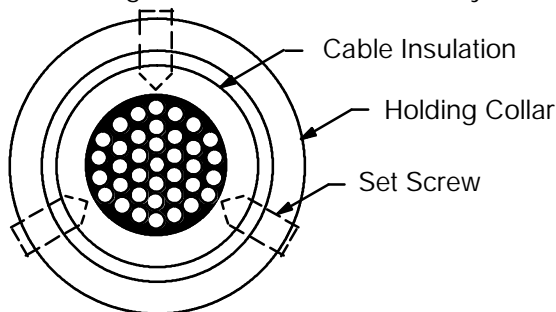
PART B – Flat Metallic Tape Shielded Cable with Extruded Shield (page 7)

STEP 6

Select the aluminum holding collar and thread the proper size setscrews part way in. (See instructions packaged with the collars.)

Position the holding collar over the insulation and flush against the a cable adapter. Using the hex wrench supplied, tighten each setscrew only one or two turns at a time to keep the collar centered over the insulation.

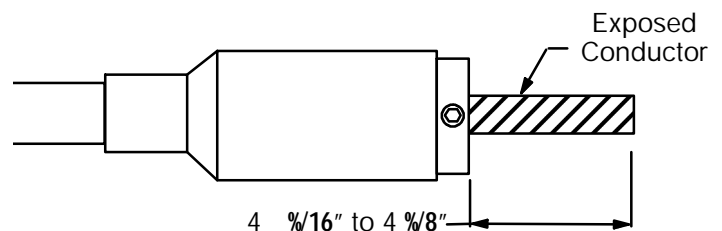
Continue to tighten the setscrews until they are below the surface of the collar.



STEP 7

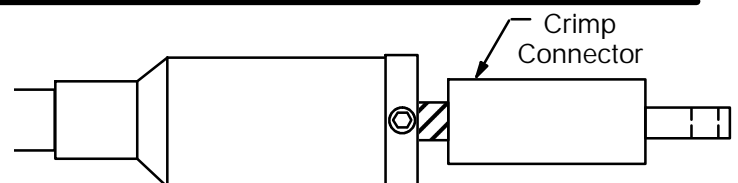
Using the holding collar as a guide, ring the insulation with a knife and remove the insulation. *Take care not to cut or damage the conductor.*

As a check, measure the exposed conductor. It must be in the range of $4 \frac{1}{16}$ " to $4 \frac{1}{8}$ " if not, do not proceed. Recheck all previous work.



STEP 8

Remove the protective cap from the crimp connector. If using aluminum cable wire brush the conductor and immediately insert into the crimp connector which contains inhibitor. *Make sure conductor is fully inserted into the crimp barrel.*

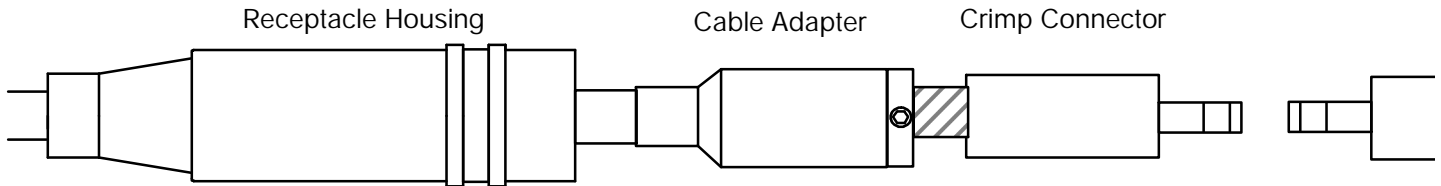


STEP 9

Repeat Steps 5 (page 2) through 8 for the remaining cables to be joined.

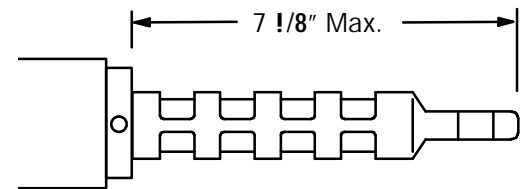
STEP 10

As a final check prior to crimping the connector, all components on all cables should be positioned as shown in the exploded view. CHECK THAT THE BOLT HOLES IN THE CRIMP CONNECTORS ARE POSITIONED PROPERLY TO ALIGN WITH THE BOLT HOLES of the mating part.



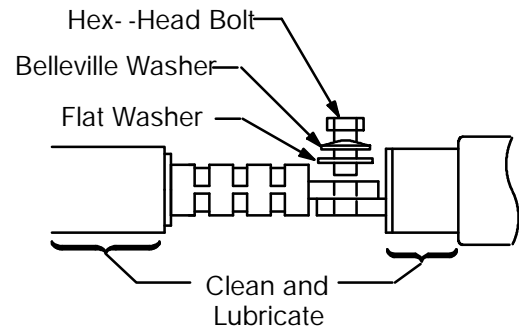
STEP 11

Crimp the connectors following the instructions packaged with the connectors. Rotate each crimp 90° or 180°. After crimping, measure the distance from the end of the connector to the holding collar. If the distance is over 7 1/8" do not proceed. Recheck all previous work.



STEP 12

Assemble the washers and bolt as indicated. The flat washer should be against the spade contact, then the Belleville washer (concave side down), then the hex-head bolt. Hand tighten all the bolts. The splice and cables are now in their final positions. Do not attempt to move or reposition any part of the assembly after the bolts are tightened.



STEP 13

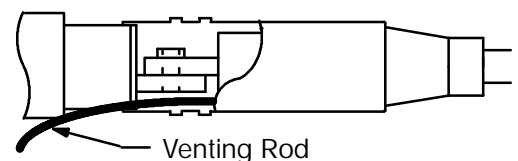
Using a torque wrench with a 1/16" socket, tighten all bolts to 50 to 60 ft. lbs.

STEP 14

Apply supplied lubricant or ELASTIMOLD approved lubricant generously to the outside of the cable adapter and the area of the splice section as shown.

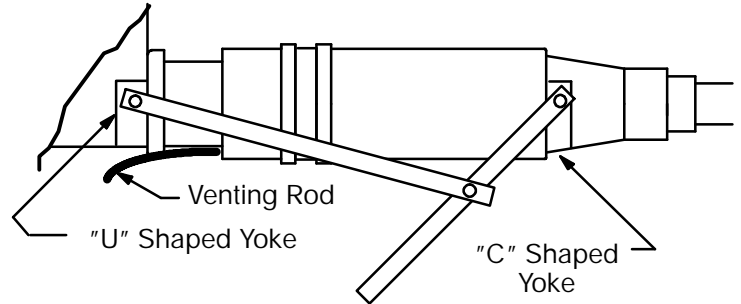
STEP 15

Slide the receptacle housing over the cable adapter and up to the position shown. Insert the nylon venting rod (supplied).



STEP 16A – USING THE 650ATY ASSEMBLY TOOL

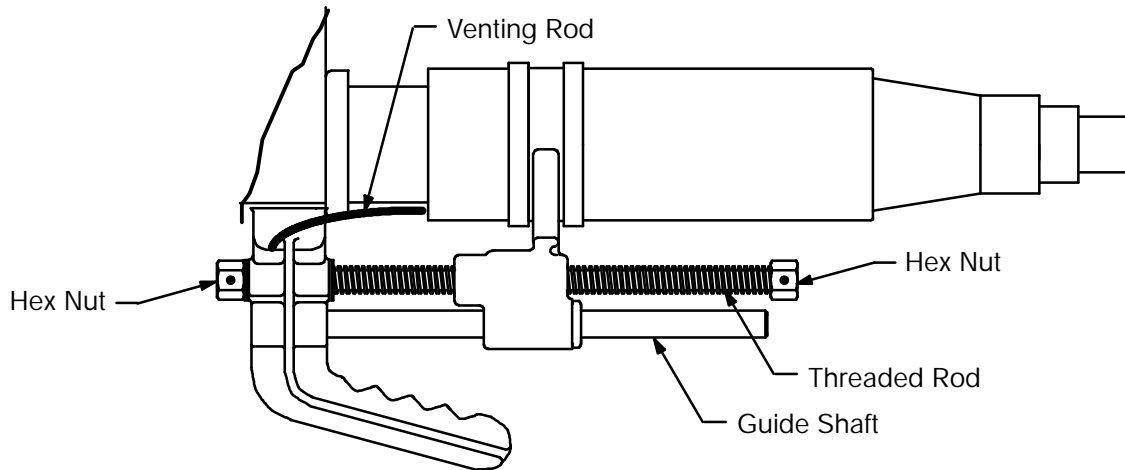
Attach the 650ATY assembly tool as shown. Make sure "U" shaped yoke is over the splice section and the "C" shaped yoke is over the receptacle housing. With the assembly tool in place, slowly raise the handle to slide the receptacle housing over the splice section. Remove the vent rod.



STEP 16B – USING THE 600RRT ASSEMBLY TOOL

Place the 600RRT assembly tool as shown.

WARNING: DO NOT PLACE HAND ON THREADED ROD OR GUIDE SHAFT WITH THE ASSEMBLY TOOL IN PLACE. Slide the receptacle housing over the splice section by turning the hex nut on either end of the tool. Remove the vent rod.



STEP 17

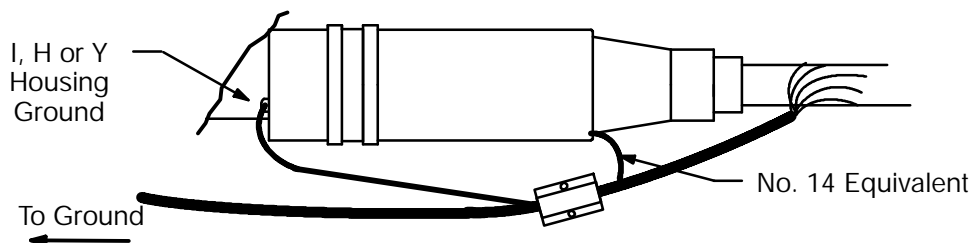
Repeat Steps 14 through 16 for the remaining cables.

STEP 18

Check all cable adapters to make sure they are located properly and remove all vinyl tape markers.

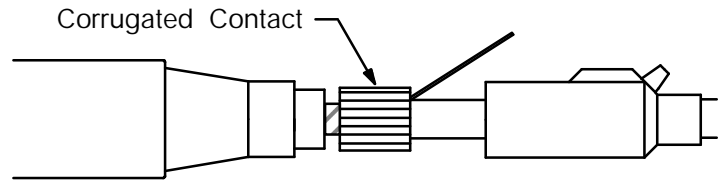
STEP 19 – Grounding for Concentric Neutral Cable

1. Connect a short length of wire (No. 14 AWG, copper or equivalent) to the grounding eyes of the housings. Make a small loop and twist tightly, taking care not to damage the eye. Gather together concentric neutral wires. Using suitable connectors, connect the neutral wires and grounding wires together.
2. The metallic shield of the cable must be grounded using standard utilities practices. If the cable is jacketed it is recommended that the jacket be waterproofed at this point to prevent moisture from entering under the cable jacket.

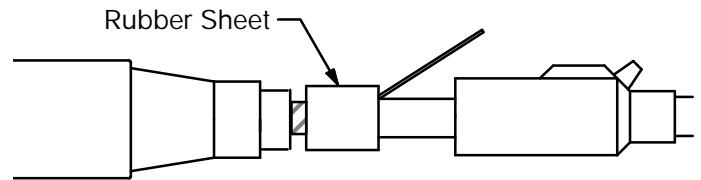


STEP 20 – Grounding Flat metallic Tape Shield Cable with a 30MA

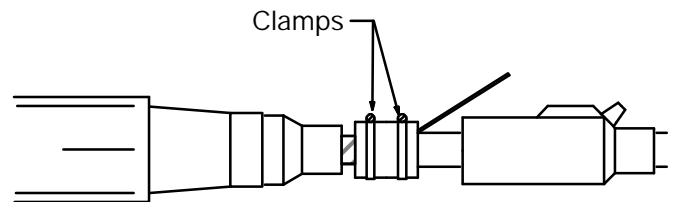
- A. Obtain the 30MA corrugated contact and remove the wooden plug. Wrap it over the exposed metallic tape, making sure the contact butts up against the cut end of the outer jacket. The ground lead must face away from the 600amp product.



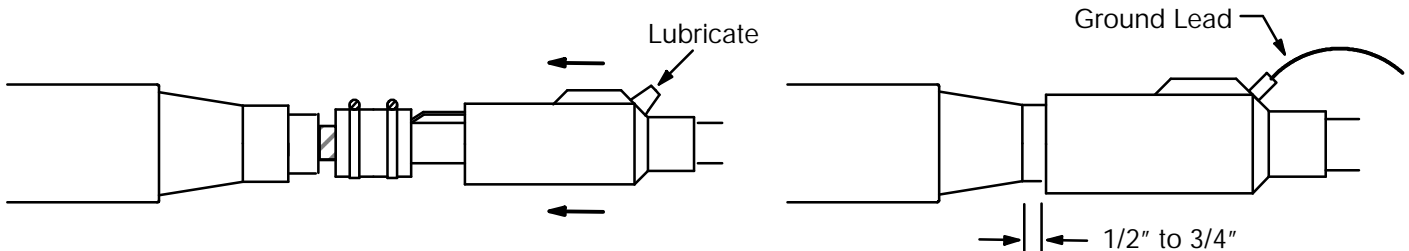
- B. Cut the rubber sheet to proper size, according to the insulation diameter, and wrap it over the corrugated contact.



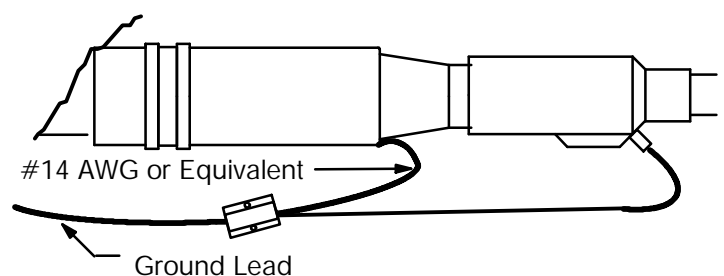
- C. Obtain the clamps (one for sizes GB to HA; two for sizes HAB to PA), place them over the rubber sheet and tighten them sufficiently so they will stay in place. Continue to tighten the clamps in stages so that the corrugated contact is tight against the metallic tape but not under excessive pressure. Between stages, test the tightness by rotating the assembly back and forth approximately 1/8" turn. When a definite drag is felt, the clamps are tight enough. **Do not overtighten.**



- D. Lubricate the small hole in the 30MA housing and slide the housing over the corrugated contact making sure the ground lead goes through the small hole. The 30MA housing should be within 1/2" to 3/4" of the taper on the 600amp product.



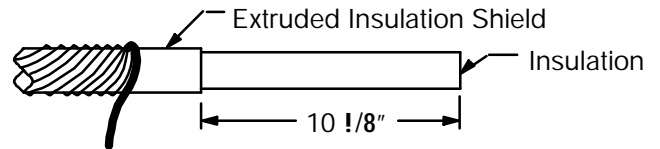
- E. Connect a short length of wire (No. 14 AWG, copper or equivalent) to each of the grounding eyes of the housings and the eye of the splice section. Make a small loop and twist tightly, taking care not to damage the eye. Gather together concentric neutral wires. Using suitable connectors, connect the neutral wires and grounding wires together.



PART A Concentric Neutral Cable

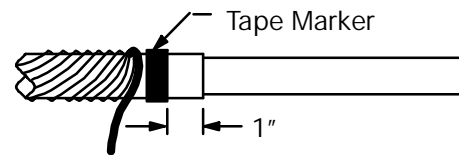
STEP 1

From the end of the cable, measure 10 1/8". Remove the extruded insulation shield to that point with a straight, smooth, "squared" cut. *Take care not to cut or nick the insulation.*



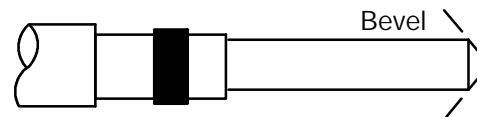
STEP 2

At a point 1" from the end of the extruded insulation shield wrap two turns of tape to serve as a marker.



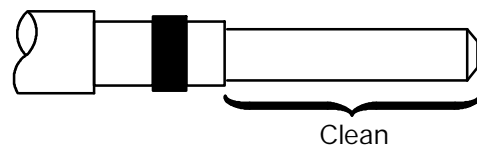
STEP 3

Bevel the end of the insulation at a 45° angle, approximately 1/4" back.



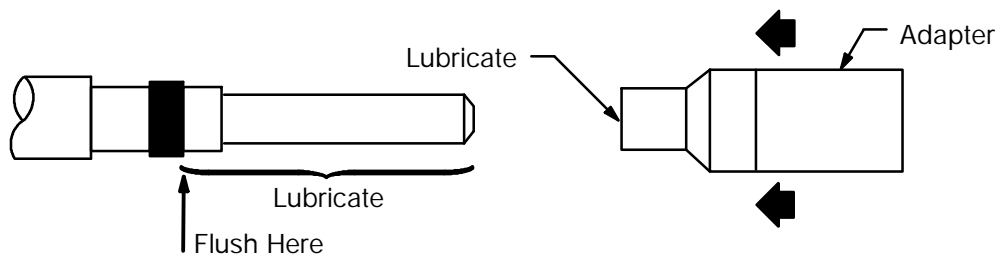
STEP 4

Thoroughly clean the insulation to remove all traces of semi-conducting residue. This may be done by wiping with a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the outer jacket.



STEP 5

Apply supplied lubricant or ELASTIMOLD approved lubricant sparingly along cable as shown. Lubricate the inside of the cable adapter. Slide the adapter, small end first, over the cable with a twisting motion until the end of the adapter is *flush* with the tape marker.



STEP 6

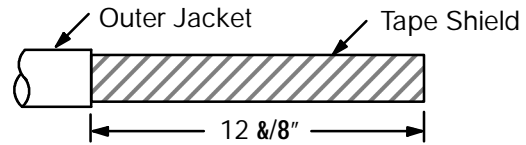
Now, Refer to Steps 6 (page 2) through 20 of the General Instructions.

PART B

Flat Metallic Tape Shielded Cable with Extruded Shield

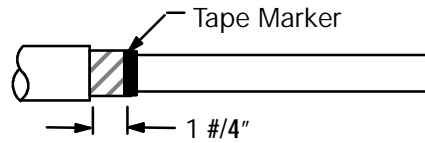
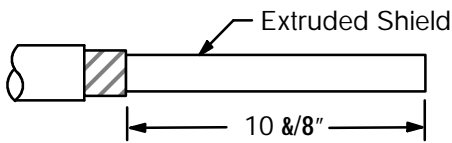
STEP 1

From the end of the cable measure $12 \frac{7}{8}$ ". Remove the outer jacket to that point with a straight, smooth "squared" cut. Take care not to cut or damage the tape shield.



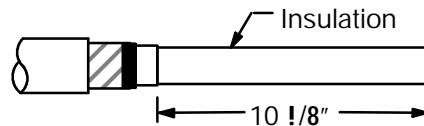
STEP 2

Measure $10 \frac{7}{8}$ " and remove the tape shield to that point. Wrap two turns of tape over the end of the tape shield, with the edge of the tape $1 \frac{1}{4}$ " from the end of the outer jacket. The tape serves as a retainer to keep the tape shield in place and also serves as a marker.



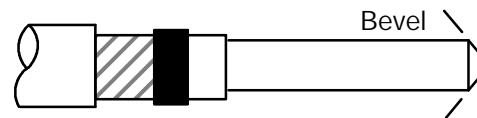
STEP 3

Measure $10 \frac{1}{8}$ " and remove the extruded shield to that point with a straight, smooth, "squared" cut. Take care not to cut or nick the insulation.



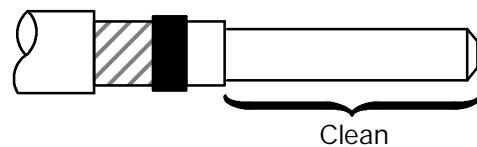
STEP 4

Bevel the end of the insulation at a 45° angle, approximately $\frac{1}{4}$ " back.



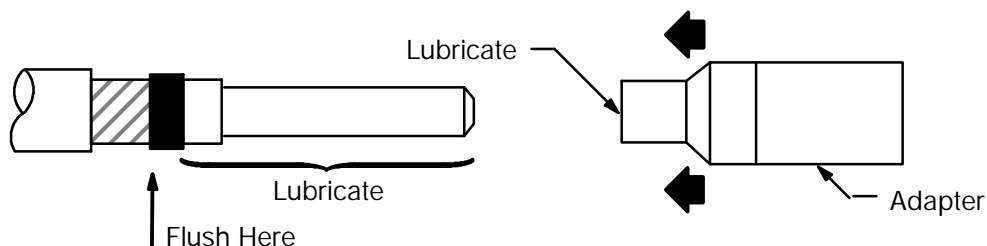
STEP 5

Thoroughly clean the insulation to remove all traces of semi-conducting residue. This may be done by wiping with a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the outer jacket.



STEP 6

Apply supplied lubricant or ELASTIMOLD approved lubricant sparingly along cable as shown. Lubricate the inside of the cable adapter. Slide the adapter, small end first, over the cable with a twisting motion until the end of the adapter is flush with the tape marker.



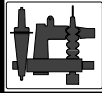
STEP 7

Now, refer to Steps 6 (page 2) through 20 of the General Instructions.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

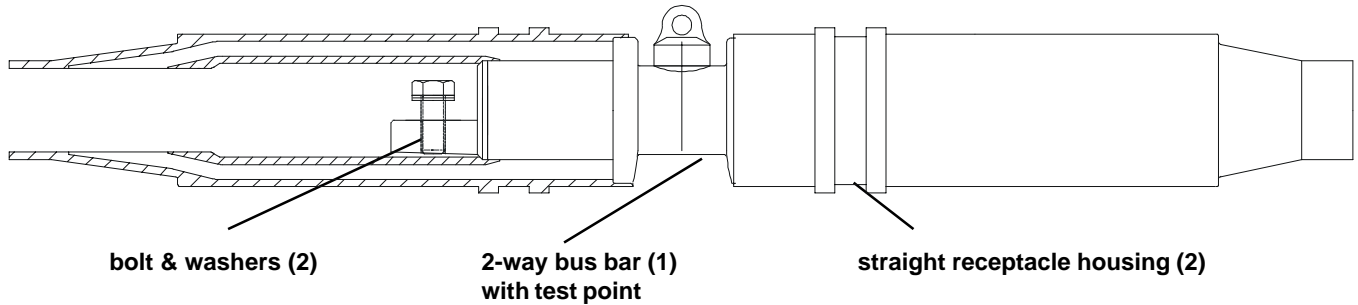
PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Separable "I" Joint Housing

ELASTIMOLD PART NUMBER

K656I-HP



Application:

Elastimold 600 Amp separable cable joints are modular kits using 2-way, 3-way or 4-way insulated bus bars with retractable straight receptacle housings. The K656I-HP Separable "I" Joint Housing is one of the components for K656I-W0X Separable Joint. It includes basic bus bar, housings, bolts and washers. Cable adapters, compression lugs and adapter retaining rings are ordered separately.

Feature:

- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components.
- Includes integral capacitive test point.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

Ratings:

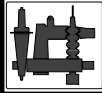
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minute Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order specify **K656I-HP**.

The 2-way compact joint housing kit contains the following:

1 - 2-way insulated bus w/ T.P.	K656I-BUS
2 - Straight receptacle housing	K655YBSR
2 - Bolt & washer	650BAW
2 - Tube, lubricant	82-08
1 - Installation instruction	IS-K655/656CH,CY,I



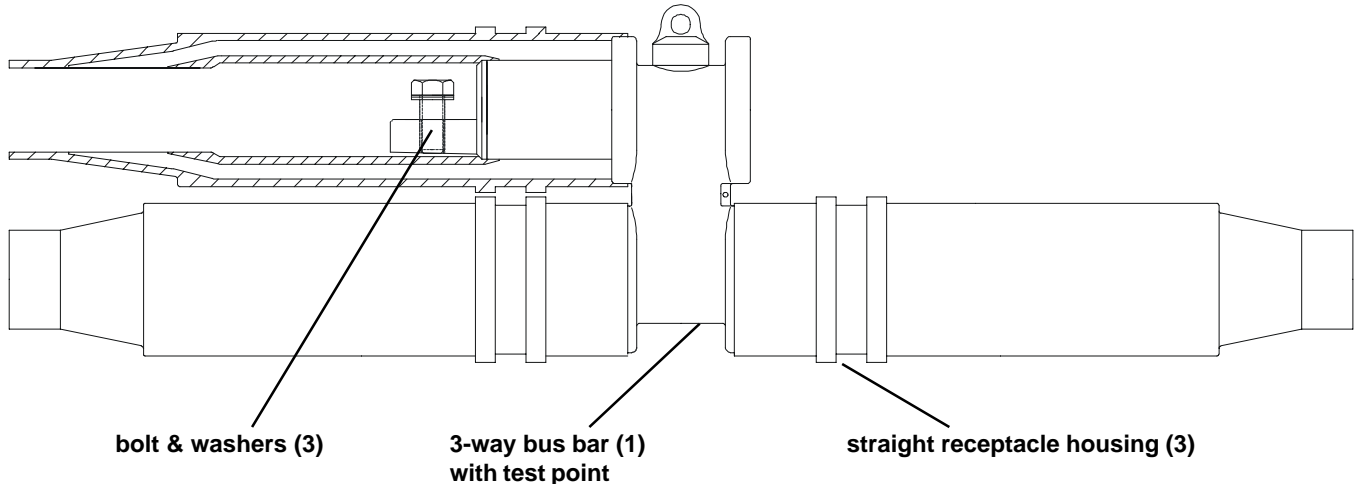
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

15/25kV Separable "Y" Joint Housing

ELASTIMOLD PART NUMBER

K656CY-HP

Application:

Elastimold 600 Amp separable cable joints are modular kits using 2-way, 3-way or 4-way insulated bus bars with retractable straight receptacle housings. The K656CY-HP Separable "Y" Joint Housing is one of the components for K656CY-W0X Separable Joint. It includes basic bus bar, housings, bolts and washers. Cable adapters, compression lugs and adapter retaining rings are ordered separately.

Feature:

- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components.
- Includes integral capacitive test point.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

Ratings:

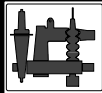
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order specify **K656CY-HP**.

The 3-way compact joint housing kit contains the following:

1 – 3-way insulated bus w/ T.P.	K656I-BUS
3 – Straight receptacle housing	K655YBSR
3 – Bolt & washer	650BAW
3 – Tube, lubricant	82-08
1 – Installation instruction	ISK655/656CH,CY,I



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

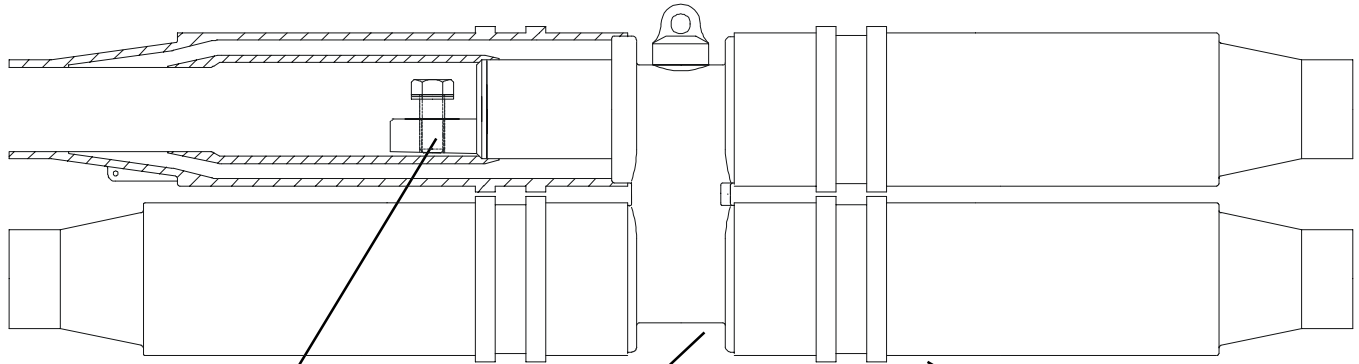
I

DESCRIPTION

15/25kV Separable "H" Joint Housing

ELASTIMOLD PART NUMBER

K656CH-HP



bolt & washers (4)

4-way bus bar (1)
with test point

straight receptacle housing (4)

Application:

Elastimold 600 Amp separable cable joints are modular kits using 2-way, 3-way or 4-way insulated bus bars with retractable straight receptacle housings. The K656CH-HP Separable "H" Joint Housing is one of the components for K656CH-W0X Separable Joint. It includes basic bus bar, housings, bolts and washers. Cable adapters, compression lugs and adapter retaining rings are ordered separately.

Feature:

- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components.
- Includes integral capacitive test point.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

Ratings:

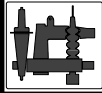
- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 600 Amp - Continuous current
- 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order specify **K656CH-HP**.

The 4-way compact joint housing kit contains the following:

- | | |
|---------------------------------|---------------------|
| 1 - 4-way insulated bus w/ T.P. | K656I-BUS |
| 4 - Straight receptacle housing | K655YBSR |
| 4 - Bolt & washer | 650BAW |
| 4 - Tube, lubricant | 82-08 |
| 1 - Installation instruction | IS-K655/K656CH,CY,I |



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

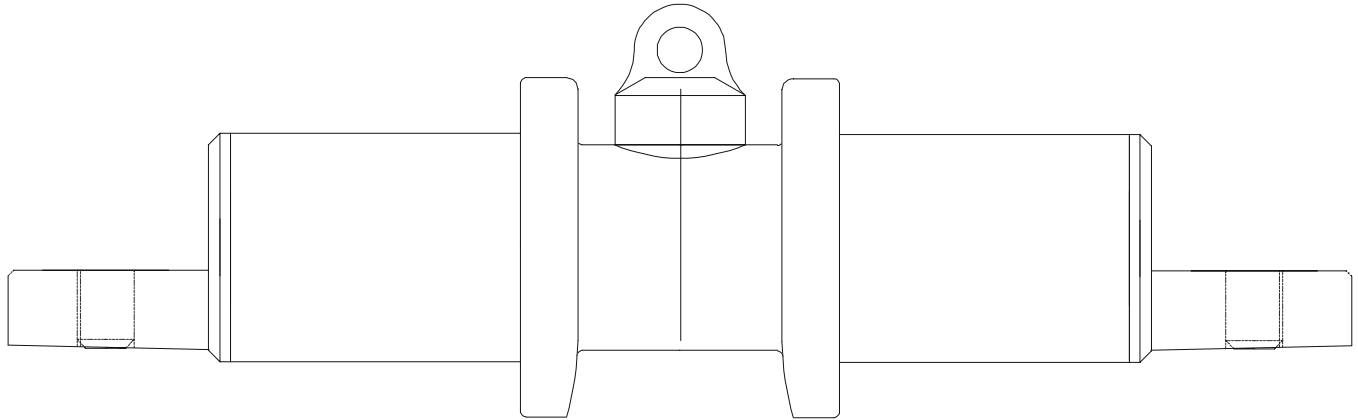
I

DESCRIPTION

15/25kV Separable "I" Joint Bus Bar

ELASTIMOLD PART NUMBER

K656I-BUS



Application:

Elastimold 600 Amp separable cable joints are modular kits using 2-way, 3-way or 4-way insulated bus bars with retractable straight receptacle housings. The K656I-BUS Separable "I" Joint Bus Bar is one of the components for K656I-W0X Separable Joint. Housing, bolts, washer, cable adapters, compression lugs and adapter retaining rings are ordered separately.

Feature:

- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components.
- Includes integral capacitive test point.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

Ratings:

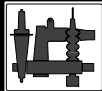
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order specify **K656I-BUS**.

The 2-way compact joint bus bar kit contains the following:

1 – 2-way insulated bus w/ T.P.	K656I-BUS
1 – Installation instruction	K655/K656CH,CY,I



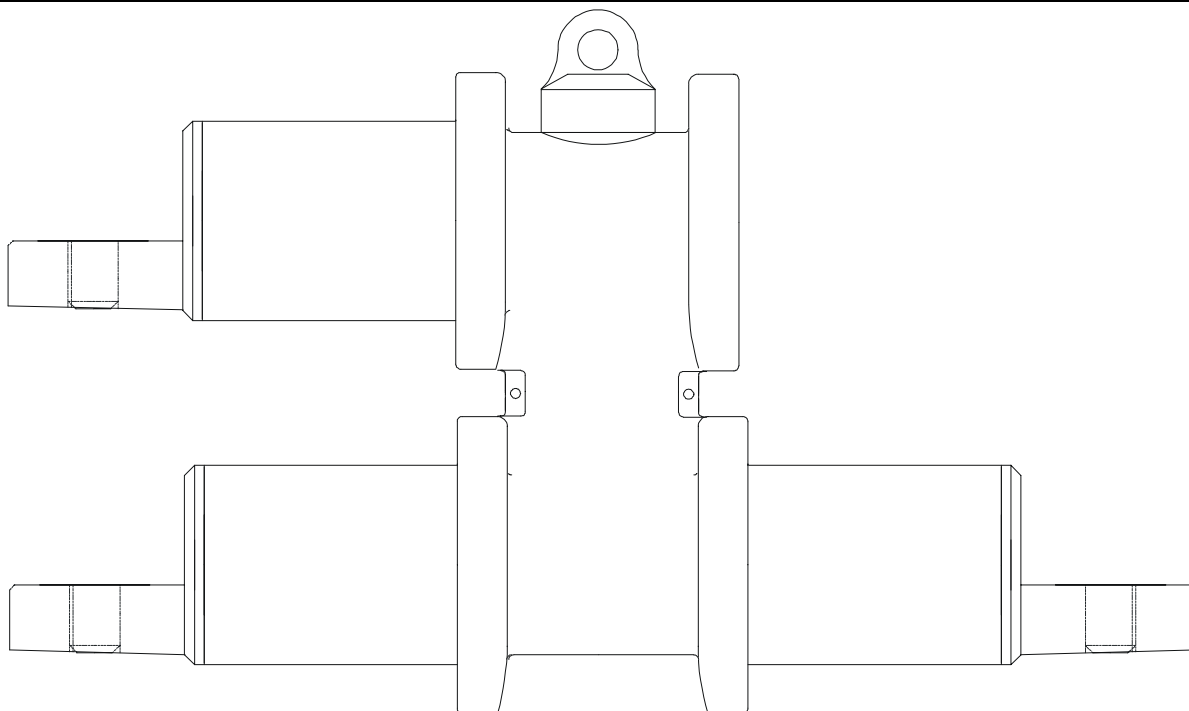
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

15/25kV Separable "Y" Joint Bus Bar

ELASTIMOLD PART NUMBER

K656CY-BUS

Application:

Elastimold 600 Amp separable cable joints are modular kits using 2-way, 3-way or 4-way insulated bus bars with retractable straight receptacle housings. The K656CY-BUS Separable "Y" Joint Bus Bar is one of the components for K656CY-W0X Separable Joint. Housing, bolts, washer, cable adapters, compression lugs and adapter retaining rings are ordered separately.

Feature:

- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components.
- Includes integral capacitive test point.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

Ratings:

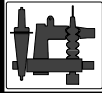
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order specify **K656CY-BUS**.

The 3-way compact joint bus bar kit contains the following:

1 – 3-way insulated bus w/ T.P.	K656CY-BUS
1 – Installation instruction	IS-K655/K656CH,CY,I



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

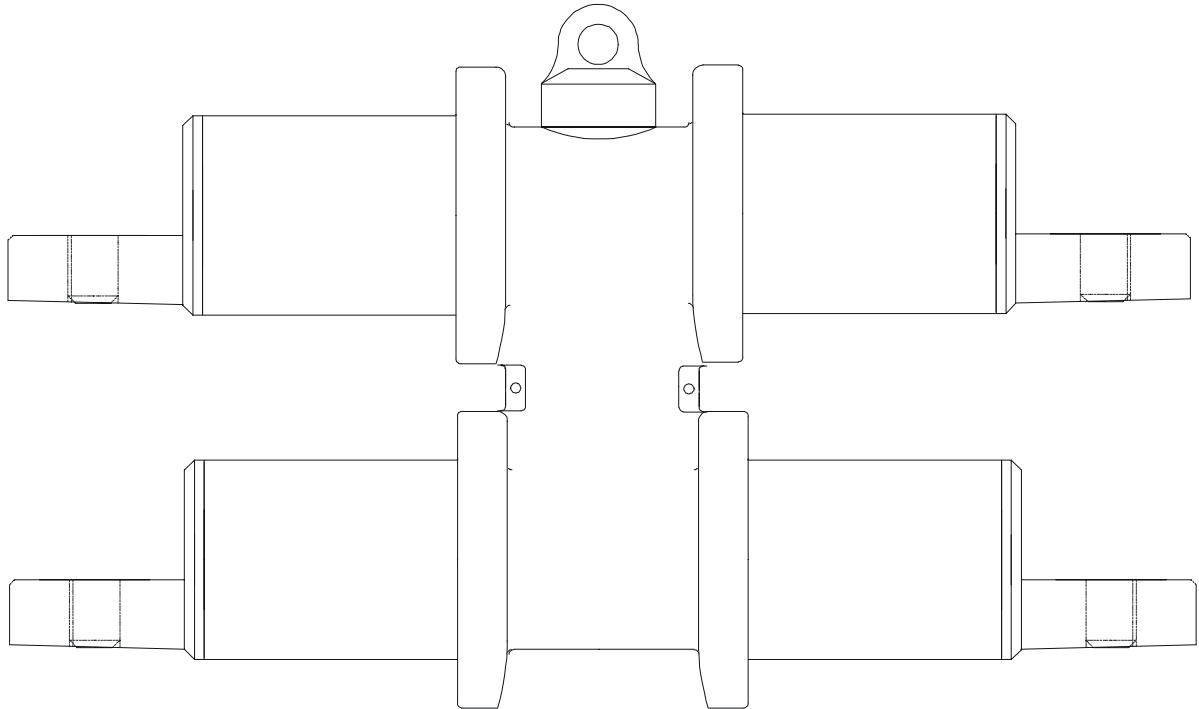
PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV Separable "H" Joint Bus Bar

ELASTIMOLD PART NUMBER

K656CH-BUS



Application:

Elastimold 600 Amp separable cable joints are modular kits using 2-way, 3-way or 4-way insulated bus bars with retractable straight receptacle housings. The K656CH-BUS Separable "H" Joint Bus Bar is one of the components for K656CH-W0X Separable Joint. Housing, bolts, washer, cable adapters, compression lugs and adapter retaining rings are ordered separately.

Feature:

- 15/25kV, 600 Amp separable bolted cable joint.
- Fully shielded and submersible 100% peroxide-cured EPDM molded components.
- Includes integral capacitive test point.
- Suitable for connecting cables with the same or different conductors and/or Insulation diameters.
- Reusable components reduce inventory and other costs.

Ratings:

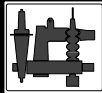
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Ordering Instruction:

To order specify **K656CH-BUS**.

The 4-way compact joint bus bar kit contains the following:

1 – 4-way insulated bus w/ T.P.	K656CH-BUS
1 – Installation instruction	IS-K655/K656CH,CY,I



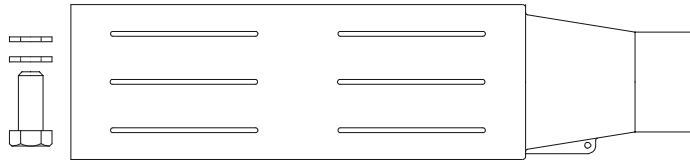
PRODUCT SPECIFICATION SHEET

C I

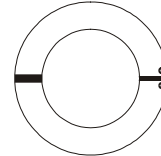
DESCRIPTION

15/25kV Straight Receptacle

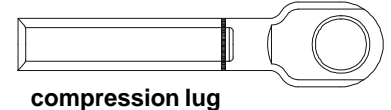
ELASTIMOLD PART NUMBER

K655YSR-W0X

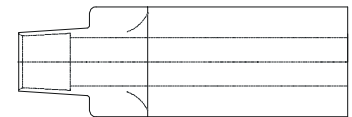
straight receptacle housing with bolt & washers



retaining ring



compression lug



cable adapter

Application:

The **K655YSR** 15/25kV straight receptacle kit is designed as cable housing for K655SR straight connectors and K656I, K656CY and K656CH splices.

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter from table 1. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size from table 2. Insert code into the catalog number after the insulation code.

Example:

The ordering number for a **600A straight receptacle** for a 4/0 stranded, 175 mil wall cable with an insulation diameter of .940" (23.4 mm) is K655YSR-H-0270.

The **K655YSR** straight receptacle housing kit contains the following:

- | | |
|---|--------------------|
| 1 – Straight receptacle housing | K655YBSR |
| 1 – Cable adapter | 655CA-W (Table 1) |
| 1 – Compress lug | 03700XXX (Table 2) |
| 1 – Shipping protective cap, cable side | 1600-13-3 |
| 1 – Shipping protective cap, bushing side | 1600-13-7 |
| 1 – Hardware pre-pack bolt & washers | 650BAW |
| 3 – Tube, lubricant | 82-08(L) |
| 1 – Installation instruction | IS-YR 4/94 (L) |

K655YSR – – **0**

Step 1 (W) Step 2 (X)

Cable Insulation Dia. Range		Insul. Code
Inches	mm	
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P

Table 1

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	370	350
750	380	360
800	390	360
900	400	390
1000	410	400

*Cu or Al conductor

Table 2

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 600 Amp - Continuous current
 25kA sym, 10 cycles momentary current

Installation Instructions K655YDR Insulating Cap

CONTENTS: *Insulating Cap, Bail Bracket, Bail, Nylon Venting Rod, Lubricant (DO NOT SUBSTITUTE), Installation Instructions.*

The K655YDR is designed for insulating, shielding, and watersealing any leg of an Elastimold 15kV class (8.3kV phase to ground) and 25kV class (15.2kV phase to ground) wye splice respectively.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

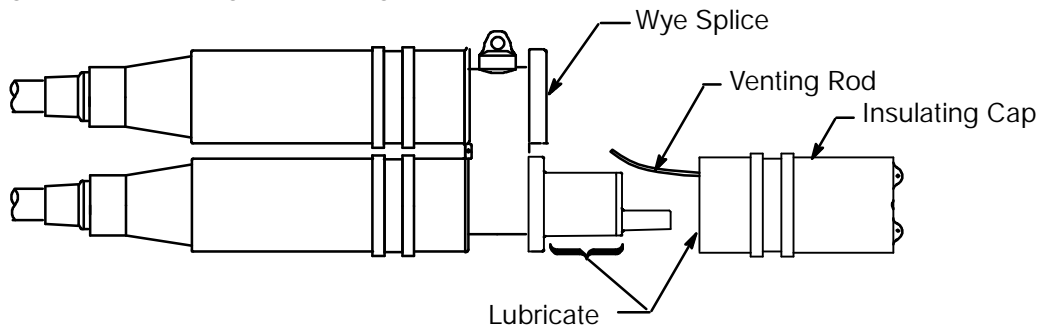
This product is supplied with a protective shipping cover. Remove this shipping cover and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

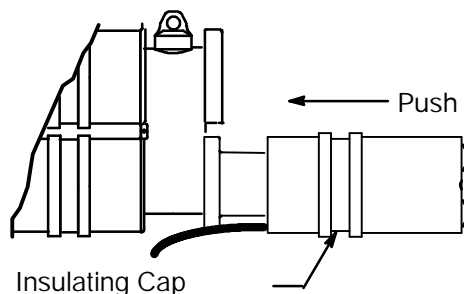
1. Lubricate wye splice and inside of insulating cap with the supplied lubricant or Elastimold approved lubricant.
2. Insert venting rod into insulating cap housing.



STEP 2

Slide the insulating cap up to the position shown. Insert the nylon venting rod (supplied).

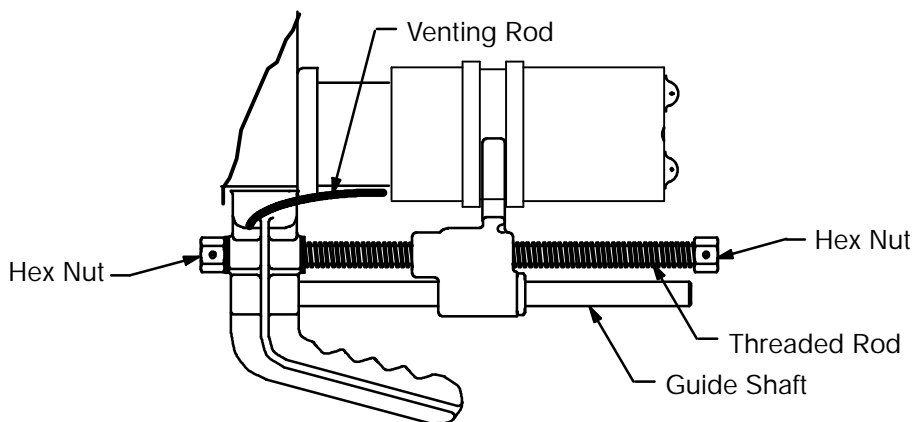
IMPORTANT: Assemble the cap slowly to allow venting of air.



STEP 3

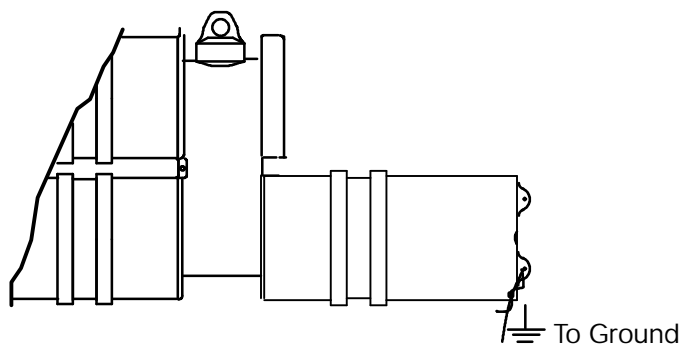
Place the 600RRT assembly tool as shown.

WARNING: DO NOT PLACE HAND ON THREADED ROD OR GUIDE SHAFT WITH THE ASSEMBLY TOOL IN PLACE. Slide the insulating cap over the splice section by turning the hex nut on either end of the tool. Remove the vent rod.



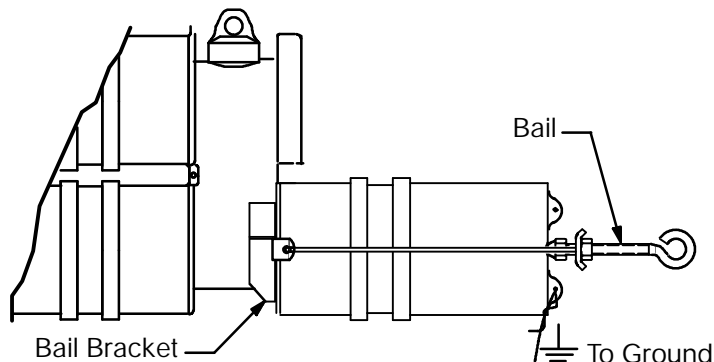
STEP 4

Insert one end of a piece of wire, with current carrying capacity at least equal to #14 copper, through the grounding eye and twist to make a small loop, taking care not to damage the grounding eye. Connect the other end of the wire to ground.



STEP 5 ASSEMBLE BAIL

1. Place hold-down bail as shown.
2. Pull hold-down bail up over the or top of the insulating cap so that the eyebolt on the bail is directly over the locator dimple.
3. Tighten down on insulating cap locator by turning eyebolt in a clockwise direction. Adjust the nut on the eyebolt until it allows the eyebolt to seat securely in the locator. The nut should act as a stop to prevent the eyebolt from applying excessive force on the insulating cap. Once the nut is in final position, it will not have to be readjusted when removing and replacing the insulated cap.



Installation Instructions 650BA

CONTENTS: *Bail, Bail Bracket, Installation Instructions.*

The 650BA is designed to bail the Insulating Cap on the I, CY, or CH splices.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

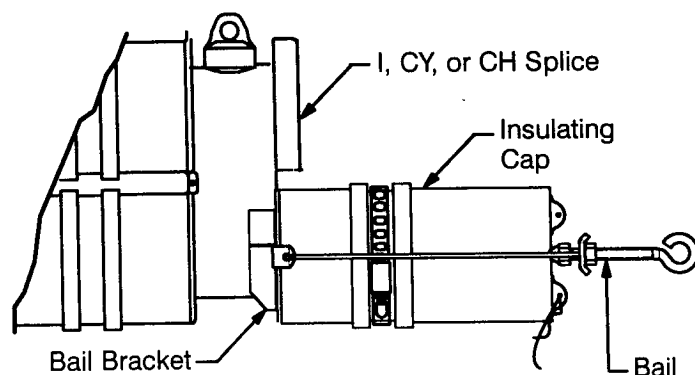
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
 2. Check all components to insure proper fit with cable and/or mating products.
 3. Read entire installation instructions before starting.
 4. Have all required tools at hand and maintain cleanliness throughout the procedure.
-

ASSEMBLE BAIL

1. Place hold-down bail as shown.
2. Pull hold-down bail up over the or top of the insulating cap so that the eyebolt on the bail is directly over the locator dimple.
3. Tighten down on insulating cap locator by turning eyebolt in a clockwise direction. Adjust the nut on the eyebolt until it allows the eyebolt to seat securely in the locator. The nut should act as a stop to prevent the eyebolt from applying excessive force on the insulating cap. Once the nut is in final position, it will not have to be readjusted when removing and replacing the insulating cap.



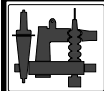
15-0498

IS-650BA
August 1998
Made in U.S.A.



A Unit of Thomas & Betts

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

600 Series Joints Assembly/Disassembly Tool

ELASTIMOLD PART NUMBER

600YADT

****Detail of this page is still under construction.****

Assembly Instructions 600YADT Assembly/Disassembly Tool for (K)656CY/(K)656CH/(K)656I

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

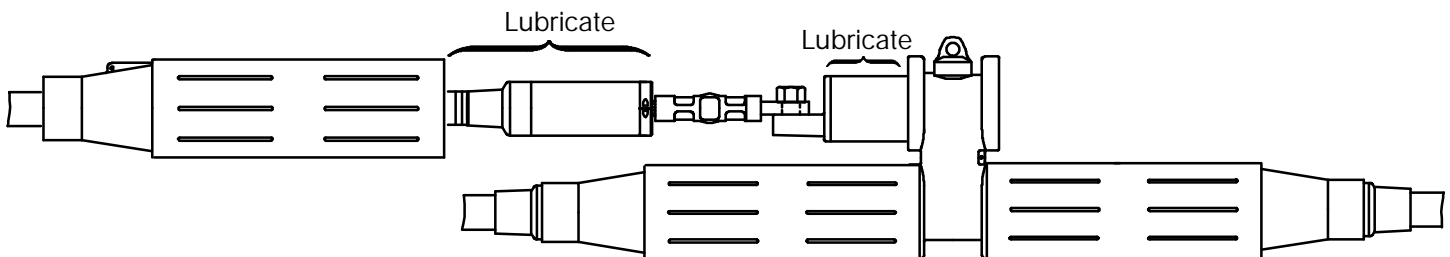
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

This Tool is used for Assembly and Disassembly of the (K)656CY/(K)656CH/(K)656I



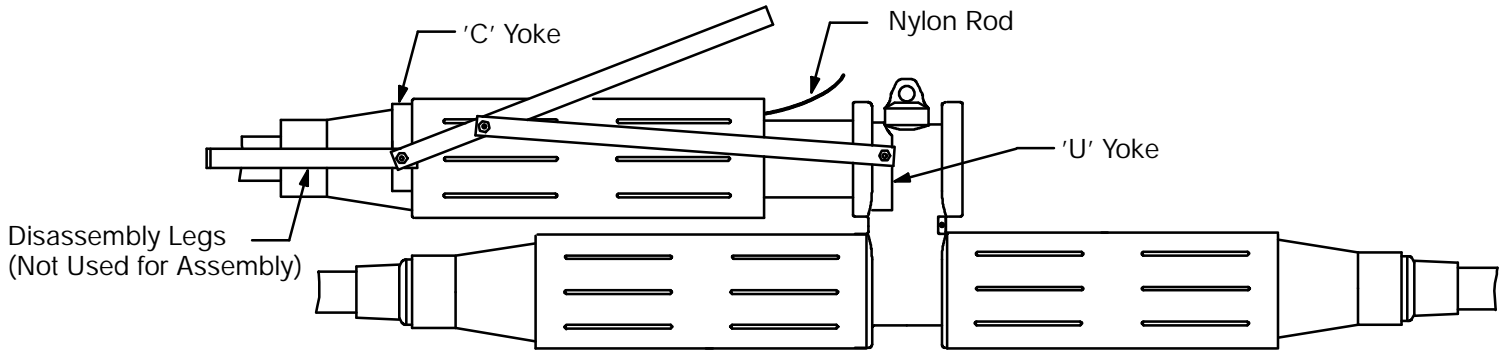
STEP 1

1. After the cable contact has been torqued to the splice housing, the receptacle housing is ready for assembly.
2. Lubricate outside of cable adapter, inside of receptacle housing, and mating surface of splice with supplied lubricant or Elastimold approved lubricants. DO NOT SUBSTITUTE.



STEP 2

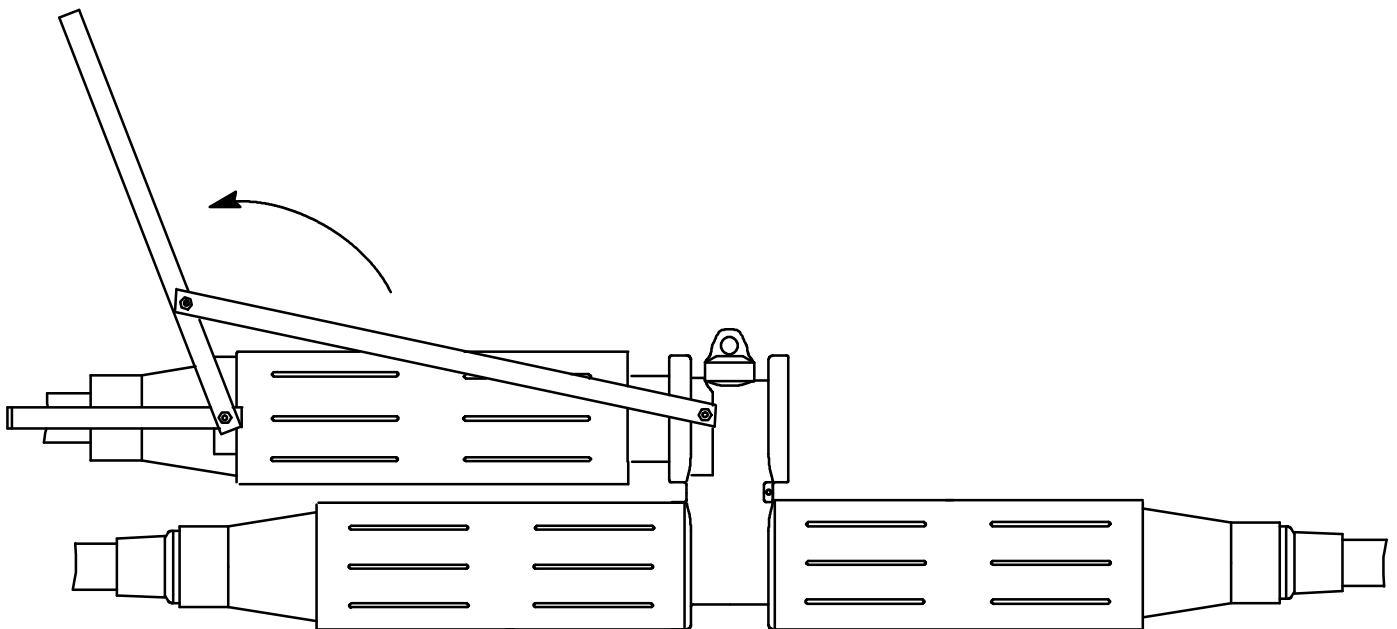
Insert nylon venting rod. Slide on receptacle housing so that it is engaged on splice housing. Place "C" yoke onto receptacle housing as shown. Place "U" yoke behind step of splice housing, aligning the cut out in yoke with the voltage detection point. "U" yoke may have to be reversed to accomplish alignment.



STEP 3

SLOWLY raise handle to slide receptacle housing into position. After housing is assembled, remove nylon venting rod. Failure to remove the nylon venting rod could result in damage to the product. Remove assembly/disassembly tool.

NOTE: These steps are to be followed for the assembly of any leg of the (K)656CY/(K)656CH/(K)656I splice housing. Refer back to the (K)656CY/(K)656CH/(K)656I Installation Instructions to complete the assembly. For disassembly of the (K)656CY/(K)656CH/(K)656I see Disassembly Instructions.



Disassembly Instructions 600YADT Assembly/Disassembly Tool for (K)656CY/(K)656CH/(K)656I

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

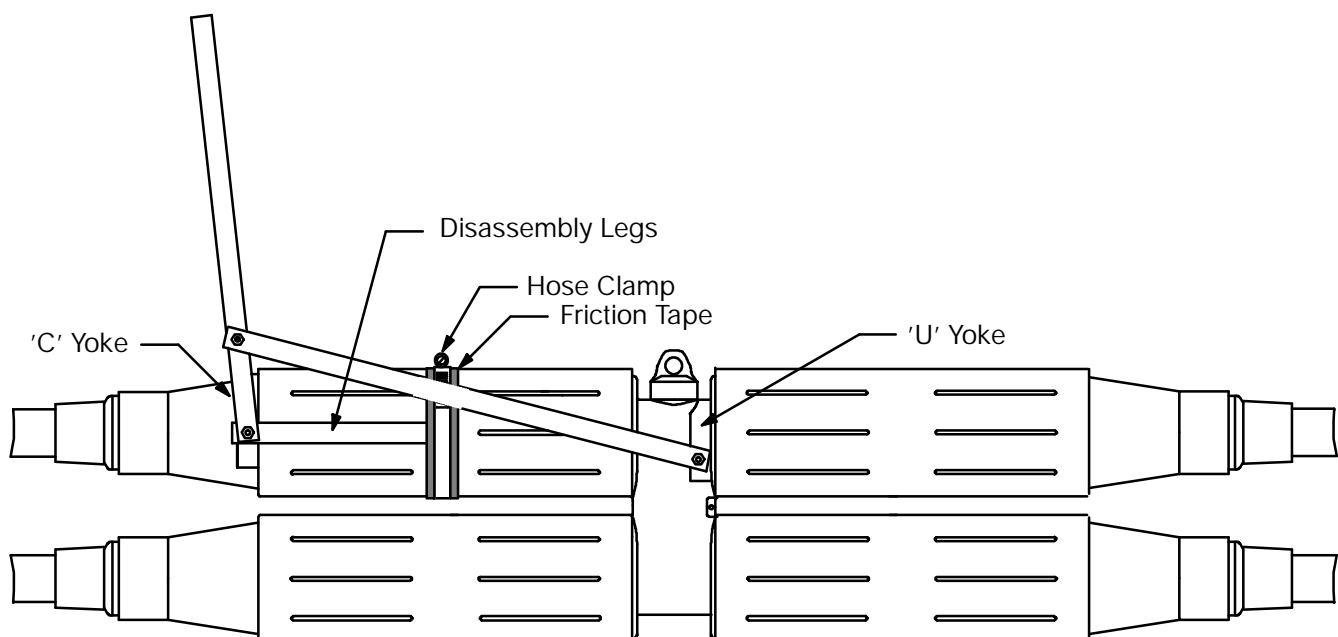
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

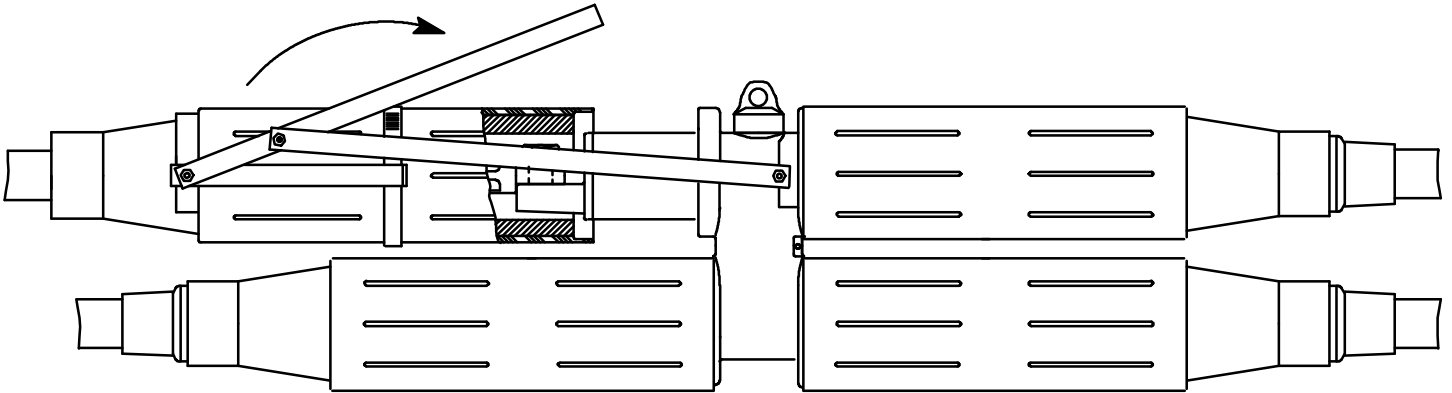
Place "C" yoke on receptacle housing. Wrap friction tape over receptacle housing. Fasten disassembly legs to receptacle housing using a hose clamp over the friction tape. Place "U" yoke on splice housing behind voltage detection point, aligning the cut out in the "U" yoke with the voltage detection point, as shown. "U" yoke may have to be reversed to accomplish alignment.



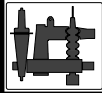
STEP 2

SLOWLY raise handle to disassemble receptacle housing. Remove assembly/disassembly tool.

NOTE: These steps are to followed for the disassembly of any leg of the (K)656CY/(K)656CH/(K)656I splice housing.
Refer back to the (K)656CY/(K)656CH/(K)656I Installation Instructions to complete the assembly.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852- -1122 FAX: (908)813- -2094



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

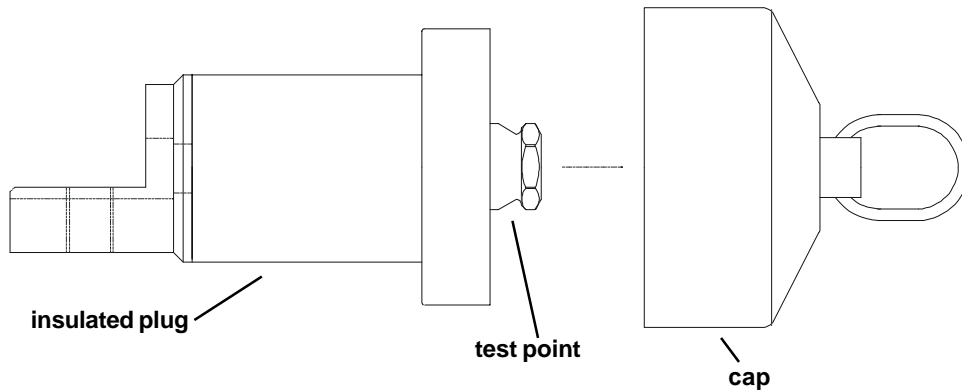
PRODUCT SPECIFICATION SHEET

DESCRIPTION

Insulated Plug w/ Test Point & Cap

ELASTIMOLD PART NUMBER

K650YBIP



Application:

The **K650YBIP** is designed to dead-end a I/Y/H Separable Cable Joint (housing side). It can be used as permanent dead-end or temporary dead-end during maintenance.

Ordering Instruction:

To order specify **K650YBIP**.

The insulated cap with bail kit contains the following:

- 1 – Insulated plug
- 1 – Protective cap
- 1 – Bolt & washers
- 1 – Installation instruction

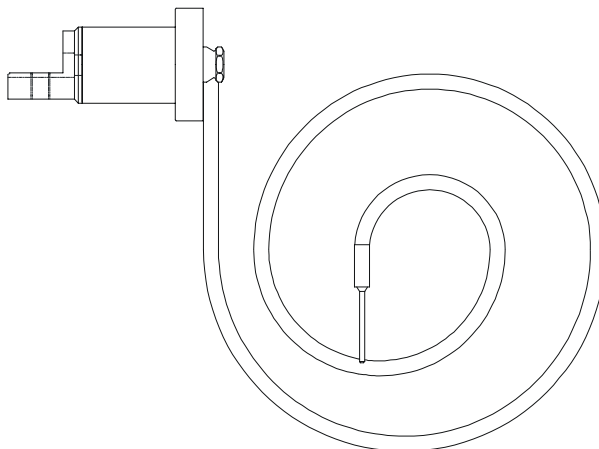
DESCRIPTION

Grounding Plug



ELASTIMOLD PART NUMBER

650YGP



Ordering Instruction:

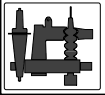
To order specify **650YGP**.

The grounding plug kit contains the following:

- 1 – grounding plug
- 1 – Installation instruction

Application:

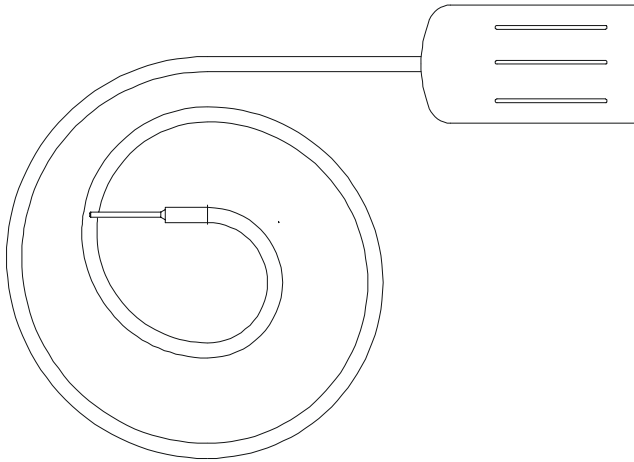
The 650YGP Grounding Plug is designed to ground a I/Y/H Separable Cable Joint (housing side) during maintenance. The ground lead is 4/0 AWG X 6'.



DESCRIPTION

Grounding Cap

ELASTIMOLD PART NUMBER

650YGDR**Ordering Instruction:**To order specify **650YGDR**.**The grounding plug kit contains the following:**

- 1 – grounding cap
- 1 – Installation instruction

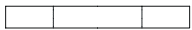
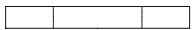
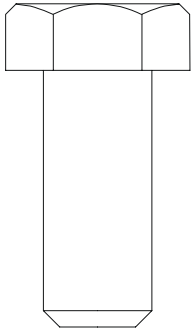
Application:

The 650YGDR Grounding Cap is designed to ground a I/Y/H Separable Cable Joint (bus bar side) during maintenance. The ground lead is 4/0 AWG X 6'.

DESCRIPTION

Bolt & Washers

ELASTIMOLD PART NUMBER

650BAW**Ordering Instruction:**

To order an aluminum bolt & washers specify **650BAW**.
To order a brass bolt & washers specify **675BAW**.

The grounding plug kit contains the following:

- 1 – Bolt
- 2 – Washers

Application:

The 650BAW bolt & washers kit are used to secure a compression lug to I/Y/H separable cable joint bus bar.

Installation Instructions YGP

CONTENTS: Grounding plug, Hex head bolt, Belleville washer, Flat washer, Lubricant, Nylon venting rod, Installation Instructions.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

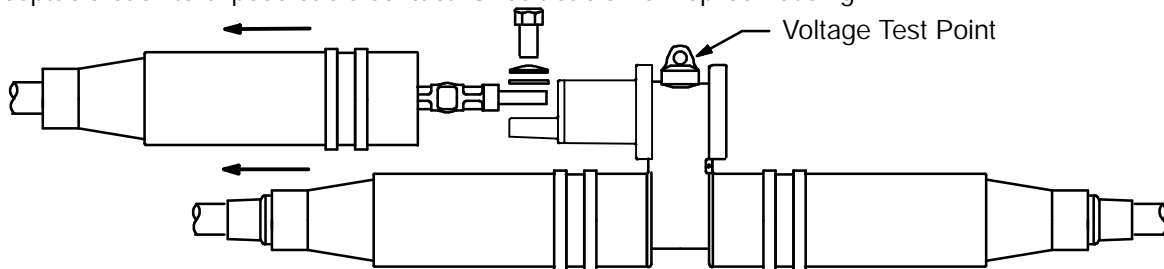
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

GENERAL INSTRUCTIONS

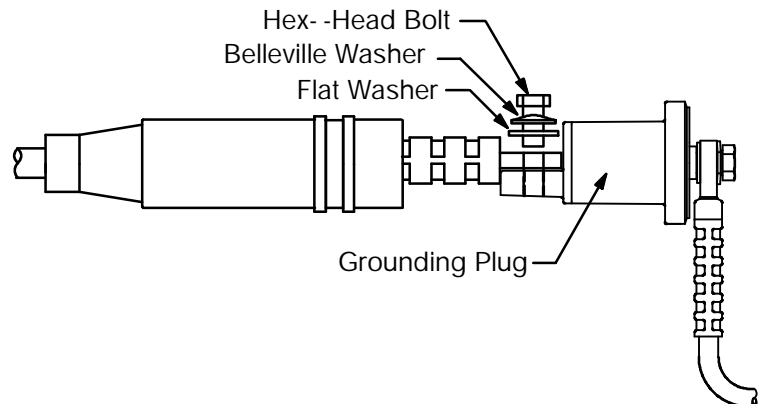
STEP 1

1. Ensure system is de-energized prior to removal of receptacle.
2. Slide receptacle back to expose cable contact. Unbolt cable from splice housing.



STEP 2

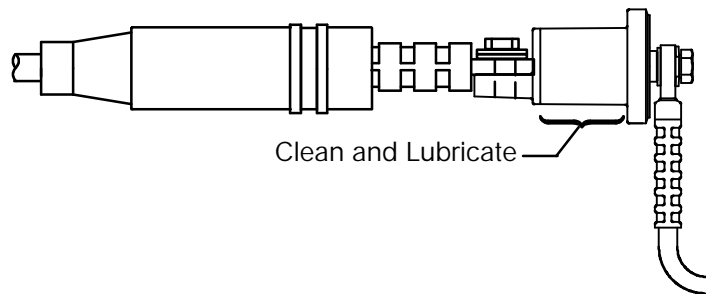
Assemble grounding plug with the washers and bolt as indicated, the flat washer against the spade contact, then the Belleville washer and the hex head bolt. (Note direction of Belleville washer in adjoining figure). Do not attempt to move or reposition any part of the assembly after the bolt is hand tightened. Using a torque wrench with a 15/16 socket, tighten to 30-40 ft./lbs.



ELASTIMOLD

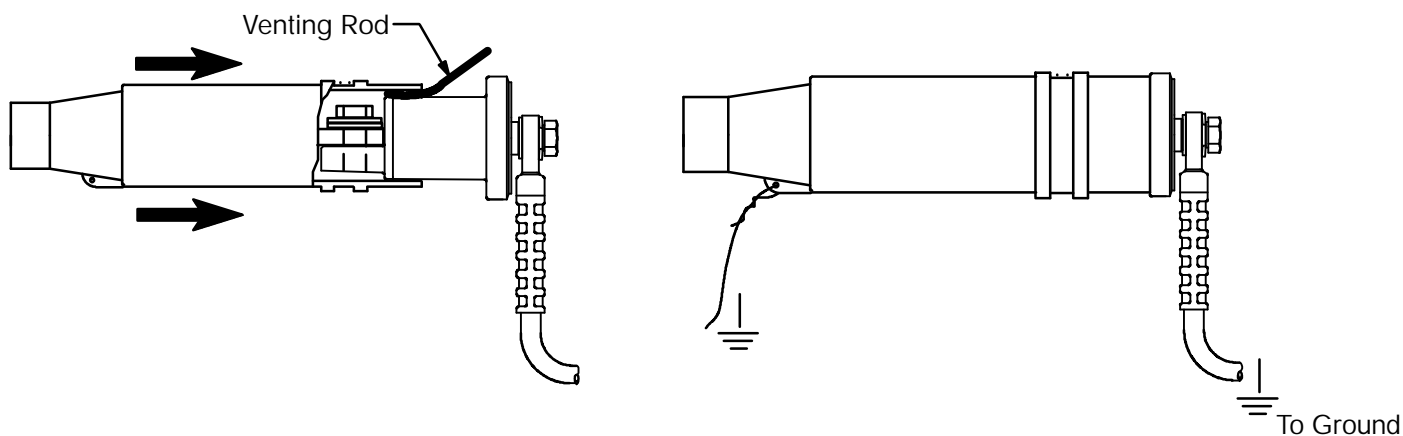
STEP 3

Apply supplied lubricant or ELASTIMOLD approved lubricant generously to the the area of the grounding plug as shown. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product.



STEP 4

1. Slide the receptacle housing up to the position shown. Insert the nylon venting rod (supplied). Slide the receptacle housing onto the grounding plug until fully seated. Remove the venting rod.
2. Connect to system ground.



VOLTAGE TEST

The ELASTIMOLD elbow connector is equipped with a integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, **PEEL OFF AT AN ANGLE** rather than pulling directly in line with the test point assembly.
CAUTION: The voltage test point is a capacitance device: it is not directly connected to the connector. It requires the use of specially designed instruments. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT; NO INDICATION WILL BE OBTAINED.**
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT. WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED ELBOW. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE ELBOW AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.**
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852--1122 FAX: (908)813--2147

A Unit of Thomas & Betts Corporation

Installation Instructions GYDR Grounding Receptacle

CONTENTS: Grounding Receptacle, Nylon venting rod, Lubricant, Installation Instructions.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

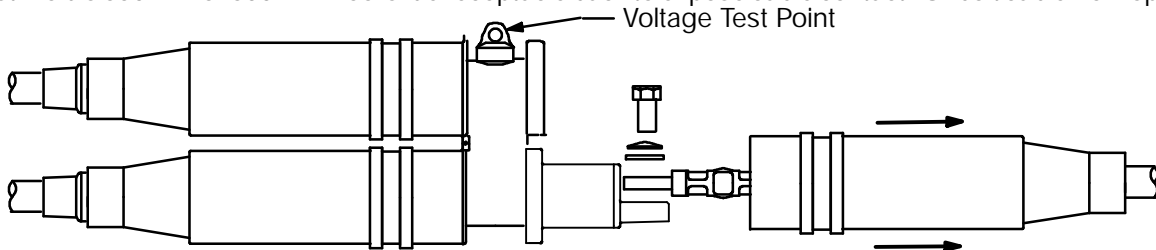
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

GENERAL INSTRUCTIONS

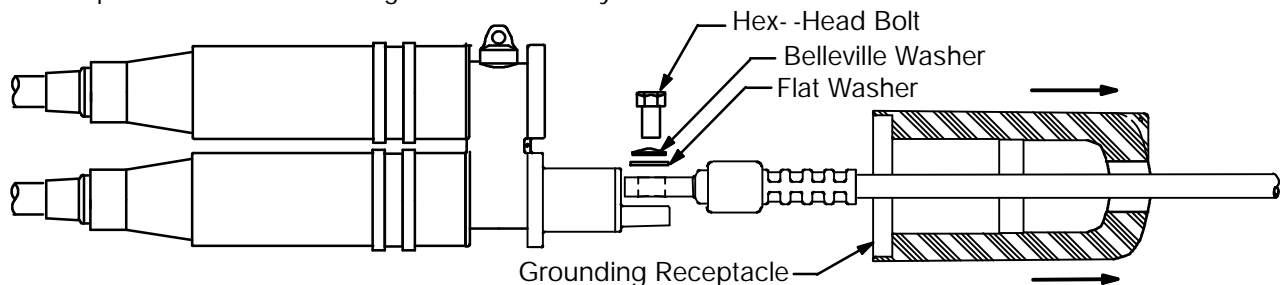
STEP 1

1. Ensure system is de-energized prior to removal of receptacle.
2. Using Elastimold's 650ATY or 600RRT Tool slide receptacle back to expose cable contact. Unbolt cable from splice housing. Voltage Test Point



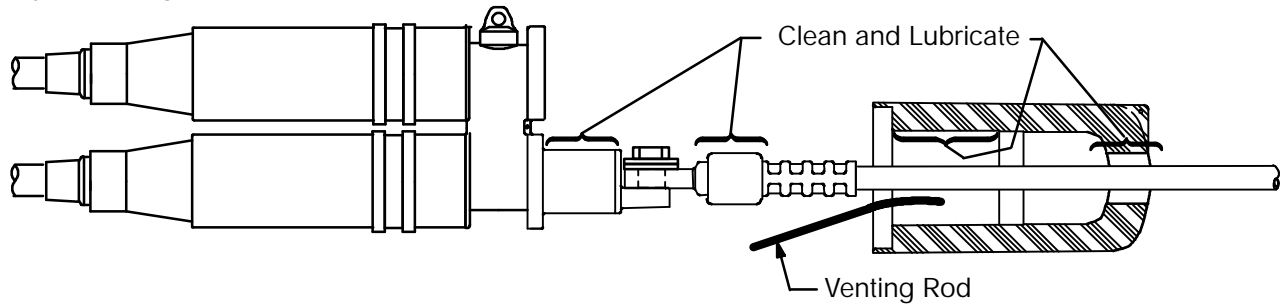
STEP 2

Assemble the GYDR with the washers and bolt as indicated, the flat washer against the spade contact, then the Belleville washer and the hex head bolt. (Note direction of Belleville washer in figure). Using a torque wrench tighten the bolt to 30-40 ft./lbs. while keeping the compression connector in alignment with the wye connector.



STEP 3

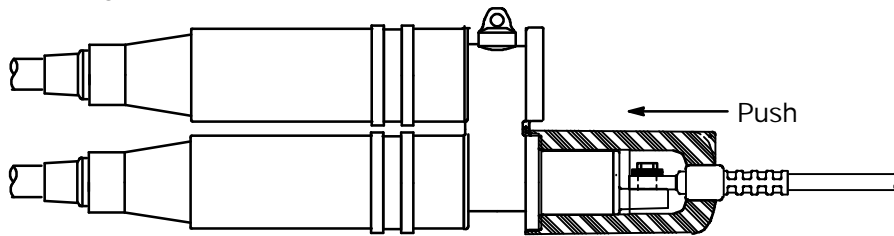
1. Apply supplied lubricant or ELASTIMOLD approved lubricant generously to the area of the GYDR as shown. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product.
2. Insert nylon venting rod.



STEP 4

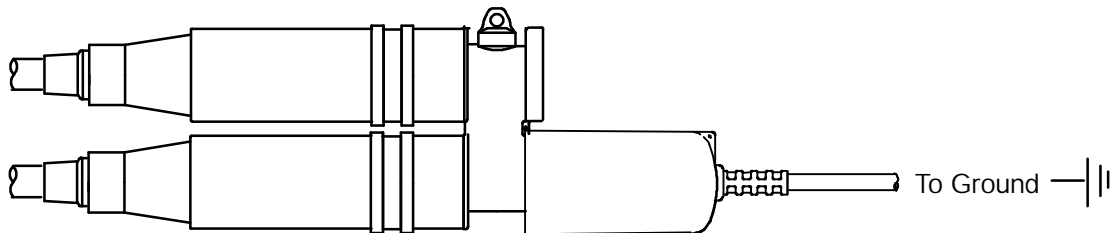
1. Push GYDR onto splice housing until it is properly seated.
2. Twist clockwise a few turns to make sure GYDR seats.

IMPORTANT: Remove Venting Rod.



STEP 5

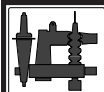
Connect ground wire to ground.



VOLTAGE TEST

ELASTIMOLD connector is equipped with an integral capacitance test point can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
CAUTION: The voltage test point is a capacitance device; it is not directly connected to the conductor. It requires the use of specially designed instruments. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT; NO INDICATION WILL BE OBTAINED.**
2. Using a suitable sensing device, proceed to determine if cable is energized. **DO NOT USE CONVENTIONAL VOLTAGE MEASURING EQUIPMENT.**
WARNING: THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. CONTAMINATION: MOISTURE, DIRT, ETC., AROUND THE TEST POINT, OR USE OF THE WRONG MEASURING EQUIPMENT CAN PROVIDE A FALSE "NO VOLTAGE" INDICATION ON AN ENERGIZED CONNECTOR. TO PREVENT SERIOUS OR FATAL INJURY TREAT THE CONNECTOR AS ENERGIZED UNTIL THE "NO VOLTAGE" TEST POINT INDICATION IS CONFIRMED BY OTHER MEANS.
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

C I

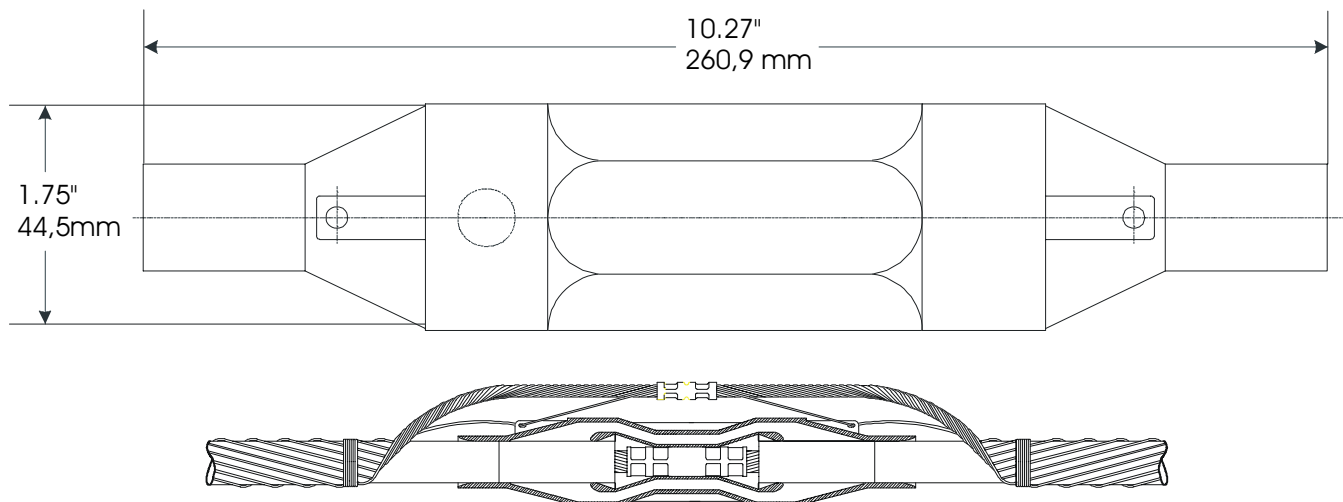
DESCRIPTION

15kV PCJ Cable Joints - Style 1

ELASTIMOLD PART NUMBER

15PCJ1WX

Size F & G



Application:

The Style 1 Power Cable Joint is designed for use on power cables with or without an outer jacket and can be applied directly on these cables without taping. The cable joint consists of two components, a molded housing and a splice contact. When assembled, the Style 1 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 15PCJ1F/1G can accommodate cables ranging from .640" (16,3mm) to .95" (24,1mm) insulation diameter.

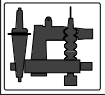
The 15PCJ1 is rated for use on power distribution circuits up to 15kV with a current rating equal to that of the cable on which it is installed.

Ratings:

per IEEE Standard 404
 15kV Voltage Class
 110kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute withstand
 70kV DC - 15 minutes withstand
 13kV AC - Corona Extinction @ 3p.C.sensitivity
 Current continuous rating equal to cable rating.
 Short time rating - equal to cable rating.
 Shield design - meet IEEE 592 for Exposed Semiconducting Shields on Premolded High Voltage Cable Joints and Separable Insulated Connectors.

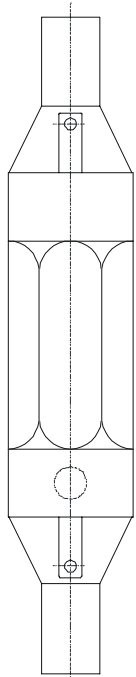
Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.



15kV PCJ Cable Joints - Style 1

15PCJ1WX



housing



conductor contacts

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (Y)

Decide the conductor material code. If aluminum conductor choose 1, if copper conductor choose 2.

Step 3 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

15PCJ1 - - 1 (or 2)

Step 1 (W) Step 2 Step 3 (X)

| Al Cu |

Cable Insulation Dia. Range		Joint Code
Inches	mm	
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G

Conductor Size* (AWG or kCMil)	Conductor Size Code Number	
	Stranded/Compr.	Solid/Compact
3	210	-
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	--	300

* Copper or Aluminum

* Refer to Table 1 & 2 for connector size availability.

The PCJ1 kit contains the following:

- 1 - Joint housing 15PCJ1W
- 1 - Conductor contacts 02403XXX (AL)
03802XXX(CU)
- 3 - Tube, lubricant 8LF
- 1 - Installation instruction IS-151F1G
- 1 - Crimp chart IS-PCJ1-3A/B-CC (AL)
IS-PCJ-CU-CC (CU)

Example:

The ordering number for an 15PCJ1 for a #2 AWG stranded aluminum, 175 mil wall cable with an insulation diameter of .700" (17,8 mm) is 15PCJ1F1220.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "1" in the compression lug code. The ordering number would be 15PCJ1F2220.

Aluminum Connector

Joint Code	Conductor Size Code	Connector Cat. #
F,G	210	02403210
F,G	220	02403220
F,G	230	02403230
F,G	240	02403240
G	250	02403250
G	260	02403260

Table 1

Copper connector

Joint Code	Conductor Size Code	Connector Cat. #
F,G	210	03802210
F,G	220	03802220
F,G	230	03802230
F,G	240	03802240
F,G	250	03802250
F,G	260	03802260
F,G	270	03802270
F,G	280	03802280
F,G	290	03802290
G	300	03802300

Table 2

Installation Instructions 15PCJ1FXXXX / 15PCJ1GXXXX

CONTENTS: Joint Housing, Splice (Conductor Contact), Lubricant (DO NOT SUBSTITUTE), Installation Instructions.

The straight joint is a permanent, fully shielded, fully submersible joint for aluminum and/or copper conductor, wire shielded cables, with a continuous operating current rating equal to that of the cable on which it is installed and a rated voltage as indicated on the joint housing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in

good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

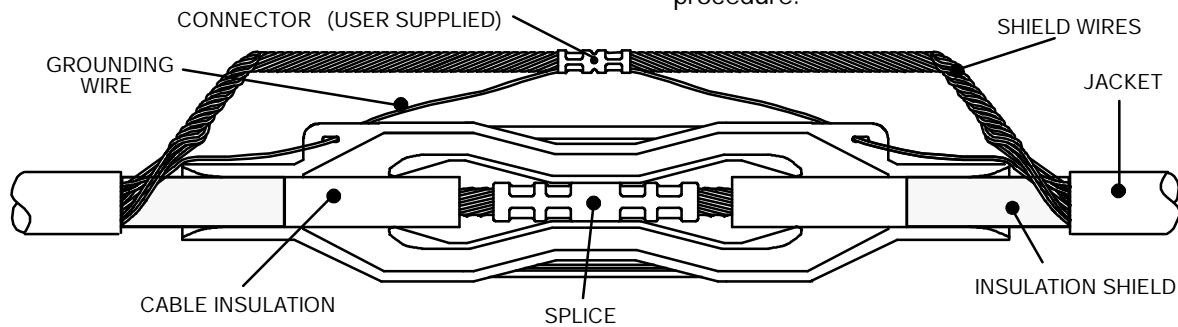
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

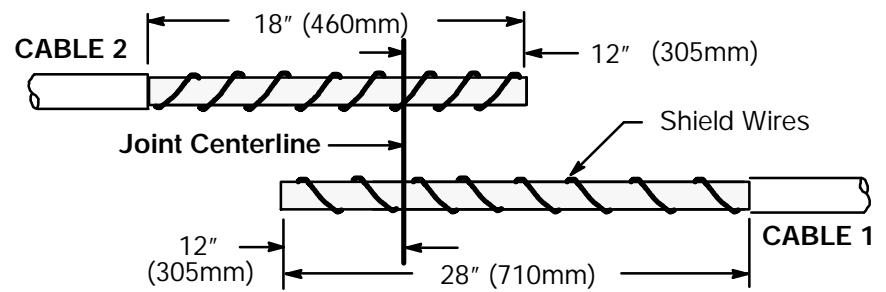
3. Read entire installation instructions before starting.

4. Have all required tools at hand and maintain cleanliness throughout the procedure.



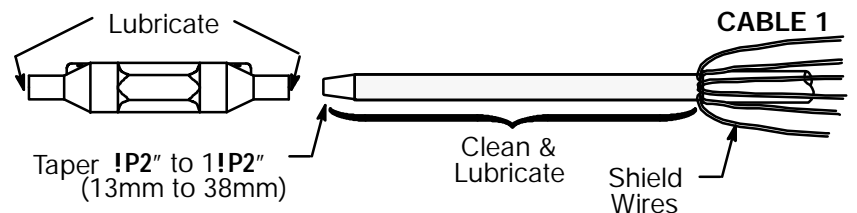
STEP A

1. Overlap both cables and cut to 12" (305mm) from center line of joint. This procedure will insure sufficient length of shield wires to be able to rejoin over joint.
2. Where applicable, remove cable jacket of Cable 1 to 28" (710mm) and that of Cable 2 to 18" (460mm).
3. Fold back shield wires.
4. Cut both cables at center line of joint.



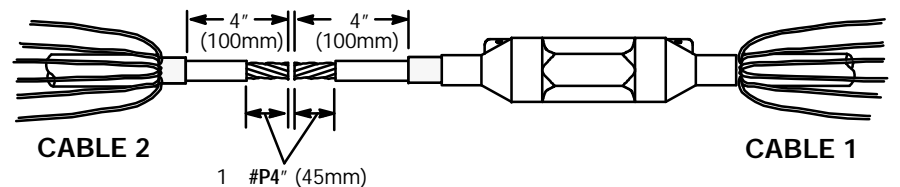
STEP B - PREPARE CABLE 1 & STORE HOUSING

1. Taper edge of Cable 1 from 1/2" to 1 1/2" (13mm to 38mm). Clean, then lubricate insulation shield. Lubricate inside bore of joint housing on both ends.
2. Slide the housing on the cable up to the shield wires. Tests have shown this procedure will not contaminate electrical interfaces.



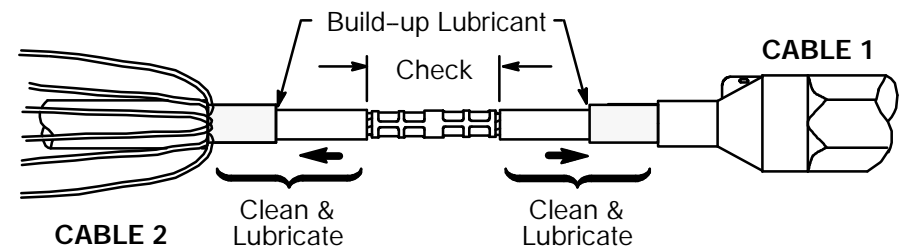
STEP C - PREPARE CABLES FOR SPLICE INSTALLATION

Use the stripping guide on the side and carefully remove the cable insulation and then the insulation shield from both cables. **DO NOT CUT OR NICK THE CABLE INSULATION OR CONDUCTOR.** This could result in failure of the assembly.



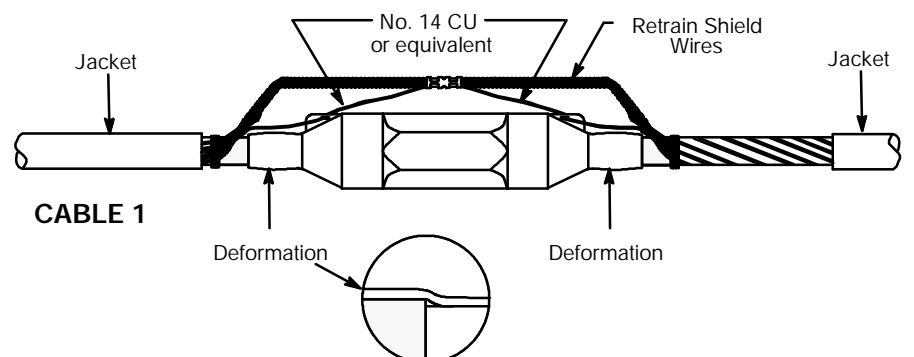
STEP D - SPLICE INSTALLATION

1. Aluminum conductors must be wirebrushed and immediately inserted into the splice. Be sure "Check" dimension does not exceed 4" (102mm) otherwise redo assembly.
2. Crimp the splice following the recommendations provided with it.
3. Wipe off all excess inhibitor (where applicable), then check the distance between cable insulations. If it exceeds 4 1/2" (108mm) redo assembly.
4. Remove any sharp protrusions/burrs that were generated when crimping the splice. **Metal chips/filings must be removed from the splice and joint assembly area prior to sliding joint.**
5. Clean cables where indicated. Then lubricate in the direction of arrows to provide a build-up or ramp of lubricant at the edge of the insulation shield.



STEP E - COMPLETE JOINT ASSEMBLY

1. Slide housing into final position. Proper positioning is insured by observing and equalizing the deformation of the joint ends caused by the underlying cable insulation shield.
2. Reshape shield wires and secure to ends of joint as shown.
3. Insert one of the shield wires from Cable 1 (if #14 AWG or larger) through the joint grounding eye. Repeat for Cable 2. If shield wires are smaller than #14 AWG use separate #14 AWG copper wire or equivalent.
4. Connect joint grounding wires and remaining shield wires, using an appropriate connector, as shown.
5. Reconstruct cable jacket (where applicable) over both cables and also over joint housing.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

CRIMP CHART PCJ1

Applies to sizes F,G,H,J,K & L

Caution: For use with Aluminum to Aluminum Conductor, or Aluminum to Copper Conductor Connections only.

CONDUCTOR SIZE AWG OR KCM		CAT. NO. 02403 03303 03309 03903 {{	NOMINAL CRIMP BARREL O.D.	CSA DIE NO.	BURNDY			KEARNEY			BLACKBURN
STR. COMPR.	COMPT. SOLID				MD6,MD7	Y35	Y45**	O	H1,H2	PH 25	JB12A
					DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.
3 2 1 1/0	2 1 1/0 2/0	21P 22P 23P/23M 24P	0.640" (16,26mm)	22	BG NOSE(4) WBG(2), W243(3)	U25ART(⊥) U25RYFT(1) UBG(2) U27RT(2)	U25ART(⊥) U25RYFT(1) UBG(2) U27RT(2)	%P8 NOSE(4) 620(2)	(P16(2) 572(2)	—	B24EA(⊥)
2/0	3/0	25P 25M	0.687" (17,45mm)	—	BG NOSE(4) W245(2)	U26ART(2) U26RYFT(1)	U26ART(2) U26RYFT(1)	%P8- -1(4)	%P8- -1(3)	%P8- -1(2)	B30EA(⊥)
3/0	4/0	26P	0.760" (19,30mm)	—	W166(4)	U27ART(2) U10AET(⊥) U26YDT(⊥) U27RYFT(1)	U27ART(2) U10AET(⊥) U26YDT(⊥) U27RYFT(1)	—	—	—	B39EA(⊥)
4/0	250	27P 27M	0.840- -0.844" (21,34mm) (21,44mm)	24	W660(3)	U28ART(2)	U28ART(2)	747(2)	737(3)	—	B49EA(⊥)
250	300	28P 28M	0.906" (23,01mm)	—	W249(3)	U29ART(2) U28RYFT(⊥) U27RLYRT(⊥)	U29ART(2) U28RYFT(⊥) U27RLYRT(⊥)	840(4)	840(3)	840(1)	B49EA(⊥)

** U Dies require adapter No. 6515.

{ Dies indicated use maximum number of crimps without overlapping.

() Number of crimps per side without overlapping.

Rotate each successive crimp 90_ to 180_ to prevent distortion.

{{ Select crimp tools and dies based on largest wire size, crimp both sides with same die.

CSA DIE NOTICE:

RE USE OF CSA DIE FOR CRIMPING

Engineering calculations denote the results of crimping with the suggested C.S.A. dies should have a completely satisfactory connection. However, recommendations for suitable C.S.A. dies to crimp these connectors, were determined, mathematically, from tests done on certain selected crimp connectors. Complete testing has not been done on all sizes.

AVIS POUR LA COMPRESSION SELON L'ACNOR

REF: Utilisation de la matrice ACNOR pour la compression

Les calculs d'ingénierie démontrent que les compressions avec les matrices suggérées de l'ACNOR résulteraient en un raccordement complètement satisfaisant. Toutefois, pour recommander des matrices ACNOR appropriées pour compresser ces connecteurs, nous avons déterminé mathématiquement selon des essais exécutés sur un certain nombre de connecteurs compressés sélectionnés. Les essais n'ont pas été complétés sur tous les calibres.



ELASTIMOLD

CRIMP CHART

PCJ1 & 2

Applies to sizes G,H,J,K,L,M,N,P & Q

Caution: For use with Aluminum to Aluminum Conductor, or Aluminum to Copper Conductor Connections only.

CONDUCTOR SIZE AWG OR MCM		CAT. NO. 02403 03303 03309 03903 {{ 07201	NOMINAL CRIMP BARREL O.D.	CSA	BURNDY	KEARNEY			T&B/HOMAC	BLACKBURN
STR. COMPR.	COMPT. SOLID				Y45**	H2	PH 25	O	HYDRAULIC	JB12A
				DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.
300	350	29P 29M	1.010" (25,65mm)	26	U30ART(2) U30RYFT(†)	—	—	980(4)	83(†)	B11CH(†)
350	400	30P	1.125" (28,98mm)	—	U31ART(2) U705(2)	1 !P8- -1(2) 1.00(2)	1 !P8- -1(1) 1.00(1)	—	94(†)	B12CH(†)
400	500	31P	1.187" (30,15mm)	28	U32ART(3) U321RYFT(†)	1 !P8- -2(2) 1 !P8- -1(2)	1 !P8- -1(1)	—	96(†)	B36CH(†)
450	550	32P	1.320" (33,53mm)	—	U34ART(3) U35RYFT(†)	1 %P16(3)	1 %P16(1)	—	106A(†)	B76CH(†)
500	600	33P	1.320" (33,53mm)	—	U34ART(3) U35RYFT(†)	1 %P16(3)	1 %P16(1)	—	106A(†)	B76CH(†)
600	700	35P 35M	1.438" (36,53mm)	30	U36ART(3) U37RYFT(†)	1 %P16(3)	1 %P16(1)	—	115H(†)	—
650	750	36P	1.604" (40,74mm)	—	S39ART(3)	1 !P2(3)	1 !P2(2)	—	140H(†)	—
700/750	800/900	38P	1.604" (40,74mm)	—	S39ART(3)	1 !P2(3)	1 !P2(2)	—	140H(†)	—
800	—	39P	1.652" (41,96mm)	32	S40ART(3)	1 !P2(3)	1 !P2(2)	—	140H(†)	—
900	1000	40P	1.840" (46,74mm)	34	S44ART(4) S292(4)	—	1 #P4(2)	—	—	—
1000	—	41P	1.840" (46,74mm)	34	S44ART(4) S292(4)	—	1 #P4(2)	—	—	—
1100	1250	42P	1.840" (46,74mm)	34	S44ART(4) S292(4)	—	1 #P4(2)	—	—	—
1250	—	44P 44M	1.840" (46,74mm)	34	S44ART(4) S292(4)	—	1 #P4(2)	—	—	—

** U Dies require adapter No. 6515.

{ Dies indicated use maximum number of crimps without overlapping.

Rotate each successive crimp 90_ to 180_ to prevent excessive distortion.

() Number of crimps per side without overlapping.

{{ Select crimp tools and dies based on largest wire size, crimp both sides with same die.



ELASTIMOLD

FOR PCJ STYLE 1 & STYLE 2 COPPER CONDUCTOR SPLICES

WARNING: COPPER CONDUCTOR SPLICE TO BE UTILIZED WITH COPPER CONDUCTORS ONLY

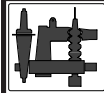
CONDUCTOR SIZE STR. COMPR. AWG MCM	CAT. NO. 03302 03402 03802 03802XX5 05202	NOMINAL CRIMP BARREL O.D.	BURNDY			KEARNEY				BLACKBURN
			MD6	Y35	Y45*	0	H1	H2	PH25	JB12A
			DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.
3, 2	21P/22P	.566" (14.38mm)	W241(2)	U26RT(2) U1CYMDT(2)	U26RT(2) U1CYMDT(2)	9/16{	9/16{	9/16{	—	B72CH(1)
1	23P	.566" (14.38mm)	W241(2)	U26RT(2) U1CYMDT(2)	U26RT(2) U1CYMDT(2)	9/16{	9/16{	9/16{	—	B72CH(1)
1/0	24P	.566" (14.38mm)	W241(2)	U26RT(2) U1CYMDT(2)	U26RT(2) U1CYMDT(2)	9/16{	9/16{	9/16{	—	B72CH(1)
2/0	25P 25M	.566" (14.38mm)	W241(2)	U26RT(2) U1CYMDT(2)	U26RT(2) U1CYMDT(2)	9/16{	9/16{	9/16{	—	B72CH(1)
3/0	26P	.617" (15.67mm)	W243(2)	U27RT(2) U25RYFT(2)	U27RT(2) U25RYFT(2)	5/8 NOSE(4) 5/8- -1(4)	5/8- -1{	5/8- -1{	5/8- -1{	B08CH(1)
4/0	27P 27M	.681" (17.29mm)	W165(2)	U28RT(2) U25YDT(2)	U28RT(2) U25YDT(2)	—	—	—	—	B09CH(2)
250	28P 275	.750" (19.05mm)	W166(2)	U29RT(2) U26YDT(2)	U29RT(2) U26YDT(2)	11/16(4)	11/16{	11/16{	11/16{	B26CH(2)
300	29P 29M	.813" (20.65mm)	—	U30RT(2) U28ART(2) U27YDT(2)	U30RT(2) U28ART(2) U27YDT(2)	—	3/4{	3/4{	—	B10CHI(2) B10CH(2)
350	30P 30M	.879" (22.33mm)	—	U31RT(2) U29ART(2) U28YDT(2)	U31RT(2) U29ART(2) U28YDT(2)	—	.840{	.840{	.840{	B11CH(2)
400	31P	.950" (24.13mm)	—	U32RT(3) U30ART(2) U29YDT(3)	U32RT(3) U30ART(2) U29YDT(3)	—	15/16{	15/16{	15/16{	B11CH(2)
450	32P 315	1.062" (26.97mm)	—	—	U34RT(3) U31ART(2) U30YDT(4)	—	—	—	—	B12CH(2) B12CHI(2)
500	33P	1.062" (26.97mm)	—	—	U34RT(3) U31ART(2) U30YDT(3)	—	—	—	—	B12CH(2) B12CHI(2)
600	35P 335	1.188" (30.18mm)	—	—	U36RT(3) U33RYFT(3) U32ART(3)	—	—	1- -1/8- -2{	—	—
650	36P	1.188" (30.18mm)	—	—	U36RT(3) U33RYFT(3) U32ART(3)	—	—	1- -1/8- -2{	—	—
700/750	38P 365	1.312" (33.32mm)	—	—	U39RT(3) U35RYFT(3) U36ART(3)	—	—	1- -5/16{	1- -5/16{ 1- -9/32{	—
800	39P	1.337" (33.96mm)	—	—	S40RT(4)	—	—	1- -5/16{	1- -5/16{ 1- -9/32{	—
900	40P	1.500" (38.1mm)	—	—	S44RT(4)	—	—	—	—	—
1000	41P	1.500" (38.1mm)	—	—	S44RT(4)	—	—	—	—	—
1250	44P	1.671" (42.44mm)	—	—	S342{	—	—	K6027AH{{	—	—

() Number of crimps per side without overlapping.
{ Maximum number of crimps without overlapping.
{{ PH 60 only.
* U dies require adapter No. 6515.

Rotate each successive crimp 90 degrees or 180 degrees to prevent excessive distortion.
IMPORTANT: When using conductor splice with heat- -sink ring DO NOT CRUSH RING.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852- -1122 FAX: (908)813- -2147
A Unit of Thomas & Betts Corporation



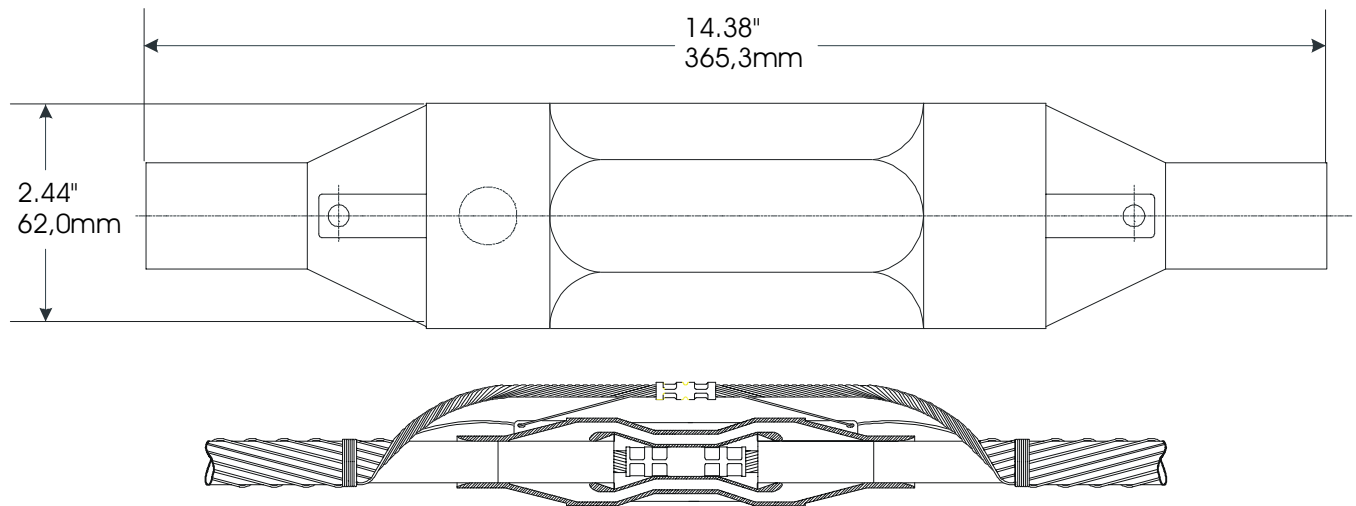
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

25kV PCJ Cable Joints - Style 1

ELASTIMOLD PART NUMBER

25PCJ1GX**Size G**

Application:

The Style 1 Power Cable Joint is designed for use on power cables with or without an outer jacket and can be applied directly on these cables without taping. The cable joint consists of two components, a molded housing and a splice contact. When assembled, the Style 1 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 25PCJ1G can accommodate cables ranging from .760" (19,3mm) to .95" (24,1mm) insulation diameter .

The 25PCJ1 is rated for use on power distribution circuits up to 25kV with a current rating equal to that of the cable on which it is installed.

Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.

Ratings:

per IEEE Standard 404

25kV Voltage Class

150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

52kV AC - One minute withstand

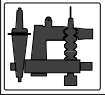
100kV DC - 15 minutes withstand

21.6kV AC - Corona Extinction @ 3p.C.sensitivity

Current continuous rating equal to cable rating.

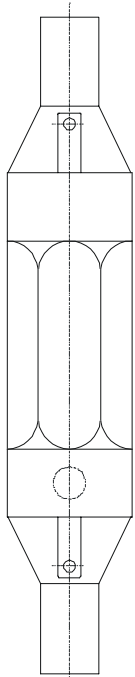
Short time rating - equal to cable rating.

Shield design - meet IEEE 592 for Exposed Semiconducting Shields on Premolded High Voltage Cable Joints and Separable Insulated Connectors.



25kV PCJ Cable Joints - Style 1

25PCJ1GX



housing



conductor contacts

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (Y)

Decide the conductor material code. If aluminum conductor choose 1, if copper conductor choose 2.

Step 3 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

25PCJ1 - - 1 (or 2)

Step 1 (W) Step 2 Step 3 (X)

| Al Cu |

Cable Insulation Dia. Range		Joint Code
Inches	mm	
.760 - .950	19,3 - 24,1	G

Conductor Size* (AWG or kcmil)	Conductor Size Code Number	
	Stranded/Compr.	Solid/Compact
3	210	-
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	--	300

The PCJ1 kit contains the following:

- 1 - Joint housing 25PCJ1G
- 1 - Conductor contacts 02403XXX (AL) or 03802XXX (CU)
- 3 - Tube, lubricant 8LF
- 1 - Installation instruction IS-15/25/35GHJK
- 1 - Crimp chart IS-PCJ1-3A/B-CC (AL) or IS-PCJ-CU-CC (CU)

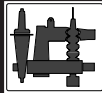
Example:

The ordering number for an **25PCJ1** for a #1 AWG stranded aluminum, 260 mil wall cable with an insulation diameter of .910" (23,1 mm) is 25PCJ1G1230.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "1" in the compression lug code. The ordering number would be 25PCJ1G2230.

* Copper or Aluminum

* Al connector only up to code 280.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

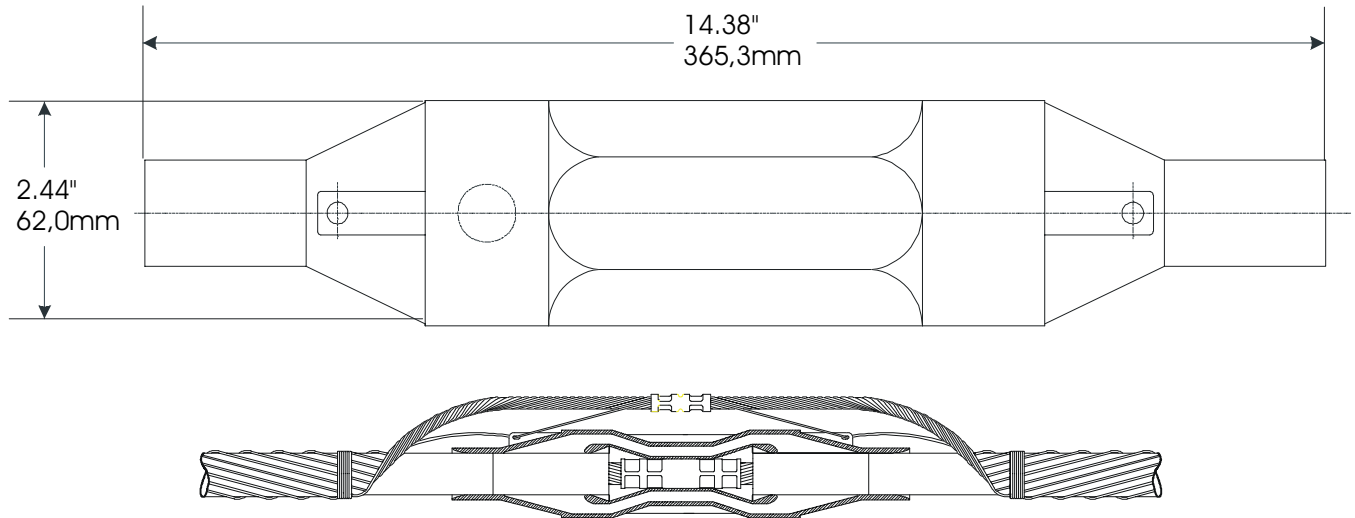
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV PCJ Cable Joints - Style 1

ELASTIMOLD PART NUMBER

15/25/35PCJ1WX**Size H,J**

Application:

The Style 1 Power Cable Joint is designed for use on power cables with or without an outer jacket and can be applied directly on these cables without taping. The cable joint consists of two components, a molded housing and a splice contact. When assembled, the Style 1 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 15/25/35PCJ1H/J can accommodate cables ranging from .850" (21,6mm) to 1.180" (30,0mm) insulation diameter.

The Style 1 is rated for use on power distribution circuits up to 35kV with a current rating equal to that of the cable on which it is installed.

Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.

Ratings: per IEEE Standard 404

Voltage Class	15kV	25kV	35kV
Phase to Ground	8.7kV	14.4kV	20.2kV
BIL	110kV	150kV	200kV
AC 1 min. withstand 60Hz, 1min.	35kV	52kV	69kV
DC withstand 15 min.	70kV	100kV	125kV
Corona Extinction @ 3p.C.sensitivity	13kV	22kV	31kV
Current continuous rating	equal to the rating of cable		
Short time rating	equal to the rating of cable		
Shield design	per IEEE 592		

Installation Instructions 15/25/35PCJ1(H,J,K)XXXX/25PCJ1(G)XXXX

CONTENTS: Joint Housing, Splice (Conductor Contact), Lubricant (DO NOT SUBSTITUTE), Installation Instructions.

The straight joint is a permanent, fully shielded, fully submersible joint for aluminum and/or copper conductor, wire shielded cables, with a continuous operating current rating equal to that of the cable on which it is installed and a rated voltage as indicated on the joint housing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

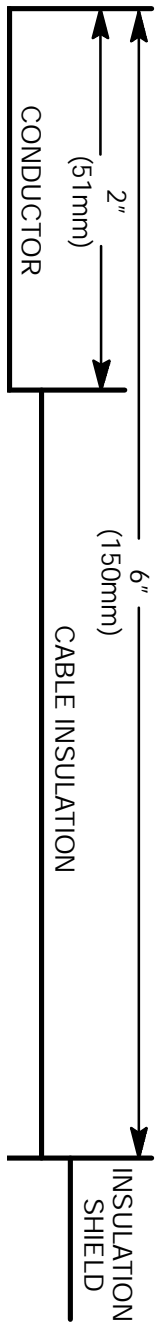
Do not touch or move energized products by hand.

These instructions do not attempt to provide for every possible contingency. Failure to follow these instructions will result in damage to the product and serious or fatal injury.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

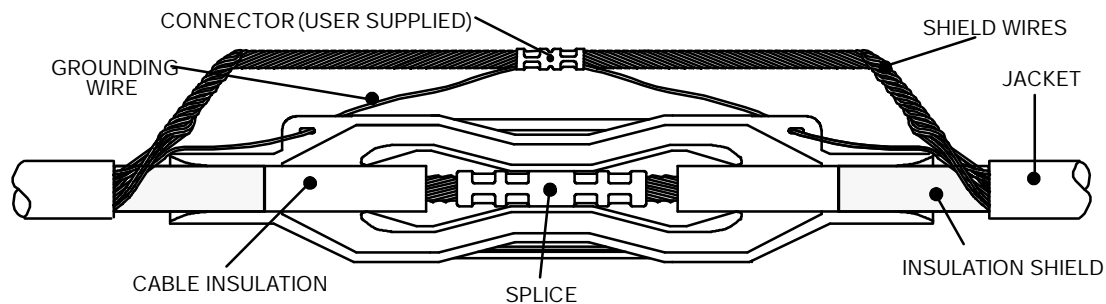
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.



IMPORTANT

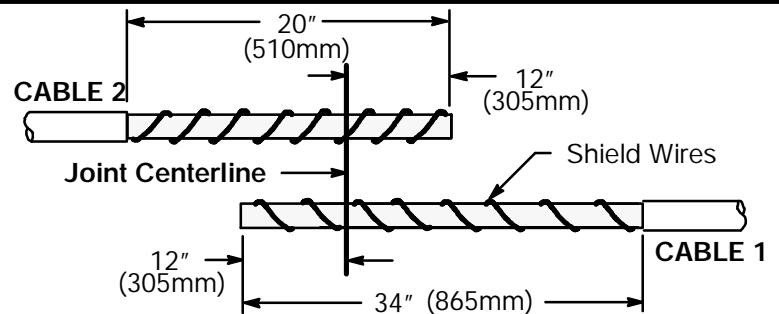
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



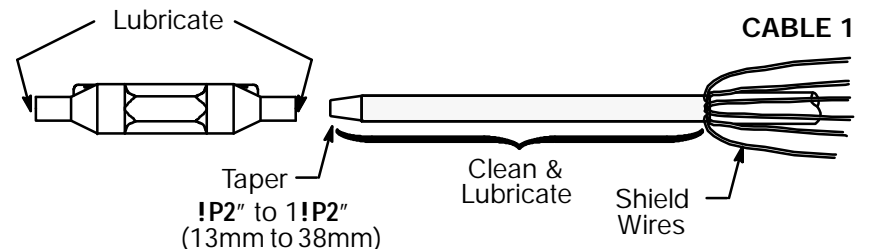
STEP A

1. Overlap both cables and cut to 12" (305mm) from center line of joint. This procedure will insure sufficient length of shield wires to be able to rejoin over joint.
2. Where applicable, remove cable jacket of Cable 1 to 34" (865mm) and that of Cable 2 to 20" (510mm).
3. Fold back shield wires.
4. Cut both cables at center line of joint.



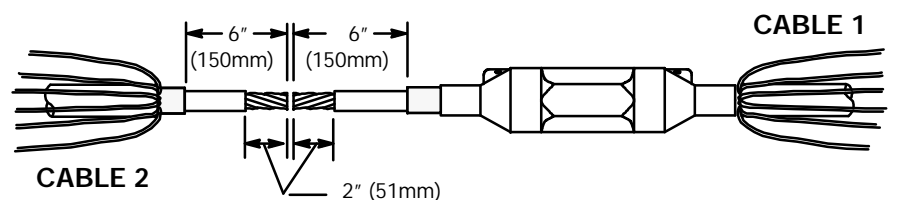
STEP B - PREPARE CABLE 1 & STORE HOUSING

1. Taper edge of Cable 1 from 1/2" to 1/4" (13mm to 38mm). Clean, then lubricate insulation shield. Lubricate inside bore of joint housing on both ends.
2. Slide the housing on the cable up to the shield wires. Tests have shown this procedure will not contaminate electrical interfaces.



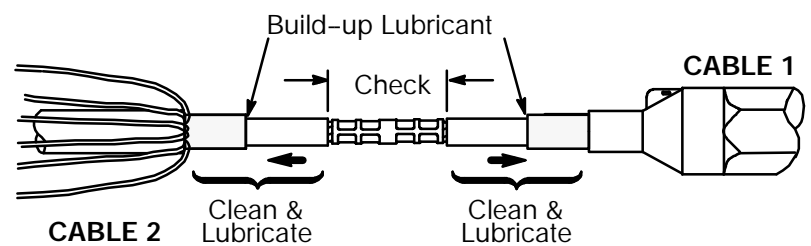
STEP C - PREPARE CABLES FOR SPLICE INSTALLATION

Use the stripping guide on the side and carefully remove the cable insulation and then the insulation shield from both cables. **DO NOT CUT OR NICK THE CABLE INSULATION OR CONDUCTOR.** This could result in failure of the assembly.



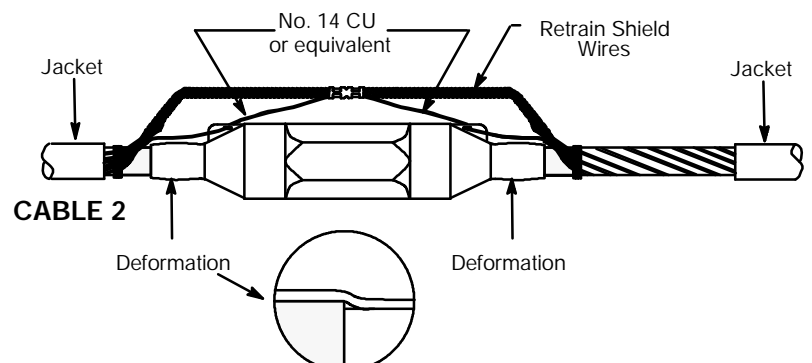
STEP D - SPLICE INSTALLATION

1. Aluminum conductors must be wirebrushed and immediately inserted into the splice. Be sure "Check" dimension does not exceed 5" (127mm) otherwise redo assembly.
2. Crimp the splice following the recommendations provided with it.
3. Wipe off all excess inhibitor (where applicable), then check the distance between cable insulations. If it exceeds 5 1/4" (133mm) redo assembly.
4. Remove any sharp protrusions/burrs that were generated when crimping the splice. **Metal chips/filings must be removed from the splice and joint assembly area prior to sliding joint.**
5. Clean cables where indicated. Then lubricate in the direction of arrows to provide a build-up or ramp of lubricant at the edge of the insulation shield.

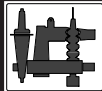


STEP E - COMPLETE JOINT ASSEMBLY

1. Slide housing into final position. Proper positioning is insured by observing an equalizing the deformation of the joint ends caused by the underlying cable insulation shield.
2. Reshape shield wires and secure to ends of joint as shown.
3. Insert one of the shield wires from Cable 1 (if #14 AWG or larger) through the joint grounding eye. Repeat for Cable 2. If shield wires are smaller than #14 AWG use separate #14 AWG copper wire or equivalent.
4. Connect joint grounding wires and remaining shield wires, using an appropriate connector, as shown.
5. Reconstruct cable jacket (where applicable) over both cables and also over joint housing.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

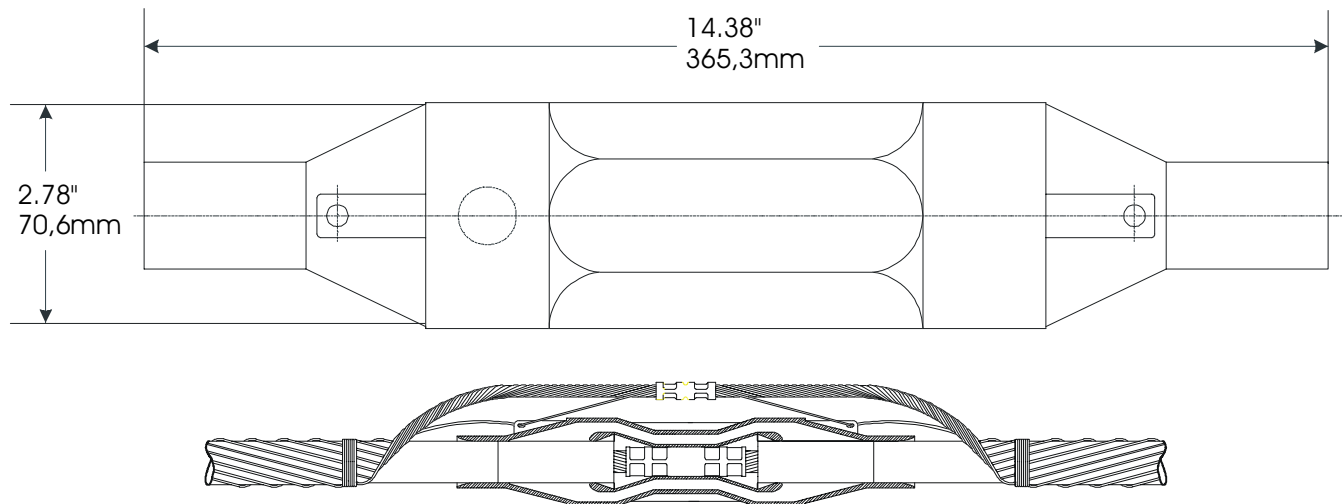
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV PCJ Cable Joints - Style 1

ELASTIMOLD PART NUMBER

15/25/35PCJ1WX**Size K, L, LM, M**

Application:

The Style 1 Power Cable Joint is designed for use on power cables with or without an outer jacket and can be applied directly on these cables without taping. The cable joint consists of two components, a molded housing and a splice contact. When assembled, the Style 1 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 15/25/35PCJ1K/L/LM/M can accommodate cables ranging from 1.090" (27,7mm) to 1.630" (41,4mm) insulation diameter.

The Style 1 is rated for use on power distribution circuits up to 35kV with a current rating equal to that of the cable on which it is installed.

Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.

Ratings: per IEEE Standard 404

Voltage Class	15kV	25kV	35kV
Phase to Ground	8.7kV	14.4kV	20.2kV
BIL	110kV	150kV	200kV
AC 1 min. withstand 60Hz, 1min.	35kV	52kV	69kV
DC withstand 15 min.	70kV	100kV	125kV
Corona Extinction @ 3p.C.sensitivity	13kV	22kV	31kV
Current continuous rating	equal to the rating of cable		
Short time rating	equal to the rating of cable		
Shield design	per IEEE 592		

Installation Instructions 15/25/35PCJ1WXXX

W = Housing size's L,M

CONTENTS: Joint Housing, Splice (Conductor Contact), Lubricant (**DO NOT SUBSTITUTE**), Installation Instructions.

The straight joint is a permanent, fully shielded, fully submersible joint for aluminum and/or copper conductor, wire shielded cables, with a continuous operating current rating equal to that of the cable on which it is installed and a rated voltage as indicated on the joint housing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

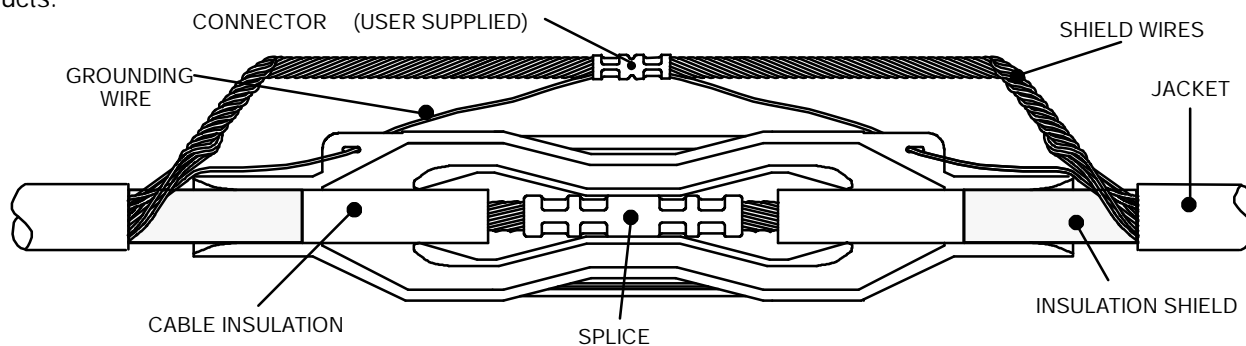
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

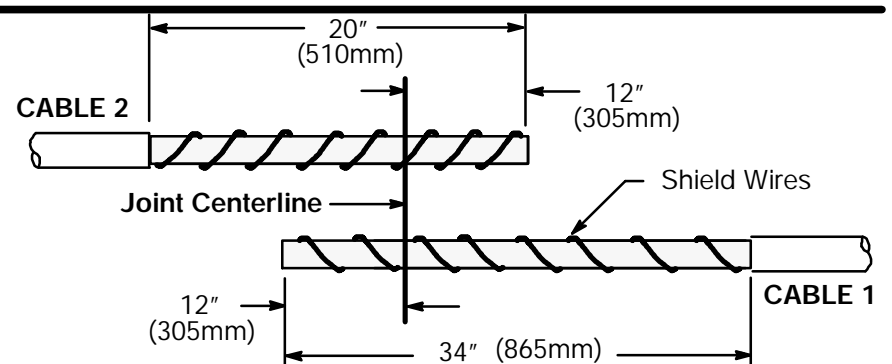
3. Read entire installation instructions before starting.

4. Have all required tools at hand and maintain cleanliness throughout the procedure.



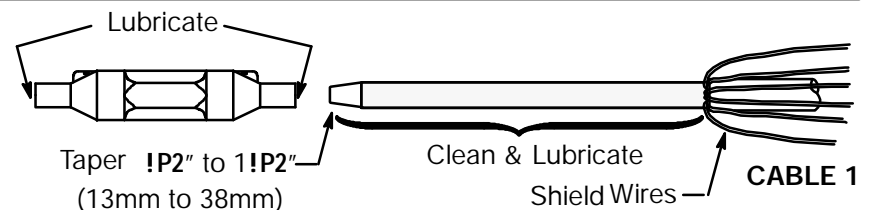
STEP A

1. Overlap both cables and cut to 12" (305mm) from center line of joint. This procedure will insure sufficient length of shield wires to be able to rejoin over joint.
2. Where applicable, remove cable jacket of Cable 1 to 34" (865mm) and that of Cable 2 to 20" (510mm).
3. Fold back shield wires.
4. Cut both cables at center line of joint.



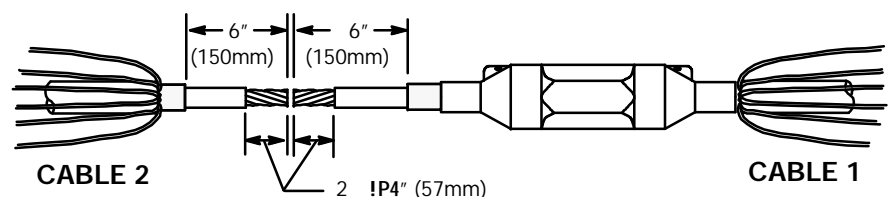
STEP B - PREPARE CABLE 1 & STORE HOUSING

1. Taper edge of Cable 1 from 1/2" to 1 1/2" (13mm to 38mm). Clean, then lubricate insulation shield. Lubricate inside bor of joint housing on both ends.
2. Slide the housing on the cable up to the shield wires. Tests have shown this procedure will not contaminate electrical interfaces.



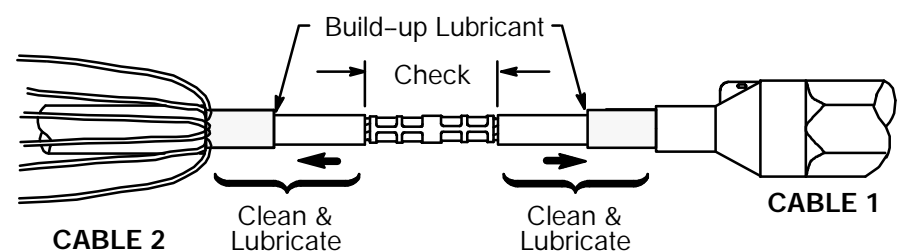
STEP C - PREPARE CABLES FOR SPLICE INSTALLATION

Use the stripping guide on the side and carefully remove the cable insulation and then the insulation shield from both cables. **DO NOT CUT OR NICK THE CABLE INSULATION OR CONDUCTOR.** This could result in failure of the assembly.



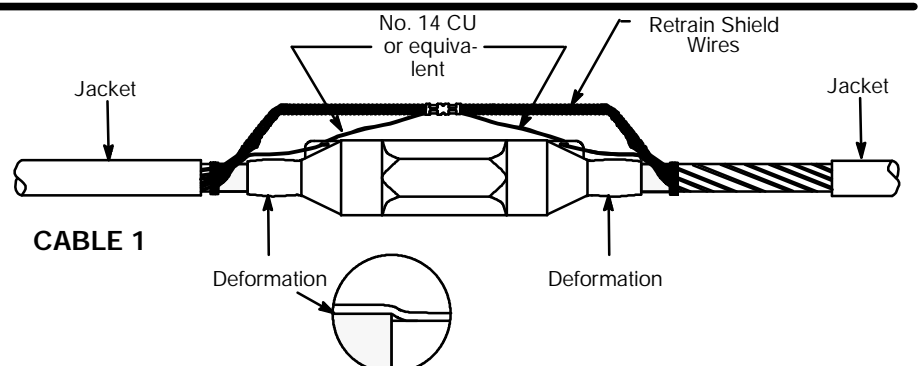
STEP D - SPLICE INSTALLATION

1. Aluminum conductors must be wirebrushed and immediately inserted into the splice. Be sure "Check" dimension does not exceed 5 1/4" (133mm) otherwise redo assembly.
2. Crimp the splice following the recommendations provided with it.
3. Wipe off all excess inhibitor (where applicable), then check the distance between cable insulations. If it exceeds 5 1/2" (140mm) redo assembly.
4. Remove any sharp protrusions/burrs that were generated when crimping the splice. **Metal chips/filings must be removed from the splice and joint assembly area prior to sliding joint.**
5. Clean cables where indicated. Then lubricate in the direction of arrows to provide a build-up or ramp of lubricant at the edge of the insulation shield.



STEP E - COMPLETE JOINT ASSEMBLY

1. Slide housing into final position. Proper positioning is insured by observing and equalizing the deformation of the joint ends caused by the underlying cable insulation shield.
2. Reshape shield wires and secure to ends of joint as shown.
3. Insert one of the shield wires from Cable 1 (if #14 AWG or larger) through the joint grounding eye. Repeat for Cable 2. If shield wires are smaller than #14 AWG use separate #14 AWG copper wire or equivalent.
4. Connect joint grounding wires and remaining shield wires, using an appropriate connector, as shown.
5. Reconstruct cable jacket (where applicable) over both cables and also over joint housing.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

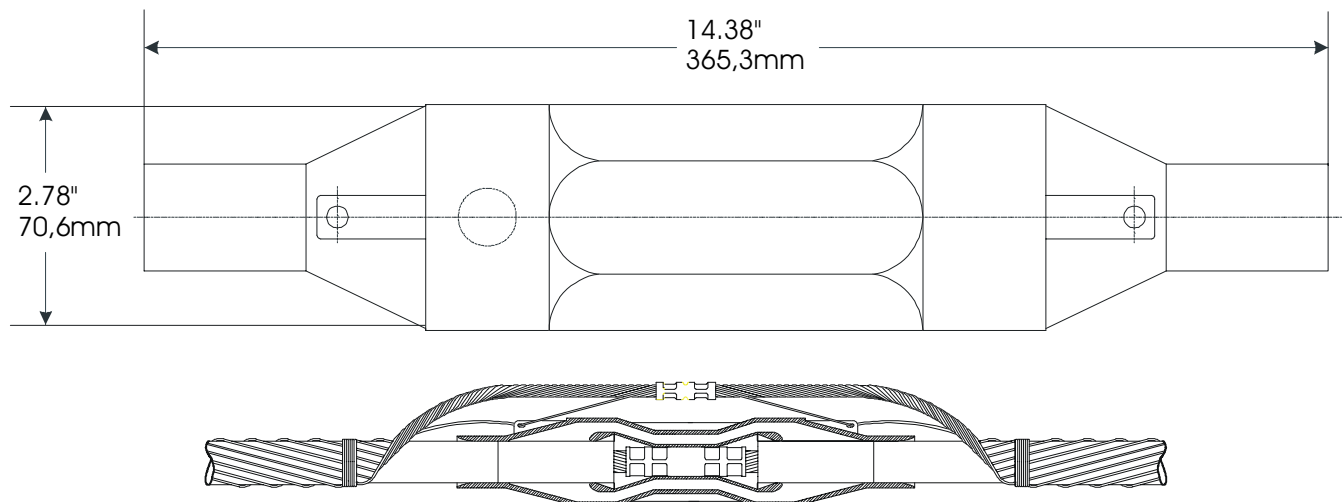
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV PCJ Cable Joints - Style 1

ELASTIMOLD PART NUMBER

15/25/35PCJ1WX**Size N, P, Q**

Application:

The Style 1 Power Cable Joint is designed for use on power cables with or without an outer jacket and can be applied directly on these cables without taping. The cable joint consists of two components, a molded housing and a splice contact. When assembled, the Style 1 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 15/25/35PCJ1N/P/Q can accommodate cables ranging from 1.525" (38,7mm) to 2.120" (53,9mm) insulation diameter.

The Style 1 is rated for use on power distribution circuits up to 35kV with a current rating equal to that of the cable on which it is installed.

Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.

Ratings: per IEEE Standard 404

Voltage Class	15kV	25kV	35kV
Phase to Ground	8.7kV	14.4kV	20.2kV
BIL	110kV	150kV	200kV
AC 1 min. withstand 60Hz, 1min.	35kV	52kV	69kV
DC withstand 15 min.	70kV	100kV	125kV
Corona Extinction @ 3p.C.sensitivity	13kV	22kV	31kV
Current continuous rating	equal to the rating of cable		
Short time rating	equal to the rating of cable		
Shield design	per IEEE 592		

Installation Instructions 15/25/35PCJ1WXXX

W = Housing size's N,P,Q

CONTENTS: Joint Housing, Splice (Conductor Contact), Lubricant (DO NOT SUBSTITUTE), Installation Instructions.

The straight joint is a permanent, fully shielded, fully submersible joint for aluminum and/or copper conductor, wire shielded cables, with a continuous operating current rating equal to that of the cable on which it is installed and a rated voltage as indicated on the joint housing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

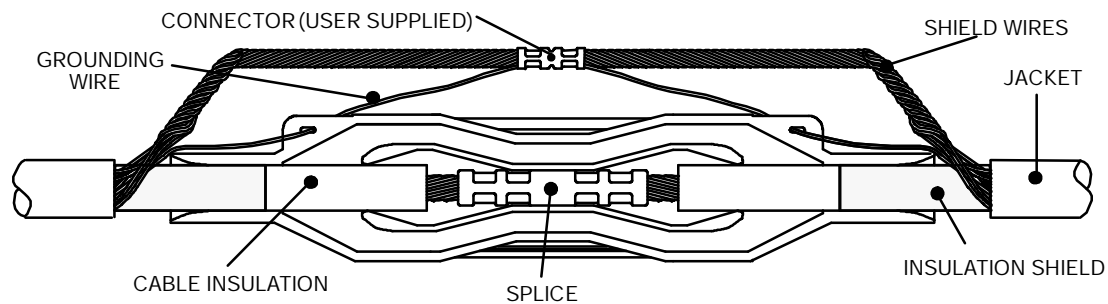
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

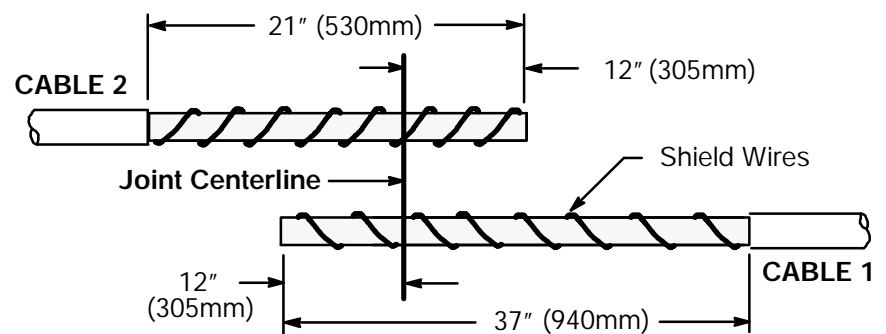
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



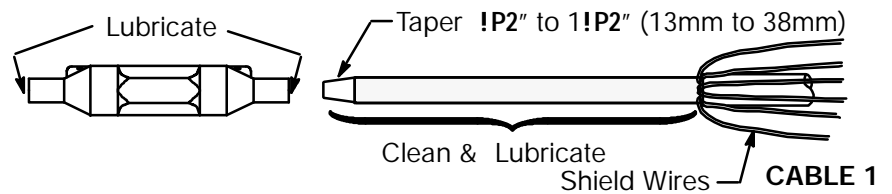
STEP A

1. Overlap both cables and cut to 12" (305mm) from center line of joint. This procedure will insure sufficient length of shield wires to be able to rejoin over joint.
2. Where applicable, remove cable jacket of Cable 1 to 37" (940mm) and that of Cable 2 to 21" (530mm).
3. Fold back shield wires.
4. Cut both cables at center line of joint.



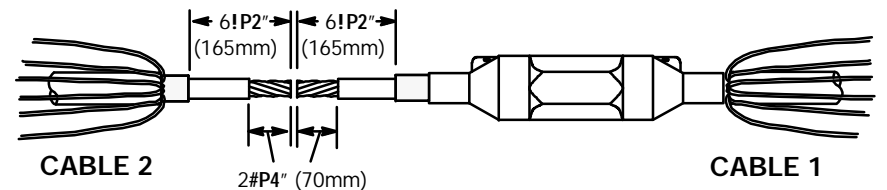
STEP B - PREPARE CABLE 1 & STORE HOUSING

1. Taper edge of Cable 1 from 1P2" to 1!P2" (13mm to 38mm). Clean, then lubricate insulation shield. Lubricate inside bore of joint housing on both ends.
2. Slide the housing on the cable up to the shield wires. Tests have shown this procedure will not contaminate electrical interfaces.



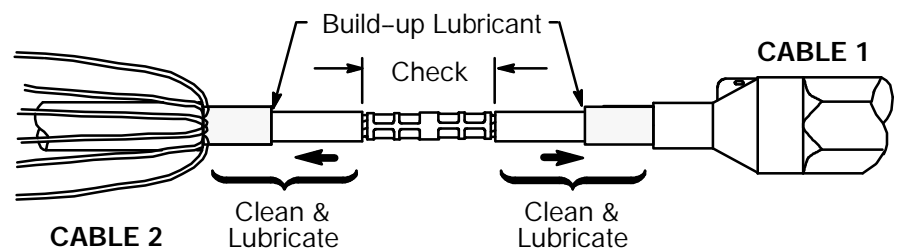
STEP C - PREPARE CABLES FOR SPLICE INSTALLATION

Use the stripping guide on the side and carefully remove the cable insulation and then the insulation shield from both cables. **DO NOT CUT OR NICK THE CABLE INSULATION OR CONDUCTOR.** This could result in failure of the assembly.



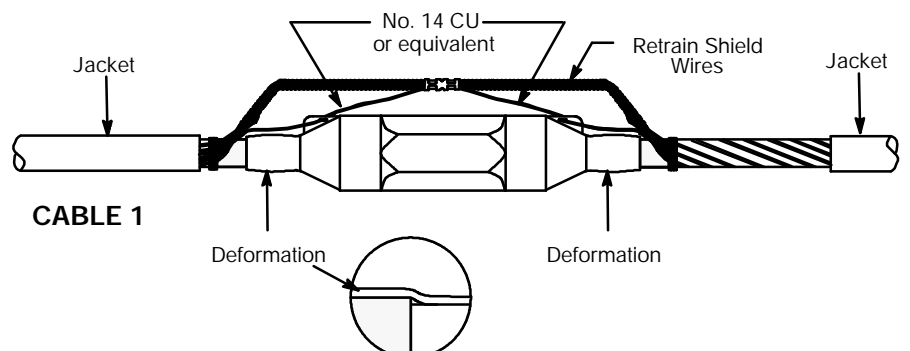
STEP D - SPLICE INSTALLATION

1. Aluminum conductors must be wirebrushed and immediately inserted into the splice. Be sure "Check" dimension does not exceed 6 !P2" (165mm) otherwise redo assembly.
2. Crimp the splice following the recommendations provided with it.
3. Wipe off all excess inhibitor (where applicable), then check the distance between cable insulations. If it exceeds 6 #P4" (170mm) redo assembly.
4. Remove any sharp protrusions/burrs that were generated when crimping the splice. **Metal chips/filings must be removed from the splice and joint assembly area prior to sliding joint.**
5. Clean cables where indicated. Then lubricate in the direction of arrows to provide a build-up or ramp of lubricant at the edge of the insulation shield.

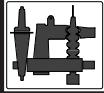


STEP E - COMPLETE JOINT ASSEMBLY

1. Slide housing into final position. Proper positioning is insured by observing and equalizing the deformation of the joint ends caused by the underlying cable insulation shield.
2. Reshape shield wires and secure to ends of joint as shown.
3. Insert one of the shield wires from Cable 1 (if #14 AWG or larger) through the joint grounding eye. Repeat for Cable 2. If shield wires are smaller than #14 AWG use separate #14 AWG copper wire or equivalent.
4. Connect joint grounding wires and remaining shield wires, using an appropriate connector, as shown.
5. Reconstruct cable jacket (where applicable) over both cables and also over joint housing.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



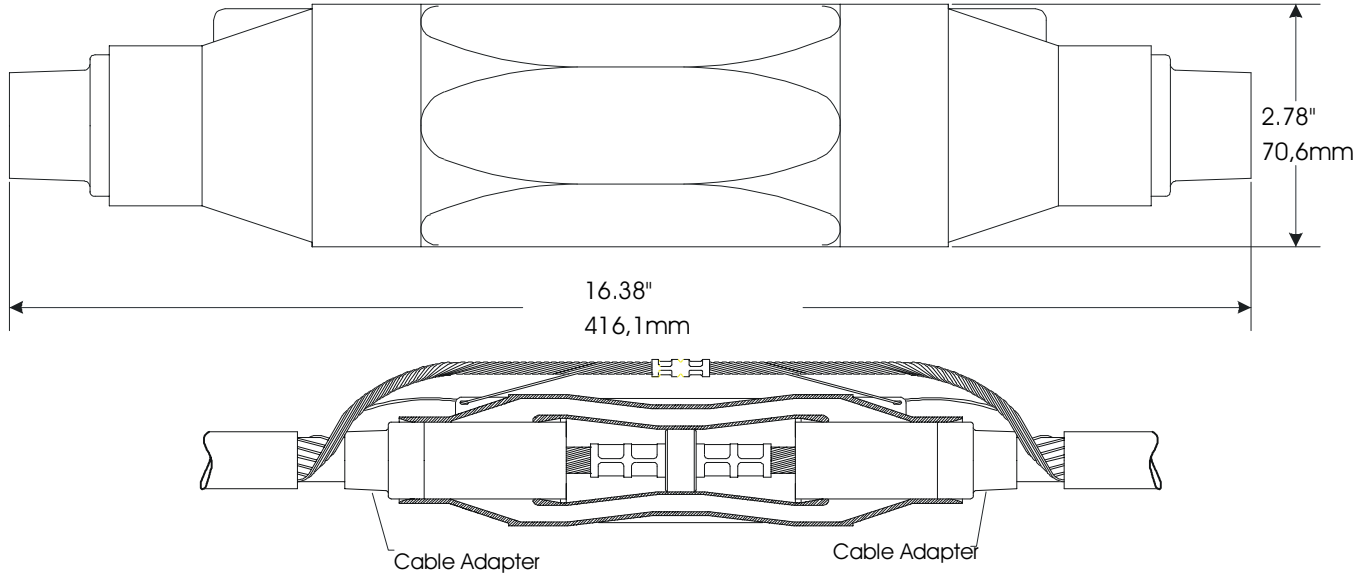
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15kV PCJ Cable Joints - Style 2

ELASTIMOLD PART NUMBER

15PCJ2WX**Size E & F**

Application:

The Style 2 Power Cable Joint is designed for use on power cables with or without an outer jacket. It consists of a molded housing, two cable adapters sized to the cable insulation and a special splice contact. When assembled, the Style 2 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 15PCJ2E/F can accommodate cables ranging from .530" (13,4mm) to .820" (20,8mm) insulation diameter.

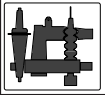
The Style 2 is rated for use on power distribution circuits up to 15kV with a current rating equal to that of the cable on which it is installed.

Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.

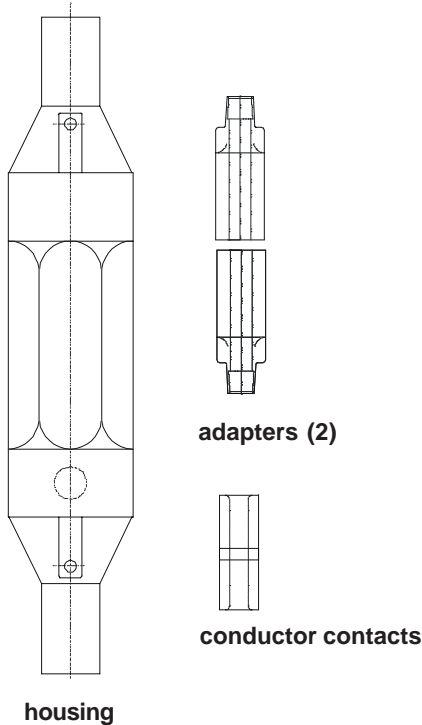
Ratings:

per IEEE Standard 404
 15kV Voltage Class
 110kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 34kV AC - One minute withstand
 70kV DC - 15 minutes withstand
 13kV AC - Corona Extinction @ 3p.C.sensitivity
 Current continuous rating equal to cable rating.
 Short time rating - equal to cable rating.
 Shield design - meet IEEE 592 for Exposed Semiconducting Shields on Premolded High Voltage Cable Joints and Separable Insulated Connectors.



15kV PCJ Cable Joints - Style 2

15PCJ2WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (Y)

Decide the conductor material code. If aluminum conductor choose 1, if copper conductor choose 2.

Step 3 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

15PCJ2 – – 1 (or 2)

Step 1 (W) Step 2 Step 3 (X)

| Al Cu |

Cable Insulation Dia. Range		Joint Code
Inches	mm	
.530 - .680	13,4 - 17,3	E
.640 - .820	16,3 - 20,8	F

Conductor Size* (AWG or kCMil)	Conductor Size Code Number	
	Stranded/Compr.	Solid/Compact
3	210	-
2	220	210
1	230	220
1/0	240	230
2/0	--	240

The PCJ2 kit contains the following:

- 1 – Joint housing 15PCJM
- 2 - cable adapters 455C-W
- 1 – Condcutor contacts 03403XXX (AL)
03402XXX (CU)
- 4 – Tube, lubricant 8LF
- 1 – Installation instruction IS-15/25/35M-CA
- 1 – Crimp chart IS-PCJ2-3A-CC (AL)
IS-PCJ-CU-CC (CU)

* Copper or Aluminum
* Refer to Table 1 & 2 for connector size availability.

Example:

The ordering number for an **15PCJ2** for a #2 AWG stranded aluminum, 175 mil wall cable with an insulation diameter of .700" (17,8 mm) is 15PCJ2F1220.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "1" in the compression lug code. The ordering number would be 15PCJ2F2220.

Aluminum Connector

Joint Code	Conductor Size Code	Connector Cat. #
E,F	210	03403210
E,F	220	03403220
E,F	230	03403230
E,F	240	03403240

Table 1

Copper connector

Joint Code	Conductor Size Code	Connector Cat. #
E,F	210	03402210
E,F	220	03402220
E,F	230	03402230
E,F	240	03402240

Table 2

Installation Instructions 15/25/35PCJ2WXXX

W = Housing size's F,G,H,J

CONTENTS: 1- -Joint Housing, 1- -Splice (Conductor Contact), 2- -Cable Adapters, Lubricant (DO NOT SUBSTITUTE), 1- -Installation Instruction.

The straight joint is a permanent, fully shielded, fully submersible joint for aluminum and/or copper conductor, wire shielded cables, with a continuous operating current rating equal to that of the cable on which it is installed and a rated voltage as indicated on the joint housing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

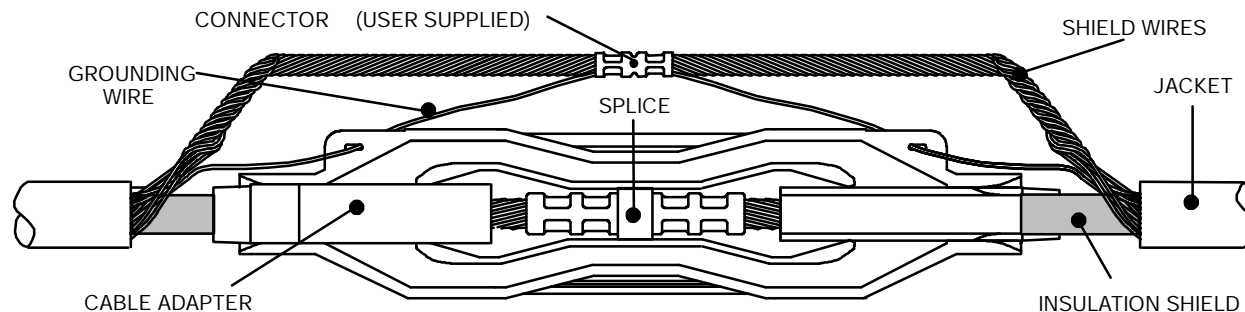
IMPORTANT

1. Check contents of package to insure it is complete and un-damaged.

2. Check all components to insure proper fit with cable and/or mating products.

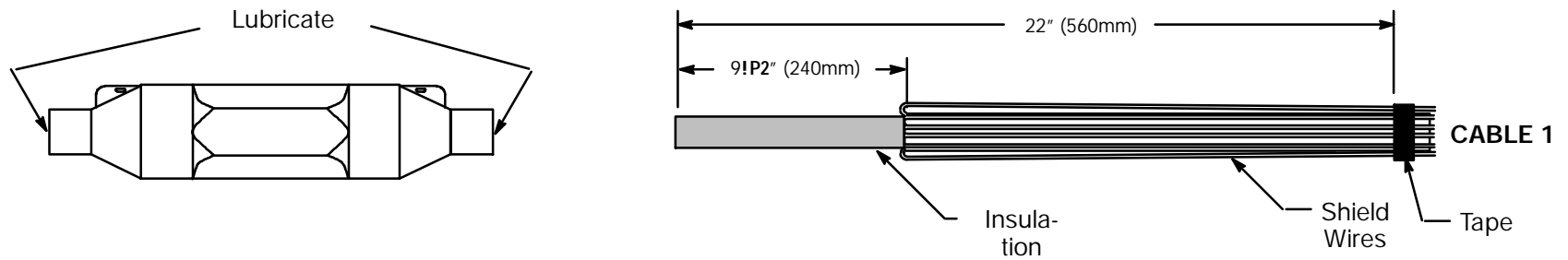
3. Read entire installation instructions before starting.

4. Have all required tools at hand and observe cleanliness throughout the procedure.



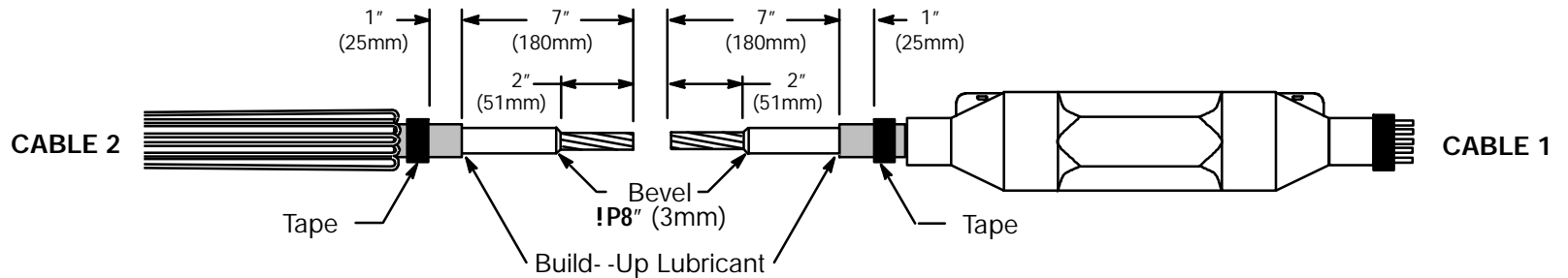
STEP A -- INSTALL HOUSING

1. Use the stripping guide to the side and carefully remove cable jacket (when applicable) of both cables for a distance of 9 !P2" (240mm). Fold back shield wires and tape end of wires on Cable 1 to jacket. Allow enough extra length of wire to later rejoin over joint.
2. Clean surface of insulation shield, shield wires and jacket for a distance of 22" (560mm). Slide joint onto Cable 1 to a distance of 22" (560mm).



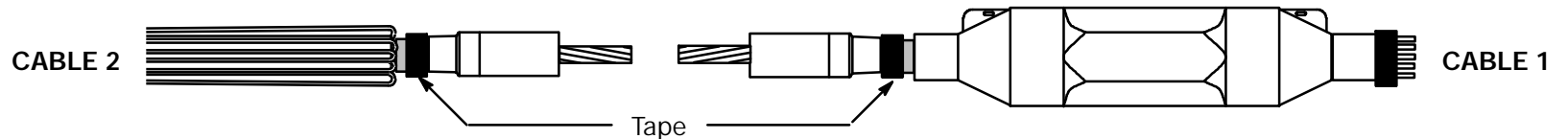
STEP B -- PREPARE CABLE

1. Use the stripping guide to the side and carefully remove insulation shield and cable insulation. **DO NOT CUT OR NICK THE INSULATION.** This could result in failure of the assembly. Bevel edge of cables to !P8" (3mm).
2. Wrap two turns of tape 1" (25mm) from edge of insulation shield as marker on both cables.
3. Clean cable insulation then lubricate to provide a build- -up or ramp of lubricant at the edge of the insulation shield.



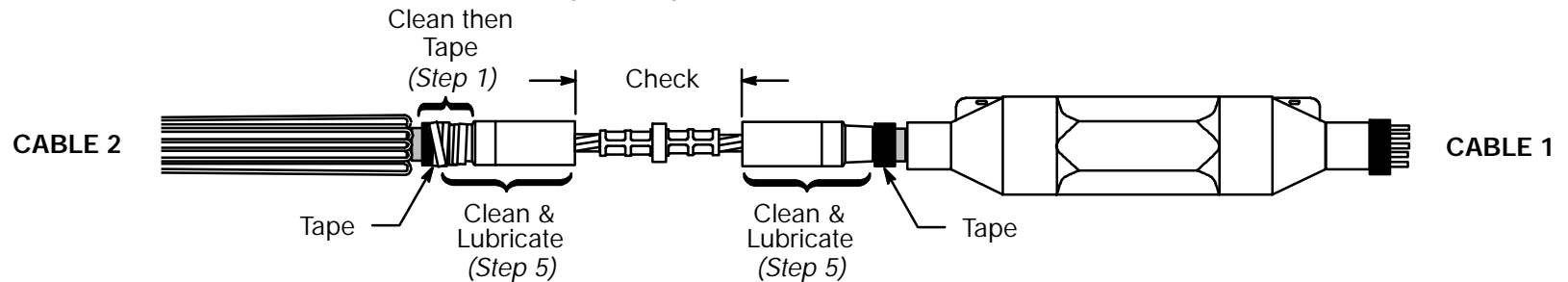
STEP C -- INSTALL CABLE ADAPTER

1. Take one cable adapter and lubricate the inside of both ends.
2. Install the cable adapter until it meets the tape marker as shown.
3. Repeat for the other cable adapter.



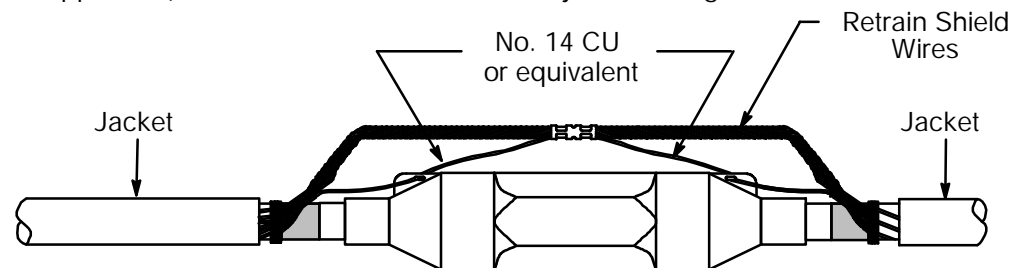
STEP D -- SPLICE INSTALLATION

1. Thoroughly clean the end of the cable adapters and the cable where shown. Then wrap several turns of electrical tape from the adapter to the cable as shown to hold the adapter in place during final assembly.
2. Wirebrush exposed conductors of both cables and immediately insert into the splice. Be sure "Check" dimension does not exceed 5 #P8" (130mm), otherwise redo assembly.
3. Crimp the splice following the recommendations provided with it.
4. Wipe off all excess inhibitor, then check the distance between cable adapters. If it exceeds 5 #P8" (137mm) redo assembly.
5. Clean and lubricate outside surface of cable adapters before sliding housing into final position.



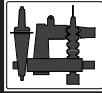
STEP E -- COMPLETE JOINT ASSEMBLY

1. Slide housing into final position, centering it over the cable adapters.
2. Remove all tape. Cable and adapter insulation must **not** be exposed after positioning joint.
3. Reshape shield wires and secure to ends of joint as shown.
4. Insert one of the shield wires from Cable 1 (if #14 AWG or larger) through the joint grounding eye. Repeat for Cable 2. If shield wires are smaller than #14 AWG use separate #14 AWG copper wire or equivalent.
5. Connect joint grounding wires and remaining shield wires, using an appropriate connector, as shown.
6. Reconstruct cable jacket (where applicable) over both cables and also over joint housing.



WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W- -EE2).



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

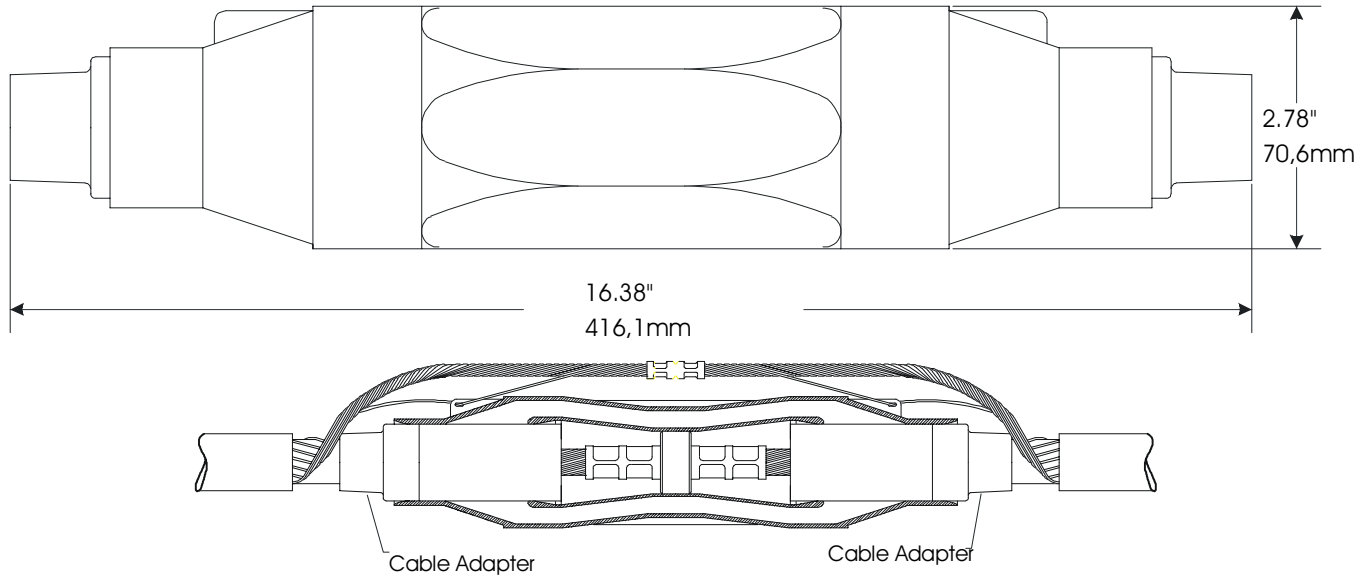
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25kV PCJ Cable Joints - Style 2

ELASTIMOLD PART NUMBER

15/25PCJ2WX**Size G**

Application:

The Style 2 Power Cable Joint is designed for use on power cables with or without an outer jacket. It consists of a molded housing, two cable adapters sized to the cable insulation and a special splice contact. When assembled, the Style 2 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 15/25PCJ2G can accommodate cables ranging from .760" (19,3mm) to .950" (24,1mm) insulation diameter.

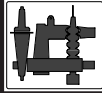
The Style 2 is rated for use on power distribution circuits up to 25kV with a current rating equal to that of the cable on which it is installed.

Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.

Ratings: per IEEE Standard 404

Voltage Class	15kV	25kV
Phase to Ground	8.7kV	14.4kV
BIL	110kV	150kV
AC 1 min. withstand 60Hz, 1 min.	35kV	52kV
DC withstand 15 min.	70kV	100kV
Corona Extinction @ 3p.C.sensitivity	13kV	22kV
Current continuous rating	equal to the rating of cable	
Short time rating	equal to the rating of cable	
Shield design	per IEEE 592	



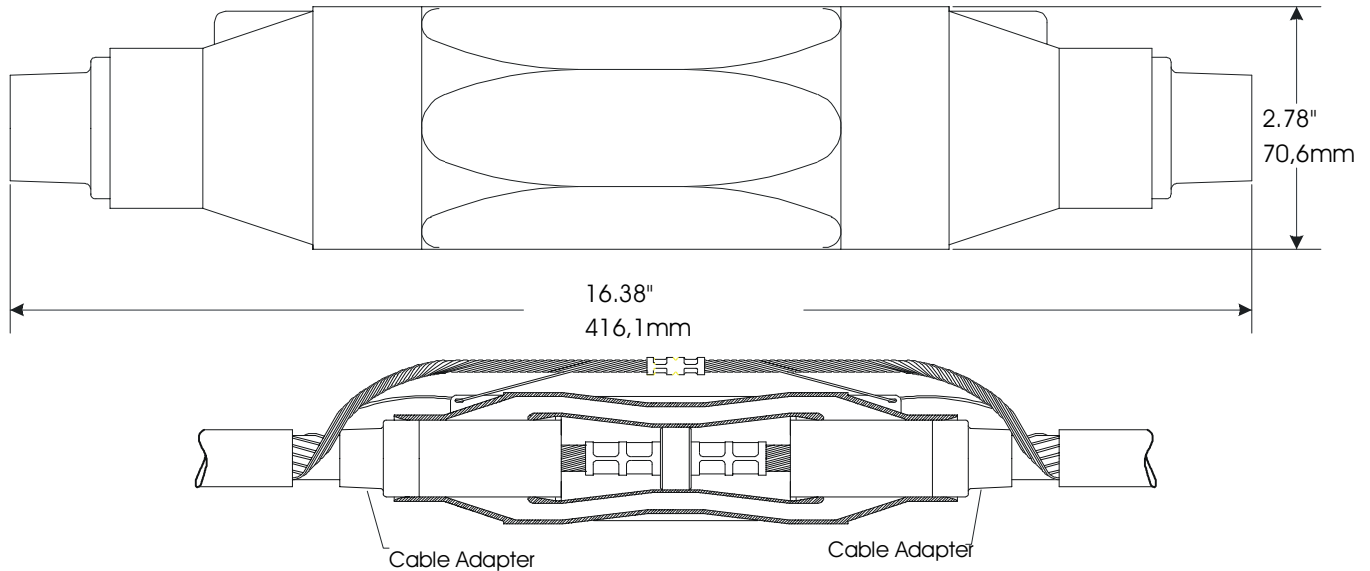
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV PCJ Cable Joints - Style 2

ELASTIMOLD PART NUMBER

15/25/35PCJ2WX**SizeH, J**

Application:

The Style 2 Power Cable Joint is designed for use on power cables with or without an outer jacket. It consists of a molded housing, two cable adapters sized to the cable insulation and a special splice contact. When assembled, the Style 2 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 15/25/35PCJ2H/J can accommodate cables ranging from .850" (21,6mm) to 1.180" (30,0mm) insulation diameter.

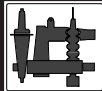
The Style 2 is rated for use on power distribution circuits up to 15kV with a current rating equal to that of the cable on which it is installed.

Ratings: per IEEE Standard 404

Voltage Class	15kV	25kV	35kV
Phase to Ground	8.7kV	14.4kV	20.2kV
BIL	110kV	150kV	200kV
AC 1 min. withstand 60Hz, 1min.	35kV	52kV	69kV
DC withstand 15 min.	70kV	100kV	125kV
Corona Extinction @ 3p.C.sensitivity	13kV	22kV	31kV
Current continuous rating	equal to the rating of cable		
Short time rating	equal to the rating of cable		
Shield design	per IEEE 592		

Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

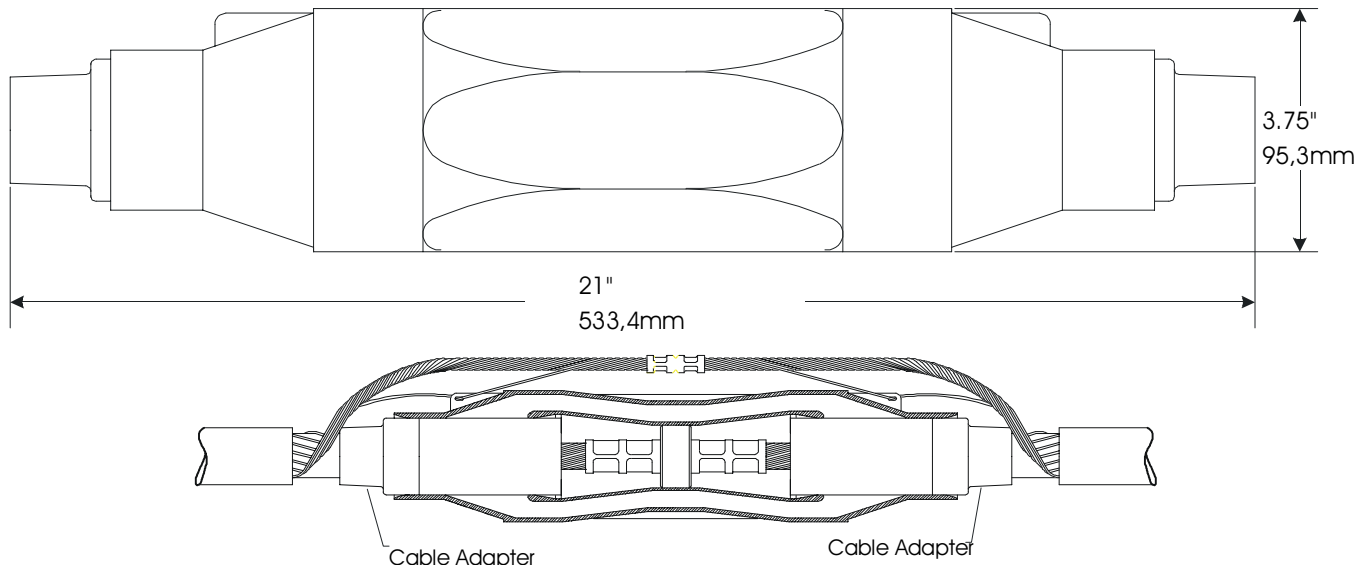
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25/35kV PCJ Cable Joints - Style 2

ELASTIMOLD PART NUMBER

15/25/35PCJ2WX**Size K, L, M, N, P, Q**

Application:

The Style 2 Power Cable Joint is designed for use on power cables with or without an outer jacket. It consists of a molded housing, two cable adapters sized to the cable insulation and a special splice contact. When assembled, the Style 2 provides a permanent, fully shielded, fully submersible cable joint for direct burial or vault application. It can be used to join cable runs on new installations or to repair cable runs on existing installations.

The 15/25/35PCJ2K/L/M/N/P/Q can accommodate cables ranging from 1.090" (27,7mm) to 2.120" (53,9mm) insulation diameter.

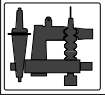
The Style 2 is rated for use on power distribution circuits up to 35kV with a current rating equal to that of the cable on which it is installed.

Features

- Fully shielded, fully submersible molded rubber housing.
- 100% peroxide-cured construction includes insulation and conductive EPDM materials.
- Provision for ground wire connection.
- Wide cable range with minimum number of sizes.

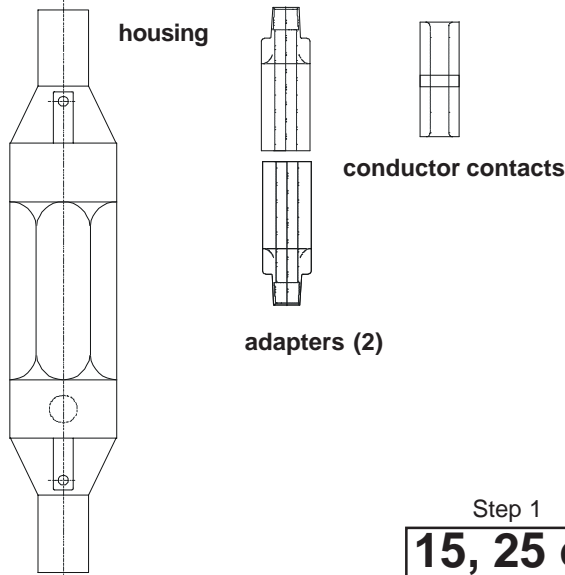
Ratings: per IEEE Standard 404

Voltage Class	15kV	25kV	35kV
Phase to Ground	8.7kV	14.4kV	20.2kV
BIL	110kV	150kV	200kV
AC 1 min. withstand 60Hz, 1min.	35kV	52kV	69kV
DC withstand 15 min.	70kV	100kV	125kV
Corona Extinction @ 3p.C.sensitivity	13kV	22kV	31kV
Current continuous rating	equal to the rating of cable		
Short time rating	equal to the rating of cable		
Shield design	per IEEE 592		



15/25/35kV PCJ Cable Joints - Style 2

15/25/35PCJ2WX



Ordering Instruction:

Step 1 (V)

Determine the voltage class to be 15, 25 or 35 kV.

Step 2 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 3 (Y)

Decide the conductor material code. If aluminum conductor choose 1, if copper conductor choose 2.

Step 4 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 1

Step 1 (W)

Step 2

Step 3 (X)

15, 25 or 35PCJ2 - - **1 (or 2)**

Al Cu

The PCJ2 kit contains the following:

- 1 - Joint housing 15/25/35PCJT
- 2 - cable adapters 755CA-W
- 1 - Conductor contacts 03303XXX (AL)
- 1 - Conductor contacts 03302XXX (CU)
- 4 - Tube, lubricant 8LF
- 1 - Installation instruction IS-15/25/35T-CA
- 1 - Crimp chart IS-PCJ2-3A-CC (AL)
- 1 - Crimp chart IS-PCJ-CU-CC (CU)

Cable Insulation Dia. Range		Joint Code
Inches	mm	Code
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N
1.725 - 1.935	43,8 - 49,1	P
1.900 - 2.120	48,3 - 53,9	Q

Conductor Size* (AWG or kCMil)	Conductor Size Code Number	
	Stranded/Compr.	Solid/Compact
2/0	250	--
3/0	260	250
4/0	270	260
250	280	270
300	290	280
350	300	290
400	310	300
450	320	310
500	330	320
550	340	320
600	350	330
650	360	340
700	380	350
750	380	360
800	390	360
900	400	380
1000	410	400
1250	440	420

* Copper or Aluminum

* Refer to Table 1 & 2 for connector size availability.

Aluminum Connector

Joint Code	Conductor Size Code	Connector Cat. #
K	250	03303250
K	260	03303260
K,L	270	03303270
K,L	280	03303280
K,L	290	03303290
K,L,M	300	03303300
K,L,M	310	03303310
K,L,M	320	03303320
K,L,M,N	330	03303330
L,M,N	350	03303350
L,M,N	360	03303360
L,M,N,P	380	03303380
M,N,P	390	03303390
M,N,P	400	03303400
M,N,P,Q	410	03303410
N,P,Q	420	03303420
N,P,Q	440	03303440

Table 1

Copper connector

Joint Code	Conductor Size Code	Connector Cat. #
K	250	03302250
K	260	03302260
K,L	270	03302270
K,L	280	03302280
K,L	290	03302290
K,L,M	300	03302300
K,L,M	310	03302310
K,L,M	320	03302320
K,L,M,N	330	03302330
L,M,N	350	03302350
L,M,N	360	03302360
L,M,N,P	380	03302380
M,N,P	390	03302390
M,N,P	400	03302400
M,N,P,Q	410	03302410
N,P,Q	420	03302420
N,P,Q	440	03302440

Table 2

Example:

The ordering number for an **35PCJ2** for a 750MCM stranded aluminum, 345 mil wall cable with an insulation diameter of 1.79" (45,5 mm) is 35PCJ2P1380.

For an all-copper compression lug for use on copper cable only, substitute the prefix "2" instead of "1" in the compression lug code. The ordering number would be 35PCJ2P2380.

Installation Instructions 15/25/35PCJ2WXXX

W = Housing size's G,H,J,K,L,M,N,P,Q

CONTENTS: 1--Joint Housing, 1--Splice (Conductor Contact), 2--Cable Adapters, Lubricant (DO NOT SUBSTITUTE), 1--Installation Instruction.

The straight joint is a permanent, fully shielded, fully submersible joint for aluminum and/or copper conductor, wire shielded cables, with a continuous operating current rating equal to that of the cable on which it is installed and a rated voltage as indicated on the joint housing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized cables and/or products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

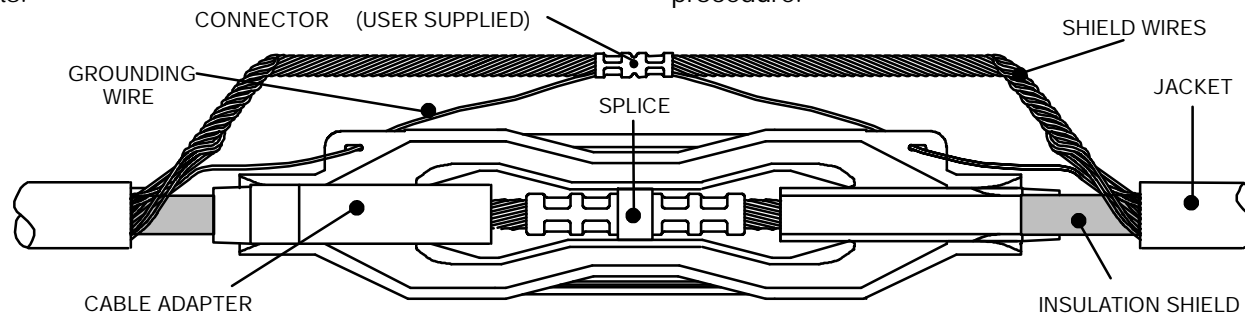
IMPORTANT

1. Check contents of package to insure it is complete and undamaged.

2. Check all components to insure proper fit with cable and/or mating products.

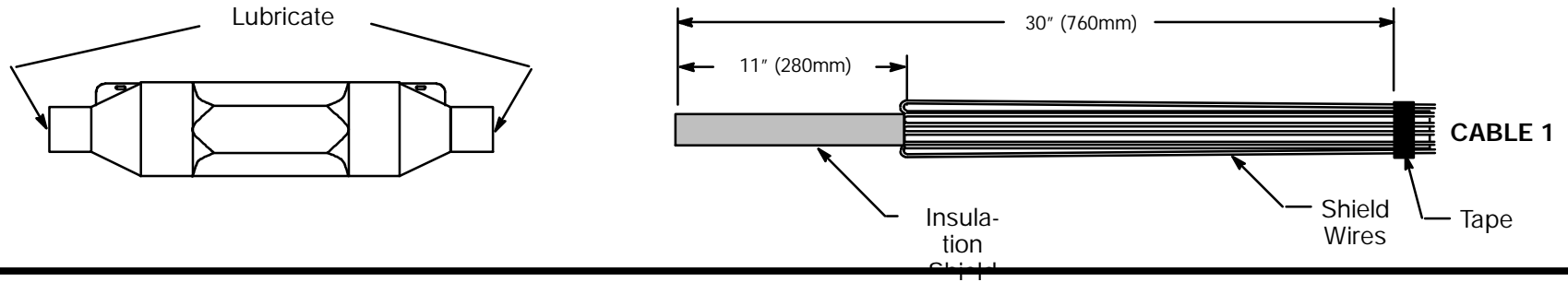
3. Read entire installation instructions before starting.

4. Have all required tools at hand and observe cleanliness throughout the procedure.



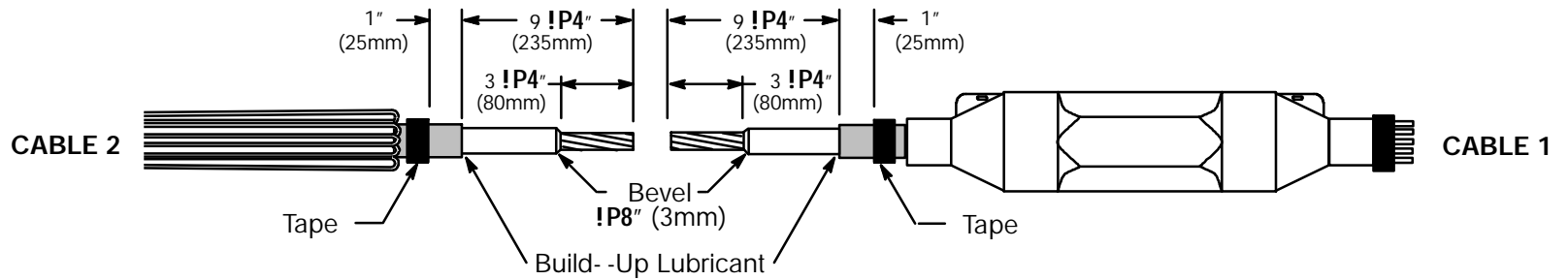
STEP A -- INSTALL HOUSING

1. Use the stripping guide to the side and carefully remove cable jacket (when applicable) of both cables for a distance of 11" (280mm). Fold back shield wires and tape end of wires on Cable 1 to jacket. Allow enough extra length of wire to later rejoin over joint.
2. Clean surface of insulation shield, shield wires and jacket for a distance of 30" (760mm). Slide joint onto Cable 1 to a distance of 30" (760mm).



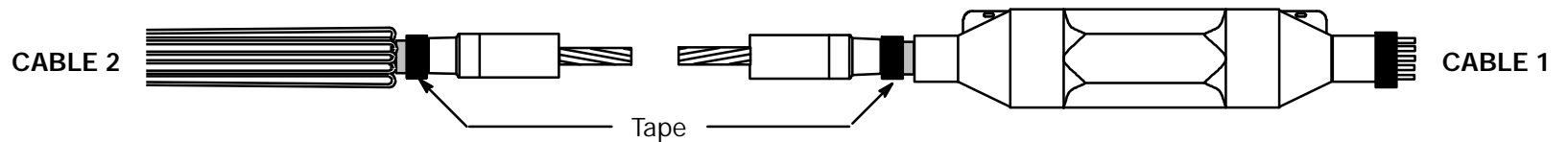
STEP B -- PREPARE CABLE

1. Use the stripping guide to the side and carefully remove insulation shield and cable insulation. **DO NOT CUT OR NICK THE INSULATION.** This could result in failure of the assembly. Bevel edge of cables to **!P8"** (3mm).
2. Wrap two turns of tape 1" (25mm) from edge of insulation shield as marker on both cables.
3. Clean cable insulation then lubricate to provide a build-up or ramp of lubricant at the edge of the insulation shield.



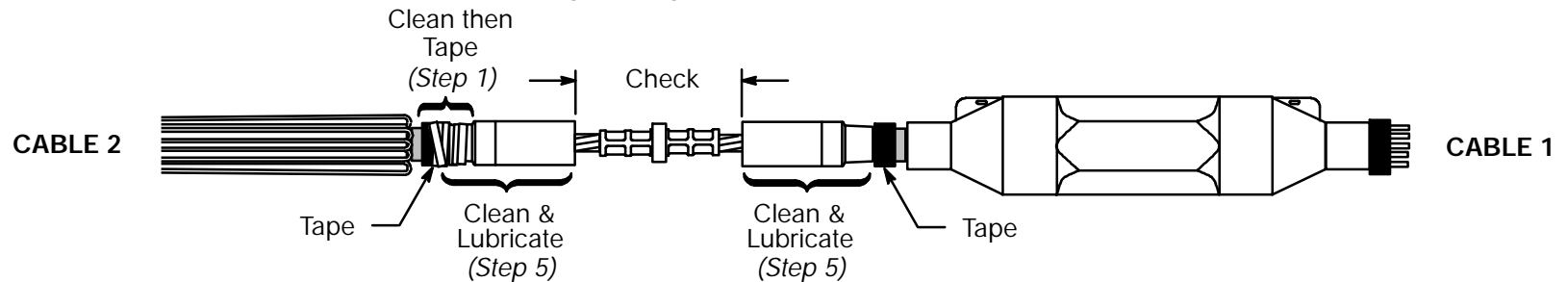
STEP C -- INSTALL CABLE ADAPTER

1. Take one cable adapter and lubricate the inside of both ends.
2. Install the cable adapter until it meets the tape marker as shown.
3. Repeat for the other cable adapter.



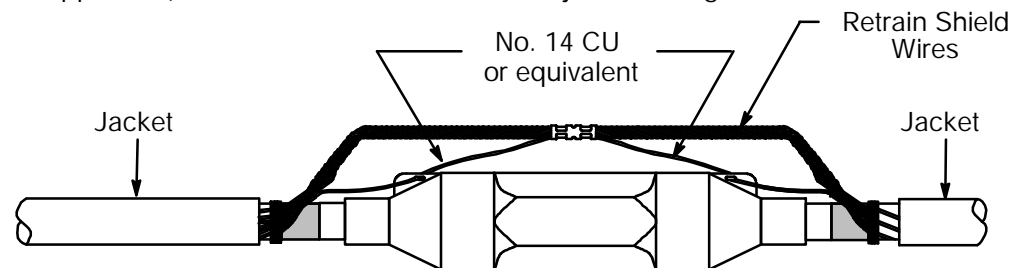
STEP D -- SPLICE INSTALLATION

1. Thoroughly clean the end of the cable adapters and the cable where shown. Then wrap several turns of electrical tape from the adapter to the cable as shown to hold the adapter in place during final assembly.
2. Wirebrush exposed conductors of both cables and immediately insert into the splice. Be sure "Check" dimension does not exceed 8 #P2" (215mm), otherwise redo assembly.
3. Crimp the splice following the recommendations provided with it.
4. Wipe off all excess inhibitor, then check the distance between cable adapters. If it exceeds 8 #P4" (222mm) redo assembly.
5. Clean and lubricate outside surface of cable adapters before sliding housing into final position.



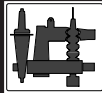
STEP E -- COMPLETE JOINT ASSEMBLY

1. Slide housing into final position, centering it over the cable adapters.
2. Remove all tape. Cable and adapter insulation must **not** be exposed after positioning joint.
3. Reshape shield wires and secure to ends of joint as shown.
4. Insert one of the shield wires from Cable 1 (if #14 AWG or larger) through the joint grounding eye. Repeat for Cable 2. If shield wires are smaller than #14 AWG use separate #14 AWG copper wire or equivalent.
5. Connect joint grounding wires and remaining shield wires, using an appropriate connector, as shown.
6. Reconstruct cable jacket (where applicable) over both cables and also over joint housing.



WARRANTY

This product will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Amerace Corporation's liability is limited to replacement parts designed and manufactured by Amerace which are proved to be defective in workmanship or material. All statements, technical information and recommendations supplied with the product are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. Amerace expressly disclaims and excludes all other warranties express or implied, including without limitation the warranties of merchantability and of fitness for a particular purpose, and also disclaims and excludes all consequential and incidental damages. This warranty is effective for two (2) years from date of shipment. (W-EE2).



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

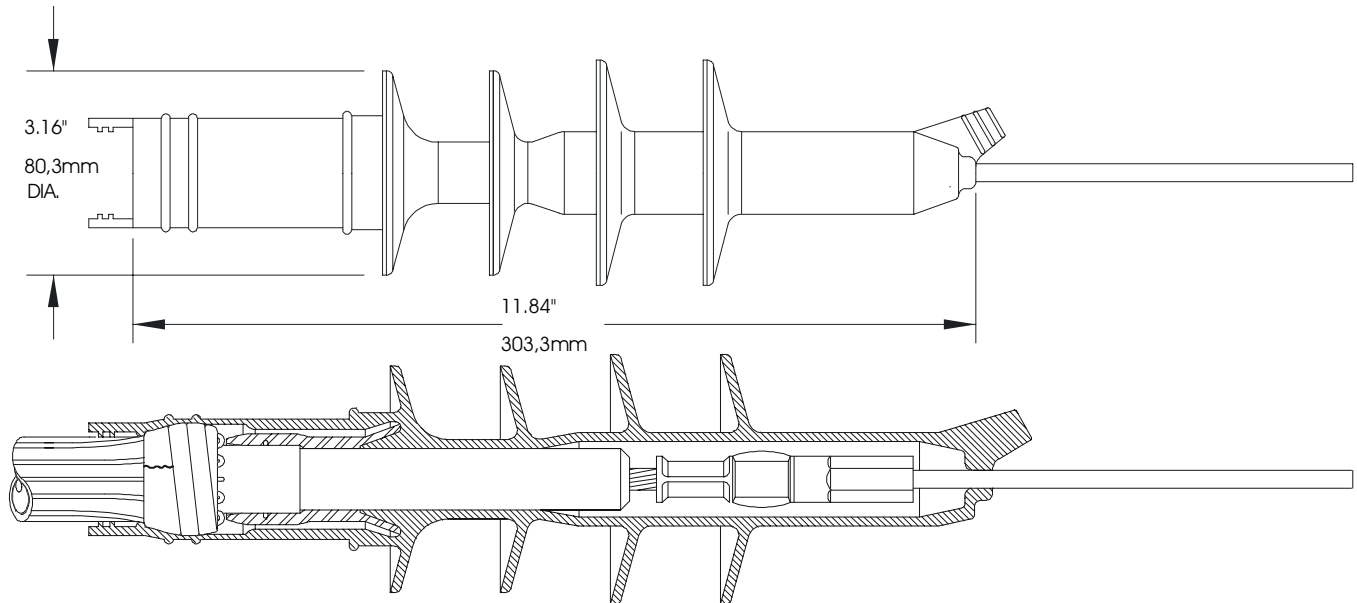
C I

DESCRIPTION

15kV Single Piece Terminator

ELASTIMOLD PART NUMBER

PCT1-X-4



Elastimold PCT-1 Terminators are flexible, lightweight molded designs with integral provisions for sealing jacketed cable. The PCT1-X-4 is a Class 1 (outdoor terminator). And includes a crimp-type rod contact and an integral rain cap.

Features:

- Pull-down tabs are used to seal jacketed cable quickly and easily.
- Large diameter sheds provide superior creep and strike distances.
- Silicone rubber compound for high contamination applications.
- Factory-molded stress relief assures proper stress control in the field-installed part.
- Integral rain cap and top seal.

Applications:

- Connects shielded underground cables to bare overhead lines or live front equipment including switchgear and padmounted transformers.
- Fits cables with insulation diameters from .640" (16,3mm) to 1.070" (27,2mm). (#2 solid, 175 mil to 4/0 stranded 220 mil)
- Can be applied directly on jacketed concentric neutral or copper-tape shield cables.

Ratings:

Per IEEE Std. 48 for Class 1 outdoor terminations

9.5kV Phase-to-ground

110kV BIL 1.2 x microsecond wave

AC Withstand:

50kV 1 mm. -dry

35kV 6 hr. -dry

45kV 10 sec. -wet

DC Withstand:

75kV 15 mm. dry

13kV Corona Extinction

Strike distance: 12.75" (32,4cm)

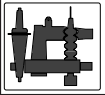
Creep distance: 19.50" (49,5cm)

Elastimold Terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems. Ratings are based on IEEE Std. 48 and do not reflect maximum levels.

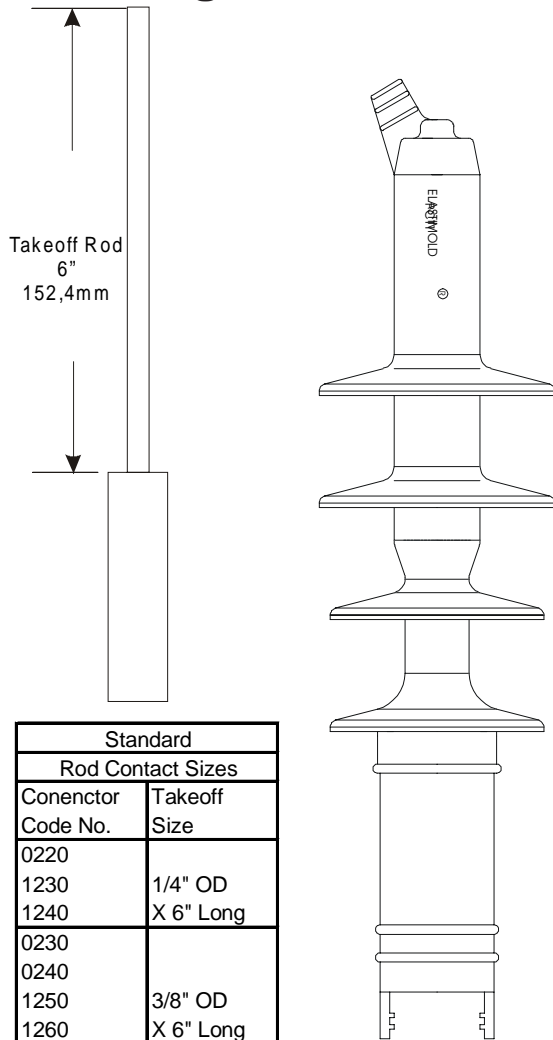
ELASTIMOLD Route 24, Hackettstown, New Jersey 07840

Phone: (908) 852-1122 Fax: (908) 813-2108

Thomas & Betts



15kV Single Piece Terminator (w/ Rod Contact) PCT1-X-4



Ordering Instruction:

Step 1 (W)

Determine that the insulation diameter of the cable is between .640" (16,3mm) and 1.070" (27,2mm). This is the effective range of the PCT1 Terminator housing.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 2 (X)
PCT1 - **4**

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	0220	0210
1	0230	0220
1	1230*	-
1/0	0240	0230
1/0	1240*	1230*
2/0	0250	0240
2/0	1250*	-
3/0	0260	0250
3/0	1260*	1250*
4/0	0270	0260
4/0	1270*	1260*

*For aluminum conductor only

Standard Rod Contact Sizes	
Conenctor Code No.	Takeoff Size
0220	1/4" OD X 6" Long
1230	
1240	
0230	3/8" OD X 6" Long
0240	
1250	
1260	
1270	X 6" Long 1/2" OD
0250	
0260	
0270	

The PCT-2 will accommdate rod contacts with takeoff rods from .204" to .500"

The Terminators Kit contains the following:

- 1 - Rubber housing PCT1-4
- 1 - Rod contact 0700XXX
- 1 - Lubricant 82-08
- 2 - Strips of mastic
- 1 - Installation instruction IS-PCT1-X-4

Example:

The ordering number for a Terminator Kit for 1/0 stranded aluminum cable with an OD of .785" (19,9mm) is PCT1-1240-4.

- For a terminator with a Cable Positioning Bracket, add the suffix "PB-1" to the part number.
- For use on copper tape shielded cables, add the suffix "MA" to the part number.

PCT1-XXXX-4 For Concentric Neutral Wire Shield

CONTENTS: Terminator Housing, Rod Connector (Optional), 2-Strips of Mastic, Lubricant, Installation Instructions.

The PCT1 Terminator is designed to terminate jacketed concentric neutral (JCN) or concentric neutral (CN) cables rated 5 through 15kV with insulation diameter range .640" - 1.070" (16,3mm - 27,2mm).

DANGER

All apparatus must be de-energized during installation or removal of part(s). Do not touch or move energized products by hand. Excess distortion of the assembled product may result in its failure. Inspect parts for damage, rating and compatibility with mating parts. This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

Instructions are not intended as a substitute for adequate training or experience in such safety practices. These instructions do not attempt to provide for every possible contingency. Failure to follow these instructions will result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.

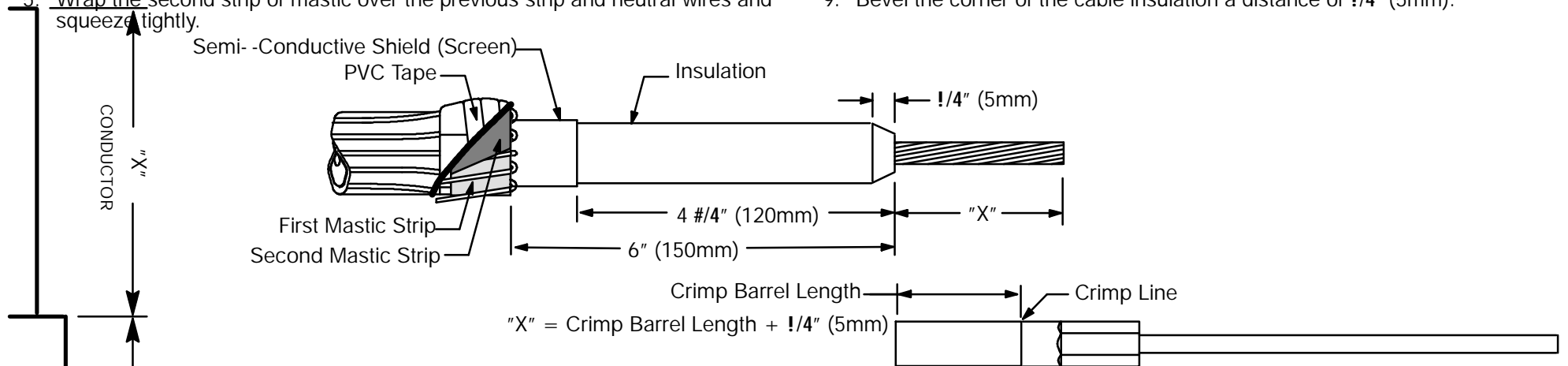
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

WHEN TERMINATING CABLES IN ENCLOSED SWITCHGEAR OR TRANSFORMERS, BE SURE TO MAINTAIN PROPER CLEARANCES ACCORDING TO PREVAILING CODES AND STANDARDS.

STEP A

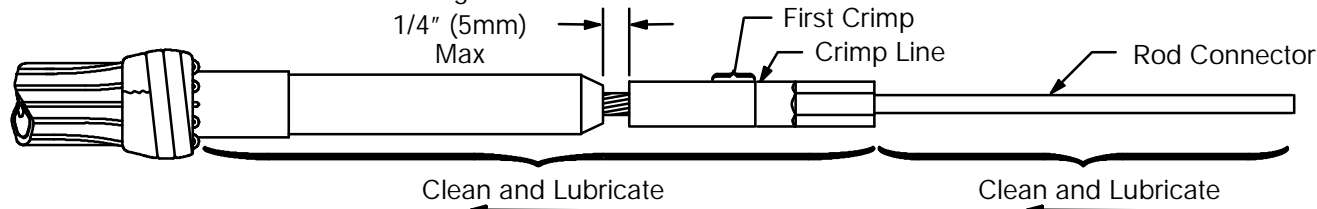
1. Train cable into final position and cut to length required for installation.
2. Remove cable outer jacket (if applicable) a distance of 6" (150mm) plus "X". Allow sufficient neutral wire length for neutral connection.
3. Wrap one strip of mastic, stretching slightly, at a distance of 6" (150mm) plus "X".
4. Bend all of the neutral wires straight back over the mastic and along the cable. Press the wires into the mastic.
5. Wrap the second strip of mastic over the previous strip and neutral wires and squeeze tightly.

6. Apply 2 half-lapped layers of PVC tape over the mastic for 1" (25mm) onto the neutral wires.
7. Remove semi-conductive shield (screen) a distance of 4 #/4" (120mm) plus "X" **taking care not to cut or nick the insulation.**
8. Remove the cable insulation the distance "X" from the end of the conductor **taking care not to cut or nick the conductor.**
9. Bevel the corner of the cable insulation a distance of 1/4" (5mm).



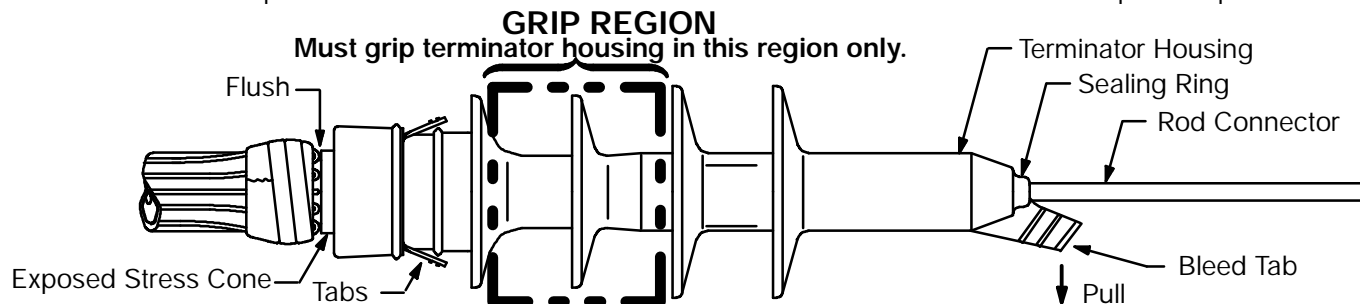
STEP B - INSTALL CONNECTOR

1. Aluminum conductor must be wirebrushed and immediately inserted into the connector.
2. Check to ensure the maximum gap between the insulation and the connector is approximately 1/4" (5mm) to verify the conductor is fully seated in the connector and the insulation strip back is correct.
3. Crimp, using manufacturer's recommended crimp dies, **rotating each successive crimp 180° to prevent distortion.** Ensure that the first crimp is started at the crimp line and continue crimping towards the cable insulation.
4. Remove all excess inhibitor.
5. Remove excessive or sharp ears created during crimping with a file to prevent damage or failure of the terminator housing.
6. **Clean and lubricate cable and rod connector in direction of the arrow. Ensure that top of rod connector is also lubricated.**
7. Lubricate cable entrance of terminator housing.



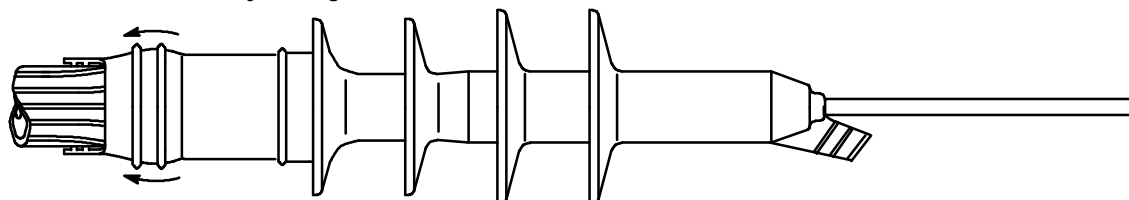
STEP C - INSTALL TERMINATOR

1. Grip the terminator housing as indicated below and **slowly** slide onto the cable until the exposed conductive stress cone is flush with the neutral wires. **IMPORTANT:** Be careful not to puncture a hole in the terminator housing as the rod connector enters the sealing ring area.
2. Hold the rod connector and pull the bleed tab in direction shown to release internal air pressure.
3. Check to make sure that exposed conductive stress cone is still flush with the neutral wires. If not repeat Steps 1 and 2".



STEP D

1. Holding each tab at the base of the terminator, pull the hood over the sealed area of the cable.
2. Bundle neutral wires and attach to system ground.



STEP E - MOUNT CABLE

1. If a bracket is used to position and/or support the cable, refer to installation instructions supplied with the specific mounting bracket.
2. Complete installation of the cable and termination as required by the NESC, ANSI C2.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

Installation Instruction

PCT1-XXXX-4-MA For Copper Tape Shield

CONTENTS: Terminator Housing, Rod Connector (Optional), 2-Strips of Mastic, Lubricant, Constant Force Spring, Grounding Braid, Installation Instructions.

The PCT1-XXXX-4-MA is designed to terminate cables with copper or tinned copper metallic tape screens rated 5 through 15kV with insulation diameter range .640" - 1.070" (16,3mm - 27,2mm).

DANGER

All apparatus must be de-energized during installation or removal of part(s). Do not touch or move energized products by hand. Excess distortion of the assembled product may result in its failure. Inspect parts for damage, rating and compatibility with mating parts. This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These

instructions are not intended as a substitute for adequate training or experience in such safety practices. These instructions do not attempt to provide for every possible contingency. Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

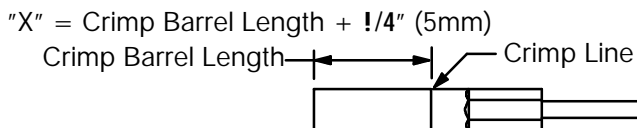
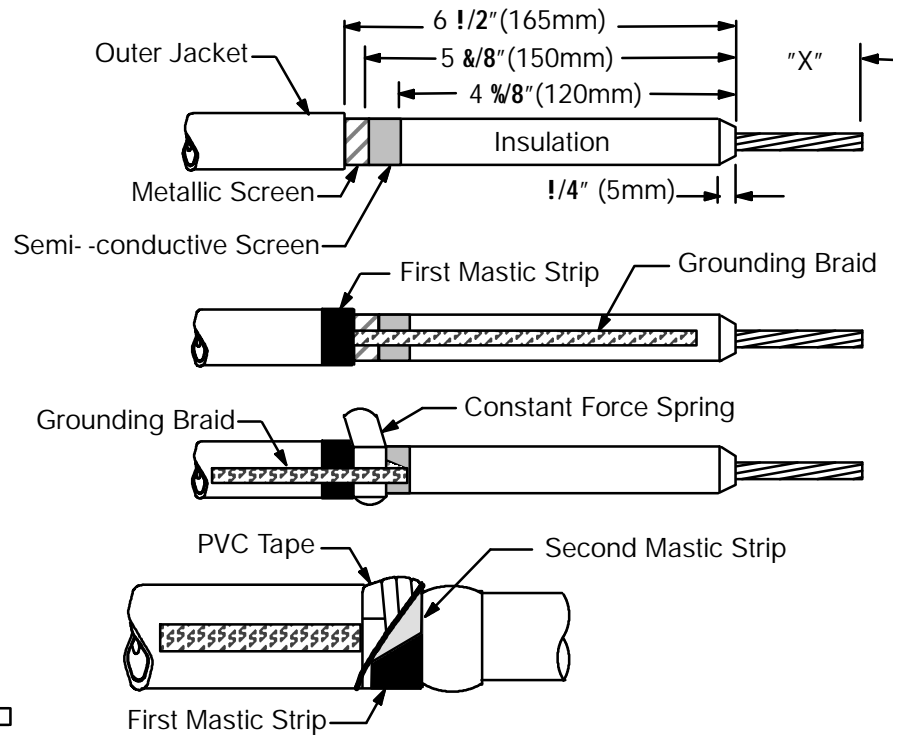
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

WHEN TERMINATING CABLES IN ENCLOSED SWITCHGEAR OR TRANSFORMERS, BE SURE TO MAINTAIN PROPER CLEARANCES ACCORDING TO PREVAILING CODES AND STANDARDS.

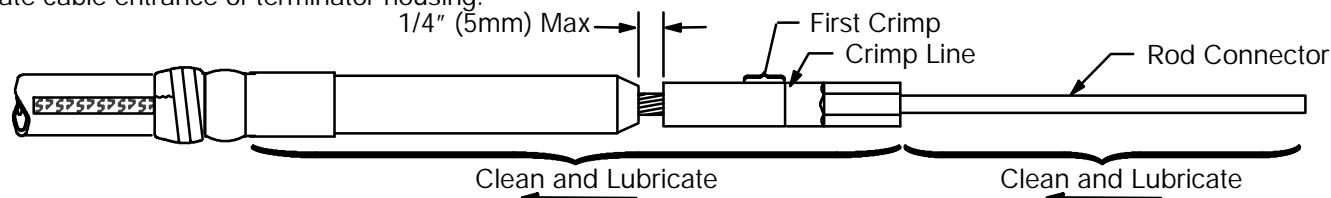
STEP A

1. Train cable into final position and cut to length required for installation. Remove outer jacket a distance of 6 1/2" (165mm) plus "X" from end of cable. Remove metallic screen a distance of 5 8/8" (150mm) plus "X" from end of cable. Remove semi-conductive screen a distance of 4 8/8" (120mm) plus "X" from end of cable.
2. Apply a layer of mastic at end of outer jacket, stretching slightly.
3. Position the end of the grounding braid against the edge of the jacket, over the metallic screen. Wrap two layers of constant force spring over grounding braid. Bend grounding braid back over constant force spring and wrap remainder of the constant force spring over the two layers of the grounding braid. Tighten constant force spring with fingers.
4. Press grounding braid into mastic. Apply second layer of mastic at end of outer jacket over grounding braid, stretching slightly. Press mastic into grounding braid. Apply 2 half lapped layers of PVC tape over the mastic for 1" (25mm).
5. Remove the cable insulation the distance "X" from the end of the conductor **taking care not to cut or nick the conductor.**
6. Bevel the corner of the cable insulation a distance of 1/4" (5mm).



STEP B - INSTALL CONNECTOR

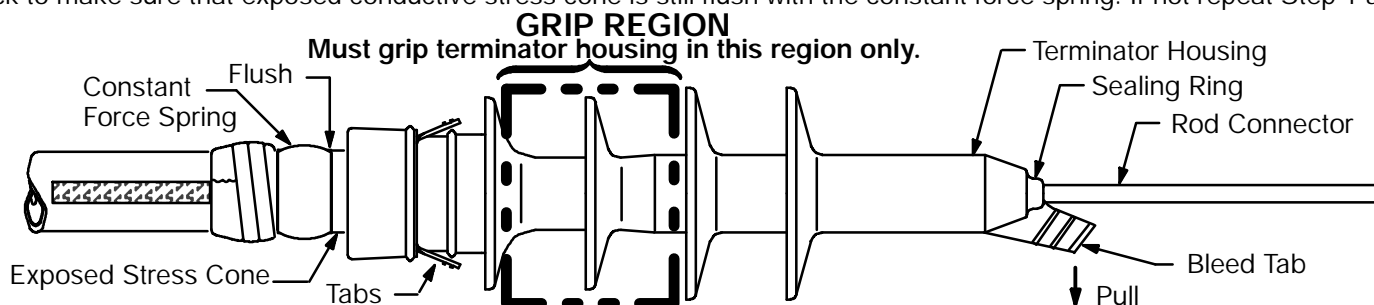
1. Aluminum conductor must be wire brushed and immediately inserted into the connector.
2. Check to ensure the maximum gap between the insulation and the connector is approximately 1/4" (5mm) to verify the conductor is fully seated in the connector and the insulation strip back is correct.
3. Crimp, using manufacturer's recommended crimp dies, **rotating each successive crimp 180_ to prevent distortion.** Ensure that the first crimp is started at the crimp line and continue crimping towards the cable insulation.
4. Remove all excess inhibitor.
5. Remove excessive or sharp ears created during crimping with a file to prevent damage or failure of the terminator housing.
6. **Clean and lubricate cable and rod connector in direction of the arrow. Ensure that top of rod connector is also lubricated.**
7. Lubricate cable entrance of terminator housing.



STEP C - INSTALL TERMINATOR

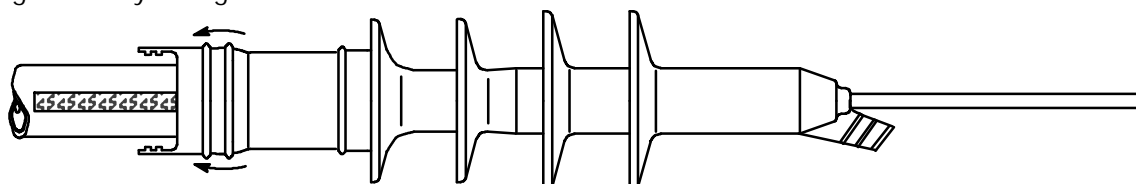
1. Grip the terminator housing as indicated below and **slowly** slide onto the cable until the exposed conductive stress cone is flush with constant force spring.

- IMPORTANT:** Be careful not to puncture a hole in the terminator housing as the rod connector enters the sealing ring area.
2. Hold the rod connector and pull the bleed tab in direction shown to release internal air pressure.
 3. Check to make sure that exposed conductive stress cone is still flush with the constant force spring. If not repeat Step 1 and 2.



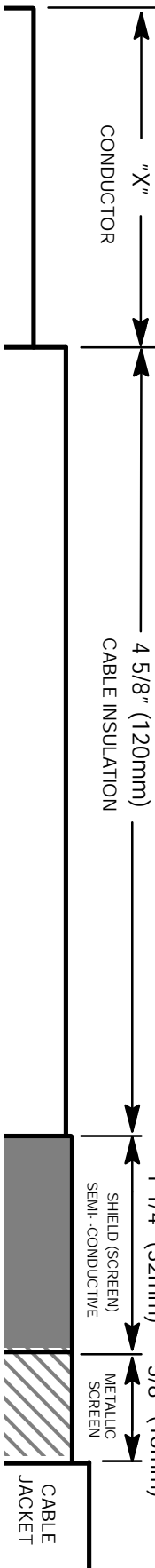
STEP D

1. Holding each tab at the base of the terminator, pull the hood over the sealed area of the cable.
2. Attach grounding wire to system ground.



STEP E - MOUNT CABLE

1. If a bracket is used to position and/or support the cable, refer to installation instructions supplied with the specific mounting bracket.
2. Complete installation of the cable and termination as required by the NESC, ANSI C2.



For terminator rod contacts

CONDUCTOR SIZE AWG		CONDUCTOR	CAT. NO. 0070	NOMINAL CRIMP BARREL O.D.	CSA DIE NO.	BURNDY			KEARNEY			BLACKBURN
STR. COMPR.	COMPT.					MD6,MD7	Y35	Y45**	O	H1,H2	PH 25	JB12A
						DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.
3	2*	AL - CU	0210	0.640" (16,3mm)	22	BG (4) WBG(2) W243(2)	U25ART(†) U25RYFT(2) UBG(2) U27RT(2)	U25ART(†) U25RYFT(2) UBG(2) U27RT(2)	%P8 (4) 620(2)	(P16(2) 572(2)	---	B24EA(†)
2	1*	AL - CU	0220									
1	1/0*	AL	1230									
1/0	---	AL	1240									
1	1/0*	AL - CU	0230	0.688" (17,5mm)	---	W245(3)	U26ART(2)	U26ART(2)	635(4)	635(4)	635(4)	BO9CH(2)
1/0	2/0	AL - CU	0240									
2/0	3/0	AL	1250									
2/0	3/0	AL - CU	0250	0.760" (19,3mm)	---	---	U27ART(2)	U27ART(2)	---	---	---	B26CH(2)
3/0	4/0	AL	1260									
3/0	4/0	AL - CU	0260									
4/0	---	AL	1270	0.875" (22,2mm)	24	---	U28ART(2)	U28ART(2)	840(4)	840(3)	840(2)	B10CH1(2)
4/0	---	AL - CU	0270									

** U Dies require adapter No. 6515.

{ Dies indicated use maximum number of crimps without overlapping.

() Number of crimps without overlapping.

CSA DIE NOTICE:

RE USE OF CSA DIE FOR CRIMPING

Engineering calculations denote the results of crimping with the suggested C.S.A. dies should have a completely satisfactory connection. However, recommendations for suitable C.S.A. dies to crimp these connectors, were determined, mathematically, from tests done on certain selected crimp connectors. Complete testing has not been done on all sizes.

Rotate each successive crimp 180_ to prevent distortion.

* These connectors will also accommodate solid conductors.

AVIS POUR LA COMPRESSION SELON L'ACNOR

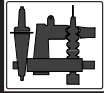
REF: Utilisation de la matrice ACNOR pour la compression

Les calculs d'ingénierie démontrent que les compressions avec les matrices suggérées de l'ACNOR résulteraient en un raccordement complètement satisfaisant. Toutefois, pour recommander des matrices ACNOR appropriées pour compresser ces connecteurs, nous avons déterminé mathématiquement selon des essais exécutés sur un certain nombre de connecteurs compressés sélectionnés. Les essais n'ont pas été complétés sur tous les calibres.



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

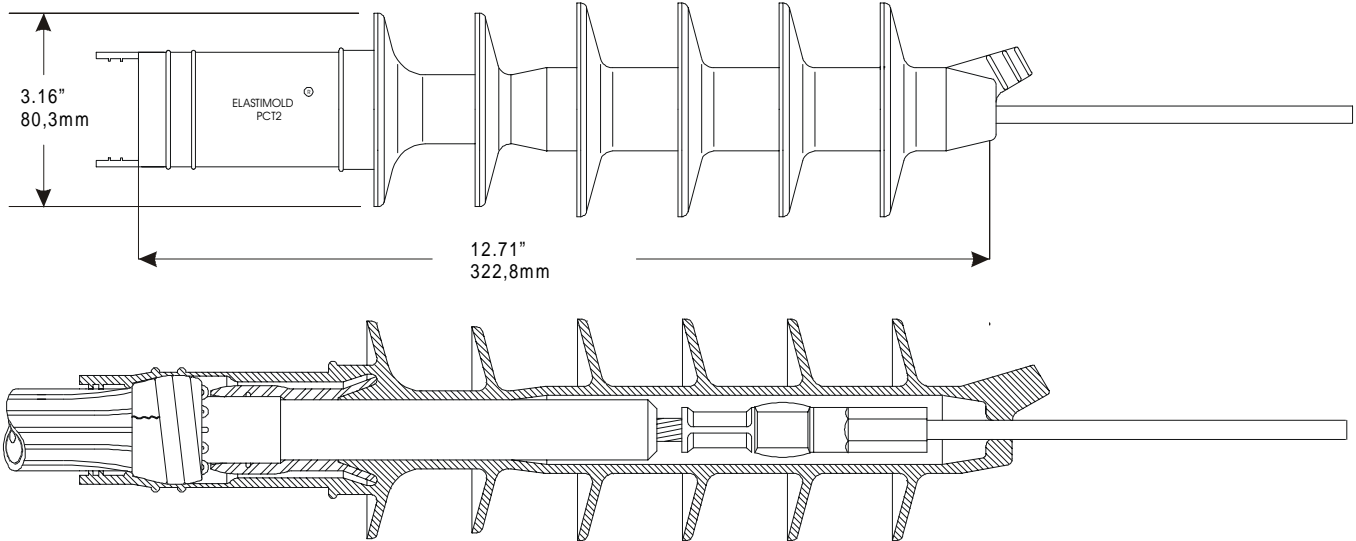
C I

DESCRIPTION

25kV Single Piece Terminator

ELASTIMOLD PART NUMBER

PCT2-X-4



Elastimold PCT-2 Terminators are flexible, lightweight molded designs with integral provisions for sealing jacketed cable. The PCT2-X-4 is a Class 1 (outdoor terminator). And includes a crimp-type rod contact and an integral rain cap.

Features:

- Pull-down tabs are used to seal jacketed cable quickly and easily.
- Large diameter sheds provide superior creep and strike distances.
- Silicone rubber compound for high contamination applications.
- Factory-molded stress relief assures proper stress control in the field-installed part.
- Integral rain cap and top seal.

Applications:

- Connects shielded underground cables to bare overhead lines or live front equipment including switchgear and padmounted transformers.
- Fits cables with insulation diameters from .830" (21,1mm) to 1.800" (25,8mm). (#1 solid, 260 mil to 4/0 stranded 280 mil)
- Can be applied directly on jacketed concentric neutral or copper-tape shield cables.

Ratings:

Per IEEE Std. 48 for Class 1 outdoor terminations

16kV Phase-to-ground

150kV BIL 1.2 x microsecond wave

AC Withstand:

65kV 1 mm. -dry

55kV 6 hr. -dry

60kV 10 sec. -wet

DC Withstand:

105kV 15 mm. dry

21.5kV Corona Extinction

Strike distance: 14.00" (35,6cm)

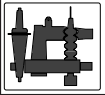
Creep distance: 24.50" (62,2cm)

Elastimold Terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems. Ratings are based on IEEE Std. 48 and do not reflect maximum levels.

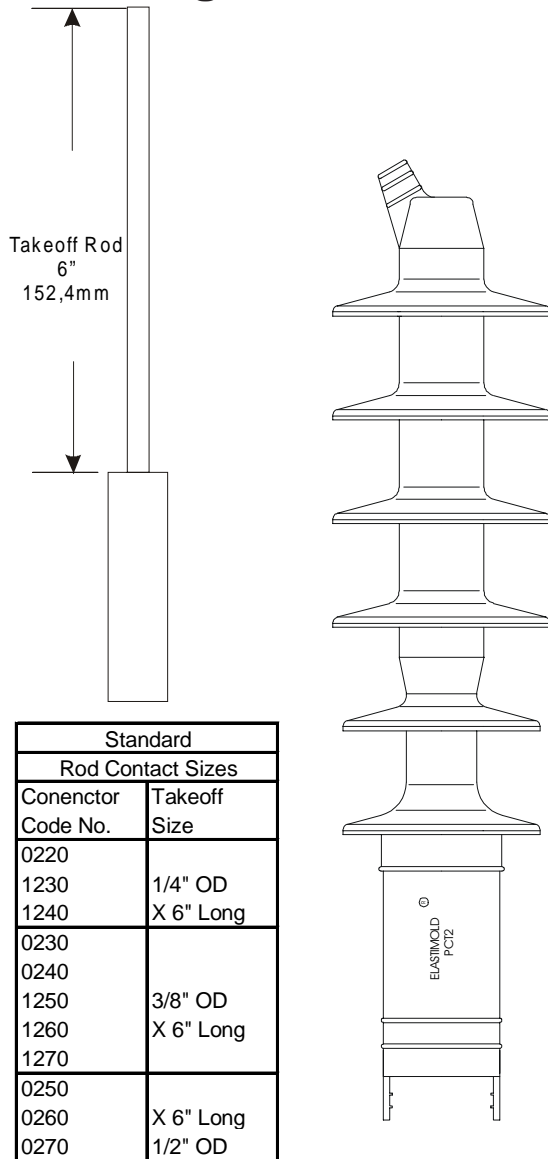
ELASTIMOLD Route 24, Hackettstown, New Jersey 07840

Phone: (908) 852-1122 Fax: (908) 813-2108

Thomas & Betts



25kV Single Piece Terminator (w/ Rod Contact) PCT2-X-4



Standard Rod Contact Sizes	
Conenctor Code No.	Takeoff Size
0220	1/4" OD X 6" Long
1230	
1240	
0230	3/8" OD X 6" Long
0240	
1250	
1260	
1270	
0250	X 6" Long 1/2" OD
0260	
0270	

The PCT-2 will accommdate rod contacts with takeoff rods from .204" to .500"

The Terminators Kit contains the following:

- 1 - Rubber housing PCT2-4
- 1 - Rod contact 0700-X
- 1 - Lubricant 82-08
- 2 - Strips of mastic
- 1 - Installation instruction PCT2-X-4

Ordering Instruction:

Step 1 (W)

Determine that the insulation diameter of the cable is between .830" (21,1mm) and 1.180" (30,0mm). This is the effective range of the PCT2 Terminator housing.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 2 (X)
PCT2 - 4

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	0220	0210
1	0230	0220
1	1230*	-
1/0	0240	0230
1/0	1240*	1230*
2/0	0250	0240
2/0	1250*	-
3/0	0260	0250
3/0	1260*	1250*
4/0	0270	0260
4/0	1270*	1260*

*For aluminum conductor only

Example:

The ordering number for a Terminator Kit for 1/0 stranded aluminum cable with an OD of .955" (24,3mm) is PCT2-1240-4.

- For a terminator with a Cable Positioning Bracket, add the suffix "PB-1" to the part number.
- For use on copper tape shielded cables, add the suffix "MA" to the part number.

PCT2-XXXX-4 For Concentric Neutral Wire Shield

CONTENTS: Terminator Housing, Rod Connector (Optional), 2-Strips of Mastic, Lubricant, Silicone Tape, Installation Instructions.

The PCT2 Terminator is designed to terminate jacketed concentric neutral or concentric neutral cables rated 5 through 25kV with insulation diameter range .830"-1.180" (21,0mm-30,0mm).

DANGER

All apparatus must be de-energized during installation or removal of part(s). Do not touch or move energized products by hand. Excess distortion of the assembled product may result in its failure. Inspect parts for damage, rating and compatibility with mating parts. This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These

instructions are not intended as a substitute for adequate training or experience in such safety practices. These instructions do not attempt to provide for every possible contingency. Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

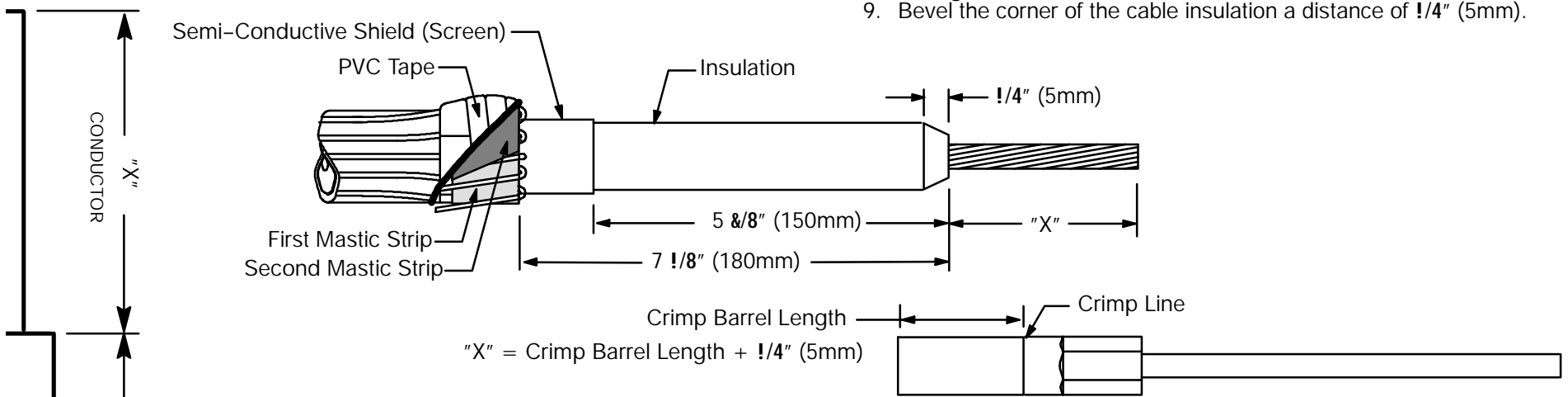
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

WHEN TERMINATING CABLES IN ENCLOSED SWITCHGEAR OR TRANSFORMERS, BE SURE TO MAINTAIN PROPER CLEARANCES ACCORDING TO PREVAILING CODES AND STANDARDS.

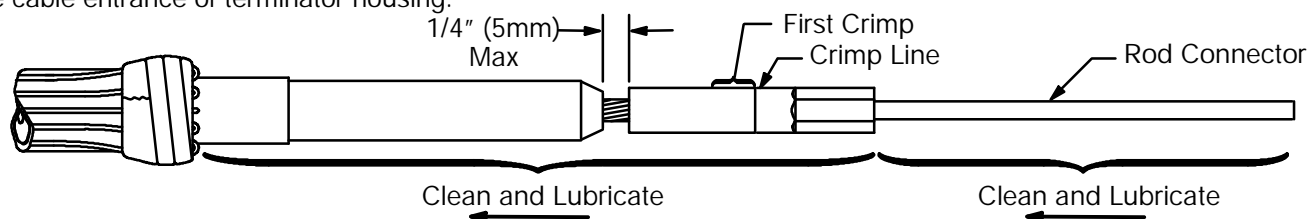
STEP A

1. Train cable into final position and cut to length required for installation.
2. Remove cable outer jacket (if applicable) a distance of 7 1/8" (180mm) plus "X". Allow sufficient neutral wire length for neutral connection.
3. Wrap one strip of mastic, stretching slightly, at a distance of 7 1/8" (180mm) plus "X".
4. Bend all of the neutral wires straight back over the mastic and along the cable. Press the wires into the mastic.
5. Wrap the second strip of mastic over the previous strip and neutral wires and squeeze tightly.
6. Apply 2 half-lapped layers of PVC tape over the mastic for 1" (25mm) onto the neutral wires.
7. Remove semi-conductive shield (screen) a distance of 5 7/8" (150mm) plus "X" **taking care not to cut or nick the insulation.**
8. Remove the cable insulation the distance "X" from the end of the conductor **taking care not to cut or nick the conductor.**
9. Bevel the corner of the cable insulation a distance of 1/4" (5mm).



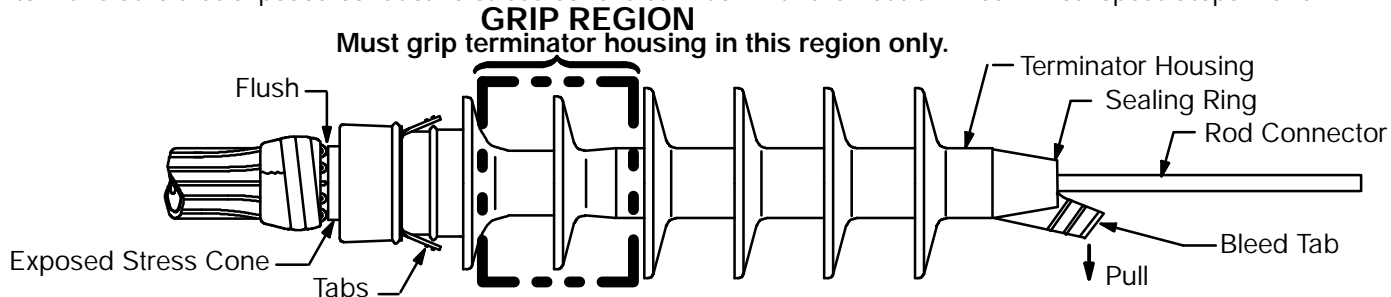
STEP B - INSTALL CONNECTOR

1. Aluminum conductor must be wirebrushed and immediately inserted into the connector.
2. Check to ensure the maximum gap between the insulation and the connector is approximately 1/4" (5mm) to verify the conductor is fully seated in the connector and the insulation strip back is correct.
3. Crimp, using manufacturer's recommended crimp dies, **rotating each successive crimp 180° to prevent distortion.** Ensure that the first crimp is started at the crimp line and continue crimping towards the cable insulation.
4. Remove all excess inhibitor.
5. Remove excessive or sharp ears created during crimping with a file to prevent damage or failure of the terminator housing.
6. **Clean and lubricate cable and rod connector in direction of the arrow. Ensure that top of rod connector is also lubricated.**
7. Lubricate cable entrance of terminator housing.



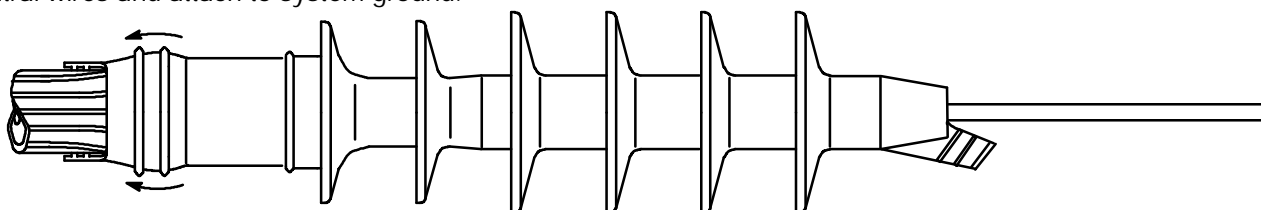
STEP C - INSTALL TERMINATOR

1. Grip the terminator housing as indicated below and **slowly** slide onto the cable until the exposed conductive stress cone is flush with the neutral wires. **IMPORTANT:** Be careful not to puncture a hole in the terminator housing as the rod connector enters the sealing ring area.
2. Hold the rod connector and pull the bleed tab in direction shown to release internal air pressure.
3. Check to make sure that exposed conductive stress cone is still flush with the neutral wires. If not repeat Steps 1 and 2".



STEP D

1. Holding each tab at the base of the terminator, pull the hood over the sealed area of the cable.
2. Bundle neutral wires and attach to system ground.



STEP E - MOUNT CABLE

1. If a bracket is used to position and/or support the cable, refer to installation instructions supplied with the specific mounting bracket.
2. Complete installation of the cable and termination as required by the NESC, ANSI C2.



CABLE JACKET

CABLE INSULATION
5 7/8" (150mm)

SHIELD (SCREEN)
SEMI-CONDUCTIVE
1 1/4" (32mm)

Installation Instruction

PCT2-XXXX-4-MA For Copper Tape Shield

CONTENTS: Terminator Housing, Rod Connector (Optional), 2-Strips of Mastic, Lubricant, Constant Force Spring, Silicone Tape, Grounding Braid, Installation Instructions.

The PCT2-XXXX-4-MA is designed to terminate cables with copper or tinned copper metallic tape screens rated 5 through 25kV with insulation diameter range .830" - 1.180" (21,0mm - 30,0mm).

DANGER

All apparatus must be de-energized during installation or removal of part(s). Do not touch or move energized products by hand. Excess distortion of the assembled product may result in its failure. Inspect parts for damage, rating and compatibility with mating parts. This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These

instructions are not intended as a substitute for adequate training or experience in such safety practices. These instructions do not attempt to provide for every possible contingency. Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

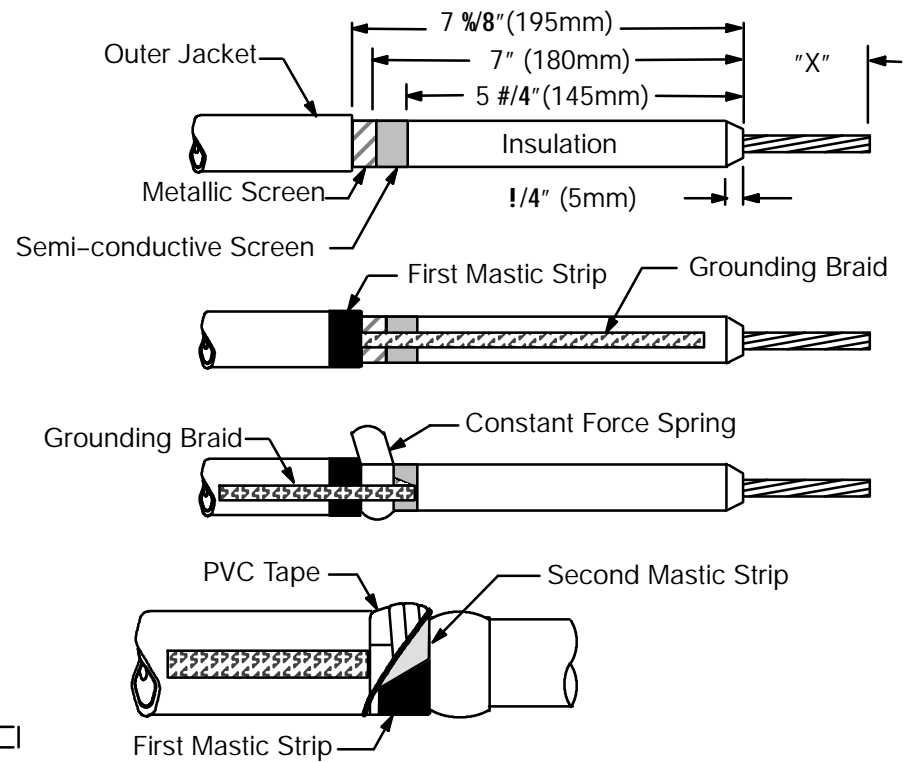
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

WHEN TERMINATING CABLES IN ENCLOSED SWITCHGEAR OR TRANSFORMERS, BE SURE TO MAINTAIN PROPER CLEARANCES ACCORDING TO PREVAILING CODES AND STANDARDS.

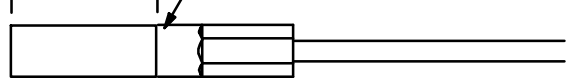
STEP A

1. Train cable into final position and cut to length required for installation. Remove outer jacket a distance of 7 7/8" (195mm) plus "X" from end of cable. Remove metallic screen a distance of 7" (180mm) plus "X" from end of cable. Remove semi-conductive screen a distance of 5 3/4" (145mm) plus "X" from end of cable.
2. Apply a layer of mastic at end of outer jacket, stretching slightly.
3. Position the end of the grounding braid against the edge of the jacket, over the metallic screen. Wrap two layers of constant force spring over grounding braid. Bend grounding braid back over constant force spring and wrap remainder of the constant force spring over the two layers of the grounding braid. Tighten constant force spring with fingers.
4. Press grounding braid into mastic. Apply second layer of mastic at end of outer jacket over grounding braid, stretching slightly. Press mastic into grounding braid. Apply 2 half lapped layers of PVC tape over the mastic for 1" (25mm).
5. Remove the cable insulation the distance "X" from the end of the conductor **taking care not to cut or nick the conductor.**
6. Bevel the corner of the cable insulation a distance of 1/4" (5mm).



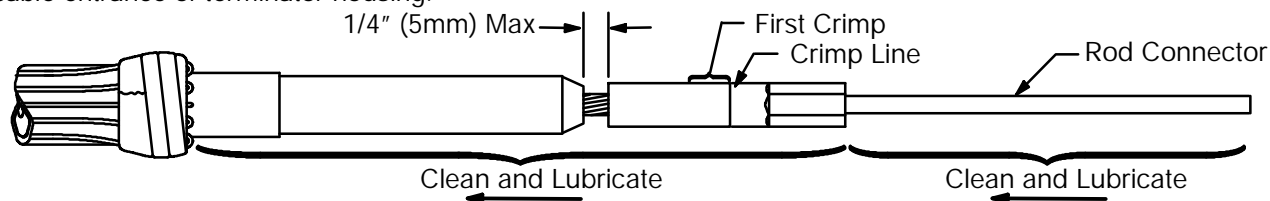
"X" = Crimp Barrel Length + 1/4" (5mm)

Crimp Barrel Length



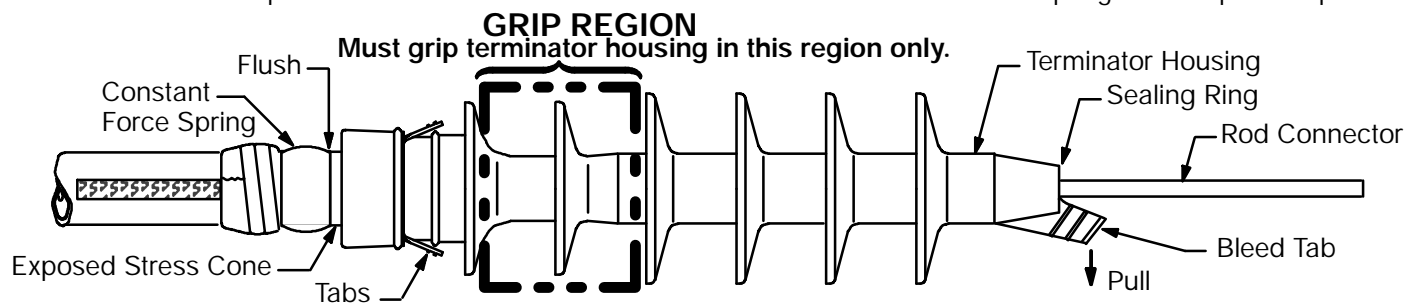
STEP B - INSTALL CONNECTOR

1. Aluminum conductor must be wirebrushed and immediately inserted into the connector.
2. Check to ensure the maximum gap between the insulation and the connector is approximately 1/4" (5mm) to verify the conductor is fully seated in the connector and the insulation strip back is correct.
3. Crimp, using manufacturer's recommended crimp dies, **rotating each successive crimp 180°** to prevent distortion. Ensure that the first crimp is started at the crimp line and continue crimping towards the cable insulation.
4. Remove all excess inhibitor.
5. Remove excessive or sharp ears created during crimping with a file to prevent damage or failure of the terminator housing.
6. Clean and lubricate cable and rod connector in direction of the arrow. Ensure that top of rod connector is also lubricated.
7. Lubricate cable entrance of terminator housing.



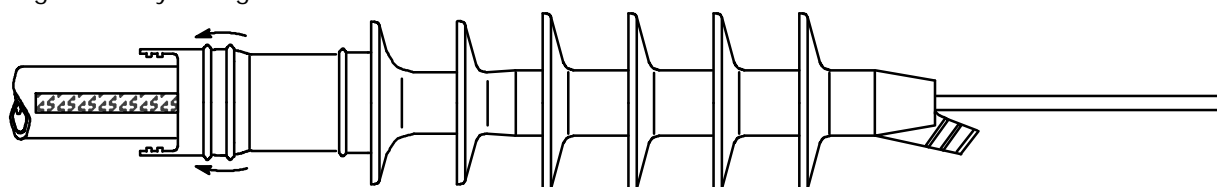
STEP C - INSTALL TERMINATOR

1. Grip the terminator housing as indicated below and slowly slide onto the cable until the exposed conductive stress cone is flush with constant force spring. **IMPORTANT:** Be careful not to puncture a hole in the terminator housing as the rod connector enters the sealing ring area.
2. Hold the rod connector and pull the bleed tab in direction shown to release internal air pressure.
3. Check to make sure that exposed conductive stress cone is still flush with the constant force spring. If not repeat Step 1 and 2.



STEP D

1. Holding each tab at the base of the terminator, pull the hood over the sealed area of the cable.
2. Attach grounding wire to system ground.



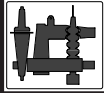
STEP E - MOUNT CABLE

1. If a bracket is used to position and/or support the cable, refer to installation instructions supplied with the specific mounting bracket.
2. Complete installation of the cable and termination as required by the NESC, ANSI C2.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



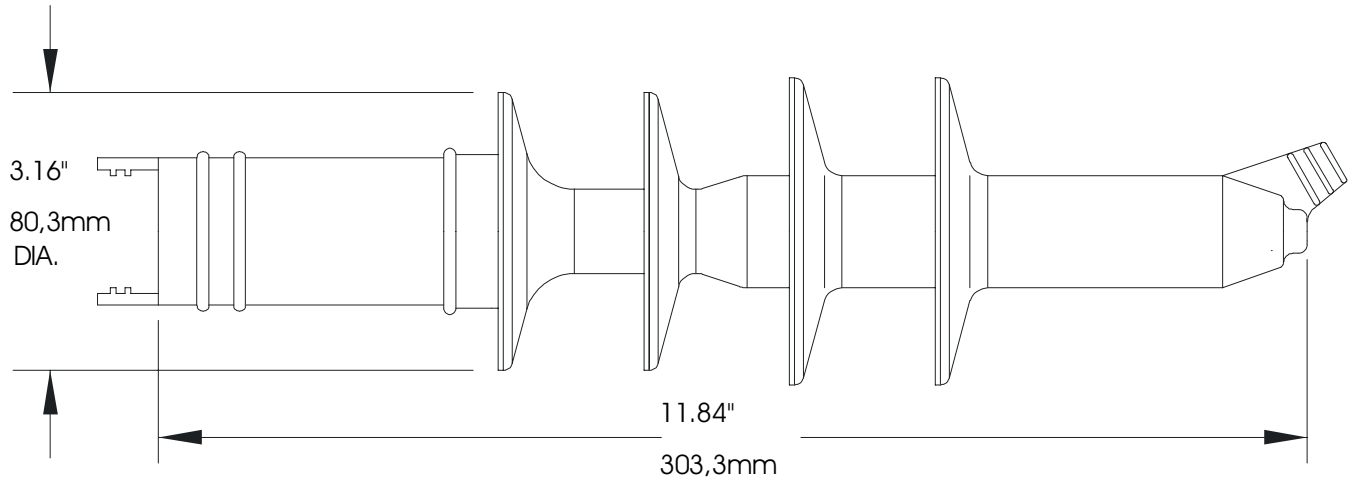


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15kV Single Piece Terminator Housing

ELASTIMOLD PART NUMBER

PCT1-4**(w/o Crimp Connector)**

The Elastimold PCT-1 Terminators are flexible, lightweight molded designs with integral provisions for sealing jacketed cable. The PCT1-4 is a Class 1 (outdoor terminator). And consists of a housing only without any crimp connector.

Features:

- Pull-down tabs are used to seal jacketed cable quickly and easily.
- Large diameter sheds provide superior creep and strike distances.
- Silicone rubber compound for high contamination applications.
- Factory-molded stress relief assures proper stress control in the field-installed part.
- Integral rain cap and top seal.

Applications:

- Connects shielded underground cables to bare overhead lines or live front equipment including switchgear and padmounted transformers.
- Fits cables with insulation diameters from .640" (16,3mm) to 1.070" (27,2mm). (#2 solid, 175 mil to 4/0 stranded 220 mil)
- Can be applied directly on jacketed concentric neutral or copper-tape shield cables.

Ratings:

Per IEEE Std. 48 for Class 1 outdoor terminations
9.5kV Phase-to-ground
110kV BIL 1.2 x microsecond wave

AC Withstand:

- 50kV 1 mm. -dry
- 35kV 6 hr. -dry
- 45kV 10 sec. -wet

DC Withstand:

- 75kV 15 mm. dry
- 13kV Corona Extinction

Strike distance: 12.75" (32,4cm)

Creep distance: 19.50" (49,5cm)

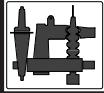
Elastimold Terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems. Ratings are based on IEEE Std. 48 and do not reflect maximum levels.

Ordering Instruction:

To order, specify **PCT1-4**.

The Terminators Kit contains the following:

- | | |
|------------------------------|-------------|
| 1 - Rubber housing | PCT1-4 |
| 1 - Lubricant | 82-08 |
| 2 - Strips of mastic | |
| 1 - Installation instruction | IS-PCT1-X-4 |



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

I

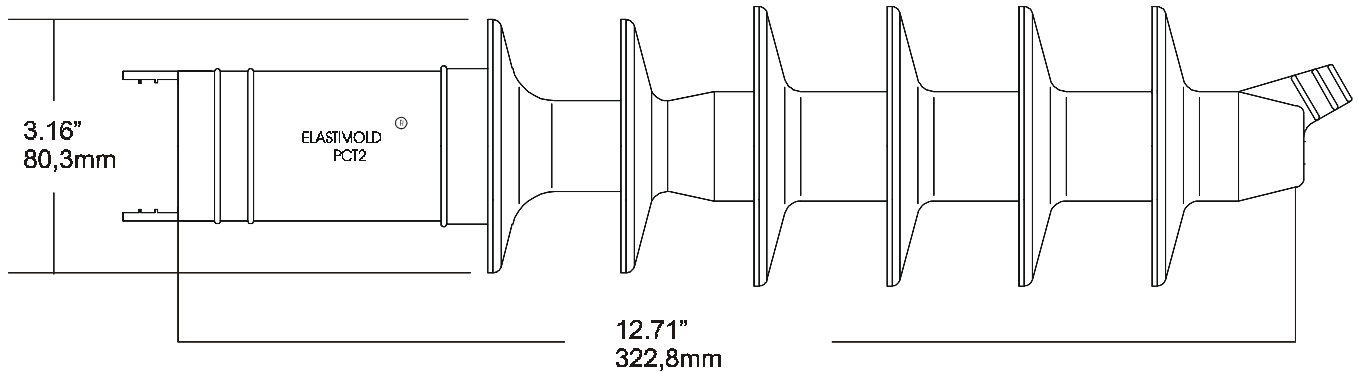
DESCRIPTION

25kV Single Piece Terminator Housing

ELASTIMOLD PART NUMBER

PCT2-4

(w/o Crimp Connector)



Elastimold PCT-2 Terminators are flexible, lightweight molded designs with integral provisions for sealing jacketed cable. The PCT12-4 is a Class 1 (outdoor terminator). And consists of a housing only without any crimp connector.

Features:

- Pull-down tabs are used to seal jacketed cable quickly and easily.
- Large diameter sheds provide superior creep and strike distances.
- Silicone rubber compound for high contamination applications.
- Factory-molded stress relief assures proper stress control in the field-installed part.
- Integral rain cap and top seal.

Applications:

- Connects shielded underground cables to bare overhead lines or live front equipment including switchgear and padmounted transformers.
- Fits cables with insulation diameters from .830" (21,1mm) to 1.800" (25,8mm). (#1 solid, 260 mil to 4/0 stranded 280 mil)
- Can be applied directly on jacketed concentric neutral or copper-tape shield cables.

Ratings:

Per IEEE Std. 48 for Class 1 outdoor terminations
 16kV Phase-to-ground
 150kV BIL 1.2 x microsecond wave

AC Withstand:

- 65kV 1 mm. -dry
- 55kV 6 hr. -dry
- 60kV 10 sec. -wet

DC Withstand:

- 105kV 15 mm. dry
- 21.5kV Corona Extinction

Strike distance: 14.00" (35,6cm)

Creep distance: 24.50" (62,2cm)

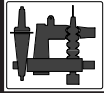
Elastimold Terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems. Ratings are based on IEEE Std. 48 and do not reflect maximum levels.

Ordering Instruction:

To order, specify **PCT2-4**.

The Terminators Kit contains the following:

- 1 - Rubber housing PCT2-4
- 1 - Lubricant 82-08
- 2 - Strips of mastic
- 1 - Installation instruction IS-PCT2-X-4



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

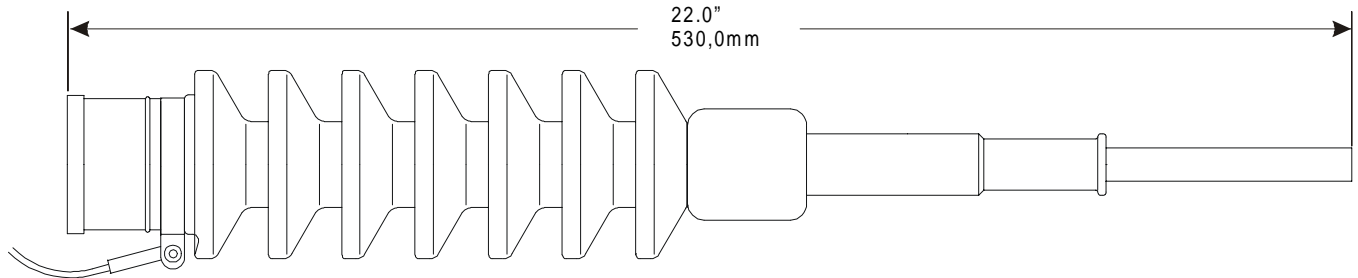
C I

DESCRIPTION

15/25kV Single Piece Terminator

ELASTIMOLD PART NUMBER

16THG-WX-4



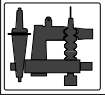
Application:

The 16THG terminator provides a class 1 indoor or outdoor termination conforming to the requirements of IEEE Std. 48 through 25kV. This terminator can also be used in switchgear or padmount transformers. ELASTIMOLD outdoor terminators are lightweight and constructed of gray EPDM rubber. The 16THG is designed for use on extruded dielectric cables, and can be applied directly on cables with extruded semi-conductive shields. Units will accommodate aluminum or copper conductors ranging from No. 6 to 4/0 AWG range and an insulation range of .459" (12,6 mm) through 1.115" (28,3 mm). Other types of semi-conductive shields, such as lead sheath or fabric tape, can be accommodated by using ELASTIMOLD shield adapters: 10TL, 20MA or 21MA.

Ratings:

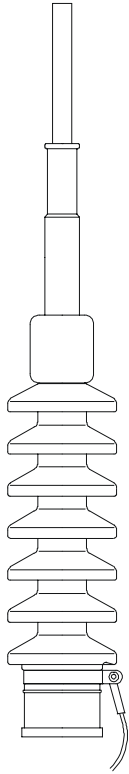
Per IEEE Std. 48 for Class 1 outdoor terminations
16kV Phase-to-ground
150kV BIL (1.2 x 50 microsecond wave)
AC Withstand:
65kV 1 min. -dry
55kV 6 hr. -dry
60kV 10 sec. -wet
DC Withstand:
105kV 15 min. -dry
21.5kV Corona Extinction
Strike distance: 8.50" (22,0cm)
Creep distance: 18.00" (46cm)

Elastimold Terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems. Ratings are based on IEEE Std. 48 and do not reflect maximum levels.



15/25kV Single Piece Terminator

16THG-WX-4



Standard Rod Contact Sizes	
Connector Code No.	Takeoff Size
0180	1/4" OD X 6" Long
0190	
0200	
0210	
0220	
1230	
1240	
0230	3/8" OD X 5" Long
0240	
0250	
0260	1/2" OD X 5" Long
0270	

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 1 (W) Step 2 (X)
16THG - - - **4**

Cable Insulation Dia. Range		Housing Code
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB
.930 - 1.040	23,6 - 26,4	GH
.980 - 1.115	24,9 - 28,3	HA

Conductor Size* (AWG or kCMil)	Riser Conductor	Compression Lug Code Number	
		Stranded/Compr.	Solid/Compact
6	Al/Cu	0180	-
5	Al/Cu	0190	0180
4	Al/Cu	0200	0190
3	Al/Cu	0210	0200
2	Al/Cu	0220	0210
1	Al	1230	0220
1/0	Al	1240	1230
1	Al/Cu	0230	-
1/0	Al/Cu	0240	0230
2/0	Al/Cu	0250	0240
3/0	Al/Cu	0260	0250
4/0	Al/Cu	0270	0260
250	Al/Cu	-	0270

The 16THG-WX-4 Terminators Kit contains the following:

- 1 - Rubber housing
- 1 - Rod contact
- 1 - Grounding clamp
- 1 - Ring terminal for grounding drain wire
- 1 - Lubricant
- 1 - Installation instruction

Example:

The ordering number for a 16THG Terminator Kit for 4/0 stranded aluminum cable with an OD of .860" (21,8mm) is 16THG-GAB0270-4

Installation Instructions 16THG Single-Piece Outdoor Terminators

CONTENTS: 1—Rubber housing, 1—Conductor contact, 1—Cap, 1—Ground strap, 1—Washer, 1—Lubricant, 1—Wiping cloth, 1—Installation instruction, 1—Crimp chart.

DANGER

Do not touch while energized.

All apparatus must be de-energized during installation or removal of part(s) to avoid fatal shock.

Inspect parts for damage, ratings and compatibility with mating parts.

The product should be installed only by competent personnel familiar with good safety practices in handling high-voltage electrical equipment.

These instructions are not intended as a substitute for adequate training or experience in such good safety practices.

These instructions do not attempt to provide for every possible contingency.

Install according to the following instructions.

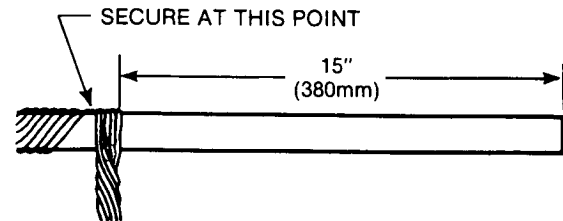
Do not energize or submerge apparatus with shipping cap on bushing(s).

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

The ELASTIMOLD 16THG is designed for use on concentric neutral cable. If grounding adapters are being used, the installation instructions packed with these adapters are a required supplement to these instructions.

STEP 1

Train cable into position. Unwrap and fold back concentric wires 15" (380mm) from the end of the cable. Secure concentric wires at this point by wrapping with plastic electrical tape or a strand of wire (do not use one of the concentric neutral wires). Twist the loose concentric wires together to form a ground lead.



STEP 2

Carefully cut (avoid nicking or damaging the conductor strands) and remove the insulation from the end of the cable the distance specified in Table 1. If conductor is damaged, cut the end off and start over.

Do not install connector or cap.

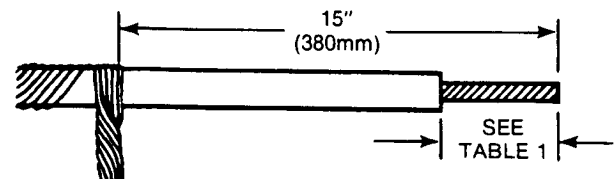



TABLE 1

Conductor Contact Style	Conductor Size	Remove Insulation
 -4 (Universal Rod)	No. 6 thru 1/0 Str. Contact 00500180 to 00500220, 00501230, 00501240	1 7/8" (47,6mm)
	No. 1 thru 4/0 Str. Contact 00500230 to 00500270	3 3/4" (95,9mm)

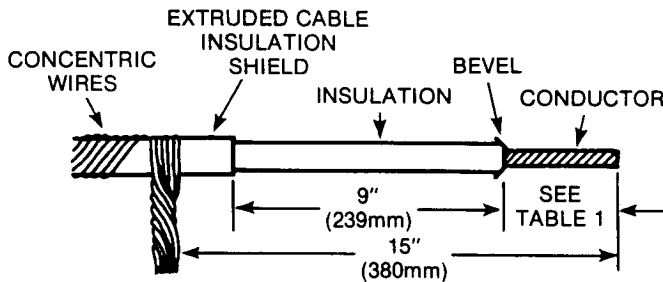


**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840, (201) 852-1122

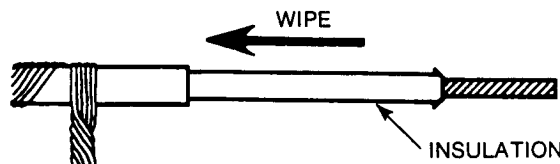
STEP 3

Carefully cut and remove the exposed extruded cable insulation shield a distance of 9" (239mm) from the end of the insulation. Cut extruded cable insulation shield squarely, being careful not to nick or cut the cable insulation. If the insulation is damaged, cut off and start over. Bevel the edge of the cable insulation not more than 1/4" (6,4mm).



STEP 4

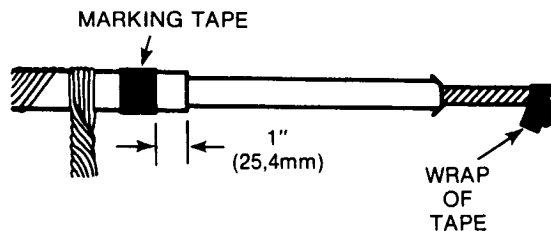
Clean the outer jacket and thoroughly clean the insulation to remove all traces of semi-conducting residue. This may be done by wiping with a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the outer jacket.



Failure to remove all conductive residue from cable insulation will be cause for failure.

STEP 5

Mark the extruded cable insulation shield by wrapping a piece of tape exactly 1" (25,4mm) from the end of the extruded cable insulation shield. To prevent the cable conductor from damaging the inside of the terminator, wrap a piece of tape around the leading edge of the conductor. Damage to the inner surfaces of the terminator could result in unsatisfactory performance.



STEP 6

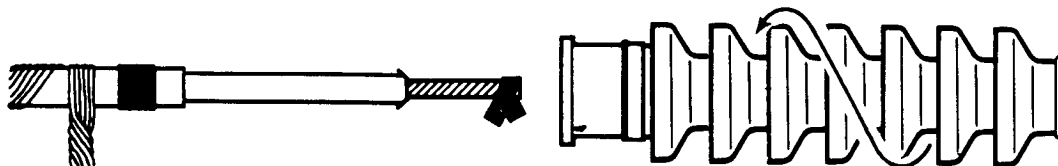
Before proceeding to Step 7A, check Steps 3 and 5 to insure that correct cutback and taping have been accomplished.

Apply supplied lubricant or **ELASTIMOLD®** approved lubricant sparingly to the cable insulation and to the inside base surface of the terminator. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product.

STEP 7A

Slide the terminator housing down on the cable using a spiral motion. The base of the terminator housing **must** align with the wrap of tape on the extruded cable insulation shield. The top of the

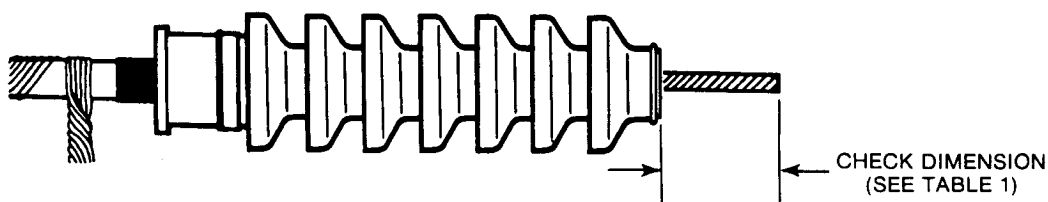
terminator housing should be flush with the end of the cable insulation. Improper positioning of the terminator on the cable could result in unsatisfactory performance.



STEP 7B

Check the dimension from the top of the terminator housing to the end of the cable conductor. See Table 1 for correct dimension for the contact being used. If the terminator housing does not align with

the tape, if it is not flush with the cable insulation, or if the check dimension is not correct, remove the terminator housing and check Steps 3 and 5 again before proceeding to Step 8.



STEP 8A

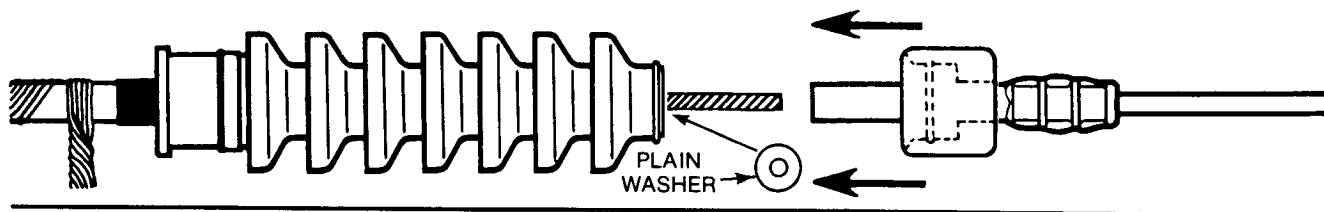
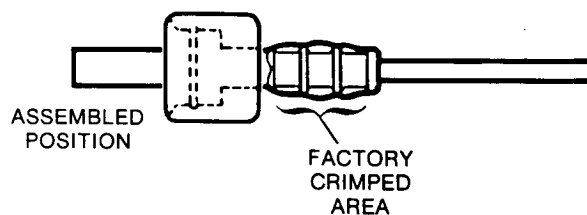
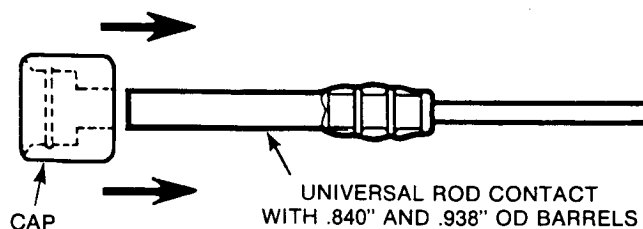
For Universal Rod Contacts with .840" OD Barrels.
 Contact 00500230, 00500240, 00500250

and with .938" OD Barrels.
 Contact 00500260, 00500270

NOTE: For Universal Rod Contacts with .625" OD Barrel, go to Step 8B Rubber cap is not assembled until Step 11.

Apply supplied lubricant or **ELASTIMOLD®** approved lubricant sparingly to the inside of the rubber cap and the outside of the conductor contact. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product.

Slide the rubber cap onto the conductor contact starting from the bottom, making sure that the small inside diameter of the cap goes on first as shown. Completely remove the wrap of tape from the cable conductor and if using aluminum conductor, wire brush the bare conductors. Place the plain washer over the bared conductor. **Immediately** slide the contact on to the conductor. Carefully clean excess inhibitor from the area around the top of the terminator. Slide the rubber cap down the contact so it is fully seated and the groove in the bottom of the cap snaps into place over the matching ring on the top of the terminator housing.

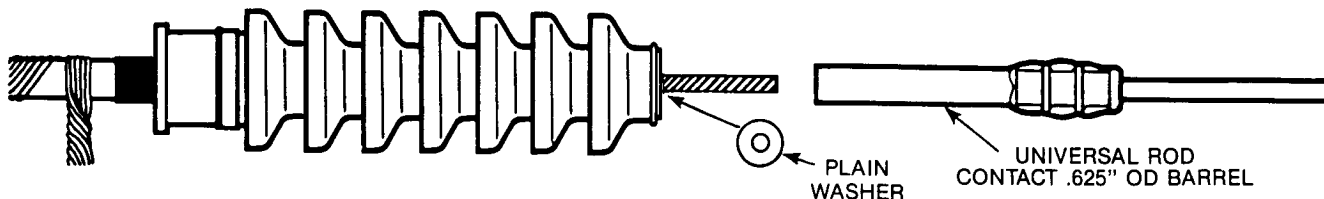


STEP 8B

For Universal Rod Contacts with .625" OD Barrels.
 Contact 00500180 to 00500220, 00501230, 00501240

Completely remove the wrap of tape from the cable conductor and if using aluminum conductor, wire

brush the bare conductors. Place the plain washer over the bared conductor. **Immediately** slide the contact on to the conductor. Carefully clean excess inhibitor from the area around the top of the terminator.



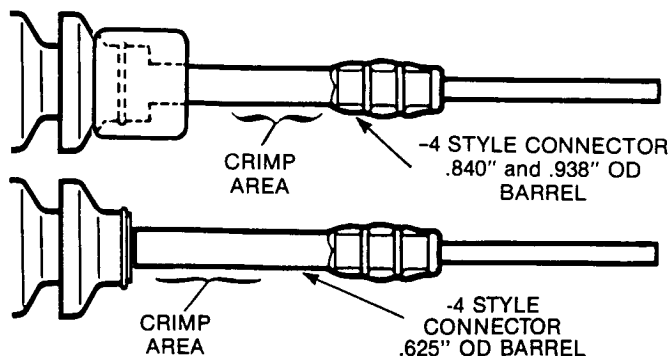
STEP 9A

For All Rod Contacts (.625", .840" and .938" Barrels.)

Beginning at the upper (or top) crimp mark on the contact, start the first crimp, crimping towards the terminator and rotating each successive crimp 90° or 180°. When crimping, the contact should be held tightly pushing down towards the plain washer. (Refer to the crimp chart for the -4 style crimp barrel packaged with the contact.)

STEP 9B

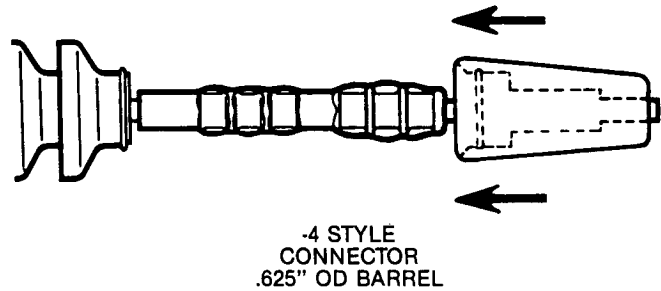
Check position of terminator cap to be sure that cap did not move during crimping of the connector. Reposition if necessary.



STEP 10

For Universal Rod Contacts with .625" OD Barrel.

Carefully wipe excess inhibitor from the contact and terminator housing after crimping. Apply supplied lubricant sparingly to the inside of the rubber cap and the outside of the conductor contact. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product. Slide the rubber cap down the contact so it is fully seated and locked on the terminator housing. Make sure the groove in the bottom of the cap snaps into place over the matching ring on the top of the terminator housing.



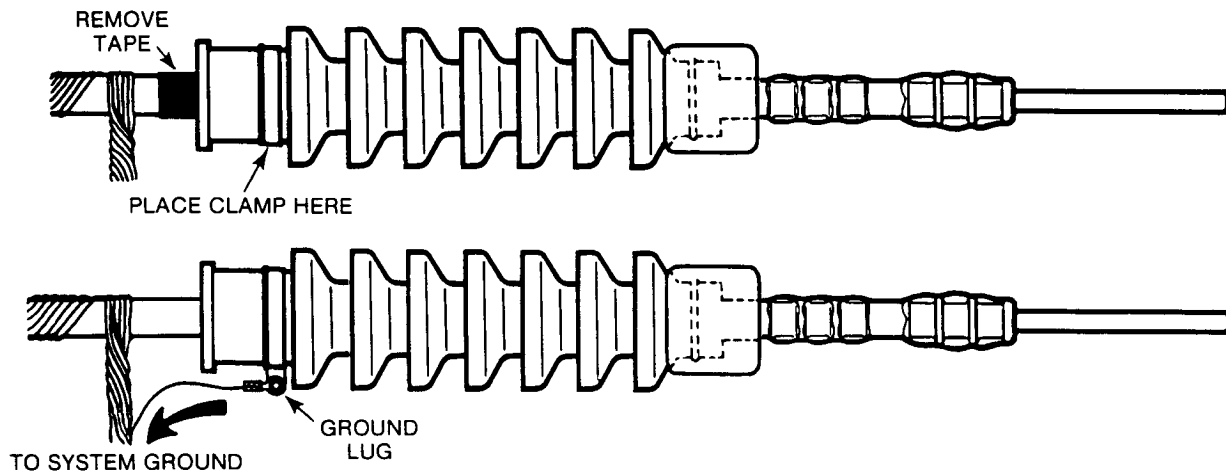
STEP 11

Make the takeoff on the universal rod contact as desired.

STEP 12

If the terminator is not bracketed, place the grounding clamp around the terminator base. It is to be located directly under the shoulder and above the projecting rib. The dimension between the shoulder and the rib is $\frac{1}{2}$ " (12,7mm) so after assembly, the clamp can not move up or down. Remove the marking tape and wipe off any grease on the cable. Insert

a separate No. 14 AWG (2,5mm²) copper wire or equivalent into the crimp lug supplied with the ground strap and crimp. Do not use one of the twisted concentric neutral wires. Connect the loose end of the No. 14 AWG (2,5mm²) wire to the concentric neutral wires on the cable and securely connect the twisted concentric neutral wires to ground.



STEP 13

If the terminator is to be bracketed, refer to the installation instructions supplied with the specific mounting bracket.

WARRANTY

The following is given by the ELASTIMOLD DIVISION of AMERACE CORPORATION in lieu of all other warranties, express or implied:

ELASTIMOLD® Products will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. ELASTIMOLD's liability is limited to replacement of the component parts designed and manufactured by ELASTIMOLD which are proved to be defective in workmanship or material. All statements, technical information and recommendations contained herein are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. This warranty is effective for two (2) years from date of shipment by ELASTIMOLD, but at no time will ELASTIMOLD be liable for incidental or consequential damages.



**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840. (201) 852-1122

CRIMPING TOOLS AND DIES RECOMMENDED FOR ELASTIMOLD UNIVERSAL TERMINATOR ROD CONNECTORS

Wire Size AWG Cu or Al		Catalog Number	Nominal Crimp Barrel O .D.	EEI Ref.	CSA DIE NO.	Burdny				Kearney				T & B				Anderson				Blackburn																			
Str Compr	Compt Solid					MD6,MD7		Y35		Y46*		0		H- -1, H- -2		TBM8		TBM- -15 (13642)		VC- -5		VC- -6		O.D.	58	JB12A															
						Die	# Crimps	Die	# Crimps	Die	# Crimps	Die	# Crimps	Die	# Crimps	Die	# Crimps	Die	# Crimps	Die	# Crimps	Die	# Crimps																		
6	5	00500180	.625 in 15.9 mm	8A	22	BG	6	U243	2	U243	2	%8 Nose 620	6	(P16)	4	13464 Gold	5	11738 (45)	3	NO DIE REQ	3	NO DIE REQ	3	%8	6	B24EA	2														
5	4	00500190				W- -BG	3	U- -BG	3	U- -BG	3		6	572	2																										
4	3	00500200																																							
3	2	00500210																																							
2	1	00500220							W- -243	3	U- -BG	3	U- -BG	3	%8 Nose 620													6	572	2											
1 Al Only	1/0 Al Only	00501230																																							
1/0 Al Only	—	00501240																																							
1	1/0	00500230	.840 in 21.3 mm	—	24	—	—	U28ART	3	U28ART	3	—	—	840	4	—	—	15534 (66)	—	—	3	—	—	—	—																
1/0	2/0	00500240		—		—	—					—	—													—	—														
2/0	3/0	00500250		—		—	—					—	—													—	—														
3/0	4/0	00500260	.938 in 23.8 mm	—	—	—	—	U29ART	3	U29ART	3	—	—	!P16	4	—	—	15514 (71H)	—	—	3	—	—	—	—																
4/0	250	00500270		—		—	—					—	—													—	—														

Wire brush bared aluminum conductor before inserting into connector.

Rotate each successive crimp 90°.

Wipe off excess inhibitor after crimping.

*U Die with adapter P- -UADP.

CSA DIE NOTICE:

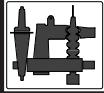
RE USE OF CSA DIE FOR CRIMPING

Engineering calculations denote the results of crimping with the suggested C.S.A. dies should have a completely satisfactory connection. However, recommendations for suitable C.S.A. dies to crimp these connectors, were determined, mathematically, from tests done on certain selected crimp connectors. Complete testing has not been done on all sizes.

AVIS POUR LA COMPRESSION SELON L'ACNOR

REF: Utilisation de la matrice ACNOR pour la compression

Les calculs d'ingénierie démontrent que les compressions avec les matrices suggérées de l'ACNOR résulteraient en un raccordement complètement satisfaisant. Toutefois, pour recommander des matrices ACNOR appropriées pour compresser ces connecteurs, nous avons déterminé mathématiquement selon des essais exécutés sur un certain nombre de connecteurs compressés sélectionnés. Les essais n'ont pas été complétés sur tous les calibres.



PRODUCT SPECIFICATION SHEET

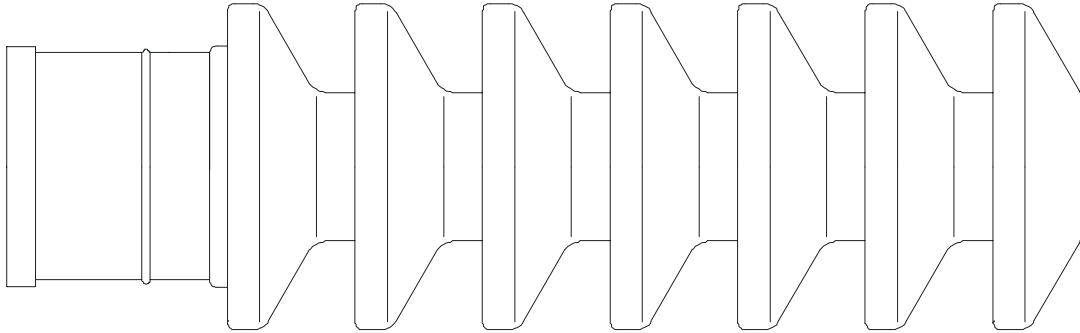
DESCRIPTION

15/25kV Single Piece Terminator

ELASTIMOLD PART NUMBER

16THGH-W

Housing



Application:

Elastimold 16THGH terminator housing is a component of the 16THG-WX-4 and the 16THGS-WX terminator product line. The 16THG terminator provides a class 1 indoor or outdoor termination conforming to the requirements of IEEE Std. 48 through 25kV. This terminator can also be used in switchgear or padmount transformers. ELASTIMOLD outdoor terminators are lightweight and constructed of gray EPDM rubber. The 16THG is designed for use on extruded dielectric cables, and can be applied directly on cables with extruded semi-conductive shields. Units will accommodate aluminum or copper conductors ranging from No. 6 to 4/0 AWG range and an insulation range of .459" (12,6 mm) through 1.115" (28,3 mm). Other types of semi-conductive shields, such as lead sheath or fabric tape, can be accommodated by using ELASTIMOLD shield adapters: 10TL, 20MA or 21MA.

Ratings:

Per IEEE Std. 48 for Class 1 outdoor terminations

16kV Phase-to-ground

150kV BIL (1.2 x 50 microsecond wave)

AC Withstand:

65kV 1 min. -dry

55kV 6 hr. -dry

60kV 10 sec. -wet

DC Withstand:

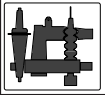
105kV 15 min. -dry

21.5kV Corona Extinction

Strike distance: 8.50" (22,0cm)

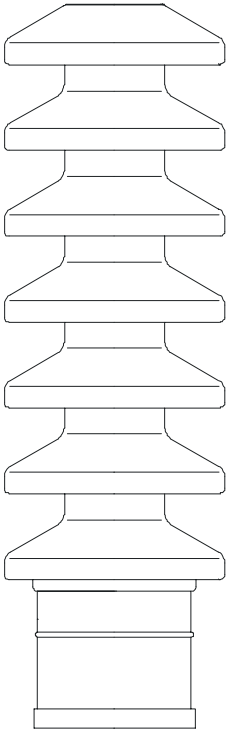
Creep distance: 18.00" (46cm)

Elastimold Terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems. Ratings are based on IEEE Std. 48 and do not reflect maximum levels.



15/25kV Single Piece Terminator Housing

16THGH-W



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 1 (W)
16THGH-

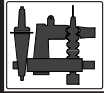
Cable Insulation Dia. Range		Housing Code
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB
.930 - 1.040	23,6 - 26,4	GH
.980 - 1.115	24,9 - 28,3	HA

The 16THG-W Terminators Housing Kit contains the following:

- 1 - Rubber housing
- 1 - Lubricant
- 1 - Installation instruction

Example:

The catalog number for a 16THGH Terminator Housing only for cable with an insulation OD of .860" (21,8mm) is 16THG-GAB.



PRODUCT SPECIFICATION SHEET

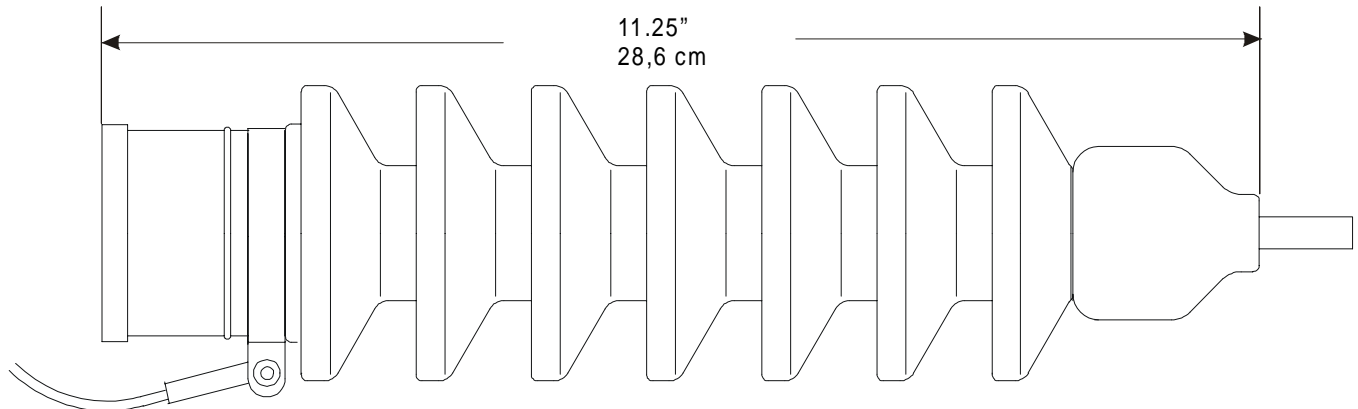
DESCRIPTION

15/25kV Single Piece Terminator

ELASTIMOLD PART NUMBER

16THGS-WX

For solid Conductor



Application:

The 16THGS terminator provides a class 1 indoor or outdoor termination conforming to the requirements of IEEE Std. 48 through 25kV. The terminator can also be used in switchgear or padmount transformers. ELASTIMOLD 16THGS outdoor terminators are lightweight and constructed of gray EPDM rubber.

The 16THGS is designed for use on extruded dielectric cables, and can be applied directly on cables with extruded semi-conductive shields. Units will accommodate solid aluminum or copper conductors only ranging from No. 2 to 4/0 AWG with an insulation range of .495" (12,6 mm) through 1.115" (28,3 mm). Other types of semi-conductive shields, such as lead sheath or fabric tape, can be accommodated by using ELASTIMOLD shield adapters: 10TL, 20MA or 21MA.

No crimp connector is supplied with the 16THGS, Instead the solid cable conductor is extended above the terminator for connection to the aerial takeoff.

Ratings:

Per IEEE Std. 48 for Class 1 outdoor terminations

16kV Phase-to-ground

150kV BIL (1.2 x 50 microsecond wave)

AC Withstand:

65kV 1 min. -dry

55kV 6 hr. -dry

60kV 10 sec. -wet

DC Withstand:

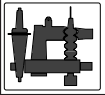
105kV 15 min. -dry

21.5kV Corona Extinction

Strike distance: 8.50" (22,0cm)

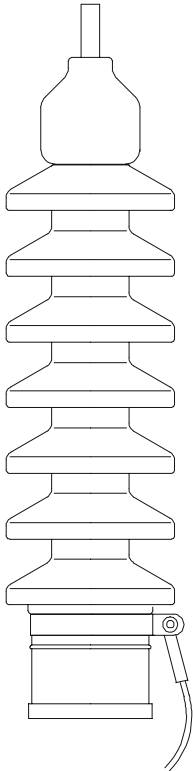
Creep distance: 18.00" (46cm)

Elastimold Terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems. Ratings are based on IEEE Std. 48 and do not reflect maximum levels.



25kV Single Piece Terminator For solid Conductor

16THGS-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper conductor code according to the conductor size. Insert code into the catalog number.

16THGS — Step 1 (W) Step 2 (X)

Cable Insulation Dia. Range		Housing Code
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB
.930 - 1.040	23,6 - 26,4	GH
.980 - 1.115	24,9 - 28,3	HA

Symbol for X	Riser Conductor Size AWG Solid
2	No. 2 & No. 1
10	1/0
20	2/0
30	3/0 & 4/0

The 16THGS-WX Terminators Kit contains the following:

- 1 - Rubber housing
- 1 - Crimp ring
- 1 - Grounding clamp
- 1 - Ring terminal for grounding drain wire
- 1 - Lubricant
- 1 - Installation instruction

Example:

The ordering number for a 16THGS Terminator Kit for 4/0 solid cable with an OD of .860" (21,8mm) is 16THGS-GAB30.

Installation Instructions 16THGS Single-Piece Outdoor Terminators for use on Solid Conductor Cables Only

CAUTION: All associated apparatus should be de-energized during installation and/or maintenance.

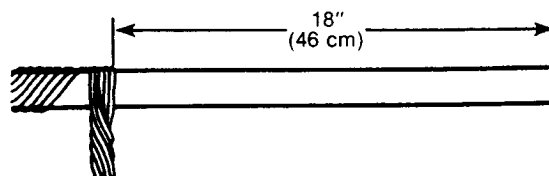
CONTENTS: 1—Rubber housing, 1—Crimp ring, 1—Cap, 1—Ground strap, 1—Washer, 1—Lubricant, 1—Wiping cloth, 1—Installation instruction, 1—Crimp chart.

NOTE: The 16THGS terminator is designed for use on dry (solid) dielectric cables, and can be applied directly on cables with extruded semi-conductive shields whether full-neutral concentric or drain-wire types. Other types of semi-conductive shields, such as lead sheath or fabric tape, require ELASTIMOLD shield adapters.

The instructions below are for installation on extruded semi-conductive shield with full-concentric neutral cable. Installation differences with other types of cable shielding are explained in the instructions packed with the adapters.

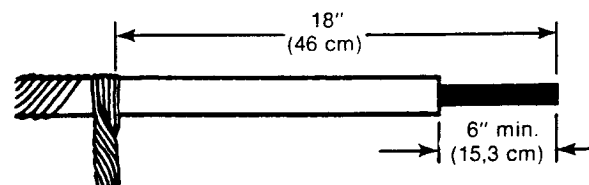
STEP 1

Train cable into position. Unwrap and fold back concentric wires 18" (45,7 cm) from end of the cable. Secure concentric wires at this point by wrapping with plastic electrical tape or a strand of wire (do not use one of the concentric neutral wires). Twist the loose concentric wires together to form a ground lead.



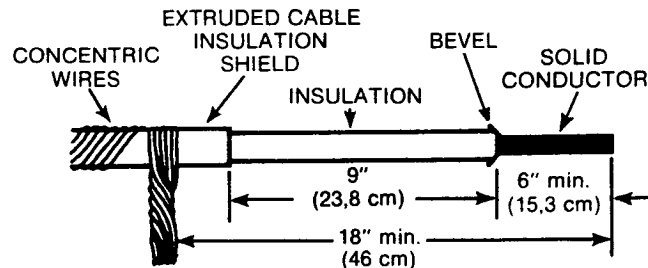
STEP 2

Carefully cut (avoid nicking or damaging the conductor strands) and remove the insulation from the end of the cable to a minimum distance of 6" (15 cm). One method of accomplishing this is with the use of a nylon string in a back and forth motion. If the conductor is damaged, cut the end off and start over. This will give 4-3/4" (12 cm) of bare solid conductor on which to make a take-off. If additional conductor is required for making the take-off, the concentric wires must be folded back 18" (45,7 cm), plus any distance over the 6" (15,3 cm) of bared solid conductor required. **Do not install crimp ring or cap.**



STEP 3

Carefully cut and remove the exposed extruded cable insulation shield a distance of 9" (23,8 cm) from the end of the insulation. Cut extruded cable insulation squarely. Again, a nylon string may be used. If insulation is damaged, cut off and start over. Bevel the edge of the cable insulation not more than 1/4" (6,4 mm).

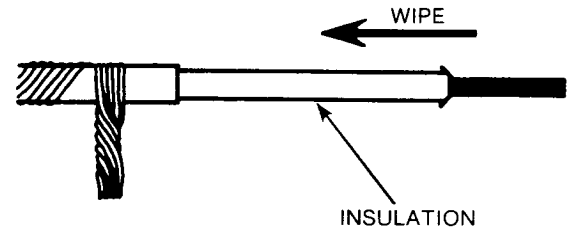


**ELASTIMOLD
DIVISION**

STEP 4

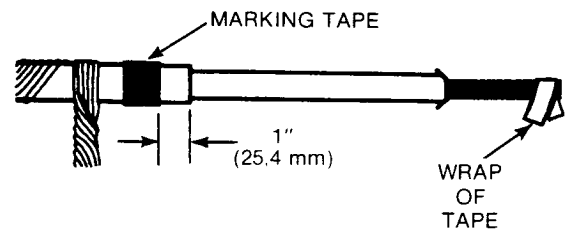
Clean the cable insulation by wiping **only** in the direction shown. This should be done by wiping with a clean cloth dampened with an approved safety solvent such as trichlorethylene or equivalent. Thoroughly clean all traces of conductive residue from the cable insulation wiping **only** in the direction shown.

Failure to remove all conductive residue from the cable insulation will be cause for failure.



STEP 5

Mark the extruded cable insulation shield by wrapping a piece of tape exactly 1" (25.4 mm) from the end of the extruded cable insulation shield. To prevent the cable conductor from damaging the inside of the terminator, wrap a piece of tape around the leading edge of the conductor. Damage to the inner surfaces of the terminator could result in unsatisfactory performance.



STEP 6

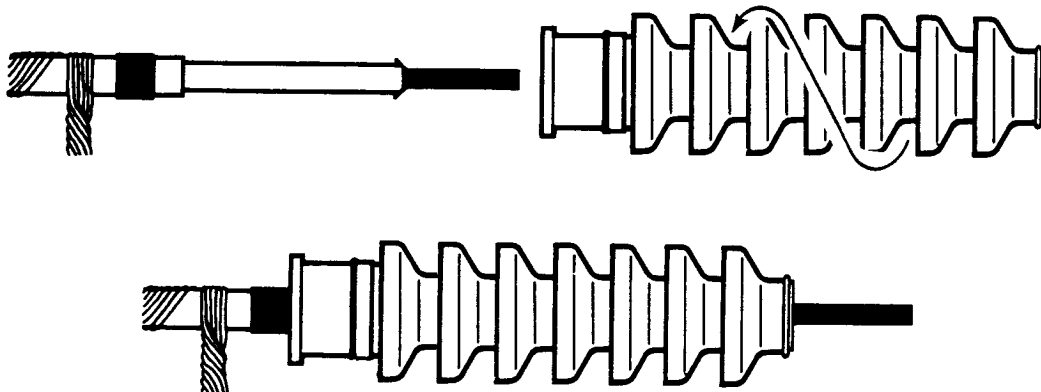
Before proceeding to Step 7, check Steps 3 and 5 to insure that correct cutback and taping have been accomplished. Lubricate the cable insula-

tion and the inside base surface of the terminator with the silicone grease provided. **Do not substitute.**

STEP 7

Slide the terminator housing down on the cable using a spiral motion. The base of the terminator housing **must** align with the wrap of tape on the extruded cable insulation shield, and the top of the terminator housing should be flush with the end of the cable insulation. Improper positioning

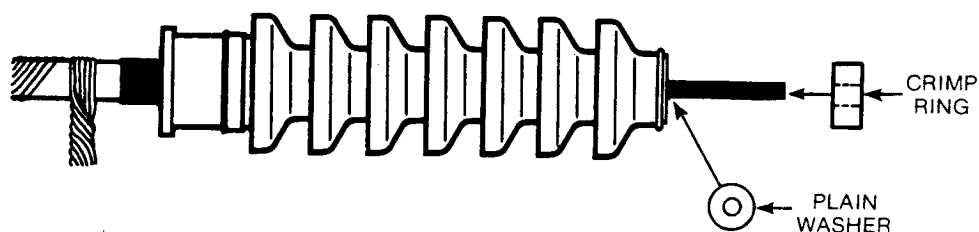
of the terminator on the cable could result in unsatisfactory performance. If the terminator housing does not align with the tape or is not flush with the cable insulation, remove the terminator housing and check Steps 3 and 5 again before proceeding to Step 8.



STEP 8

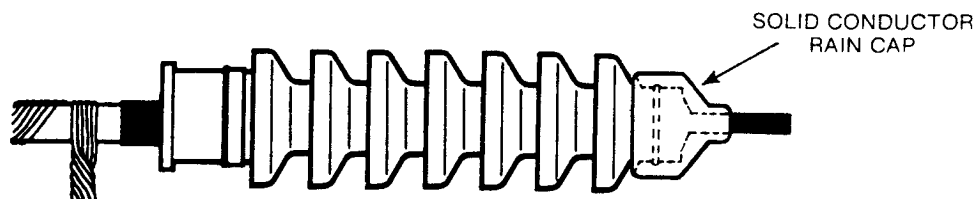
Place the plain washer over the bared conductor. Place the crimp ring over the bared conductor so the plain washer and the crimp ring are flush with

the top of the terminator housing. Now, crimp the crimp ring following the directions given in the crimp chart packaged with the crimp ring.

**STEP 9**

Lubricate the inside of the rain cap and the solid conductor with the silicone grease provided. **Do not substitute.** Slide the rain cap down the contact so it is fully seated and the groove in the bottom

of the cap snaps into place over the matching ring on the top of the terminator housing. Completely remove the wrap of tape from the solid conductor.

**STEP 10**

Make the takeoff on the solid conductor as desired.



**ELASTIMOLD
DIVISION**

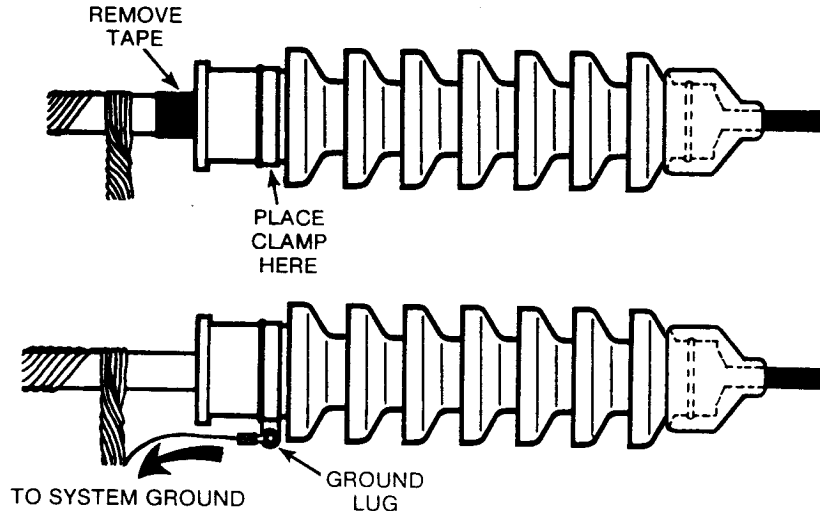
AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840, (201) 852-1122

17 OCTOBER 1977

STEP 11

If the terminator is not bracketed, place the grounding clamp around the terminator base. It is to be located directly under the shoulder and above the projecting rib. The dimension between the shoulder and the rib is 1/2" (12,7 mm) so after assembly, the clamp can not move up and down. Remove the marking tape and wipe off any grease

on the cable. Insert a separate No. 14 AWG copper wire or equivalent into the crimp lug supplied with the ground strap and crimp. Do not use one of the twisted concentric neutral wires. Connect the loose end of the No. 14 AWG wire to the concentric neutral wires on the cable and securely connect the twisted concentric neutral wires to ground.

**STEP 12**

If a terminator is to be bracketed, refer to the installation instructions supplied with the specific mounting bracket.

WARRANTY

ELASTIMOLD® PRODUCTS ARE WARRANTED TO PERFORM WITHIN THE RECOMMENDED OPERATIONAL RATINGS WHEN INSTALLED AND USED IN ACCORDANCE WITH APPLICABLE OPERATING INSTRUCTIONS. ELASTIMOLD'S LIABILITY IS LIMITED TO REPLACEMENT OF THE COMPONENT PARTS DESIGNED AND MANUFACTURED BY ELASTIMOLD WHICH ARE PROVED TO BE DEFECTIVE IN WORKMANSHIP OR MATERIAL.

ALL STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATION CONTAINED HEREIN ARE BASED ON TESTS WE BELIEVE TO BE RELIABLE, BUT THE ACCURACY OR COMPLETENESS THEREOF IS NOT GUARANTEED.

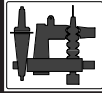
ELASTIMOLD HEREBY EXPRESSLY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, AND ALSO DISCLAIMS AND EXCLUDES ALL CONSEQUENTIAL AND INCIDENTAL DAMAGES FOR BREACH OF WARRANTY OR OF CONTRACT OR OTHERWISE.

IN ADJUSTMENT OF ANY CLAIMS, INSPECTION OF THE PARTS AND THE APPLICATION WILL BE REQUIRED. THIS WARRANTY IS EFFECTIVE FOR TWO (2) YEARS FROM THE DATE OF SHIPMENT BY ELASTIMOLD, BUT NOT LONGER.



**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY U.S.A. 07840 (201) 852-1122



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

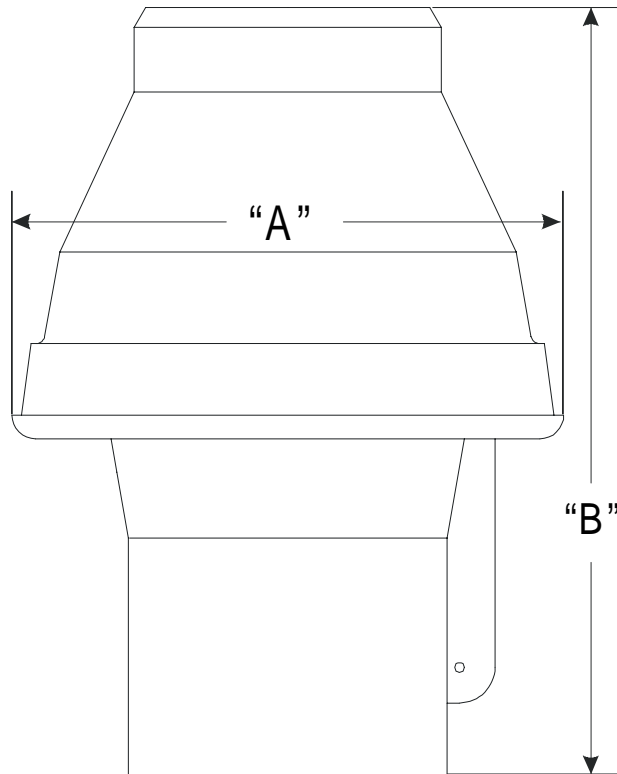
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

15/2535kV Stress Cone

ELASTIMOLD PART NUMBER

35MSC-W

Housing Code	"A" Dim.	"B" Dim.
EB	2.38" 60,3 mm	4.00" 101,6 mm
EF		
FA		
FAB		
FB		
FG		
GA		
GAB	5.63" 66,7 mm	
GB		
GH		
HA		
HAB		
HB		
HJ	2.88" 73,0 mm	
JA		
JAB		
JB	3.94" 100,0 mm	5.31" 134,9 mm
KA		
KAB		
KB		
PA		
PB		

Application:

The 35MSC series of stress cones provides a class 3 indoor termination conforming to the requirements of IEEE Std. 48 through 35kV. Typical uses include pad-mounted transformers, switchgear, and other indoor applications where shielded cable is being terminated.

The 35MSC is designed to accept cable insulation diameters from .495" (12,6mm) to 1.875" (47,6mm). While designed for use on concentric neutral cable, the 35MSC will operate equally as well on fabric shield or lead-jacketed cables when used with the proper ELASTIMOLD cable shield adapter or grounding device.

Ratings:

Per IEEE Std. 48 for Class 3 outdoor terminations

22.0kV Phase-to-ground

AC Withstand:

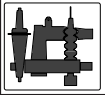
90kV 1 min. -dry

75kV 6 hr. -dry

Corona Extinction Voltage Level: 30kV

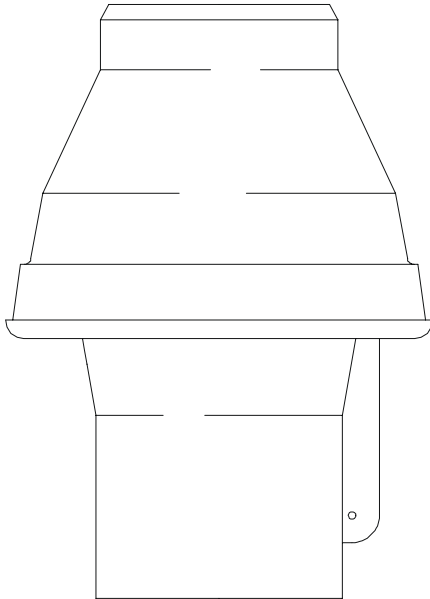
200kV BIL (1.2 x 50 micro second wave)

Elastimold 35MSC ratings are based on IEEE Std. 48 and do not reflect maximum levels.



15/25/35kV Stress Cone

35MSC-W



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

35MSC – Step 1 (W)

Cable Insulation Dia. Range		Housing Code
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB
.930 - 1.040	23,6 - 26,4	GH
.980 - 1.115	24,9 - 28,3	HA
1.040 - 1.175	26,4 - 29,9	HAB
1.095 - 1.240	27,8 - 31,5	HB
1.160 - 1.305	29,5 - 33,2	HJ
1.220 - 1.375	31,0 - 34,9	JA
1.285 - 1.395	32,6 - 35,4	JAB
1.335 - 1.520	34,4 - 38,6	JB
1.485 - 1.595	37,7 - 40,5	KA
1.530 - 1.640	38,9 - 41,7	KAB
1.575 - 1.685	40,0 - 42,8	KB
1.665 - 1.785	42,3 - 45,3	PA
1.755 - 1.875	44,6 - 47,6	PB

The 35MSC-W Stress Cone kit contains the following:

- | | |
|------------------------------|----------|
| 1 - Rubber housing | 35MSC-W |
| 1 - Lubricant | 82-08 |
| 1 - Installation instruction | IS-35MSC |

Example:

The ordering number for a 35MSC Terminator Kit for 25kV, 500 MCM stranded cable with an OD of 1.415" (35,9mm) is 35MSC-JB.

Installation Instructions 35MSC Stress Cone

CONTENTS: 1–Stress Cone, Lubricant (Do Not Substitute), 1–Installation Instructions

The 35MSC stress cone is designed to provide stress relief on 15kV, 25kV and 35kV indoor cable terminations. The installation instructions apply to concentric neutral cable only. If other constructions are being used, the installation instructions packed with the appropriate adapters are a **REQUIRED SUPPLEMENT** to these instructions.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

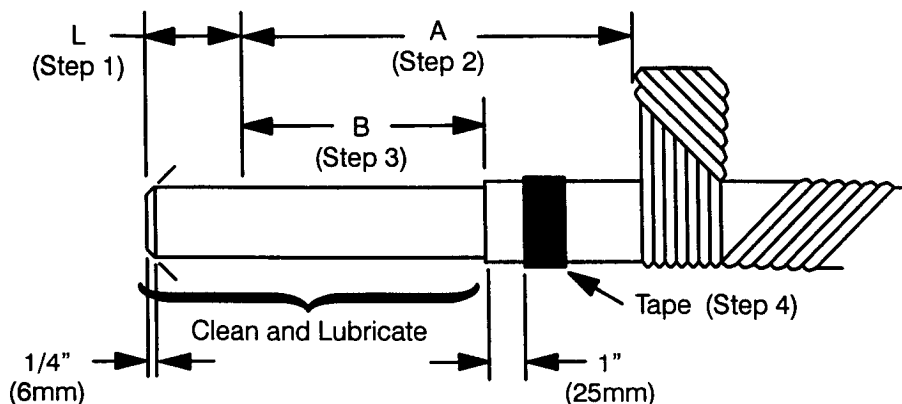
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Train the cable into position. Depending on your particular apparatus connection and space requirements, determine the length of minimum exposed cable which will be needed beyond the stress cone to make connection to the apparatus. Designate this length as "L". The measurements in Steps 2 and 3 will be referenced to the dimension "L".



15-0211

IS-35MSC (Rev G)
15 August 1991
Printed in U.S.A.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Division of Amerace Corporation

STEP 2

Bind the concentric neutral wires "L" plus "A" inches (see Table 1) from the end of the cable. Unwrap and fold back the wires to form a ground lead.

TABLE I

Rated Voltage	"A" Dimension			
	EB-JB		KA-PB	
	Inches	mm	Inches	mm
Up to 5kV	9	230	10-1/4	260
6 to 15kV	13	330	14-1/4	360
16 to 25kV	17-1/2	445	18-3/4	475
26 to 35kV	23-1/2	600	24-3/4	630

STEP 3

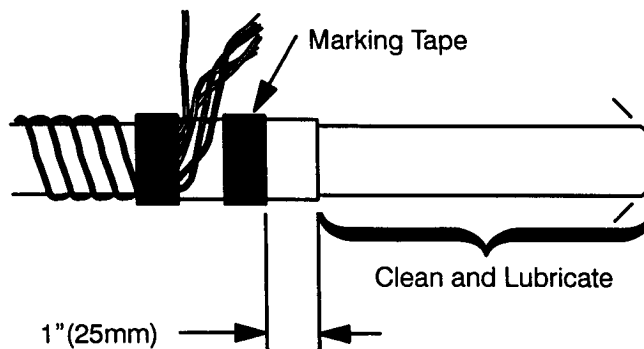
Carefully cut and remove the conducting shield for a distance of "L" plus "B" inches (See Table II) from the end of the insulation. Cut squarely at bottom being careful not to cut or nick the insulation because this could result in failure of the cable. Bevel the corner of cable insulation at top no more than 1/4" inch (6mm) back.

TABLE II

Rated Voltage	"B" Dimension			
	EB-JB		KA-PB	
	Inches	mm	Inches	mm
Up to 5kV	7	180	8-1/4	210
6 to 15kV	11	280	12-1/4	310
16 to 25kV	15-1/2	395	16-3/4	425
26 to 35kV	21-1/2	545	22-3/4	580

STEP 4

- Clean the outer jacket and thoroughly clean the insulation to remove all traces of semi-conducting residue. This may be done by wiping with a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the outer jacket.
- Mark the extruded shield with a wrap of tape exactly 1 inch (25mm) back from the shield end.

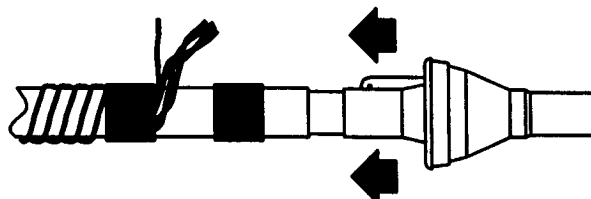


STEP 5

Apply the lubricant supplied or ELASTIMOLD approved lubricant sparingly to the cable insulation and the inside base surface of the stress cone. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product.

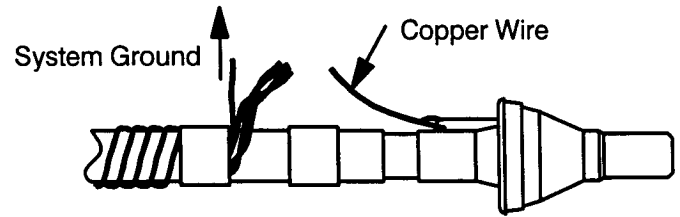
STEP 6

Slide the stress cone down on the cable using a spiral motion until the base of the stress cone is flush with the tape marker.



STEP 7

Remove the marking tape and wipe off any lubricant on the cable and conductor.

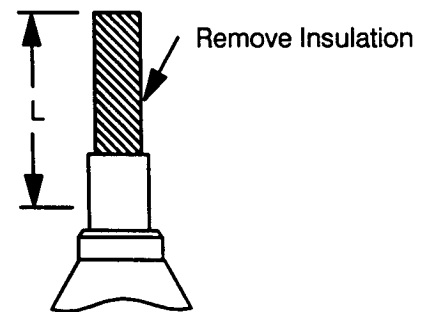


STEP 8

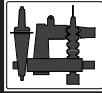
Connect a wire (No. 14 copper or equivalent) to the grounding eye of the stress cone. Take this wire and the concentric neutral wires to system ground.

STEP 9

Remove sufficient insulation to make the connection to the apparatus. Take care not to damage the conductor. Do not remove more than "L" length. See Step 1.



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Division of Amerace Corporation



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

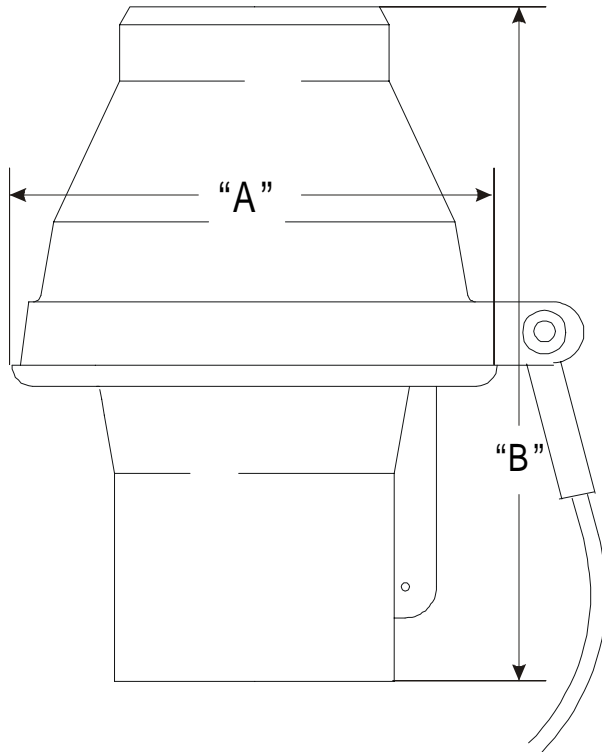
I

DESCRIPTION

15/25/35kV Stress Cone w/ Ground Strap

ELASTIMOLD PART NUMBER

35MSCI-W



Housing Code	"A" Dim.	"B" Dim.
EB	2.38" 60,3 mm	4.00" 101,6 mm
EF		
FA		
FAB		
FB		
FG		
GA		
GAB	5.63" 66,7 mm	
GB		
GH		
HA		
HAB		
HB	2.88" 73,0 mm	
HJ		
JA		
JAB		
JB	3.94" 100,0 mm	5.31" 134,9 mm
KA		
KAB		
KB		
PA		
PB		

Application:

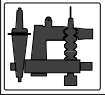
The 35MSC series of stress cones provides a class 3 indoor termination conforming to the requirements of IEEE Std. 48 through 35kV. Typical uses include pad-mounted transformers, switchgear, and other indoor applications where shielded cable is being terminated.

The 35MSCI is supplied complete with grounding strap to provide easy connection to ground. Units are designed to accept cable insulation diameters from .495" (12,6mm) to 1.875" (47,6mm). While designed for use on concentric neutral cable, the 35MSCI will operate equally as well on fabric shield or lead-jacketed cables when used with the proper ELASTIMOLD cable shield adapter or grounding device.

Ratings:

Per IEEE Std. 48 for Class 3 outdoor terminations
22.0kV Phase-to-ground
AC Withstand:
90kV 1 min. -dry
75kV 6 hr. -dry
Corona Extinction Voltage Level: 30kV
200kV BIL (1.2 x 50 micro second wave)

Elastimold 35MSC ratings are based on IEEE Std. 48 and do not reflect maximum levels.



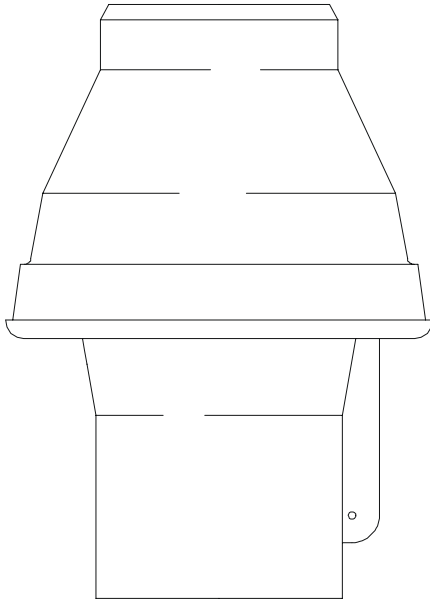
15/2535kV Stress Cone w/ Ground Strap

35MSCI-W

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.



Step 1 (W)

35MSCI –

Cable Insulation Dia. Range		Housing
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB
.930 - 1.040	23,6 - 26,4	GH
.980 - 1.115	24,9 - 28,3	HA
1.040 - 1.175	26,4 - 29,9	HAB
1.095 - 1.240	27,8 - 31,5	HB
1.160 - 1.305	29,5 - 33,2	HJ
1.220 - 1.375	31,0 - 34,9	JA
1.285 - 1.395	32,6 - 35,4	JAB
1.335 - 1.520	34,4 - 38,6	JB
1.485 - 1.595	37,7 - 40,5	KA
1.530 - 1.640	38,9 - 41,7	KAB
1.575 - 1.685	40,0 - 42,8	KB
1.665 - 1.785	42,3 - 45,3	PA
1.755 - 1.875	44,6 - 47,6	PB

The 35MSCI-W Stress Cone kit contains the following:

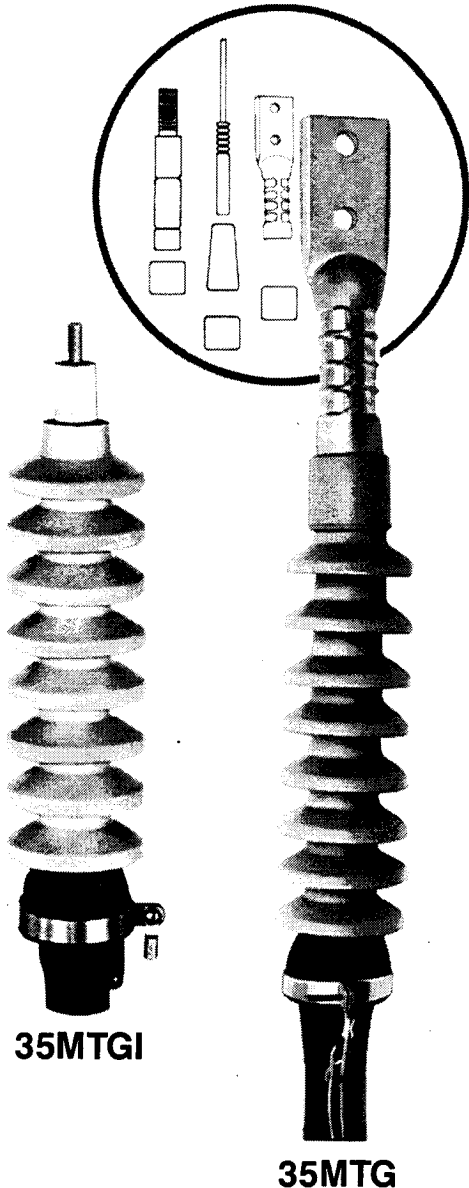
- 1 - Rubber housing
- 1 - Grounding strap
- 1 - Ring terminal for grounding drain wire
- 1 - Lubricant
- 1 - Installation instruction

Example:

The ordering number for a 35MSCI Terminator Kit for 25kV, 500 MCM stranded cable with an OD of 1.415" (35,9mm) is 35MSCI-JB.

ELASTIMOLD®

35MTG MODULAR TERMINATORS 35MTGI (For Use Through 35kV)



APPLICATION

The 35MTG series of terminations provides a class 1 indoor or outdoor termination conforming to the requirements of IEEE Standard 48-1975 for 15, 25 and 35kV (depending on the number of rubber modules) systems. The 35MTGI version is a class 2 termination for indoor application only. For 15kV outdoor applications, four modules are required; at 25kV, six or eight are used; and at 35kV, six to ten modules are needed. (See table below) Additional modules may be added to increase creep distance.

Typical uses for the 35MTG would be on riser poles either at the substation or on the distribution line. The 35MTG can also be used on the switchgear and pad-mounted transformers.

Typical uses for the 35MTGI are in switchgear and pad-mounted transformers, particularly where space limitations do not allow the cable shield cutback distance required of a conventional stress cone installation.

The 35MTG and 35MTGI for application through 35kV are designed for use on extruded dielectric cables, and can be applied directly on cables with extruded semi-conductive shield whether full-neutral or drain wire types. The 35MTG is designed for aluminum or copper conductors in the No. 6 AWG to 1000KCMIL size range. The 35MTG and 35MTGI fit an insulation diameter range of .825" (21,0mm) to 1.875" (47,6mm). Other cables can be terminated by adding on the appropriate ELASTIMOLD cable shield adapters and grounding devices. Refer to catalog section 600.

INSTALLATION

After cable preparation, installation is accomplished by first sliding the stress cone base onto the cable until it seats on the cable shield. Next, the individual modules are slid on. The ground clamp is attached then the apparatus connection completes the installation for the 35MTGI. For the 35MTG, the cable connector is crimped on and a waterproof cap is added.

	RECOMMENDED NUMBER OF MODULES			
	35MTG		35MTGI	
	GA-JB	KA-PB	GA-JB	KA-PB
15kV	4	4	4	4
25kV	8	6	6	6
35kV	10	8	8	6

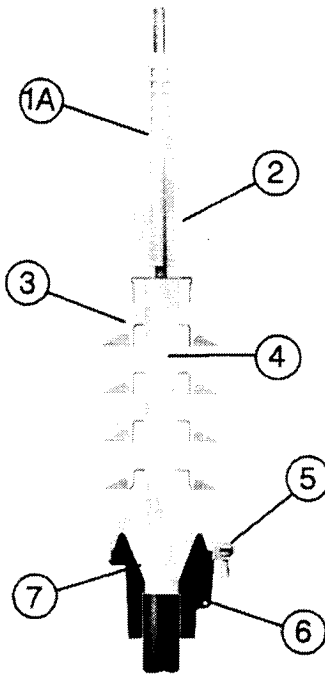
ELECTRICAL RATINGS 35MTG/35MTGI*

Voltage (Phase-to-phase)	15kV	25kV	35kV
Impulse 1.2 x 50 Wave	110kV	150kV	200kV
Corona Extinction Voltage Level	30kV @ 3 pc		
Current Rating	Equal to Cable		

*Ratings are based on IEEE Standard 48-1975 and do not reflect maximum withstand levels. For compliance with other standards, refer to your ELASTIMOLD representative.

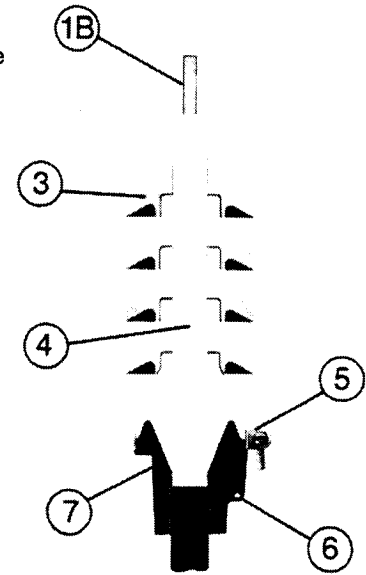
MODULAR TERMINATORS

35MTG



- 1A. **METAL CONNECTORS**(for aluminum or copper conductors)
Threaded stud for sizes 1/0 and larger accepts a variety of take-off hardware. Rod contact for 4/0 and smaller sizes can be directly connected to cut-out or equipment lugs. Two-hole spade for sizes 4/0 and larger can be bolted to flat metal surfaces. Connectors are Class "A" rated.
- 1B. **CABLE CONDUCTOR** For connection to apparatus.
2. **MOLDED RUBBER CAP**
Provides complete water seal integrity through an interference fit to both connector and modules.
3. **NON-TRACKING RUBBER MODULES**
Molded of special EPDM compounds for functional reliability and long life.
4. **CABLE INSULATION**
Primary insulation is provided since cable insulation carries through the terminator. This is supplemented by the protective molded jacket.
5. **GROUND CLAMP**
Metal clamp provides a protective takeoff to systems ground.
6. **GROUND EYE**
Hole provides a convenient point to connect a ground wire to the molded conductive shield and places the molded shield at ground potential.
7. **MOLDED STRESS RELIEF**
Molded stress relief assures proper stress relief for terminating cable. A patented ELASTIMOLD® feature.

35MTGI



ORDERING INSTRUCTIONS

35MTG

To order the modular terminator kit, complete the ordering formula, 35MTG-WX N CA as follows:

1. Determine the diameter of the cable *insulation*. **DO NOT** measure the diameter over the cable jacket, if any, or over the insulation shielding.
2. From Table W, select the range and associated symbol that locates the insulation OD nearest to the midpoint of the range. Insert this symbol for **W** in the ordering formula.
3. From Table X, select the symbol for the conductor size and type. Insert this symbol for **X** in the ordering formula.
4. The **N** in the ordering formula designates the number of modules required.
for 15kV, N=4
for 25kV, N=8 for sizes GA-JB or 6 for sizes KA-PB
for 35kV, N=10 for sizes GA-JB or 8 for sizes KA-PB
5. Select from Table C the type of connector required and substitute the proper symbol for **C** in the ordering formula.
6. (Optional). Select from Table A the symbol for the aerial lug which will fit the stud selected in Step 5 (Applicable to connector types 1 & 2 only.) If no aerial lug is required, use 00 for A.

35MTGI

To order the modular terminator kit, complete the ordering formula, 35MTGI-W-N as follows:

1. Determine the diameter of the cable insulation. **DO NOT** measure the diameter over the cable jacket, if any, or over the insulation shielding.
2. From Table W, select the range and associated symbol that locates the insulation OD nearest to the midpoint of the range. Insert this symbol for **W** in the ordering formula.
3. The **N** in the ordering formula designates the number of modules required.
for 15kV, N=4
for 25kV, N=6
for 35kV, N=8 for sizes GA-JB or 6 for sizes KA-PB

35MTG-

W X - N - C - A

35MTGI-

W

N

EXAMPLE:

The ordering number for a 35kV terminator for use on 2/0 stranded copper cable with an insulation diameter of .846" (21,5mm) and 3/4" threaded connector for connection to a flat bus (aerial take-off) is: 35MTG-GAB20-10-1-12.

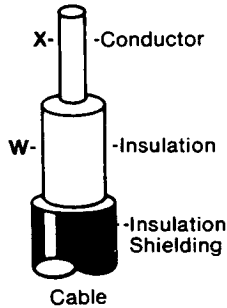


TABLE A AERIAL LUG (Optional)
(If None Required Use "00" for A)

Symbol For A	Aerial Lug Type	Take-Off	Stud
11	Universal	1/0-500 kcmil or Flat Bus	3/4"-16
12	2-Hole Spade	Flat Bus	3/4"-16
21	Universal	2-1000 kcmil or Flat Bus	1"-14
22	2-Hole Spade	Flat Bus	1"-14

TABLE C CONNECTOR STYLE
(For Aluminum or Copper Cable)

Symbol for C	Connector	Conductor Range
1	3/4"-16thd Stud	1/0-350 kcmil
2	1"-14thd Stud	400-500 kcmil
3	Two-hole Spade	4/0-1000 kcmil
4	Universal Rod	6-4/0

	RECOMMENDED NUMBER OF MODULES			
	35MTG		35MTGI	
	GA-JB	KA-PB	GA-JB	KA-PB
15kV	N = 4	N = 4	N = 4	N = 4
25kV	N = 8	N = 6	N = 6	N = 6
35kV	N = 10	N = 8	N = 8	N = 6

TABLE W
CABLE INSULATION OD

Symbol For W	Insulation Diameter - Inches		Insulation Diameter - mm	
	Min.	Max.	Min.	Max.
GA	.775	.885	19,7	22,5
GAB	.825	.935	21,0	23,8
GB	.875	.985	22,2	25,0
GH	.930	1.040	23,6	26,4
HA	.980	1.115	24,9	28,3
HAB	1.040	1.175	26,4	29,9
HB	1.095	1.240	27,8	31,5
HJ	1.160	1.305	29,5	33,2
JA	1.220	1.375	31,0	34,9
JAB	1.285	1.395	32,6	35,4
JB	1.355	1.520	34,4	38,6
KA	1.485	1.595	37,7	40,5
KAB	1.530	1.640	38,9	41,7
KB	1.575	1.685	40,0	42,8
PA	1.665	1.785	42,3	45,3
PB	1.755	1.875	44,6	47,6

TABLE X CONDUCTOR SIZE

Symbol for X	CONDUCTOR SIZE - AWG or kcmil				Crimp Conn. supplied w/Take-Off	Connector Style No. Available (for refer.)
	Stranded	Compressed	Compact	Solid		
3	6	5	4	4	Annealed Copper Rod 292" (7,4mm) Dia. x 7" (177,8mm) long	-4
2	4	3	2	2		
1	2	-	1	1		
0	1	-	1/0	-	Annealed Copper Rod 348" (9,5mm) Dia. x 5" (127,0mm) long	-1
10	1/0	1/0	2/0	-		
20	2/0	2/0	3/0	-	Annealed Copper Rod 1/2" (12,7mm) Dia. x 5" (127,0mm) long	-2
30	3/0	3/0	4/0	-		
40	4/0	4/0	250 kcmil	-	Copper Stud 34" 16thd x 2-1/4" (57,2mm)	-3
250	250 kcmil	250 kcmil	300 kcmil	-		
300	300 kcmil	300 kcmil	350 kcmil	-		
350	350 kcmil	350 kcmil	400 kcmil	-		
400	400 kcmil	400 kcmil	450 kcmil	-		
450	450 kcmil	450 kcmil	500 kcmil	-		
500	550 kcmil	500 kcmil	-	-		
550	550 kcmil	550 kcmil	650-700 kcmil	-		
600	600 kcmil	600 kcmil	750 kcmil	-		
650	650-700 kcmil	650-700 kcmil	800 kcmil	-		
750	750-800 kcmil	750-800 kcmil	-	-	Copper Stud 1" 14thd x 2-1/2" (57,2mm) long	
800	800 kcmil	800 kcmil	-	-		
900	900 kcmil	900 kcmil	1000 kcmil	-		
1000	1000 kcmil	1000 kcmil	-	-		
					Two-Hole Spade	

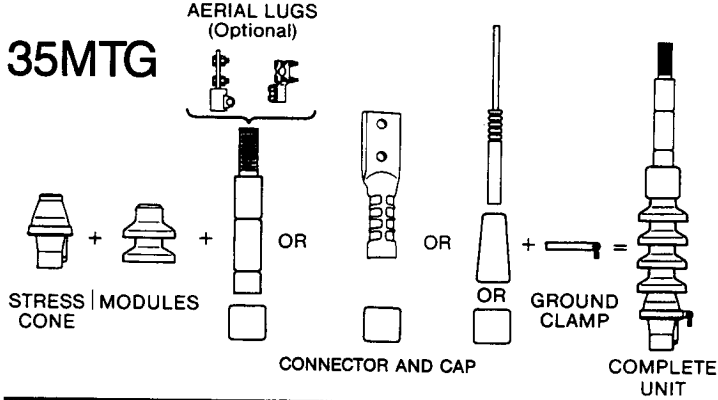
The modular terminator kit contains the following:

- 1—Stress cone
- 1—Lubricant
- N—Modules
- 1—Wiping cloth
- 1—Connector
- 1—Crimp chart
- 1—Cap
- 1—Installation instruction
- 1—Ground clamp

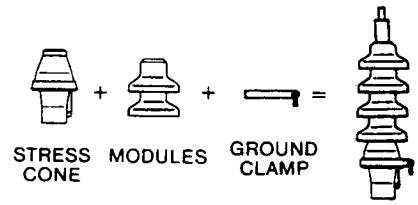
The 35MTGI modular terminator kit contains the same items as the 35MTG less the connector cap and crimp chart.

To order component parts refer to the 35MTG/35MTGI Component Parts catalog page 4.

COMPONENT PARTS



35MTGI



CONTACTS

To order substitute for **W**, **X** and **C** in the ordering formula:
35MTCGA-WXC

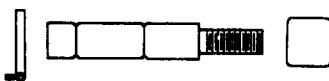
For **W** refer to Table **W** under Stress Cones and Modules. This dimension is required for the cap supplied with the connector.

3/4" THREADED STUD
-1/0-350kcmil STRANDED



For C substitute-1

1" THREADED STUD
-400-800kcmil STRANDED-



For C substitute-2

Symbol for X	Conductor Size AWG-kcmil			
	Stranded	Compressed	Compact	Solid
10	1/0	1/0	2/0	2/0
20	2/0	2/0	3/0	3/0
30	3/0	3/0	4/0	4/0
40	4/0	4/0	-	-
250	250 kcmil	250 kcmil	300 kcmil	-
300	300 kcmil	300 kcmil	350 kcmil	-
350	350 kcmil	350 kcmil	400 kcmil	-

Symbol for X	Conductor Size kcmil			
	Stranded	Compressed	Compact	Solid
400	400	400	450	-
450	450	450	500	-
500	500	500	-	-
550	550	550	650	-
600	600	600	750	-
650	650	650	800	-
750	750	750	-	-
	800	800	-	-

TWO-HOLE SPADE
4/0-1000kcmil STRANDED



For C substitute -3

Symbol for X	Conductor Size AWG-kcmil			
	Stranded	Compressed	Compact	Solid
40	4/0	4/0	250	-
250	250	250	300	-
300	300	300	350	-
350	350	350	400	-
400	400	400	450	-
450	450	450	500	-
500	500	500	600	-
550	550	550	650	-
600	600	600	750	-
650	650	650	800	-
700	700	700	800	-
750	750	750	900	-
800	800	800	-	-
900	900	900	1000	-
1000	1000	1000	-	-

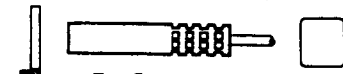
UNIVERSAL ROD CONNECTOR
6-2 STRANDED



For C substitute -4

Symbol for X	Conductor Size AWG-kcmil			
	Stranded	Compressed	Compact	Solid
3	6	5	4	4
2	4	3	2	2
1	2	-	1	1

UNIVERSAL ROD CONNECTOR
1-4/0 STRANDED



For C substitute -4

Symbol for X	Conductor Size AWG-kcmil			
	Stranded	Compressed	Compact	Solid
0	1	-	1/0	-
10	1/0	-	2/0	-
20	2/0	-	3/0	-
30	3/0	-	4/0	-
40	4/0	-	250 kcmil	-

STRESS CONES AND MODULES

Determine the symbol for **W** and **N**. To order substitute for **W** in the applicable formula shown below. The **N** designates the number of modules required.

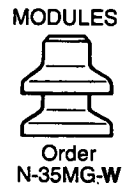
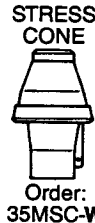


TABLE W
CABLE INSULATION OD

Symbol For W	Insulation Diameter - Inches		Insulation Diameter - mm	
	Min.	Max.	Min.	Max.
GA	.775	.885	19.7	22.5
GAB	.825	.935	21.0	23.8
GB	.875	.985	22.2	25.0
GH	.930	1.040	23.6	26.4
HA	.980	1.115	24.9	28.3
HAB	1.040	1.175	26.4	29.9
HB	1.095	1.240	27.8	31.5
HJ	1.160	1.305	29.5	33.2
JA	1.220	1.375	31.0	34.9
JAB	1.285	1.395	32.6	35.4
JB	1.355	1.520	34.4	38.6
KA	1.485	1.595	37.7	40.5
KAB	1.530	1.640	38.9	41.7
KB	1.575	1.685	40.0	42.8
PA	1.665	1.785	42.3	45.3
PB	1.755	1.875	44.6	47.6

Note: Additional modules may be ordered as required: they are shipped two to a package.

AERIAL LUGS

To order determine the symbol for **A** in the formula given below:

Order: 35AL-A

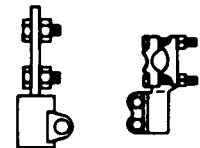
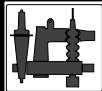


TABLE A

Lug Type	Contact Type	Lug Take-off Wire Size	Symbol For A
Universal	3/4"-16 Stud	1/0 to 500 kcmil	11
2-Hole Spade	3/4"-16 Stud	-	12
Universal	1"-14 Stud	2 to 1000 kcmil	21
2-Hole Spade	1"-14 Stud	-	22





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

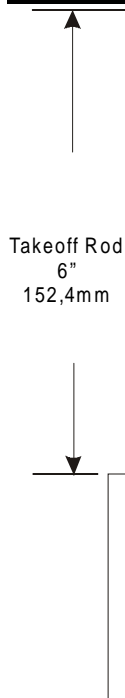
PRODUCT SPECIFICATION SHEET

C

DESCRIPTION

Rod Contact for PCT

ELASTIMOLD PART NUMBER

0700XXX

Standard Rod Contact Sizes	
Conenctor Code No.	Takeoff Size
0220	1/4" OD X 6" Long
1230	
1240	
0230	3/8" OD X 6" Long
0240	
1250	
1260	
1270	X 6" Long 1/2" OD
0250	
0260	
0270	

Ordering Instruction:

Step 1 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

0700XXX Step 1 (X)

Conductor Size* (AWG or kcmil)	Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact
2	0220	0210
1	0230	0220
1	1230*	-
1/0	0240	0230
1/0	1240*	1230*
2/0	0250	0240
2/0	1250*	-
3/0	0260	0250
3/0	1260*	1250*
4/0	0270	0260
4/0	1270*	1260*

*For aluminum conductor only

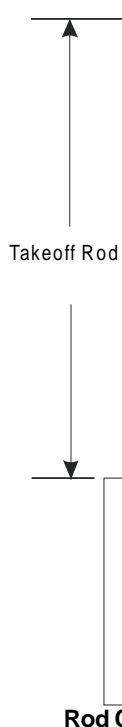
The Rod Contact contains the following:

- 1 - Rod contact 0700XXX
- 1 - Installation instruction IS-00700XXXX-CC

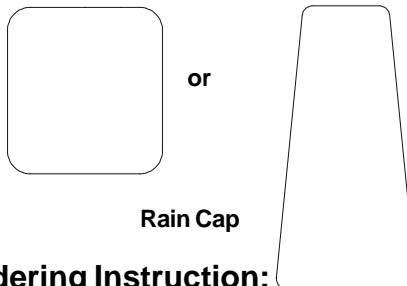
DESCRIPTION

Rod Contact Accessory Kit for 16THG

ELASTIMOLD PART NUMBER

16TCA-X

Standard Rod Contact Sizes	
Conenctor Code No.	Takeoff Size
0180	1/4" OD X 6" Long
0190	
0200	
0210	
0220	3/8" OD X 5" Long
0240	
0250	
0260	
0270	
0270	X 5" Long



Ordering Instruction:

Step 1 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

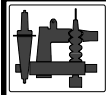
16TCA - Step 2 (X)

Conductor Size* (AWG or kcmil)	Riser Conductor	Compression Lug Code Number	
		Stranded/Compr.	Solid/Compact
6	Al/Cu	0180	-
5	Al/Cu	0190	0180
4	Al/Cu	0200	0190
3	Al/Cu	0210	0200
2	Al/Cu	0220	0210
1	Al	1230	0220
1/0	Al	1240	1230
1	Al/Cu	0230	-
1/0	Al/Cu	0240	0230
2/0	Al/Cu	0250	0240
3/0	Al/Cu	0260	0250
4/0	Al/Cu	0270	0260
250	Al/Cu	-	0270

The 16TCA-X Rod Contact kit contains the following:

- 1 - Rod contact
- 1 - Rain cap
- 1 - Grounding strap
- 1 - Ring terminal for grounding drain wire
- 1 - Lubricant
- 1 - Installation instruction

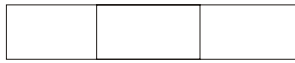
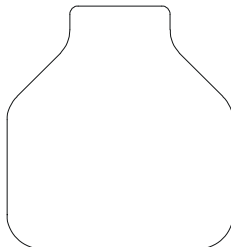




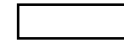
DESCRIPTION

Accessory Kit for 16THGS

ELASTIMOLD PART NUMBER

16CAS-X**Crimp Ring****Ground Strap****Rain Cap****16CAS**

Step 1 (X)

**Ordering Instruction:****Step 1 (X)**

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Symbol for X	Riser Conductor Size AWG Solid
2	No. 2 & No. 1
10	1/0
20	2/0
30	3/0 & 4/0

The 16CAS-X Rod Contact kit contains**the following:**

- 1 - Crimp ring
- 1 - Rain cap
- 1 - Grounding strap
- 1 - Ring terminal for grounding drain wire
- 1 - Lubricant
- 1 - Installation instruction



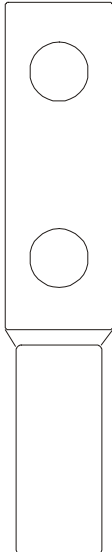
PRODUCT SPECIFICATION SHEET

C

DESCRIPTION

Two-Hole Spade for PCT

ELASTIMOLD PART NUMBER

01000X**Ordering Instruction:****Step 1 (X)**

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 1 (X)

01000

|

Conductor Size (AWG or kcmil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260

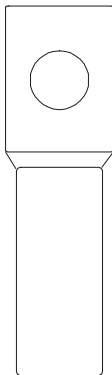
The Rod Contact contains the following:

- 1 - Rod contact 01000X
- 1 - Installation instruction IS-01000X

DESCRIPTION

One-Hole Spade for PCT**C**

ELASTIMOLD PART NUMBER

01100X**Ordering Instruction:****Step 1 (X)**

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

Step 1 (X)

01100

|

Conductor Size (AWG or kcmil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260

The Rod Contact contains the following:

- 1 - Rod contact 01100X
- 1 - Installation instruction IS-01100X

Crimping Tools and Dies Recommended For Use with Elastimold Aluminum Two- -Hole Spade Connectors FOR USE ON ALUMINUM OR COPPER CONDUCTORS

CONDUCTOR SIZE AWG OR KCM		CATALOG NO. 01000	NOMINAL CRIMP BARREL O.D.	BURNDY			KEARNEY			BLACKBURN	T & B	CSA
STR.	COMPT.			MD6	Y35	Y45**	O	H1,H2	PH 25	JB12A	HYDRAULIC	
		DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	
2 1 1/0	1 1/0 2/0	220 230 240	0.640" (16,26mm)	BG NOSE(4) WBG(2), W243(3)	U25ART(†) U25RYFT(1) UBG(2) U27RT(2)	U25ART(†) U25RYFT(1) UBG(2) U27RT(2)	%P8 NOSE(4) 620 (2)	(P16(2) 572(2)	—	B24EA(†)	—	22
2/0 3/0 4/0 250	3/0 4/0 250 300	250 260 270 280	0.906" (23,01mm)	W249(3)	U29ART(2) U28RYFT(†) U27RLYRT(†)	U29ART(2) U28RYFT(†) U27RLYRT(†)	840(4)	840(3)	840(1)	B49EA(†)	76H(†)	—
300 350	350 400	290 300	1.152" (29,26mm)	—	U32ART(3) U321RYFT(†)	U32ART(3) U321RYFT(†)	—	1.00(2)	1.00(1)	—	94H(†)	—
400 450 500 550 600 650 700/750	450/500 500 550 600 650 700/750 800/900	310 320 330 340 350 360 380	1.600" (40,64mm)	—	—	S39ART(5)	—	1 1/2 (5)	1 1/2 (3)	—	—	—

** U Dies require adapter No. 6515.

{ Dies indicated use maximum number of crimps without overlapping.

() Number of crimps without overlapping.

Rotate each successive crimp 90_ or 180_ to prevent excessive distortion.



ELASTIMOLD

Crimping Tools and Dies Recommended For Use with Elastimold Aluminum One- -Hole Spade Connectors FOR USE ON ALUMINUM OR COPPER CONDUCTORS

CONDUCTOR SIZE AWG OR KCM		CATALOG NO. 01100	NOMINAL CRIMP BARREL O.D.	BURNDY			KEARNEY			BLACKBURN	T & B	CSA
STR.	COMPT.			MD6, MD7	Y35	Y45**	O	H1,H2	PH 25	JB12A	HYDRAULIC	
				DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.
2 1 1/0	1 1/0 2/0	220 230 240	0.640" (16,26mm)	BG NOSE(4) WBG(1), W243(2)	U25ART(†) U25RYFT(1) UBG(1) U27RT(1)	U25ART(†) U25RYFT(1) UBG(1) U27RT(1)	%P8 NOSE(4) 620 (2)	(P16(2) 572(1)	—	B24EA(†)	—	22(1)
2/0 3/0 4/0 250	3/0 4/0 250 300	250 260 270 280	0.906" (23,01mm)	W249(3)	U29ART(2) U28RYFT(†) U27RLYRT(†)	U29ART(2) U28RYFT(†) U27RLYRT(†)	840(4)	840(3)	840(1)	B49EA(†)	76H(†)	—
300 350	350 400	290 300	1.152" (29,26mm)	—	U32ART(3) U321RYFT(†)	U32ART(3) U321RYFT(†)	—	1.00(2)	1.00(1)	—	94H(†)	—
400 450 500 550 600 650 700/750	450/500 500 550 600 650 700/750 800/900	310 320 330 340 350 360 380	1.600" (40,64mm)	—	—	S39ART(4)	—	1 1/2 (4)	1 1/2 (2)	—	—	—

** U Dies require adapter No. 6515.

{ Dies indicated use maximum number of crimps without overlapping.

() Number of crimps without overlapping.

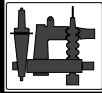
Rotate each successive crimp 90_ or 180_ to prevent excessive distortion.



Esna Park Drive, Hackettstown, New Jersey 07840 USA

(908)852- -1122 FAX: (908)813- -2147

A Unit of Thomas & Betts Corporation



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

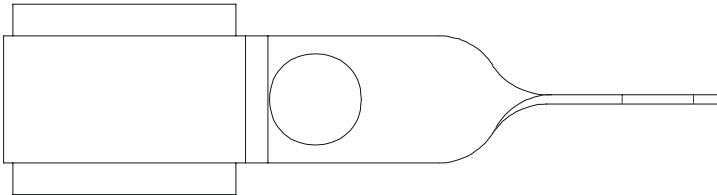
PRODUCT SPECIFICATION SHEET

DESCRIPTION

PCT Positioning Bracket

ELASTIMOLD PART NUMBER

PB-1



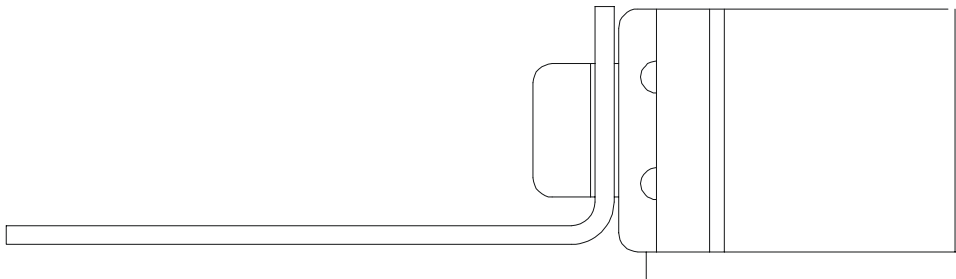
The PB-1 bracket is designed for use with PCT type terminators. It consists of a mounting strap and support bracket. The entire assembly can be mounted on a horizontal pad or surface. To order, specify **PB-1**.

DESCRIPTION

16THG Bracket

ELASTIMOLD PART NUMBER

16TB-2

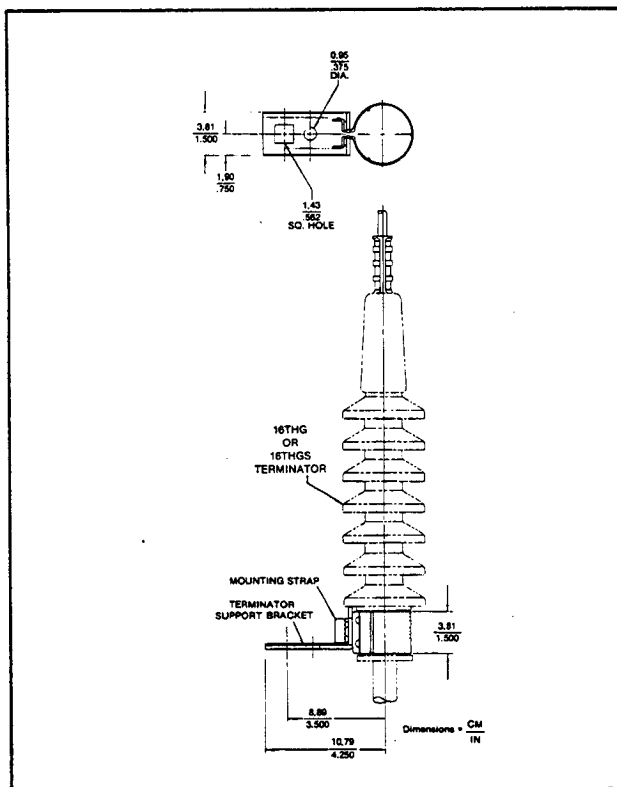


The 16TB-2 bracket is designed for use with 16THG type terminators. It consists of a mounting strap and support bracket. The entire assembly can be mounted on a horizontal pad or surface. To order, specify **16TB-2**.

16TB Mounting Brackets

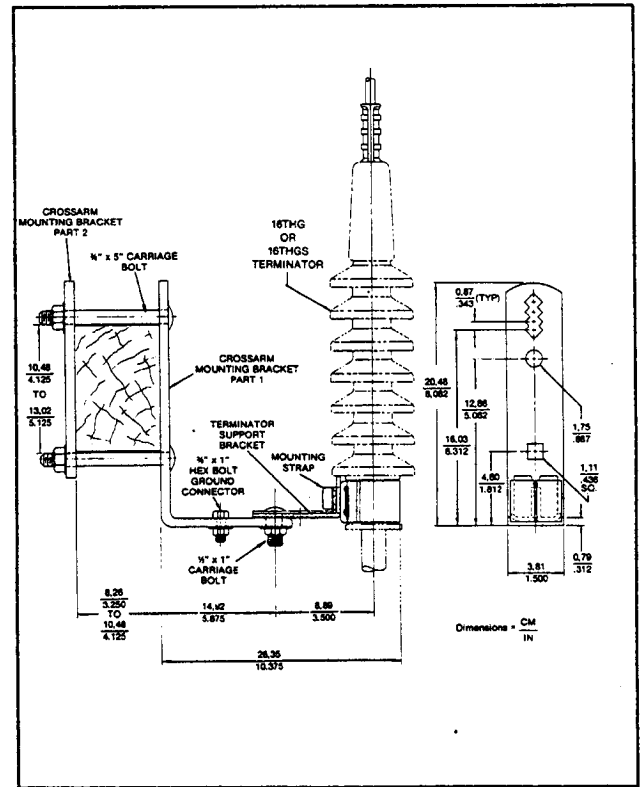
FOR ELASTIMOLD SINGLE-PIECE TERMINATORS

Four mounting bracket assemblies are available for use with the Elastimold single-piece terminators. Each bracket assembly has been designed for a particular type of riser pole installation. Examine the drawings and descriptions below and on the reverse side of the sheet to determine which assembly will best suit your installation needs. In all cases, the mounting strap gripping the terminator is non-magnetic stainless steel. The brackets mounted on the pole or crossarm are hot-dip galvanized, per ASTM specification A153-67, Class B-2.



16TB-2

This assembly consists of a mounting strap plus a terminator support bracket. By attaching the mounting strap to the terminator support bracket, the entire assembly can be mounted on a horizontal pad or surface. Specify a 16TB-2.



16TB-3

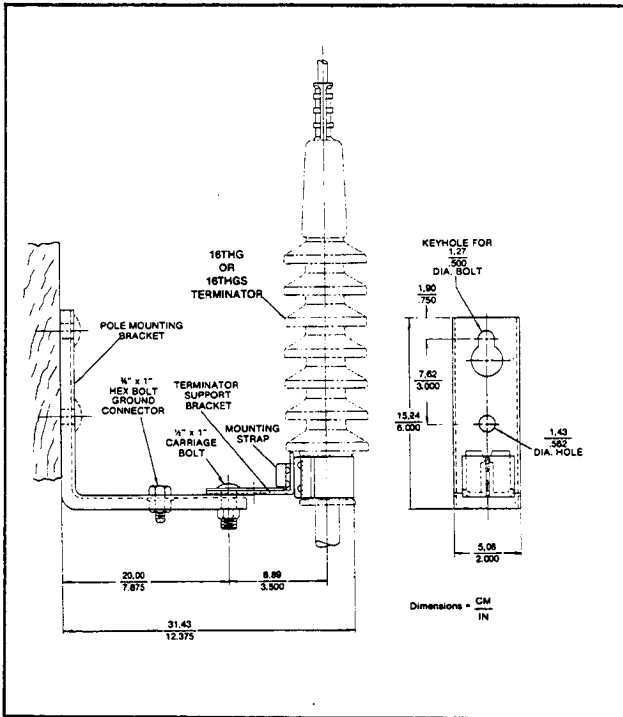
This assembly consists of a mounting strap, a terminator support bracket and crossarm mounting bracket. This assembly is bolted to the crossarm. Specify a 16TB-3.



ELASTIMOLD

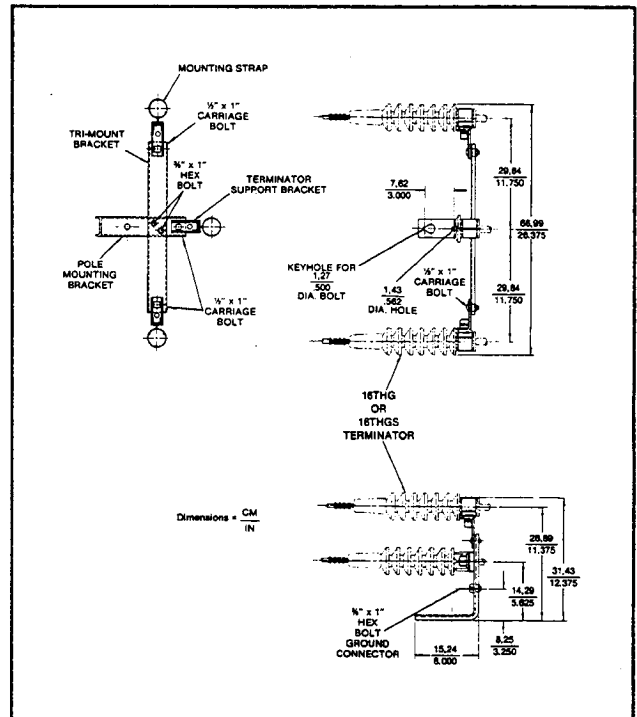
16TB Mounting Brackets

FOR ELASTIMOLD SINGLE-PIECE TERMINATORS



16TB-4

This assembly consists of a mounting strap, a terminator support bracket, and a standard pole mounting bracket. This assembly is attached directly to the riser pole. Specify a 16TB-4.



16TB-5

This assembly consists of 3 mounting straps, 3 terminator support brackets, a tri-mount bracket, and a standard pole mounting bracket. Specify a 16TB-5.

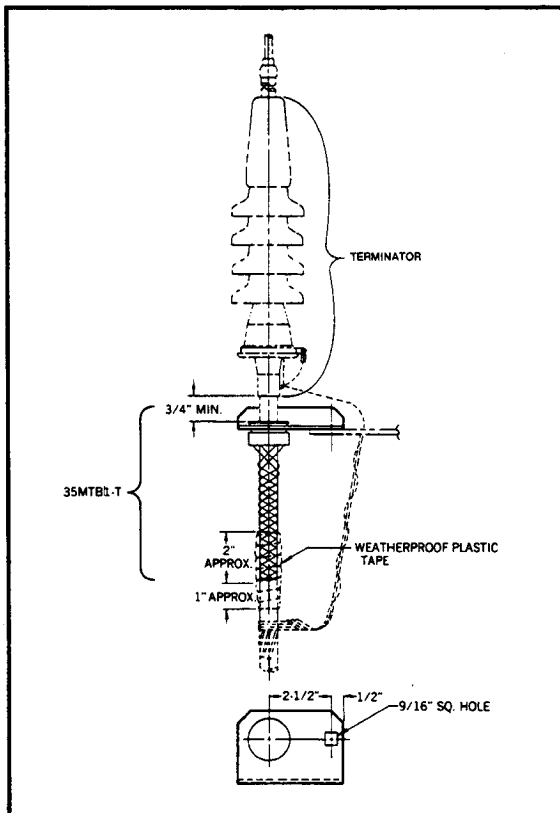


ELASTIMOLD

35MTB Mounting Brackets

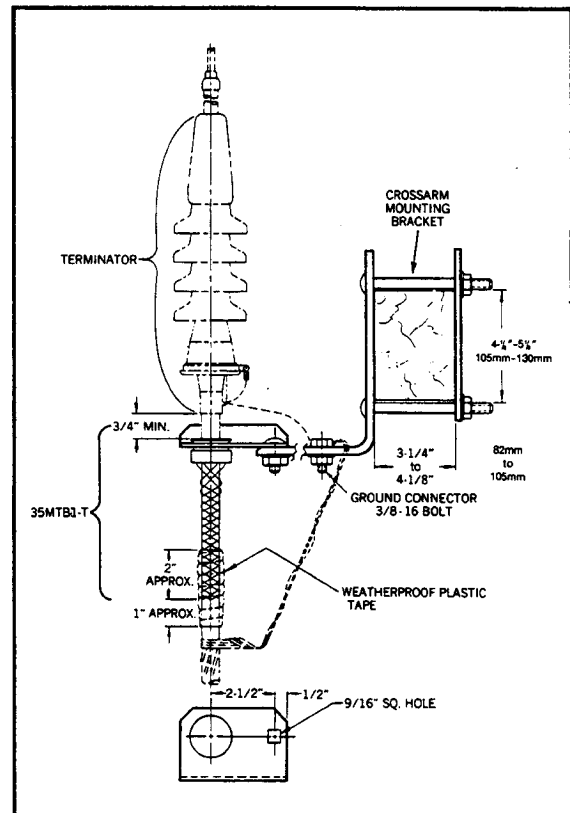
FOR ELASTIMOLD MODULAR TERMINATORS

Four modular terminator mounting brackets are available: 35MTB1-T, 35MTB3-T, 35MTB4-T and 35MTB5-T. These brackets are supplied in three sizes to cover cable diameters ranging from 0.890" through 2.000". The 35MTB1-T can be used for securing one terminator to a flat pad, the 35MTB3-T can be used for securing one terminator to a wooden crossarm, the 35MTB4-T can be used for securing one terminator to a utility pole, and the 35MTB5-T can be used for securing three terminators to a utility pole. The clearances provided by these mounting brackets are equal to or greater than those specified by the National Electrical Safety Code for 35-kv installations.



35MTB1-T

This assembly provides a means of mounting a terminator and of supporting the weight of the cable entering the terminator.



35MTB3-T

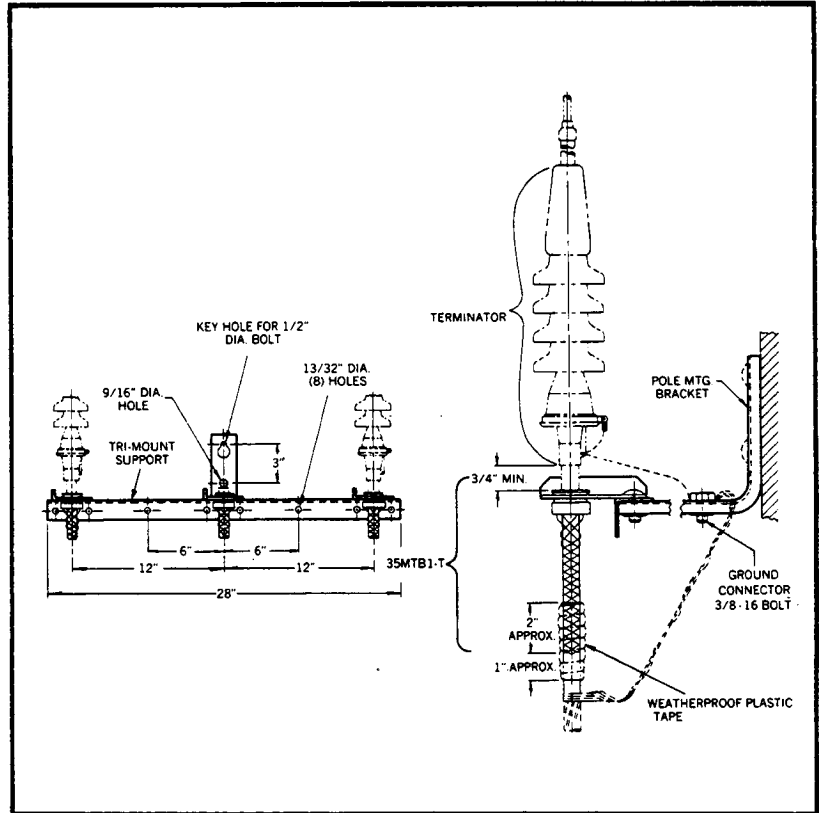
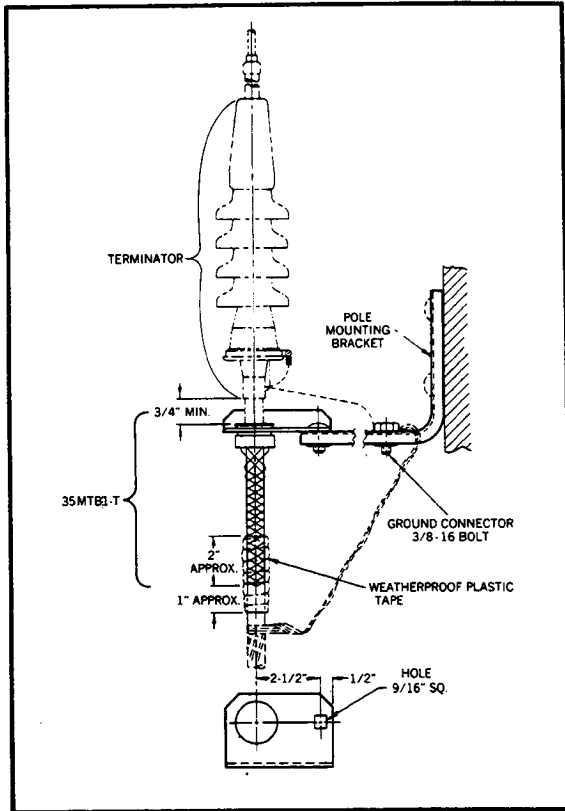
This assembly consists of the 35MTB1-T terminator mounting bracket and a crossarm mounting bracket. This assembly is bolted to the crossarm.



ELASTIMOLD

35MTB Mounting Brackets

FOR ELASTIMOLD MODULAR TERMINATORS



35MTB4-T

This assembly consists of the 35MTB1-T terminator mounting bracket and a pole mounting bracket. This assembly is attached directly to the riser pole.

35MTB5-T

This assembly consists of three 35MTB1-T mounting brackets, a tri-mount support and a pole mounting bracket. This assembly is attached directly to the riser pole.

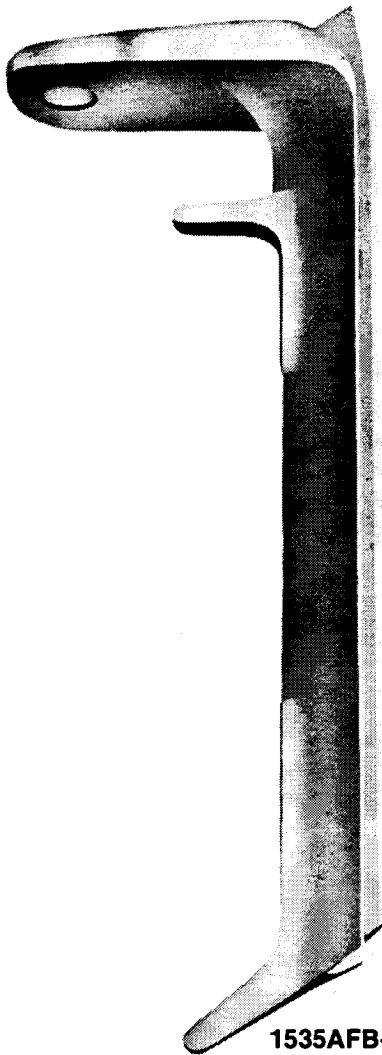
ORDERING INSTRUCTIONS

To order the 35MTB bracket required, specify the complete style number and replace the suffix "T" with an "A", "B", "C", or "D", designating the outer dimension cable ranges given in the following table. For example, to obtain a 35MTB3-T for use with a cable having an outside diameter of 1.350", order a 35MTB3-A.

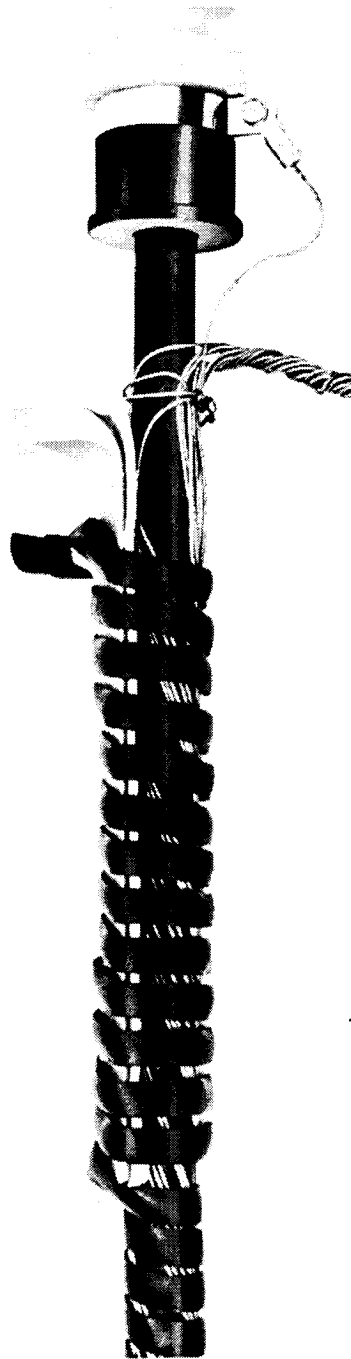
SYMBOL FOR T	CABLE OUTER DIMENSION RANGES
A	1.195" - 1.625"
B	0.925" - 1.335"
C	0.890" - 1.185"
D	1.500" - 2.000"



ELASTIMOLD



**1535AFB-1
BASIC BRACKET**



**1535AFB-1
BASIC BRACKET
INSTALLED ON
SINGLE-PIECE TERMINATOR**

1535AFB Terminator Brackets

FOR SINGLE-PIECE AND MODULAR TERMINATORS

APPLICATION

ELASTIMOLD 1535AFB series terminator brackets provide positive support for both the cable and terminator. Through the use of a pressure-sensitive, foam-cushion adhesive mounting surface, and a helically-cut polyethylene cable tie, the cable is restrained both vertically and horizontally.

The 1535AFB brackets will accept cables with outside diameters of .750" to 2.000". Besides the basic 1535AFB-1 bracket, brackets are also available for crossarm mounting, riser pole mounting, and tri-mounting.

The basic 1535AFB-1 bracket is manufactured of cast aluminum, so it is completely non-magnetic and corrosion free.

All pole-mounting bracketry and hardware is hot-dip galvanized.

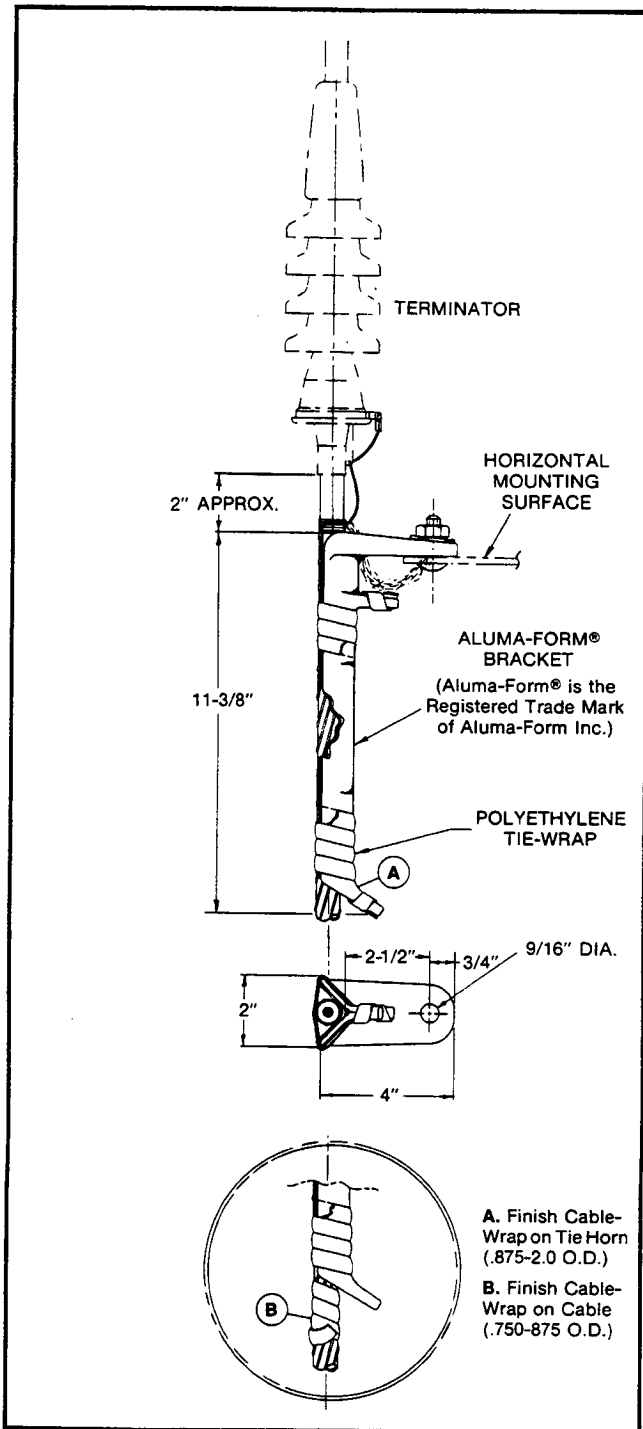
INSTALLATION

After the terminator and cable are trained into position, the basic 1535AFB-1 bracket is bolted to the mounting surface. The cable is placed against the adhesive saddle and the tie wrap is wound around the cable and bracket.

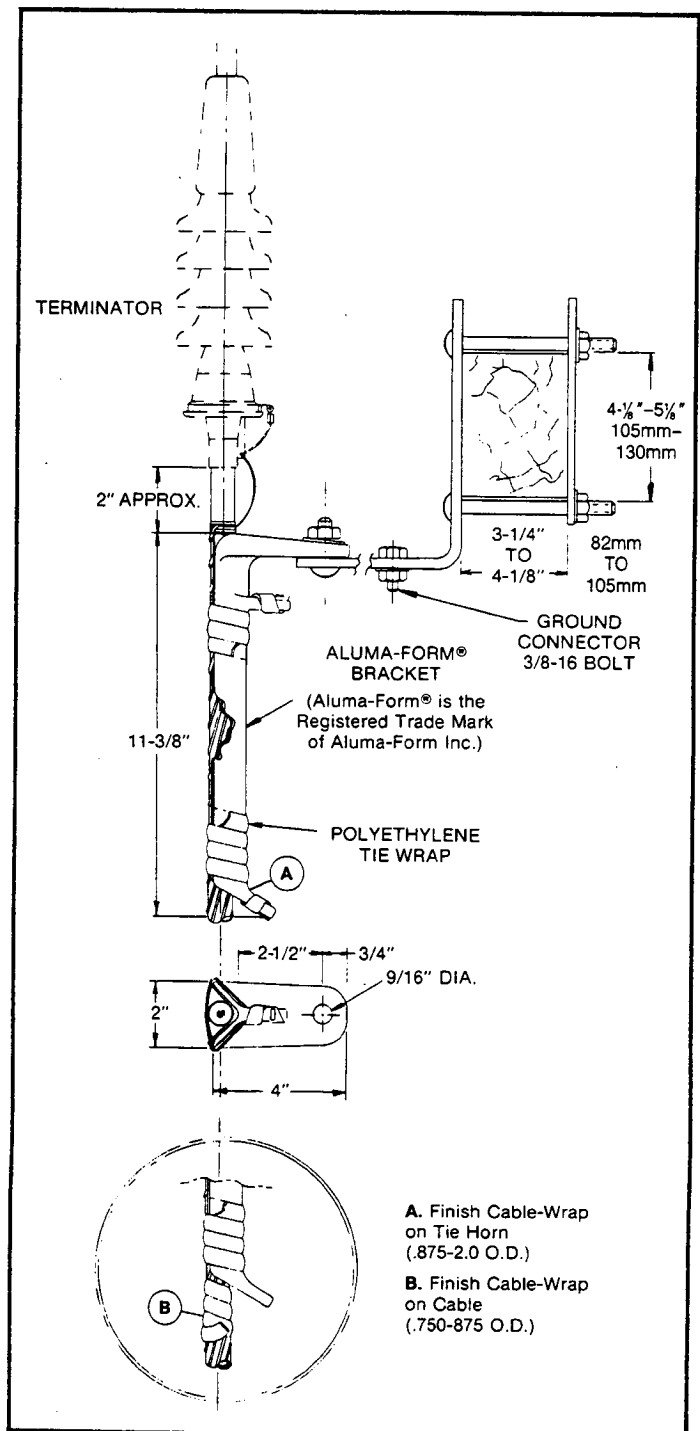


ELASTIMOLD

1535AFB Terminator Brackets



**1535AFB-1
Basic Bracket**



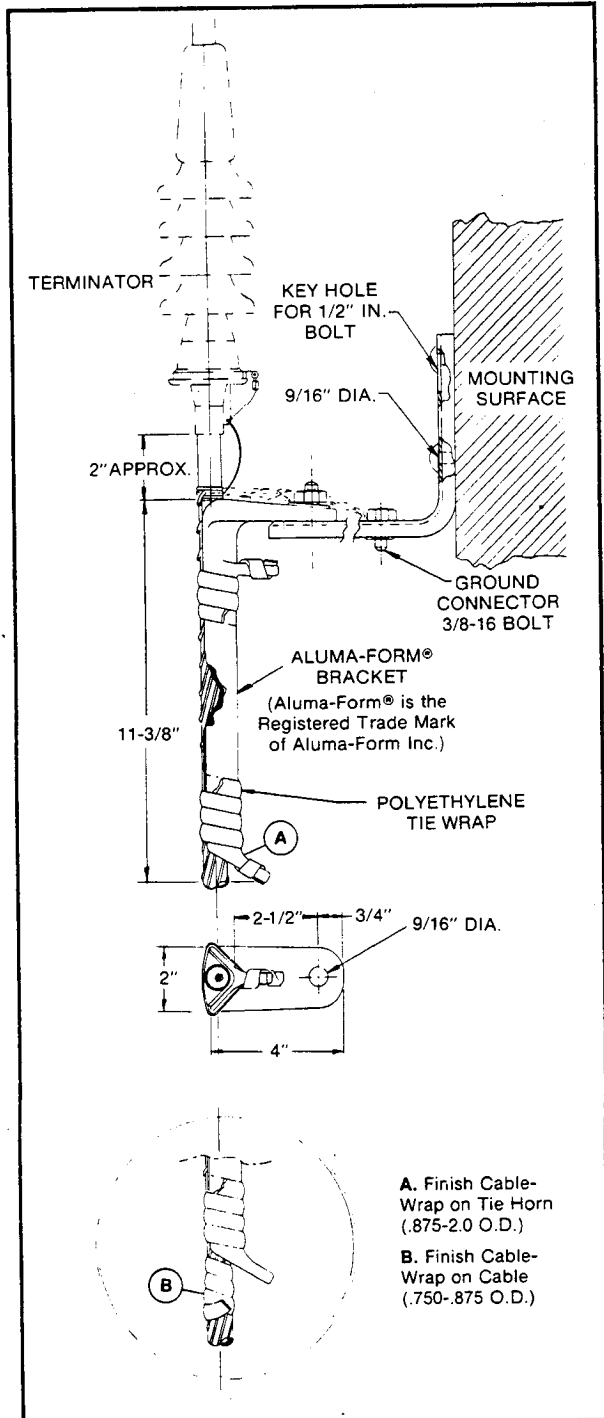
**1535AFB-3
Bracket for Crossarm Mounting**

ORDERING INSTRUCTIONS

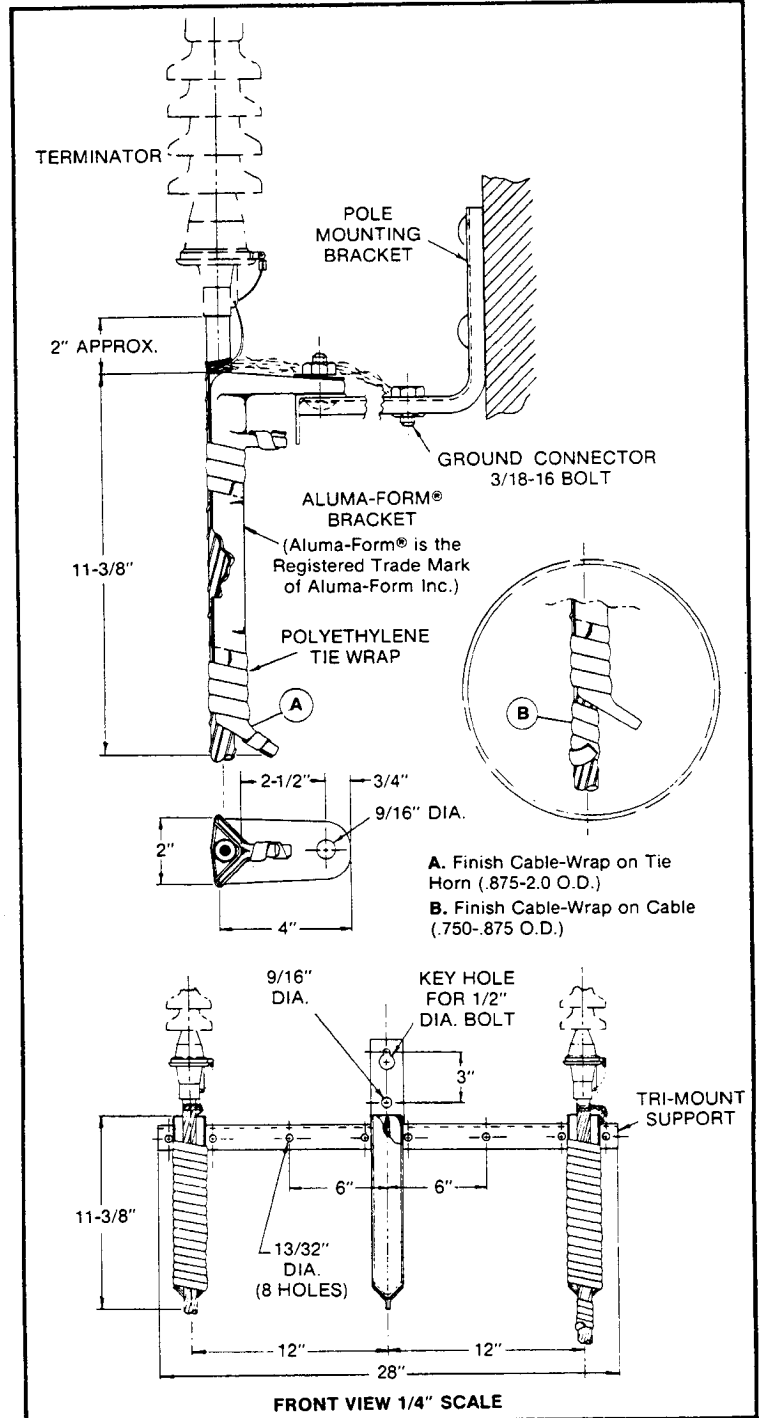
To order a bracket, specify the ordering number of the unit required, such as 1535AFB-4.



1535AFB Terminator Brackets



1535AFB-4
Bracket for Riser Pole-Mounting



1535AFB-5
Bracket for Tri-Mounting

ORDERING INSTRUCTIONS

To order a bracket, specify the ordering number of the unit required, such as 1535AFB-4.



ELASTIMOLD

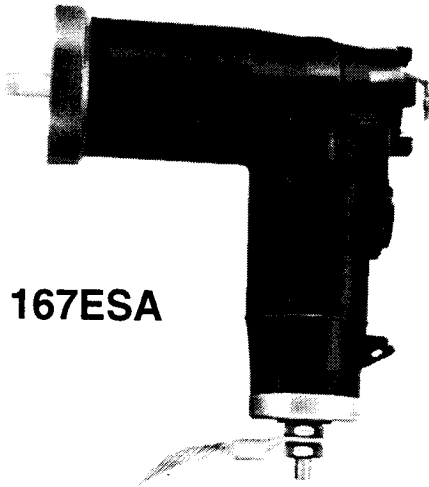
ELASTIMOLD®

MOV Surge Arresters for 15kV-Class Loadbreak Systems

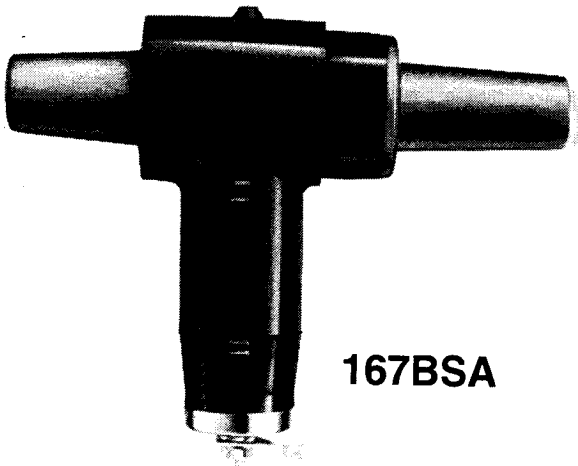
167ESA™ ELBOW ARRESTER

167PSA™ PARKING STAND ARRESTER

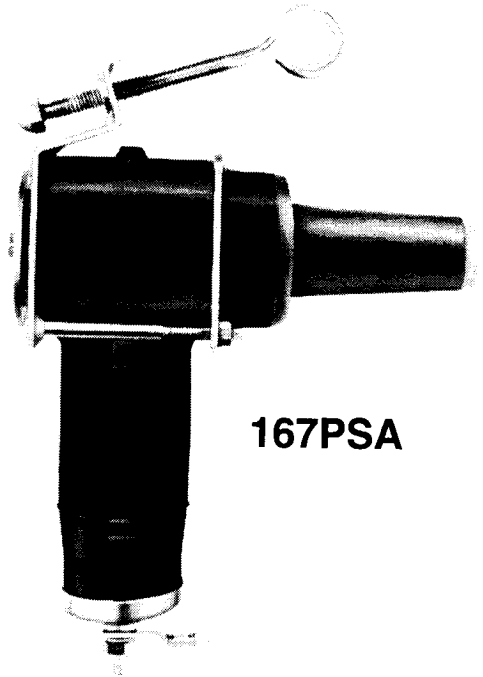
167BSA™ BUSHING ARRESTER



167ESA



167BSA



167PSA

General Description/Application	2
Electrical Ratings & Protective Characteristics	3
Design Features	4
Dimensional Data	6
Ordering Information/Application Data	7

ELASTIMOLD M.O.V. SURGE ARRESTERS

ELASTIMOLD™ surge arresters are fully-shielded, fully-submersible Metal Oxide Varsitor (M.O.V.) arresters. These arresters are available in various configurations for 15kV-class connector systems and have standard 15kV-class interfaces. (ANSI/IEEE Std. 386-1985)

The ELASTIMOLD arresters are designed to protect 15kV-class UD components including transformers, apparatus, cable and accessories from high voltage surges resulting from lightning or switching.

These arresters are intended to be applied in coordination with riser pole arresters to prevent voltage wave doubling in the UD system. The compact design allows the arresters to fit within existing cabinetry.

Typical applications include installing an arrester at the end of a radial system or at both ends of an open point on a loop system. Additional arresters can be added at strategic locations upstream from the end point for optimum protection. Refer to Form 2068 (Surge Protection Options For Underground Distribution) for application information.

INSTALLATION

The 167ESA Elbow Arresters and 167PSA Parking Stand Arresters can be installed on energized or de-energized systems.

The 167BSA Bushing Arresters are current-carrying loadbreak bushing inserts and can only be installed on a de-energized system. Refer to the instruction sheet supplied with each ELASTIMOLD arrester.

167ESA™ Elbow Arrester

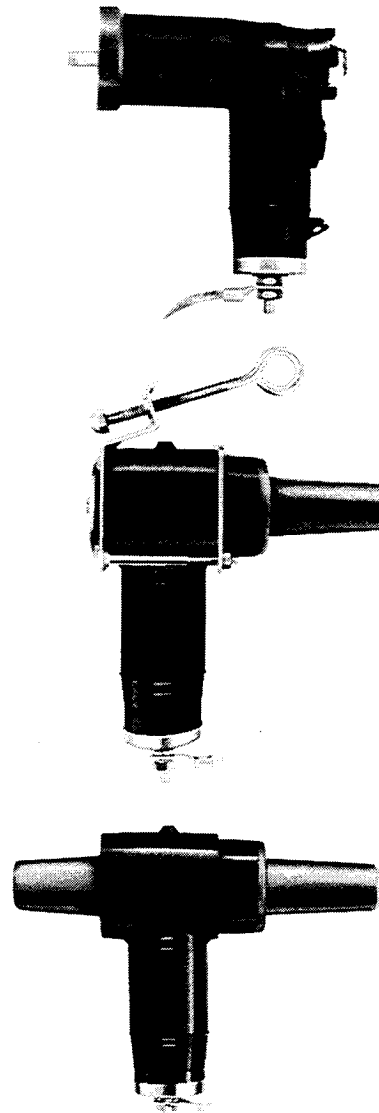
The 167ESA is an arrester combined with a loadbreak elbow connector interface. It can be connected directly to a transformer bushing or used in conjunction with a feed-thru device or a feed-thru insert depending on the application.

167PSA™ Parking Stand Arrester

The 167PSA is an arrester combined with an insulated parking bushing that can be mounted on a transformer parking stand. It is typically used at the open point transformer of a loop-feed distribution circuit to park the disconnected elbow connector.

167BSA™ Bushing Arrester

The 167BSA is an arrester combined with a loadbreak bushing insert. This bushing arrester mounts directly to the transformer bushing well. It is typically used at the end point of a radial circuit or at the open point of a loop-feed circuit to provide surge protection in a more compact configuration.



ELECTRICAL RATINGS & PROTECTIVE CHARACTERISTICS

The 167MOV Arresters meet the performance requirements of ANSI/IEEE Standard C62.11-1991/Draft 6, (Metal Oxide Surge Arrester for Alternating Current Power Circuits), plus conformance to applicable sections of ANSI/IEEE Standard 386-1985 (Separable Insulated Connector Systems for Power Distribution Systems above 600V)*.

Performance:

High Current Short Duration – 167MOV Arresters withstand two discharges of 40kA crest.

Low Current Long Duration – 167MOV Arresters withstand 20 surges of 75 amperes/2000 microsecond duration.

Duty Cycle Test – 167MOV Arresters withstand 22 operations of 5kA crest/8 x 20 microsecond duration while energized at rated voltage for the initial 20 operations and MCOV for the final two operations.

Following each of the preceding tests, the 167MOV Arresters demonstrate thermal recovery at MCOV.

PROTECTIVE CHARACTERISTICS:

MCOV (kVrms)	Duty Cycle Rating (kV rms)	Maximum Discharge Voltage (kV crest) 8 x 20 microsecond current wave					F.O.W. Protective Level (kV crest)
		1.5kA	3kA	5kA	10kA	20kA	
2.55	3	10.5	11.0	11.5	13.0	14.5	13.0
5.1	6	20.5	21.5	23.0	25.5	30.0	25.5
8.4	10	30.5	32.5	34.5	38.5	43.5	38.5
10.2	12	40.0	42.5	45.0	50.0	56.5	50.0
12.7	15	48.0	51.0	54.0	60.0	68.0	60.0
15.3	18	56.5	60.0	64.0	71.0	80.5	71.0

The "front of wave" protective level is the maximum discharge for a 5kA impulse current wave producing a voltage wave cresting in 0.5 microseconds.

*The ELASTIMOLD 167PSA and 167BSA Arresters include a loadbreak bushing mechanism.

PRODUCTION TESTS

100% of the Premolded Housings on solid dielectric test fixtures to assure:

- Corona Extinction Voltage: 11kV minimum
- and either of the following dielectric strength tests:
 - Impulse (BIL) – 95kV, 1.2 x 50 microsecond wave
 - AC withstand – 34kV, 60Hz, 1 minute

100% of the Arresters Assemblies in accordance with ELASTIMOLD specifications:

- Corona Extinction Voltage
- Fluoroscopic Examination

100% of the MOV Blocks in accordance with ELASTIMOLD specifications:

- Protective Level
- Batch Sampling of the MOV Blocks in accordance with ELASTIMOLD specifications:
 - Long Term Stability
 - Energy Absorption
 - Residual Voltage Ratio

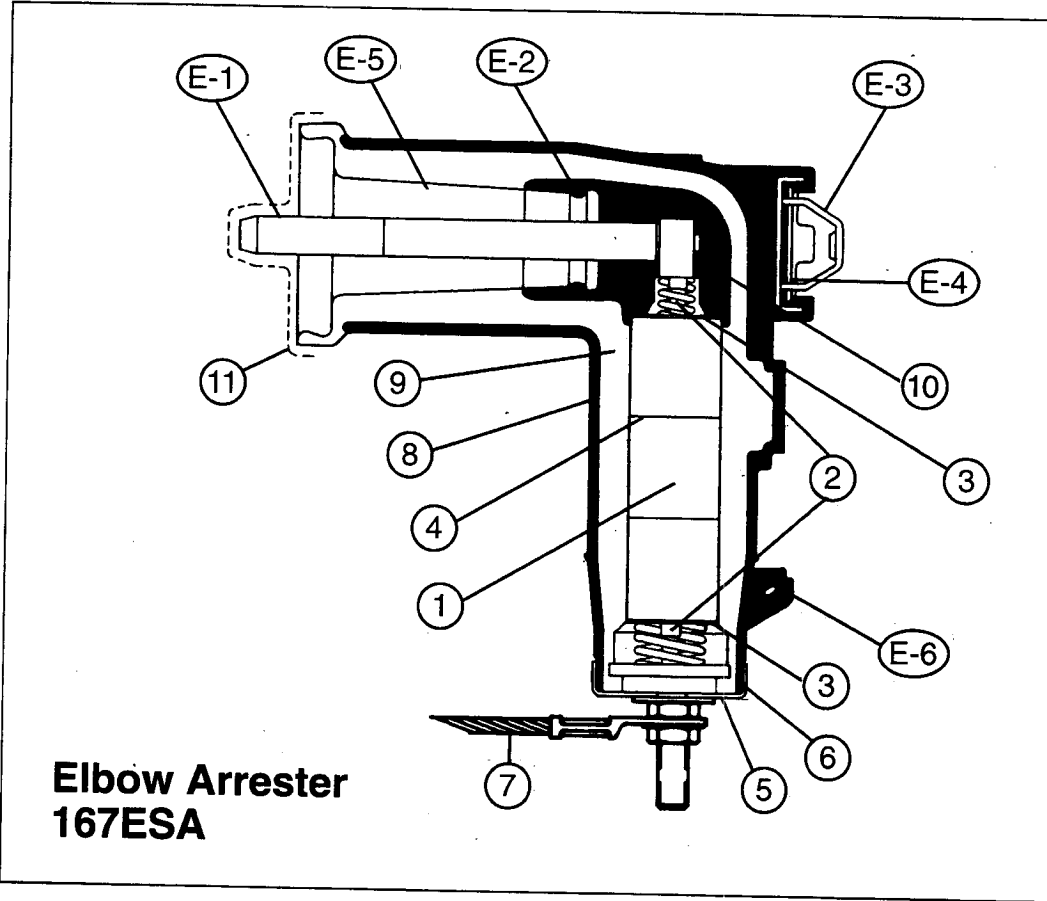
In addition to the above ratings and production tests, the following applies to the 167BSA Bushing Arrester which is a current-carrying loadbreak bushing insert.

The 167BSA Bushing Arresters meet or exceed proposed revisions to ANSI/IEEE 386-1985 concerning ampacity rating, thermal stability and switching/fault-close performance.

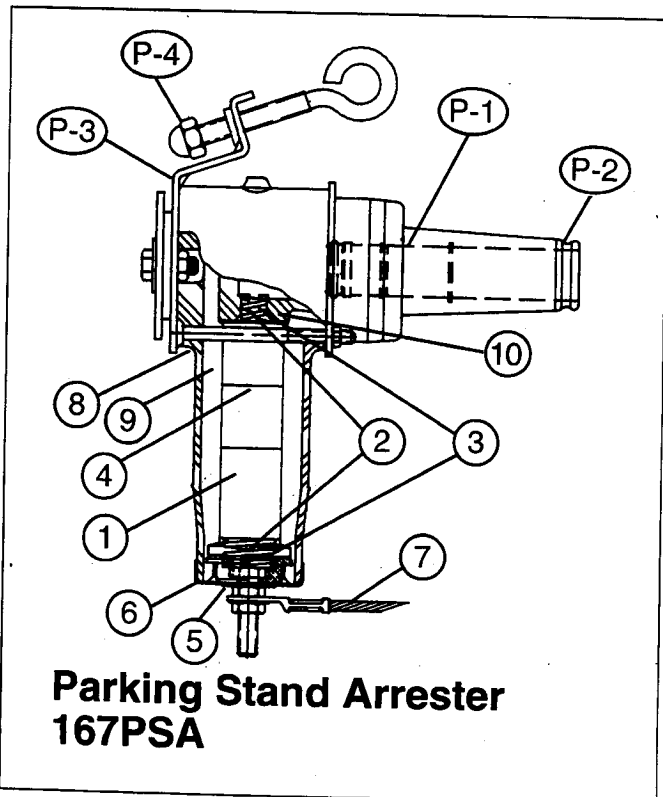
- **Current** (Connection)
 - Continuous operation 200 amps, rms
 - Short-time: 10,000 amps, rms, sym, (.17 sec.) 1.3 max. asym factor
- **Loadmake/break** (Switching)
 - 1Ø & 3Ø circuits 8.3kV line to ground, 14.4kV max. across the open contacts
 - 10 loadmake/break operations at 200 amps max. with 70 to 80% lagging PF.
- **Fault Close** (Switching)
 - 1 fault close operation at 8.3kV or 14.4kV; 10,000 amps, rms, sym, 10 cycles (.17 sec.)
 - 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations).

DESIGN FEATURES

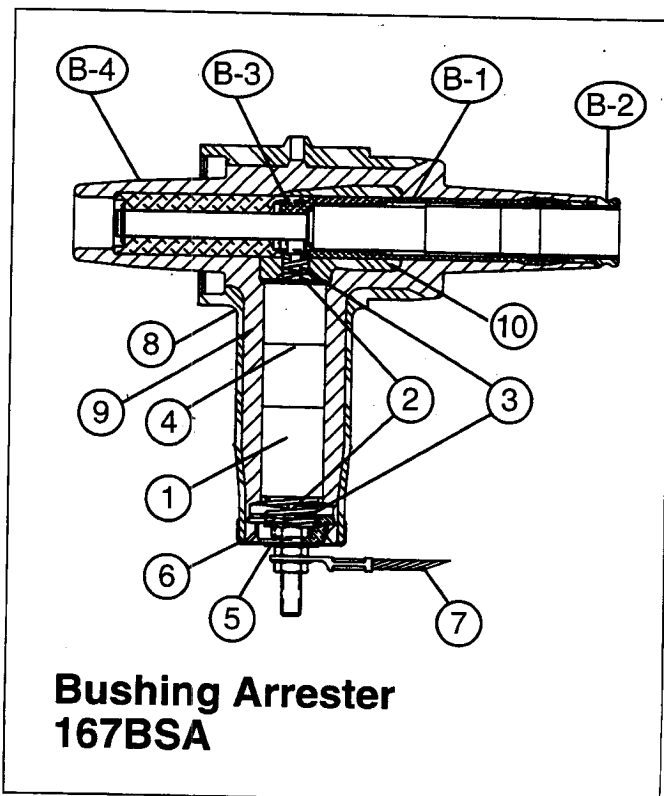
ESA
PSA
BSA



**Elbow Arrester
167ESA**



**Parking Stand Arrester
167PSA**



**Bushing Arrester
167BSA**

GENERAL FEATURES

ESA, BSA, PSA Arresters

- ① **Metal Oxide Valve Elements** represent the very latest in varistor technology. The superior surge protection characteristics and steady-state operation result in increased system reliability and longevity.
- ② **Copper Current Shunts** at both ends of the valve elements assure the integrity of the surge current path. The shunts eliminate the inductive effects of the coil spring which would otherwise alter the protective characteristics of the arrester.
- ③ **Contact Discs** at both ends of the valve elements distribute surge currents uniformly.
- ④ **Silver Epoxy** provides highly-conductive bond between all valve elements for superior electrical and mechanical integrity.
- ⑤ **Positive End Seal** has a compression-fit grip on the rubber housing creating a reliable, impervious moisture seal.
- ⑥ **Cap** is high-strength stainless steel.
- ⑦ **Ground Lead** is No. 4 AWG bare copper, flexible rope lay 36 inches long with tinned end.
- ⑧ **Molded Shield of 1/8" Conductive EPDM** rubber meets IEEE Standard 592. A patented ELASTIMOLD feature.
- ⑨ **Insulation** is peroxide-cured EPDM rubber especially compounded for minimal compression set and high reliability.
- ⑩ **Conductive Insert** minimizes stress concentration in the insulation.
- ⑪ **Protective Cap** seals and protects the bushing interface (and probe for 167ESA).

SPECIFIC FEATURES

Elbow Arrester 167 ESA

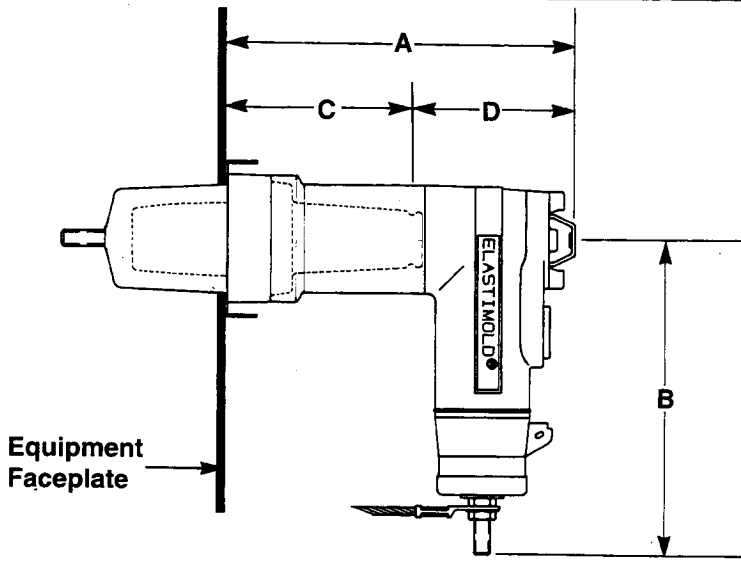
- (E-1) **Probe** is tin-plated copper with arc follower made of arc-quenching material.
- (E-2) **Locking Ring** engages with bushing locking groove to secure connection and ensure quick break action.
- (E-3) **Operating Eye** with interlocking tabs provides positive hotstick operation. Sturdy construction exceeds 500 pounds pullout force.
- (E-4) **Identification Disc** is an easy-to-read, permanently affixed designation of the model number and MCOV line-to-ground ratings.
- (E-5) **Interference Fit** exerts uniform concentric pressure on mating parts providing increased dielectric strength and waterseal.
- (E-6) **Grounding Eye** provides a drain wire connection point.

Parking Stand Arrester 167PSA

- (P-1) **Loadbreak Bushing Mechanism**
- (P-2) **Locking Groove** engages with elbow locking ring to secure connection.
- (P-3) **Parking Stand Bracket** is high strength stainless steel with integral weldnut.
- (P-4) **Stainless Steel 3/8" Eyebolt** rigidly secures the parking stand arrester bracket to the parking stand.
- (P-5) **Identification Tag** is an easy-to-read, permanently affixed designation of the model number and MCOV line to ground ratings. (Not shown.)
- (P-6) **Grounding Eye** provides a drain wire connection point. (Not shown.)

Bushing Arrester 167BSA

- (B-1) **Loadbreak Bushing Mechanism**
- (B-2) **Locking Groove** engages with elbow locking ring to secure connection and ensure quick-break action.
- (B-3) **All copper current carrying path**
- (B-4) **ANSI Bushing Well Compatible Interface**
- (B-5) **Identification Tag** is an easy-to-read, permanently affixed designation of the model number and MCOV line to ground ratings. (Not shown.)
- (B-6) **Grounding Eye** provides a drain wire connection point. (Not shown.)

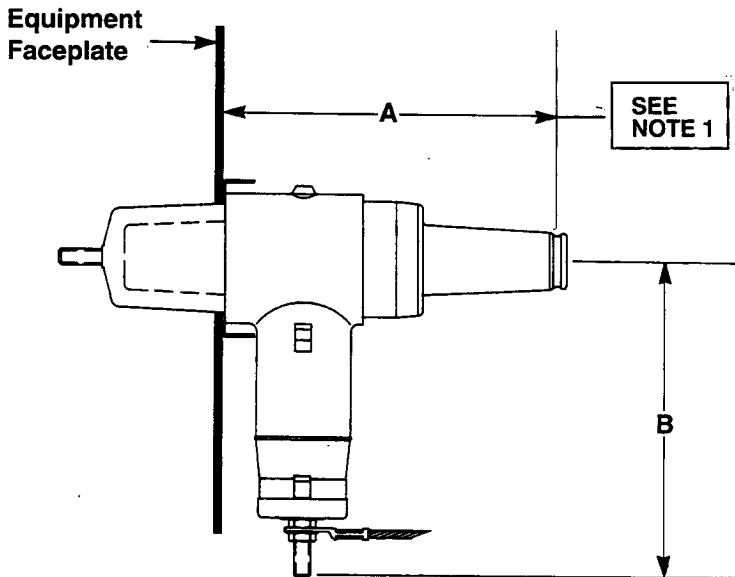


**167ESA
Elbow Arrester**

DIMEN.	Inches	mm
A*	8-3/16	208
B ₁ *	6-31/32	177
B ₂ *	8-29/32	226
C	4-11/16	119
D	3-1/2	89

*'A' dimension based on ELASTIMOLD standard bushing wells (1601PC Series)

**B₁ 167ESA-3 thru 167ESA-12
B₂ 167ESA-15, 167ESA-18

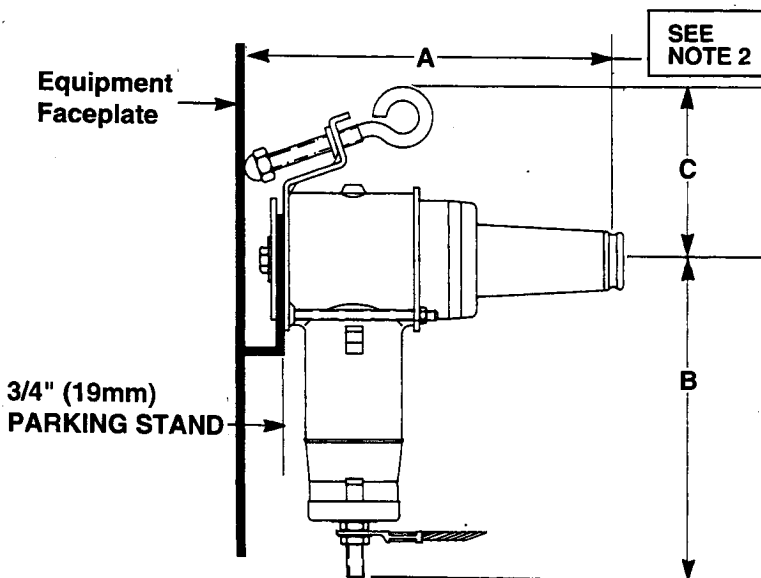


**167BSA
Bushing Arrester**

DIMEN.	Inches	mm
A*	7-13/16	198
B ₁ **	6-31/32	177
B ₂ **	8-29/32	226

*'A' dimension based on ELASTIMOLD standard bushing wells (1601PC Series)

**B₁ 167BSA-3 thru 167BSA-12
B₂ 167BSA-15, 167BSA-18



**167PSA
Elbow Arrester**

DIMEN.	Inches	mm
A	8-1/4	210
B ₁ **	6-31/32	177
B ₂ **	8-29/32	226
C	4-1/2	114

**B₁ 167PSA-3 thru 167PSA-12
B₂ 167PSA-15, 167PSA-18

NOTE 1: Add 4-1/4" (108mm) to 'A' dimension for 168LR Elbow connector for an overall profile of 12-1/16" (306mm).

NOTE 2: Add 4-1/4" (108mm) to 'A' dimension for 168LR Elbow connector for an overall profile of 12-1/2" (318 mm).

ARRESTER APPLICATION TABLE (15kV-Class)

System L-L Voltage (kV rms)		MCOV (Maximum Continuous Operating Voltage) (kV rms)	
Nominal	Maximum	Solidly Grounded Neutral Circuits	3-Wire Ungrounded Circuits
2.4	2.54	2.55	2.55
4.16	4.40	2.55	5.1
4.8	5.08	5.1	5.1
8.32	8.8	5.1	8.4
6.9	7.26	5.1	8.4
12.47	13.2	8.4	15.3
13.2	13.97	8.4	15.3
13.8	14.5	*8.4 10.2	15.3

*Preferred arrester MCOV for this system voltage.

ORDERING INSTRUCTIONS

To order a 15kV-class Arrester:

- (1) Determine the arrester Maximum Continuous Operating Voltage (MCOV) for your system by using the ELASTIMOLD Arrester Application Table.
- (2) Specify the appropriate ELASTIMOLD part number from the Selector Table.

SELECTOR TABLE (15kV-Class)

MCOV (kV rms)	Part Number			ANSI/IEEE Standard 386 Interface
	Elbow Arrester	Parking Stand Arrester	Bushing Arrester	
2.55	167ESA-3	167PSA-3	167BSA-3	15kV-Class (Figure 5)
5.1	167ESA-6	167PSA-6	167BSA-6	
8.4	167ESA-10	167PSA-10	167BSA-10	
10.2	167ESA-12	167PSA-12	167BSA-12	
12.7	167ESA-15	167PSA-15	167BSA-15	
15.3	167BSA-18	167PSA-18	167BSA-18	



ELASTIMOLD

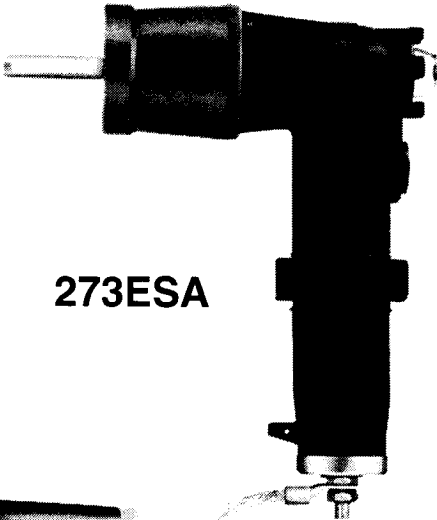
ELASTIMOLD®

MOV Surge Arresters for 25kV-Class Loadbreak Systems

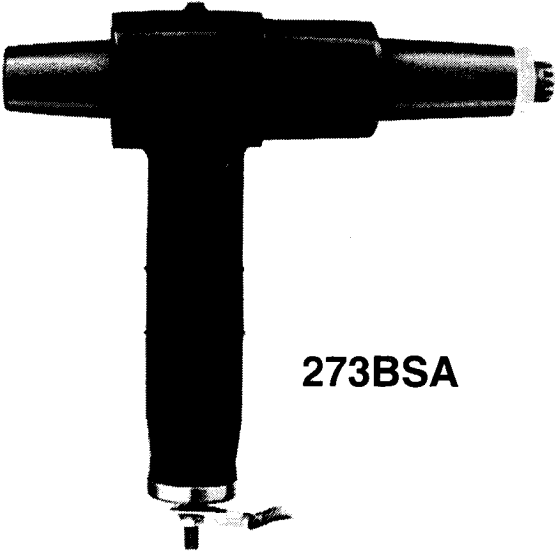
273ESA™ ELBOW ARRESTER

273PSA™ PARKING STAND ARRESTER

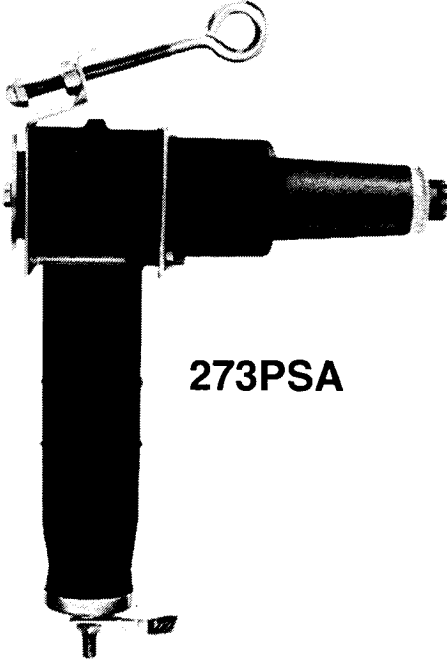
273BSA™ BUSHING ARRESTER



273ESA



273BSA



273PSA

General Description/Application	2
Electrical Ratings & Protective Characteristics	3
Design Features	4
Dimensional Data	6
Ordering Information/Application Data	7

ELASTIMOLD M.O.V. SURGE ARRESTERS

ELASTIMOLD™ surge arresters are fully-shielded, fully-submersible Metal Oxide Varistor (M.O.V.) arresters. These arresters are available in various configurations for 25kV-class connector systems and have standard 25kV-class interfaces. (ANSI/IEEE Std. 386-1985)

The ELASTIMOLD arresters are designed to protect 25kV-class UD components including transformers, apparatus, cable and accessories from high voltage surges resulting from lightning or switching. These arresters are intended to be applied in coordination with riser pole arresters to prevent voltage wave doubling in the UD system. The compact design allows the arresters to fit within existing cabinetry.

Typical applications include installing an arrester at the end of a radial system or at both ends of an open point on a loop system. Additional arresters can be added at strategic locations upstream from the end point for optimum protection.. Refer to Form 2068 (Surge Protection Options For Underground Distribution) for application information.

INSTALLATION

The 273ESA Elbow Arresters and 273PSA Parking Stand Arresters can be installed on energized or de-energized systems. The 273BSA Bushing Arresters are current-carrying loadbreak bushing inserts and can only be installed on a de-energized system. Refer to the instruction sheet supplied with each ELASTIMOLD arrester.

273ESA™ Elbow Arrester

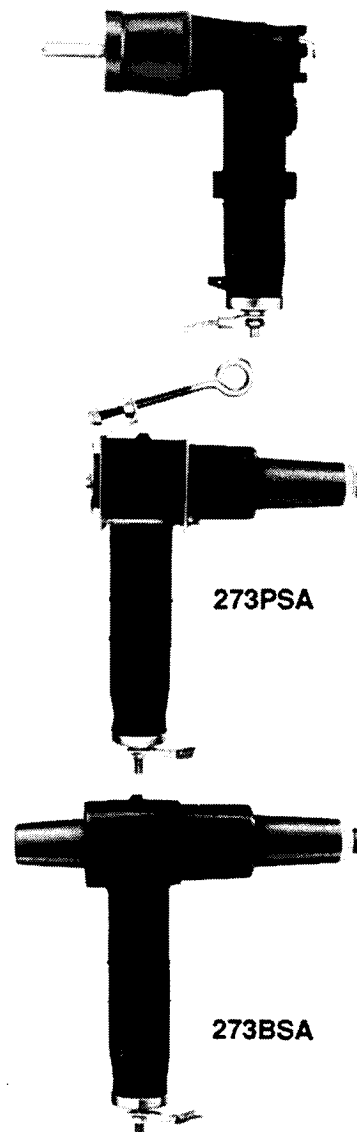
The 273ESA is an arrester combined with a loadbreak elbow connector interface. It can be connected directly to a transformer bushing or used in conjunction with a feed-thru device or a feed-thru insert depending on the application.

273PSA™ Parking Stand Arrester

The 273PSA is an arrester combined with an insulated parking bushing that can be mounted on a transformer parking stand. It is typically used at the open point transformer of a loop-feed distribution circuit to park the disconnected elbow connector.

273BSA™ Bushing Arrester

The 273BSA is an arrester combined with a loadbreak bushing insert. This bushing arrester mounts directly to the transformer bushing well. It is typically used at the end point of a radial circuit or at the open point of a loop-feed circuit to provide surge protection in a more compact configuration.



ELECTRICAL RATINGS & PROTECTIVE CHARACTERISTICS

The 273MOV Arresters meet the performance requirements of ANSI/IEEE Standard C62.11-1991/Draft 6, (Metal Oxide Surge Arrester for Alternating Current Power Circuits), plus conformance to applicable sections of ANSI/IEEE Standard 386-1985 (Separable Insulated Connector Systems for Power Distribution Systems above 600V)*.

Performance:

High Current Short Duration – 273MOV Arresters withstand two discharges of 40kA crest.

Low Current Long Duration – 273MOV Arresters withstand 20 surges of 75 amperes/2000 microsecond duration.

Duty Cycle Test – 273MOV Arresters withstand 22 operations of 5kA crest/8 x 20 microsecond duration while energized at rated voltage for the initial 20 operations and MCOV for the final two operations.

Following each of the preceding tests, the 273MOV Arresters demonstrate thermal recovery at MCOV.

PROTECTIVE CHARACTERISTICS:

MCOV (kVrms)	Duty Cycle Rating (kV rms)	Maximum Discharge Voltage (kV crest) 8 x 20 microsecond current wave					F.O.W. Protective Level (kV crest)
		1.5kA	3kA	5kA	10kA	20kA	
8.4	10	30.5	32.5	34.5	38.5	43.5	38.5
10.2	12	40.0	42.5	45.0	50.0	56.5	50.0
12.7	15	48.0	51.0	54.0	60.0	68.0	60.0
15.3	18	56.5	60.0	64.0	71.0	80.5	71.0
17.0	21	65.5	69.5	74.0	82.5	93.0	82.5

The "front of wave" protective level is the maximum discharge for a 5kA impulse current wave producing a voltage wave cresting in 0.5 microseconds.

*The ELASTIMOLD 273PSA and 273BSA Arresters include a loadbreak bushing mechanism.

PRODUCTION TESTS

100% of the Premolded Housings on solid dielectric test fixtures to assure:

Corona Extinction Voltage: 19kV minimum

and either of the following dielectric strength tests:

Impulse (BIL) – 125kV, 1.2 x 50 microsecond wave

AC withstand – 40kV, 60Hz, 1 minute

100% of the Arresters Assemblies in accordance with ELASTIMOLD specifications:

Corona Extinction Voltage

Fluoroscopic Examination

100% of the MOV Blocks in accordance with ELASTIMOLD specifications:

Protective Level

Batch Sampling of the MOV Blocks in accordance with ELASTIMOLD specifications:

Long Term Stability

Energy Absorption

Residual Voltage Ratio

In addition to the above ratings and production tests, the following applies to the 273BSA Bushing Arrester which is a current-carrying loadbreak bushing insert.

The 273BSA Bushing Arresters meet or exceed proposed revisions to ANSI/IEEE 386-1985 concerning ampacity rating, thermal stability and switching/fault-close performance.

• **Current (Connection)**

Continuous operation 200 amps, rms

Short-time: 10,000 amps, rms, sym, (.17 sec.) 1.3 max. asym factor

• **Loadmake/break (Switching)**

1Ø & 3Ø circuits 15.2kV line to ground, 26.3kV max. across the open contacts

10 loadmake/break operations at 200 amps max. with 70 to 80% lagging PF.

• **Fault Close (Switching)**

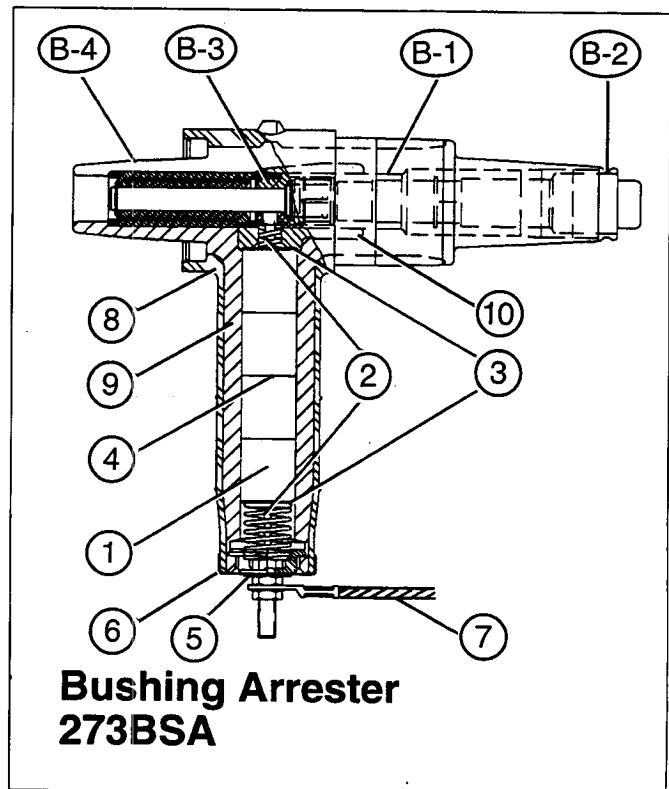
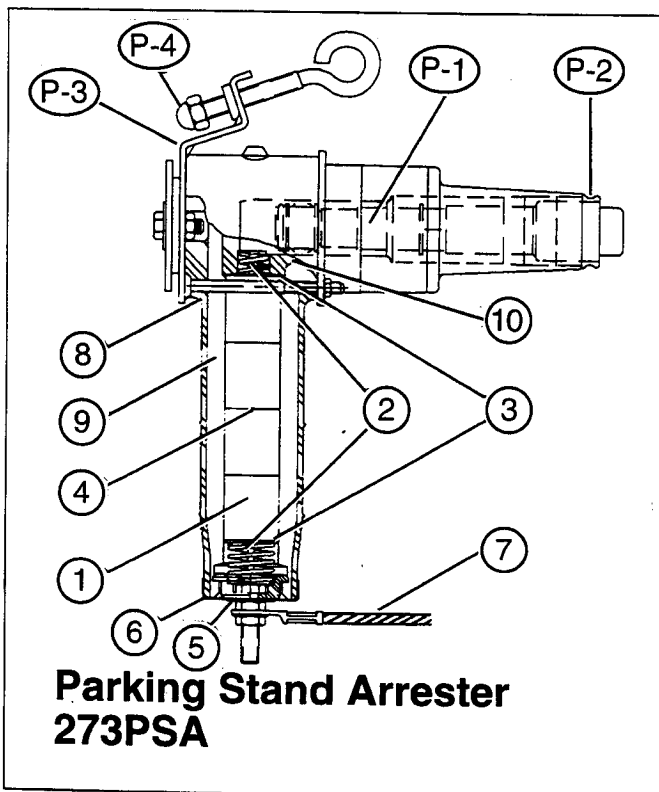
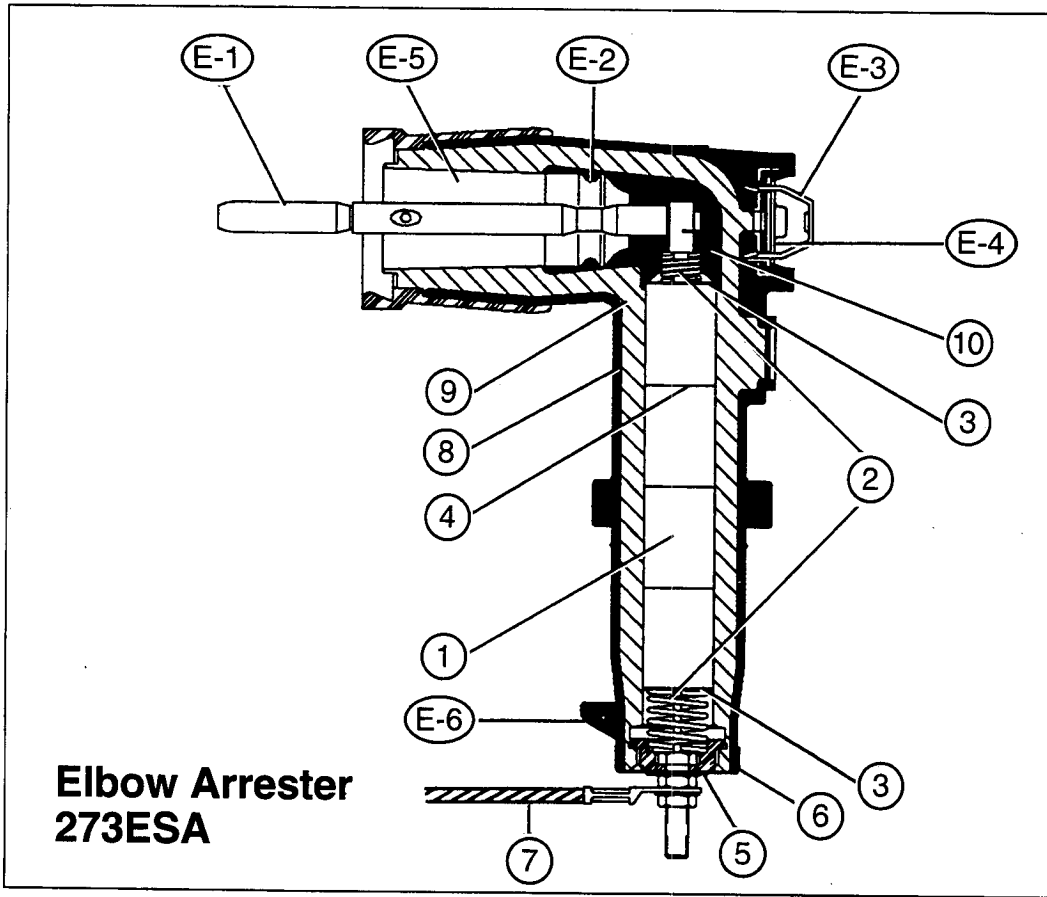
1 fault close operation at 15.2kV or 26.3kV;

10,000 amps, rms, sym, 10 cycles (.17 sec.)

1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations).

DESIGN FEATURES

ESA
PSA
BSA



GENERAL FEATURES

ESA, BSA, PSA Arresters

- ① **Metal Oxide Valve Elements** represent the very latest in varistor technology. The superior surge protection characteristics and steady-state operation result in increased system reliability and longevity.
- ② **Copper Current Shunts** at both ends of the valve elements assure the integrity of the surge current path. The shunts eliminate the inductive effects of the coil spring which would otherwise alter the protective characteristics of the arrester.
- ③ **Contact Discs** at both ends of the valve elements distribute surge currents uniformly.
- ④ **Silver Epoxy** provides highly-conductive bond between all valve elements for superior electrical and mechanical integrity.
- ⑤ **Positive End Seal** has a compression-fit grip on the rubber housing creating a reliable, impervious moisture seal.
- ⑥ **Cap** is high-strength stainless steel.
- ⑦ **Ground Lead** is No. 4 AWG bare copper, flexible rope lay 36 inches long with tinned end.
- ⑧ **Molded Shield of 1/8" Conductive EPDM** rubber meets IEEE Standard 592. A patented ELASTIMOLD feature.
- ⑨ **Insulation** is peroxide-cured EPDM rubber especially compounded for minimal compression set and high reliability.
- ⑩ **Conductive Insert** minimizes stress concentration in the insulation.
- ⑪ **Protective Cap** seals and protects the bushing interface (and probe for 273ESA). (Not shown.)

SPECIFIC FEATURES

Elbow Arrester 273 ESA

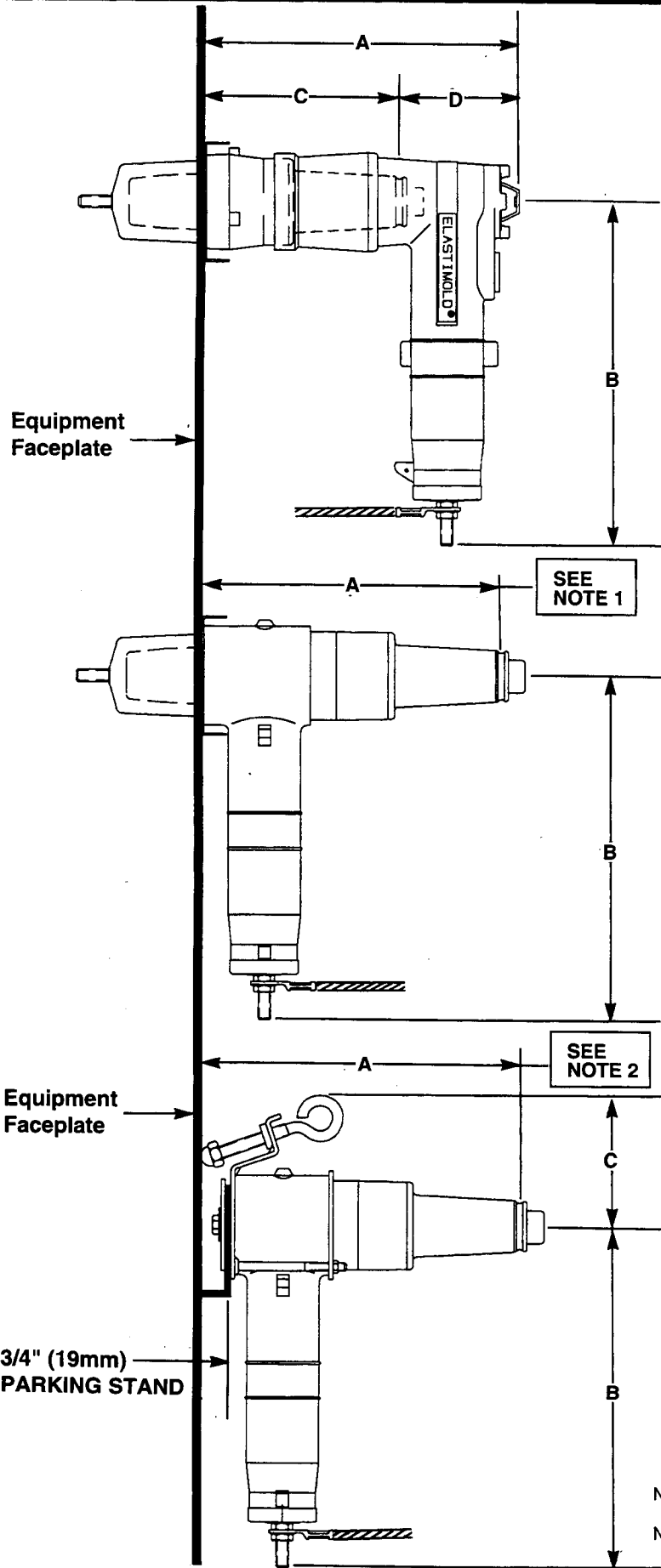
- Ⓔ-1 **Probe** is tin-plated copper with arc follower made of arc-quenching material.
- Ⓔ-2 **Locking Ring** engages with bushing locking groove to secure connection and ensure quick break action.
- Ⓔ-3 **Operating Eye** with interlocking tabs provides positive hotstick operation. Sturdy construction exceeds 500 pounds pullout force.
- Ⓔ-4 **Identification Disc** is an easy-to-read, permanently affixed designation of the model number and MCOV line-to-ground ratings.
- Ⓔ-5 **Interference Fit** exerts uniform concentric pressure on mating parts providing increased dielectric strength and waterseal.
- Ⓔ-6 **Grounding Eye** provides a drain wire connection point.

Parking Stand Arrester 273PSA

- Ⓔ-P-1 **Loadbreak Bushing Mechanism**
- Ⓔ-P-2 **Locking Groove** engages with elbow locking ring to secure connection.
- Ⓔ-P-3 **Parking Stand Bracket** is high strength stainless steel with integral weldnut.
- Ⓔ-P-4 **Stainless Steel 3/8" Eyebolt** rigidly secures the parking stand arrester bracket to the parking stand.
- Ⓔ-P-5 **Identification Tag** is an easy-to-read, permanently affixed designation of the model number and MCOV line to ground ratings. (Not shown.)
- Ⓔ-P-6 **Grounding Eye** provides a drain wire connection point. (Not shown.)

Bushing Arrester 273BSA

- Ⓔ-B-1 **Loadbreak Bushing Mechanism**
- Ⓔ-B-2 **Locking Groove** engages with elbow locking ring to secure connection and ensure quick-break action.
- Ⓔ-B-3 **All copper current carrying path**
- Ⓔ-B-4 **ANSI Bushing Well Compatible Interface**
- Ⓔ-B-5 **Identification Tag** is an easy-to-read, permanently affixed designation of the model number and MCOV line to ground ratings. (Not shown.)
- Ⓔ-B-6 **Grounding Eye** provides a drain wire connection point. (Not shown.)



**273ESA
Elbow Arrester**

DIMEN.	Inches	mm
A*	9-11/16	246
B ₁ **	6-31/32	177
B ₂ **	10-3/8	263
C	5-7/8	149
D	3-13/16	97

* 'A' dimension based on ELASTIMOLD standard bushing wells (1601PC Series)

**B₁ 273ESA-10, 273ESA-12
B₂ 273ESA-15 thru 273ESA-21

**273BSA
Bushing Arrester**

DIMEN.	Inches	mm
A*	9-1/16	230
B	10-3/8	263

* 'A' dimension based on ELASTIMOLD standard bushing wells (1601PC Series)

**273PSA
Parking Stand Arrester**

DIMEN.	Inches	mm
A	9-1/2	241
B	10-3/8	263
C	4-1/8	105

NOTE 1: Add 4-1/2" (114mm) to 'A' dimension for 274LR Elbow connector for an overall profile of 13-9/16" (344mm).

NOTE 2: Add 4-1/2" (114mm) to 'A' dimension for 274LR Elbow connector for an overall profile of 14" (356mm).

ARRESTER APPLICATION TABLE (25kV)

System L-L Voltage (kV rms)		MCOV (Maximum Continuous Operating Voltage) (kV rms)	
Nominal	Maximum	Solidly Grounded Neutral Circuits	3-Wire Ungrounded Circuits
8.32	8.8	5.1	8.4
6.9	7.26	5.1	8.4
12.47	13.2	8.4	15.3
13.2	13.97	8.4	15.3
13.8	14.5	*8.4 10.2	15.3
20.78	22	12.7 *15.3	—
23	24.34	15.3	—
24.94	26.4	15.3 *17.0	—
28	29.8	17.0	—

* Preferred arrester MCOV for this system voltage.

ORDERING INSTRUCTIONS

To order a 25kV-class Arrester:

- (1) Determine the arrester Maximum Continuous Operating Voltage (MCOV) for your system by using the ELASTIMOLD Arrester Application Table.
- (2) Specify the appropriate ELASTIMOLD part number from the Selector Table.

SELECTOR TABLE (25kV-Class)

MCOV (kV rms)	Part Number			ANSI/IEEE Standard 386 Interface
	Elbow Arrester	Parking Stand Arrester	Bushing Arrester	
8.4	273ESA-10	273PSA-10	273BSA-10	25kV-Class (Figure 7)
10.2	273ESA-12	273PSA-12	273BSA-12	
12.7	273ESA-15	273PSA-15	273BSA-15	
15.3	273ESA-18	273PSA-18	273BSA-18	
17.0	273ESA-21	273PSA-21	273BSA-21	



ELASTIMOLD



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 3

PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

MOV Surge Arrester - 35 kV Class

ELASTIMOLD PART NUMBER

375ESA**375BSA****375PSA**

ELASTIMOLD Metal Oxide Varistor (MOV) surge arresters are fully shielded, fully submersible and are equipped with IEEE 386 interfaces for convenient energized connection with other 200 Amp loadbreak components. Units are compact, allowing installation in existing cabinetry. For application ease, arresters are available in 3 styles: Elbow (ESA), Parking Stand (PSA) and Bushing (BSA). The PSA and BSA arresters permit direct connection eliminating the need for additional accessories.

Elastimold arresters provide high voltage lightning and switching surge protection of transformers; cable, equipment and other components typically located on underground power distribution systems. Proper placement, voltage selection and coordination with riser pole arresters minimize damaging surge voltages by improving protective margins.

Typical applications include installing an arrester at the end of a radial system or at both ends of an open point on a loop system. Additional arresters can be added at strategic locations upstream from the end point for optimum protection. Request Form 2068 (Surge Protection Options For Underground Distribution) and Form 2069 (Arrester Applications —Underground Electrical Systems) for additional application and margin of protection information.

Electrical Ratings & Protective Characteristics:

The 167MOV Arresters meet the performance requirements of IEEE Standard C62.11 (Metal Oxide Surge Arrester for Alternating Current Power Circuits), plus conformance to applicable sections of ANSI/IEEE Standard 386 (Separable Insulated Connector Systems for Power Distribution Systems above 600V)*.

Performance:

High Current Short Duration : 375MOV Arresters withstand two discharges of 40kA crest.
 Low Current Long Duration : 375MOV Arresters withstand 20 surges of 75 amperes/2000 microsecond duration.
 Duty Cycle Test : 375MOV Arresters withstand 22 operations of 5kA crest/S x 20 microsecond duration while energized at rated voltage for the initial 20 operations and MCOV for the final two operations.

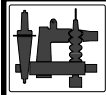
Following each of the proceeding tests, the Arresters demonstrate thermal recovery at MCOV.

Protective Characteristics:

MCOV (kV rms)	Duty Cycle Rating (kV rms)	Max. Discharge Voltage (kV crest) 8 X 20 microsecond current wave					F.O.W. Protective Level (kV crest)
		1.5kA	3kA	5kA	10kA	20kA	
19.5	24	78.5	83.5	89.0	99.0	112.0	99.0
22.0	27	87.5	93.0	99.0	110.0	124.5	110.0
24.4	130	95.5	101.5	108.0	120.0	136.0	120.0

The "front of wave" protective level is the maximum discharge for a 5kA impulse current wave producing a voltage wave creating in 0.5 microseconds.

*The **ELASTIMOLD 375PSA** and **375BSA Arresters** include a fully rated loadbreak interface.



MOV Surge Arrester - 35 kV Class

Production Tests:

100% of the Premolded Housings on solid dielectric test fixtures to assure:

Corona Extinction Voltage: 26 kV minimum

and either of the following dielectric strength tests:

Impulse (BIL) — 150kV, 1.2 x 50 microsecond wave AC withstand — 50kV, 60Hz, 1 minute

100% of the Arresters Assemblies in accordance with ELASTIMOLD specifications:

Corona Extinction Voltage, Fluoroscopic Examination

100% of the MOV Blocks in accordance with ELASTIMOLD specifications:

Protective Level

Batch Sampling of the MOV Blocks in accordance with ELASTIMOLD specifications:

Long Term Stability, Energy Absorption, Residual Voltage Ratio

In addition to the above ratings and production tests, the following applies to the 375BSA Bushing 375 Parking Stand Arresters which are equipped with a fully rated loadbreak interface per ANSI/IEEE 386.

- **Current**

Continuous operation 200 amps, rms Short-time: 10,000 amps, rms, sym, (.17 sec.) 1.3 max. asym factor

- **Loadmake/break**

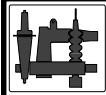
10 loadmake/break operations at 200 amps max. with 70 to 80% lagging PF.

- **Fault Close**

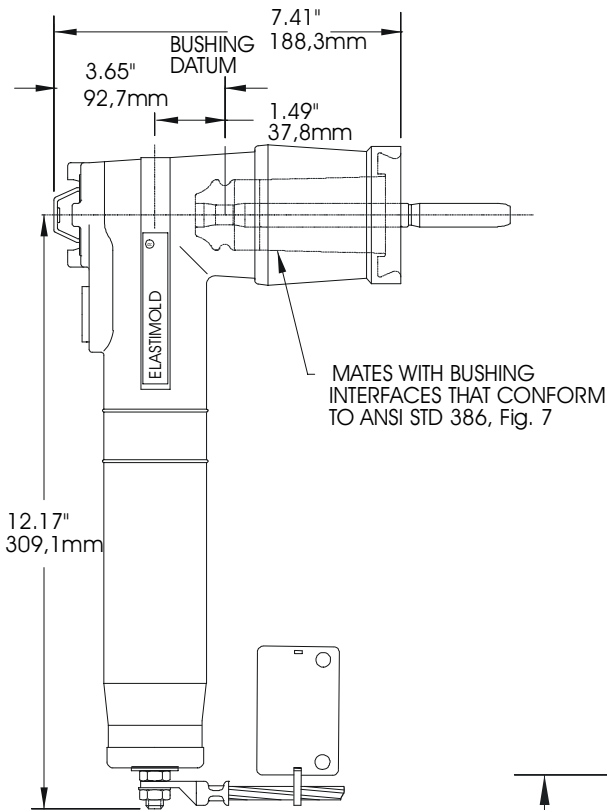
1 fault close operation at 21.1kV or 36.6kV;

10,000 amps, rms, sym, 10 cycles (.17 sec.)

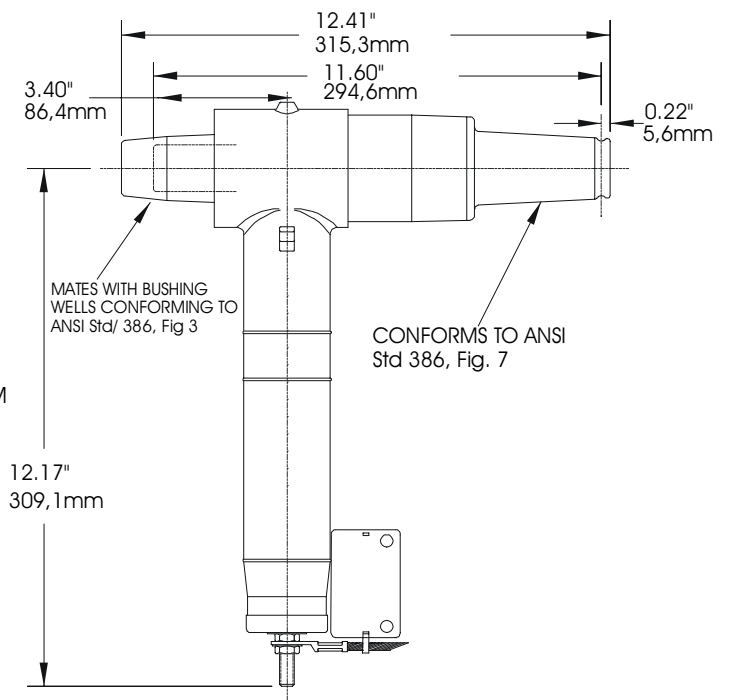
1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations).



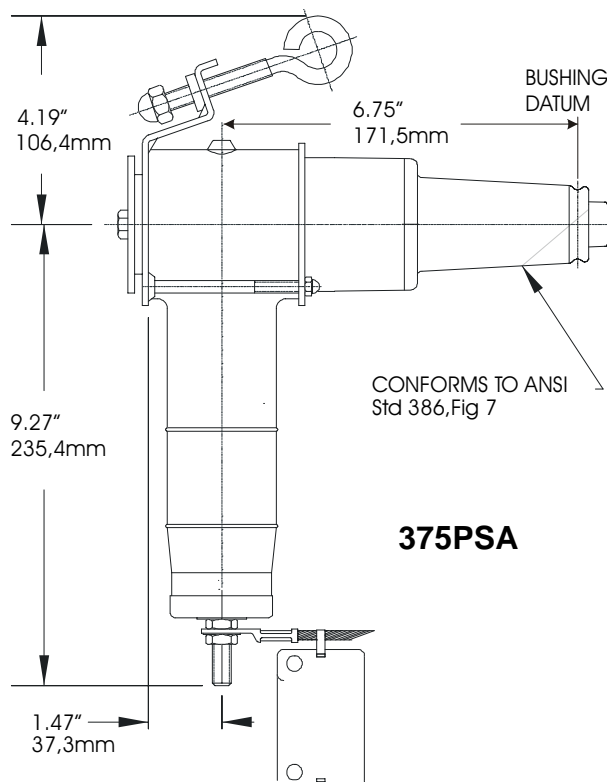
MOV Surge Arrester - 35 kV Class



375ESA



375BSA



375PSA

Installation & Operating Instructions 375ESA Elbow Arrester

CONTENTS: Elbow Arrester, Lubricant (DO NOT SUBSTITUTE), Installation/Operating Instructions.

The elbow arrester is designed to provide plug-in surge protection for UD systems. The 375ESA provides an operating interface for connecting to an ANSI/IEEE STD 386 Fig. 7, 35kV class (nominal 21.1kV phase-to-ground and 36.6kV phase-to-phase) 200 ampere loadbreak bushing or accessory device with fault close rating of 10,000 amperes, symmetrical.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

In case of arrester failure it cannot be guaranteed that MOV blocks will be rejected out the bottom.

A failed arrester should be treated as energized since it is possible for a failed housing to hold voltage if re-energized.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

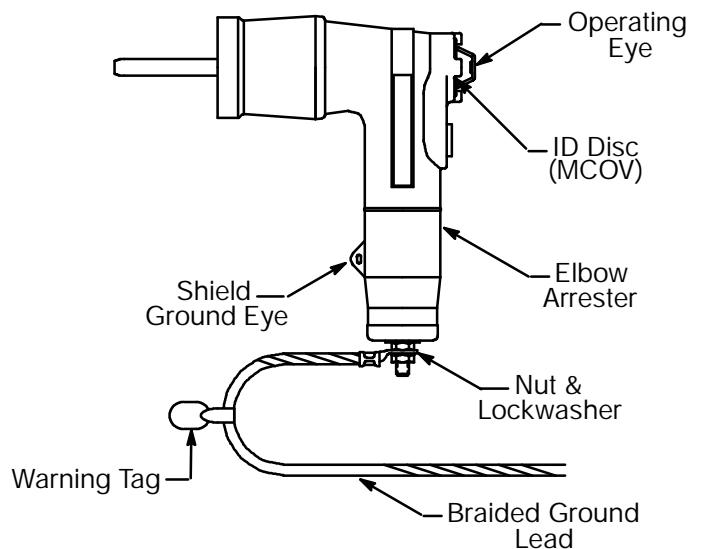
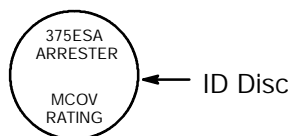
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure it is complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and observe cleanliness throughout the procedure.
5. **CHECK ID DISC FOR MCOV (Maximum Continuous Operating Voltage) RATING.**

System L-L Voltage kV rms		MCOV Rating kV rms	
Nominal	Maximum	Grounded Neutral Circuits	3-Wire Ungrounded Circuits
23	24.3	—	22.0
34.5	36.5	* 22.0 24.4	—

* Preferred arrester MCOV for this system voltage.



The elbow arrester can be installed on energized or de-energized systems. When possible, it is preferable to install the elbow arrester on de-energized systems. For de-energized system installation follow the same procedure as for energized system installation.

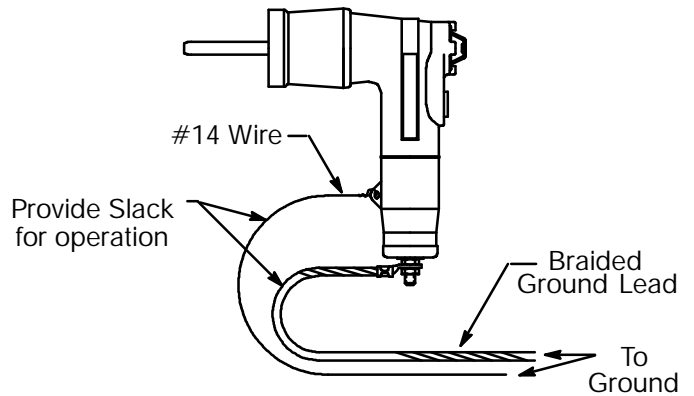
Energized System Installation

STEP A PREPARATION

1. **ENSURE THAT THE MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV) OF THE SYSTEM DOES NOT EXCEED THE MCOV OF THE ARRESTER.** The MCOV of the arrester is printed on the ID disc located beneath the operating eye.
 2. Preplan space for the arrester and ground leads so as to not restrict the operation of this or other loadbreak devices and to allow the arrester grounded end to point down.
-

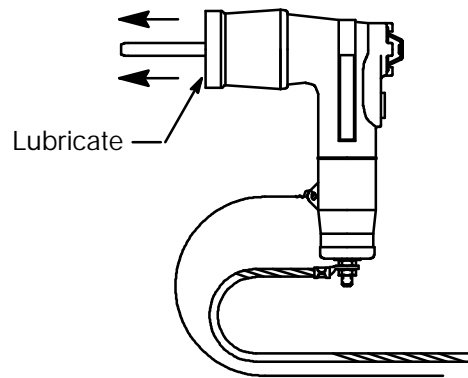
STEP B GROUNDING

Connect free end of the braided ground lead to the system ground. Attach a #14 or equivalent wire to the elbow grounding eye and connect to ground separately and independently from the braided ground lead. Leave enough slack in both ground wires for hotstick operation of the elbow arrester.



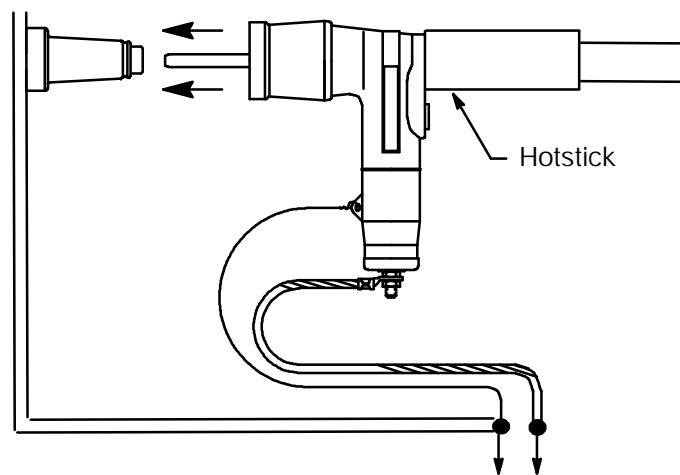
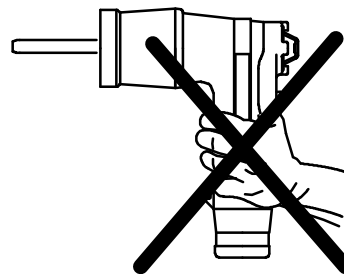
STEP C LUBRICATION

Apply a light, uniform coat of supplied lubricant, working thoroughly into surface. **CAUTION:** EXCESS LUBRICANT may prevent the elbow arrester from being fully seated in the "locked on" position. Keep the internal mating surface free from dirt and grime.



STEP D CONNECTION

1. Operate per the following instructions:
DO NOT OPERATE BY HAND.
2. Remove existing elbow or insulated cap from bushing with a hotstick per manufacturer's operating instructions, providing a position for the arrester.
3. Firmly tighten a hotstick to the elbow arrester operating eye.
4. Position elbow arrester so that its grounded end points in a downward direction. Place the elbow arrester receptacle area over the bushing, inserting the probe tip approximately 2" into the bushing.
5. Turn face away and firmly thrust the elbow arrester home with a fast, straight motion, which will engage the internal lock of the elbow arrester into the bushing interface.
6. Inspect ground leads for proper connection. If either ground lead disconnects during operation, **DO NOT** attempt to reattach without first pulling arrester off the bushing with the hotstick.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147

A Unit of Thomas & Betts Corporation

Installation Instructions 375BSA - - Bushing Arrester

CONTENTS: Bushing Arrester, Lubricant (DO NOT SUBSTITUTE), Installation Tool, Wrench, Installation Instructions.

The bushing arrester is designed to provide surge protection which connects directly to an apparatus bushing well and has a standard 35kV class loadbreak bushing interface (ANSI/IEEE Std. 386, Fig. 7) for connecting to 35kV class (21.1kV phase-to-ground and 36.6kV phase-to-phase) loadbreak elbow connectors.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

This product is supplied with a protective shipping cover. Remove the shipping cover and replace with appropriate HV insulated cap or connectors before submerging or energizing the circuit.

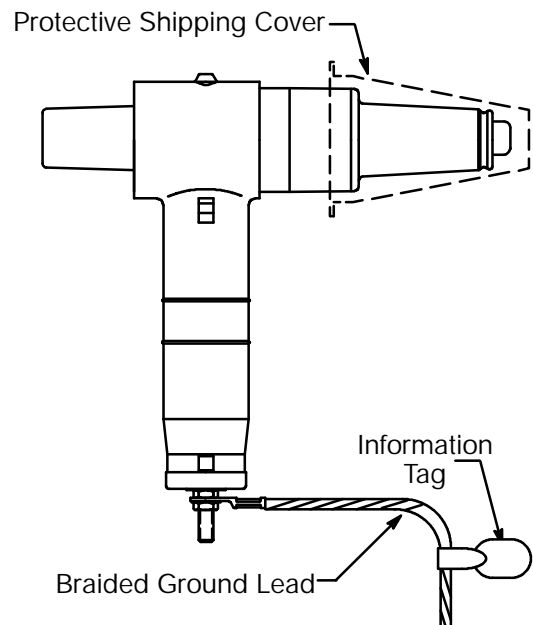
Failure to follow these instructions could result in damage to the product and serious or fatal injury.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.
5. **CHECK INFORMATION TAG FOR MCOV(Maximum Continuous Operating Voltage) RATING.**

System L-L Voltage kV rms		MCOV Rating kV rms	
Nominal	Maximum	Grounded Neutral Circuits	3-Way Ungrounded Circuits
23.0	24.34	—	22.0
34.5	36.51	* 22.0 24.4	—

* Preferred arrester MCOV for this system voltage.



DANGER: The bushing arrester can only be installed on de-energized systems.

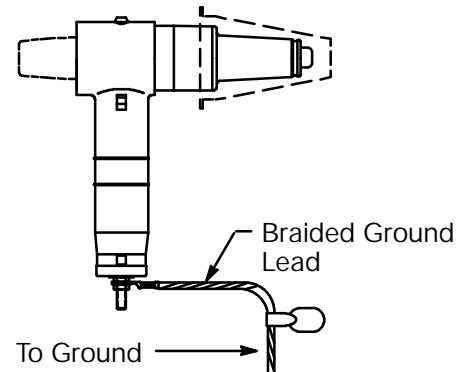
De-energized System Installation

STEP A -- PREPARATION

1. **ENSURE THAT THE MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV) OF THE SYSTEM DOES NOT EXCEED THE MCOV OF THE ARRESTER.** The MCOV of the arrester is printed on the information tag connected to the braided ground lead.
2. Preplan space for the arrester and ground lead so as to not restrict the operation of this or other loadbreak devices and to allow the arrester grounded end to point down.

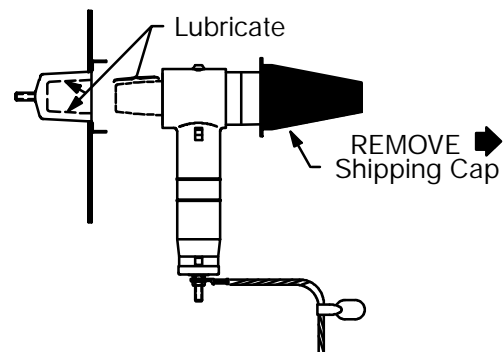
STEP B -- GROUNDING

Connect free end of the braided ground lead to the system ground.



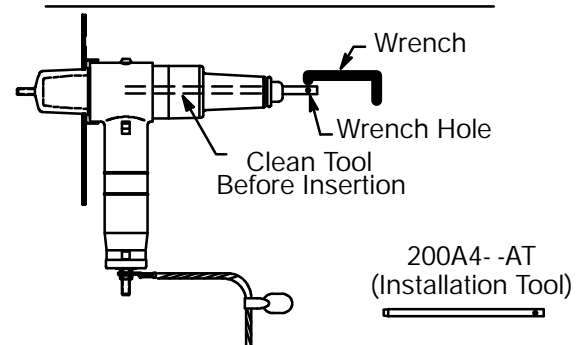
STEP C -- LUBRICATION AND MOUNTING

1. Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Remove the protective shipping cover from the bushing arrester. Lubricate the bushing well interface area of the bushing arrester with the supplied lubricant or ELASTIMOLD approved lubricants.

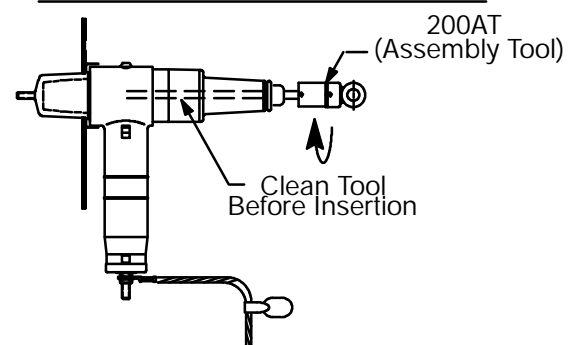


2. The bushing arrester can be mounted with either the supplied installation tool (200A4-AT) or the general assembly tool (200AT). Follow Step 2a to install the bushing arrester with the supplied installation tool (200A4-AT). Follow Step 2b to install the bushing arrester with the general assembly tool (200AT).

- 2a. Place the lubricated portion of the bushing arrester in the apparatus bushing well. Insert the (200A4-AT) installation tool in the bore of the bushing arrester until fully seated. Insert the wrench through the wrench hole of the tool and turn in a clockwise direction until the wrench bends signifying the proper assembly torque has been reached. Remove wrench and 200A4-AT from bushing arrester.



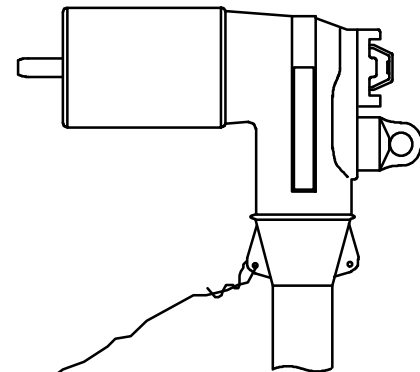
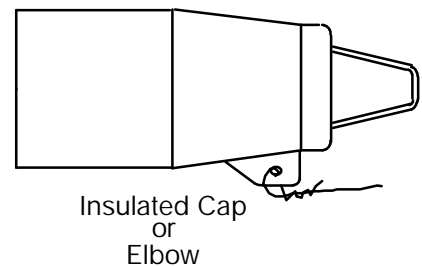
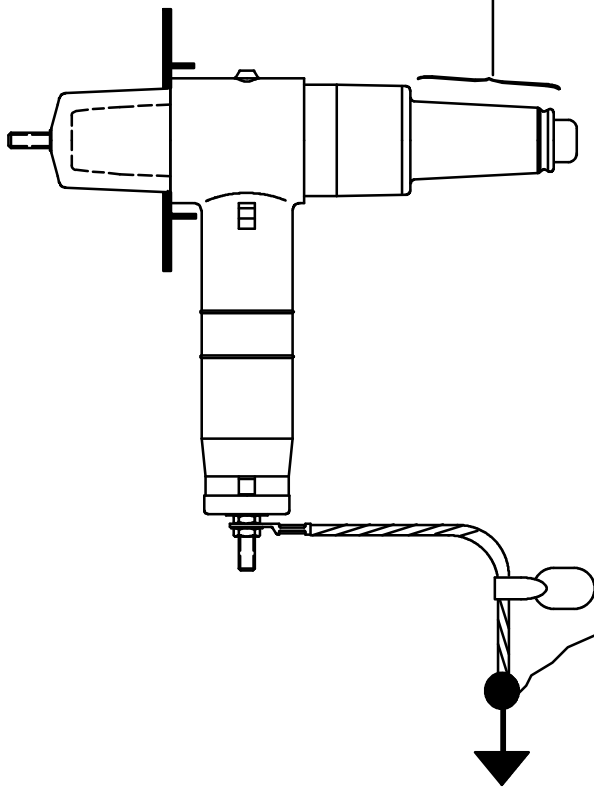
- 2b. Place the lubricated portion of the bushing arrester in the apparatus bushing well. Insert 200AT assembly tool in bore of bushing arrester until fully seated. Insert suitable rod through the eye of the tool and turn in a clockwise direction. Continue to rotate the eye of the 200AT until it begins to ratchet signifying the proper assembly torque has been reached. Remove 200AT from bushing arrester.



STEP D -- CONNECTION

Thoroughly wipe the bushing interface clean of any contaminants and apply a light, uniform coat of supplied lubricant, working thoroughly into surface. CAUTION: EXCESS LUBRICANT may prevent a loadbreak elbow from being fully seated in the "locked on" position. Install the mating products to the bushing arrester following the instructions supplied with the mating products. **If the bushing arrester is not to be immediately mated with an elbow connector, insulated cap or grounding elbow connector, replace the shipping cap. Do not energize or submerge the apparatus with the shipping cover on the bushing arrester.** This is a protective cover only which is not insulated or watertight and only intended to keep the bushing surfaces clean during handling and installation.

Clean Bushing Insert/Elbow Connector
Interface and Lubricate Thoroughly



Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.

Installation & Operating Instructions 375PSA Parking Stand Arrester

CONTENTS: Parking Stand Arrester, Lubricant (DO NOT SUBSTITUTE), Installation/Operating Instruction

The Parking Stand Arrester is designed to provide plug-in surge protection for UD systems. The 375PSA has a standard 35kV class loadbreak bushing interface (ANSI/IEEE STD 386, Fig. 7) for connecting to 35kV class (21.1kV phase-to-ground and 36.6kV phase-to-phase) loadbreak elbow connectors.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

In case of arrester failure it cannot be guaranteed that MOV blocks will be rejected out the bottom.

A failed arrester should be treated as energized since it is possible for a failed housing to hold voltage if re-energized.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

This product is supplied with protective shipping covers. Remove these shipping covers and replace with appropriate HV insulated caps or connectors before submerging or energizing the circuit.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

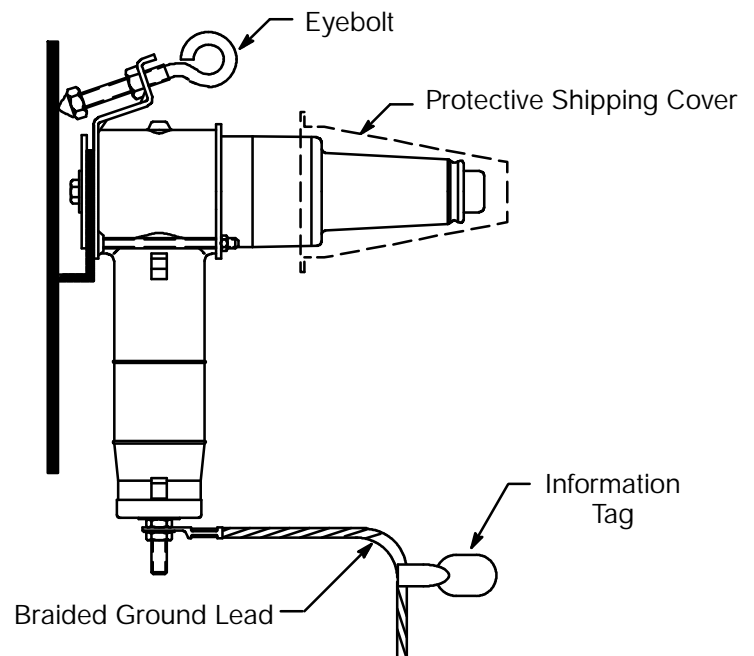
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.
5. **CHECK INFORMATION TAG FOR MCOV (Maximum Continuous Operating Voltage) RATING.**

System L-L Voltage kV rms		MCOV Rating kV rms	
Nominal	Maximum	Grounded Neutral Circuits	3-Way Ungrounded Circuits
23.0	24.34	—	22.0
34.5	36.51	* 22.0 24.4	—

* Preferred arrester MCOV for this system voltage.



ELASTIMOLD

The parking stand arrester can be installed on energized or de-energized systems. When possible, it is preferable to install the parking stand arrester on de-energized systems. For de-energized system installation follow the same procedure as for energized system installation.

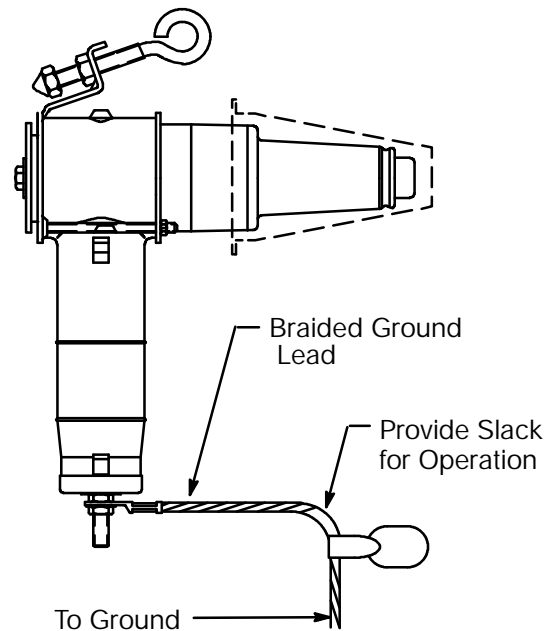
Energized System Installation

STEP A PREPARATION

1. **ENSURE THAT THE MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV) OF THE SYSTEM DOES NOT EXCEED THE MCOV OF THE ARRESTER.** The MCOV of the arrester is printed on the information tag connected to the braided ground lead.
2. Preplan space for the arrester and ground lead so as to not restrict the operation of this or other loadbreak devices and to allow the arrester grounded end to point down.

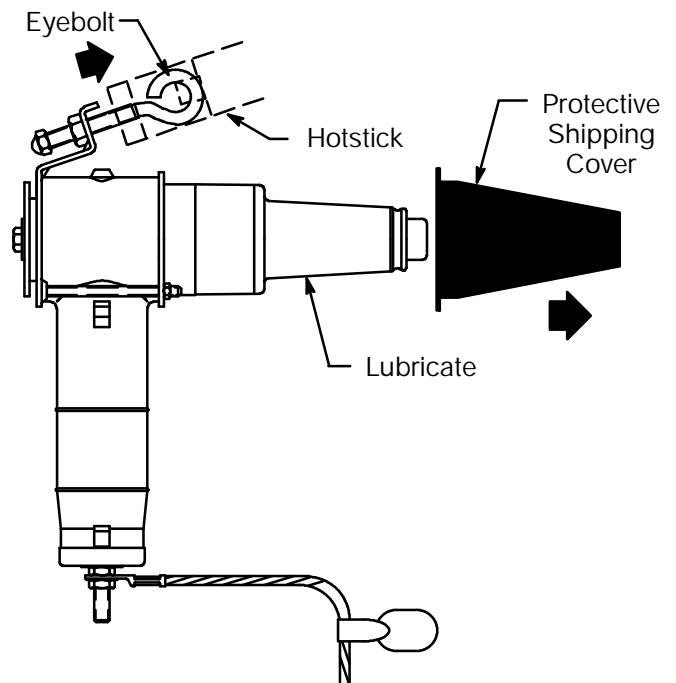
STEP B GROUNDING

Connect free end of the braided ground lead to the system ground. Leave enough slack in the ground lead for hotstick operation of the parking stand arrester.



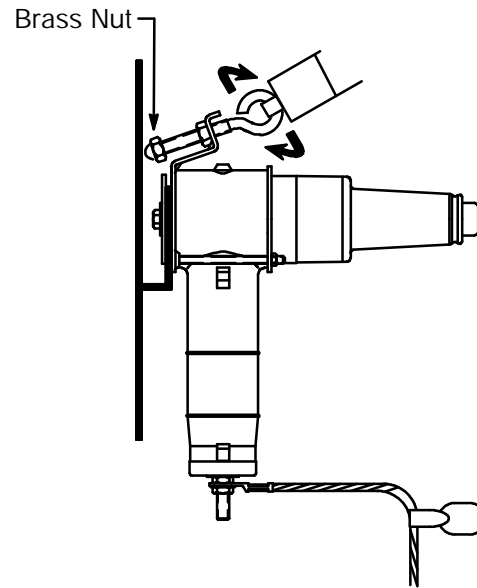
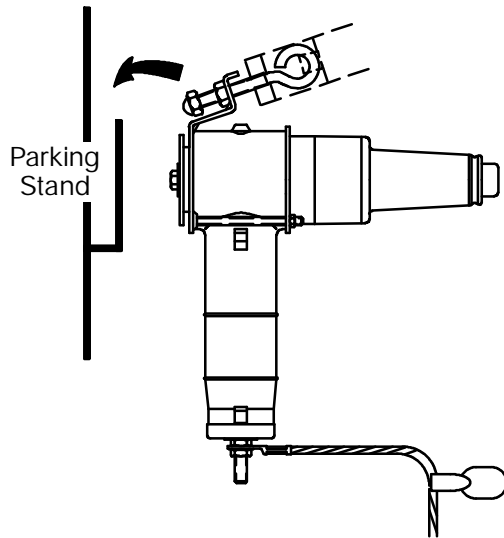
STEP C LUBRICATION AND HOTSTICK ATTACHMENT

1. Remove protective shipping cover and apply a light, uniform coat of supplied lubricant, working thoroughly into surface. **CAUTION: EXCESS LUBRICANT** may prevent a loadbreak elbow from being fully seated in the "locked on" position. Keep the external mating surface free from dirt and grime. Always replace protective cap when parking stand arrester is not in use.
2. Eyebolt should be positioned as shown before attaching the hotstick. Firmly tighten hotstick to the parking stand arrester eyebolt.



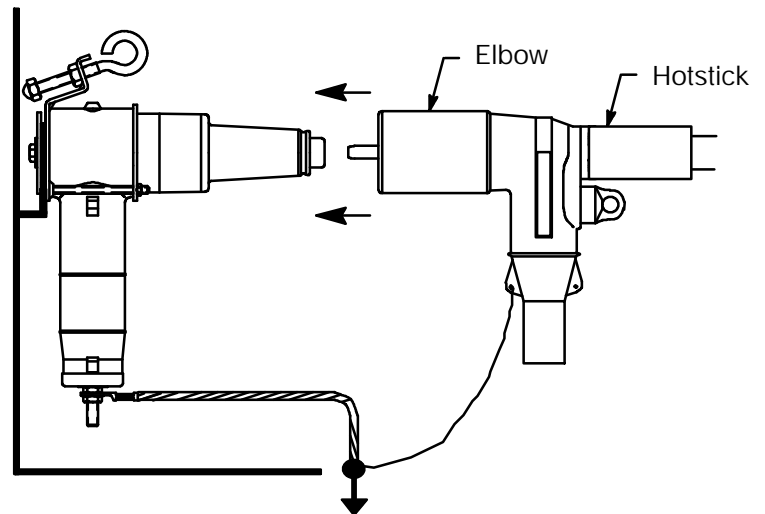
STEP D MOUNTING

1. Use hotstick to slide entire bracket of parking stand arrester into parking stand which is supplied on the apparatus or elsewhere nearby. For mini pad transformers or 3 phase transformers that prevent vertical insertion of entire bracket into parking stand, orient parking stand arrester so as to engage only the round disc in the parking stand and rotate so that the grounded end points down.
2. Back off the hotstick. Rotate the eyebolt clockwise until the brass nut on the opposite end snugly wedges the parking stand arrester to the underside of the parking stand.
DO NOT OVERTIGHTEN BOLT.



STEP E CONNECTION

1. Remove the loadbreak elbow connector from the loadbreak bushing following the manufacturer's applicable LOADBREAK operating instructions. Insert the male contact on the loadbreak elbow into the parking stand arrester and push it home with a fast, firm, straight motion. Make sure it is firmly in place and locking ring is seated.
2. Inspect parking stand arrester ground lead for proper connection. If ground lead disconnects during operation, DO NOT attempt to reattach without first pulling loadbreak elbow off the parking stand arrester with the hotstick, following the manufacturer's applicable LOADBREAK operating instructions.



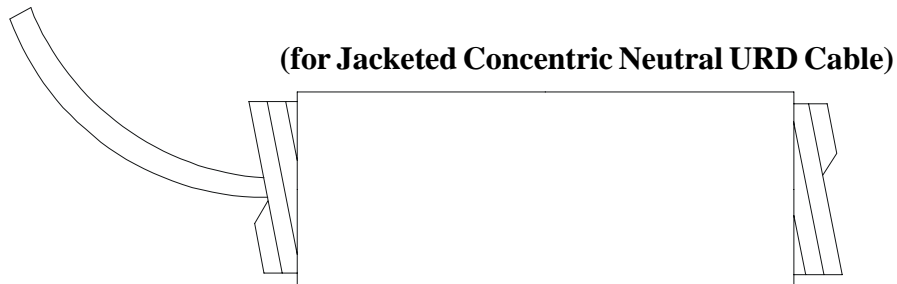
Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.

**PRODUCT SPECIFICATION SHEET**

DESCRIPTION

Cold Shrinkable Jacket Seal

ELASTIMOLD PART NUMBER

200/600ECS**Application:**

The 200ECS and 600ECS Jacket Sealing Kits are designed for use on jacketed concentric neutral cables where a means of resealing the jacket is required on elbows or other terminating accessory installations. Using the field-proven reliability of retained memory cold shrink EPDM rubber, the damaging effects of moisture ingress can be prevented. The chemical, ultraviolet and ozone resistance of this material makes it very suitable for both indoor and outdoor applications. The rugged yet resilient nature of the 200ECS and 600ECS is superior to tape or heat shrinkable products.

Ordering Instructions:

Cat. #	Cable O.D. Range	
	Min.	Max.
200ECS	.80" /20,3mm	1.50"/38,1mm
600ECS	1.28"/32,5mm	2.25"/57,2mm

The 200/600ECS Cold Shrinkable Jacket Seal includes the following:

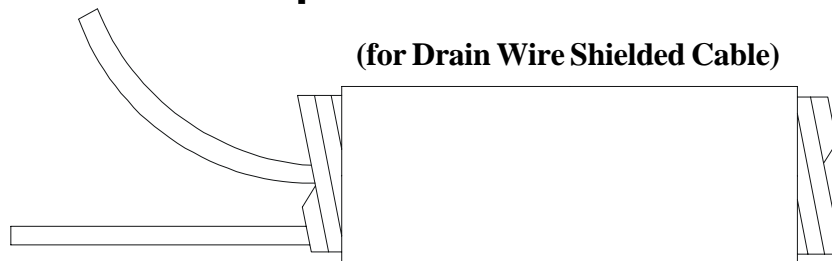
- 1 – Cold Shrink Tube
- 3 – Mastic Tape
- 1 – Installation instruction

DESCRIPTION

**Cold Shrinkable Jacket Seal
w/ Copper Rod & Crimp Connector**



ELASTIMOLD PART NUMBER

200/600ECSG1-2**Application:**

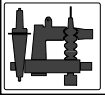
The 200ECS and 600ECS Jacket Sealing Kits are designed for use on jacketed concentric neutral cables where a means of resealing the jacket is required on elbows or other terminating accessory installations. Using the field-proven reliability of retained memory cold shrink EPDM rubber, the damaging effects of moisture ingress can be prevented. The chemical, ultraviolet and ozone resistance of this material makes it very suitable for both indoor and outdoor applications. The rugged yet resilient nature of the 200ECS and 600ECS is superior to tape or heat shrinkable products. The kit includes a crimp connector and a copper rod for connection to the wire shield on the cable.

Ordering Instructions:

Cat. #	Cable O.D. Range	
	Min.	Max.
200ECS	.80" /20,3mm	1.50"/38,1mm
600ECS	1.28"/32,5mm	2.25"/57,2mm

The 200/600ECS Cold Shrinkable Jacket Seal includes the following:

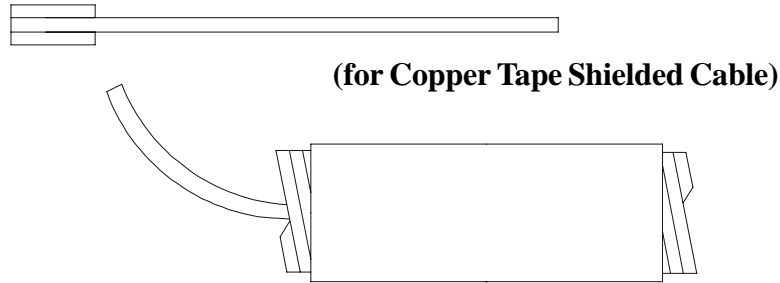
- 1 – Cold Shrink Tube
- 1 – Copper Rod
- 1 – Crimp Connector
- 3 – Mastic Tape
- 1 – Installation instruction



DESCRIPTION

Cold Shrinkable Jacket Seal w/ Copper Rod & Constant Force Spring

ELASTIMOLD PART NUMBER

200/600EC SG2-2**Application:**

The 200ECS and 600ECS Jacket Sealing Kits are designed for use on jacketed concentric neutral cables where a means of resealing the jacket is required on elbows or other terminating accessory installations. Using the field-proven reliability of retained memory cold shrink EPDM rubber, the damaging effects of moisture ingress can be prevented. The chemical, ultraviolet and ozone resistance of this material makes it very suitable for both indoor and outdoor applications. The rugged yet resilient nature of the 200ECS and 600ECS is superior to tape or heat shrinkable products. The kit includes a copper rod and constant force spring for connection to the tape shield on the cable.

Ordering Instructions:

Cat. #	Cable O.D. Range	
	Min.	Max.
200ECS	.80" /20,3mm	1.50"/38,1mm
600ECS	1.28"/32,5mm	2.25"/57,2mm

The 200/600ECS Cold Shrinkable Jacket Seal includes the following:

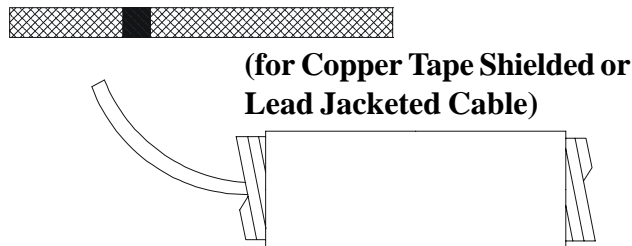
- 1 – Cold Shrink Tube
- 1 – Copper Rod
- 1 – Constant force spring
- 3 – Mastic Tape
- 1 – Installation instruction

DESCRIPTION

Cold Shrinkable Jacket Seal w/ Copper Braid & Constant Force Spring



ELASTIMOLD PART NUMBER

200/600EC SG3**Application:**

The 200ECS and 600ECS Jacket Sealing Kits are designed for use on jacketed concentric neutral cables where a means of resealing the jacket is required on elbows or other terminating accessory installations. Using the field-proven reliability of retained memory cold shrink EPDM rubber, the damaging effects of moisture ingress can be prevented. The chemical, ultraviolet and ozone resistance of this material makes it very suitable for both indoor and outdoor applications. The rugged yet resilient nature of the 200ECS and 600ECS is superior to tape or heat shrinkable products. The kit include a braid and constant force spring for connection to the tape shield or lead jacket on the cable.

Ordering Instructions:

Cat. #	Cable O.D. Range	
	Min.	Max.
200ECS	.80" /20,3mm	1.50"/38,1mm
600ECS	1.28"/32,5mm	2.25"/57,2mm

The 200/600ECS Cold Shrinkable Jacket Seal includes the following:

- 1 – Cold Shrink Tube
- 1 – Copper Braid
- 1 – Constant force spring
- 3 – Mastic Tape
- 1 – Installation instruction

Installation Instructions ECS Jacketed Cable Sealing Kit for Jacketed Concentric Neutral Shielded Cable 200 ECS – Cable O.D. Range 0.80"–1.50" (20–38mm) 600 ECS – Cable O.D. Range 1.28"–2.30" (32–58mm)

CONTENTS: 1 – Cold Shrink Tube, 3 – Pieces Mastic Strip, 1 – Installation Instructions.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

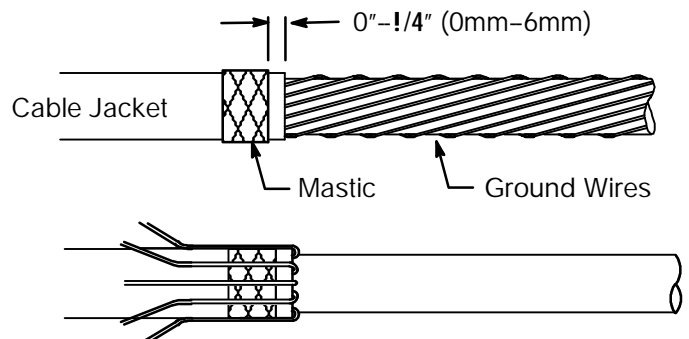
IMPORTANT: Cutback dimensions should be checked; exposed length of semi-con between cable jacket and device end should be no more than 2 1/2 inches (64mm).

STEP A

Remove cable jacket for a distance of 2 1/2" (64mm) more than cutback length for the cable semicon as stated in the manufacturer's instructions.

Wrap the first mastic strip around the cable jacket 0" to 1/4" from the end. Stretch as needed to completely encircle the cable. Bend the ground wires back over the mastic and along the jacket, pressing them into the mastic.

IMPORTANT: Ground wires should not touch each other when pressed into the mastic to prevent water ingress.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA

(908)852-1122 FAX: (908)813-2147

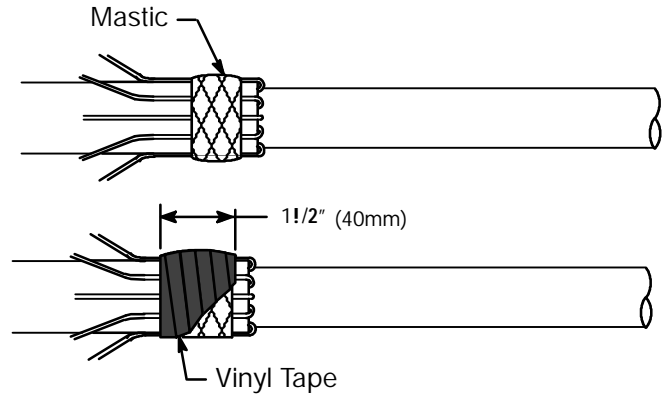
A Unit of Thomas & Betts Corporation

STEP B

Wrap the second mastic strip over the ground wires above the previously applied mastic. Press to fill voids.

Over wrap the mastic and wires tightly with two half-lapped layers of vinyl tape for a width of approximately 1 1/2" (40mm).

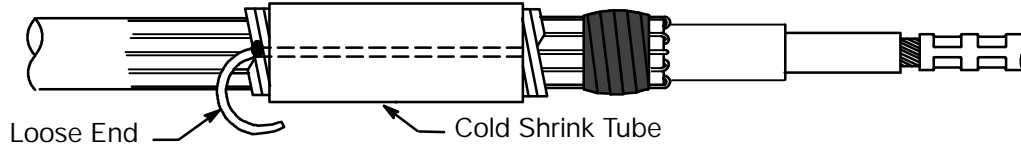
Prepare the cable end per the manufacturer's instructions for the elbow, joint or terminator.



STEP C

Slide on the cold shrink tube with loose end away from the connector.

Install the elbow, joint or terminator per manufacturer's instructions.

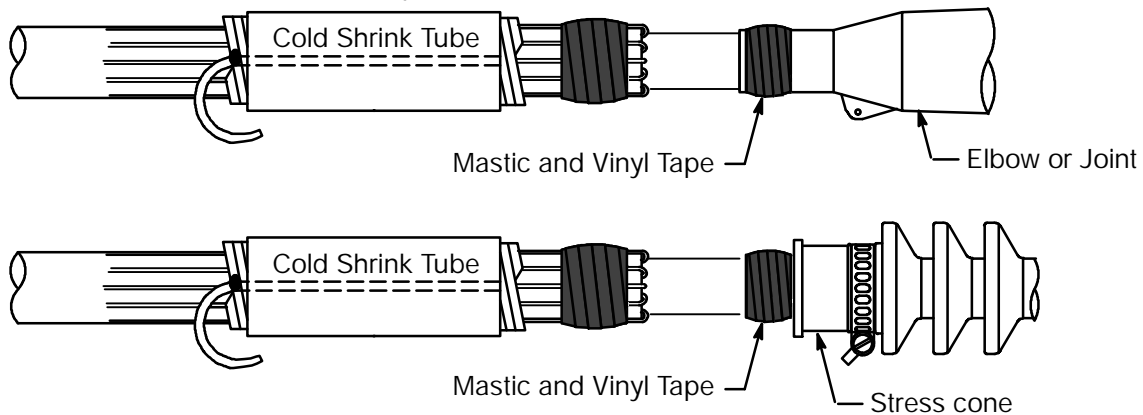


STEP D

Wrap the third mastic strip around product end for elbows and joints. For terminators wrap strip of mastic immediately below stress cone.

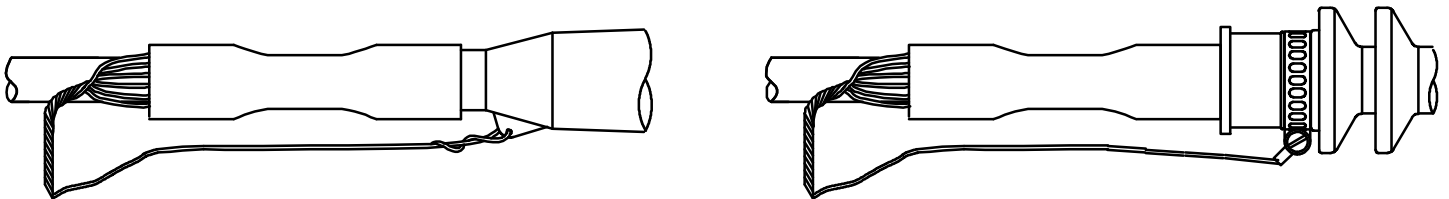
Over wrap mastic with two half-lapped layers of vinyl tape. Pull loose end from back to unwind cord in clockwise direction until plastic core is flush with end of cold shrink tube. Slide cold shrink tube into position and continue to unwind cord in clockwise direction. Cold shrink tube will collapse at product end first.

IMPORTANT: Tube must overlap elbow or joint end at least 1 inch (25mm) for a proper seal.



STEP E

Connect the elbow, joint or terminator to the concentric neutral wires per manufacturers' instructions.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation

Installation Instructions ECS-G1

Jacketed Cable Grounding and Sealing Kit for Jacketed Drain Wire Shielded Cable

200 ECS--G1 -- Cable O.D. Range 0.80" - 1.50" (20 - 38mm)

600 ECS--G1 -- Cable O.D. Range 1.28" - 2.30" (32 - 58mm)

CONTENTS: Cold Shrink Tube, 3-Mastic, Ground Rod, Installation Instructions.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

These products are supplied with protective shipping covers. Remove these shipping covers prior to installing on the appropriate HV insulated connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

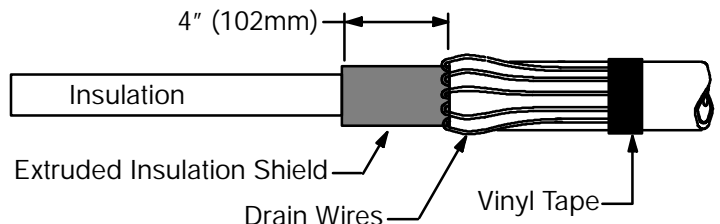
IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

STEP 1

Wipe the outer jacket clean a distance of 30" (750mm). Remove the outer jacket for a distance of 4" (102mm) beyond the extruded insulation shield dimension recommended

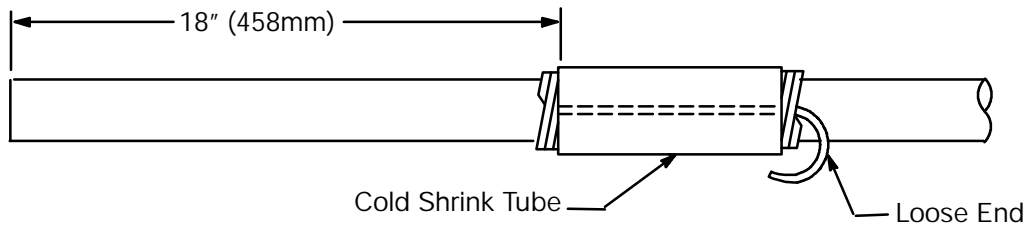
by the manufacturer of the product you are installing. Un-wrap the outer wires, **DO NOT CUT OFF**, bend and fold back out of the way. Wrap a piece of vinyl tape around cable covering the wire ends.



ELASTIMOLD

STEP 2

Slide cold shrink tube (loose end first) onto the cable a distance of 18" (458mm).

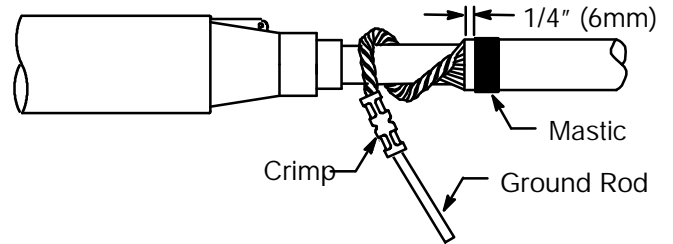


STEP 3

Install the connector on the cable per the installation instruction included with the part.

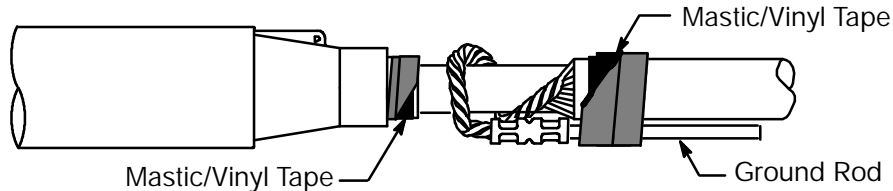
STEP 4

Cut the twisted wires to length to fit into the connector of the ground rod and crimp. Apply one wrap of mastic as shown.



STEP 5

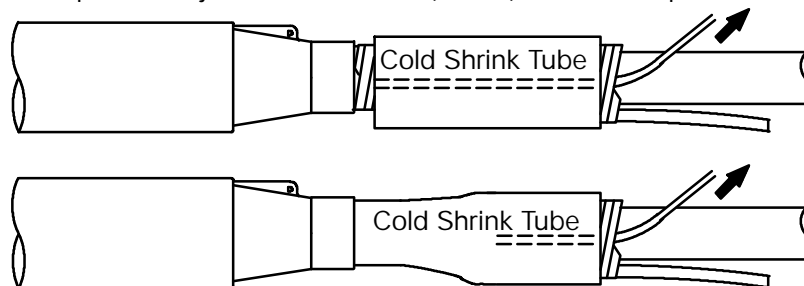
1. Place ground rod against the cable. Apply second piece of mastic over the ground rod as shown.
2. Over wrap mastic with two half-lapped layers of vinyl tape.
3. Wrap the third piece of mastic around the cable entrance of the connector being used. Over wrap mastic with two half-lapped layers of vinyl tape.



STEP 6

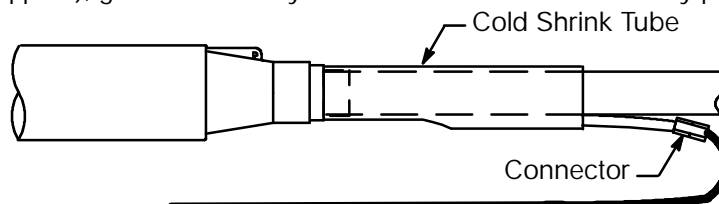
Pull loose end from back to unwind cord in clockwise direction until plastic core is flush with end of cold shrink tube. Slide cold shrink tube into position and continue to unwind cord in clockwise direction. Cold shrink tube will collapse at product end first.

IMPORTANT: Tube must overlap elbow or joint end at least 1" (25mm) or cable adapter to the shoulder for a proper seal.



STEP 7

Using suitable connector (Not Supplied), ground assembly in accordance with standard utility practices.



Installation Instructions ECS-G2

Jacketed Cable Grounding and Sealing Kit for Jacketed Copper Tape Shielded Cable

200 ECS--G2 -- Cable O.D. Range 0.80"--1.50" (20--38mm)

600 ECS--G2 -- Cable O.D. Range 1.28"--2.30" (32--58mm)

CONTENTS: Cold Shrink Tube, 3-Mastic, Ground Rod, Flat Copper Braid, Conductive Copper Tape, Spring Coil, Installation Instructions.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

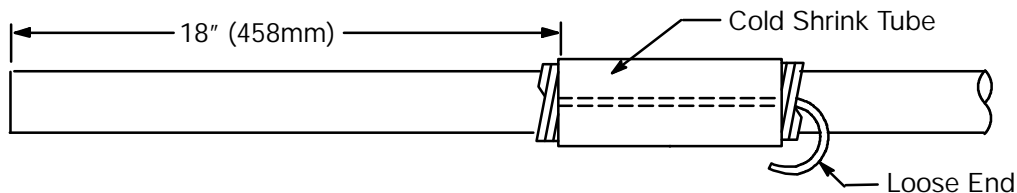
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

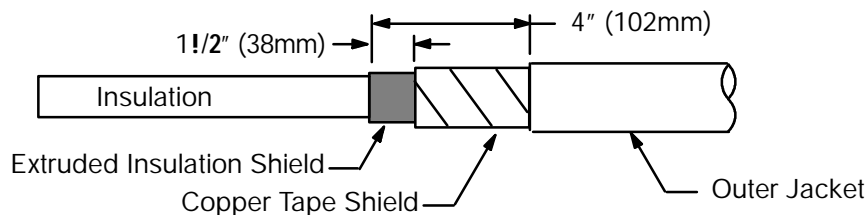
STEP 1

Wipe the outer jacket clean a distance of 30" (750mm). Slide cold shrink tube (loose end first) onto the cable a distance of 18" (458mm).



STEP 2

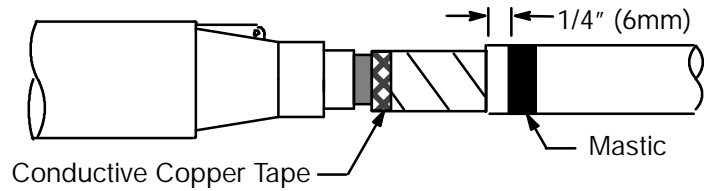
Remove the outer jacket for a distance of 4" (102mm) beyond the extruded insulation shield skive dimension recommended by the manufacturer of the product you are installing. Remove copper tape shield for a distance of 1 1/2" (38mm) from the end of the extruded insulation shield.



ELASTIMOLD

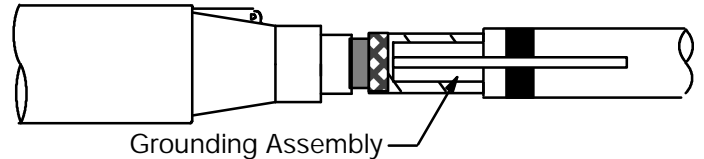
STEP 3

Wrap conductive copper tape around the edge to keep the copper tape shield in place. Install the desired product per the manufacturer's instructions included with the product. Apply one wrap of mastic, as shown.



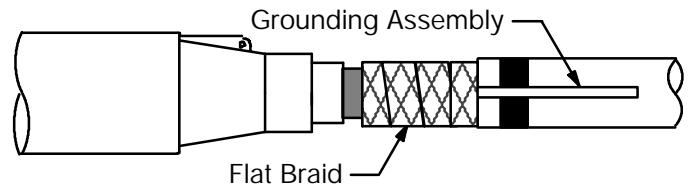
STEP 4

Place grounding assembly against the outer jacket, as shown.



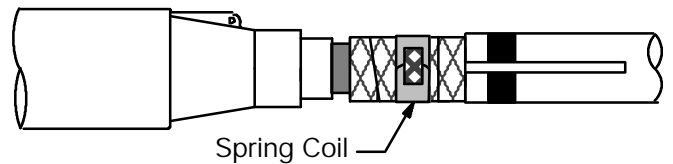
STEP 5

Wrap the flat braid over the grounding assembly, five times and cut off excess.



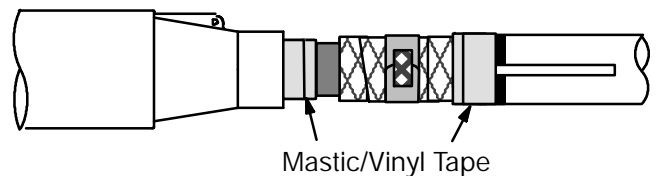
STEP 6

Wrap spring coil around the end of the flat braid, tighten the spring coil with fingers and secure the end of the coil with a short piece of copper tape.



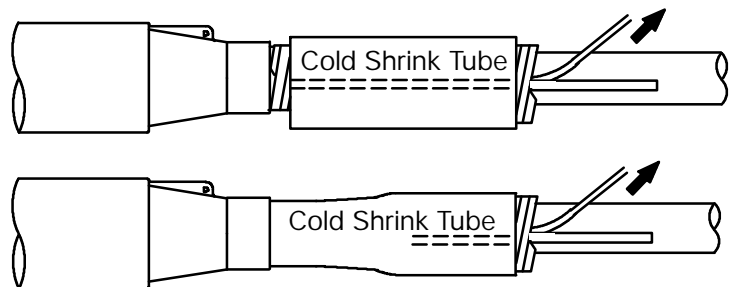
STEP 7

1. Place ground rod against the cable. Apply second piece of mastic over the ground rod, as shown.
2. Over wrap mastic with two half-lapped layers of vinyl tape.
3. Wrap the third piece of mastic around the cable entrance of the connector being used. Over wrap mastic with two half-lapped layers of vinyl tape.



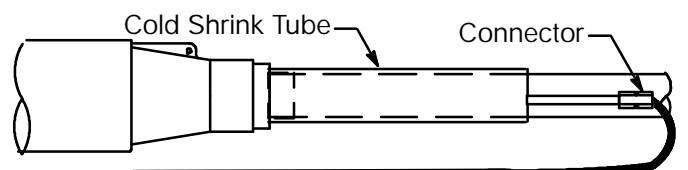
STEP 8

Pull loose end from back to unwind cord in clockwise direction until plastic core is flush with end of cold shrink tube. Slide cold shrink tube into position and continue to unwind cord in clockwise direction. Cold shrink tube will collapse at product end first. **IMPORTANT:** When no cable adapters are used, tube must overlap elbow or joint end at least 1" (25mm) for a proper seal. When cable adapters are used, tube must overlap adapter and butt against accompanying housing for a proper seal.



STEP 9

Using suitable connector (Not Supplied), ground assembly in accordance with standard utility practices.



Installation Instructions ECS-G3

Jacketed Cable Grounding and Sealing Kit for Jacketed Copper Tape Shielded Cable

200 ECS--G3 -- Cable O.D. Range 0.80" -- 1.50" (20--38mm)

600 ECS--G3 -- Cable O.D. Range 1.28" -- 2.30" (32--58mm)

CONTENTS: Cold Shrink Tube, 3-Mastic, Flat Copper Braid, Conductive Copper Tape, Spring Coil, Installation Instructions.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

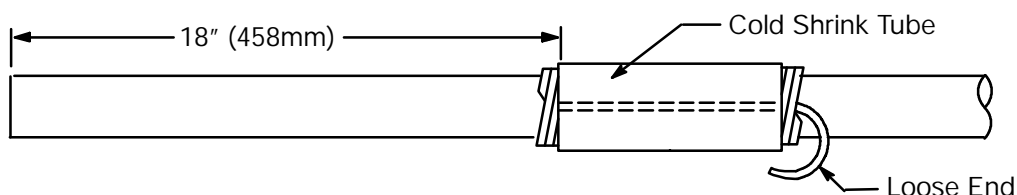
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

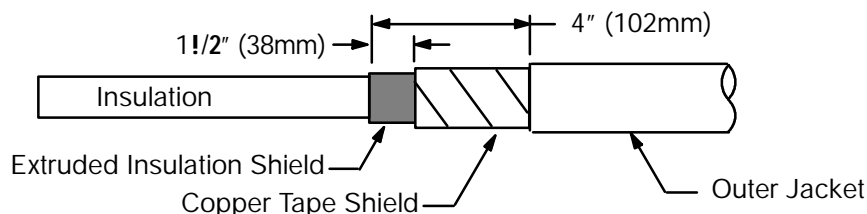
STEP 1

Wipe the outer jacket clean a distance of 30" (750mm). Slide cold shrink tube (loose end first) onto the cable a distance of 18" (458mm).



STEP 2

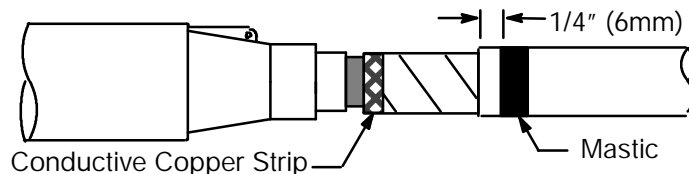
Remove the outer jacket for a distance of 4" (102mm) beyond the extruded insulation shield skive dimension recommended by the manufacturer of the product you are installing. Remove copper tape shield for a distance of 1 1/2" (38mm) from the end of the extruded insulation shield.



ELASTIMOLD

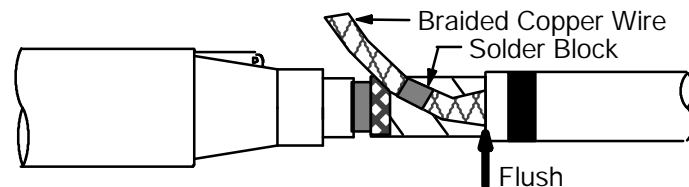
STEP 3

Wrap conductive copper tape around the edge to keep the copper tape shield in place. Install the desired product per the manufacturer's instructions included with the product. Apply one wrap of mastic, as shown.



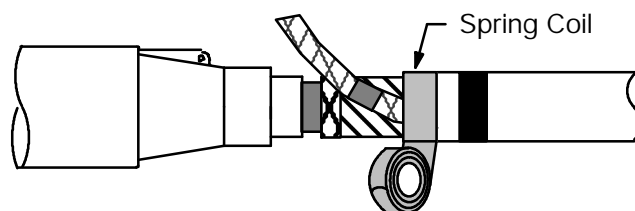
STEP 4A

Slightly flare the end of the braid with the solder block and place it on the copper shield, flush against the cable jacket.



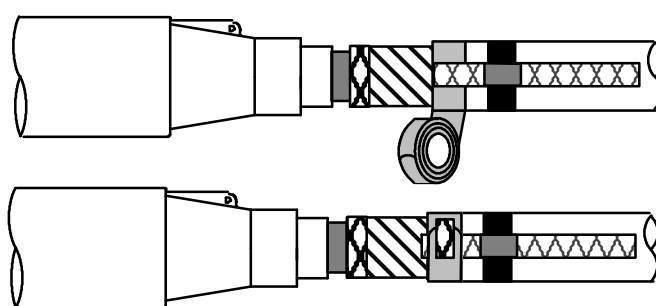
STEP 4B

Wrap the spring coil around braid and cable two complete turns.



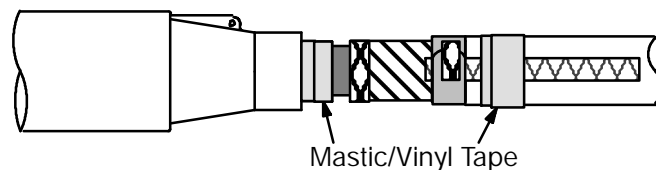
STEP 4C

Bend braid back over the spring and wrap the remainder of the spring coil around the braid and cable. Tighten the spring coil with fingers and secure the end of the coil with a short piece of copper tape. Be sure the solder block of braid is centered on top of the mastic tape.



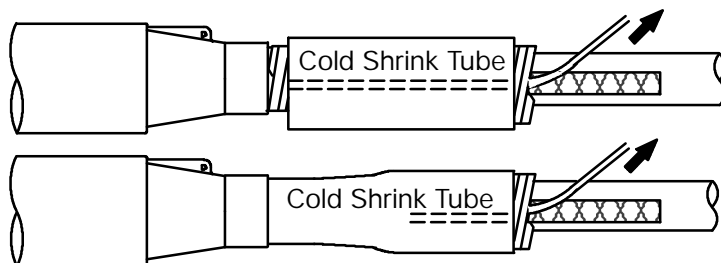
STEP 5

1. Apply mastic over the braid, as shown.
2. Over wrap mastic with two half-lapped layers of vinyl tape.
3. Wrap the third piece of mastic around the cable entrance of the connector being used. Over wrap mastic with two half-lapped layers of vinyl tape.



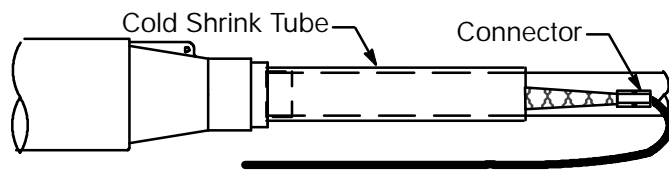
STEP 6

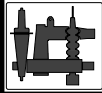
Pull loose end from back to unwind cord in clockwise direction until plastic core is flush with end of cold shrink tube. Slide cold shrink tube into position and continue to unwind cord in clockwise direction. Cold shrink tube will collapse at product end first. **IMPORTANT:** When no cable adapters are used, tube must overlap elbow or joint end at least 1" (25mm) for a proper seal. When cable adapters are used, tube must overlap adapter and butt against accompanying housing for a proper seal.



STEP 7

Using suitable connector (Not Supplied), ground assembly in accordance with standard utility practices.



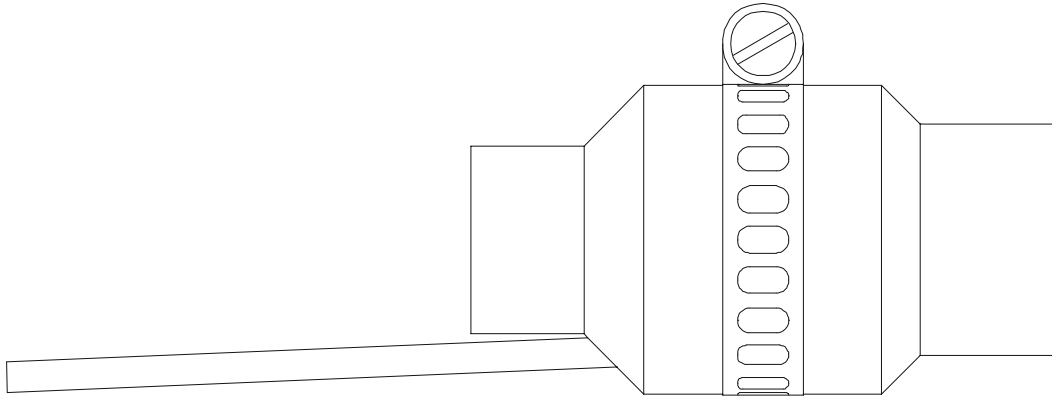


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Metallic Tape Shield Adapter

ELASTIMOLD PART NUMBER

20MA-W

Ordering Instruction:

The ELASTIMOLD 20MA is designed for grounding of metallic tape shielded cable and can be used with all ELASTIMOLD products with the exception of the 650S and K656CI, K656CY & K656CH series or the PCJ series joints. This device eliminates the need for soldering and/or taping when grounding tape shielded cable. The 20MA has a current carrying capacity equal to a No.6 AWG copper (sizes E - J) or a No. 2 AWG copper (sizes K - N) equivalent cable shield. The 20MA is a fully shielded, submersible grounding device.

The 20MA is designed for use on metallic tape shielded cable with insulation diameters of .575" to 1.785" (E through N).

The 20MA kit contains the following:

- 1 – Housing
- 1 – Ground lead & contact
- 1 – clamp
- 1 – Tube, lubricant
- 1 – Installation Instruction

Example:

The ordering number for a 20MA Grounding Device for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 20MA-G.

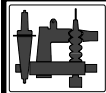
Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 1 (W)

20MA –

Cable Insulation Dia. Range		"W" Code
Inches	mm	Code
.530 - .680	13,4 - 17,3	E
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N

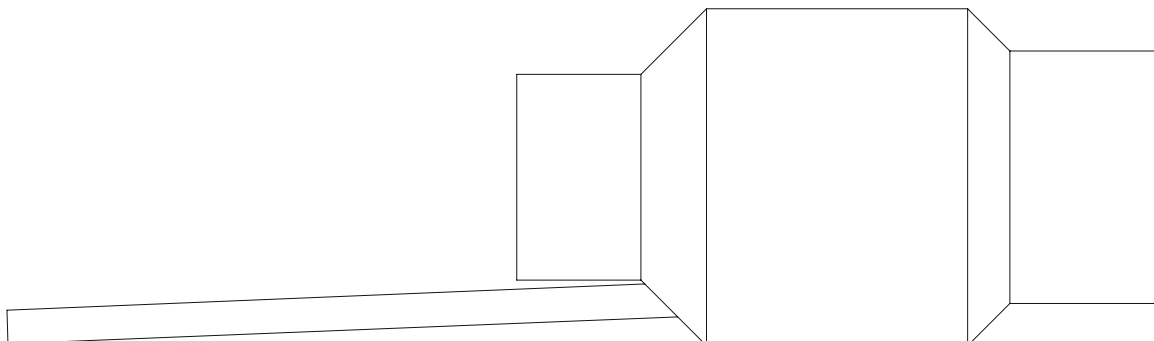


DESCRIPTION

Wire Shield Adapter

ELASTIMOLD PART NUMBER

21MA-W



Ordering Instruction:

The ELASTIMOLD 21MA is designed for grounding of metallic wire shielded cable when used with all ELASTIMOLD products with the exception of the 650S and K656CI, K656CY & K656CH series or the PCJ series joints. This device eliminates the need for soldering and/or taping when grounding wire shielded cable. The 21MA has a current carrying capacity equal to a No.6 AWG copper (sizes E - J) or a No. 2 AWG copper (sizes K - N) equivalent cable shield. The 21MA provides a fully shielded, submersible grounding device.

The 21MA is designed for use on wire shielded cable with insulation diameters of .575" to 1.785" (E through N).

The 21MA kit contains the following:

- 1 – Housing
- 1 – Ground lead & crimp barrel
- 1 – Tube, lubricant
- 1 – Installation Instruction

Example:

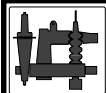
The ordering number for a 21MA Grounding Device for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 21MA-G.

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 1 (W)
21MA –

Cable Insulation Dia. Range		"W" Code
Inches	mm	Code
.530 - .680	13,4 - 17,3	E
.640 - .820	16,3 - 20,8	F
.760 - .950	19,3 - 24,1	G
.850 - 1.050	21,6 - 26,7	H
.980 - 1.180	24,9 - 30,0	J
1.090 - 1.310	27,7 - 33,3	K
1.180 - 1.465	30,0 - 37,2	L
1.280 - 1.430	32,5 - 36,3	LM
1.370 - 1.630	34,8 - 41,4	M
1.515 - 1.780	38,5 - 45,2	N

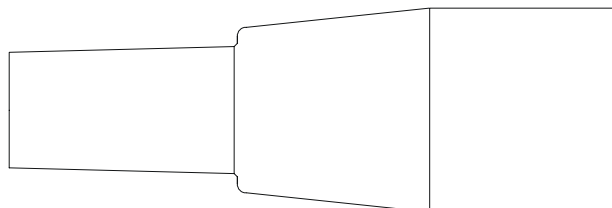


DESCRIPTION

Shield Adapter

ELASTIMOLD PART NUMBER

10TL-W



Application:

The 10TL is designed for use in conjunction with all ELASTIMOLD distribution products for terminating tape shielded, lead jacketed or UniShield type cables. The 10TL is precision molded of EPDM conductive rubber and provides continuity between the cable shield and the ELASTIMOLD product used. The 10TL provides a fully shielded, watertight ground connection.

The 10TL is designed for use on semiconductive and/or flat metallic tape shielded, lead jacketed or UniShield type cables with insulating diameters of .495" to 1.785" (sizes EB through PA).

The 10TL kit contains the following:

- 1 – Housing
- 1 – Tube, lubricant
- 1 – Installation Instruction

Example:

The ordering number for a 10TL Shield Adapter for a 1/0 stranded, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is 10TL-GAB.

Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 1 (W)

10TL –

|

Cable Insulation Dia. Range		Housing
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB
.930 - 1.040	23,6 - 26,4	GH
.980 - 1.115	24,9 - 28,3	HA
1.040 - 1.175	26,4 - 29,9	HAB
1.095 - 1.240	27,8 - 31,5	HB
1.160 - 1.305	29,5 - 33,2	HJ
1.220 - 1.375	31,0 - 34,9	JA
1.285 - 1.395	32,6 - 35,4	JAB
1.335 - 1.520	34,4 - 38,6	JB
1.485 - 1.595	37,7 - 40,5	KA
1.530 - 1.640	38,9 - 41,7	KAB
1.575 - 1.685	40,0 - 42,8	KB
1.665 - 1.785	42,3 - 45,3	PA
1.755 - 1.875	44,6 - 47,6	PB

Installation Instructions 20MA – Grounding Device

CONTENTS: 20MA Housing with corrugated contact and ground lead, 1 or 2 – Clamps (1 for sizes E to H; 2 for sizes J to N), Lubricant, Installation Instructions.

The 20MA is designed for use with ELASTIMOLD distribution products for connecting and/or terminating metallic tape shielded cable. The installation instructions packed with ELASTIMOLD distribution product(s) are a **REQUIRED SUPPLEMENT** to these instructions. Read each step thoroughly **BEFORE** installing the 20MA.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

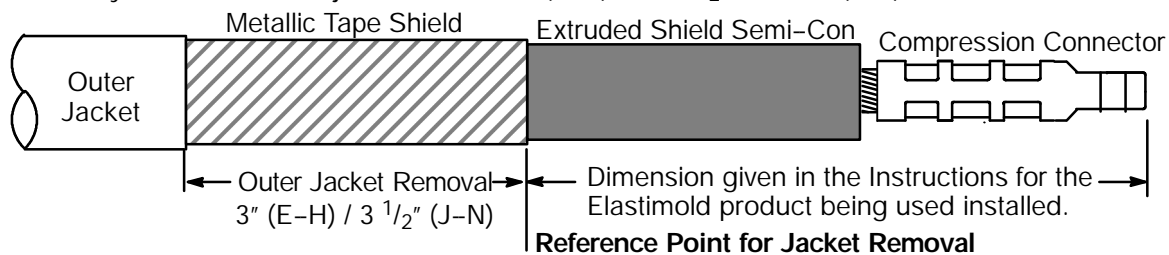
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

FOR USE ON METALLIC TAPE SHIELDED CABLE WITH EXTRUDED NON-METALLIC SHIELD

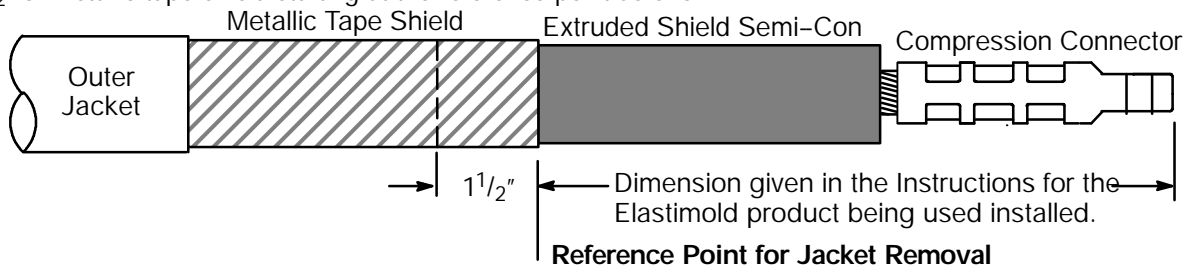
STEP 1

IMPORTANT To determine the outer jacket cut back for installing the 20 MA a point of reference must be established. This point of reference will be marked on the semi-con shield. Follow the instructions for the product being installed to obtain the **shield cut back dimension** and this will be the reference point for the jacket removal for the MA. At the step that directs the dimension of semi-con cut back make a mark. **Do not remove the semi-con at this point. This will occur following the installation of the MA.** From this reference point carefully remove the outer jacket 3" for sizes (E-H) and 3 1/2" for sizes (J-N).



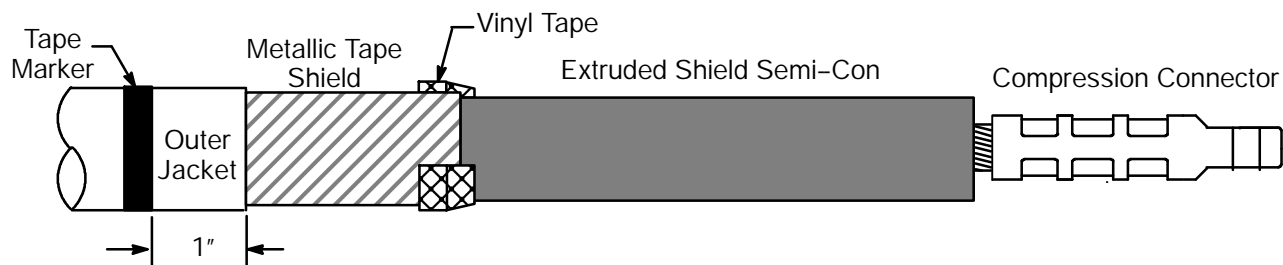
STEP 2

Remove 1 1/2" of metallic tape shield starting at the reference point as shown.



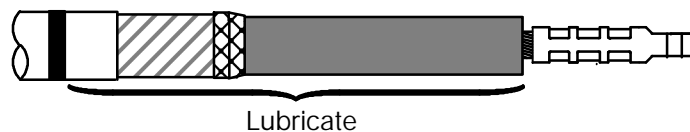
STEP 3

Place two wraps of vinyl tape on the end of the metallic tape shield to prevent unraveling. Place a tape marker 1" from the end of the outer jacket as shown.



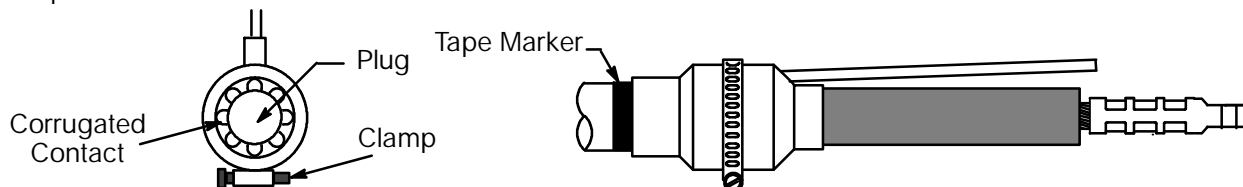
STEP 4

Apply lubrication sparingly to the cables as shown.



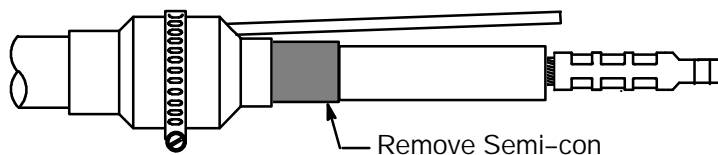
STEP 5

- Place the clamp(s) over the housing (one clamp for sizes E to H and two clamps for sizes J to N) and remove the protective plug from inside the housing. Lubricate the inside of both ends of the housing.
- Slide the grounding device onto the cable with a back and forth twisting motion until it is flush with the tape marker.
- Tighten the clamp in stages so that the corrugated contact is tight against the metallic tape but not under excessive pressure. Between stages, test the tightness by rotating the housing back and forth approximately 1/8 turn. When a definite drag is felt, the clamp is tight enough.
- Remove tape marker.



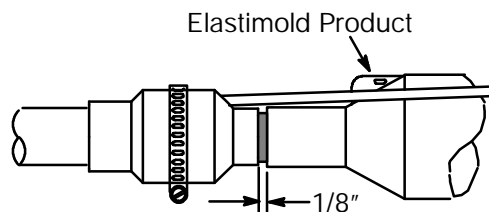
STEP 6

Continue following the installation instructions for the product being installed starting with the removal of the semi-con shield and complete the installation.



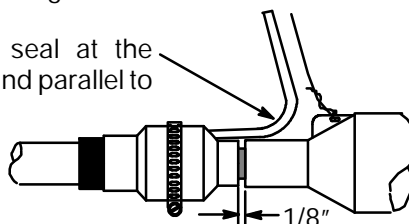
STEP 7

- When completed there should be approximately 1/8" between the termination and the MA grounding device.



- Attach a short length of No. 14 copper wire (or equivalent) to the grounding eye or grounding clamp of the ELASTIMOLD product. Connect this wire and the 20MA ground lead to system ground.

IMPORTANT: To ensure a water seal at the ground lead the lead must be straight and parallel to the cable as shown.



Installation Instructions 21MA Grounding Device

CONTENTS: 21MA Housing, Ground Lead with Crimp Contact, Lubricant, Installation Instructions.

The 21MA is designed for use with ELASTIMOLD distribution products for connecting and/or terminating drain wire shielded cable.

The installation instructions packed with ELASTIMOLD distribution product(s) are a REQUIRED SUPPLEMENT to these instructions. Read each step thoroughly BEFORE installing the 21MA.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

IMPORTANT

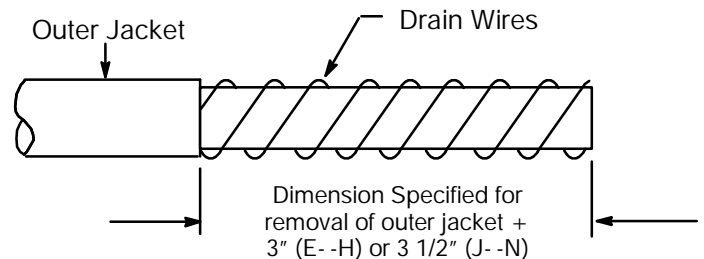
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.

3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

FOR USE ON DRAIN WIRE SHIELDED CABLE WITH EXTRUDED NON-METALLIC SHIELD

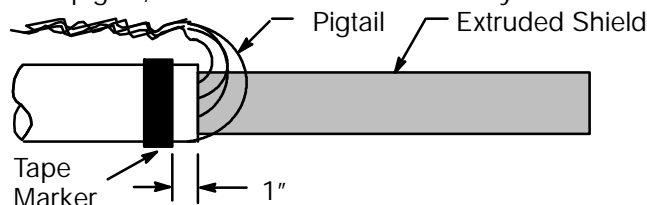
STEP 1

The installation instructions for the ELASTIMOLD product being used with this grounding device specifies the dimension for the removal of the outer jacket (normally specified in Step 2, 3 or 4 of the instructions). To the specified dimension add: 3" for MA sizes E to H, or 3 1/2" for MA sizes J to N. Carefully remove the outer jacket to the dimension shown. DO NOT CUT OR DAMAGE THE DRAIN WIRES.



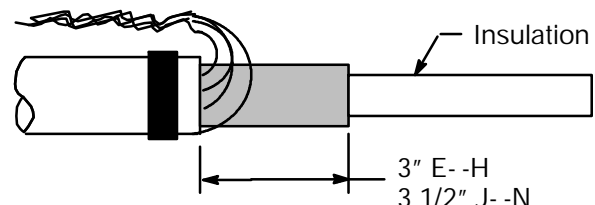
STEP 2

Wrap 2 turns of PVC insulating electrical tape over the outer jacket 1" from the edge of the outer jacket. This is to serve as a tape marker. Gather together the drain wires, twist to form a pigtail, and bend back out of the way.



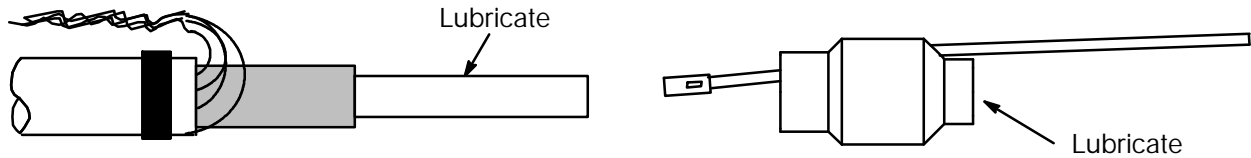
STEP 3

Remove the extruded semi-conductive shield to a point 3" (for sizes E to H) or 3 1/2" (for sizes J to N) from the edge of the outer jacket. DO NOT NICK THE INSULATION.



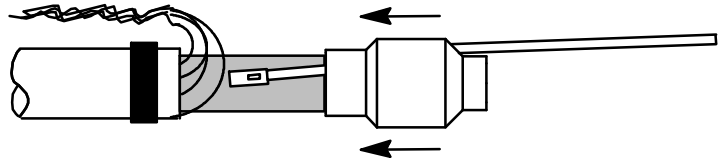
STEP 4

Apply lubricating grease sparingly to the cable insulation and the inside of the device as shown.



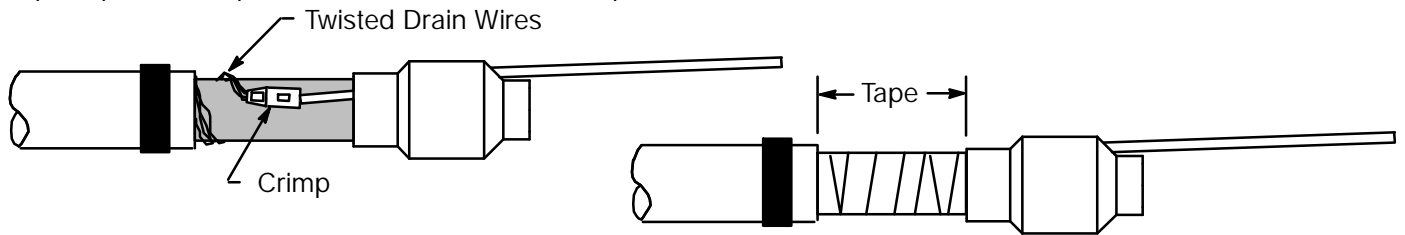
STEP 5

Slide the device onto the cable with a back and forth motion until the crimp barrel and 21MA housing are in the position shown.



STEP 6

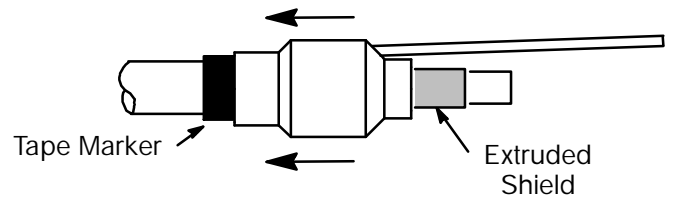
Wrap the twisted drain wires around the cable one turn as shown, cut the twisted drain wires to fit into the connector and crimp. Tape the crimp connector to the cable in the position shown.



STEP 7

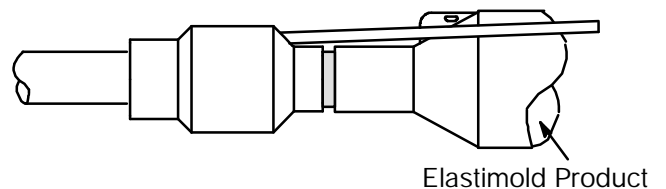
Slide the 21MA housing over the cable and crimped connector with a slight back and forth twisting motion until it is flush with the tape marker. It may be necessary to pull or twist the ground lead while sliding the housing into position.

Remove tape marker.



STEP 8

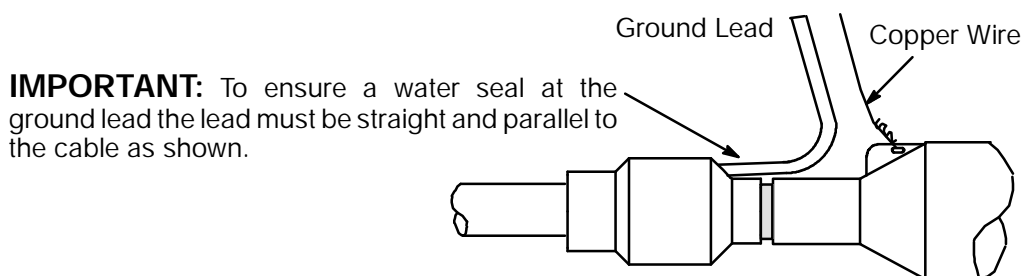
Install the ELASTIMOLD product following the installation instructions supplied with that product. The end of the Elastimold product should be within 1/8" of the end of the 21MA.



STEP 9

Connect a wire (No. 14 copper or equivalent) to the grounding eye of the ELASTIMOLD product being used. Connect this wire and the 21MA ground lead to system ground.

21MA ground lead is No. 6 or No. 2 copper. Connection to ground should be equivalent.



CAUTION:

Read instructions thoroughly and completely prior to beginning installation.

Installation Instructions 10TL

Adapters For Tape, Lead and UniShield®* Type Cables

CONTENTS: 1—Adapter housing, 1—Wiping cloth, 1—Tube, lubricant, 1—Installation instruction.

CAUTION

The product to which these instructions relate should be installed only by competent personnel familiar with good safety practices in handling high voltage electrical equipment. These instructions are not intended as a substitute for adequate training and experience in such good safety practices. Before installing, be sure that this product is rated for the intended application. These instructions do

not attempt to cover all details or variations of the equipment described nor to provide for every possible contingency that may be met in connection with its installation, operation or maintenance. If further information is desired or if particular questions arise which are not covered adequately for the purposes of the purchaser or user, please contact your nearest Elastimold sales office.

WARNING: All associated apparatus must be de-energized during installation of this assembly. Parts in this kit should be visually inspected for possible damage and installed in accordance with the following instructions in the proper sequence.

The 10TL is designed for use in conjunction with ELASTIMOLD distribution products for the connecting and/or terminating **semi-conducting and/or flat metallic tape shielded, lead jacketed or UniShield-type** cables.

NOTES:

- (1) The installation instructions packed with the ELASTIMOLD distribution product(s) are a **REQUIRED SUPPLEMENT** to these instructions.
- (2) The 10TL does not provide a means of grounding cable. Refer to STEP 9 of the instructions for tape shielded cables for suggested method of grounding when using the 10TL.
- (3) Read each step thoroughly before installing the 10TL.

The pages of these instructions are numbered. To locate the applicable instructions for cable types, refer to the following listing.

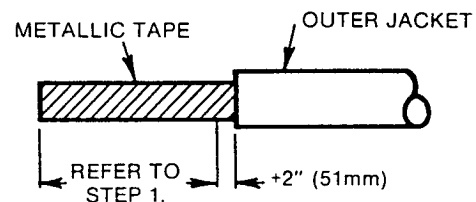
PAGE NO.	CABLE TYPE
1	Semi-Conducting and/or Flat Metallic Tape Shielded
2	Lead Sheathed
3	UniShield

*UniShield is a registered Trademark of Anaconda Wire and Cable Co.

FOR SEMI-CONDUCTING AND/OR FLAT METALLIC TAPE SHIELDED CABLE

STEP 1

The instructions for the ELASTIMOLD product being used with this adapter specify the dimension for the removal of the semi-conductive shield (normally specified in or near Step 2 of these instructions). Remove the outer jacket distance 2" (51mm) more than this dimension.



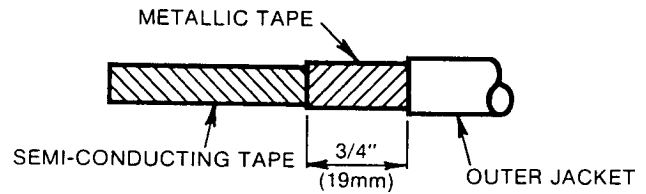
**ELASTIMOLD
DIVISION**

AMERACE CORPORATION, ESNA PARK
HACKETTSTOWN, NEW JERSEY, U.S.A. 07840, (201) 852-1122

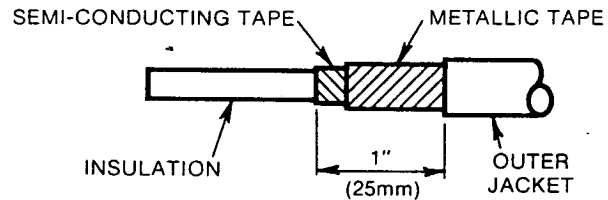
30 JUNE 1979

STEP 2

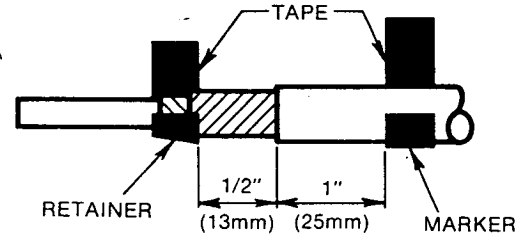
Remove metallic tape to a point 3/4" (19mm) from the edge of the outer jacket.

**STEP 3**

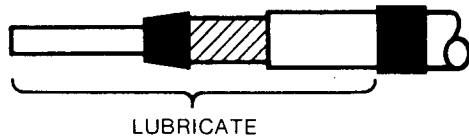
Remove semi-conducting tape to a point 1" (25mm) from the edge of the outer jacket.

**STEP 4**

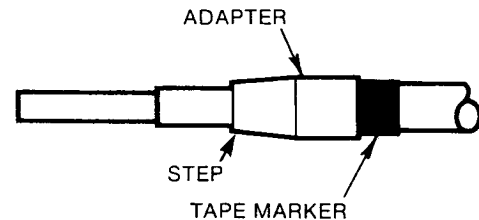
Wrap 1-1/2 to 2 turns of 3/4" (19mm) wide PVC insulating electrical tape over the semi-conducting and metallic tapes 1/2" (13mm) from the edge of the outer jacket. This is to serve as a tape retainer which keeps the metallic semi-conducting tapes in place during assembly. Wrap 2 turns of vinyl plastic electrical tape over the outer jacket 1" (25mm) from the edge of the outer jacket. This is to serve as a tape marker.

**STEP 5.**

Clean the outer jacket and **thoroughly clean the insulation to remove all traces of semi-conducting residue.** This may be done by wiping with a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the outer jacket. Apply supplied lubricant or ELASTIMOLD approved lubricant sparingly to the cable as shown and to the inside of the adapter. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product.

**STEP 6.**

Slide the adapter onto the cable with a slight back and forth twisting motion until it is flush with the tape marker. The step on the adapter serves as a marker for assembling ELASTIMOLD products on the cable. A maximum gap of 1/8" (3mm) is permissible.

**STEP 7**

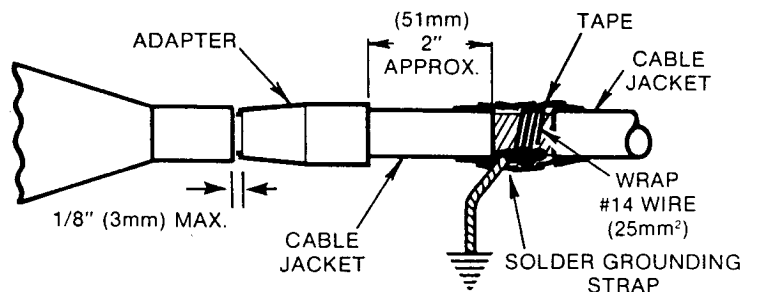
Install the ELASTIMOLD product following the installation instructions supplied with that product.

STEP 8

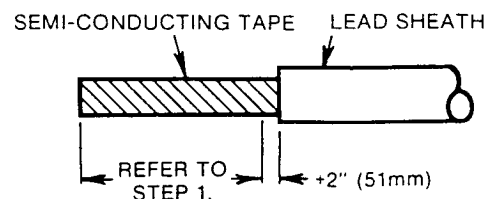
Remove tape marker from cable after assembly of the ELASTIMOLD product.

STEP 9

Approximately 2" (51mm) back from the end of the adapter remove the outer jacket a distance of 1-1/2" (38mm). Using #14 AWG (2.5mm²) wire and a grounding lead, fasten the grounding lead to the metallic shielding tape by making several wraps with the #14 AWG (2.5mm²) wire as shown. Solder the ground lead to the metallic tape. Avoid excessive heat so the cable is not damaged. After soldering, wrap the soldered area with electrical insulating tape.

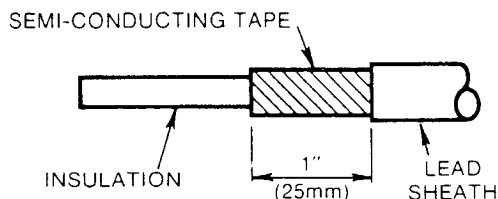
**FOR LEAD SHEATHED CABLE****STEP 1**

The instructions for the ELASTIMOLD product being used with this adapter specify the dimension for the removal of the semi-conductive shield (normally specified in or near Step 2 of these instructions). Remove the lead sheath a distance 2" (51mm) more than this dimension.



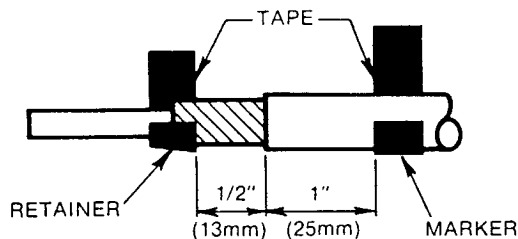
STEP 2

Remove semi-conducting tape to a point 1" (25mm) from the edge of the lead sheath.



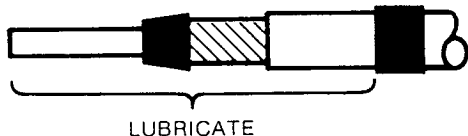
STEP 3

Wrap 1-1/2 to 2 turns of 3/4" (19mm) wide PVC insulating electrical tape over the semi-conducting tape 1/2" (13mm) from the edge of the lead sheath. This is to serve as a tape retainer which keeps the semi-conducting tape in place during assembly. Wrap 2 turns of vinyl insulating electrical tape over the lead sheath 1" (25mm) from the edge of the outer jacket. This is to serve as a tape marker.



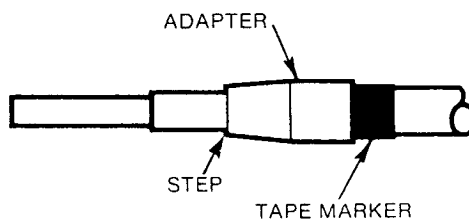
STEP 4

Clean the lead shield and **thoroughly clean the insulation to remove all traces of semi-conducting residue.** This may be done by wiping with a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the semi-conducting tape. Apply supplied lubricant or ELASTIMOLD approved lubricant sparingly to the cable as shown and to the inside of the adapter. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product.



STEP 5

Slide the adapter onto the cable with a slight back and forth twisting motion until it is flush with the tape marker. The step on the adapter serves as a marker for assembling ELASTIMOLD products on the cable. A maximum gap of 1/8" (3mm) is permissible.



STEP 6

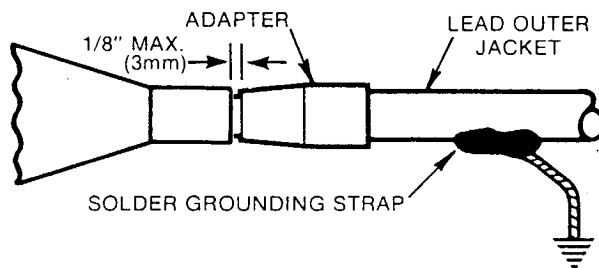
Install the ELASTIMOLD product following the installation instructions supplied with that product.

STEP 7

Remove tape marker from cable after assembly of the ELASTIMOLD product.

STEP 8

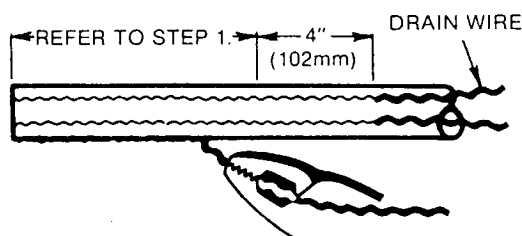
Solder a grounding strap to the outer jacket as illustrated.



FOR UniShield-TYPE CABLE

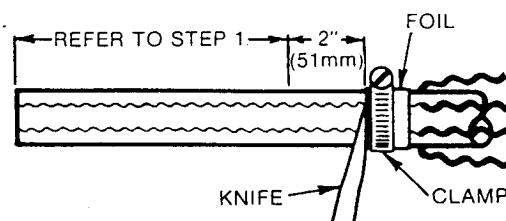
STEP 1

The instructions for the ELASTIMOLD product being used with this adapter specify the dimension for the removal of the semi-conductive shield (normally specified in or near Step 2 of these instructions). Add 4" (102mm) more to this dimension. Pull drain wires out of semi-conductive jacket. Temporarily secure drain wires out of way.



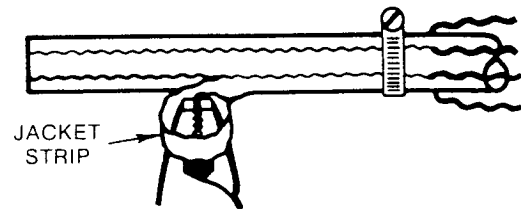
STEP 2

Place aluminum foil held with hose clamp for semi-conducting jacket cut-off as shown. Using foil as straight edge, cut around, but not completely through, semi-conducting jacket. **DO NOT NICK INSULATION.** Longitudinal jacket cuts are **not** required.

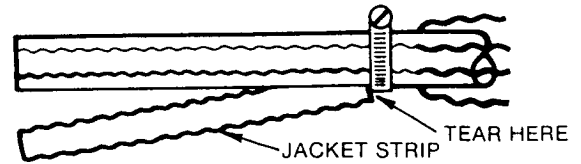


STEP 3

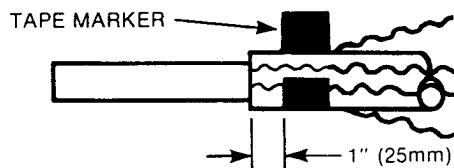
Remove aluminum foil and slide hose clamp just over edge of cut to prevent semi-conducting jacket from flaring. Roll back semi-conducting jacket strips to clamp.

**STEP 4**

Pull jacket strips and tear against hose clamp. Remove clamp and **carefully** trim jagged pieces along semi-conducting jacket cut-off and drain wire grooves. **DO NOT NICK INSULATIONS.**

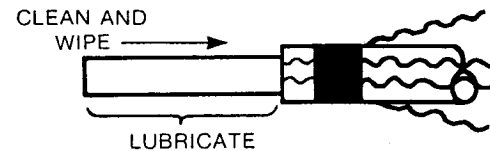
**STEP 5**

Wrap 2 turns of vinyl plastic electrical tape over the semi-conducting jacket 1" (25mm) from the edge of the semi-conducting jacket.

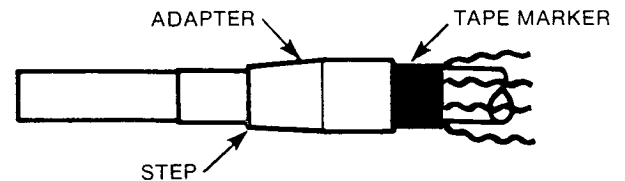
**STEP 6**

Clean the jacket and **thoroughly clean the insulation to remove all traces of semi-conducting residue.** This may be done by wiping with a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the jacket.

Apply supplied lubricant or ELASTIMOLD approved lubricant sparingly to the cable as shown, and to the inside of the adapter. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product.

**STEP 7**

Slide the adapter onto the cable with a slight back and forth twisting motion until it is flush with the tape marker. The step on the adapter serves as a marker for assembling ELASTIMOLD products on the cable. A maximum gap of 1/8" (3mm) is permissible.

**STEP 8**

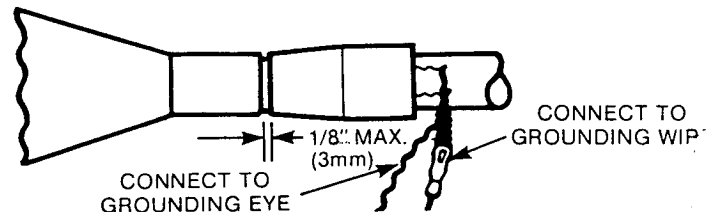
Install the ELASTIMOLD product following the installation instruction supplied with that product.

STEP 9

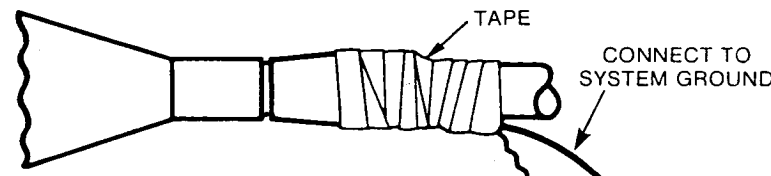
Remove tape marker from cable after assembly of ELASTIMOLD product.

STEP 10

Twist drain wires together. Cut all except one to a 1" pigtail and connect to grounding wire. Connect long drain wire to grounding eye of ELASTIMOLD product being used.

**STEP 11**

Apply 2 layers of high voltage insulating tape over drain wires and connector. Apply 2 layers of PVC tape over adapter base, drain wires and connector. Attach grounding lead to system ground. **UNGROUND SHIELDS ARE DANGEROUS.**

**WARRANTY**

The following is made by the Elastimold Division of the Amerace Corporation in lieu of all other warranties, express or implied:

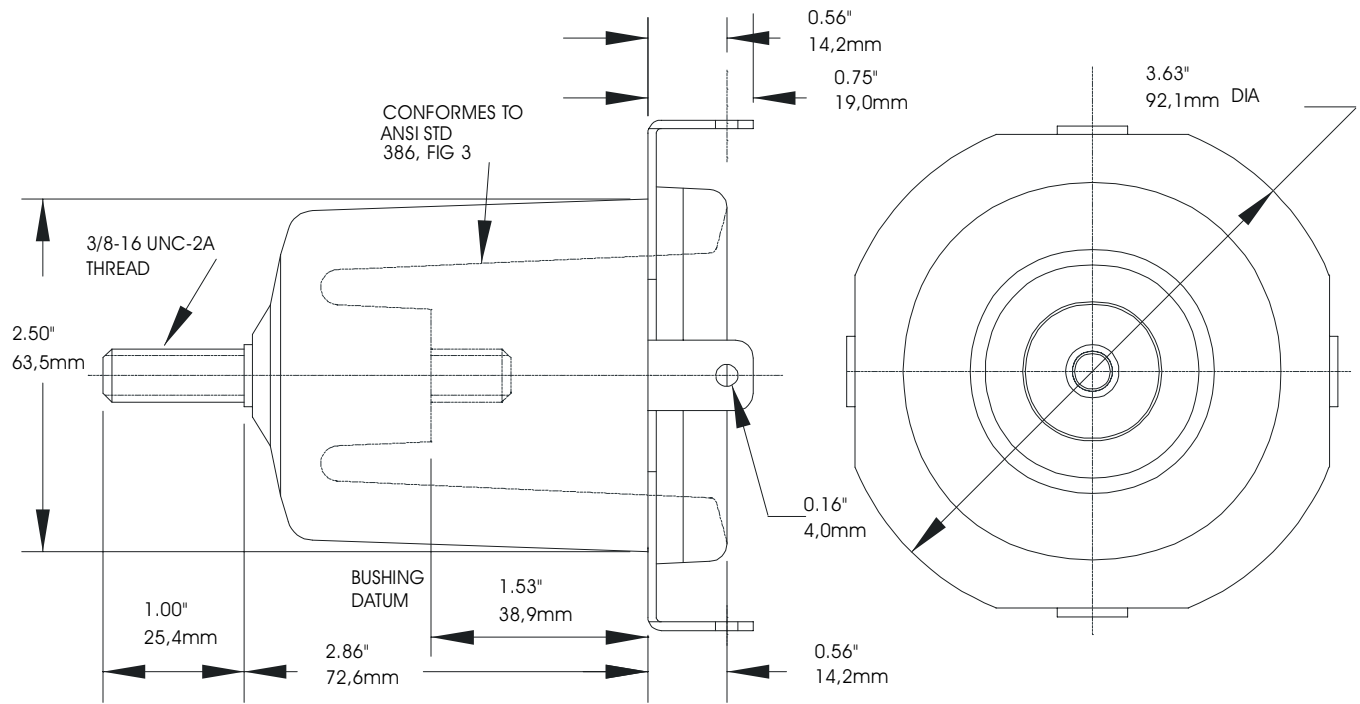
ELASTIMOLD® Electrical Distribution Products will perform within the recommended operational ratings when installed and operated in accordance with applicable instructions. Elastimold's liability is limited to replacement of the component parts designed and manufactured by Elastimold which are proved to be defective in workmanship or material. All statements, technical information and recommendations contained herein are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In adjustment of any claims, inspection of the parts and application will be required. This warranty is effective for two (2) years from the date of shipment by Elastimold, but at no time will Elastimold be liable for incidental or consequential damages.

**PRODUCT SPECIFICATION SHEET**

DESCRIPTION

Short Shank Bushing Well w/ Bail Tabs

ELASTIMOLD PART NUMBER

K1601PC-S1**Application:**

Elastimold k1601PC series bushing wells are designed for, and will universally accept mating Elastimold products including non-loadbreak bushing inserts, loadbreak bushing inserts and feed-thru bushing inserts. These are designed to be directly mounted in electrical apparatus on 200-amp systems, through 25kV. Typical applications include:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Switchgear

Design:

Bushing wells are available in shank lengths varying from 2¾" to 9¾" for either cover or side-mount installations. They are molded of epoxy and have a stainless steel flange for welding or externally clamping to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection. Bushing wells are also available in removable stud well design by specifying a "-R" in the catalog number.

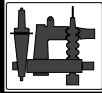
Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, Asym, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 25kV short shank bushing well with bail tabs, specify **K1601PC-S1**.

To order 25kV short shank bushing well with bail tabs and replaceable stud, specify **K1601PC-S1-R**.

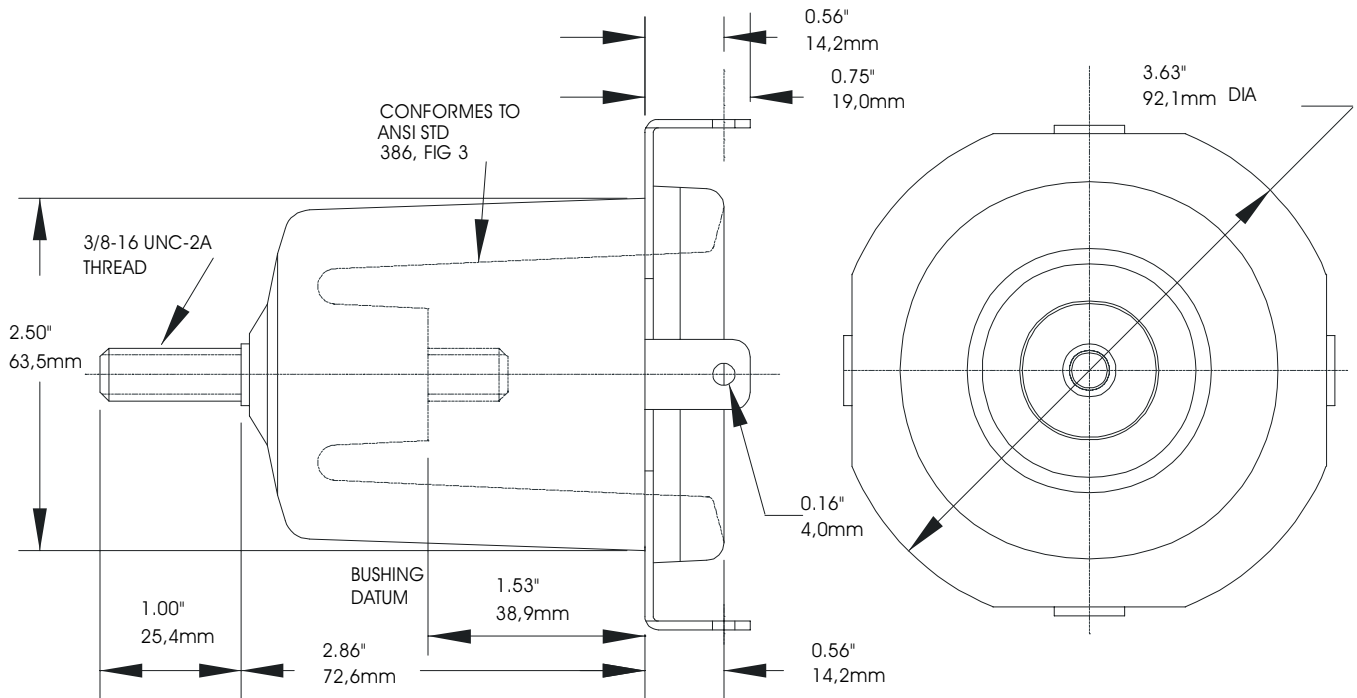


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Short Shank Bushing Well w/ Bail Tabs

ELASTIMOLD PART NUMBER

L1601PC-S1

Application:

Elastimold L1601PC series bushing wells are designed for, and will universally accept mating Elastimold products including non-loadbreak bushing inserts, loadbreak bushing inserts and feed-thru bushing inserts. These are designed to be directly mounted in electrical apparatus on 200-amp systems, through 35kV. Typical applications include:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Switchgear

Design:

Bushing wells are available in shank lengths varying from 2¾" to 9¾" for either cover or side-mount installations. They are molded of epoxy and have a stainless steel flange for welding or externally clamping to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection. Bushing wells are also available in removable stud well design by specifying a "-R" in the catalog number.

Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, Asym, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 35kV short shank bushing well with bail tabs, specify **L1601PC-S1**.

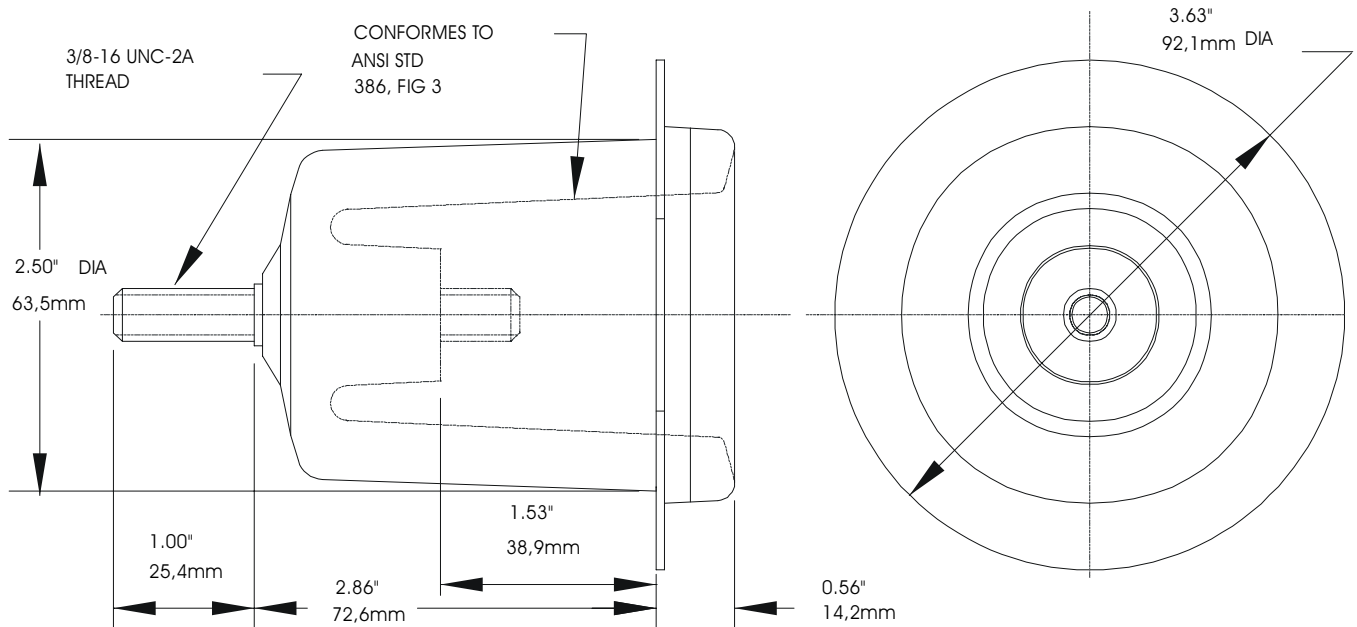
To order 35kV short shank bushing well with bail tabs and replaceable stud, specify **L1601PC-S1-R**.

**PRODUCT SPECIFICATION SHEET**

DESCRIPTION

Short Shank Bushing Well w/o Bail Tabs

ELASTIMOLD PART NUMBER

K1601PC-S2**Application:**

Elastimold K1601PC series bushing wells are designed for, and will universally accept Elastimold non-loadbreak bushing inserts, loadbreak bushing inserts and the double bushing inserts. These are designed to be directly mounted in electrical apparatus on 200-amp systems, through 25kV.

Typical applications would be in:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Switchgear

Design:

These bushing wells are available in shank lengths varying from 2 $\frac{3}{4}$ " to 9 $\frac{1}{4}$ " for either cover or side-mount installations. They are molded of epoxy and have a stainless steel flange for welding or externally clamping to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection. Reference Applicable Elastimold welding guide. The bushing well is also available in removable stud well design '-R'.

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Overload - 8 Hours - 300 Amps, RMS
 Momentary - 15kA, RMS, ASYM, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 25kV short shank bushing well with bail tabs, please specify **K1601PC-S2**.

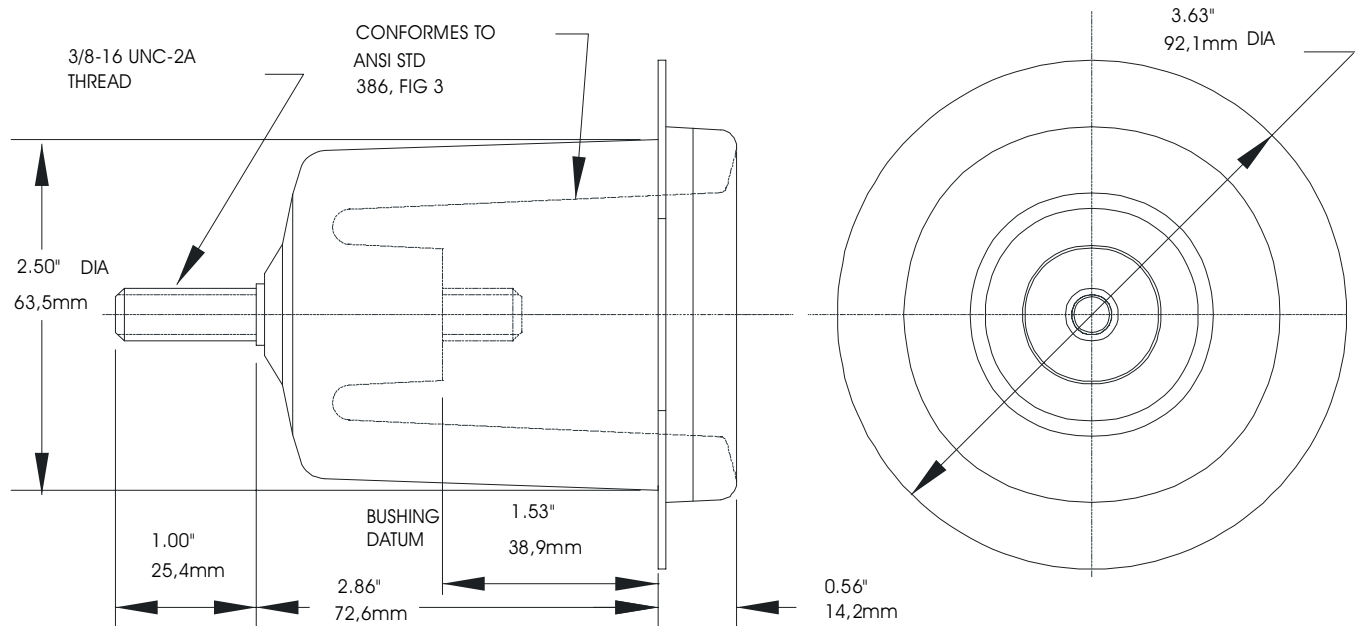
To order 25kV short shank bushing well with bail tabs and replaceable stud, please specify **K1601PC-S2-R**.

**PRODUCT SPECIFICATION SHEET**

DESCRIPTION

Short Shank Bushing Well w/o Bail Tabs

ELASTIMOLD PART NUMBER

L1601PC-S2**Application:**

Elastimold L1601PC series bushing wells are designed for, and will universally accept mating Elastimold products including non-loadbreak bushing inserts, loadbreak bushing inserts and feed-thru bushing inserts. These are designed to be directly mounted in electrical apparatus on 200-amp systems, through 35kV. Typical applications include:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Switchgear

Design:

Bushing wells are available in shank lengths varying from 2¾" to 9¼" for either cover or side-mount installations. They are molded of epoxy and have a stainless steel flange for welding or externally clamping to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection. Bushing wells are also available in removable stud well design by specifying a "-R" in the catalog number.

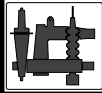
Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, Asym, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 35kV short shank bushing well with bail tabs, specify **L1601PC-S2**.

To order 35kV short shank bushing well with bail tabs and replaceable stud, specify **L1601PC-S2-R**.

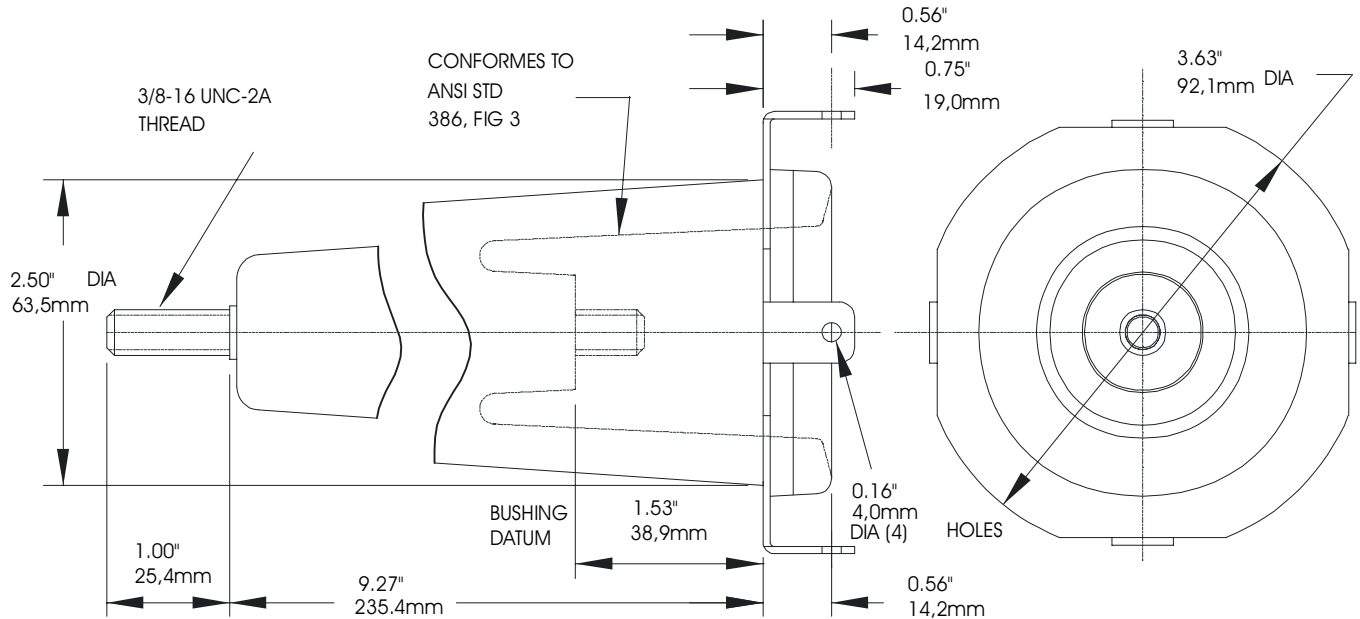


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Long Shank Bushing Well w/ Bail Tabs

ELASTIMOLD PART NUMBER

K1601PC-T1

Application:

Elastimold k1601PC series bushing wells are designed for, and will universally accept mating Elastimold products including non-loadbreak bushing inserts, loadbreak bushing inserts and feed-thru bushing inserts. These are designed to be directly mounted in electrical apparatus on 200-amp systems, through 25kV. Typical applications include:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Switchgear

Design:

Bushing wells are available in shank lengths varying from 2¾" to 9¾" for either cover or side-mount installations. They are molded of epoxy and have a stainless steel flange for welding or externally clamping to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection. Bushing wells are also available in removable stud well design by specifying a "R" in the catalog number.

Ratings:

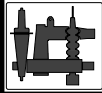
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, Asym, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 25kV short shank bushing well with bail tabs, specify

K1601PC-T1.

To order 25kV short shank bushing well with bail tabs and replaceable stud, specify **K1601PC-T1-R.**

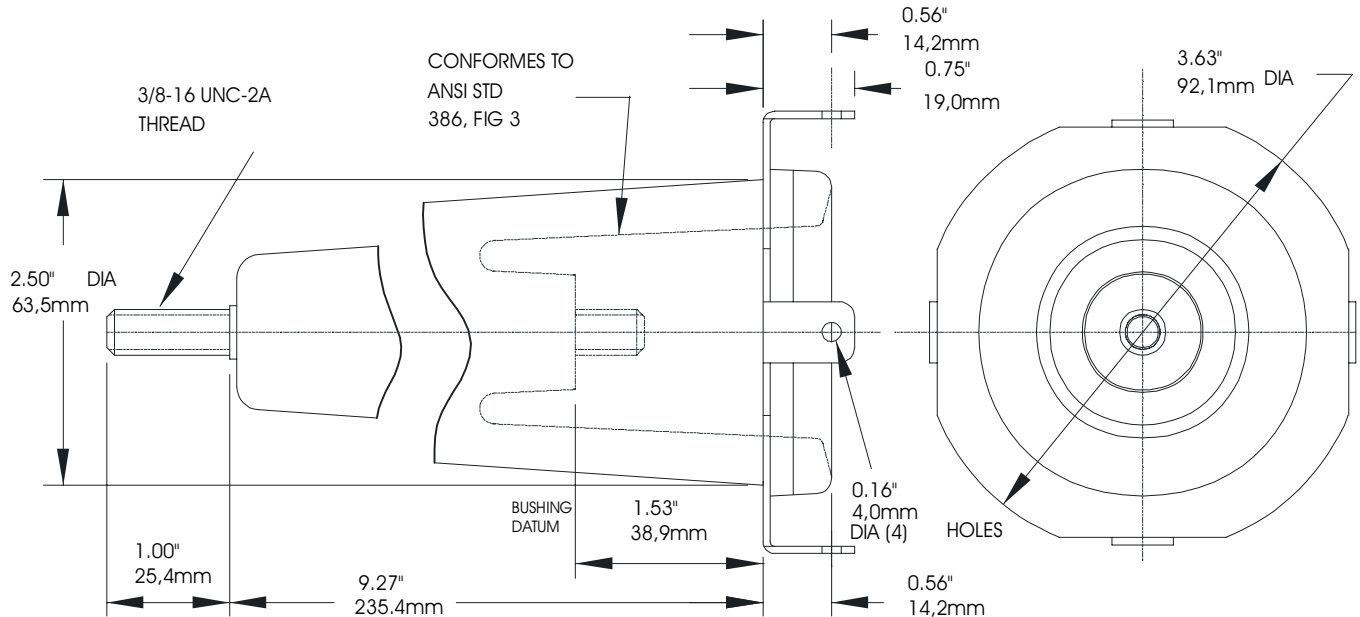


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Long Shank Bushing Well w/ Bail Tabs

ELASTIMOLD PART NUMBER

L1601PC-T1

Application:

Elastimold L1601PC series bushing wells are designed for, and will universally accept mating Elastimold products including non-loadbreak bushing inserts, loadbreak bushing inserts and feed-thru bushing inserts. These are designed to be directly mounted in electrical apparatus on 200-amp systems, through 35kV. Typical applications include:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Switchgear

Design:

Bushing wells are available in shank lengths varying from 2¾" to 9¾" for either cover or side-mount installations. They are molded of epoxy and have a stainless steel flange for welding or externally clamping to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection. Bushing wells are also available in removable stud well design by specifying a "R" in the catalog number.

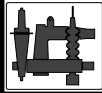
Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, Asym, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 35kV short shank bushing well with bail tabs, specify **L1601PC-T1**.

To order 35kV short shank bushing well with bail tabs and replaceable stud, specify **L1601PC-T1-R**.

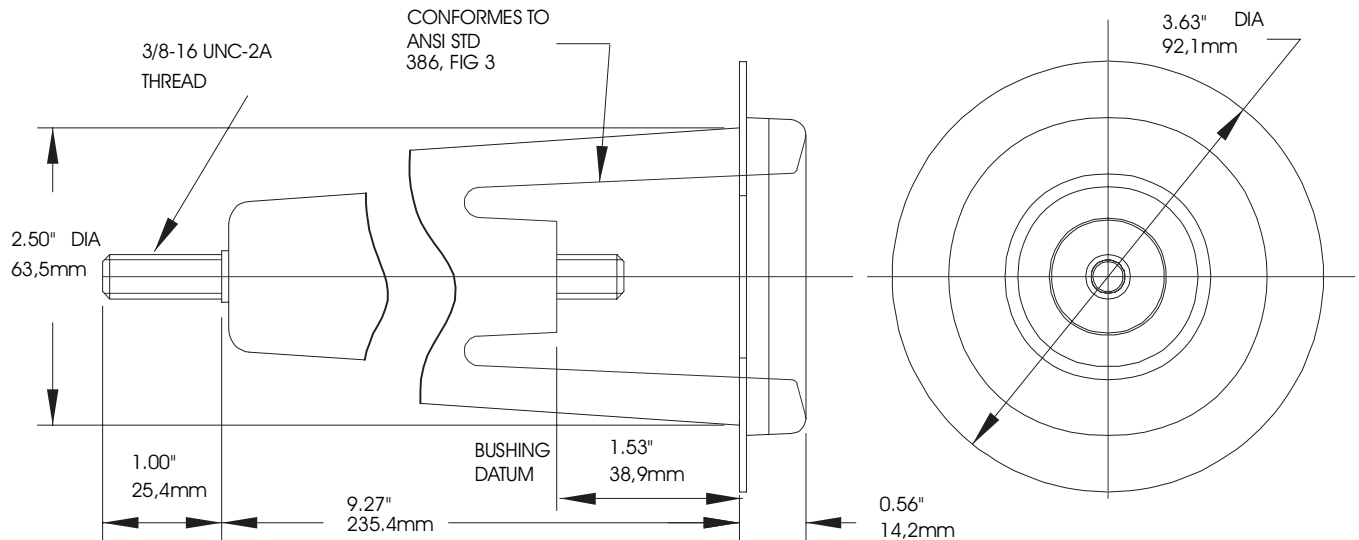


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Long Shank Bushing Well w/o Bail Tabs

ELASTIMOLD PART NUMBER

K1601PC-T2

Application:

Elastimold k1601PC series bushing wells are designed for, and will universally accept mating Elastimold products including non-loadbreak bushing inserts, loadbreak bushing inserts and feed-thru bushing inserts. These are designed to be directly mounted in electrical apparatus on 200-amp systems, through 25kV. Typical applications include:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Switchgear

Design:

Bushing wells are available in shank lengths varying from 2¾" to 9¾" for either cover or side-mount installations. They are molded of epoxy and have a stainless steel flange for welding or externally clamping to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection. Bushing wells are also available in removable stud well design by specifying a "-R" in the catalog number.

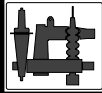
Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, ASYM, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 25kV short shank bushing well with bail tabs, specify **K1601PC-T2**.

To order 25kV short shank bushing well with bail tabs and replaceable stud, specify **K1601PC-T2-R**.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 1

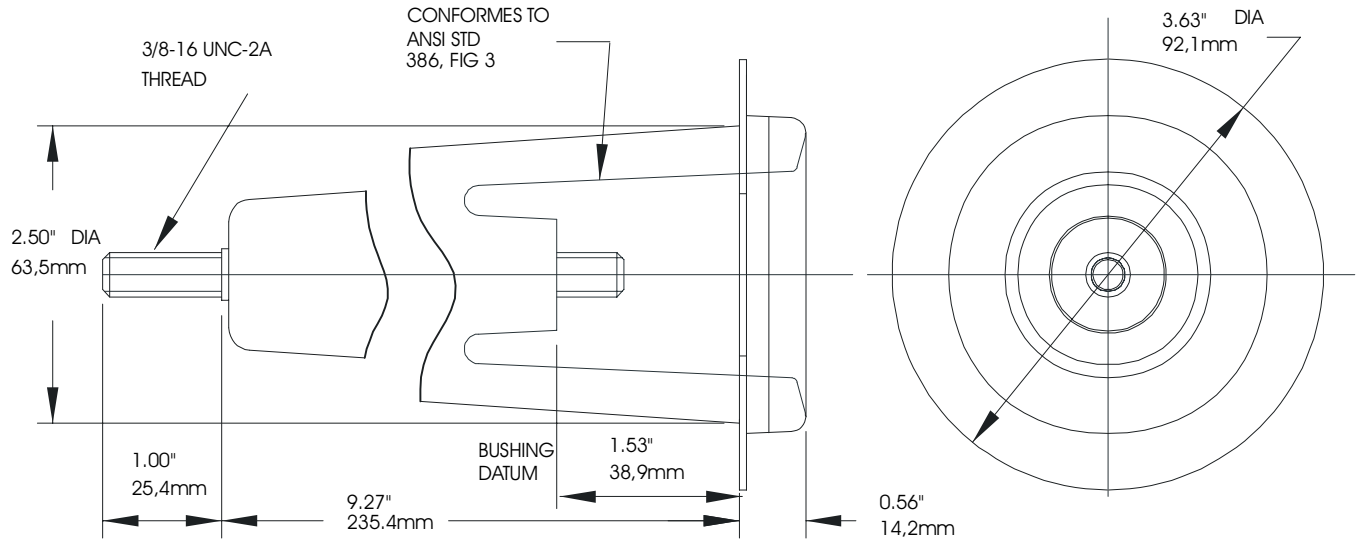
PRODUCT SPECIFICATION SHEET

DESCRIPTION

Long Shank Bushing Well w/o Bail Tabs

ELASTIMOLD PART NUMBER

L1601PC-T2



Application:

Elastimold L1601PC series bushing wells are designed for, and will universally accept mating Elastimold products including non-loadbreak bushing inserts, loadbreak bushing inserts and feed-thru bushing inserts. These are designed to be directly mounted in electrical apparatus on 200-amp systems, through 35kV. Typical applications include:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Switchgear

Design:

Bushing wells are available in shank lengths varying from 2¾" to 9¾" for either cover or side-mount installations. They are molded of epoxy and have a stainless steel flange for welding or externally clamping to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection. Bushing wells are also available in removable stud well design by specifying a "-R" in the catalog number.

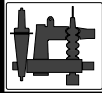
Ratings

per ANSI/IEEE Standard 386
 35kV Voltage Class 1 Ø and 3 Ø
 21.1kV Max Phase-to-Ground - Operating Voltage
 36.6kV Max Phase-to-Phase
 150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 50kV AC - One minute Withstand
 103kV DC - 15 Minutes Withstand
 26kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, Asym, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 35kV short shank bushing well with bail tabs, specify **L1601PC-T2**.

To order 35kV short shank bushing well with bail tabs and replaceable stud, specify **L1601PC-T2-R**.

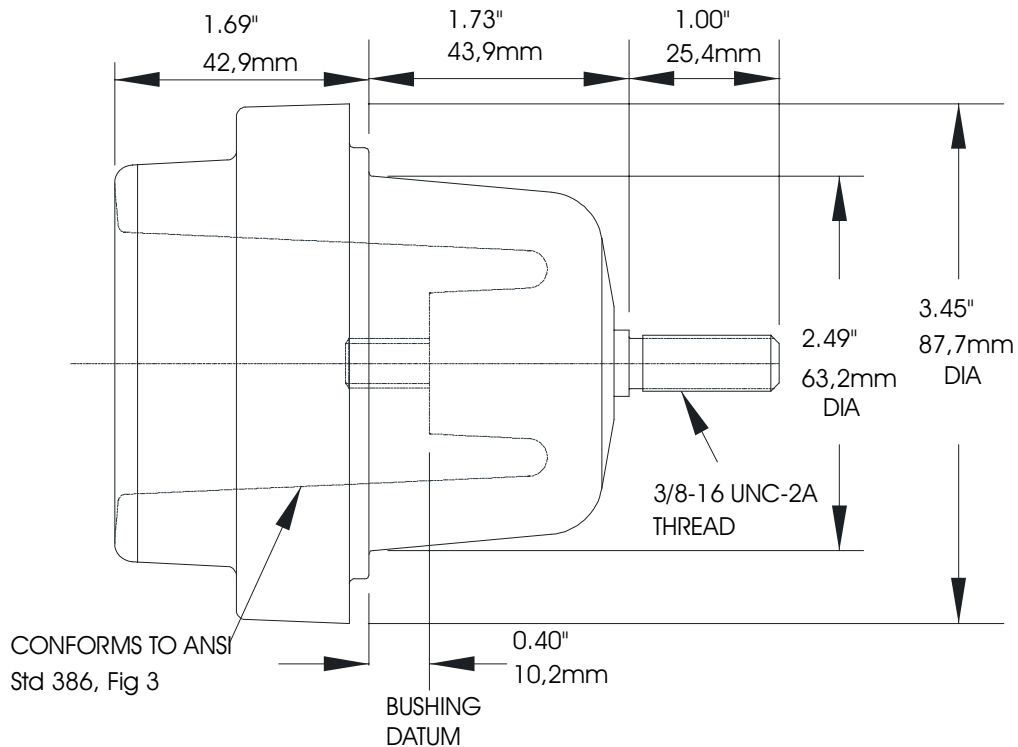


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Epoxy Flange Bushing Well

ELASTIMOLD PART NUMBER

K1601PCC

Application:

The K1601PCC clampable bushing well is designed to be directly mounted in oil-filled electrical apparatus for systems rated through 25kv, 200 amps. The bushing well is externally clamped in place and does not require welding to the apparatus. It is required that the entire shank length be completely immersed in oil. Applications include:

- Pad-mounted transformers
- Voltage regulators
- Reclosers
- Switchgear

The K1601PCC clampable bushing well provides the mating interface to accept other ELASTIMOLD products including 1601A4, 1602A3R, 2701A4 and 2702A1 loadbreak bushing inserts and K150IAI deadbreak bushing inserts.

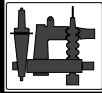
Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, Asym, 10 cycles
 3.5kA, RMS, sym, 3.0 secs.

Ordering Instruction:

To order 25kV short shank bushing well, specify **K1601PCC**.
 To order 25kV short shank bushing well replaceable stud, specify **K1601PCC-R**.

Units include a mounting gasket.

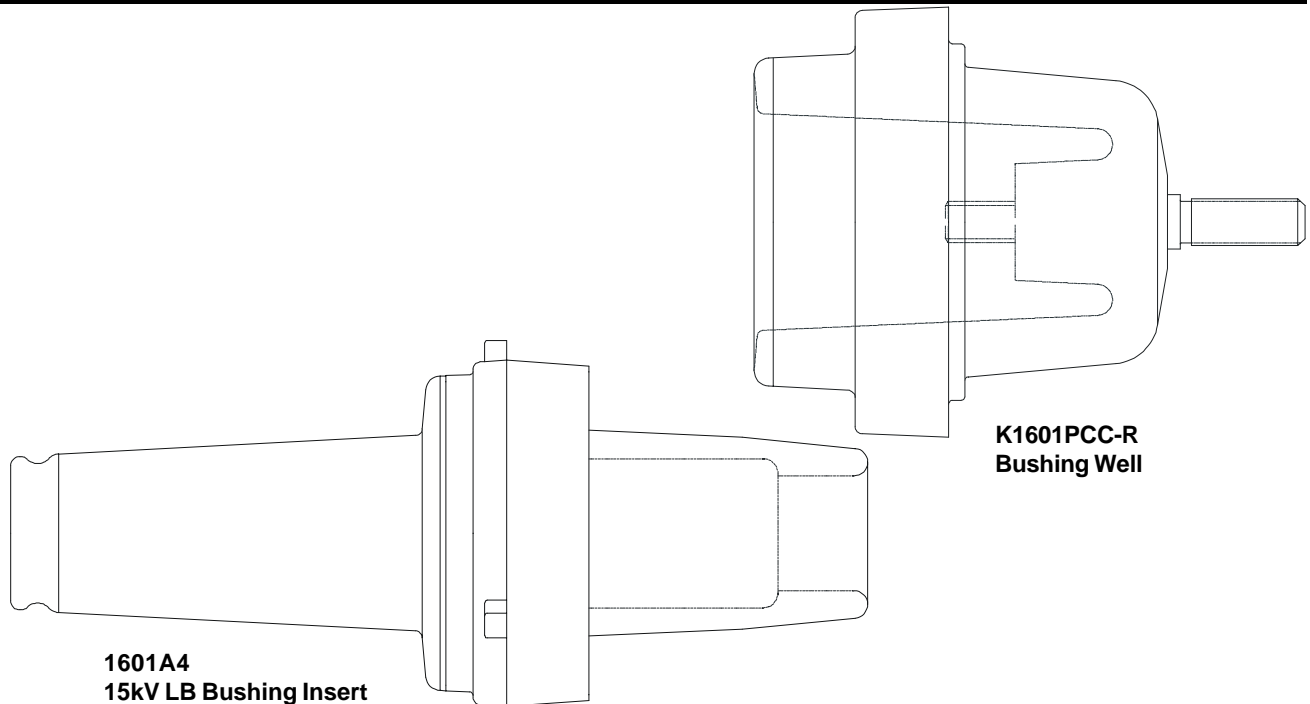


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Bushing Well w/ Insert - 15kV

ELASTIMOLD PART NUMBER

1601CAB4R

By specifying 1601CAB4R allows easy ordering of the combination of bushing insert and epoxy flange bushing well. For detailed technical description refer to the specification sheets for 1601A4 and K1601PCC-R.

Ordering Instruction:

To order an epoxy flange bushing well with a 15kV loadbreak bushing insert, specify 1601CABA4R.

The 1601CABA4R kit includes the following:

1 – Bushing insert	1601A4
1 – Bushing well	K1601PCC-R
1 – Protective shipping cap	1601-APC-1
1 – Lubricant	82-08
1 – Installation instruction	IS-1601-A4 (A) 7/90

Ratings:

per ANSI/IEEE Standard 386

15kV Voltage Class

8.3kV Max Phase-to-Ground - Operating Voltage

14.4kV Max Phase-to-Phase

95kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)

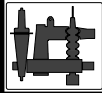
34kV AC - One minute Withstand

53kV DC - 15 Minutes Withstand

11kV AC - Corona Extinction @ 3p.C.sensitivity

200 Amp - Continuous and Loadbreak

10kA Sym - 10 Cycles Momentary & Fault Close

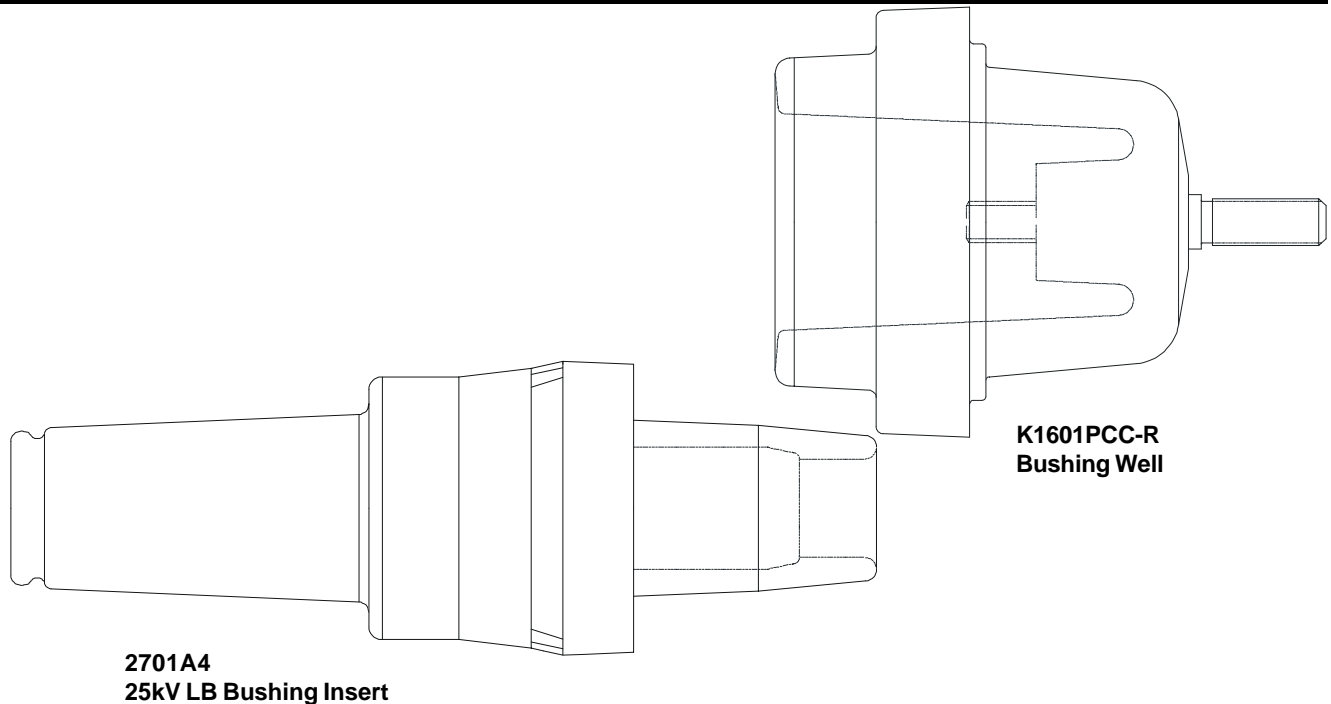


PRODUCT SPECIFICATION SHEET

DESCRIPTION

Bushing Well w/ Insert - 25kV

ELASTIMOLD PART NUMBER

2701CAB4R

By specifying 2701CAB4R allows easy ordering of the combination of bushing insert and epoxy flange bushing well. For detailed technical description refer to the specification sheets for 2701A4 and K1601PCC-R.

Ordering Instruction:

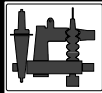
To order an epoxy flange bushing well with a 25kV loadbreak bushing insert, please specify 2701CABA4R.

The 2701CABA4R kit includes the following:

1 – Bushing insert	2701A4
1 – Bushing well	K1601PCC-R
1 – Protective shipping cap	2701-41
1 – Lubricant	82-08
1 – Installation instruction	IS-2701-A4 (A) 11/95

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous and Loadbreak
 10kA Sym - 10 Cycles Momentary & Fault Close

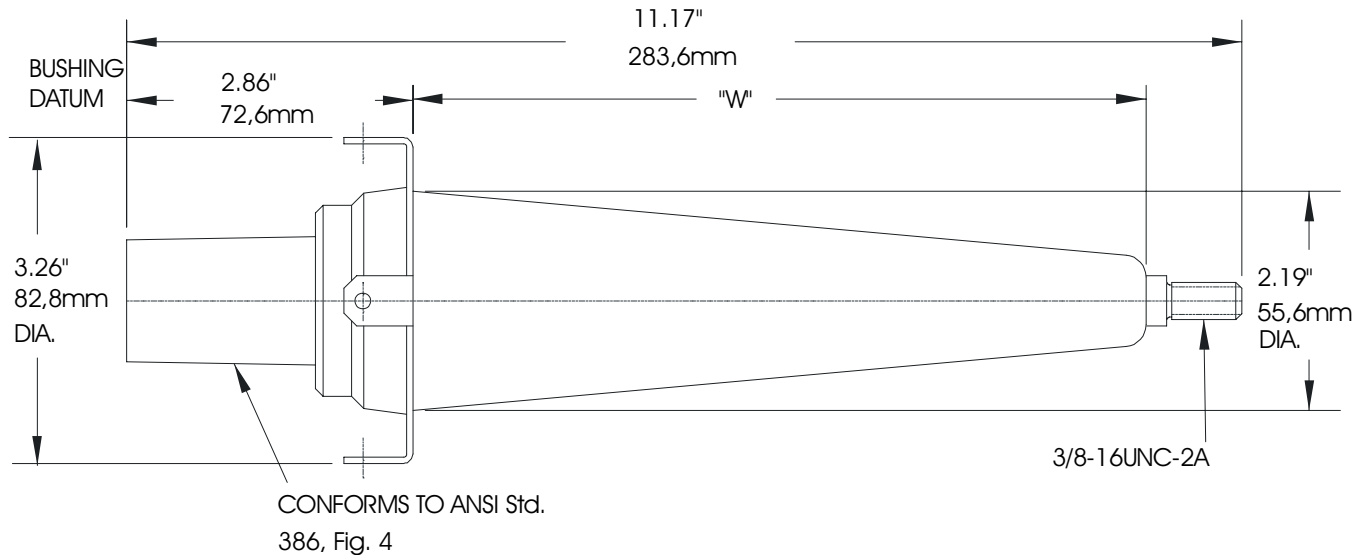


PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 200A Deadbreak Integral Bushing

ELASTIMOLD PART NUMBER

K180WX

Application:

The ELASTIMOLD K180 series of 200-amp bushings will universally accept mating ELASTIMOLD products including 156LR elbows, K151SR receptacles and K150T connectors. The K180 series bushings are designed to be directly mounted on electrical apparatus for 15kV and 25kV applications. Typical applications would be in:

- Pad-mounted transformers
- Vault-type transformers
- Submersible transformers
- Capacitors
- Switchgear

The bushings are available in shank lengths varying from 2-9/16" to 9-1/4" for either cover or side-mount installation.

All K180 series bushings are molded of epoxy and have a stainless steel flange for welding or bolting to the apparatus. A conductive rubber shield at the mating surface with connecting devices provides a fully shielded, cable-to-apparatus connection.

Bushings are designed for deadbreak operation only, the use of a hold-down bail is required. For this reason, all K180 series bushings are available with bail hold-down tabs.

The K180 series deadbreak bushing includes the following:

- | | |
|-----------------------------|-----------|
| 1 – Bushing | K180WX |
| 1 – Protective shipping cap | 1600-13-3 |

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous
 Momentary - 10kA, RMS, Asym, 10 cycles
 3.5kA, RMS, sym, 30 secs.

Ordering Instruction:

Step 1 (W)

Determine the shank length. Select the proper shank length letter code and insert code into catalog number.

Step 2 (X)

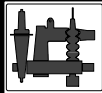
Choose the proper flange type code and insert code into the catalog number.

K180 — —

Step 1 (W) Step 2 (X)

Shank Length		Shank Code "W"
In.	mm	
2.56	65,0	S
4.69	119,1	A
7.34	186,4	T
9.25	235,0	C

"X" Code	Flange Type
1	4.50" Dia., No Tabs
4	3.25" Dia., W/ tabs
2	3.25" Dia., No tabs

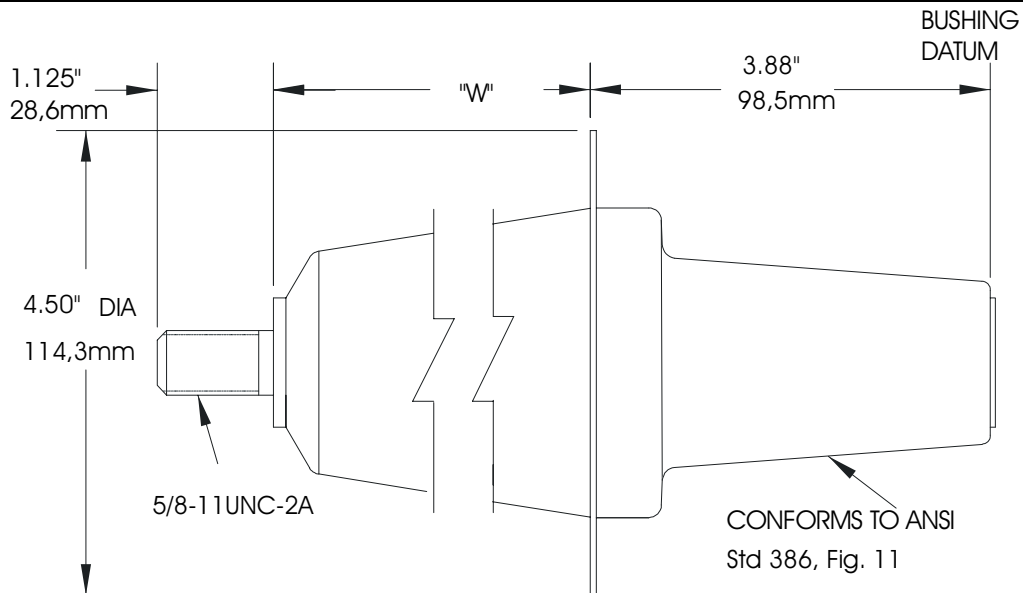


PRODUCT SPECIFICATION SHEET

DESCRIPTION

15/25kV 600A Deadbreak Integral Bushing

ELASTIMOLD PART NUMBER

K650W1

Application:

Elastimold power distribution apparatus bushings will universally accept mating Elastimold products including K655LR connectors, K650DRTPS insulated caps, and K655BE bushing extensions. The bushings are designed to be directly mounted in electrical apparatus on 600-amp, 15kV and 25kV systems.

The 600-amp bushings are available with shank lengths of 2-15/16" or 8-37/64" for either cover or side-mount installation. Elastimold K650S1 and K650T1 bushings are for oil or SF6 applications. They are molded of epoxy and have a stainless steel flange for welding or clamping to the apparatus.

The K650 series 600A bushing includes the following:

- 1 – Bushing K650W1
- 1 – Protective shipping cap 600PPC

Ratings:

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 600 Amp - Continuous
- Momentary - 25kA, RMS, Asym, 10 cycles
- 10kA, RMS, sym, 3.0 secs.

Ordering Instruction:

Step 1 (W)

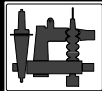
Determine the shank length. Select the proper shank length letter code and insert code into catalog number.

Step 1 (W)

K650 –

Shank Length		Shank Code "W"
In.	mm	
8.58	217,9	T
2.94	74.7	S
12.00	304,8	L

1



ELASTIMOLD

ISSUE DATE 0199

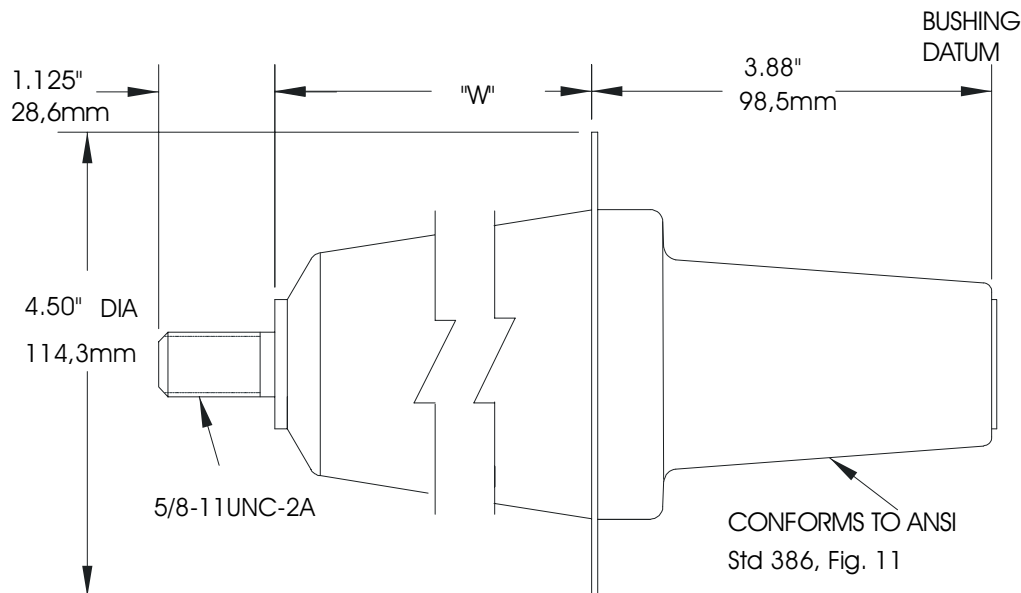
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

25kV 900A Deadbreak Integral Bushing

ELASTIMOLD PART NUMBER

K675W1

Application:

Elastimold power distribution apparatus bushings will universally accept mating Elastimold products including K675LR connectors, K650DRTPS insulated caps, and K675BE bushing extensions. The bushings are designed to be directly mounted in electrical apparatus on 900-amp, 15kV and 25kV systems.

The 900-amp bushings are available with shank lengths of 2-15/16" or 8-37/64" for either cover or side-mount installation. Elastimold K650S1 and K650T1 bushings are for oil or SF6 applications. They are molded of epoxy and have a stainless steel flange for welding or clamping to the apparatus.

The K650 series 600A bushing includes the following:

- 1 - Bushing K675W1
- 1 - Protective shipping cap 600PPC

Ratings:

- per ANSI/IEEE Standard 386
- 25kV Voltage Class
- 15.2kV Max Phase-to-Ground - Operating Voltage
- 26.3kV Max Phase-to-Phase
- 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
- 40kV AC - One minute Withstand
- 78kV DC - 15 Minutes Withstand
- 19kV AC - Corona Extinction @ 3p.C.sensitivity
- 900 Amp - Continuous
- Momentary - 25kA, RMS, Asym, 10 cycles
- 10kA, RMS, sym, 3.0 secs.

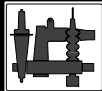
Ordering Instruction:

Step 1 (W)

Determine the shank length. Select the proper shank length letter code and insert code into catalog number.

Step 1 (W)
K675 - [] 1

Shank Length		Shank
In.	mm	Code "W"
8.58	217,9	T
2.94	74.7	S
12.00	304,8	L



ELASTIMOLD

ISSUE DATE 0199

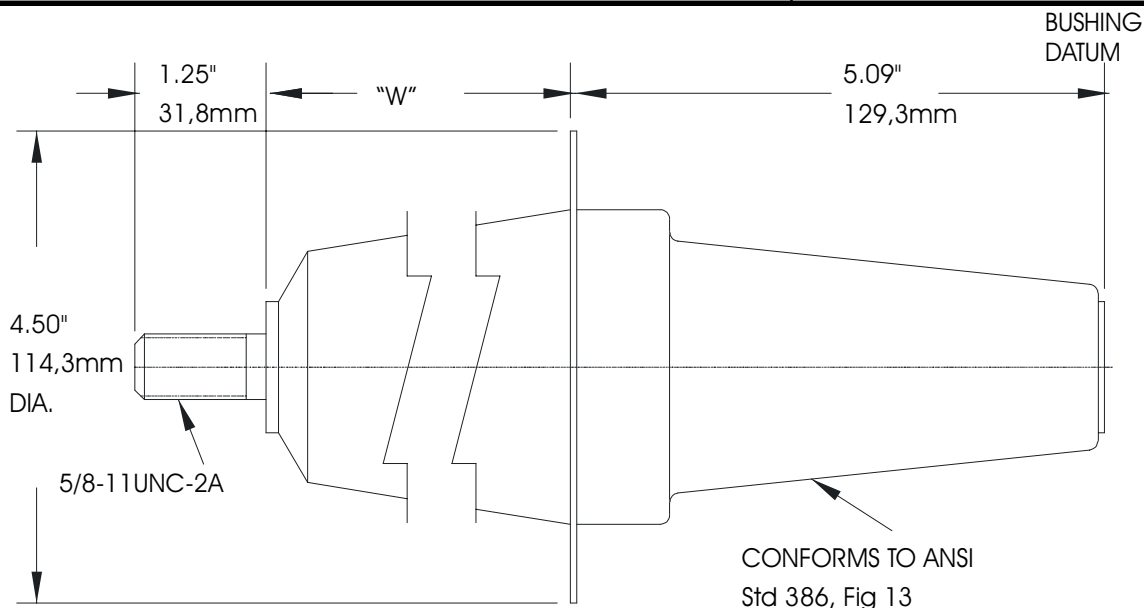
PAGE 1 OF 1

PRODUCT SPECIFICATION SHEET

DESCRIPTION

35kV 600A Deadbreak Integral Bushing

ELASTIMOLD PART NUMBER

750W1

Application:

Elastimold power distribution apparatus bushings will universally accept mating Elastimold products including 755LR connectors and 755BE bushing extensions. The bushings are designed to be directly mounted in electrical apparatus on 600-amp, 35kV systems.

The 600-amp bushings are available with shank lengths of 2-15/16" or 8-37/64" for either cover or side-mount installation. Elastimold 750S1 and 750T1 bushings are for oil or SF6 applications. They are molded of epoxy and have a stainless steel flange for welding or clamping to the apparatus.

The 750 series 600A bushing includes the following:

1 – Bushing 750W1
1 – Protective shipping cap 600PPC

Ratings:

per ANSI/IEEE Standard 386
35kV Voltage Class
21.1kV Max Phase-to-Ground - Operating Voltage
36.6kV Max Phase-to-Phase
150kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
50kV AC - One minute Withstand
103kV DC - 15 Minutes Withstand
26kV AC - Corona Extinction @ 3p.C.sensitivity
600 Amp - Continuous
Momentary - 25kA, RMS, Asym, 10 cycles
10kA, RMS, sym, 3.0 secs.

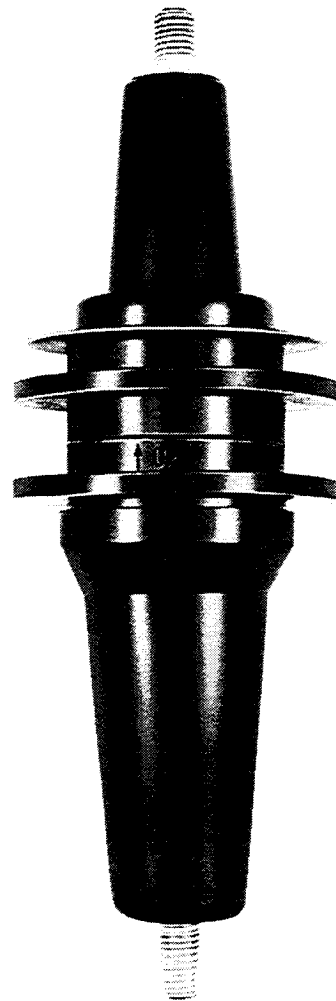
Ordering Instruction:

Step 1 (W)

Determine the shank length. Select the proper shank length letter code and insert code into catalog number.

Step 1 (W)
750 – **1**

Shank Length		Shank
In.	mm	Code "W"
8.58	217.9	T
2.94	74.7	S



600TBC and K600TBC Power Distribution Apparatus Bushings

(For in-air application)

APPLICATION

The ELASTIMOLD 600TBC and K600TBC power distribution apparatus bushings will universally accept ELASTIMOLD 650LR and K650LR elbow connectors and 600BE and K600BE bushing extensions. The bushings are designed to be directly mounted in electrical apparatus on 600-amp, 15-kv and 25-kv systems.

Typical applications would be in:

- Above-grade transformers
- Below-grade transformers
- Switchgear
- Motors

DESIGN

The 600TBC and K600TBC are designed for in-air application. The increased creep distance required is provided by the non-tracking rubber boot and collars supplied. These are slipped on the epoxy bushing shank after it has been installed in the apparatus housing. ELASTIMOLD 600TBC and K600TBC bushings are molded of epoxy with molded rubber collars and boot and have a stainless steel flange for welding or clamping to the apparatus.

INSTALLATION

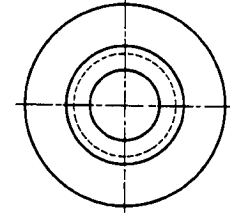
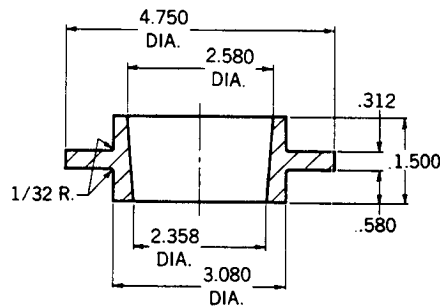
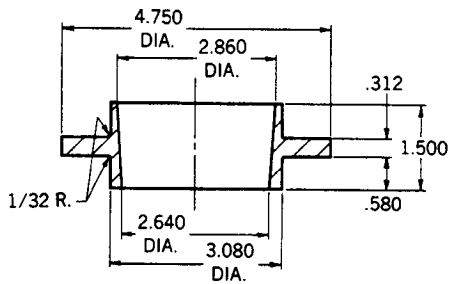
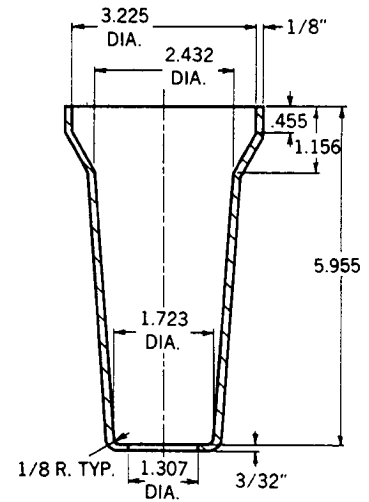
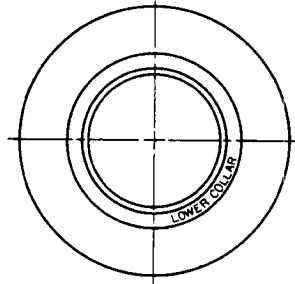
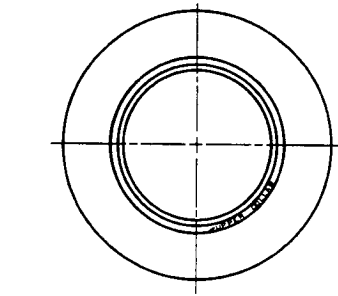
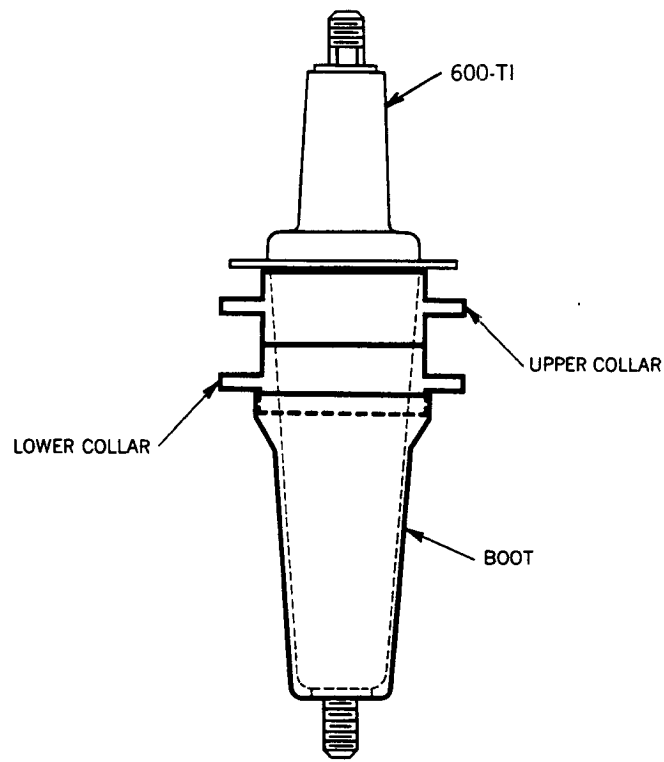
Installation of the bushings is normally done by the apparatus manufacturer.

ELECTRICAL RATINGS

	15-kv CLASS	25-kv CLASS
Voltage Ratings	For use on 15-kv class equipment. BIL: 95 kv, 1.2 x 50 wave Withstand: 35 kv, 60 Hz, 1 minute 55 kv, DC, 15 minutes Corona: 11 kv extinction	For use on 25-kv class equipment. BIL: 125 kv, 1.2 x 50 wave Withstand: 42 kv, 60 Hz, 1 minute 80 kv, DC, 15 minutes Corona: 19 kv extinction
Current Ratings	Continuous: 600 amps, RMS 8-Hour Overload: 900 amps, RMS Momentary: 40,000 amps, RMS, asym, 12 cycles 27,000 amps, RMS, sym, 4 secs.	Continuous: 600 amps, RMS 8-Hour Overload: 900 amps, RMS Momentary: 40,000 amps, RMS, asym, 12 cycles 27,000 amps, RMS, sym, 4 secs.
Production Tests	Corona: 11 kv extinction Impulse: 95 kv BIL	Corona: 19 kv extinction Impulse: 125 kv BIL



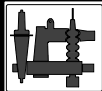
ELASTIMOLD

UPPER COLLARLOWER COLLARBOOT**ORDERING INSTRUCTIONS**

1. For 15-kv use, order a 600TBC.
2. For 25-kv use, order a K600TBC.

NOTE: An order for a 600TBC or K600TBC includes a 600T1 or K600T1 bushing, plus two collars and one boot—all in one package.

NOTE: For detailed product information, refer to the catalog sheet for the 600T1 in this section.



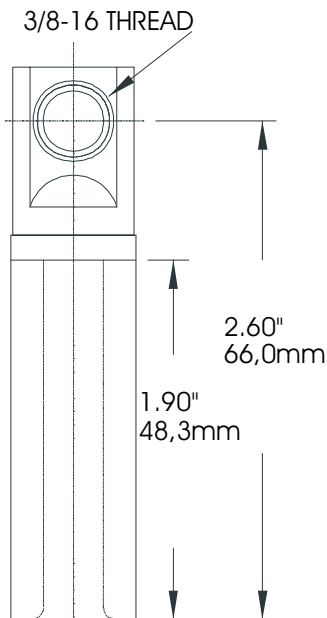
PRODUCT SPECIFICATION SHEET

C

DESCRIPTION

200A Elbow Crimp Connector

ELASTIMOLD PART NUMBER

02500XXX

Ordering Instruction:

Using the table below, select a compression lug part number based on conductor size.

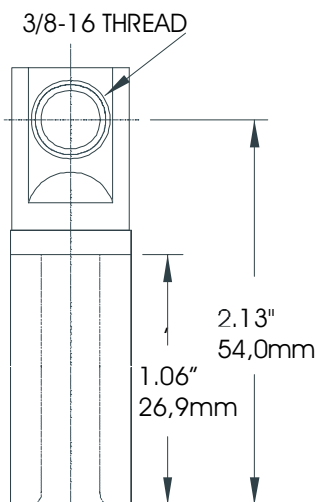
Conductor Size (AWG or kcmil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02500220	02500210
1	02500230	02500220
1/0	02500240	02500230
2/0	02500250	02500240
3/0	02500260	02500250
4/0	02500270	02500260
250	-	02500270

02500XXX bi-metallic connectors consist of a copper top section and a aluminum crimp barrel. Units are designed for use with **165/166LR**, **273/274LR**, **375/376LR** and **156LR** elbows on aluminum or copper conductors.

DESCRIPTION

200A Elbow Crimp Connector**C**

ELASTIMOLD PART NUMBER

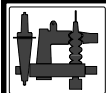
02702XXX

Ordering Instruction:

Using the table below, select a compression lug part number based on conductor size.

Conductor Size (AWG or kcmil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02702220	02702210
1	02702230	02702220
1/0	02702240	02702230
2/0	02702250	02702240
3/0	02702260	02702250
4/0	02702270	02702260
250	-	02702270

02702XXX all copper crimp connectors are designed to be used with **165/166LR**, **273/274LR**, **375/376LR** and **156LR** elbows on copper conductors only.



DESCRIPTION

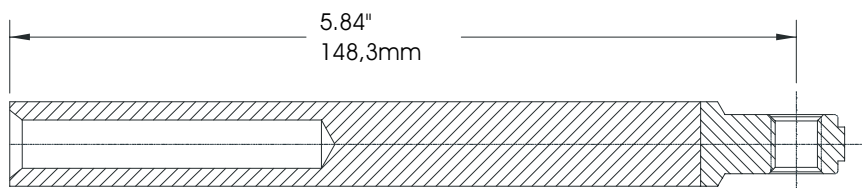
200A Repair Elbow Crimp Connector

ELASTIMOLD PART NUMBER

02509XXX

Ordering Instruction:

Using the table below, select a compression lug part number based on conductor size.



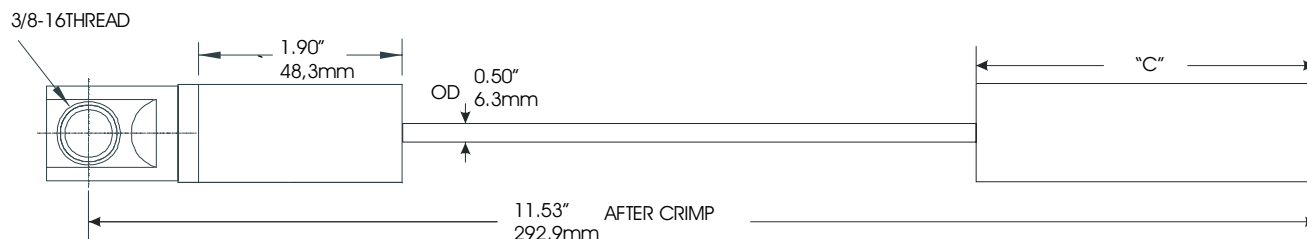
Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02509220	02509210
1	02509230	02509220
1/0	02509240	02509230
2/0	02509250	02509240
3/0	02509260	02509250
4/0	02509270	02509260
250	-	02509270

02509XXX bi-metallic connectors consist of a copper top section and a aluminum crimp barrel. Units are designed for use with **167/168ELR** and **273/274ELR** repair elbows on aluminum or copper conductors.

DESCRIPTION

200A Replacement Elbow Crimp Connector

ELASTIMOLD PART NUMBER

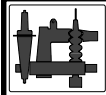
00400XXX

Ordering Instruction:

Using the table below, select a compression lug part number based on conductor size.

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	00400220	00400210
1	00400230	00400220
1/0	00400240	00400230
2/0	00400250	00400240
3/0	00400260	00400250
4/0	00400270	00400260
250	-	00400270

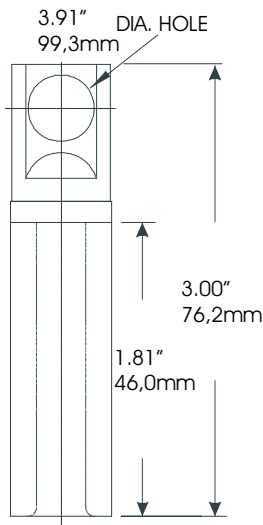
00400XXX bi-metallic connectors consist of a copper top section and a aluminum crimp barrel. Units are designed for use with **167/168RLR** and **273/274RLR** elbows on aluminum or copper conductors.



DESCRIPTION

200A Bolted Elbow Crimp Connector

ELASTIMOLD PART NUMBER

02800XXX

Ordering Instruction:

Using the table below, select a compression lug part number based on conductor size.

Conductor Size (AWG or kcmil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	02800220	02800210
1	02800230	02800220
1/0	02800240	02800230
2/0	02800250	02800240
3/0	02800260	02800250
4/0	02800270	02800260
250	-	02800270

02800XXX bi-metallic connectors consist of a copper top section and a aluminum crimp barrel. Units are designed for use with **167LRT** bolted elbows on aluminum or copper conductors.

CRIMPING TOOLS & DIES RECOMMENDED FOR ENCLOSED ELASTIMOLD CONNECTORS

CRIMP BARREL	ALUMINUM CONDUCTOR SIZE		CSA	BURNDY		ALCOA	KEARNEY		BLACKBURN		HOMAC		T&B	
	AWG OR KCM			MD6 MD7	Y35	12A	O	H1,H2	OD58	HYDR	UT5	HYDR	TBM	HYDR
O.D.	STR.	COMPT.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.
.500" (12,7mm)	#4	#2	—	W693(2) OR W163(4)	U25RT(2)	—	!P2 (4) !P2 NOSE(4)	—	!P2 (4)	—	—	42(2)	—	42(2)
.500" (12,7mm)	#2	#1	—	W693(2) OR W163(4)	U25RT(2)	—	!P2 (4) !P2 NOSE(4)	—	!P2 (4)	—	—	42(2)	—	42(2)
.625" (15,88mm)	#1	1/0	22(2)**	W243(4)	U243(2) OR U27RT(3)	B24EA(1)	%P8 NOSE(6) 620(3)	(P16 (3) 572(2)	%P8 NOSE(6)	B24EA(1)	TU(£)	52(2)	ORANGE/ TAN(£)	50(3) 54(4)
.625" (15,88mm)	1/0	2/0	22(2)**	W243(4)	U243(2) OR U27RT(3)	B24EA(1)	%P8 NOSE(6) 620(3)	(P16 (3) 572(2)	%P8 NOSE(6)	B24EA(1)	TU(£)	52(2)	ORANGE/ TAN(£)	50(3) 54(4)
.625" (15,88mm)	2/0	3/0	—	W243(4)	U243(2) OR U27RT(3)	B24EA(1)	%P8 NOSE(6) 620(3)	(P16 (3) 572(2)	%P8 NOSE(6)	B24EA(1)	TU(£)	52(2)	ORANGE/ TAN(£)	50(3)
.750" (19,05mm)	3/0	4/0	—	—	U29RT(3) U27ART(3)	—	—	—	—	—	—	62(2)	—	60(2)
.750" (19,05mm)	4/0	250	—	—	U29RT(3) U27ART(3)	—	—	—	—	—	—	62(2)	—	60(2)

(£) Dies indicated use maximum number of crimps without overlapping.

Rotate each successive crimp 90_ or 180_.

** Overlap Crimp.

CSA DIE NOTICE:

RE USE OF CSA DIE FOR CRIMPING

Engineering calculations denote the results of crimping with the suggested C.S.A. dies should have a completely satisfactory connection. However, recommendations for suitable C.S.A. dies to crimp these connectors, were determined, mathematically, from tests done on certain selected crimp connectors. Complete testing has not been done on all sizes.

AVIS POUR LA COMPRESSION SELON L'ACNOR

REF: Utilisation de la matrice ACNOR pour la compression

Les calculs d'ingénierie démontrent que les compressions avec les matrices suggérées de l'ACNOR résulteraient en un raccordement complètement satisfaisant. Toutefois, pour recommander des matrices ACNOR appropriées pour compresser ces connecteurs, nous avons déterminé mathématiquement selon des essais exécutés sur un certain nombre de connecteurs compressés sélectionnés. Les essais n'ont pas été complétés sur tous les calibres.



ELASTIMOLD

CRIMPING TOOLS & DIES RECOMMENDED FOR ELASTIMOLD CONNECTORS

CRIMP BARREL O.D.	COPPER CONDUCTOR SIZE AWG OR KCM		CSA	BURNDY		ALCOA	KEARNEY		BLACKBURN		HOMAC		T&B	
	STR.	COMPT.	DIE NO.	MD6 MD7	Y35 Y45*	12A	O	H1,H2	OD58	HYDR	UT5	HYDR	TBM	HYDR
				DIE NO.	DIE NO.		DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.	DIE NO.
.500" (12,7mm)	#6	#4	—	W693(2) OR W163(4)	25RT(2) OR U693(1)	—	!P2 (4) !P2 NOSE(4)	!P2 (2)	!P2(4)	—	—	42(2)	—	42(2)
.500" (12,7mm)	#3/#4	#2/#3	—	W693(2) OR W163(4)	25RT(2) OR U693(1)	—	!P2 (4) !P2 NOSE(4)	—	!P2(4)	—	—	42(2)	—	42(2)
.500" (12,7mm)	#2	#1	—	W693(2) OR W163(4)	25RT(2) OR U693(1)	—	!P2 (4) !P2 NOSE(4)	—	!P2(4)	—	—	42(2)	—	42(2)
.500" (12,7mm)	#1	1/0	—	W693(2) OR W163(4)	—	—	!P2 (4) !P2 NOSE(4)	—	!P2(4)	—	—	42(2)	—	42(2)
.500" (12,7mm)	1/0	2/0	—	W693(2) OR W163(4)	—	—	!P2 (4) !P2 NOSE(4)	—	!P2(4)	—	—	42(2)	—	42(2)
.625" (15,88mm)	2/0	3/0	22(1)	W243(2)	U243(1) OR U27RT(2)	B24EA(1)	%P8 NOSE(4)	(P16 (2) 572(1)	%P8 NOSE(4) OR 620	B24EA(1)	TU(1)	52(1)	ORANGE/ TAN(1)	50(2)
.750" (19,05mm)	3/0	4/0	—	W247(2)	U247(1) U29RT(2) U27ART(2)	—	—	—	—	—	—	62(1)	—	60(1)
.750" (19,05mm)	4/0	250	—	W247(2)	U247(1) U29RT(2) U27ART(2)	—	—	—	—	—	—	62(1)	—	60(1)
.750" (19,05mm)	250	300	—	W247(2)	U247(1) U29RT(2) U27ART(2)	—	—	—	—	—	—	62(1)	—	60(1)
.813" (20,65mm)	300	350	—	—	U30RT(2) U28ART(2)	B10CH(1)	—	—	—	B10CH(1)	—	66(1)	—	66(1)

(1) Dies indicated use maximum number of crimps without overlapping.
Rotate each successive crimp 90_ or 180_.

* Requires Adapter No. 6515.

Installation Instructions 3/0 and 4/0 Spade Contacts in Small Housings

This instruction sheet applies to 3/0 and 4/0 spade contact when used in small elbow housings, GA and smaller, or G and smaller.

DANGER

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

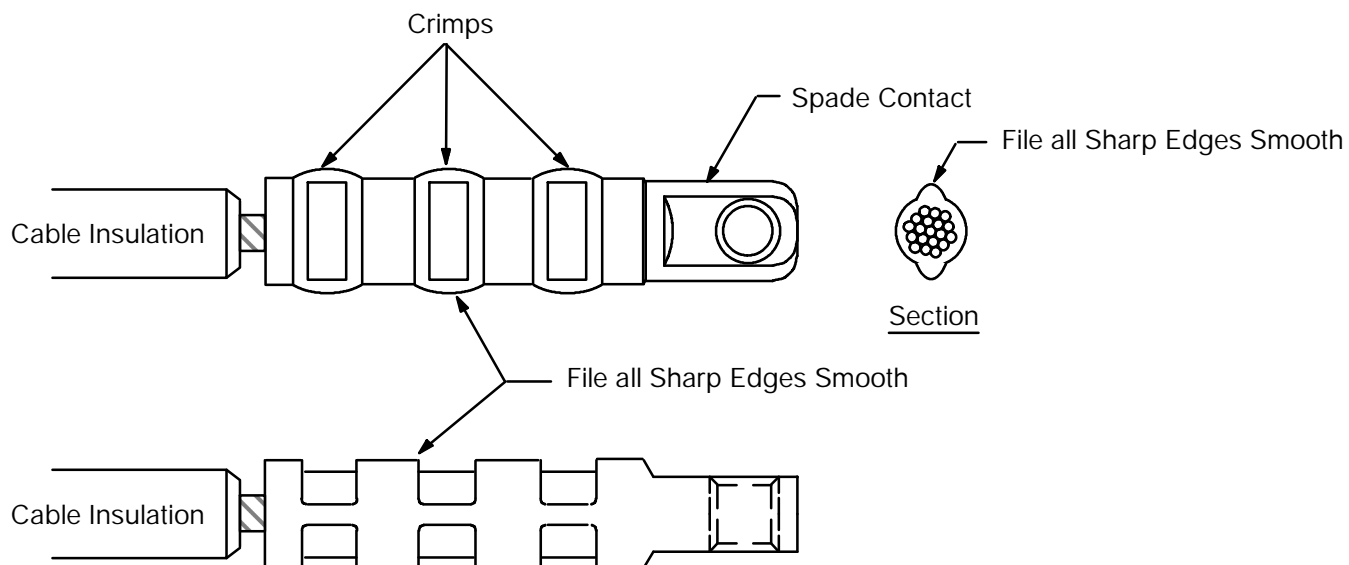
This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

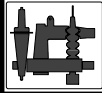
Failure to follow these instructions could result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

REMOVE SHARP EDGES

After crimping, inspect the crimps for any sharp edges that may damage the insulation during assembly of the spade contact into the elbow. If any sharp edges exist, use a file and carefully remove them until the part is smooth. After completing this, continue following the instructions packed with the elbow.





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

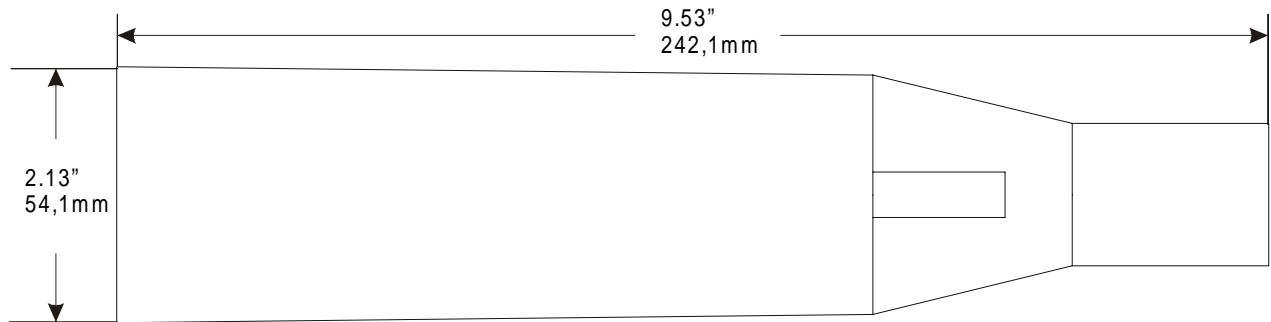
PRODUCT SPECIFICATION SHEET

C I

DESCRIPTION

15/25kV 200A Straight Receptacle

ELASTIMOLD PART NUMBER

K151SR

Application:

ELASTIMOLD K151SR Straight Receptacles are fully shielded, fully submersible, separable insulated connectors designed to connect a cable to another cable or to apparatus. They require the use of an appropriate Elastimold mating product installed on the other cable or the apparatus. The disconnectible feature can be used only when the circuit is de-energized. The K151SR is suitable for use on both 15 and 25kV systems.

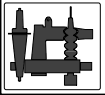
The K151SR are designed to terminate UD cable having concentric neutral and extruded insulation shielding. They can be used to terminate other types of cable when installed with the proper ELASTIMOLD cable shield adapter. The K151SR will accommodate conductor sizes of No. 6 solid through 4/0 stranded and cable insulation diameters from .495" through .985".

The K151SR is designed to mate with other ELASTIMOLD products including:

- K150T tee splice
- K151SP straight plug.

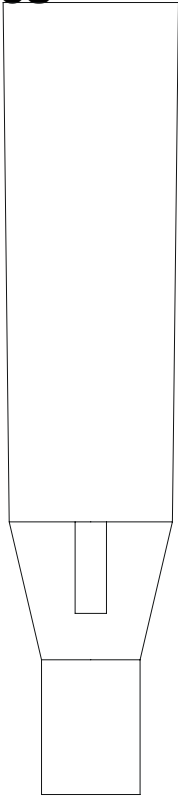
Ratings:

per ANSI/IEEE Standard 386
25kV Voltage Class
15.2kV Max Phase-to-Ground - Operating Voltage
26.3kV Max Phase-to-Phase
125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
40kV AC - One minute Withstand
78kV DC - 15 Minutes Withstand
19kV AC - Corona Extinction @ 3p.C.sensitivity
200 Amp - Continuous current
10kA Sym - 10 Cycles momentary current



15/25kV 200A Straight Receptacles

K151SR



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

K151SR — —

Step 1 (W)

Step 2 (X)

Cable Insulation Dia. Range		Housing Code
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB

Conductor Size* (AWG or kcmil)	Al Compression Lug Code Number		Cu Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact	Stranded/Compr.	Solid/Compact
6	-	-	3	-
4	2AX	-	2	3
2	1AX	2AX	1	2
1	0AX*	1AX	0	1
1/0	10AX*	0AX*	10	0
2/0	20AX*	10AX*	20*	10
3/0	30AX**	-	-	20*
4/0	40AX**	-	-	-
250	-	-	-	-

*These contacts may only be used with housing size FAB and larger.

**These contacts may only be used with housing size GAB and larger.

The Straight Receptacle Connector kit contains the following:

- 1 – Straight receptacle housing K151SRH-W
- 1 – Receptacle pin connector 151SRC-X
- 1 – Probe hex wrench 650-14-3
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-151SR/K151SR 8/96
- 1 – Crimp chart IS-200AL-CC (C) 4/94

Example:

The ordering number for an Straight Receptacle for a 1/0 stranded AL, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is K151SR-GAB-10AX

For same cable but copper conductor, the ordering catalog number is be K151SR-GAB-10.

Installation Instructions K/151SR Straight Receptacle

CONTENTS: Receptacle housing, Conductor Contact, Bail Restraint, Tinned Copper Wire, Earthing Kit or 11TL Adaptor and Earthing Kit or 20MA, Lubricant, Installation Instruction, Crimp Chart.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded insulated cap or connector before submerging or energizing the circuit.

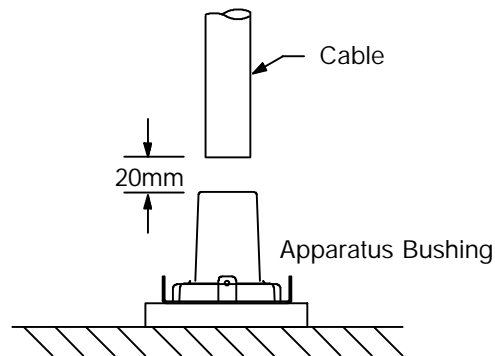
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

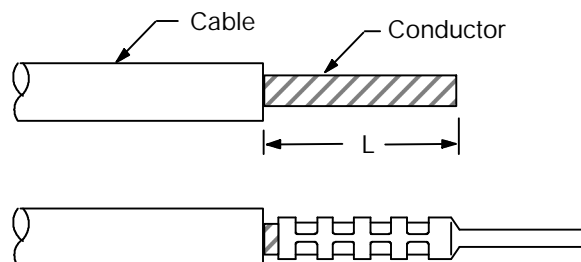
STEP 1

1. Train the cable end and straighten into final position above the equipment bushing.
2. Cut the cable to length a distance of 20mm from the top of the bushing.



STEP 2

1. Bare the conductor for a distance "L"
Copper conductor: L = 40mm
Aluminium conductor: L = 50mm
2. Before installing the crimp contact wire brush the conductor.
3. Install the crimp contact.
4. Crimp the contact on the conductor.
WIPE OFF EXCESS INHIBITOR.

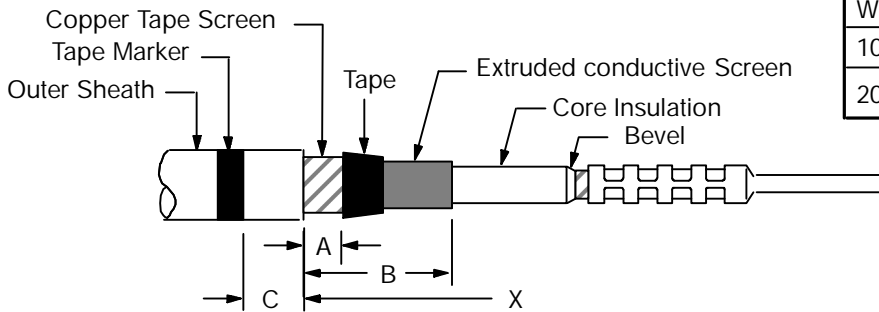


ELASTIMOLD

STEP 3

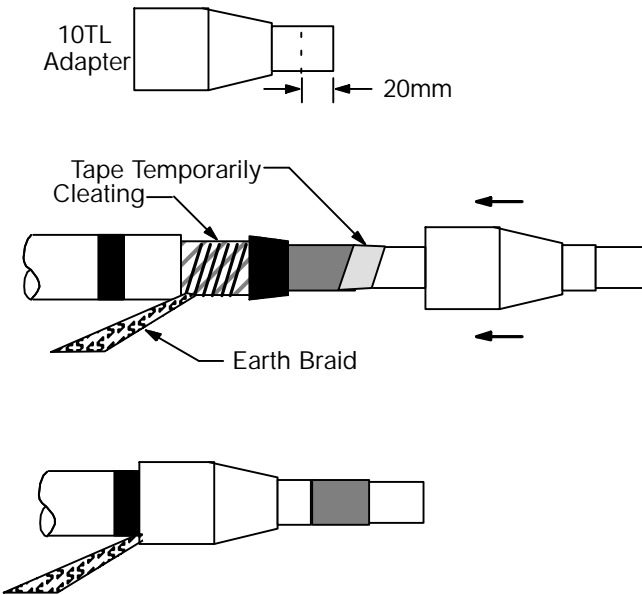
1. Remove the outer sheath to a point "X" mm from the end of the crimped contact. **DO NOT CUT OR NICK THE COPPER SCREEN.**
2. Remove the copper tape to a point "A" mm from the outer sheath and secure with a wrap of vinyl tape.
3. Remove the extruded conductive screen to a point "B" mm from the outer sheath.
4. Apply a tape marker on the outer sheath "C" mm from the end.
5. Slightly break the edge of the core insulation.

Adapter	X mm	A mm	B mm	C mm
Without	250	20	45	
10TL	255	20	55	60
20MA	288	40	80	25



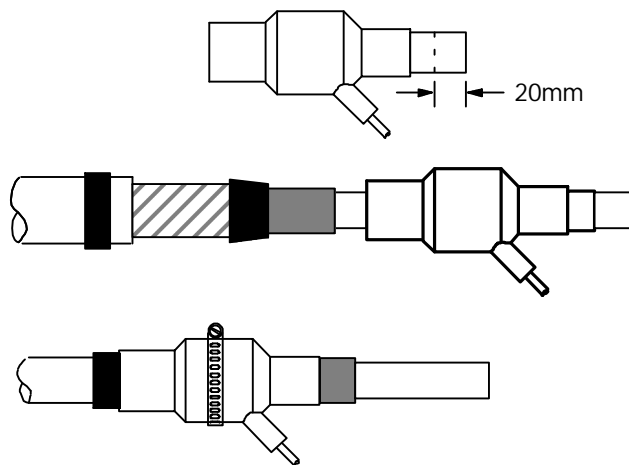
STEP 4

1. Cut the collar of the 10TL adaptor for a distance of 20mm.
2. Clean the braid to the copper screen.
3. As an aid to install the adaptor, it is recommended to wrap one or two layers vinyl tape on the step of the extruded conductive screen.
4. Lubricate core insulation and inside of the adaptor and slide it over the insulation until flush with the tape marker.
5. Remove the vinyl tape applied in Step 3.



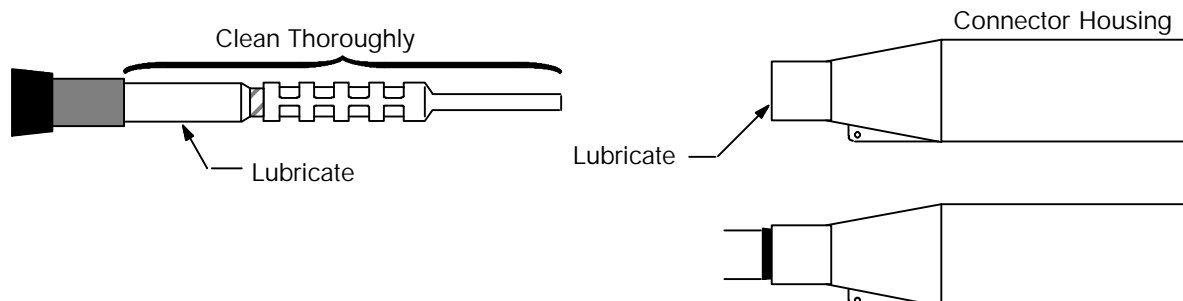
STEP 5

1. Cut the collar of the 20MA adaptor for a distance of 20mm.
2. As an aid to install the adaptor, it is recommended to wrap one or two layers vinyl tape on the step of the extruded conductive screen.
3. Lubricate core insulation and inside of the adaptor and slide it over the insulation until flush with the tape marker.
4. Tighten the hose clamp in stages so that the corrugated contact is tight against the copper tape but not under excessive pressure. Between stages, test the tightness by rotating the housing back and forth. When a definite drag is felt the clamp is tight enough.
5. Remove the vinyl tape applied in step 2.



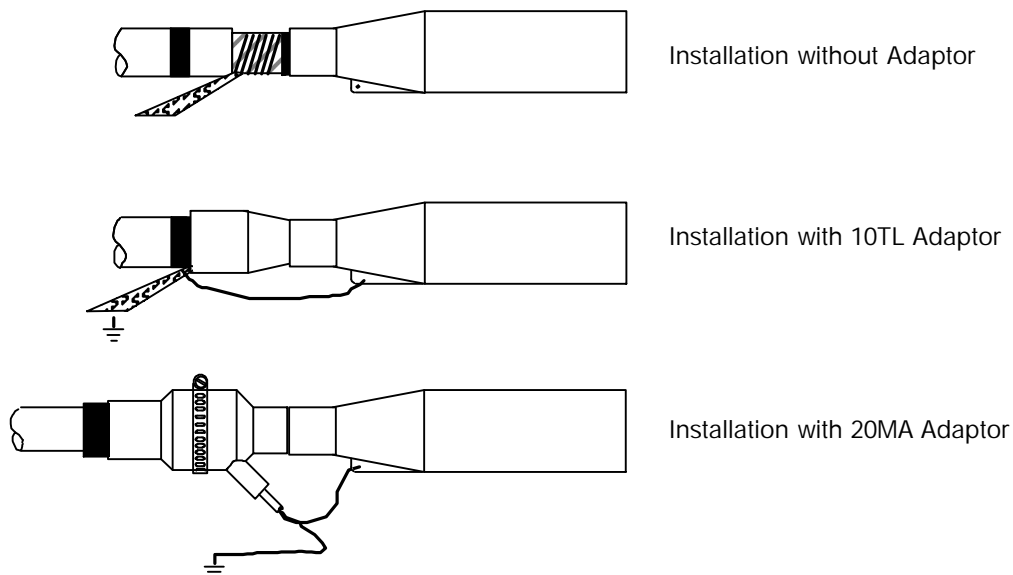
STEP 6

1. REMOVE ANY TRACES OF CONDUCTIVE RESIDUE FROM THE CORE INSULATION ABOVE THE EXTRUDED SCREEN OR ADAPTOR END.
2. Lubricate the core insulation and inside surface of the connector.
3. Gently slide the housing on the cable with a back and forth twisting motion until the base of the pin chamfer come flush with the inside face of the connector as shown.



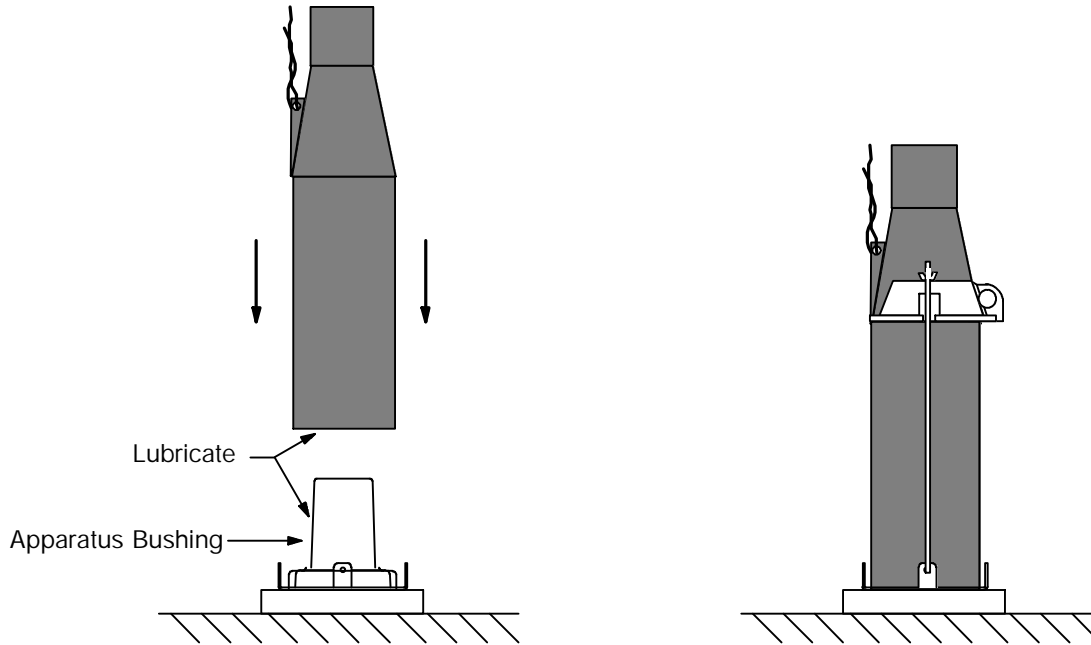
STEP 10

1. Insert one end of supplied tinned copper wire through the earthing eye of the connector and connect this wire to the earth braid or to the earth conductor of the 20MA adaptor.
2. Connect the braid or earth conductor to system earth.



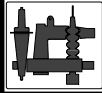
STEP 11

1. Clean and lubricate lightly both bushing interface and connector interface.
2. Push the connector on the bushing.
3. Insert bail restraint into the bushing tabs.
4. Position bail restraint and tighten wing nuts.



ELASTIMOLD

Route 24, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)852-6158
A Unit of Eagle Industries, Inc.



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

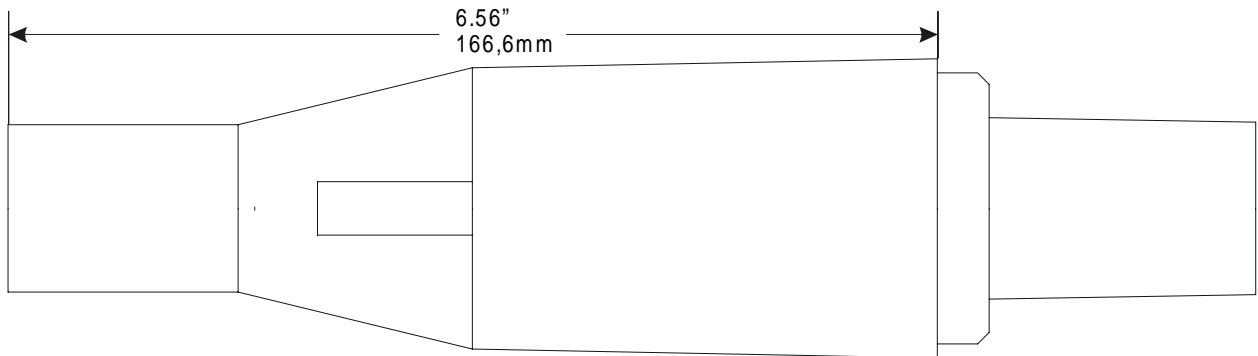
C I

DESCRIPTION

15/25kV 200A Straight Plug

ELASTIMOLD PART NUMBER

K151SP



Application:

ELASTIMOLD K151SP Straight Plugs are fully shielded, fully submersible, Separable insulated connectors designed to connect a cable to another cable or to apparatus. They require the use of an appropriate Elastimold mating product installed on the other cable or the apparatus. The disconnectible feature can be used only when the circuit is de-energized. The K151SP is suitable for use on both 15 and 25kV systems.

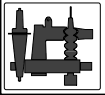
The K151SP are designed to terminate UD cable having concentric neutral and extruded insulation shielding. They can be used to terminate other types of cable when installed with the proper ELASTIMOLD cable shield adapter. The K151SP will accommodate conductor sizes of No. 6 solid through 4/0 stranded and cable insulation diameters from .495" through .985".

The K151SP is designed to mate with other ELASTIMOLD products including:

- K150T tee splice
- K151SR straight receptacle

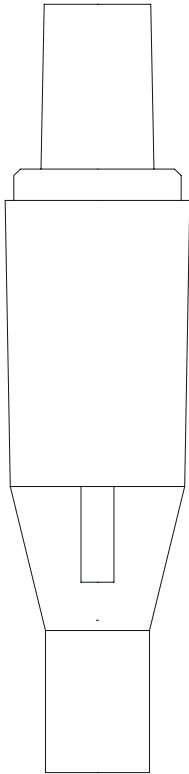
Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current



15/25kV 200A Straight Plug

K151SP



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

K151SP — —

Step 1 (W)

Step 2 (X)

Cable Insulation Dia. Range		Housing Code
inches	mm	Code
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB

Conductor Size* (AWG or kCMil)	Al Compression Lug Code Number		Cu Compression Lug Code Number	
	Stranded/Compr.	Solid/Compact	Stranded/Compr.	Solid/Compact
6	-	-	3	-
4	2AX	-	2	3
2	1AX	2AX	1	2
1	0AX*	1AX	0	1
1/0	10AX*	0AX*	10	0
2/0	20AX*	10AX*	20*	10
3/0	30AX**	-	-	20*
4/0	40AX**	-	-	-
250	-	-	-	-

*These contacts may only be used with housing size FAB and larger.

**These contacts may only be used with housing size GAB and larger.

The Straight Plug Connector kit contains the following:

- 1 – Straight receptacle housing K151SPH-W
- 1 – Receptacle pin connector 150SPC-X
- 1 – Tube, lubricant 82-08
- 1 – Installation instruction IS-151SP/K151SP 8/96
- 1 – Crimp chart if AL connector IS-200AL-CC (C) 4/94
- 1 – Crimp chart if Cu connector IS-200CU-CC (D) 9/95

Example:

The ordering number for an Straight Receptacle for a 1/0 stranded AL, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is K151SP-GAB-10AX

For same cable but copper conductor, the ordering catalog number is be K151SP-GAB-10.

Installation Instructions 151SP/K151SP Straight Plug

CONTENTS: *Straight Plug, Conductor Contact (female), Nylon Venting Rod, Pin Installation, Lubricant, Crimp Chart, Installation Instructions.*

The 151SP/K151SP is designed to connect lengths of solid dielectric type cable to one another or to electrical apparatus by mating with other ELASTIMOLD products that are also designed for these functions. The 151SP/K151SP mates with the following ELASTIMOLD products: 151SR/K151SR, 150T/K150T, 150DR/K150DR, 154LR/K154LR.

The 151SP is for use on 15kV class systems (8.3kV phase-to-ground). The K151SP is for use on 25kV class systems (15.2kV phase-to-ground).

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

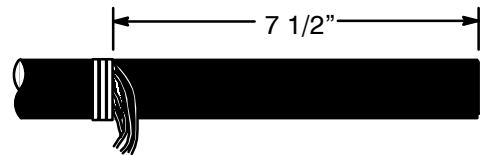
FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

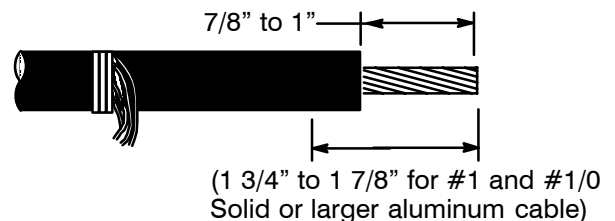
STEP 1

Cut Cable. Bind concentric wires with tape, 7 1/2" from cable end. When cutting cable, allow sufficient concentric neutral wires for connecting to ground point as required by the installation. If connecting to a mating straight receptacle, the cable ends will be 3 1/8" apart when the connection is complete.



STEP 2

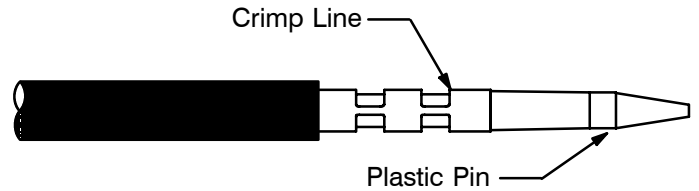
Remove 7/8" to 1" (1 3/4" to 1 7/8" for #1 and #1/0 Solid or larger aluminum cable) of cable insulation and conductive shield. Cut squarely, DO NOT PENCIL. *Wire brush bare aluminium conductors and immediately insert into crimp barrel which contains inhibitor.* Cut squarely. DO NOT PENCIL.



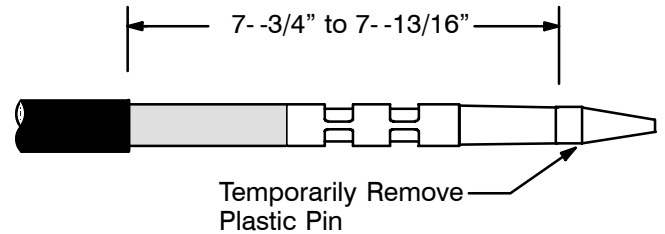
ELASTIMOLD

STEP 3

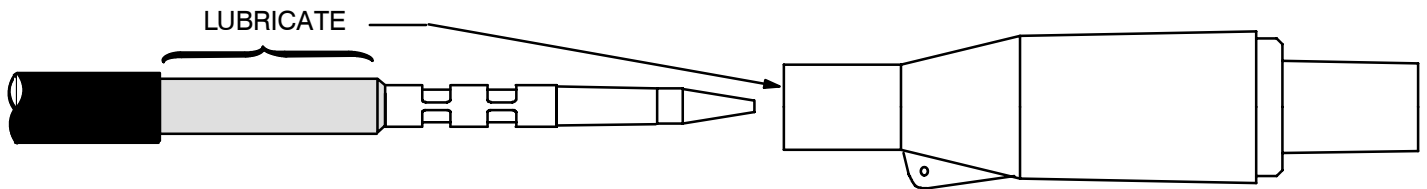
Crimp socket terminal on the bared conductor holding crimp barrel against the cable insulation. (See crimp chart packed with contact). Start the crimps at crimp line imprinted on crimp barrel and rotate each successive crimp or indent at least 90°. When using aluminum cable, carefully wipe excess inhibitor from the contact and cable insulation.

**STEP 4**

- A. Temporarily remove plastic pin.
- B. Remove the semi-conductive shield to a point 7 3/4" to 7 13/16" back from the end of the socket with straight, smooth, "squared" cut. DO NOT CUT OR NICK THE INSULATION.
- C. Replace plastic pin.
- D. Clean the outer jacket and thoroughly clean the insulation to remove all traces of semi-conducting residue. This may be done by wiping with a rag soaked with an approved solvent. Always wipe from the end of the cable toward the outer jacket.

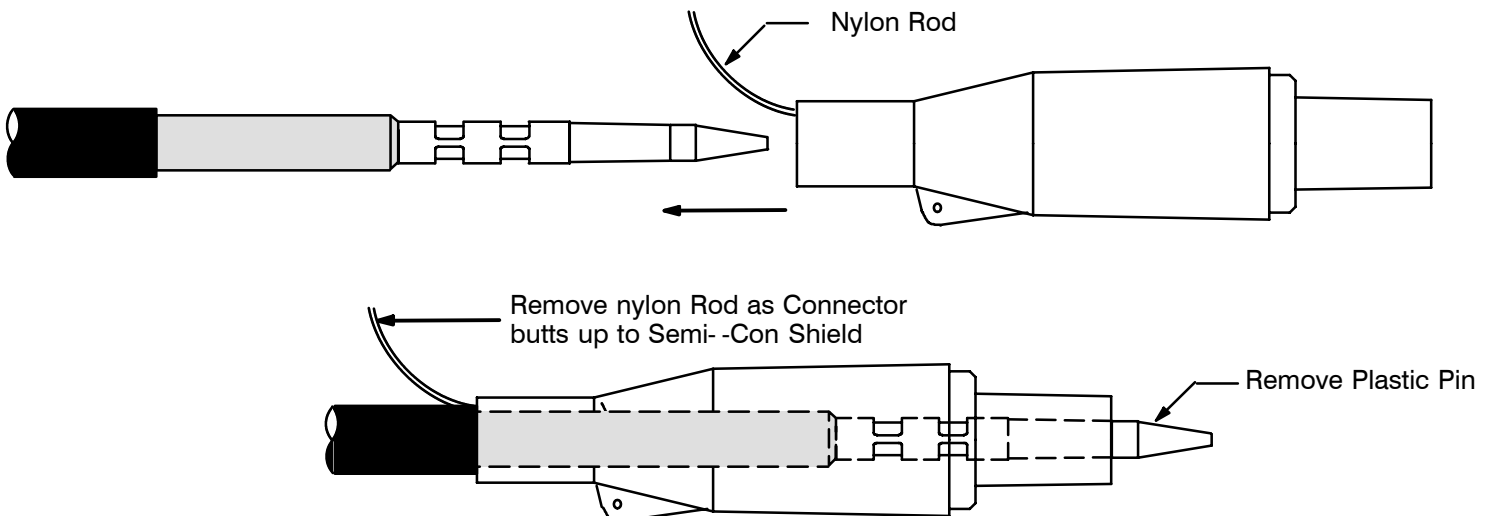
**STEP 5**

Keep cable insulation and plug clean. Apply supplied lubricant sparingly to the cable as shown and to the inside of the housing DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating product.

**STEP 6**

To install on cable:

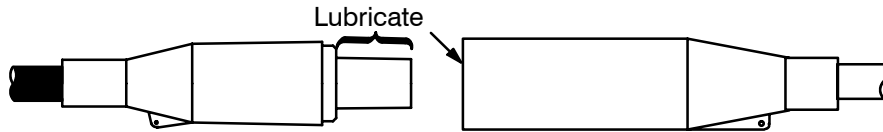
- A. Insert nylon rod 3 1/2" to 4" into cable entrance port on the connector.
- B. Push cable into housing (**IMPORTANT:** Remove nylon rod as connector butts up to semi-con shield) until the front edge of the socket contact is flush with the front edge of the plug.
- C. Remove plastic pin from socket and discard.



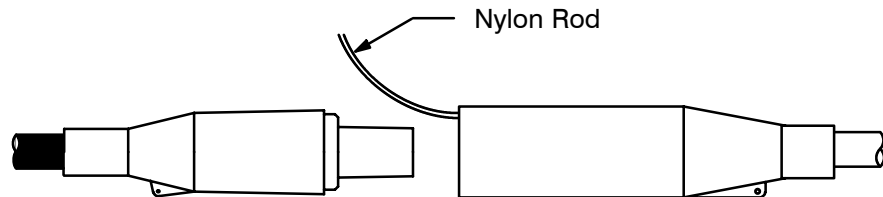
STEP 7

To connect to a mating receptacle:

A. Lubricate nose of plug with silicone grease.

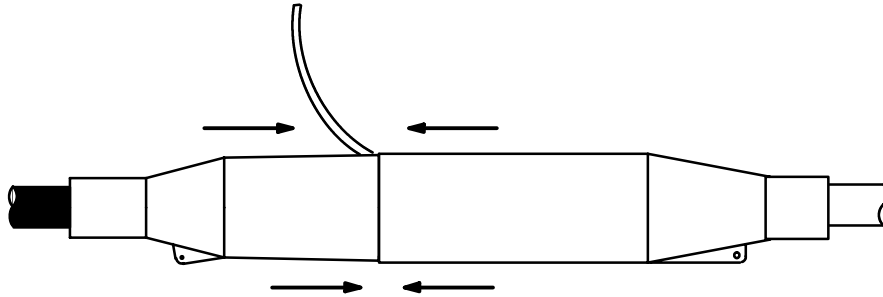


B. Place nylon rod into receptacle face until it bottoms (approximately 1 3/4").



C. Insert plug assembly into receptacle as far as possible.

D. Pull out nylon rod.

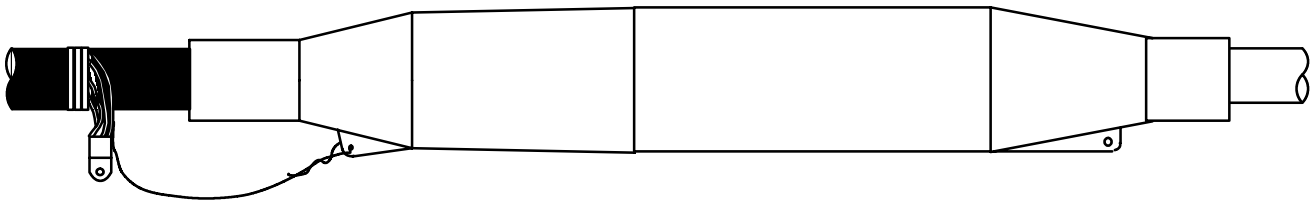


STEP 8

Cable Grounding:

A. Connect one concentric neutral wire to grounding eye and twist tightly.

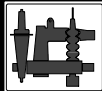
B. Twist remaining concentric neutral wires together and connect to ground, using a crimp connector as required.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147

A Unit of Thomas & Betts Corporation



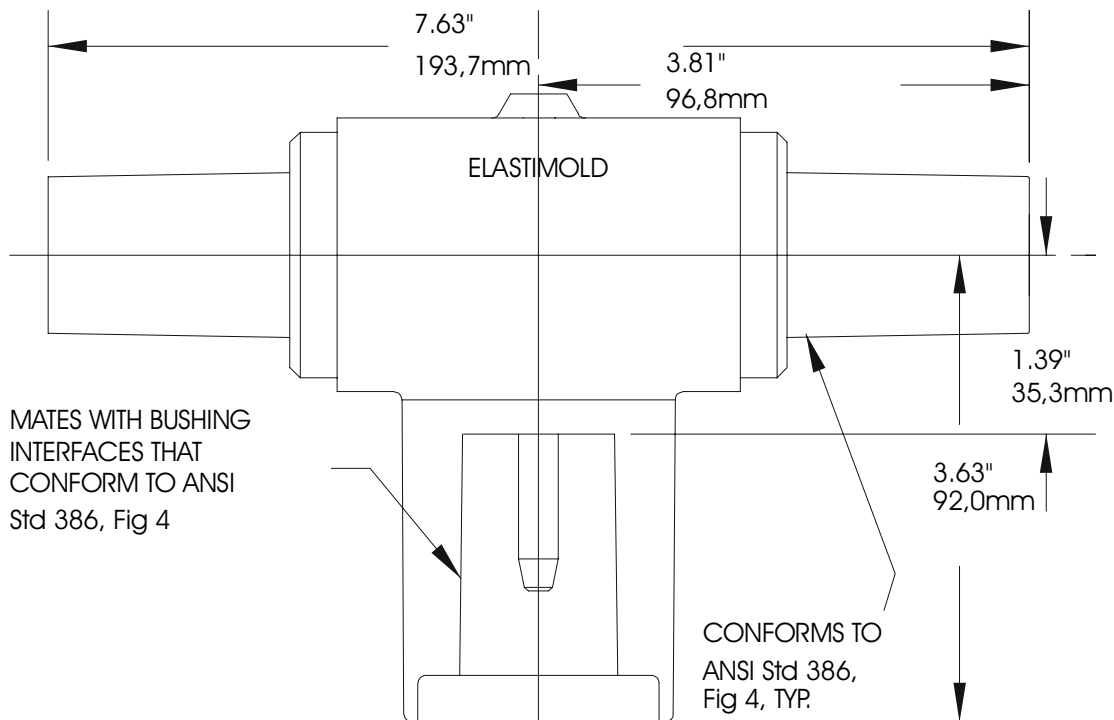
PRODUCT SPECIFICATION SHEET

I

DESCRIPTION

15/25kV 200A Deadbreak Tee Splice

ELASTIMOLD PART NUMBER

K150T

Application:

K150T tee splices are fully shielded, fully submersible, separable insulated connectors designed to provide a three-way, disconnectible cable connection. The disconnectible feature can be used only when the circuit is de-energized. The K150T is suitable for use on both 15 and 25 kV system.

The K150T are designed with two plug ends and one receptacle end. The K150T plug ends mate with the following ELASTIMOLD 15/25kV rated products:

- 156LR elbow connector
- K151SR straight receptacle
- K150DR dead-end receptacle

The K150T receptacle end mates with the following ELASTIMOLD 15/25kV rated products:

- K180 series bushings
- K1501A1 bushing plug insert
- K1501J series junction
- K150DP dead-end plug
- K151SP straight plug

Ratings:

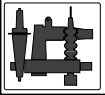
per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current

Ordering Instruction:

To Order, specify number **K150T** Tee Splice.

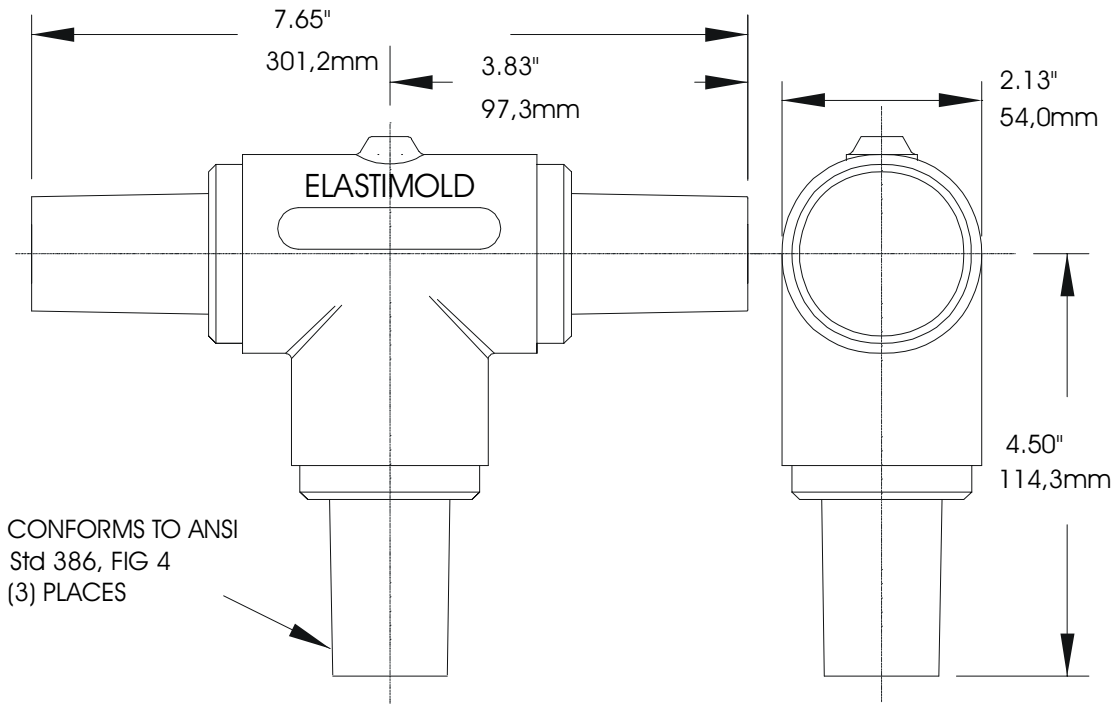
The K150T Tee Splice includes the following:

1 - Tee splice	K150T
2 - Protective shipping cap	180-PCC
1 - Protective shipping cap	1600-13-3
1 - Lubricant	82-08
1 - Installation instruction	IS-150T (C) 12/95



15/25kV 200A Deadbreak Tee Splice

K150T3



Application:

K150T3 tee splices are fully shielded, fully submersible, separable insulated connectors designed to provide a three-way, disconnectible cable connection. The disconnectible feature can be used only when the circuit is de-energized. The K150T3 is suitable for use on both 15 and 25 kV system.

The K150T are designed with three plug ends. The K150T plug ends mate with the following ELASTIMOLD 15/25kV rated products:

- 156LR elbow connector
- K151SR straight receptacle
- K150DR dead-end receptacle

Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current

Ordering Instruction:

To Order, specify number **K150T3** Tee Splice.

The K150T3 Tee Splice includes the following:

1 - Tee splice	K150T3
3 - Protective shipping cap	180-PCC
2 - Lubricant	82-08
1 - Installation instruction	IS-K150T3

Installation Instructions 150T/K150T Tee Splice

CONTENTS: Tee Splice, Nylon Venting Rod, Lubricant, Installation Instructions.

The 150T tee splice is a junction point with a receptacle end and two plug ends.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

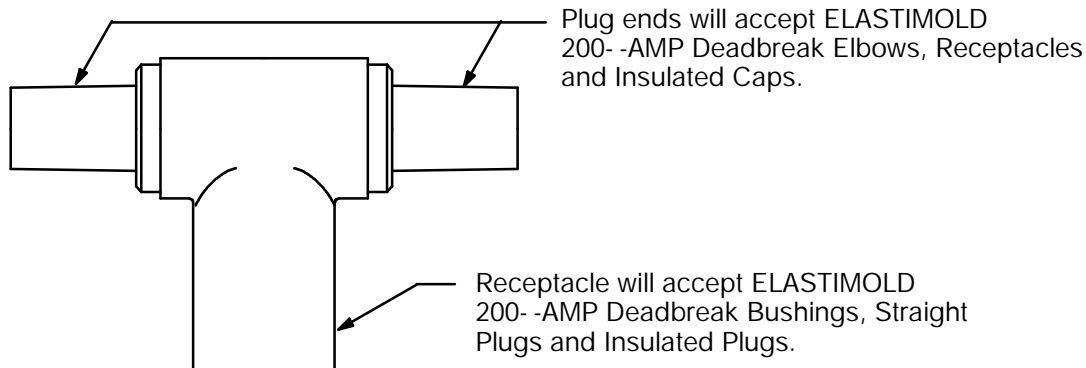
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

This product is supplied with a protective shipping covers. Remove these shipping covers and replace with the appropriate HV insulated cap or connector before submerging or energizing the circuit.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.



STEP 1

Do not remove protective caps from the plug ends of the 150T until it is time to make final connections. Always prepare mating parts first.

STEP 2

All connections made to the tee splice must be externally vented using the nylon rod supplied. Refer to installation instructions for the connectors being assembled to the 150T, and the appropriate bailing assembly used with these connectors.

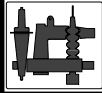
STEP 3

Apply supplied lubricant or ELASTIMOLD approved lubricant sparingly to nose of plugs as shown. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating products.

STEP 4

Assembly of this product to other connector components must include a bail to prevent accidental disengagement. See catalogue for correct bail assembly.





ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

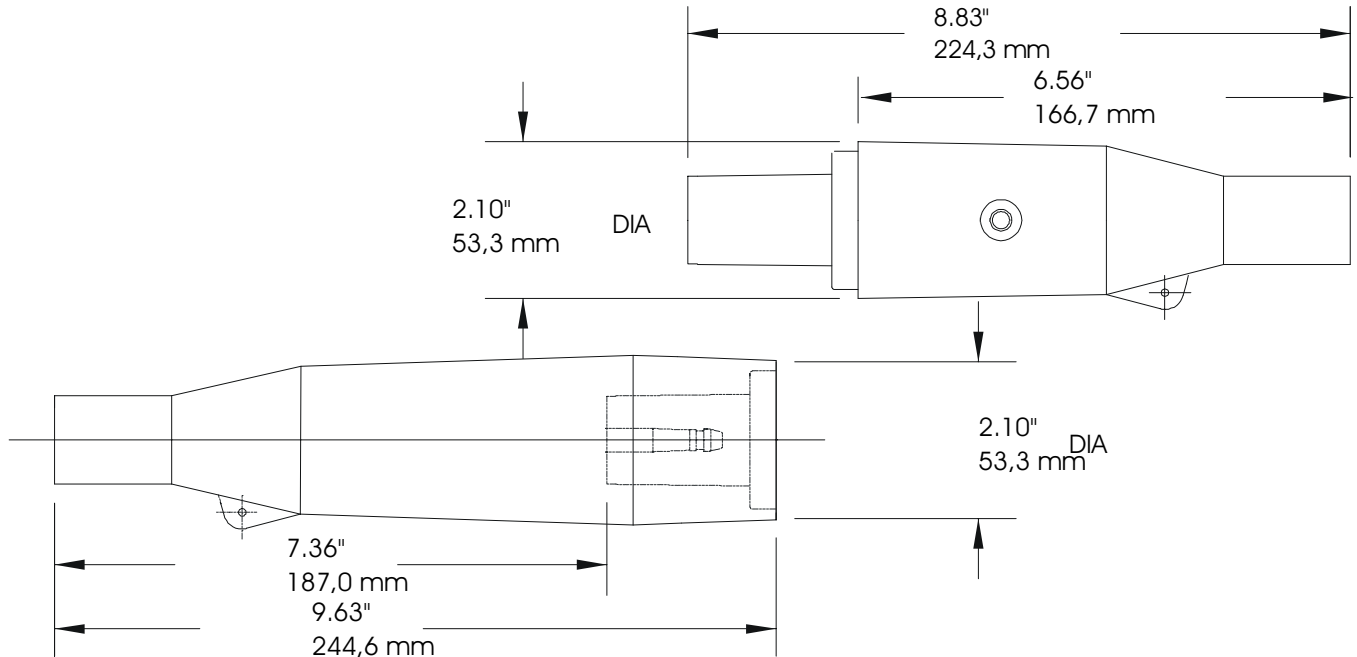
C I

DESCRIPTION

15/25kV 200A Locking Splice

ELASTIMOLD PART NUMBER

K151LS-WX



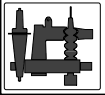
Application:

ELASTIMOLD K151LS locking splices provide a permanent, fully shielded, fully submersible, straight splice. The K151LS can be used on new installations to join cable runs or for repairs on existing installations. It is rated for up to 25kV operation. Installed either directly buried or in a vault, the pin and socket interlock of the K151LS locking splice will withstand pulls of up to 500 lbs.

The K151LS is designed to accept cable insulation diameters of .495 to .985". While designed for use on UD cable having concentric neutral and extruded insulation shielding, the K151LS will operate equally as well on other shielded cables when used with the proper ELASTIMOLD cable shield adapter.

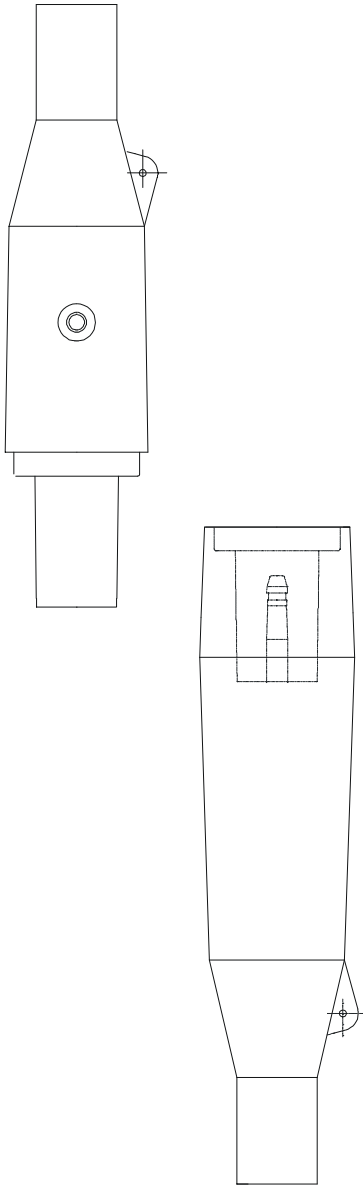
Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current



15/25kV 200A Locking Splice

K151LS-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

When order cable legs for different cable sizes, list each leg size "W" and "X".

K151LS- Step 1 (W) - Step 2 (X)

Cable Insulation Dia. Range		Housing Code
inches	mm	
.495 - .585	12,6 - 14,9	EB
.525 - .635	13,3 - 16,1	EF
.575 - .685	14,6 - 17,4	FA
.610 - .735	15,5 - 18,7	FAB
.675 - .785	17,1 - 19,9	FB
.725 - .835	18,4 - 21,2	FG
.775 - .885	19,7 - 22,5	GA
.825 - .935	21,0 - 23,7	GAB
.875 - .985	22,2 - 25,0	GB

Table R

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
6	01401180	-
5	01401190	01401180
4	01401200	01401190
3	01401210	01401200
2	01401220	01401210
1	01401230	01401220
1/0	01401240	01401230
2/0	01401250	01401240
3/0	01401260	01401250
4/0	01401270	01401260
250	-	01401270

*Cu or Al conductor

Conductor Size* (AWG or kCMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
6	180	-
5	190	180
4	200	190
3	210	200
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

Table S

Conductor Size (AWG or kCMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
6	01301180	-
5	01301190	01301180
4	01301200	01301190
3	01301210	01301200
2	01301220	01301210
1	01301230	01301220
1/0	01301240	01301230
2/0	01301250	01301240
3/0	01301260	01301250
4/0	01301270	01301260
250	-	01301270

*Cu or Al conductor

The K151LS-WX contains the following:

- | | |
|---------------------------------|----------------------|
| 1 - Receptacle Housing | K151LSRH-W |
| 1 - Plug Housing | K151LSPH-W |
| 1 - Splice socket contacts | 01401XXX (Table R) |
| 1 - Splice pin contacts | 01301XXX (Table S) |
| 4 - Tube, lubricant | 82-08 |
| 1 - Installation instruction | IS-K151LSP 7/96 |
| 1 - Installation instruction | IS-K151LSR 7/96 |
| 1 - Crimp chart if AL connector | IS-200AL-CC (C) 4/94 |

Example:

The ordering number for an Locking splice for a 1/0 stranded AL, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is K151LS-GAB-240.

Installation Instructions K151LSP Non-Separable Straight Plug

CONTENTS: Conductor Contact (female), Nylon Venting Rod, Pin Installation, Lubricant, Crimp Chart, Installation Instructions.

The K151LSP is designed to permanently connect lengths of solid dielectric type cable by mating with ELASTIMOLD'S K151LSR.

CAUTION: This product is designed to lock together with, and is intended for use with the K151LSR ONLY. A bailing arrangement is necessary if this product is used with any ELASTIMOLD deadbreak product other than the K151LSR.

The K151LSP is for use on 15kV class systems (8.3kV phase-to-ground) or 25kV class systems (15.2kV phase-to-ground).

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

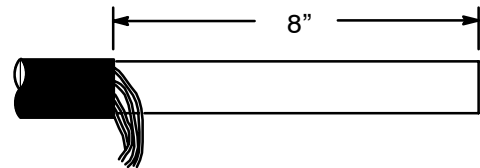
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

FOR JACKETED CONCENTRIC NEUTRAL, FOLLOW STEP 1A. FOR COPPER TAPE SHIELD, FOLLOW STEP 1B.

IMPORTANT: When connecting to a mating straight receptacle, K151LSR, the cable ends will be 3 1/8" apart after cutting. If using an MA grounding device, follow the MA installation instructions regarding outer jacket cutback. Otherwise, follow instructions below.

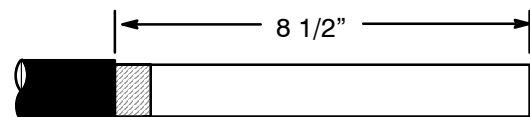
STEP 1A

Cut Cable. Cut and remove cable jacket a distance of 8" from cable end. Bind concentric wires with tape, 7 1/2" from cable end. When cutting cable, allow sufficient concentric neutral wires for connecting to ground point as required by the installation.



STEP 1B

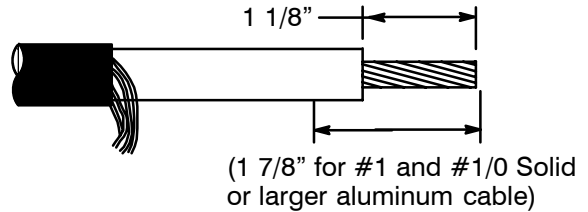
Cut cable. Cut and remove cable jacket a distance of 8" from cable end. Remove copper tape shield a distance of 7 1/2" from end of cable.



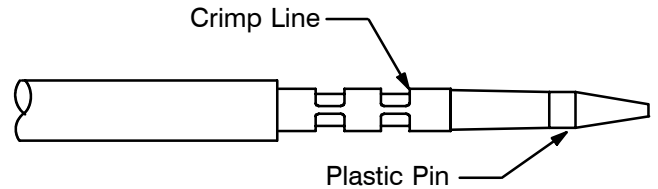
ELASTIMOLD

STEP 2

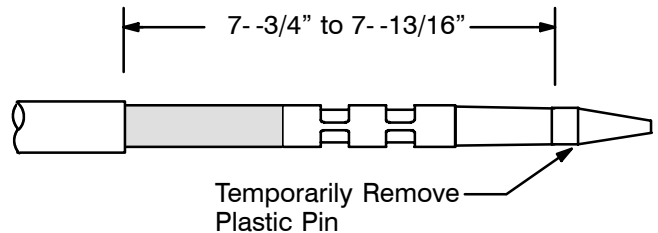
Remove 1 1/8" (1 7/8" for #1 and #1/0 Solid or larger aluminum cable) of cable insulation and conductive shield. Cut squarely, DO NOT PENCIL. Wire brush bare aluminium conductors and immediately insert into crimp barrel.

**STEP 3**

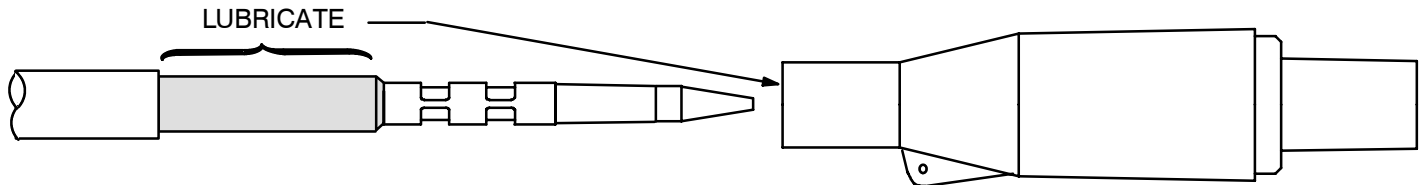
Crimp socket terminal on the bared conductor while ensuring conductor remains fully seated in connector. (See crimp chart packed with contact). Start the crimps at crimp line imprinted on crimp barrel and rotate each successive crimp or indent at least 90°. When using aluminum cable, carefully wipe excess inhibitor from the contact and cable insulation.

**STEP 4**

- Temporarily remove plastic pin.
- Remove the semi-conductive shield to a point 7 3/4" to 7 13/16" back from the end of the socket with straight, smooth, "squared" cut. DO NOT CUT OR NICK THE INSULATION.
- Replace plastic pin.
- Clean the outer jacket and thoroughly clean the insulation to remove all traces of semi-conducting residue. This may be done by wiping with a rag soaked with an approved solvent. Always wipe from the end of the cable toward the outer jacket.

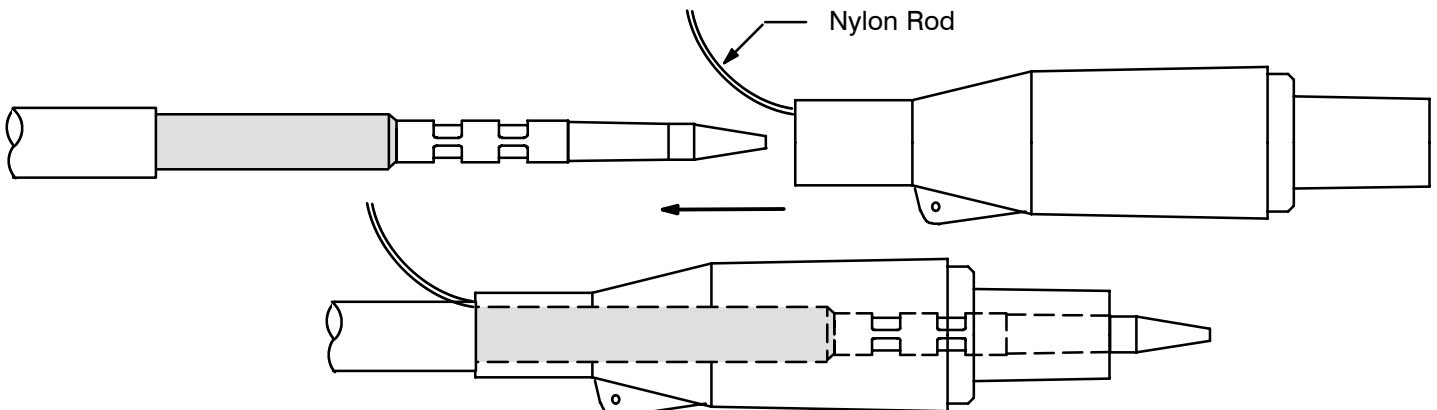
**STEP 5**

Keep cable insulation and plug clean. Apply supplied lubricant sparingly to the cable as shown and to the inside of the housing DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating product.

**STEP 6**

To install on cable:

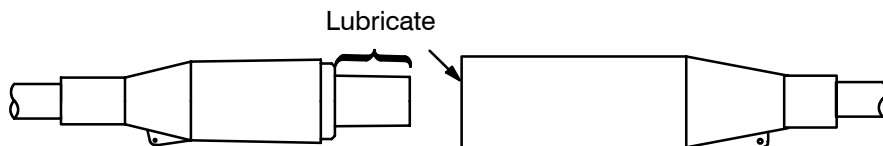
- Insert nylon rod 3 1/2" to 4" into cable entrance port on the connector.
- Push cable into housing (Note: Remove nylon rod as connector butts up to semi-con shield) until the front edge of the socket contact is flush with the front edge of the plug.
- Remove plastic pin from socket and discard.



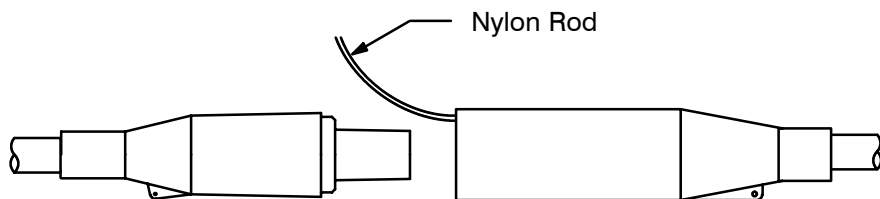
STEP 7

To connect to a mating receptacle:

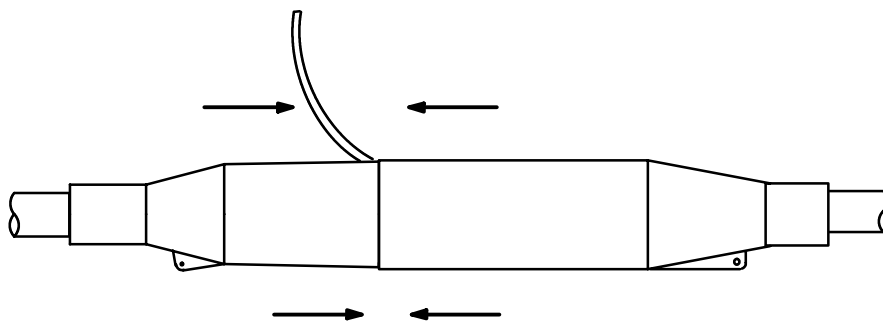
A. Lubricate nose of plug with silicone grease.



B. Place nylon rod into receptacle face until it bottoms (approximately 1 3/4").



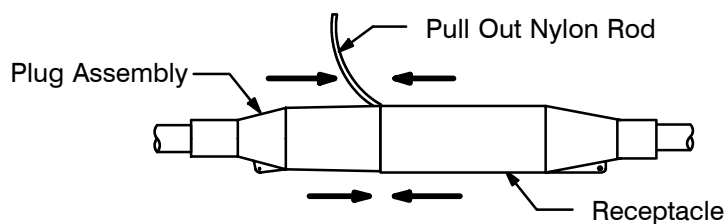
C. Insert plug assembly into receptacle as far as possible.



STEP 8

A. Test locking contacts for proper connection by pulling the cable (NOT the housings) with a force of 100 lbs. If the parts separate repeat STEP 7.

B. Pull out nylon rod.

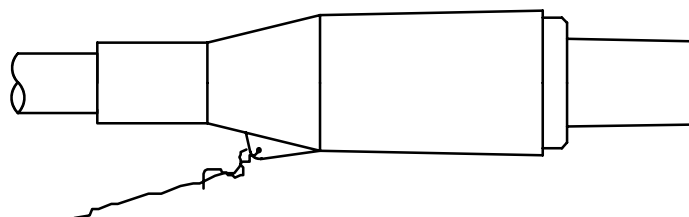


STEP 9

Cable Grounding:

A. If using an MA grounding device, follow MA installation instructions.

B. If ELASTIMOLD grounding device is not being used, connect one concentric neutral wire to grounding eye and twist tightly as shown. Then connect to system ground along with metallic shield of cable.



ELASTIMOLD

Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147

A Unit of Thomas & Betts Corporation

Installation Instructions K151LSR Non-Separable Straight Receptacle

CONTENTS: Conductor Contact (male), Nylon Venting Rod, Lubricant, Installation Instructions, Crimp Chart.

The K151LSR is designed to permanently connect lengths of solid dielectric type cable by mating with ELASTIMOLD'S K151LSP.

CAUTION: This product is designed to lock together with, and is intended for use with the K151LSP ONLY. A bailing arrangement is necessary if this product is used with any ELASTIMOLD deadbreak product other than the K151LSP.

The K151LSR is for use on 15kV class systems (8.3kV phase-to-ground) or 25kV class systems (15.2kV phase-to-ground).

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

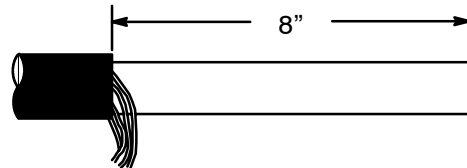
1. Check contents of package to insure they are complete and undamaged.
2. Check all components to insure proper fit with cable and/or mating products.
3. Read entire installation instructions before starting.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

FOR JACKETED CONCENTRIC NEUTRAL, FOLLOW STEP 1A. FOR COPPER TAPE SHIELD, FOLLOW STEP 1B.

IMPORTANT: When connecting to a mating straight plug, K151LSP, the cable ends will be 3 1/8" apart after cutting. If using an MA grounding device, follow the MA installation instructions regarding outer jacket cut back. Otherwise, follow instructions below.

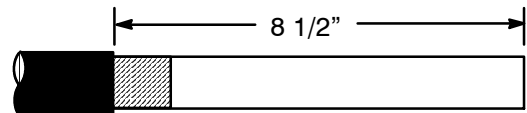
STEP 1A

Cut Cable. Cut and remove cable jacket a distance of 8 1/2" from cable end. Bind concentric neutral wires with tape, 8" back from end of cable. When cutting cable, allow sufficient concentric neutral wires for connecting to ground point as required by the installation.



STEP 1B

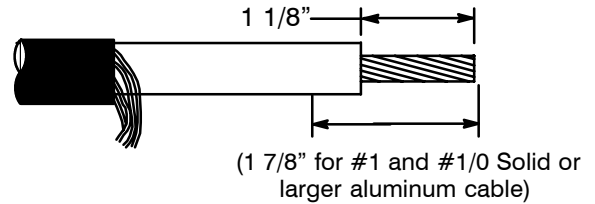
Cut cable. Cut and remove cable jacket a distance of 8 1/2" from cable end. Remove copper tape shield a distance of 8" from end of cable.



ELASTIMOLD

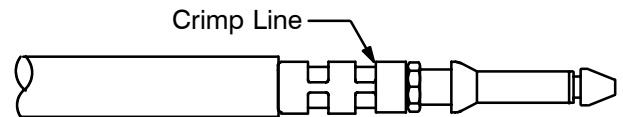
STEP 2

Remove 1 1/8" (1 7/8" for #1 and #1/0 Solid or larger aluminum cable) of cable insulation and conductive shield. Cut squarely, DO NOT PENCIL. Wire brush bare aluminium conductors and immediately insert into crimp barrel.



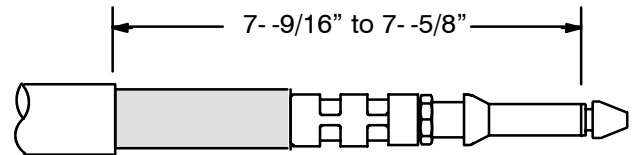
STEP 3

Crimp socket terminal on the bared conductor while ensuring conductor remains fully seated in connector. (See crimp chart packed with contact). Start the crimps at crimp line imprinted on crimp barrel and rotate each successive crimp or indent at least 90°. When using aluminum cable, carefully wipe excess inhibitor from the contact and cable insulation.



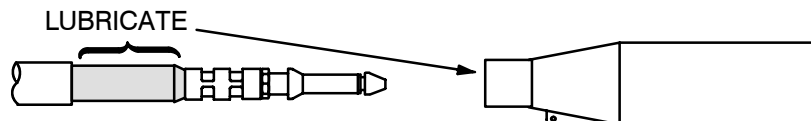
STEP 4

- Remove the semi-conductive shield to a point 7 9/16" to 7 5/8" back from the end of the pin with straight, smooth, "squared" cut. DO NOT CUT OR NICK THE INSULATION.
- Clean the outer jacket and thoroughly clean the insulation to remove all traces of semi-conducting residue. This may be done by wiping with a rag soaked with an approved solvent. Always wipe from the end of the cable toward the outer jacket.



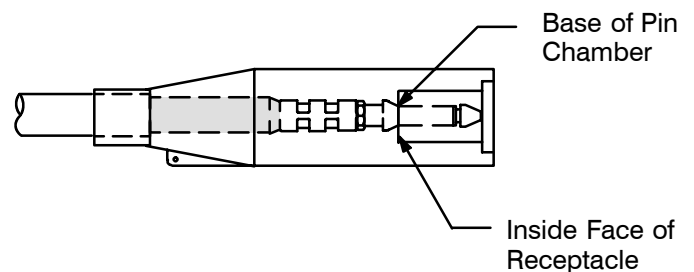
STEP 5

Keep cable insulation and receptacle clean. Apply supplied lubricant sparingly to the cable as shown and to the inside of the housing DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating product.



STEP 6

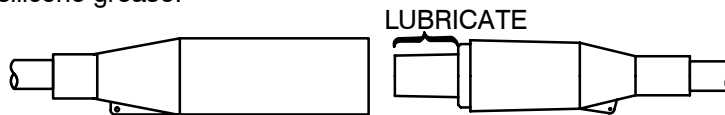
Push cable into housing until the base of the pin chamfer is flush with the inside face of the receptacle.



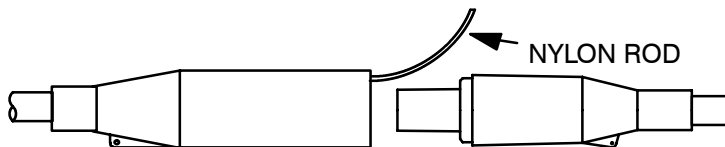
STEP 7

To connect to a mating plug:

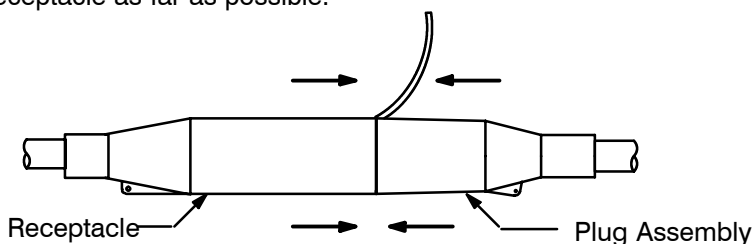
- A. Lubricate nose of plug with silicone grease.



- B. Place nylon rod into receptacle face until it bottoms (approximately 1 3/4").



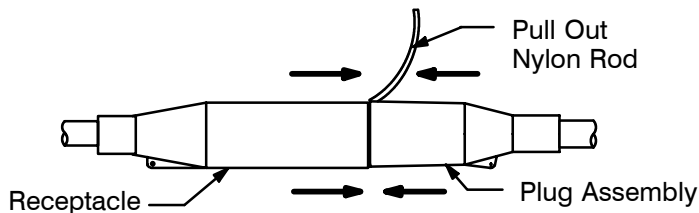
- C. Insert plug assembly into receptacle as far as possible.



STEP 8

- A. Test locking contacts for proper connection by pulling the cable (NOT the housings) with a force of 100 lbs. If the parts separate repeat STEP 7C.

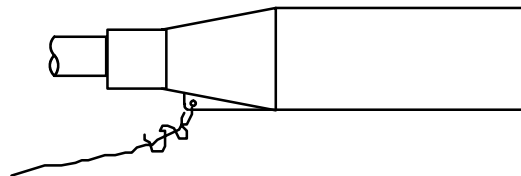
- B. Pull out nylon rod.



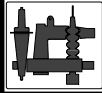
STEP 9

Cable Grounding:

- A. If using an MA grounding device, follow MA installation instructions.
- B. If ELASTIMOLD grounding device is not being used, connect one concentric neutral wire to grounding eye and twist tightly as shown. Then connect to system ground along with metallic shield of cable.



Esna Park Drive, Hackettstown, New Jersey 07840 USA
(908)852-1122 FAX: (908)813-2147
A Unit of Thomas & Betts Corporation



ELASTIMOLD

ISSUE DATE 0199

PAGE 1 OF 2

PRODUCT SPECIFICATION SHEET

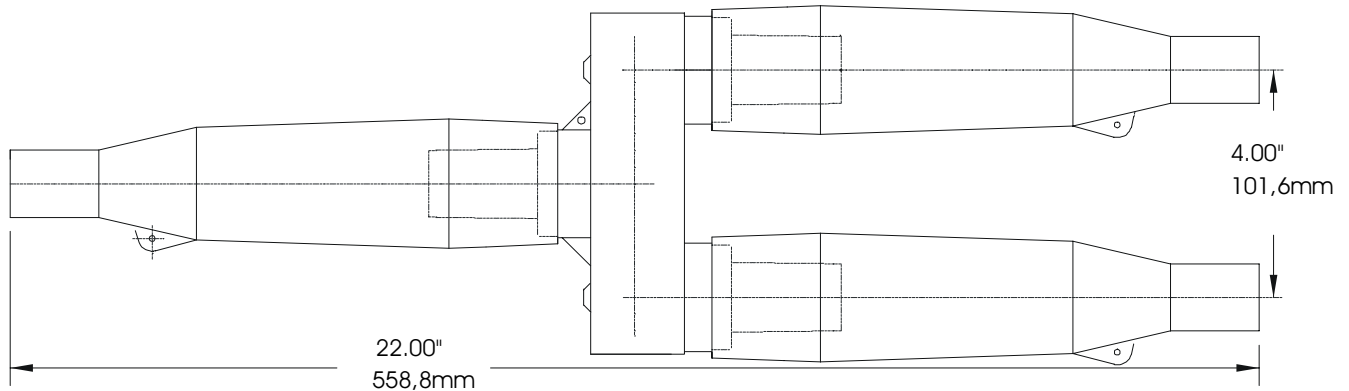
C I

DESCRIPTION

15/25kV 200A Locking "Y" Splice

ELASTIMOLD PART NUMBER

K151LY-WX



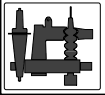
Application:

The K151LY locking "Y" splices provide a permanent, fully shielded, fully submersible, "Y" splice. Typically, the K151LY can be used where a new tap is required on an existing cable run or where a "Y" joint is required in a new cable installation. If a tap is required at some future time the tap leg of the "Y" splice can be insulated with a K150DR. When the tap is required, de-energize the system, remove the insulating plug and insert the prepared cable tap. The K151LY is for up to 25 kV use. Installed either directly buried or in a vault, the pin and socket interlock of the K151LY will withstand pulls of up to 500 lb.

The K151LY are designed to accept cable insulation diameters of .495" to .985". While designed for use on UD cable having concentric neutral and extruded insulation shielding, the K151LY will operate equally as well on other shielded cables when used with the proper ELASTIMOLD cable shield adapter.

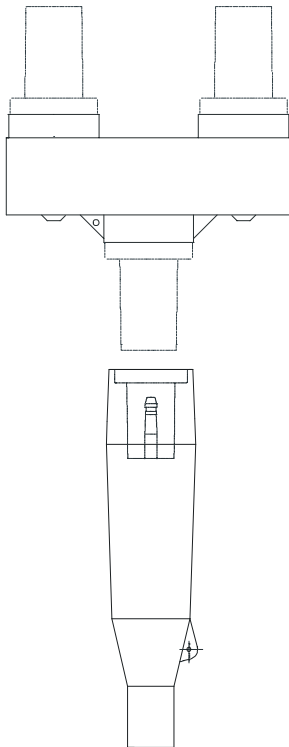
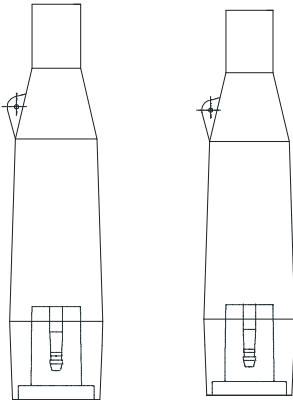
Ratings:

per ANSI/IEEE Standard 386
 25kV Voltage Class
 15.2kV Max Phase-to-Ground - Operating Voltage
 26.3kV Max Phase-to-Phase
 125kV BIL - Impulse Withstand (1.2 x 50 microsecond wave)
 40kV AC - One minute Withstand
 78kV DC - 15 Minutes Withstand
 19kV AC - Corona Extinction @ 3p.C.sensitivity
 200 Amp - Continuous current
 10kA Sym - 10 Cycles momentary current



15/25kV 200A Locking "Y" Splice

K151LY-WX



Ordering Instruction:

Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

Step 2 (X)

Choose the proper compression lug code according to the conductor size. Insert code into the catalog number.

When order cable legs for different cable sizes, list each leg size "W" and "X".

K151LY – –

Cable Insulation Dia. Range		Elbow Code
inches	mm	Code
.610 - .735	15,5 – 18,7	FAB
.675 - .785	17,1 – 19,9	FB
.725 - .835	18,4 – 21,2	FG
.775 - .885	19,7 – 22,5	GA
.825 - .935	21,0 – 23,7	GAB
.875 - .985	22,2 - 25,0	GB

Conductor Size* (AWG or kcMil)	Compression Lug Code Number	
	Stranded/ Compr.	Solid/ Compact
2	220	210
1	230	220
1/0	240	230
2/0	250	240
3/0	260	250
4/0	270	260
250	-	270

Table R

Conductor Size (AWG or kcMil)	Replacement Lug Number	
	Stranded/ Compr.	Solid/ Compact
2	01301220	01301210
1	01301230	01301220
1/0	01301240	01301230
2/0	01301250	01301240
3/0	01301260	01301250
4/0	01301270	01301260
250	-	01301270

*Cu or Al conductor

Example:

The ordering number for an Locking splice for a 1/0 stranded AL, 220 mil wall cable with an insulation diameter of .875" (22.2 mm) is K151LY-GAB-240.

The Locking "Y" Splice kit contains the following:

3 – Receptacle housing	K151SRH-W
3 – Compression lug	01301XXX (table R)
1 – "Y" Bus	K151LY
1 – Nylon Rod	150-515
3 – Tube, lubricant	82-08
1 – Installation instruction	IS-151SR/K151SR
	IS-K151LSR
	IS-K151LY
1 – Crimp chart	IS-200AL-CC

Installation Instructions K151LY Non-Separable Straight Receptacle, 3-Way Splice

CONTENTS: *Straight Receptacle, Conductor Contact (male), K151LY 3-way Connector, Nylon Venting Rod, Lubricant, Installation Instructions, Crimp Chart.*

The K151LY is designed to permanently connect lengths of solid dielectric type cables by mating with three ELASTIMOLD K151LSR's.

CAUTION: This product is designed to lock together with, and is intended for use with the K151LSR ONLY.

The K151LY is for use on 15kV class systems (8.3kV phase-to-ground) or 25kV class systems (15.2kV phase-to-ground).

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products by hand.

Excess distortion of the assembled product may result in its failure.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent

personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

If this product is supplied with a protective shipping cap. Remove this shipping cap and replace with the appropriate HV insulated/shielded insulated cap or connector before submerging or energizing the circuit.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD OFFICE.

IMPORTANT

1. Check contents of package to insure they are complete and undamaged.
 2. Check all components to insure proper fit with cable and/or mating products.
 3. Read entire installation instructions before starting.
 4. Have all required tools at hand and maintain cleanliness throughout the procedure.
-

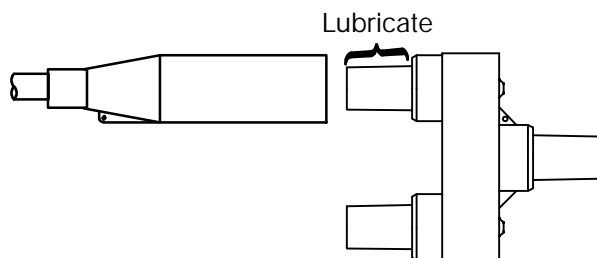


STEP 1

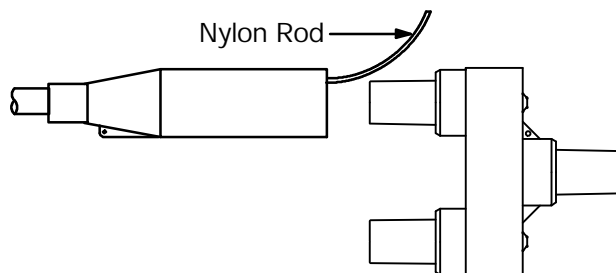
Follow enclosed instructions for the three K151LSR's, STEPS 1- -6 ONLY.

STEP 2

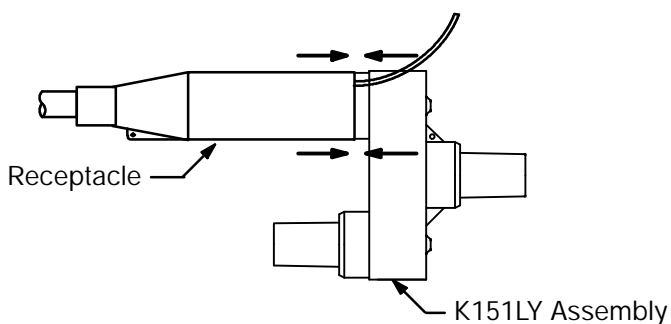
A. Lubricate nose with silicone grease.



B. Place nylon rod into receptacle face until it bottoms (approximately 1 3/4").



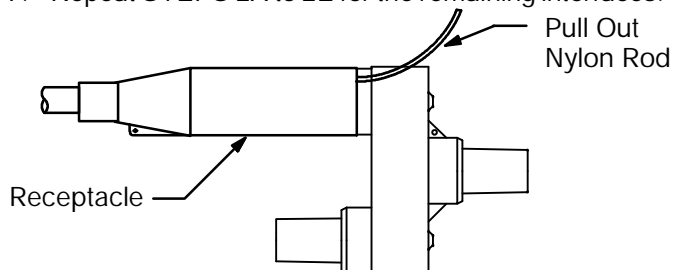
C. Insert K151LY assembly into receptacle as far as possible.



D. Test locking contacts for proper connection by pulling the cable (NOT the housings) with a force of approximately 100 lbs. If the parts separate repeat STEP 2C.

E. Pull out nylon rod.

F. Repeat STEPS 2A to 2E for the remaining interfaces.



STEP 3

Cable Grounding:

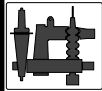
Connect one concentric neutral wire to grounding eye of each receptacle as well as the "Y" body and twist tightly. Then connect to system ground along with metallic shield of cable.



Esna Park Drive, Hackettstown, New Jersey 07840 USA

(908)852-1122 FAX: (908)813-2147

A Unit of Thomas & Betts Corporation

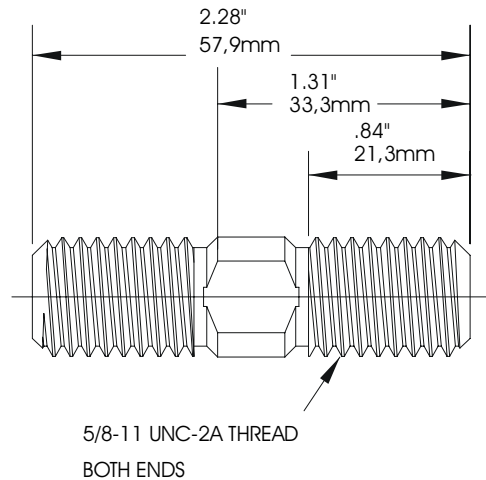


PRODUCT SPECIFICATION SHEET

DESCRIPTION

600A Thread Stud - Aluminum

ELASTIMOLD PART NUMBER

650SA

650SA threaded studs are used to assemble 15/25kV 600A Elbow Connectors and components.

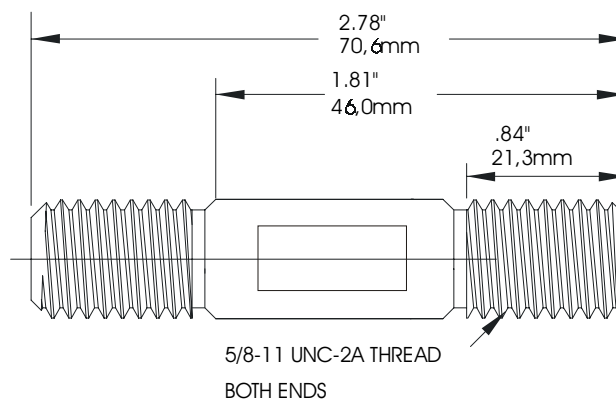
Ordering Instruction:

To order a Thread Stud, specify **650SA**.

DESCRIPTION

600A Thread Stud - Aluminum

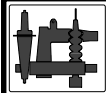
ELASTIMOLD PART NUMBER

650VSA

650VSA threaded studs are used to assemble 15/25kV vault stretchers and components.

Ordering Instruction:

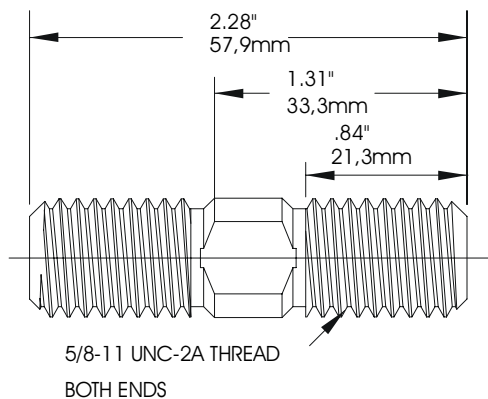
To order a Thread Stud, specify **650VSA**.



DESCRIPTION

600A Thread Stud - Copper

ELASTIMOLD PART NUMBER

675SA

675SA threaded studs are used to assemble 15/25kV 900A Elbow Connectors and components.

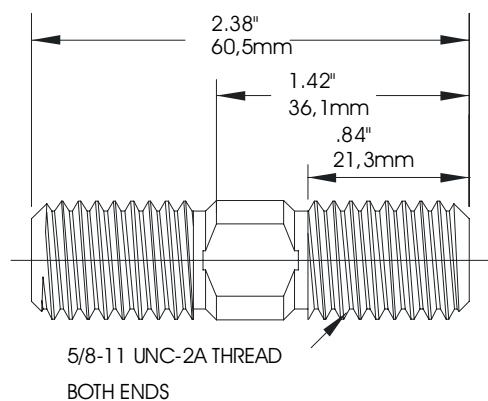
Ordering Instruction:

To order a Thread Stud, specify **675SA**.

DESCRIPTION

600A Thread Stud - Aluminum

ELASTIMOLD PART NUMBER

750SA

750SA threaded studs are used to assemble 35kV 600 Amp Elbow Connectors and components.

Ordering Instruction:

To order a Thread Stud, specify **750SA**.