

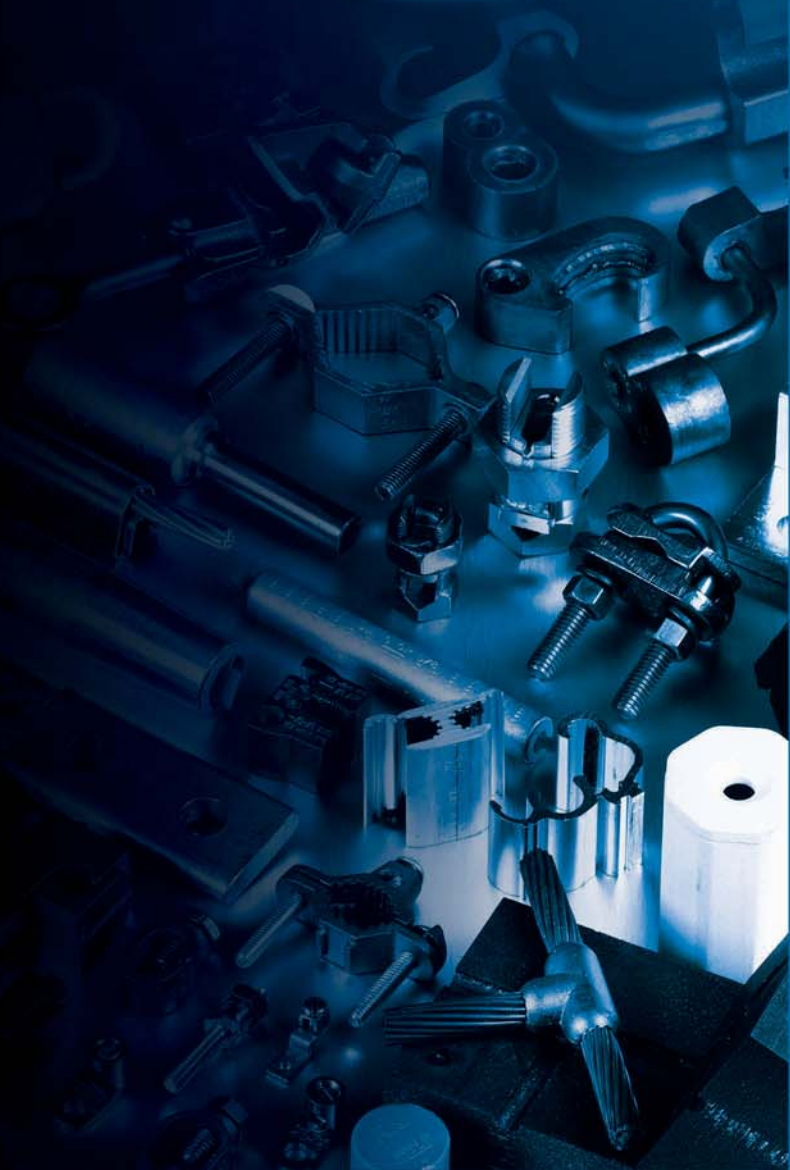
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# Blackburn® Exothermic Welding System



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**Blackburn® Exothermic Welding System**



# Thomas & Betts

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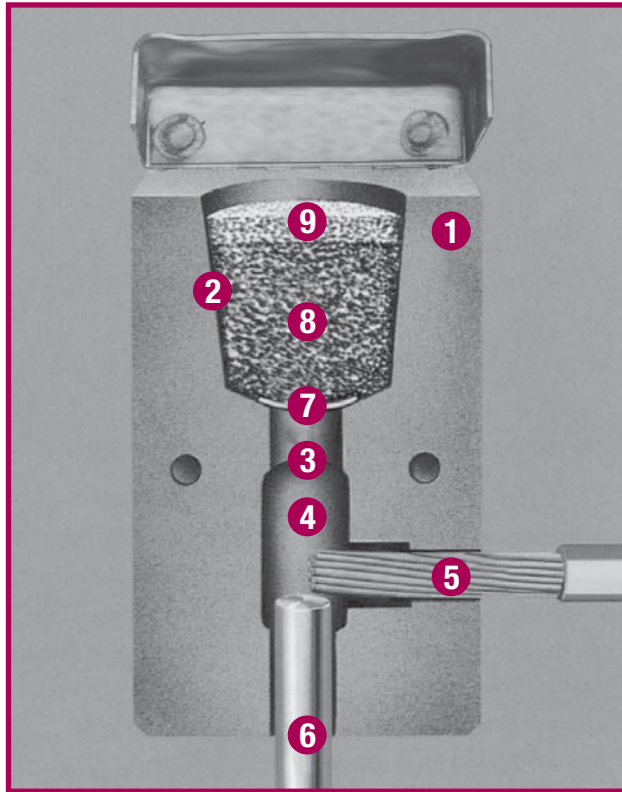
### The Blackburn Process

The Blackburn Exothermic Welding process is a simple, self-contained method of forming high quality electrical connections. The compact process requires no external power or heat source, making it completely portable.

Connections are made inside a semi-permanent graphite mold using the high temperature reaction of powdered copper oxide and aluminum.



Exothermic Welding Equipment is used by some of the world's most demanding customers. T&B is the only manufacturer that can offer exothermic welding, as well as compression and bolted connectors for grounding applications.



### This is how it works

The Mold (1) features a Crucible (2), a Tap Hole (3) and a Weld Cavity (4). The Conductors (5) and (6) to be joined, are located in the Weld Cavity as shown, and the Mold is closed. A steel Retaining Disc (7) is located in the bottom of the crucible, to retain the Weld Powder (8) and Starting Powder (9) which are poured in on top.

Ignited with a spark gun, the starting powder sets off an exothermic reaction in the weld powder, reducing it to molten copper alloy. This instantaneously melts the retaining disc, and flows down the tap hole, to the weld cavity, where it partially melts the conductors, before cooling to leave a fusion weld of great mechanical and electrical integrity.

### How to use this catalog

Refer to the pictorial index at the beginning of each catalog section to determine the type of connection that you wish to make. Turn to the relevant page, and study the table. There is an illustration for each connection type, and each table provides the following information:

- **The Weld Powder size required:** Unless otherwise stated, one weld powder is required for each connection made.
- **The Mold required:** The mold part number to the left shows precisely what the mold can do, and indicates its cost.
- **The Handle Clamp required:** Handle clamps relate directly to mold price keys. For example, handle clamp HCPK4 is for use with price key 4 molds.
- **Mold Price Key:** This relates to the size of graphite block used to manufacture the mold, and determines its price. The simplest and smallest molds have the lowest price key numbers.
- **Sleeves required:** Stranded conductors of #6 AWG or less require sleeves, which prevent burning of the strands, and improve the mechanical strength of the connection.
- **Packing:** Molds for connecting stranded conductors to reinforcing bar (CRE type) require sealing with packing.
- **Mold Sealing Compound:** Required when making connections to steel surfaces and pipes. Requirement is indicated by a statement at the foot of the table.

#### Mold Part Number

EXAMPLE: CC2 - 4 - 250K4/0

CC2 – A 'Tee' connection for stranded/solid circular conductor

4 – Price Key 4

250K4/0 – For a 250K strand run with a 4/0 strand tap

## Overview

### The Blackburn Connection

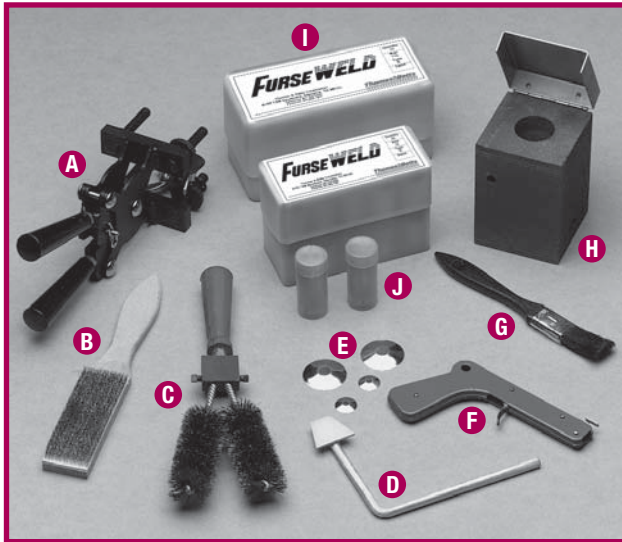
The majority of Blackburn connections have at least twice the cross sectional area of the conductors being joined, and an equivalent or greater current carrying capacity.

Because the connection is a fusion of high conductivity, high copper content alloy, it will withstand repeated fault currents, and will not loosen in the way that mechanical connectors can.

Corrosion resistance is exceptional, too, due to the alloy's very high copper content (in excess of 90%).



Blackburn® Exothermic Welding System



- |                          |                       |
|--------------------------|-----------------------|
| <b>A</b> Handle Clamp    | <b>F</b> Flint Gun    |
| <b>B</b> File Card Brush | <b>G</b> Mold Brush   |
| <b>C</b> Cable Brush     | <b>H</b> Mold         |
| <b>D</b> Mold Scraper    | <b>I</b> Powder Boxes |
| <b>E</b> Retaining Discs | <b>J</b> Cartridges   |

### Standards Compliance

A representative range of Blackburn connections has been successfully tested in accordance with the requirements of IEEE 837-1989 — Standard for Qualifying Permanent Connections Used in Substation Grounding.

Testing in accordance with UL and CSA. Contact T&B Technical Services at 888-862-3289 for listings and certificates.

### Blackburn Equipment and Accessories

#### Weld Powders

Blackburn weld powders are contained in plastic cartridges, and are packed in plastic boxes of 10 or 20, depending on their size. Different joints require different powder sizes, and the size relates to the powder's nominal weight in grams.

The weld powder packaging also contains retaining discs and starting powder. The retaining discs are contained in a separate bag within the box. The starting powder is compacted into the bottom of the cartridge, underneath the weld powder, and is released by tapping the cartridge base firmly.

Blackburn weld powders are suitable for making connections from copper to copper and from copper to steel.

#### Molds

Blackburn graphite molds are dedicated to producing one type of connection. With care, they should be capable of producing up to 75 connections each. Mold size and complexity varies, and is denoted by a price key, from one upwards.

Each mold carries a tag which gives the mold part number, the weld powder size for use with the mold and the conductor sizes for which it is intended.

#### Handle Clamps

Handle clamps provide a means of both handling the mold, and also of clamping the mold halves together (or of clamping the mold to the surface to which a connection is to be made).

#### Standard Tools

A flint gun is required to start the reaction.

Cleaning tools for conductors, surfaces and molds include:

- Cable Brush** — for cleaning cables and other circular conductors such as rods.
- Mold Scraper** — for removing slag from the mold crucible, after firing.
- Mold Brush** — for final mold cleaning.
- File Card Brush** — for cleaning conductors and surfaces.

## How to Make a Blackburn Connection

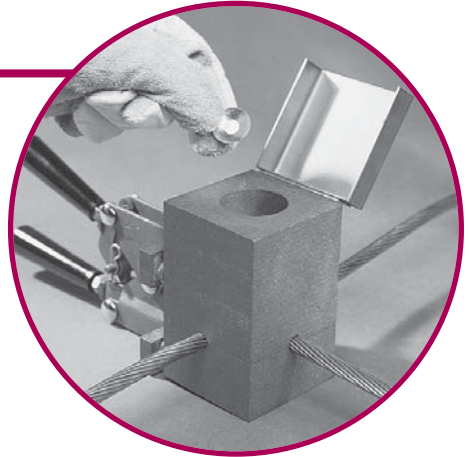
1

Position the clean conductors in the mold after making sure the mold is dry, by pre-heating or making a test joint.



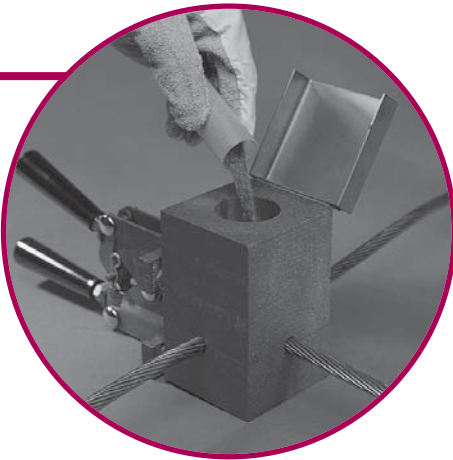
2

Place the metal retaining disc in the bottom of the mold crucible.



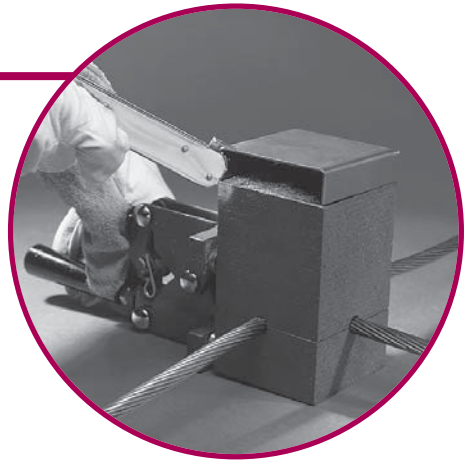
3

Pour the powder into the crucible, spreading some starting powder onto the mold edge.



4

Close the lid, and ignite with the flint gun from the side, firing the spark onto the starting powder.



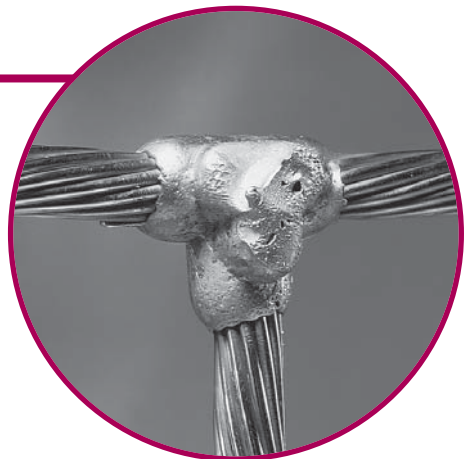
5

The reaction takes place safely inside the mold.

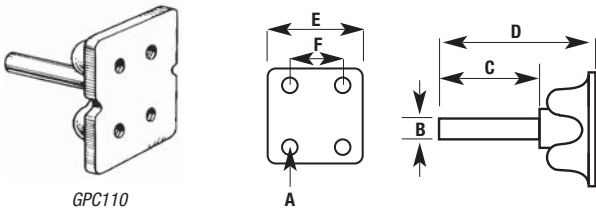


6

Once the joint is finished, the mold should be cleaned using a mold scraper and brush ready for the next joint.

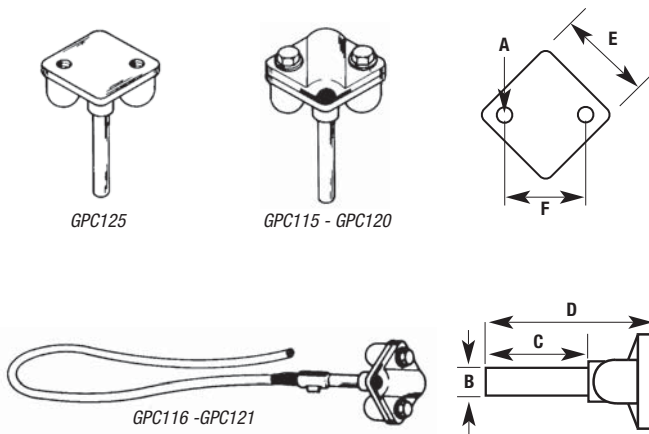


### Four-Hole Earth Points



CAT. NO.	A HOLE SIZE	B IN. DIA	C IN.	D IN.	E IN.	F IN.
GPC110	4 x 5/16 UNC x 5/8"	27/64"	2"	3"	2 1/2"	1 13/32"
GPC111	As GPC110 with a pre-welded 20" long tail of 2/0 AWG PVC-insulated cable.					

### Two-Hole Earth Points



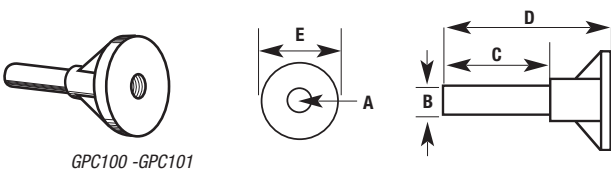
#### Complete with front plate

CAT. NO.	CONDUCTOR TYPE	B IN. DIA	C IN.	D IN.	E IN.	F IN.
GPC115	1" x 1/8" Tape or 2/0 AWG Cable	27/64"	2"	3 1/8"	2 3/16"	1 3/4"
GPC116	As GPC115 with a pre-welded 20" long tail of 2/0 AWG PVC-insulated cable.					
GPC120	1" x 1/8" Tape or 5/16" dia Solid	27/64"	2"	3 1/8"	2 3/16"	1 3/4"
GPC121	As GPC120 with a pre-welded 20" long tail of 2/0 AWG PVC-insulated cable.					

#### Without front plate

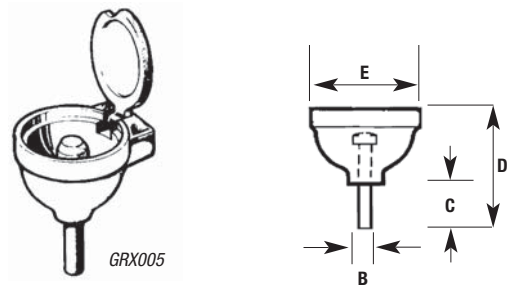
CAT. NO.	A HOLE SIZE	B IN. DIA	C IN.	D IN.	E IN.	F IN.
GPC125	2 x 5/16 UNC x 1/2"	27/64"	2"	3 1/8"	2 3/16"	1 3/4"
GPC126	As GPC125 with a pre-welded 20" long tail of 2/0 AWG PVC-insulated cable.					

### One-Hole Earth Points



CAT. NO.	A HOLE SIZE	B IN. DIA	C IN.	D IN.	E IN.
GPC100	1 x 5/16 UNC x 5/8"	27/64"	2 3/16"	3 1/8"	1 3/8"
GPC101	1 x 3/8 UNC x 5/8"	27/64"	2 3/16"	3 1/8"	1 3/8"
GPC105	As GPC100 with a pre-welded 20" long tail of 2/0 AWG PVC-insulated cable.				
GPC106	As GPC101 with a pre-welded 20" long tail of 2/0 AWG PVC-insulated cable.				

### Static Earth Receptacle



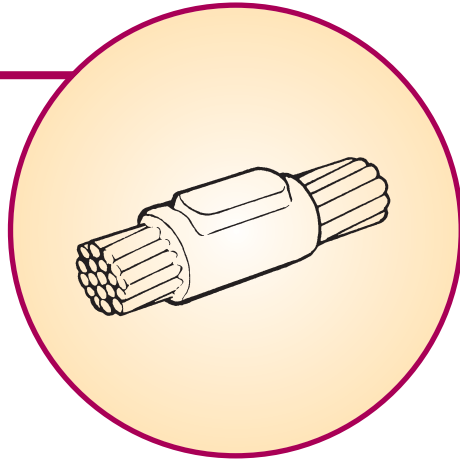
CAT. NO.	B IN. DIA	C IN.	D IN.	E IN.
GRX005	27/64"	1 1/2"	3 3/8"	2 1/16"

## Cable to Cable - Quick Reference

Below represents our standard range. Other types can be produced to order.

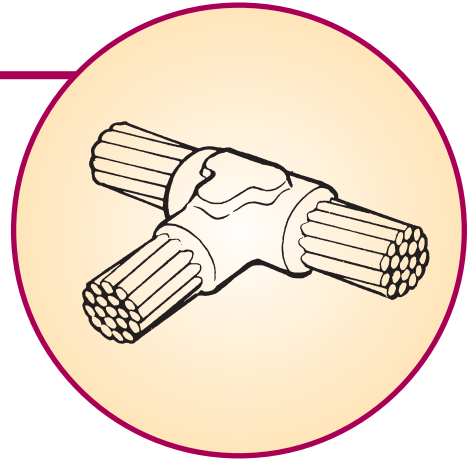
### CC1

See Page C-95



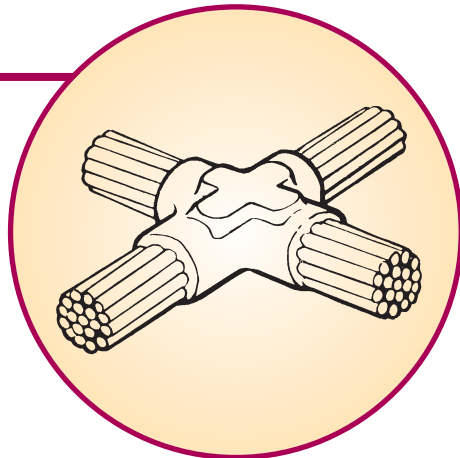
### CC2

See Pages C-96-C-97



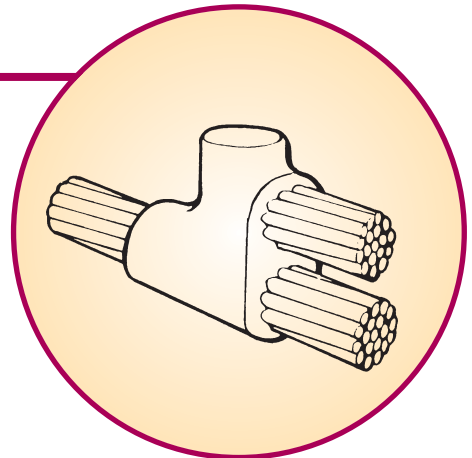
### CC4

See Page C-98



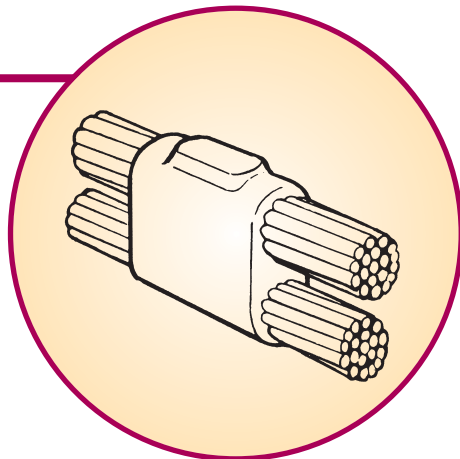
### CC6

See Page C-99



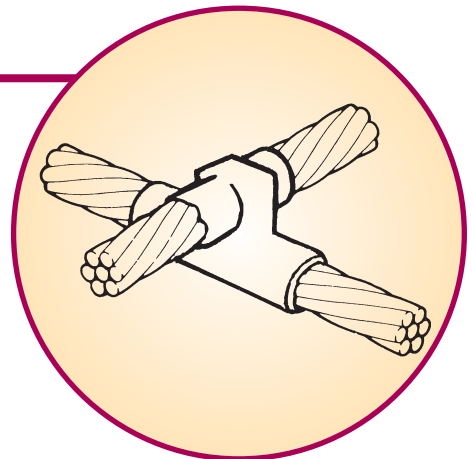
### CC7

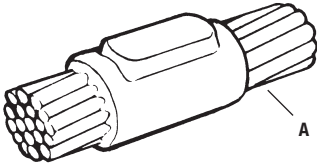
See Pages C-100-C-101



### CC11

See Page C-102





- Stranded Conductor
- Solid Circular Conductor

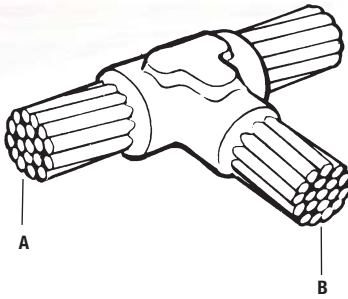
### CC1

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CC1-3-#3	3	32BKB	HCPK3	—	1
CC1-3-#2	2	32BKB	HCPK3	—	1
CC1-3-#2S	2 solid	32BKB	HCPK3	—	1
CC1-3-#1	1	32BKB	HCPK3	—	1
CC1-3-#1S	1 solid	32BKB	HCPK3	—	1
CC1-4-1/0	1/0	45BKB	HCPK4	—	1
CC1-4-1/0S	1/0 solid	45BKB	HCPK4	—	1
CC1-4-2/0	2/0	65BKB	HCPK4	—	1
CC1-4-3/0	3/0	90BKB	HCPK4	—	1
CC1-4-4/0	4/0	90BKB	HCPK4	—	1
CC1-4-4/0S	4/0 solid	90BKB	HCPK4	—	1
CC1-4-250K	250	115BKB	HCPK4	—	1
CC1-4-300K	300	115BKB	HCPK4	—	1
CC1-4-350K	350	150BKB	HCPK4	—	1
CC1-4-500K	500	200BKB	HCPK4	—	1
CC1-5-750K	750	2 X 150BKB	HCPK5	—	1
CC1-5-1000K	1000	2 X 200BKB	HCPK5	—	1

# Blackburn®

## Cable to Cable

Blackburn® Exothermic Welding System



- Stranded Conductor
- Solid Circular Conductor

### CC2

CAT. NO.	WIRE SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CC2-4-#4#4	4	4	32BKB	HCPK4	—	1
CC2-4-#2S#2	2 solid	2	45BKB	HCPK4	—	1
CC2-4-#2S#2S		2 solid	45BKB	HCPK4	—	1
CC2-4-#2S#4		4	45BKB	HCPK4	—	1
CC2-4-#2#2	2	2	45BKB	HCPK4	—	1
CC2-4-#2#2S		2 solid	45BKB	HCPK4	—	1
CC2-4-#2#4		4	45BKB	HCPK4	—	1
CC2-4-#1#1	1	1	45BKB	HCPK4	—	1
CC2-4-#1#2		2	45BKB	HCPK4	—	1
CC2-4-#1#2S		2 solid	45BKB	HCPK4	—	1
CC2-4-#1#4		4	45BKB	HCPK4	—	1
CC2-4-1/0#1/0	1/0	1/0	90BKB	HCPK4	—	1
CC2-4-1/0#1		1	45BKB	HCPK4	—	1
CC2-4-1/0#2		2	45BKB	HCPK4	—	1
CC2-4-1/0#2S		2 solid	45BKB	HCPK4	—	1
CC2-4-1/0#4		4	45BKB	HCPK4	—	1
CC2-4-2/0#2/0	2/0	2/0	90BKB	HCPK4	—	1
CC2-4-2/0#1/0		1/0	90BKB	HCPK4	—	1
CC2-4-2/0#1		1	45BKB	HCPK4	—	1
CC2-4-2/0#2		2	45BKB	HCPK4	—	1
CC2-4-2/0#2S		2 solid	45BKB	HCPK4	—	1
CC2-4-2/0#4		4	45BKB	HCPK4	—	1
CC2-4-3/0#3/0	3/0	3/0	115BKB	HCPK4	—	1
CC2-4-3/0#2/0		2/0	90BKB	HCPK4	—	1
CC2-4-3/0#1/0		1/0	90BKB	HCPK4	—	1
CC2-4-3/0#1		1	45BKB	HCPK4	—	1
CC2-4-3/0#2		2	45BKB	HCPK4	—	1
CC2-4-3/0#2S		2 solid	45BKB	HCPK4	—	1
CC2-4-3/0#4		4	45BKB	HCPK4	—	1
CC2-4-4/0#4/0	4/0	4/0	150BKB	HCPK4	—	1
CC2-4-4/0#3/0		3/0	115BKB	HCPK4	—	1
CC2-4-4/0#2/0		2/0	90BKB	HCPK4	—	1
CC2-4-4/0#1/0		1/0	90BKB	HCPK4	—	1
CC2-4-4/0#1		1	90BKB	HCPK4	—	1
CC2-4-4/0#2		2	90BKB	HCPK4	—	1
CC2-4-4/0#2S		2 solid	90BKB	HCPK4	—	1
CC2-4-4/0#4		4	90BKB	HCPK4	—	1
CC2-4-250K250K	250	250	150BKB	HCPK4	—	1
CC2-4-250K4/0		4/0	150BKB	HCPK4	—	1
CC2-4-250K4/0		3/0	150BKB	HCPK4	—	1
CC2-4-250K2/0		2/0	90BKB	HCPK4	—	1
CC2-4-250K1/0		1/0	90BKB	HCPK4	—	1
CC2-4-250K#1		1	90BKB	HCPK4	—	1
CC2-4-250K#2		2	90BKB	HCPK4	—	1
CC2-4-250K#2S		2 solid	90BKB	HCPK4	—	1
CC2-4-250K#4		4	90BKB	HCPK4	—	1

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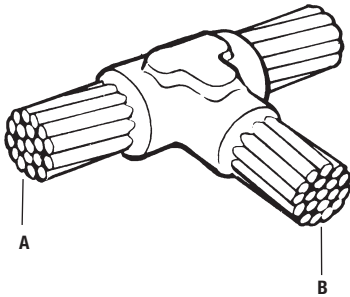
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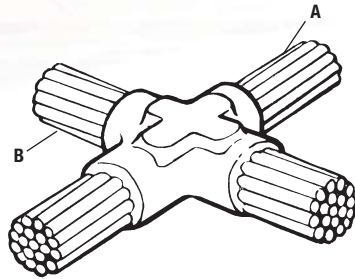
- Stranded Conductor
- Solid Circular Conductor

### CC2 - Continued

CAT. NO	WIRE SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CC2-4-300K300K	300	300	200BKB	HCPK4	—	1
CC2-4-300K250K		250	150BKB	HCPK4	—	1
CC2-4-300K4/0		4/0	150BKB	HCPK4	—	1
CC2-4-300K3/0		3/0	150BKB	HCPK4	—	1
CC2-4-300K2/0		2/0	90BKB	HCPK4	—	1
CC2-4-300K1/0		1/0	90BKB	HCPK4	—	1
CC2-4-300K#1		1	90BKB	HCPK4	—	1
CC2-4-300K#2		2	90BKB	HCPK4	—	1
CC2-4-300K#2S		2 solid	90BKB	HCPK4	—	1
CC2-4-300K#4		4	90BKB	HCPK4	—	1
CC2-4-350K350K	350	350	200BKB	HCPK4	—	1
CC2-4-350K300K		300	200BKB	HCPK4	—	1
CC2-4-350K250K		250	200BKB	HCPK4	—	1
CC2-4-350K4/0		4/0	150BKB	HCPK4	—	1
CC2-4-350K3/0		3/0	150BKB	HCPK4	—	1
CC2-4-350K2/0		2/0	90BKB	HCPK4	—	1
CC2-4-350K1/0		1/0	90BKB	HCPK4	—	1
CC2-4-350K#1		1	90BKB	HCPK4	—	1
CC2-4-350K#2		2	90BKB	HCPK4	—	1
CC2-4-350K#4		4	90BKB	HCPK4	—	1
CC2-4-500K500K	500	500	2 X 150BKB	HCPK4	—	1
CC2-4-500K350K		350	200BKB	HCPK4	—	1
CC2-4-500K300K		300	200BKB	HCPK4	—	1
CC2-4-500K250K		250	200BKB	HCPK4	—	1
CC2-4-500K4/0		4/0	150BKB	HCPK4	—	1
CC2-4-500K2/0		2/0	90BKB	HCPK4	—	1
CC2-4-500K1/0		1/0	90BKB	HCPK4	—	1
CC2-4-500K#1		1	90BKB	HCPK4	—	1
CC2-4-500K#2		2	90BKB	HCPK4	—	1
CC2-4-500K#4		4	90BKB	HCPK4	—	1
CC2-5-750K750K	750	750	2 X 250BKB	HCPK5	—	1
CC2-5-750K500K		500	2 X 200BKB	HCPK5	—	1
CC2-4-750K350K		350	250BKB	HCPK4	—	1
CC2-4-750K300K		300	200BKB	HCPK4	—	1
CC2-4-750K250K		250	200BKB	HCPK4	—	1
CC2-4-750K4/0		4/0	150BKB	HCPK4	—	1
CC2-4-750K2/0		2/0	150BKB	HCPK4	—	1
CC2-4-750K1/0		1/0	150BKB	HCPK4	—	1
CC2-5-1000K1000K	1000	1000	2 X 250BKB	HCPK5	—	1
CC2-5-1000K750K		750	2 X 250BKB	HCPK5	—	1
CC2-5-1000K500K		500	2 X 200BKB	HCPK5	—	1
CC2-4-1000K350K		350	250BKB	HCPK4	—	1
CC2-4-1000K300K		300	200BKB	HCPK4	—	1
CC2-4-1000K250K		250	200BKB	HCPK4	—	1
CC2-4-1000K4/0		4/0	150BKB	HCPK4	—	1
CC2-4-1000K2/0		2/0	150BKB	HCPK4	—	1
CC2-4-1000K1/0		1/0	150BKB	HCPK4	—	1

# Blackburn®

## Cable to Cable



- Stranded Conductor
- Solid Circular Conductor

### CC4

CAT. NO.	WIRE SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CC4-4-#4#4	4	4	45BKB	HCPK4	—	1
CC4-4-#2#2	2	2	65BKB	HCPK4	—	1
CC4-4-#2#4		4	65BKB	HCPK4	—	1
CC4-4-#2S#2S	2 solid	2 solid	65BKB	HCPK4	—	1
CC4-4-#1#1	1	1	65BKB	HCPK4	—	1
CC4-4-#1#2		2	65BKB	HCPK4	—	1
CC4-4-#1#4		4	65BKB	HCPK4	—	1
CC4-4-1/0#1/0	1/0	1/0	90BKB	HCPK4	—	1
CC4-4-1/0#1		1	90BKB	HCPK4	—	1
CC4-4-1/0#2		2	90BKB	HCPK4	—	1
CC4-4-1/0#4		4	90BKB	HCPK4	—	1
CC4-4-2/0#2/0	2/0	2/0	115BKB	HCPK4	—	1
CC4-4-2/0#1/0		1/0	115BKB	HCPK4	—	1
CC4-4-2/0#1		1	115BKB	HCPK4	—	1
CC4-4-2/0#2		2	115BKB	HCPK4	—	1
CC4-4-3/0#3/0	3/0	3/0	115BKB	HCPK4	—	1
CC4-4-3/0#2/0		2/0	150BKB	HCPK4	—	1
CC4-4-3/0#1/0		1/0	115BKB	HCPK4	—	1
CC4-4-3/0#1		1	115BKB	HCPK4	—	1
CC4-4-3/0#2		2	115BKB	HCPK4	—	1
CC4-4-4/0#4/0	4/0	4/0	200BKB	HCPK4	—	1
CC4-4-4/0#3/0		3/0	200BKB	HCPK4	—	1
CC4-4-4/0#2/0		2/0	150BKB	HCPK4	—	1
CC4-4-4/0#1/0		1/0	150BKB	HCPK4	—	1
CC4-4-4/0#1		1	115BKB	HCPK4	—	1
CC4-4-4/0#2		2	115BKB	HCPK4	—	1
CC4-4-250K250K	250	250	200BKB	HCPK4	—	1
CC4-4-250K4/0		4/0	200BKB	HCPK4	—	1
CC4-4-250K3/0		3/0	200BKB	HCPK4	—	1
CC4-4-250K2/0		2/0	150BKB	HCPK4	—	1
CC4-4-250K1/0		1/0	150BKB	HCPK4	—	1
CC4-4-250K#1		1	115BKB	HCPK4	—	1
CC4-4-250K#2		2	115BKB	HCPK4	—	1
CC4-4-300K300K	300	300	250BKB	HCPK4	—	1
CC4-4-300K250K		250	250BKB	HCPK4	—	1
CC4-4-300K4/0		4/0	200BKB	HCPK4	—	1
CC4-4-300K3/0		3/0	200BKB	HCPK4	—	1
CC4-4-300K2/0		2/0	150BKB	HCPK4	—	1
CC4-4-300K1/0		1/0	150BKB	HCPK4	—	1
CC4-4-300K#1		1	115BKB	HCPK4	—	1
CC4-4-300K#2		2	115BKB	HCPK4	—	1
CC4-4-350K350K	350	350	250BKB	HCPK4	—	1
CC4-4-350K300K		300	250BKB	HCPK4	—	1
CC4-4-4350K250K		250	250BKB	HCPK4	—	1
CC4-4-350K4/0		4/0	200BKB	HCPK4	—	1
CC4-4-350K3/0		3/0	200BKB	HCPK4	—	1
CC4-350K2/0		2/0	200BKB	HCPK4	—	1
CC4-4-350K1/0		1/0	200BKB	HCPK4	—	1
CC4-4-350K#1		1	150BKB	HCPK4	—	1
CC4-4-350K#2		2	150BKB	HCPK4	—	1
CC4-5-500K500K	500	500	2 X 250BKB	HCPK5	—	1
CC4-5-500K350K		350	2 X 200BKB	HCPK5	—	1
CC4-5-500K300K		300	2 X 200BKB	HCPK5	—	1
CC4-5-500K250K		250	2 X 150BKB	HCPK5	—	1
CC4-5-500K4/0		4/0	2 X 150BKB	HCPK5	—	1
CC4-5-500K3/0		3/0	2 X 150BKB	HCPK5	—	1
CC4-4-500K2/0		2/0	250BKB	HCPK4	—	1
CC4-4-500K1/0		1/0	250BKB	HCPK4	—	14

Blackburn® Exothermic Welding System

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United States

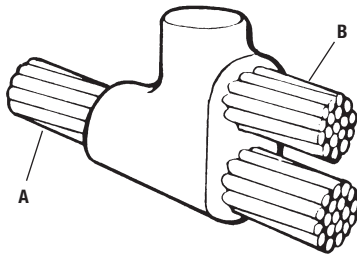
Tel: 901.252.8000

800.816.7809

Fax: 901.252.1354

Technical Services

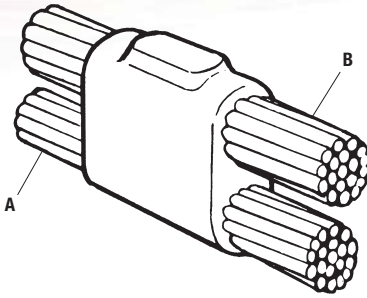
Tel: 888.862.3289



- Stranded Conductor
- Solid Circular Conductor

### CC6

CAT. NO.	WIRE SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CC6-4-#4#4	4	4	45BKB	HCPK4	—	1
CC6-4-#2#2	2	2	65BKB	HCPK4	—	1
CC6-4-#2#4		4	65BKB	HCPK4	—	1
CC6-4-#2S#2S	2 solid	2 solid	65BKB	HCPK4	—	
CC6-4-#1#1	1	1	65BKB	HCPK4	—	
CC6-4-#1#2		2	65BKB	HCPK4	—	1
CC6-4-#1#4		4	65BKB	HCPK4	—	1
CC6-4-1/0#1/0	1/0	1/0	90BKB	HCPK4	—	1
CC6-4-1/0#1		1	90BKB	HCPK4	—	1
CC6-4-1/0#2		2	90BKB	HCPK4	—	1
CC6-4-1/0#4		4	90BKB	HCPK4	—	1
CC6-4-2/0#2/0	2/0	2/0	115BKB	HCPK4	—	1
CC6-4-2/0#1		1	115BKB	HCPK4	—	1
CC6-4-2/0#2		2	115BKB	HCPK4	—	1
CC6-4-3/0#3/0	3/0	3/0	115BKB	HCPK4	—	1
CC6-4-3/0#2/0		2/0	150BKB	HCPK4	—	1
CC6-4-3/0#1/0		1/0	115BKB	HCPK4	—	1
CC6-4-3/0#1		1	115BKB	HCPK4	—	1
CC6-4-3/0#2		2	115BKB	HCPK4	—	1
CC6-4-4/0#4/0	4/0	4/0	200BKB	HCPK4	—	1
CC6-4-4/0#3/0		3/0	200BKB	HCPK4	—	1
CC6-4-4/0#2/0		2/0	150BKB	HCPK4	—	1
CC6-4-4/0#1/0		1/0	150BKB	HCPK4	—	1
CC6-4-4/0#1		1	115BKB	HCPK4	—	1
CC6-4-4/0#2		2	115BKB	HCPK4	—	1
CC6-4-250K250K	250	250	200BKB	HCPK4	—	1
CC6-4-250K4/0		4/0	200BKB	HCPK4	—	1
CC6-4-250K3/0		3/0	200BKB	HCPK4	—	1
CC6-4-250K2/0		2/0	150BKB	HCPK4	—	1
CC6-4-250K1/0		1/0	150BKB	HCPK4	—	1
CC6-4-250K#1		1	115BKB	HCPK4	—	1
CC6-4-250K#2		2	115BKB	HCPK4	—	1
CC6-4-300K300K	300	300	250BKB	HCPK4	—	1
CC6-4-300K250K		250	250BKB	HCPK4	—	1
CC6-4-300K4/0		4/0	200BKB	HCPK4	—	1
CC6-4-300K3/0		3/0	200BKB	HCPK4	—	1
CC6-4-300K2/0		2/0	150BKB	HCPK4	—	1
CC6-4-300K1/0		1/0	150BKB	HCPK4	—	1
CC6-4-300K#1		1	115BKB	HCPK4	—	1
CC6-4-300K#2		2	115BKB	HCPK4	—	1
CC6-4-350K350K	350	350	250BKB	HCPK4	—	1
CC6-4-350K300K		300	250BKB	HCPK4	—	1
CC6-4-4350K250K		250	250BKB	HCPK4	—	1
CC6-4-350K4/0		4/0	200BKB	HCPK4	—	1
CC6-4-350K3/0		3/0	200BKB	HCPK4	—	1
CC6-4-350K2/0		2/0	200BKB	HCPK4	—	1



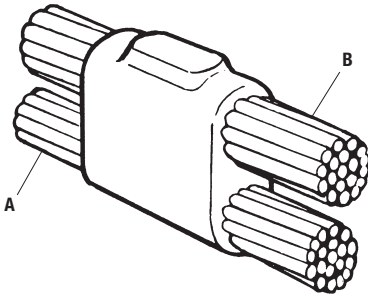
- Stranded Conductor
- Solid Circular Conductor

### CC7

CAT. NO.	WIRE SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CC7-4-#4#4	4	4	32BKB	HCPK4	—	1
CC7-4-#4#6		6	32BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-#4#6S		6 solid	32BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-#4#8		8	32BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-#2S#2	2 solid	2	65BKB	HCPK4	—	1
CC7-4-#2S#2S		2 solid	65BKB	HCPK4	—	1
CC7-4-#2S#4		4	65BKB	HCPK4	—	1
CC7-4-#2S#6		6	45BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-#2S#6S		6 solid	45BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-#2S#8		8	45BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-#2S#8S		8 solid	45BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-#2#2	2	2	65BKB	HCPK4	—	1
CC7-4-#2#4		4	65BKB	HCPK4	—	1
CC7-4-#2#6		6	45BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-#2#6S		6 solid	45BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-#2#8		8	45BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-#2#8S		8 solid	45BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-#1S#1	1 solid	1	65BKB	HCPK4	—	1
CC7-4-#1S#2		2	65BKB	HCPK4	—	1
CC7-4-#1S#2S		2 solid	65BKB	HCPK4	—	1
CC7-4-#1S#4		4	65BKB	HCPK4	—	1
CC7-4-#1S#6		6	65BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-#1S#6S		6 solid	65BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-#1S#8		8	45BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-#1S#8S		8 solid	45BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-#1#1	1	1	65BKB	HCPK4	—	1
CC7-4-#1#1S		1 solid	65BKB	HCPK4	—	1
CC7-4-#1#2		2	65BKB	HCPK4	—	1
CC7-4-#1#2S		2 solid	65BKB	HCPK4	—	1
CC7-4-#1#4		4	65BKB	HCPK4	—	1
CC7-4-#1#6		6	65BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-#1#6S		6 solid	65BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-#1#8		8	45BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-#1#8S		8 solid	45BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-1/0S1/0	1/0 solid	1/0	90BKB	HCPK4	—	1
CC7-4-1/0S1/0S		1/0 solid	90BKB	HCPK4	—	1
CC7-4-1/0S#1		1	65BKB	HCPK4	—	1
CC7-4-1/0S#1S		1 solid	65BKB	HCPK4	—	1
CC7-4-1/0S#2		2	65BKB	HCPK4	—	1
CC7-4-1/0S#2S		2 solid	65BKB	HCPK4	—	1
CC7-4-1/0S#4		4	65BKB	HCPK4	—	1
CC7-4-1/0S#6		6	65BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-1/0S#6S		6 solid	65BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-1/0S#8		8	65BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-1/0S#8S		8 solid	65BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-1/01/0	1/0	1/0	90BKB	HCPK4	—	1
CC7-4-1/01/0S		1/0 solid	90BKB	HCPK4	—	1
CC7-4-1/0#1		1	65BKB	HCPK4	—	1
CC7-4-1/0#1S		1 solid	65BKB	HCPK4	—	1
CC7-4-1/0#2		2	65BKB	HCPK4	—	1
CC7-4-1/0#2S		2 solid	65BKB	HCPK4	—	1
CC7-4-1/0#4		4	65BKB	HCPK4	—	1
CC7-4-1/0#6		6	65BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-1/0#6S		6 solid	65BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-1/0#8		8	65BKB	HCPK4	2 X SLEEVE#8	1

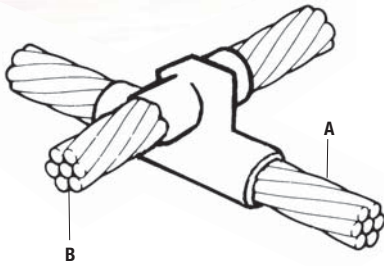


### CC7 - Continued



- Stranded Conductor
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CAT. NO.	WIRE SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CC7-4-1/0#8S	1/0	8 solid	65BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-2/02/0	2/0	2/0	115BKB	HCPK4	—	1
CC7-4-2/01/0		1/0	115BKB	HCPK4	—	1
CC7-4-2/01/0S		1/0 solid	115BKB	HCPK4	—	1
CC7-4-2/0#1		1	90BKB	HCPK4	—	1
CC7-4-2/0#1S		1 solid	90BKB	HCPK4	—	1
CC7-4-2/0#2		2	90BKB	HCPK4	—	1
CC7-4-2/0#4		4	90BKB	HCPK4	—	1
CC7-4-2/0#6		6	90BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-2/0#6S		6 solid	90BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-2/0#8		8	65BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-2/0#8S		8 solid	65BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-3/03/0	3/0	3/0	150BKB	HCPK4	—	1
CC7-4-3/02/0		2/0	150BKB	HCPK4	—	1
CC7-4-3/01/0		1/0	115BKB	HCPK4	—	1
CC7-4-3/01/0S		1/0 solid	115BKB	HCPK4	—	1
CC7-4-3/0#1		1	115BKB	HCPK4	—	1
CC7-4-3/0#1S		1 solid	115BKB	HCPK4	—	1
CC7-4-3/0#2		2	115BKB	HCPK4	—	1
CC7-4-3/0#2S		2 solid	115BKB	HCPK4	—	1
CC7-4-3/0#4		4	115BKB	HCPK4	—	1
CC7-4-3/0#6		6	90BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-3/0#6S		6 solid	90BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-3/0#8		8	90BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-3/0#8S		8 solid	90BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-4/0S4/0	4/0 solid	4/0	200BKB	HCPK4	—	1
CC7-4-4/0S4/0S		4/0 solid	200BKB	HCPK4	—	1
CC7-4-4/0S3/0		3/0	200BKB	HCPK4	—	1
CC7-4-4/0S2/0		2/0	150BKB	HCPK4	—	1
CC7-4-4/0S1/0		1/0	150BKB	HCPK4	—	1
CC7-4-4/0S1/0S		1/0 solid	150BKB	HCPK4	—	1
CC7-4-4/0S#1		1	150BKB	HCPK4	—	1
CC7-4-4/0S#1S		1 solid	150BKB	HCPK4	—	1
CC7-4-4/0S#2		2	150BKB	HCPK4	—	1
CC7-4-4/0S#2S		2 solid	150BKB	HCPK4	—	1
CC7-4-4/0S#4		4	150BKB	HCPK4	—	1
CC7-4-4/0S#6		6	90BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-4/0S#6S		6 solid	90BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-4/0S#8		8	90BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-4/0S#8S		8 solid	90BKB	HCPK4	2 X SLEEVE#8S	1
CC7-4-4/04/0	4/0	4/0	200BKB	HCPK4	—	1
CC7-4-4/04/0S		4/0 solid	200BKB	HCPK4	—	1
CC7-4-4/03/0		3/0	200BKB	HCPK4	—	1
CC7-4-4/02/0		2/0	150BKB	HCPK4	—	1
CC7-4-4/01/0		1/0	150BKB	HCPK4	—	1
CC7-4-4/01/0S		1/0 solid	150BKB	HCPK4	—	1
CC7-4-4/0#1		1	150BKB	HCPK4	—	1
CC7-4-4/0#1S		1 solid	150BKB	HCPK4	—	1
CC7-4-4/0#2		2	150BKB	HCPK4	—	1
CC7-4-4/0#2S		2 solid	150BKB	HCPK4	—	1
CC7-4-4/0#4		4	150BKB	HCPK4	—	1
CC7-4-4/0#6		6	90BKB	HCPK4	2 X SLEEVE#6	1
CC7-4-4/0#6S		6 solid	90BKB	HCPK4	2 X SLEEVE#6S	1
CC7-4-4/0#8		8	90BKB	HCPK4	2 X SLEEVE#8	1
CC7-4-4/0#8S		8 solid	90BKB	HCPK4	2 X SLEEVE#8S	1



- Stranded Conductor
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### CC11

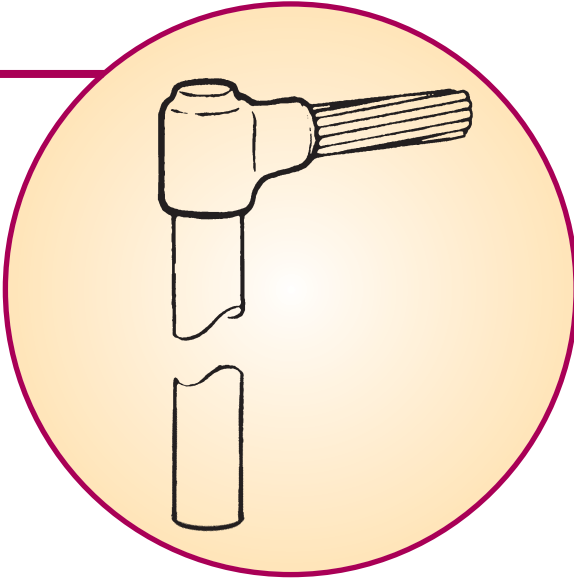
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CC11-7-#6S#6S	6 solid	6 solid	32BKB	HCPK7	4 X SLEEVE#6S	1
CC11-7-#6#6	6	6	45BKB	HCPK7	4 X SLEEVE#6	1
CC11-7-#4#4	4	4	65BKB	HCPK7	—	1
CC11-7-#2#2	2	2	90BKB	HCPK7	—	1
CC11-7-#2#4		4	65BKB	HCPK7	—	1
CC11-7-#2S#2S	2 solid	2 solid	90BKB	HCPK7	—	1
CC11-7-#1#1	1	1	115BKB	HCPK7	—	1
CC11-7-#1#2		2	90BKB	HCPK7	—	1
CC11-7-#1#4		4	90BKB	HCPK7	—	1
CC11-7-1/01/0	1/0	1/0	150BKB	HCPK7	—	1
CC11-7-1/0#1		1	150BKB	HCPK7	—	1
CC11-7-1/0#2		2	115BKB	HCPK7	—	1
CC11-7-1/0#4		4	115BKB	HCPK7	—	1
CC11-7-2/02/0	2/0	2/0	200BKB	HCPK7	—	1
CC11-7-2/01/0		1/0	200BKB	HCPK7	—	1
CC11-7-2/0#1		1	150BKB	HCPK7	—	1
CC11-7-2/0#2		2	150BKB	HCPK7	—	1
CC11-7-3/03/0	3/0	3/0	250BKB	HCPK7	—	1
CC11-7-3/02/0		2/0	200BKB	HCPK7	—	1
CC11-7-3/01/0		1/0	200BKB	HCPK7	—	1
CC11-7-3/0#1		1	150BKB	HCPK7	—	1
CC11-7-3/0#2		2	150BKB	HCPK7	—	1
CC11-7-4/04/0	4/0	4/0	250BKB	HCPK7	—	1
CC11-7-4/03/0		3/0	250BKB	HCPK7	—	1
CC11-7-4/02/0		2/0	200BKB	HCPK7	—	1
CC11-7-4/01/0		1/0	200BKB	HCPK7	—	1
CC11-7-4/0#1		1	150BKB	HCPK7	—	1
CC11-7-4/0#2		2	150BKB	HCPK7	—	1
CC11-7-250K250K	250	250	2 X 150BKB	HCPK7	—	1
CC11-7-250K4/0		4/0	2 X 150BKB	HCPK7	—	1
CC11-7-250K3/0		3/0	2 X 150BKB	HCPK7	—	1
CC11-7-250K2/0		2/0	250BKB	HCPK7	—	1
CC11-7-250K1/0		1/0	250BKB	HCPK7	—	1
CC11-7-250K#1		1	200BKB	HCPK7	—	1
CC11-7-250K#2		2	150BKB	HCPK7	—	1
CC11-8-300K300K	300	300	2 X 200BKB	HCPK8	—	1
CC11-8-300K250K		250	2 X 200BKB	HCPK8	—	1
CC11-7-300K4/0		4/0	2 X 150BKB	HCPK7	—	1
CC11-7-300K3/0		3/0	2 X 150BKB	HCPK7	—	1
CC11-7-300K2/0		2/0	250BKB	HCPK7	—	1
CC11-7-300K1/0		1/0	250BKB	HCPK7	—	1
CC11-7-300K#1		1	200BKB	HCPK7	—	1
CC11-7-300K#2		2	150BKB	HCPK7	—	1
CC11-8-350K350K	350	350	2 X 250BKB	HCPK8	—	1
CC11-8-350K300K		300	2 X 250BKB	HCPK8	—	1
CC11-8-350K250K		250	2 X 250BKB	HCPK8	—	1
CC11-8-350K4/0		4/0	2 X 200BKB	HCPK8	—	1
CC11-8-350K3/0		3/0	2 X 200BKB	HCPK8	—	1
CC11-7-350K2/0		2/0	2 X 150BKB	HCPK7	—	1
CC11-7-350K1/0		1/0	250BKB	HCPK7	—	1
CC11-7-350K#1		1	200BKB	HCPK7	—	1
CC11-7-350K#2		2	200BKB	HCPK7	—	1
CC11-8-500K500K	500	500	3 X 250BKB	HCPK8	—	1
CC11-8-500K350K		350	3 X 200BKB	HCPK8	—	1
CC11-8-500K300K		300	3 X 200BKB	HCPK8	—	1
CC11-8-500K250K		250K	2 X 250BKB	HCPK8	—	1
CC11-8-500K4/0		4/0	2 X 250BKB	HCPK8	—	1
CC11-8-500K3/0		3/0	2 X 250BKB	HCPK8	—	1
CC11-8-500K2/0		2/0	2 X 200BKB	HCPK8	—	1
CC11-8-500K1/0		1/0	2 X 150BKB	HCPK8	—	1

## Cable to Ground Rod - Quick Reference



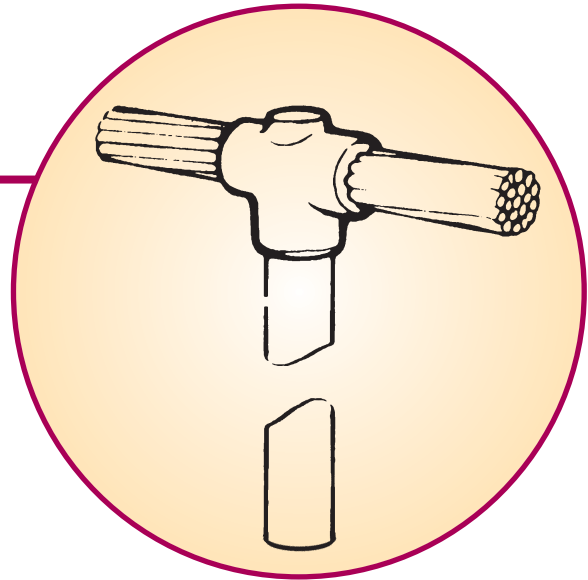
### CR1

See Page C-104



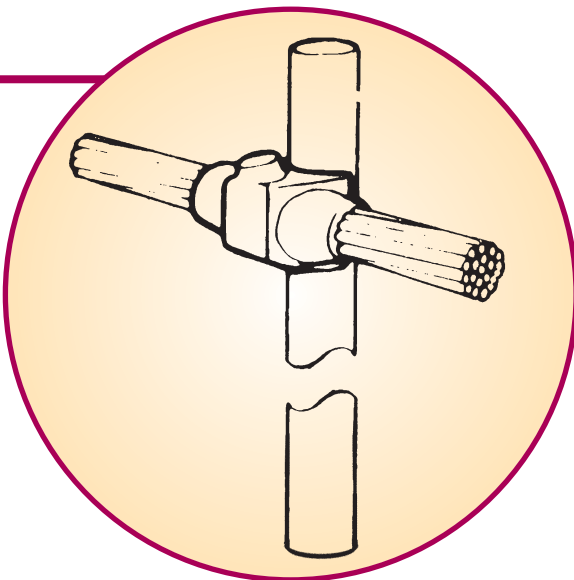
### CR2

See Page C-105

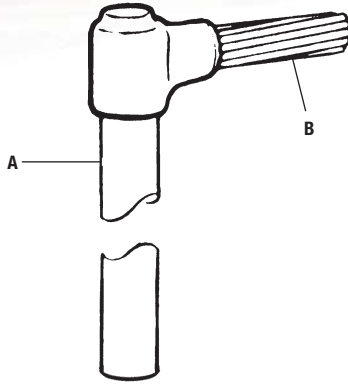


### CR3

See Page C-106



## Cable to Ground Rod



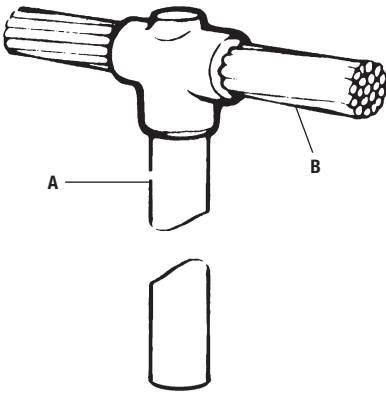
- Stranded Conductor
- Solid Circular Conductor

### CR1

CAT. NO.	ROD SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CR1-3-500#6	½" Nominal Diameter	6	65BKB	HCPK3	SLEEVE#6	1
CR1-3-500#6S	Actual Shank Dia. 0.476"	6 solid	65BKB	HCPK3	SLEEVE#6S	1
CR1-3-500#4	(Non UL Rod)	4	65BKB	HCPK3	—	1
CR1-3-500#4S		4 solid	45BKB	HCPK3	—	1
CR1-3-500#2		2	65BKB	HCPK3	—	1
CR1-3-500#2S		2 solid	65BKB	HCPK3	—	1
CR1-4-500#1		1	65BKB	HCPK4	—	1
CR1-4-5001/0		1/0	90BKB	HCPK4	—	1
CR1-4-5001/OS		1/0 solid	90BKB	HCPK4	—	1
CR1-4-5002/0		2/0	90BKB	HCPK4	—	1
CR1-4-5003/0		3/0	90BKB	HCPK4	—	1
CR1-4-5004/0		4/0	90BKB	HCPK4	—	1
CR1-4-500250K		250	90BKB	HCPK4	—	1
CR1-4-500300K		300	90BKB	HCPK4	—	1
CR1-3-500L#6	½" True Diameter	6	45BKB	HCPK3	1 X SLEEVE#6	1
CR1-3-500L#6S	Actual Shank Dia. 0.502"	6 solid	45BKB	HCPK3	1 X SLEEVE#6S	1
CR1-3-500L#4	(UL Rod)	4	45BKB	HCPK3	—	1
CR1-3-500L#4S		4 solid	45BKB	HCPK3	—	1
CR1-3-500L#2		2	65BKB	HCPK3	—	1
CR1-3-500L#2S		2 solid	65BKB	HCPK3	—	1
CR1-4-500L#1		1	65BKB	HCPK4	—	1
CR1-4-500L1/0		1/0	90BKB	HCPK4	—	1
CR1-4-500L1/OS		1/0 solid	90BKB	HCPK4	—	1
CR1-4-500L2/0		2/0	90BKB	HCPK4	—	1
CR1-4-500L3/0		3/0	90BKB	HCPK4	—	1
CR1-4-500L4/0		4/0	90BKB	HCPK4	—	1
CR1-4-500L250K		250	90BKB	HCPK4	—	1
CR1-4-500L300K		300	90BKB	HCPK4	—	1
CR1-3-625#6	¾" Nominal Diameter	6	65BKB	HCPK3	1 X SLEEVE#6	1
CR1-3-625#6S	Actual Shank Dia. 0.560"	6 solid	65BKB	HCPK3	1 X SLEEVE#6S	1
CR1-3-625#4		4	65BKB	HCPK3	—	1
CR1-3-625#4S		4 solid	65BKB	HCPK3	—	1
CR1-4-625#2		2	65BKB	HCPK4	—	1
CR1-4-625#2S		2 solid	65BKB	HCPK4	—	1
CR1-4-625#1		1	65BKB	HCPK4	—	1
CR1-4-6251/0		1/0	90BKB	HCPK4	—	1
CR1-4-6251/OS		1/0 solid	90BKB	HCPK4	—	1
CR1-4-6252/0		2/0	90BKB	HCPK4	—	1
CR1-4-6253/0		3/0	90BKB	HCPK4	—	1
CR1-4-6254/0		4/0	90BKB	HCPK4	—	1
CR1-4-625250K		250	90BKB	HCPK4	—	1
CR1-4-625300K		300	115BKB	HCPK4	—	1
CR1-4-625350K		350	115BKB	HCPK4	—	1
CR1-4-625500K		500	150BKB	HCPK4	—	1
CR1-3-750#6	¾" Nominal Diameter	6	32BKB	HCPK3	1 X SLEEVE#6	1
CR1-3-750#6S	Actual Shank Dia. 0.678"	6 solid	32BKB	HCPK3	1 X SLEEVE#6S	1
CR1-3-750#4		4	45BKB	HCPK3	—	1
CR1-3-750#4S		4 solid	45BKB	HCPK3	—	1
CR1-4-750#2		2	90BKB	HCPK4	—	1
CR1-4-750#2S		2 solid	90BKB	HCPK4	—	1
CR1-4-750#1		1	90BKB	HCPK4	—	1
CR1-4-7501/0		1/0	90BKB	HCPK4	—	1
CR1-4-7501/OS		1/0 solid	90BKB	HCPK4	—	1
CR1-4-7502/0		2/0	90BKB	HCPK4	—	1
CR1-4-7503/0		3/0	90BKB	HCPK4	—	1
CR1-4-7504/0		4/0	90BKB	HCPK4	—	1
CR1-4-750250K		250	90BKB	HCPK4	—	1
CR1-4-750300K		300	115BKB	HCPK4	—	1
CR1-4-750350K		350	115BKB	HCPK4	—	1
CR1-4-750500K		500	150BKB	HCPK4	—	1

For Connections to Threaded Rods - Remove Top Threaded Section



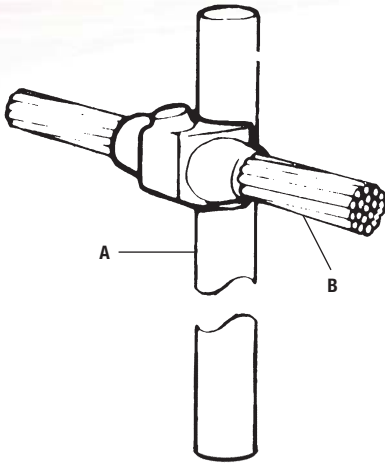


- Stranded Conductor
- Solid Circular Conductor

### CR2

CAT. NO.	ROD SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CR2-3-500#6	½" Nominal Diameter	6	65BKB	HCPK3	SLEEVE#6	1
CR2-3-500#6S	Actual Shank Dia. 0.476"	6 solid	65BKB	HCPK3	SLEEVE#6S	1
CR2-3-500#4	(Non UL Rod)	4	65BKB	HCPK3	—	1
CR2-3-500#4S		4 solid	65BKB	HCPK3	—	1
CR2-4-500#2		2	90BKB	HCPK3	—	1
CR2-4-500#2S		2 solid	90BKB	HCPK3	—	1
CR2-4-500#1		1	90BKB	HCPK4	—	1
CR2-4-5001/0		1/0	90BKB	HCPK4	—	1
CR2-4-5001/0S		1/0 solid	90BKB	HCPK4	—	1
CR2-4-5002/0		2/0	90BKB	HCPK4	—	1
CR2-4-5003/0		3/0	115BKB	HCPK4	—	1
CR2-4-5004/0		4/0	115BKB	HCPK4	—	1
CR2-4-500250K		250	150BKB	HCPK4	—	1
CR2-4-500300K		300	200BKB	HCPK4	—	1
CR2-3-500L#6	½" True Diameter	6	65BKB	HCPK3	SLEEVE#6	1
CR2-3-500L#6S	Actual Shank Dia. 0.502"	6 solid	65BKB	HCPK3	SLEEVE#6S	1
CR2-3-500L#4	(UL Rod)	4	65BKB	HCPK3	—	1
CR2-3-500L#4S		4 solid	65BKB	HCPK3	—	1
CR2-4-500L#2		2	90BKB	HCPK3	—	1
CR2-4-500L#2S		2 solid	90BKB	HCPK3	—	1
CR2-4-500L#1		1	90BKB	HCPK4	—	1
CR2-4-500L1/0		1/0	90BKB	HCPK4	—	1
CR2-4-500L1/0S		1/0 solid	90BKB	HCPK4	—	1
CR2-4-500L2/0		2/0	90BKB	HCPK4	—	1
CR2-4-500L3/0		3/0	115BKB	HCPK4	—	1
CR2-4-500L4/0		4/0	115BKB	HCPK4	—	1
CR2-4-500L250K		250	150BKB	HCPK4	—	1
CR2-4-500L300K		300	200BKB	HCPK4	—	1
CR2-3-625#6	¾" Nominal Diameter	6	32BKB	HCPK3	SLEEVE#6	1
CR2-3-625#6S	Actual Shank Dia. 0.560"	6 solid	32BKB	HCPK3	SLEEVE#6S	1
CR2-3-625#4		4	32BKB	HCPK3	—	1
CR2-3-625#4S		4 solid	32BKB	HCPK3	—	1
CR2-4-625#2		2	90BKB	HCPK4	—	1
CR2-4-625#2S		2 solid	90BKB	HCPK4	—	1
CR2-4-625#1		1	90BKB	HCPK4	—	1
CR2-4-6251/0		1/0	90BKB	HCPK4	—	1
CR2-4-6251/0S		1/0 solid	115BKB	HCPK4	—	1
CR2-4-6252/0		2/0	115BKB	HCPK4	—	1
CR2-4-6253/0		3/0	115BKB	HCPK4	—	1
CR2-4-6254/0		4/0	115BKB	HCPK4	—	1
CR2-4-625250K		250	150BKB	HCPK4	—	1
CR2-4-625300K		300	200BKB	HCPK4	—	1
CR2-4-625350K		350	200BKB	HCPK4	—	1
CR2-4-625500K		500	250BKB	HCPK4	—	1
CR2-3-750#6	¾" Nominal Diameter	6	65BKB	HCPK3	SLEEVE#6	1
CR2-3-750#6S	Actual Shank Dia. 0.678"	6 solid	65BKB	HCPK3	SLEEVE#6S	1
CR2-3-750#4		4	65BKB	HCPK3	—	1
CR2-3-750#4S		4 solid	65BKB	HCPK3	—	1
CR2-4-750#2		2	90BKB	HCPK4	—	1
CR2-4-750#2S		2 solid	90BKB	HCPK4	—	1
CR2-4-750#1		1	90BKB	HCPK4	—	1
CR2-4-7501/0		1/0	115BKB	HCPK4	—	1
CR2-4-7501/0S		1/0 solid	115BKB	HCPK4	—	1
CR2-4-7502/0		2/0	115BKB	HCPK4	—	1
CR2-4-7503/0		3/0	115BKB	HCPK4	—	1
CR2-4-7504/0		4/0	115BKB	HCPK4	—	1
CR2-4-750250K		250	150BKB	HCPK4	—	1
CR2-4-750300K		300	200BKB	HCPK4	—	1
CR2-4-750350K		350	200BKB	HCPK4	—	1
CR2-4-750500K		500	250BKB	HCPK4	—	1

For Connections to Threaded Rods - Remove Top Threaded Section



- Stranded Conductor
- Solid Circular Conductor

### CR3

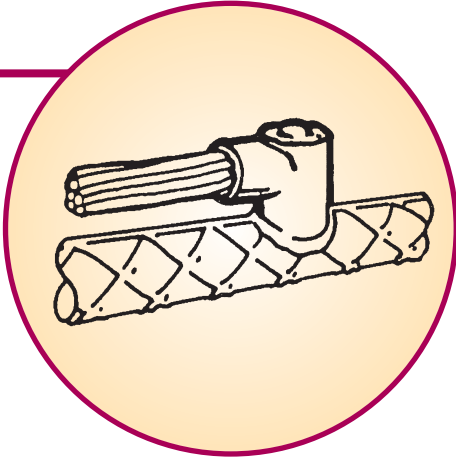
CAT. NO.	ROD SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CR3-9-5001/0	½" Nominal Diameter	1/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-5001/OS	Actual Shank Dia. 0.476" (Non UL Rod)	1/0 solid	115BKB	HCPK4 and FRAME1	—	1
CR3-9-5002/0		2/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-5003/0		3/0	150BKB	HCPK4 and FRAME1	—	1
CR3-9-5004/0		4/0	150BKB	HCPK4 and FRAME1	—	1
CR3-9-500250K		250	150BKB	HCPK4 and FRAME1	—	1
CR3-9-500300K		300	200BKB	HCPK4 and FRAME1	—	1
CR3-9-500L1/0	½" Nominal Diameter	1/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-500L1/OS	Actual Shank Dia. 0.502" (UL Rod)	1/0 solid	115BKB	HCPK4 and FRAME1	—	1
CR3-9-500L2/0		2/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-500L3/0		3/0	150BKB	HCPK4 and FRAME1	—	1
CR3-9-500L4/0		4/0	150BKB	HCPK4 and FRAME1	—	1
CR3-9-500L250K		250	150BKB	HCPK4 and FRAME1	—	1
CR3-9-500300K		300	200BKB	HCPK4 and FRAME1	—	1
CR3-9-6251/0	¾" Nominal Diameter	1/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-6251/OS	Actual Shank Dia. 0.560"	1/0 solid	115BKB	HCPK4 and FRAME1	—	1
CR3-9-6252/0		2/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-6253/0		3/0	150BKB	HCPK4 and FRAME1	—	1
CR3-9-6254/0		4/0	150BKB	HCPK4 and FRAME1	—	1
CR3-9-625250K		250	150BKB	HCPK4 and FRAME1	—	1
CR3-9-625300K		300	200BKB	HCPK4 and FRAME1	—	1
CR3-9-625350K		350	250BKB	HCPK4 and FRAME1	—	1
CR3-10-625500K		500	2 X 200BKB	HCPK5 and FRAME2	—	1
CR3-9-7501/0	¾" Nominal Diameter	1/0	115BKB	HCPK5 and FRAME2	—	1
CR3-9-7501/OS	Actual Shank Dia. 0.678"	1/0 solid	115BKB	HCPK4 and FRAME1	—	1
CR3-9-7502/0		2/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-7503/0		3/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-7504/0		4/0	115BKB	HCPK4 and FRAME1	—	1
CR3-9-750250K		250	200BKB	HCPK4 and FRAME1	—	1
CR3-9-750300K		300	200BKB	HCPK4 and FRAME1	—	1
CR3-10-750350K		350	2 X 150BKB	HCPK5 and FRAME2	—	1
CR3-10-750500K		500	2 X 250BKB	HCPK5 and FRAME2	—	1

For Connections to Threaded Rods - Remove Top Threaded Section



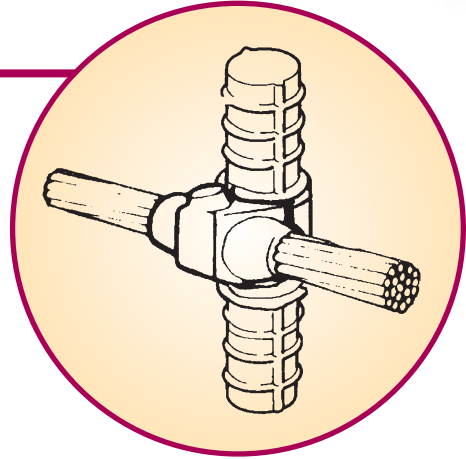
### CRE1

See Page C-108



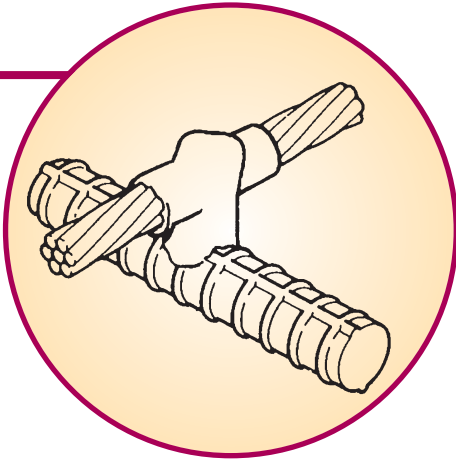
### CRE3

See Page C-108



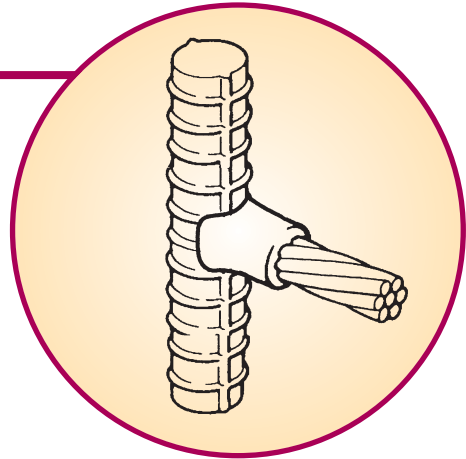
### CRE4

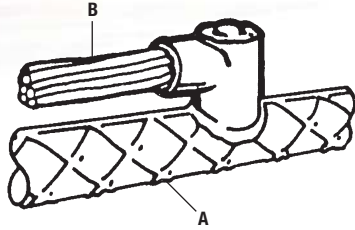
See Page C-109



### CRE6

See Page C-109

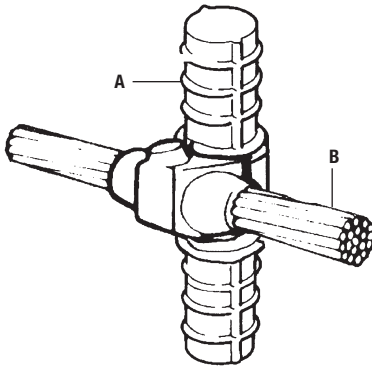




- Stranded Conductor
- Solid Circular Conductor

### CRE1

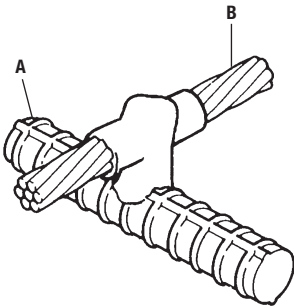
CAT. NO.	REBAR SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	PACKING	STD. CTN.
CRE1-4-#43R	3	4	32BKB	HCPK4	—	None	1
CRE1-4-#2S3R		2 solid	45BKB	HCPK4	—	None	1
CRE1-4-#23R		2	45BKB	HCPK4	—	None	1
CRE1-4-#13R		1	65BKB	HCPK4	—	None	1
CRE1-4-1/03R		1/0	90BKB	HCPK4	—	None	1
CRE1-4-2/03R		2/0	90BKB	HCPK4	—	None	1
CRE1-4-3/03R		3/0	115BKB	HCPK4	—	None	1
CRE1-3-#4Z	4 TO 7	4	32BKB	HCPK3B	—	Pack-A	1
CRE1-3-#2SZ		2 solid	45BKB	HCPK3B	—	Pack-A	1
CRE1-3-#2Z		2	45BKB	HCPK3B	—	Pack-A	1
CRE1-3-#1Z		1	65BKB	HCPK3B	—	Pack-A	1
CRE1-3-1/0Z		1/0	90BKB	HCPK3B	—	Pack-A	1
CRE1-3-2/0Z		2/0	90BKB	HCPK3B	—	Pack-A	1
CRE1-3-3/0Z		3/0	115BKB	HCPK3B	—	Pack-A	1
CRE1-3-4/0Z		4/0	115BKB	HCPK3B	—	Pack-A	1
CRE1-3-#4Y	8 TO 11	4	32BKB	HCPK3B	—	Pack-A	1
CRE1-3-#2SY		2 solid	45BKB	HCPK3B	—	Pack-A	1
CRE1-3-#2Y		2	45BKB	HCPK3B	—	Pack-A	1
CRE1-3-#1Y		1	65BKB	HCPK3B	—	Pack-A	1
CRE1-3-1/0Y		1/0	90BKB	HCPK3B	—	Pack-A	1
CRE1-3-2/0Y		2/0	90BKB	HCPK3B	—	Pack-A	1
CRE1-3-3/0Y		3/0	115BKB	HCPK3B	—	Pack-A	1
CRE1-3-4/0Y		4/0	115BKB	HCPK3B	—	Pack-A	1



- Stranded Conductor
- Solid Circular Conductor

### CRE3

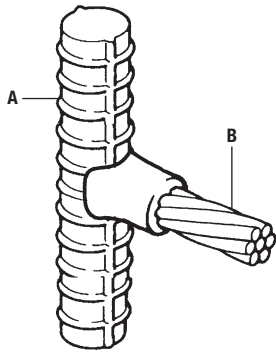
CAT. NO.	REBAR SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	PACKING	STD. CTN.
CRE3-3-#4Z	4 TO 7	4	90BKB	HCPK3A	—	Pack-A	1
CRE3-3-#2SZ		2 solid	90BKB	HCPK3A	—	Pack-A	1
CRE3-3-#2Z		2	90BKB	HCPK3A	—	Pack-A	1
CRE3-4-#1Z		1	115BKB	HCPK3A	—	Pack-A	1
CRE3-4-1/0Z		1/0	115BKB	HCPK3A	—	Pack-A	1
CRE3-4-2/0Z		2/0	115BKB	HCPK3A	—	Pack-A	1
CRE3-4-3/0Z		3/0	150BKB	HCPK3A	—	Pack-A	1
CRE3-4-4/0Z		4/0	150BKB	HCPK3A	—	Pack-A	1
CRE3-3-#4Y	8 TO 11	4	90BKB	HCPK3A	—	Pack-A	1
CRE3-3-#2SY		2 solid	90BKB	HCPK3A	—	Pack-A	1
CRE3-3-#2Y		2	90BKB	HCPK3A	—	Pack-A	1
CRE3-4-#1Y		1	115BKB	HCPK3A	—	Pack-A	1
CRE3-4-1/0Y		1/0	115BKB	HCPK3A	—	Pack-A	1
CRE3-4-2/0Y		2/0	115BKB	HCPK3A	—	Pack-A	1
CRE3-4-3/0Y		3/0	150BKB	HCPK3A	—	Pack-A	1
CRE3-4-4/0Y		4/0	150BKB	HCPK3A	—	Pack-A	1



- Stranded Conductor
- Solid Circular Conductor

### CRE4

CAT. NO.	REBAR SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	CRADLE	SLEEVE	PACKING	STD. CTN.
CRE4-3-#4Z	4 TO 7	4	65BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-#2SZ		2 solid	90BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-#2Z		2	90BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-#1Z		1	90BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-1/OZ		1/0	115BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-2/OZ		2/0	115BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-3/OZ		3/0	115BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-4/OZ		4/0	115BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-#4Y	8 TO 11	4	65BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-#2SY		2 solid	90BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-#2Y		2	90BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-#1Y		1	90BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-1/OY		1/0	115BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-2/OY		2/0	115BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-3/OY		3/0	115BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1
CRE4-3-4/OY		4/0	115BKB	HCPK3B	HCPK3BMOD	—	Pack-A	1



- Stranded Conductor
- Solid Circular Conductor

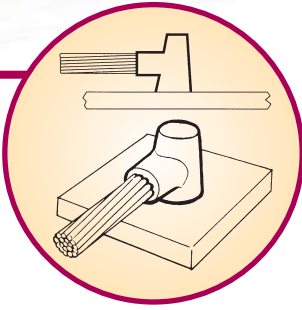
### CRE6

CAT. NO.	REBAR SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	PACKING	STD. CTN.
CRE6-3-#4Z	4 TO 7	4	65BKB	HCPK3A	—	Pack-A	1
CRE6-3-#2SZ		2 solid	65BKB	HCPK3A	—	Pack-A	1
CRE6-3-#2Z		2	65BKB	HCPK3A	—	Pack-A	1
CRE6-3-#1Z		1	90BKB	HCPK3A	—	Pack-A	1
CRE6-4-1/OZ		1/0	115BKB	HCPK3A	—	Pack-A	1
CRE6-4-2/OZ		2/0	115BKB	HCPK3A	—	Pack-A	1
CRE6-4-3/OZ		3/0	150BKB	HCPK3A	—	Pack-A	1
CRE6-4-4/OZ		4/0	150BKB	HCPK3A	—	Pack-A	1
CRE6-3-#4Y	8 TO 11	4	65BKB	HCPK3A	—	Pack-A	1
CRE6-3-#2SY		2 solid	65BKB	HCPK3A	—	Pack-A	1
CRE6-3-#2Y		2	65BKB	HCPK3A	—	Pack-A	1
CRE6-3-#1Y		1	90BKB	HCPK3A	—	Pack-A	1
CRE6-4-1/OY		1/0	115BKB	HCPK3A	—	Pack-A	1
CRE6-4-2/OY		2/0	115BKB	HCPK3A	—	Pack-A	1
CRE6-4-3/OY		3/0	150BKB	HCPK3A	—	Pack-A	1
CRE6-4-4/OY		4/0	150BKB	HCPK3A	—	Pack-A	1

## Cable to Steel Surface and Pipe - Quick Reference

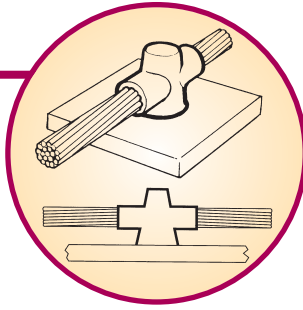
**CS1**

See Page  
C-111



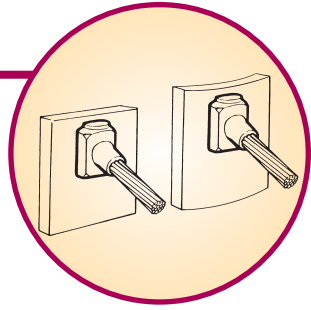
**CS2**

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C-111



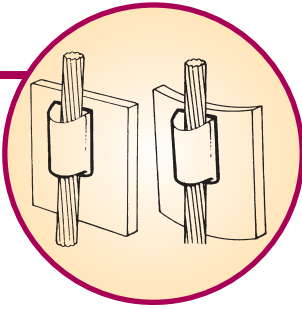
**CS3**

See Page  
C-112



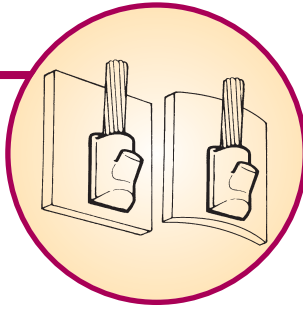
**CS4**

See Page  
C-113



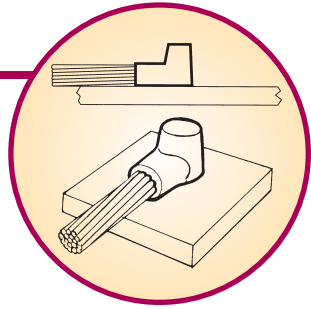
**CS7**

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C-114



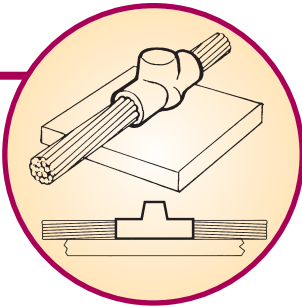
**CS8**

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C-115



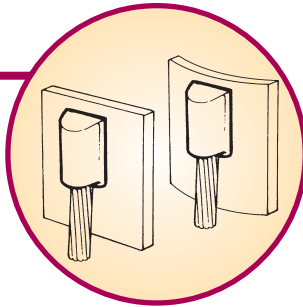
**CS9**

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C-115



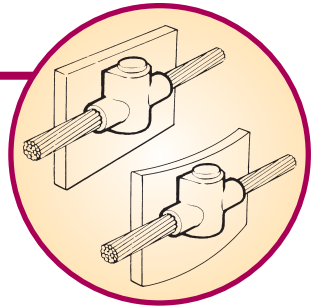
**CS25**

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C-116



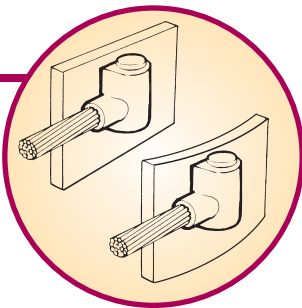
**CS27**

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C-117



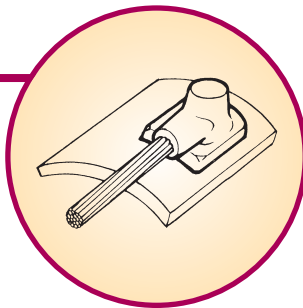
**CS31**

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C-118



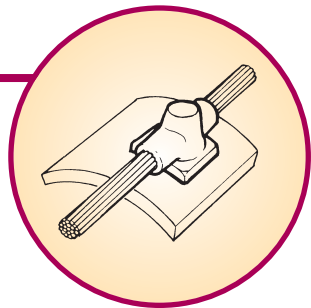
**CS32**

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C-119



**CS34**

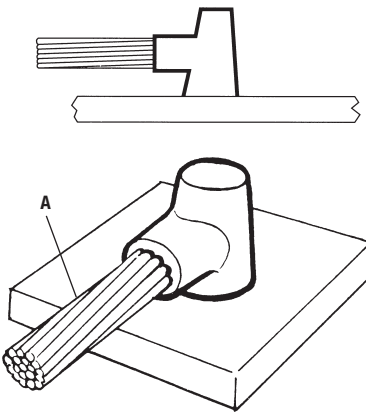
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## Cable to Steel Surface and Pipe



### CS1 – For Flat Surfaces

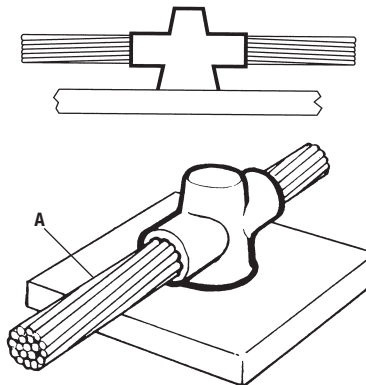


- Stranded Conductor
- Solid Circular Conductor

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS1-4-1/0	1/0	90BKB	HCPK4	—	1
CS1-4-2/0	2/0	90BKB	HCPK4	—	1
CS1-4-3/0	3/0	115BKB	HCPK4	—	1
CS1-4-4/0	4/0	115BKB	HCPK4	—	1
CS1-4-250K	250	115BKB	HCPK4	—	1
CS1-4-300K	300	150BKB	HCPK4	—	1
CS1-4-350K	350	200BKB	HCPK4	—	1
CS1-4-500K	500	200BKB	HCPK4	—	1
CS1-4-750K	750	2 X 150BKB	HCPK4	—	1
CS1-4-1000K	1000	2 X 200BKB	HCPK4	—	1

Mold Sealing Compound (MSC) will be required if surface is uneven.

### CS2 – For Flat Surfaces

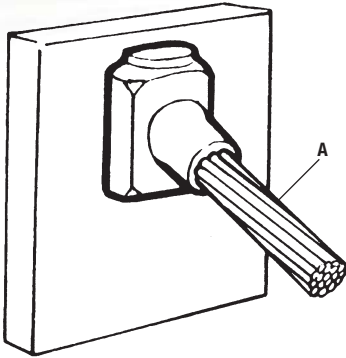


- Stranded Conductor
- Solid Circular Conductor

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS2-4-1/0	1/0	90BKB	HCPK4	—	1
CS2-4-2/0	2/0	115BKB	HCPK4	—	1
CS2-4-3/0	3/0	115BKB	HCPK4	—	1
CS2-4-4/0	4/0	150BKB	HCPK4	—	1
CS2-4-250K	250	150BKB	HCPK4	—	1
CS2-4-300K	300	200BKB	HCPK4	—	1
CS2-4-350K	350	250BKB	HCPK4	—	1
CS2-5-500K	500	2 X 150BKB	HCPK4	—	1

Mold Sealing Compound (MSC) will be required if surface is uneven.

## Cable to Steel Surface and Pipe

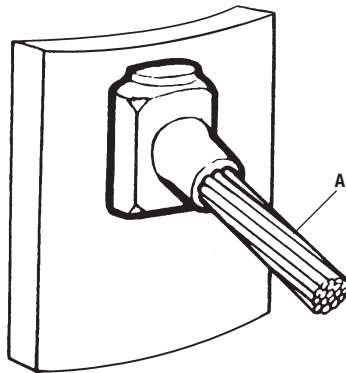


- Stranded Conductor
- Solid Circular Conductor

### CS3 – For Flat Surfaces

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS3-4-#6	#6	45BKB	HCPK4	SLEEVE#6	1
CS3-4-#4	#4	45BKB	HCPK4	—	1
CS3-4-#2S	#2 solid	45BKB	HCPK4	—	1
CS3-4-#2	#2	45BKB	HCPK4	—	1
CS3-4-#1	#1	65BKB	HCPK4	—	1
CS3-4-1/0	1/0	90BKB	HCPK4	—	1
CS3-4-2/0	2/0	90BKB	HCPK4	—	1
CS3-4-3/0	3/0	115BKB	HCPK4	—	1
CS3-4-4/0	4/0	115BKB	HCPK4	—	1
CS3-4-250K	250	115BKB	HCPK4	—	1
CS3-4-300K	300	150BKB	HCPK4	—	1
CS3-4-350K	350	200BKB	HCPK4	—	1
CS3-4-500K	500	200BKB	HCPK4	—	1
CS3-5-750K	750	2 X 150BKB	HCPK5	—	1
CS3-5-1000K	1000	2 X 200BKB	HCPK5	—	1

Mold Sealing Compound (MSC) will be required if surface is uneven.



- Stranded Conductor
- Solid Circular Conductor

### CS3 – For Pipes

CAT. NO.	WIRE SIZE (A)	PIPE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS3-4-#4C	#4	1½" to 2¼"	45BKB	HCPK4	—	1
CS3-4-#4D		2¼" to 6½"	45BKB	HCPK4	—	1
CS3-4-#4F		6½" to 10"	45BKB	HCPK4	—	1
CS3-4-#4G		10" to 14"	45BKB	HCPK4	—	1
CS3-4-#2SC	#2 solid	1½" to 2¼"	45BKB	HCPK4	—	1
CS3-4-#2SD		2¼" to 6½"	45BKB	HCPK4	—	1
CS3-4-#2SF		6½" to 10"	45BKB	HCPK4	—	1
CS3-4-#2SG		10" to 14"	45BKB	HCPK4	—	1
CS3-4-#2C	#2	1½" to 2¼"	45BKB	HCPK4	—	1
CS3-4-#2D		2¼" to 6½"	45BKB	HCPK4	—	1
CS3-4-#2F		6½" to 10"	45BKB	HCPK4	—	1
CS3-4-#2G		10" to 14"	45BKB	HCPK4	—	1
CS3-4-#1C	#1	1½" to 2¼"	65BKB	HCPK4	—	1
CS3-4-#1D		2¼" to 6½"	65BKB	HCPK4	—	1
CS3-4-#1F		6½" to 10"	65BKB	HCPK4	—	1
CS3-4-#1G		10" to 14"	65BKB	HCPK4	—	1
CS3-4-#1/0C	1/0	1½" to 2¼"	90BKB	HCPK4	—	1
CS3-4-#1/0D		2¼" to 6½"	90BKB	HCPK4	—	1
CS3-4-#1/0F		6½" to 10"	90BKB	HCPK4	—	1
CS3-4-#1/0G		10" to 14"	90BKB	HCPK4	—	1
CS3-4-#2/0C	2/0	1½" to 2¼"	90BKB	HCPK4	—	1
CS3-4-#2/0D		2¼" to 6½"	90BKB	HCPK4	—	1
CS3-4-#2/0F		6½" to 10"	90BKB	HCPK4	—	1
CS3-4-#2/0G		10" to 14"	90BKB	HCPK4	—	1
CS3-4-#3/0C	3/0	1½" to 2¼"	115BKB	HCPK4	—	1
CS3-4-#3/0D		2¼" to 6½"	115BKB	HCPK4	—	1
CS3-4-#3/0F		6½" to 10"	115BKB	HCPK4	—	1
CS3-4-#3/0G		10" to 14"	115BKB	HCPK4	—	1
CS3-4-#4/0C	4/0	1½" to 2¼"	115BKB	HCPK4	—	1
CS3-4-#4/0D		2¼" to 6½"	115BKB	HCPK4	—	1
CS3-4-#4/0F		6½" to 10"	115BKB	HCPK4	—	1
CS3-4-#4/0G		10" to 14"	115BKB	HCPK4	—	1

**OVER 14" USE CS3 FOR FLAT SURFACE**

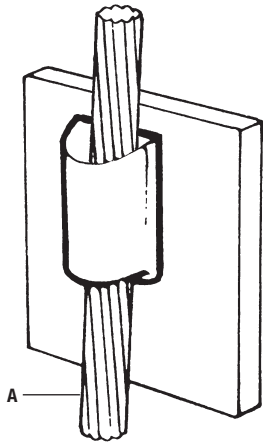
Use Mold Sealing Compound (MSC) to ensure effective sealing.



## Cable to Steel Surface and Pipe



### CS4 – For Flat Surfaces

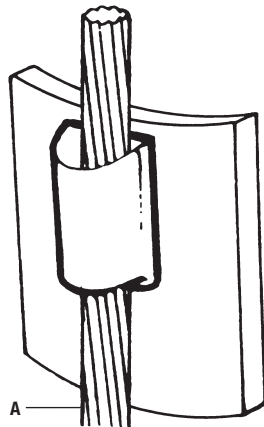


- Stranded Conductor
- Solid Circular Conductor

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS4-4-#6	#6	90BKB	HCPK4	SLEEVE#6	1
CS4-4-#4	#4	90BKB	HCPK4	—	1
CS4-4-#2S	#2 solid	115BKB	HCPK4	—	1
CS4-4-#2	#2	115BKB	HCPK4	—	1
CS4-4-#1	#1	115BKB	HCPK4	—	1
CS4-5-1/0	1/0	200BKB	HCPK5	—	1
CS4-5-2/0	2/0	200BKB	HCPK5	—	1
CS4-5-3/0	3/0	250BKB	HCPK5	—	1
CS4-5-4/0	4/0	250BKB	HCPK5	—	1
CS4-5-250K	250	250BKB	HCPK5	—	1

Mold Sealing Compound (MSC) will be required if surface is uneven.

### CS4 – For Pipes

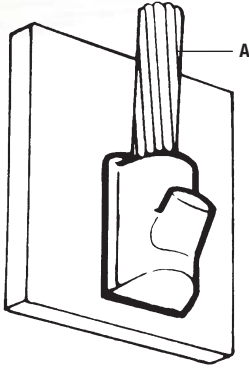


- Stranded Conductor
- Solid Circular Conductor

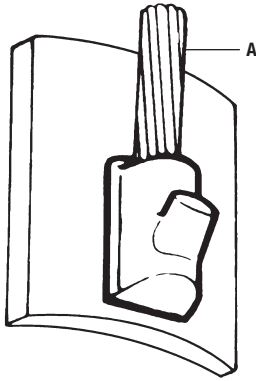
CAT. NO.	WIRE SIZE (A)	PIPE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS4-4-#4C	#4	1½" to 2¼"	90BKB	HCPK4	—	1
CS4-4-#4D		2¼" to 6½"	90BKB	HCPK4	—	1
CS4-4-#4F		6½" to 10"	90BKB	HCPK4	—	1
CS4-4-#4G		10" to 14"	90BKB	HCPK4	—	1
CS4-4-#2SC	#2 solid	1½" to 2¼"	115BKB	HCPK4	—	1
CS4-4-#2SD		2¼" to 6½"	115BKB	HCPK4	—	1
CS4-4-#2SF		6½" to 10"	115BKB	HCPK4	—	1
CS4-4-#2SG		10" to 14"	115BKB	HCPK4	—	1
CS4-4-#2C	#2	1½" to 2¼"	115BKB	HCPK4	—	1
CS4-4-#2D		2¼" to 6½"	115BKB	HCPK4	—	1
CS4-4-#2F		6½" to 10"	115BKB	HCPK4	—	1
CS4-4-#2G		10" to 14"	115BKB	HCPK4	—	1
CS4-4-#1C	#1	1½" to 2¼"	115BKB	HCPK4	—	1
CS4-4-#1D		2¼" to 6½"	115BKB	HCPK4	—	1
CS4-4-#1F		6½" to 10"	115BKB	HCPK4	—	1
CS4-4-#1G		10" to 14"	115BKB	HCPK4	—	1
CS4-5-1/0C	1/0	1½" to 2¼"	200BKB	HCPK5	—	1
CS4-5-1/0D		2¼" to 6½"	200BKB	HCPK5	—	1
CS4-5-1/0F		6½" to 10"	200BKB	HCPK5	—	1
CS4-5-1/0G		10" to 14"	200BKB	HCPK5	—	1
CS4-5-2/0C	2/0	1½" to 2¼"	200BKB	HCPK5	—	1
CS4-5-2/0D		2¼" to 6½"	200BKB	HCPK5	—	1
CS4-5-2/0F		6½" to 10"	200BKB	HCPK5	—	1
CS4-5-2/0G		10" to 14"	200BKB	HCPK5	—	1
CS4-5-3/0C	3/0	1½" to 2¼"	250BKB	HCPK5	—	1
CS4-5-3/0D		2¼" to 6½"	250BKB	HCPK5	—	1
CS4-5-3/0F		6½" to 10"	250BKB	HCPK5	—	1
CS4-5-3/0G		10" to 14"	250BKB	HCPK5	—	1
CS4-5-4/0C	4/0	1½" to 2¼"	250BKB	HCPK5	—	1
CS4-5-4/0D		2¼" to 6½"	250BKB	HCPK5	—	1
CS4-5-4/0F		6½" to 10"	250BKB	HCPK5	—	1
CS4-5-4/0G		10" to 14"	250BKB	HCPK5	—	1

**OVER 14" USE CS4 FOR FLAT SURFACE**

Use Mold Sealing Compound (MSC) to ensure effective sealing.



- Stranded Conductor
- Solid Circular Conductor



- Stranded Conductor
- Solid Circular Conductor

### CS7 – For Flat Surfaces

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS7-4-#4	#4	65BKB	HCPK4	—	1
CS7-4-#2S	#2 solid	65BKB	HCPK4	—	1
CS7-4-#2	#2	65BKB	HCPK4	—	1
CS7-4-#1	#1	90BKB	HCPK4	—	1
CS7-4-1/0	1/0	90BKB	HCPK4	—	1
CS7-4-2/0	2/0	150BKB	HCPK4	—	1
CS7-5-3/0	3/0	200BKB	HCPK4	—	1
CS7-5-4/0	4/0	200BKB	HCPK4	—	1
CS7-5-250K	250	200BKB	HCPK4	—	1
CS7-5-300K	300	250BKB	HCPK4	—	1
CS7-6-350K	350	2 X 150BKB	HCPK5	—	1
CS7-6-500K	500	2 X 200BKB	HCPK5	—	1

Use Mold Sealing Compound (MSC) to ensure effective sealing.

### CS7 – For Pipes

CAT. NO.	WIRE SIZE (A)	PIPE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS7-4-#4C	#4	1½" to 2¼"	65BKB	HCPK4	—	1
CS7-4-#4D		2¼" to 6½"	65BKB	HCPK4	—	1
CS7-4-#4F		6½" to 10"	65BKB	HCPK4	—	1
CS7-4-#4G		10" to 14"	65BKB	HCPK4	—	1
CS7-4-#2SC	#2 solid	1½" to 2¼"	65BKB	HCPK4	—	1
CS7-4-#2SD		2¼" to 6½"	65BKB	HCPK4	—	1
CS7-4-#2SF		6½" to 10"	65BKB	HCPK4	—	1
CS7-4-#2SG		10" to 14"	65BKB	HCPK4	—	1
CS7-4-#2C	#2	1½" to 2¼"	65BKB	HCPK4	—	1
CS7-4-#2D		2¼" to 6½"	65BKB	HCPK4	—	1
CS7-4-#2F		6½" to 10"	65BKB	HCPK4	—	1
CS7-4-#2G		10" to 14"	65BKB	HCPK4	—	1
CS7-4-#1C	#1	1½" to 2¼"	90BKB	HCPK4	—	1
CS7-4-#1D		2¼" to 6½"	90BKB	HCPK4	—	1
CS7-4-#1F		6½" to 10"	90BKB	HCPK4	—	1
CS7-4-#1G		10" to 14"	90BKB	HCPK4	—	1
CS7-4-1/0C	1/0	1½" to 2¼"	90BKB	HCPK4	—	1
CS7-4-1/0D		2¼" to 6½"	90BKB	HCPK4	—	1
CS7-4-1/0F		6½" to 10"	90BKB	HCPK4	—	1
CS7-4-1/0G		10" to 14"	90BKB	HCPK4	—	1
CS7-4-2/0C	2/0	1½" to 2¼"	150BKB	HCPK4	—	1
CS7-4-2/0D		2¼" to 6½"	150BKB	HCPK4	—	1
CS7-4-2/0F		6½" to 10"	150BKB	HCPK4	—	1
CS7-4-2/0G		10" to 14"	150BKB	HCPK4	—	1
CS7-5-3/0C	3/0	1½" to 2¼"	200BKB	HCPK4	—	1
CS7-5-3/0D		2¼" to 6½"	200BKB	HCPK4	—	1
CS7-5-3/0F		6½" to 10"	200BKB	HCPK4	—	1
CS7-5-3/0G		10" to 14"	200BKB	HCPK4	—	1
CS7-5-4/0C	4/0	1½" to 2¼"	200BKB	HCPK4	—	1
CS7-5-4/0D		2¼" to 6½"	200BKB	HCPK4	—	1
CS7-5-4/0F		6½" to 10"	200BKB	HCPK4	—	1
CS7-5-4/0G		10" to 14"	200BKB	HCPK4	—	1

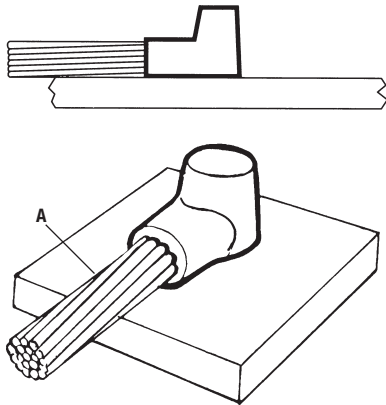
OVER 14" USE CS7 FOR FLAT SURFACE

Use Mold Sealing Compound (MSC) to ensure effective sealing.

## Cable to Steel Surface and Pipe



### CS8 – For Flat Surfaces

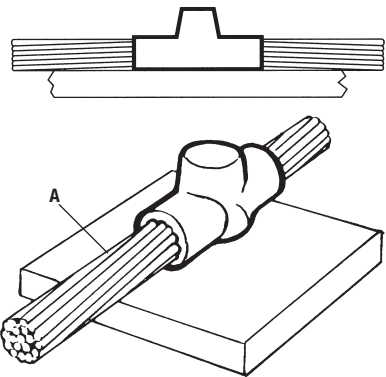


CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS8-2-#6	#6	45BKB	HCPK2	SLEEVE#6	1
CS8-2-#4	#4	45BKB	HCPK2	—	1
CS8-2-#2S	#2 solid	45BKB	HCPK2	—	1
CS8-2-#2	#2	45BKB	HCPK2	—	1
CS8-2-#1	#1	65BKB	HCPK2	—	1

Use Mold Sealing Compound (MSC) to ensure effective sealing.

- Stranded Conductor
- Solid Circular Conductor

### CS9 – For Flat Surfaces

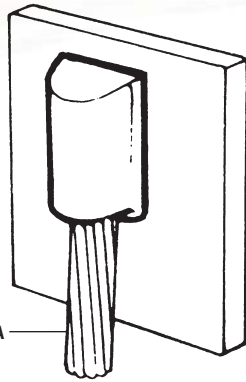


CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS9-2-#6	#6	45BKB	HCPK2	SLEEVE#6	1
CS9-2-#4	#4	45BKB	HCPK2	—	1
CS9-2-#2S	#2 solid	45BKB	HCPK2	—	1
CS9-2-#2	#2	45BKB	HCPK2	—	1
CS9-2-#1	#1	65BKB	HCPK2	—	1

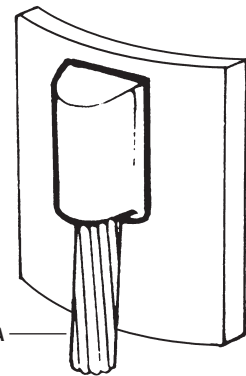
Use Mold Sealing Compound (MSC) to ensure effective sealing.

- Stranded Conductor
- Solid Circular Conductor

## Cable to Steel Surface and Pipe



- Stranded Conductor
- Solid Circular Conductor



- Stranded Conductor
- Solid Circular Conductor

### CS25 – For Flat Surfaces

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS25-4-#4	#4	65BKB	HCPK4	—	1
CS25-4-#2S	#2 solid	65BKB	HCPK4	—	1
CS25-4-#2	#2	65BKB	HCPK4	—	1
CS25-4-#1	#1	90BKB	HCPK4	—	1
CS25-4-1/0	1/0	115BKB	HCPK4	—	1
CS25-4-2/0	2/0	115BKB	HCPK4	—	1
CS25-4-3/0	3/0	150BKB	HCPK4	—	1
CS25-4-4/0	4/0	150BKB	HCPK4	—	1
CS25-4-250K	250	200BKB	HCPK4	—	1
CS25-4-300K	300	200BKB	HCPK4	—	1
CS25-4-350K	350	250BKB	HCPK4	—	1
CS25-4-500K	500	250BKB	HCPK4	—	1

Use Mold Sealing Compound (MSC) to ensure effective sealing.

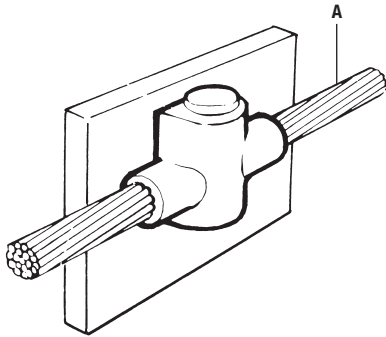
### CS25 – For Pipes

CAT. NO.	WIRE SIZE (A)	PIPE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS25-4-#4C	#4	1½" to 2¼"	65BKB	HCPK4	—	1
CS25-4-#4D		2¼" to 6½"	65BKB	HCPK4	—	1
CS25-4-#4F		6½" to 10"	65BKB	HCPK4	—	1
CS25-4-#4G		10" to 14"	65BKB	HCPK4	—	1
CS25-4-#2SC	#2 solid	1½" to 2¼"	65BKB	HCPK4	—	1
CS25-4-#2SD		2¼" to 6½"	65BKB	HCPK4	—	1
CS25-4-#2SF		6½" to 10"	65BKB	HCPK4	—	1
CS25-4-#2SG		10" to 14"	65BKB	HCPK4	—	1
CS25-4-#2C	#2	1½" to 2¼"	65BKB	HCPK4	—	1
CS25-4-#2D		2¼" to 6½"	65BKB	HCPK4	—	1
CS25-4-#2F		6½" to 10"	65BKB	HCPK4	—	1
CS25-4-#2G		10" to 14"	65BKB	HCPK4	—	1
CS25-4-#1C	#1	1½" to 2¼"	90BKB	HCPK4	—	1
CS25-4-#1D		2¼" to 6½"	90BKB	HCPK4	—	1
CS25-4-#1F		6½" to 10"	90BKB	HCPK4	—	1
CS25-4-#1G		10" to 14"	90BKB	HCPK4	—	1
CS25-4-1/0C	1/0	1½" to 2¼"	90BKB	HCPK4	—	1
CS25-4-1/0D		2¼" to 6½"	90BKB	HCPK4	—	1
CS25-4-1/0F		6½" to 10"	90BKB	HCPK4	—	1
CS25-4-1/0G		10" to 14"	90BKB	HCPK4	—	1
CS25-4-2/0C	2/0	1½" to 2¼"	150BKB	HCPK4	—	1
CS25-4-2/0D		2¼" to 6½"	150BKB	HCPK4	—	1
CS25-4-2/0F		6½" to 10"	150BKB	HCPK4	—	1
CS25-4-2/0G		10" to 14"	150BKB	HCPK4	—	1
CS25-4-3/0C	3/0	1½" to 2¼"	200BKB	HCPK4	—	1
CS25-4-3/0D		2¼" to 6½"	200BKB	HCPK4	—	1
CS25-4-3/0F		6½" to 10"	200BKB	HCPK4	—	1
CS25-4-3/0G		10" to 14"	200BKB	HCPK4	—	1
CS25-4-4/0C	4/0	1½" to 2¼"	200BKB	HCPK4	—	1
CS25-4-4/0D		2¼" to 6½"	200BKB	HCPK4	—	1
CS25-4-4/0F		6½" to 10"	200BKB	HCPK4	—	1
CS25-4-4/0G		10" to 14"	200BKB	HCPK4	—	1

**OVER 14" USE CS7 FOR FLAT SURFACE**

Use Mold Sealing Compound (MSC) to ensure effective sealing.

## Cable to Steel Surface and Pipe

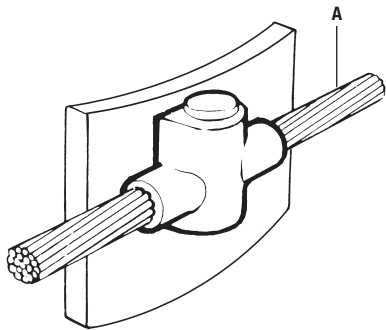


- Stranded Conductor
- Solid Circular Conductor

### CS27 – For Flat Surfaces

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS27-4-#6	#6	45BKB	HCPK4	SLEEVE#6	1
CS27-4-#4	#4	45BKB	HCPK4	—	1
CS27-4-#2S	#2 solid	45BKB	HCPK4	—	1
CS27-4-#2	#2	45BKB	HCPK4	—	1
CS27-4-#1	#1	65BKB	HCPK4	—	1
CS27-4-1/0	1/0	115BKB	HCPK4	—	1
CS27-4-2/0	2/0	115BKB	HCPK4	—	1
CS27-4-3/0	3/0	150BKB	HCPK4	—	1
CS27-4-4/0	4/0	150BKB	HCPK4	—	1
CS27-4-250K	250	150BKB	HCPK4	—	1

Use Mold Sealing Compound (MSC) to ensure effective sealing.



- Stranded Conductor
- Solid Circular Conductor

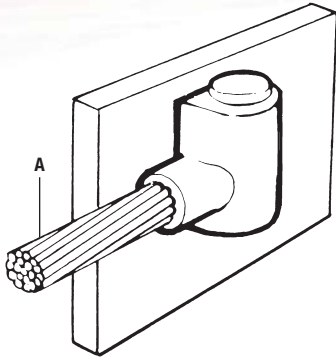
### CS27 – For Pipes

CAT. NO.	WIRE SIZE (A)	PIPE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS27-4-#4C	#4	1½" to 2¼"	45BKB	HCPK4	—	1
CS27-4-#4D		2¾" to 6½"	45BKB	HCPK4	—	1
CS27-4-#4F		6½" to 10"	45BKB	HCPK4	—	1
CS27-4-#4G		10" to 14"	45BKB	HCPK4	—	1
CS27-4-#2SC	#2 solid	1½" to 2¼"	45BKB	HCPK4	—	1
CS27-4-#2SD		2¾" to 6½"	45BKB	HCPK4	—	1
CS27-4-#2SF		6½" to 10"	45BKB	HCPK4	—	1
CS27-4-#2SG		10" to 14"	45BKB	HCPK4	—	1
CS27-4-#2C	#2	1½" to 2¼"	45BKB	HCPK4	—	1
CS27-4-#2D		2¾" to 6½"	45BKB	HCPK4	—	1
CS27-4-#2F		6½" to 10"	45BKB	HCPK4	—	1
CS27-4-#2G		10" to 14"	45BKB	HCPK4	—	1
CS27-4-#1C	#1	1½" to 2¼"	65BKB	HCPK4	—	1
CS27-4-#1D		2¾" to 6½"	65BKB	HCPK4	—	1
CS27-4-#1F		6½" to 10"	65BKB	HCPK4	—	1
CS27-4-#1G		10" to 14"	65BKB	HCPK4	—	1
CS27-4-110C	1/0	1½" to 2¼"	115BKB	HCPK4	—	1
CS27-4-110D		2¾" to 6½"	115BKB	HCPK4	—	1
CS27-4-110F		6½" to 10"	115BKB	HCPK4	—	1
CS27-4-110G		10" to 14"	115BKB	HCPK4	—	1
CS27-4-210C	2/0	1½" to 2¼"	115BKB	HCPK4	—	1
CS27-4-210D		2¾" to 6½"	115BKB	HCPK4	—	1
CS27-4-210F		6½" to 10"	115BKB	HCPK4	—	1
CS27-4-210G		10" to 14"	115BKB	HCPK4	—	1
CS27-4-310C	3/0	1½" to 2¼"	150BKB	HCPK4	—	1
CS27-4-310D		2¾" to 6½"	150BKB	HCPK4	—	1
CS27-4-310F		6½" to 10"	150BKB	HCPK4	—	1
CS27-4-310G		10" to 14"	150BKB	HCPK4	—	1
CS27-4-410C	4/0	1½" to 2¼"	150BKB	HCPK4	—	1
CS27-4-410D		2¾" to 6½"	150BKB	HCPK4	—	1
CS27-4-410F		6½" to 10"	150BKB	HCPK4	—	1
CS27-4-410G		10" to 14"	150BKB	HCPK4	—	1

OVER 14" USE CS7 FOR FLAT SURFACE

Use Mold Sealing Compound (MSC) to ensure effective sealing.

## Cable to Steel Surface and Pipe

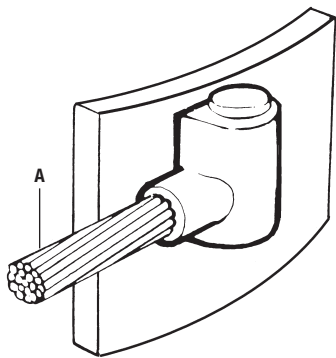


- Stranded Conductor
- Solid Circular Conductor

### CS31 – For Flat Surfaces

CAT. NO.	WIRE SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS31-4-#6	#6	45BKB	HCPK4	SLEEVE#6	1
CS31-4-#4	#4	45BKB	HCPK4	—	1
CS31-4-#2S	#2 solid	45BKB	HCPK4	—	1
CS31-4-#2	#2	45BKB	HCPK4	—	1
CS31-4-#1	#1	65BKB	HCPK4	—	1
CS31-4-1/0	1/0	90BKB	HCPK4	—	1
CS31-4-2/0	2/0	90BKB	HCPK4	—	1
CS31-4-3/0	3/0	115BKB	HCPK4	—	1
CS31-4-4/0	4/0	115BKB	HCPK4	—	1
CS31-4-250K	250	115BKB	HCPK4	—	1
CS31-4-300K	300	150BKB	HCPK4	—	1
CS31-4-350K	350	200BKB	HCPK4	—	1
CS31-4-500K	500	200BKB	HCPK4	—	1

Add "R" or "L" to denote wire exiting left or right. (Example: CS31-6-#6R for #6 wire exiting on the right.)  
Use Mold Sealing Compound (MSC) to ensure effective sealing.



- Stranded Conductor
- Solid Circular Conductor

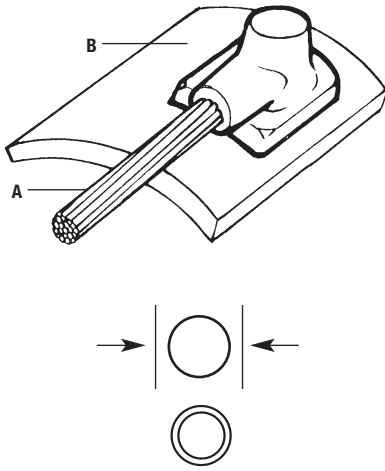
### CS31 – For Pipes

CAT. NO.	WIRE SIZE (A)	PIPE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS31-4-#4C	#4	1 1/2" to 2 3/4"	45BKB	HCPK4	—	1
CS31-4-#4D		2 3/4" to 6 1/2"	45BKB	HCPK4	—	1
CS31-4-#4F		6 1/2" to 10"	45BKB	HCPK4	—	1
CS31-4-#4G		10" to 14"	45BKB	HCPK4	—	1
CS31-4-#2SC	#2 solid	1 1/2" to 2 3/4"	45BKB	HCPK4	—	1
CS31-4-#2SD		2 3/4" to 6 1/2"	45BKB	HCPK4	—	1
CS31-4-#2SF		6 1/2" to 10"	45BKB	HCPK4	—	1
CS31-4-#2SG		10" to 14"	45BKB	HCPK4	—	1
CS31-4-#2C	#2	1 1/2" to 2 3/4"	45BKB	HCPK4	—	1
CS31-4-#2D		2 3/4" to 6 1/2"	45BKB	HCPK4	—	1
CS31-4-#2F		6 1/2" to 10"	45BKB	HCPK4	—	1
CS31-4-#2G		10" to 14"	45BKB	HCPK4	—	1
CS31-4-#1C	#1	1 1/2" to 2 3/4"	65BKB	HCPK4	—	1
CS31-4-#1D		2 3/4" to 6 1/2"	65BKB	HCPK4	—	1
CS31-4-#1F		6 1/2" to 10"	65BKB	HCPK4	—	1
CS31-4-#1G		10" to 14"	65BKB	HCPK4	—	1
CS31-4-1/0C	1/0	1 1/2" to 2 3/4"	90BKB	HCPK4	—	1
CS31-4-1/0D		2 3/4" to 6 1/2"	90BKB	HCPK4	—	1
CS31-4-1/0F		6 1/2" to 10"	90BKB	HCPK4	—	1
CS31-4-1/0G		10" to 14"	90BKB	HCPK4	—	1
CS31-4-2/0C	2/0	1 1/2" to 2 3/4"	90BKB	HCPK4	—	1
CS31-4-2/0D		2 3/4" to 6 1/2"	90BKB	HCPK4	—	1
CS31-4-2/0F		6 1/2" to 10"	90BKB	HCPK4	—	1
CS31-4-2/0G		10" to 14"	90BKB	HCPK4	—	1
CS31-4-3/0C	3/0	1 1/2" to 2 3/4"	115BKB	HCPK4	—	1
CS31-4-3/0D		2 3/4" to 6 1/2"	115BKB	HCPK4	—	1
CS31-4-3/0F		6 1/2" to 10"	115BKB	HCPK4	—	1
CS31-4-3/0G		10" to 14"	115BKB	HCPK4	—	1
CS31-4-4/0C	4/0	1 1/2" to 2 3/4"	115BKB	HCPK4	—	1
CS31-4-4/0D		2 3/4" to 6 1/2"	115BKB	HCPK4	—	1
CS31-4-4/0F		6 1/2" to 10"	115BKB	HCPK4	—	1
CS31-4-4/0G		10" to 14"	115BKB	HCPK4	—	1

#### OVER 14" USE CS31 FOR FLAT SURFACE

Add "R" or "L" to denote wire exiting left or right. (Example: CS31-6-#6R for #6 wire exiting on the right.)  
Use Mold Sealing Compound (MSC) to ensure effective sealing.

## Cable to Steel Surface and Pipe



• Stranded Conductor

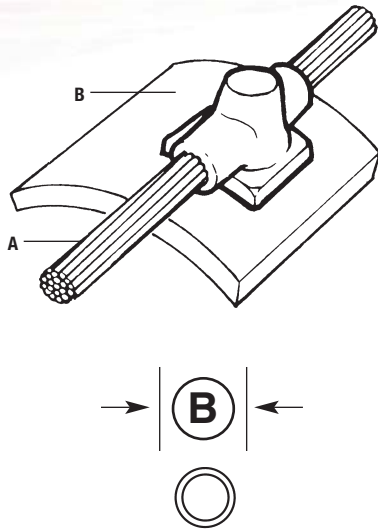
### CS32 – For Pipes

CAT. NO.	WIRE SIZE (A)	PIPE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS32-2-#4C	#4	1½" to 2¼"	45BKB	HCPK2	—	1
CS32-2-#4D		2¼" to 6½"	45BKB	HCPK2	—	1
CS32-2-#4F		6½" to 10"	45BKB	HCPK2	—	1
CS32-2-#4G		10" to 14"	45BKB	HCPK2	—	1
CS32-2-#2SC	#2 solid	1½" to 2¼"	45BKB	HCPK2	—	1
CS32-2-#2SD		2¼" to 6½"	45BKB	HCPK2	—	1
CS32-2-#2SF		6½" to 10"	45BKB	HCPK2	—	1
CS32-2-#2SG		10" to 14"	45BKB	HCPK2	—	1
CS32-2-#2C	#2	1½" to 2¼"	45BKB	HCPK2	—	1
CS32-2-#2D		2¼" to 6½"	45BKB	HCPK2	—	1
CS32-2-#2F		6½" to 10"	45BKB	HCPK2	—	1
CS32-2-#2G		10" to 14"	45BKB	HCPK2	—	1
CS32-2-#1D	#1	2¼" to 6½"	65BKB	HCPK2	—	1
CS32-2-#1F		6½" to 10"	65BKB	HCPK2	—	1
CS32-2-#1G		10" to 14"	65BKB	HCPK2	—	1
<b>OVER 14" USE CS8 FOR FLAT SURFACE</b>						
CS32-4-#1/OD	1/0	2¼" to 6½"	90BKB	HCPK4	—	1
CS32-4-#1/OF		6½" to 10"	90BKB	HCPK4	—	1
CS32-4-#1/OG		10" to 14"	90BKB	HCPK4	—	1
CS32-4-#2/OD	2/0	2¼" to 6½"	90BKB	HCPK4	—	1
CS32-4-#2/OF		6½" to 10"	90BKB	HCPK4	—	1
CS32-4-#2/OG		10" to 14"	90BKB	HCPK4	—	1
CS32-4-#3/OD	3/0	2¼" to 6½"	90BKB	HCPK4	—	1
CS32-4-#3/OF		6½" to 10"	90BKB	HCPK4	—	1
CS32-4-#3/OG		10" to 14"	90BKB	HCPK4	—	1
CS32-4-#4/OD	4/0	2¼" to 6½"	90BKB	HCPK4	—	1
CS32-4-#4/OF		6½" to 10"	90BKB	HCPK4	—	1
CS32-4-#4/OG		10" to 14"	90BKB	HCPK4	—	1

**OVER 14" USE CS1 FOR FLAT SURFACE**

Add "R" or "L" to denote wire exiting left or right. (Example: CS31-6-#6R for #6 wire exiting on the right.)  
Use Mold Sealing Compound (MSC) to ensure effective sealing.

Blackburn® Exothermic Welding System



- Stranded Conductor

### CS34 – For Pipes

CAT. NO.	WIRE SIZE (A)	PIPE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CS34-2-#4C	#4	1½" to 2¼"	45BKB	HCPK2	—	1
CS34-2-#4D		2¼" to 6½"	45BKB	HCPK2	—	1
CS34-2-#4F		6½" to 10"	45BKB	HCPK2	—	1
CS34-2-#4G		10" to 14"	45BKB	HCPK2	—	1
CS34-2-#2SC	#2S	1½" to 2¼"	45BKB	HCPK2	—	1
CS34-2-#2SD		2¼" to 6½"	45BKB	HCPK2	—	1
CS34-2-#2SF		6½" to 10"	45BKB	HCPK2	—	1
CS34-2-#2SG		10" to 14"	45BKB	HCPK2	—	1
CS34-2-#2C	#2	1½" to 2¼"	45BKB	HCPK2	—	1
CS34-2-#2D		2¼" to 6½"	45BKB	HCPK2	—	1
CS34-2-#2F		6½" to 10"	45BKB	HCPK2	—	1
CS34-2-#2G		10" to 14"	45BKB	HCPK2	—	1
CS34-2-#1D	#1	2¼" to 6½"	65BKB	HCPK2	—	1
CS34-2-#1F		6½" to 10"	65BKB	HCPK2	—	1
CS34-2-#1G		10" to 14"	65BKB	HCPK2	—	1

**OVER 14" USE CS8 FOR FLAT SURFACE**

CS34-4-#1/OD	1/0	2¼" to 6½"	90BKB	HCPK4	—	1
CS34-4-#1/OF		6½" to 10"	90BKB	HCPK4	—	1
CS34-4-#1/OG		10" to 14"	90BKB	HCPK4	—	1
CS34-4-#2/OD	2/0	2¼" to 6½"	115BKB	HCPK4	—	1
CS34-4-#2/OF		6½" to 10"	115BKB	HCPK4	—	1
CS34-4-#2/OG		10" to 14"	115BKB	HCPK4	—	1
CS34-4-#3/OD	3/0	2¼" to 6½"	115BKB	HCPK4	—	1
CS34-4-#3/OF		6½" to 10"	115BKB	HCPK4	—	1
CS34-4-#3/OG		10" to 14"	115BKB	HCPK4	—	1
CS34-4-#4/OD	4/0	2¼" to 6½"	150BKB	HCPK4	—	1
CS34-4-#4/OF		6½" to 10"	150BKB	HCPK4	—	1
CS34-4-#4/OG		10" to 14"	150BKB	HCPK4	—	1

**OVER 14" USE CS1 FOR FLAT SURFACE**

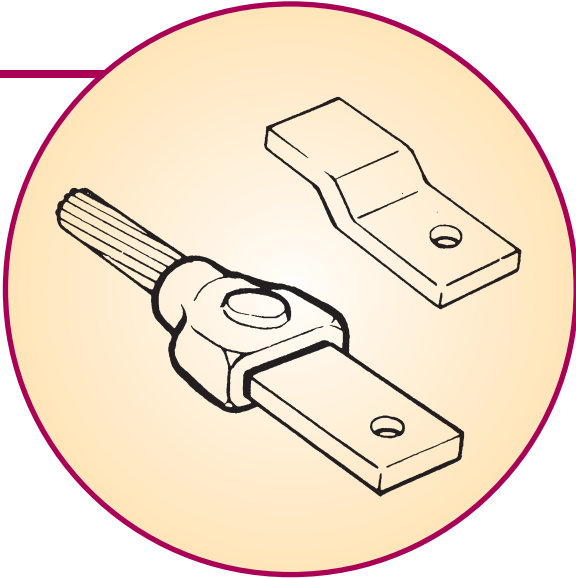
Use Mold Sealing Compound (MSC) to ensure effective sealing.





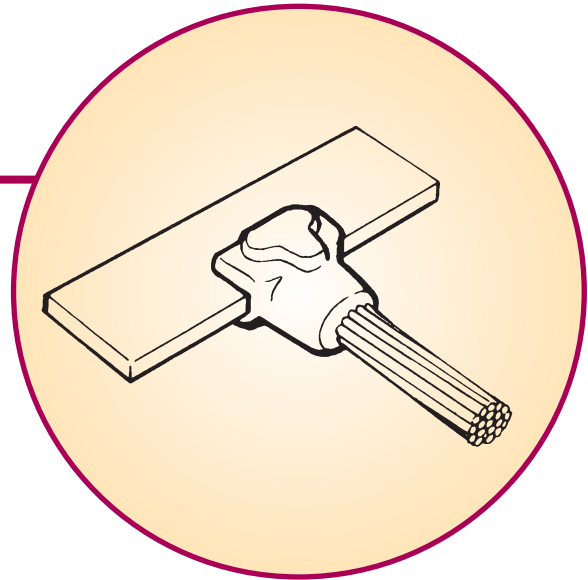
### CB1

See Page C-122



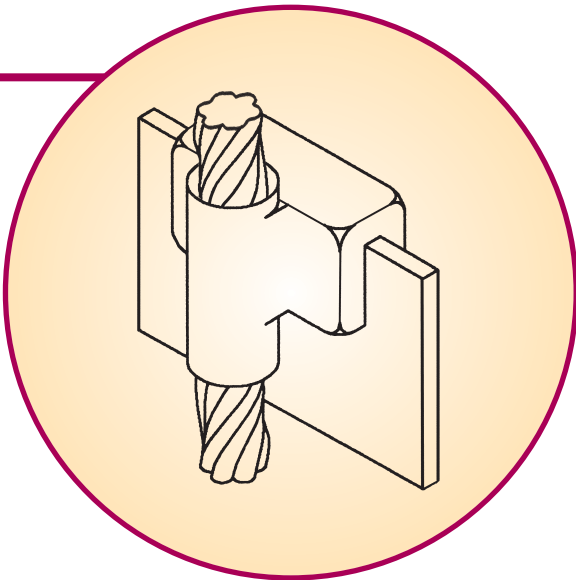
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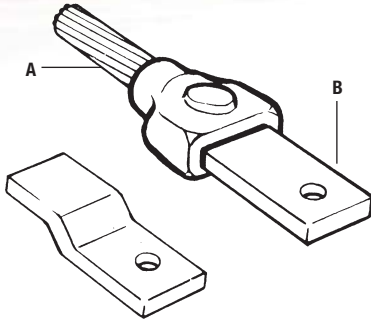
See Page C-123



### CB29

See Page C-124





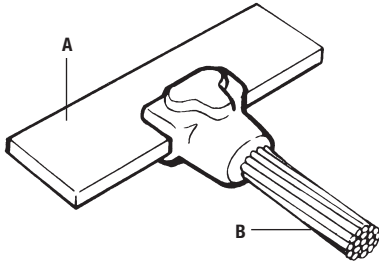
- Stranded Conductor
- Solid Circular Conductor
- Rectangular Tape or Bar

### CB1 – For Pipes

CAT. NO.	WIRE SIZE (A)	BAR SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CB1-4-#4181	#4	1/8" X 1"	45BKB	HCPK4	—	1
CB1-4-#2181	#2 solid	1/8" X 1"	45BKB	HCPK4	—	1
CB1-4-#2181	#2	1/8" X 1"	45BKB	HCPK4	—	1
CB1-4-#1181	#1	1/8" X 1"	45BKB	HCPK4	—	1
CB1-4-1/0181	1/0	1/8" X 1"	45BKB	HCPK4	—	1
CB1-4-1/03161		3/16" X 1"	65BKB	HCPK4	—	1
CB1-4-1/0141		1/4" X 1"	65BKB	HCPK4	—	1
CB1-4-2/0181	2/0	1/8" X 1"	65BKB	HCPK4	—	1
CB1-4-2/03161		3/16" X 1"	65BKB	HCPK4	—	1
CB1-4-2/0141		1/4" X 1"	65BKB	HCPK4	—	1
CB1-4-3/018	3/0	1/8" X 1"	65BKB	HCPK4	—	1
CB1-4-3/0161		3/16" X 1"	90BKB	HCPK4	—	1
CB1-4-3/0141		1/4" X 1"	90BKB	HCPK4	—	1
CB1-4-4/03161	4/0	3/16" X 1"	90BKB	HCPK4	—	1
CB1-4-4/0141		1/4" X 1"	90BKB	HCPK4	—	1
CB1-4-4/014112		1/4" X 1 1/2"	90BKB	HCPK4	—	1
CB1-4-4/0142		1/4" X 2"	90BKB	HCPK4	—	1
CB1-4-4/0143		1/4" X 3"	90BKB	HCPK4	—	1
CB1-4-250K3161	250	3/16" X 1"	90BKB	HCPK4	—	1
CB1-4-250K141		1/4" X 1"	90BKB	HCPK4	—	1
CB1-4-250K14112		1/4" X 1 1/2"	90BKB	HCPK4	—	1
CB1-4-250K142		1/4" X 2"	90BKB	HCPK4	—	1
CB1-4-250K143		1/4" X 3"	90BKB	HCPK4	—	1
CB1-4-300K141	300	1/4" X 1"	90BKB	HCPK4	—	1
CB1-4-300K14112		1/4" X 1 1/2"	90BKB	HCPK4	—	1
CB1-4-300K142		1/4" X 2"	90BKB	HCPK4	—	1
CB1-4-300K143		1/4" X 3"	90BKB	HCPK4	—	1
CB1-4-350K141	350	1/4" X 1"	115BKB	HCPK4	—	1
CB1-4-350K14112		1/4" X 1 1/2"	115BKB	HCPK4	—	1
CB1-4-350K142		1/4" X 2"	115BKB	HCPK4	—	1
CB1-4-350K143		1/4" X 3"	115BKB	HCPK4	—	1
CB1-4-500K14112	500	1/4" X 1 1/2"	200BKB	HCPK4	—	1
CB1-4-500K142		1/4" X 2"	200BKB	HCPK4	—	1
CB1-4-500K143		1/4" X 3"	200BKB	HCPK4	—	1
CB1-4-500K38112		3/8" X 1 1/2"	200BKB	HCPK4	—	1
CB1-5-750K142	750	1/4" X 2"	2 X 150BKB	HCPK5	—	1
CB1-5-750K143		1/4" X 3"	2 X 150BKB	HCPK5	—	1
CB1-5-750K38112		3/8" X 1 1/2"	2 X 150BKB	HCPK5	—	1
CB1-5-750K382		3/8" X 2"	2 X 150BKB	HCPK5	—	1
CB1-5-750K383		3/8" X 3"	2 X 150BKB	HCPK5	—	1
CB1-5-1000K143	1000	1/4" X 3"	2 X 200BKB	HCPK5	—	1
CB1-5-1000K382		3/8" X 2"	2 X 200BKB	HCPK5	—	1
CB1-5-1000K383		3/8" X 3"	2 X 200BKB	HCPK5	—	1
CB1-5-1000K122		1/2" X 2"	2 X 200BKB	HCPK5	—	1
CB1-5-1000K123		1/2" X 3"	2 X 200BKB	HCPK5	—	1



### CB4 – For Flat Surfaces

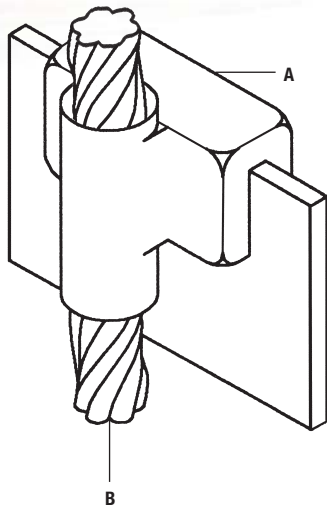


- Stranded Conductor
- Solid Circular Conductor
- Rectangular Tape or Bar

CAT. NO.	BAR SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CB4-4-#2S14112	¼" X 1½" and wider	#2 solid	45BKB	HCPK4	—	1
CB4-4-214112		#2	45BKB	HCPK4	—	1
CB4-4-1/014112		1/0	90BKB	HCPK4	—	1
CB4-4-2/014112		2/0	90BKB	HCPK4	—	1
CB4-4-3/014112		3/0	90BKB	HCPK4	—	1
CB4-4-4/014112		4/0	90BKB	HCPK4	—	1
CB4-4-250K14112		250	115BKB	HCPK4	—	1
CB4-4-300K14112		300	115BKB	HCPK4	—	1
CB4-4-350K14112		350	150BKB	HCPK4	—	1
CB4-4-500K1411		500	200BKB	HCPK4	—	1
CB4-4-#2S38112	¾" X 1½" and wider	#2 solid	65BKB	HCPK4	—	1
CB4-4-#238112		#2	65BKB	HCPK4	—	1
CB4-4-1/038112		1/0	90BKB	HCPK4	—	1
CB4-4-2/038112		2/0	90BKB	HCPK4	—	1
CB4-4-4/038112		4/0	115BKB	HCPK4	—	1
CB4-4-250K38112		250	150BKB	HCPK4	—	1
CB4-4-300K38112		300	150BKB	HCPK4	—	1
CB4-4-350K38112		350	200BKB	HCPK4	—	1
CB4-4-500K38112		500	250BKB	HCPK4	—	1
CB4-5-750K38112		750	2 X 150BKB	HCPK5	—	1
CB4-5-1000K38112		1000	2 X 200BKB	HCPK5	—	1
CB4-4-#2S12112	½" X 1½" and wider	#2 solid	90BKB	HCPK4	—	1
CB4-4-#212112		#2	90BKB	HCPK4	—	1
CB4-4-1/012112		1/0	115BKB	HCPK4	—	1
CB4-4-2/012112		2/0	115BKB	HCPK4	—	1
CB4-4-3/012112		3/0	150BKB	HCPK4	—	1
CB4-4-4/012112		4/0	150BKB	HCPK4	—	1
CB4-4-250K12112		250	200BKB	HCPK4	—	1
CB4-4-300K12112		300	200BKB	HCPK4	—	1
CB4-4-350K12112		350	250BKB	HCPK4	—	1
CB4-5-500K12112		500	2 X 150BKB	HCPK5	—	1
CB4-5-750K12112		750	2 X 200BKB	HCPK5	—	1
CB4-5-1000K12112		1000	2 X 250BKB	HCPK5	—	1

# Blackburn®

## Cable to Bar



### CB29 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WIRE SIZE (B)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
CB29-9-#2S142	¼" X 2" and wider	#2 solid	250BKB	HCPK4	—	1
CB29-9-#2142		#2	250BKB	HCPK4	—	1
CB29-10-#1142		#1	2 X 150BKB	HCPK5	—	1
CB29-10-1/0142		1/0	2 X 200BKB	HCPK5	—	1
CB29-10-2/0142		2/0	2 X 200BKB	HCPK5	—	1
CB29-10-4/0142		4/0	2 X 250BKB	HCPK5	—	1
CB29-10-250K142		250	2 X 250BKB	HCPK5	—	1
CB29-10-500K142		500	2 X 250BKB	HCPK5	—	1
CB29-10-750K142		750	3 X 200BKB	HCPK5	—	1
CB29-9-#2S382	¾" X 2" and wider	#2 solid	250BKB	HCPK4	—	1
CB29-9-#2382		#2 solid	250BKB	HCPK4	—	1
CB29-10-#1382		#1	2 X 150BKB	HCPK5	—	1
CB29-10-1/0382		1/0	2 X 200BKB	HCPK5	—	1
CB29-102/0382		2/0	2 X 200BKB	HCPK5	—	1
CB29-104/0382		4/0	2 X 250BKB	HCPK5	—	1
CB29-10-250K382		250	2 X 250BKB	HCPK5	—	1
CB29-10-500K382		500	2 X 250BKB	HCPK5	—	1
CB29-10-750K382		750	3 X 200BKB	HCPK5	—	1
CB29-10-#2S122	½" X 2" and wider	#2 solid	2 X 150BKB	HCPK5	—	1
CB29-10-#2122		#2	2 X 150BKB	HCPK5	—	1
CB29-10-#1122		#1	2 X 200BKB	HCPK5	—	1
CB29-10-1/0122		1/0	2 X 250BKB	HCPK5	—	1
CB29-10-2/0122		2/0	2 X 250BKB	HCPK5	—	1
CB29-10-4/0122		4/0	3 X 200BKB	HCPK5	—	1
CB29-10-250K122		250	3 X 200BKB	HCPK5	—	1
CB29-10-500K122		500	3 X 200BKB	HCPK5	—	1
CB29-10-750K		750	3 X 250BKB	HCPK5	—	1

Use Mold Sealing Compound (MSC) to ensure effective sealing.

Blackburn® Exothermic Welding System

Thomas & Betts

C-124

[www.tnb.com](http://www.tnb.com)

United States

Tel: 901.252.8000

800.816.7809

Fax: 901.252.1354

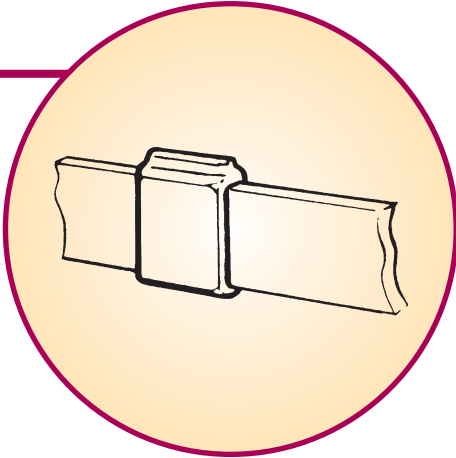
Technical Services

Tel: 888.862.3289



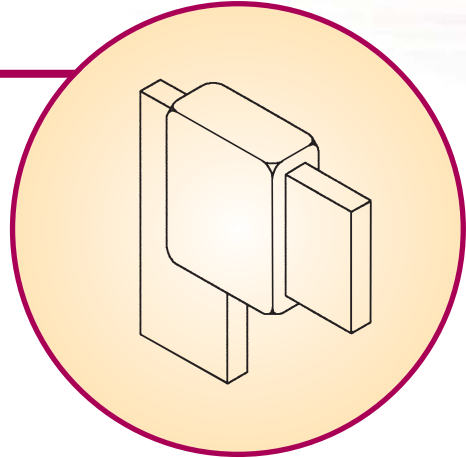
### BB1

See Page C-126



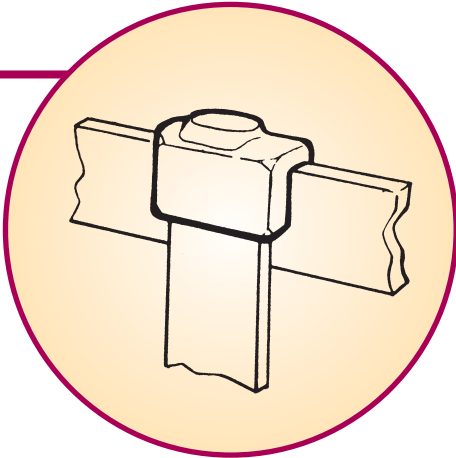
### BB2

See Page C-126



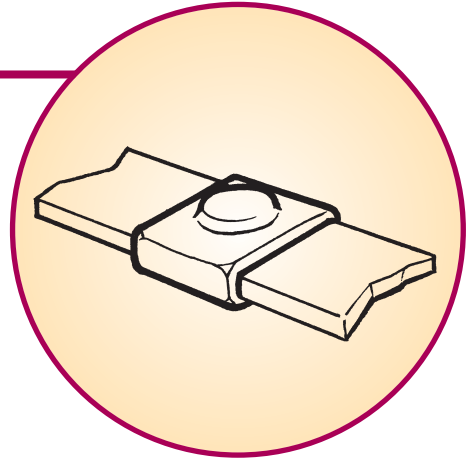
### BB3

See Page C-127



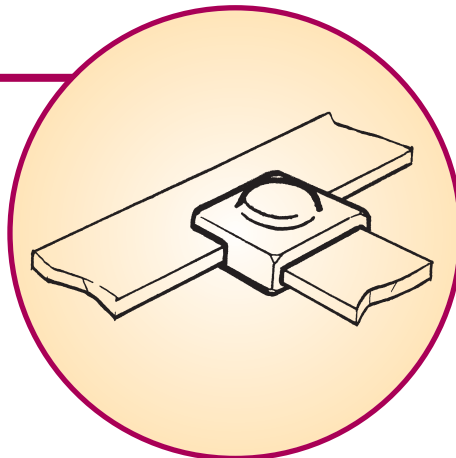
### BB7

See Page C-127



### BB14

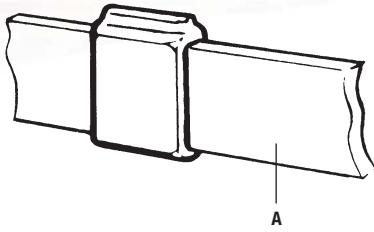
See Page C-128



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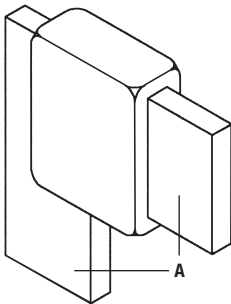
## Bar to Bar

Blackburn® Exothermic Welding System



### BB1 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BB1-4-181	1/8" X 1"	45BKB	HCPK4	—	1
BB1-4-18112	1/8" X 1 1/2"	65BKB	HCPK4	—	1
BB1-4-182	1/8" X 2"	90BKB	HCPK4	—	1
BB1-4-183	1/8" X 3"	200BKB	HCPK4	—	1
BB1-4-184	1/8" X 4"	250BKB	HCPK4	—	1
BB1-4-3161	3/16" X 1"	65BKB	HCPK4	—	1
BB1-4-3162	3/16" X 2"	115BKB	HCPK4	—	1
BB1-4-141	1/4" X 1"	90BKB	HCPK4	—	1
BB1-4-14114	1/4" X 1 1/4"	115BKB	HCPK4	—	1
BB1-4-14112	1/4" X 1 1/2"	150BKB	HCPK4	—	1
BB1-4-142	1/4" X 2"	200BKB	HCPK4	—	1
BB1-4-14212	1/4" X 2 1/2"	250BKB	HCPK4	—	1
BB1-5-143	1/4" X 3"	2 X 200BKB	HCPK5	—	1
BB1-5-144	1/4" X 4"	2 X 250BKB	HCPK5	—	1
BB1-4-381	3/8" X 1"	150BKB	HCPK5	—	1
BB1-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	—	1
BB1-5-382	3/8" X 2"	2 X 150BKB	HCPK5	—	1
BB1-5-383	3/8" X 3"	2 X 250BKB	HCPK5	—	1
BB1-5-384	3/8" X 4"	3 X 200BKB	HCPK5	—	1
BB1-4-121	1/2" X 1"	200BKB	HCPK4	—	1
BB1-5-122	1/2" X 2"	2 X 200BKB	HCPK5	—	1



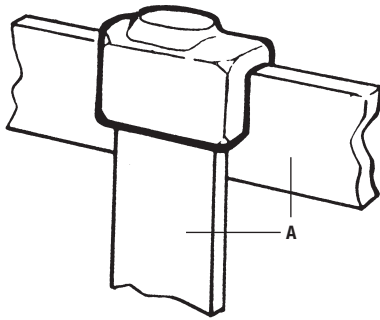
### BB2 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BB2-4-181	1/8" X 1"	45BKB	HCPK4	—	1
BB2-4-18112	1/8" X 1 1/2"	65BKB	HCPK4	—	1
BB2-4-182	1/8" X 2"	90BKB	HCPK4	—	1
BB2-4-183	1/8" X 3"	200BKB	HCPK4	—	1
BB2-4-184	1/8" X 4"	250BKB	HCPK4	—	1
BB2-4-3161	3/16" X 1"	65BKB	HCPK4	—	1
BB2-4-3162	3/16" X 2"	115BKB	HCPK4	—	1
BB2-4-141	1/4" X 1"	90BKB	HCPK4	—	1
BB2-4-14114	1/4" X 1 1/4"	115BKB	HCPK4	—	1
BB2-4-14112	1/4" X 1 1/2"	150BKB	HCPK4	—	1
BB2-4-142	1/4" X 2"	200BKB	HCPK4	—	1
BB2-4-14212	1/4" X 2 1/2"	250BKB	HCPK4	—	1
BB2-5-143	1/4" X 3"	2 X 200BKB	HCPK5	—	1
BB2-5-144	1/4" X 4"	2 X 250BKB	HCPK5	—	1
BB2-4-381	3/8" X 1"	150BKB	HCPK5	—	1
BB2-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	—	1
BB2-5-382	3/8" X 2"	2 X 150BKB	HCPK5	—	1
BB2-5-383	3/8" X 3"	2 X 250BKB	HCPK5	—	1
BB2-5-384	3/8" X 4"	3 X 200BKB	HCPK5	—	1
BB2-4-121	1/2" X 1"	200BKB	HCPK4	—	1
BB2-5-122	1/2" X 2"	2 X 200BKB	HCPK5	—	1

Thomas & Betts

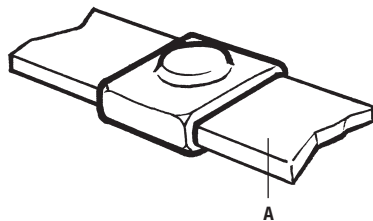
United States  
Tel: 901.252.8000  
800.816.7809  
Fax: 901.252.1354

Technical Services  
Tel: 888.862.3289



### BB3 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BB3-4-181	1/8" X 1"	45BKB	HCPK4	—	1
BB3-4-18112	1/8" X 1 1/2"	65BKB	HCPK4	—	1
BB3-4-182	1/8" X 2"	90BKB	HCPK4	—	1
BB3-4-183	1/8" X 3"	200BKB	HCPK4	—	1
BB3-4-184	1/8" X 4"	250BKB	HCPK4	—	1
BB3-4-3161	3/16" X 1"	65BKB	HCPK4	—	1
BB3-4-3162	3/16" X 2"	115BKB	HCPK4	—	1
BB3-4-141	1/4" X 1"	90BKB	HCPK4	—	1
BB3-4-14114	1/4" X 1 1/4"	115BKB	HCPK4	—	1
BB3-4-14112	1/4" X 1 1/2"	150BKB	HCPK4	—	1
BB3-4-142	1/4" X 2"	200BKB	HCPK4	—	1
BB3-4-14212	1/4" X 2 1/2"	250BKB	HCPK4	—	1
BB3-5-143	1/4" X 3"	2 X 200BKB	HCPK5	—	1
BB3-5-144	1/4" X 4"	2 X 250BKB	HCPK5	—	1
BB3-4-381	3/8" X 1"	150BKB	HCPK5	—	1
BB3-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	—	1
BB3-5-382	3/8" X 2"	2 X 150BKB	HCPK5	—	1
BB3-5-383	3/8" X 3"	2 X 250BKB	HCPK5	—	1
BB3-5-384	3/8" X 4"	3 X 200BKB	HCPK5	—	1
BB3-4-121	1/2" X 1"	200BKB	HCPK4	—	1
BB3-5-122	1/2" X 2"	2 X 200BKB	HCPK5	—	1

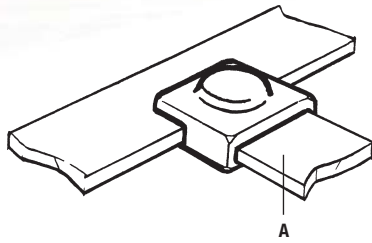


### BB7 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BB7-4-181	1/8" X 1"	45BKB	HCPK4	—	1
BB7-4-18112	1/8" X 1 1/2"	65BKB	HCPK4	—	1
BB7-4-182	1/8" X 2"	90BKB	HCPK4	—	1
BB7-4-183	1/8" X 3"	200BKB	HCPK4	—	1
BB7-4-184	1/8" X 4"	250BKB	HCPK4	—	1
BB7-4-3161	3/16" X 1"	65BKB	HCPK4	—	1
BB7-4-3162	3/16" X 2"	115BKB	HCPK4	—	1
BB7-4-141	1/4" X 1"	90BKB	HCPK4	—	1
BB7-4-14114	1/4" X 1 1/4"	115BKB	HCPK4	—	1
BB7-4-14112	1/4" X 1 1/2"	150BKB	HCPK4	—	1
BB7-4-142	1/4" X 2"	200BKB	HCPK4	—	1
BB7-4-14212	1/4" X 2 1/2"	250BKB	HCPK4	—	1
BB7-5-143	1/4" X 3"	2 X 200BKB	HCPK5	—	1
BB7-5-144	1/4" X 4"	2 X 250BKB	HCPK5	—	1
BB7-4-381	3/8" X 1"	150BKB	HCPK5	—	1
BB7-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	—	1
BB7-5-382	3/8" X 2"	2 X 150BKB	HCPK5	—	1
BB7-5-383	3/8" X 3"	2 X 250BKB	HCPK5	—	1
BB7-5-384	3/8" X 4"	3 X 200BKB	HCPK5	—	1
BB7-4-121	1/2" X 1"	200BKB	HCPK4	—	1
BB7-5-122	1/2" X 2"	2 X 200BKB	HCPK5	—	1

# Blackburn®

## Bar to Bar



### BB14 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BB14-4-181	1/8" X 1"	45BKB	HCPK4	—	1
BB14-4-18112	1/8" X 1 1/2"	65BKB	HCPK4	—	1
BB14-4-182	1/8" X 2"	90BKB	HCPK4	—	1
BB14-4-183	1/8" X 3"	200BKB	HCPK4	—	1
BB14-4-184	1/8" X 4"	250BKB	HCPK4	—	1
BB14-4-3161	3/16" X 1"	65BKB	HCPK4	—	1
BB14-4-3162	3/16" X 2"	115BKB	HCPK4	—	1
BB14-4-141	1/4" X 1"	90BKB	HCPK4	—	1
BB14-4-14114	1/4" X 1 1/4"	115BKB	HCPK4	—	1
BB14-4-14112	1/4" X 1 1/2"	150BKB	HCPK4	—	1
BB14-4-142	1/4" X 2"	200BKB	HCPK4	—	1
BB14-4-14212	1/4" X 2 1/2"	250BKB	HCPK4	—	1
BB14-5-143	1/4" X 3"	2 X 200BKB	HCPK5	—	1
BB14-5-144	1/4" X 4"	2 X 250BKB	HCPK5	—	1
BB14-4-381	3/8" X 1"	150BKB	HCPK5	—	1
BB14-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	—	1
BB14-5-382	3/8" X 2"	2 X 150BKB	HCPK5	—	1
BB14-5-383	3/8" X 3"	2 X 250BKB	HCPK5	—	1
BB14-5-384	3/8" X 4"	3 X 200BKB	HCPK5	—	1
BB14-4-121	1/2" X 1"	200BKB	HCPK4	—	1
BB14-5-122	1/2" X 2"	2 X 200BKB	HCPK5	—	1

Blackburn® Exothermic Welding System

Thomas & Betts

C-128

[www.tnb.com](http://www.tnb.com)

United States

Tel: 901.252.8000

800.816.7809

Fax: 901.252.1354

Technical Services

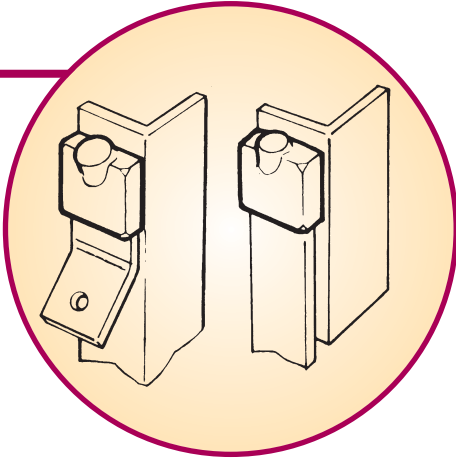
Tel: 888.862.3289



## Bar to Steel Surface - Quick Reference

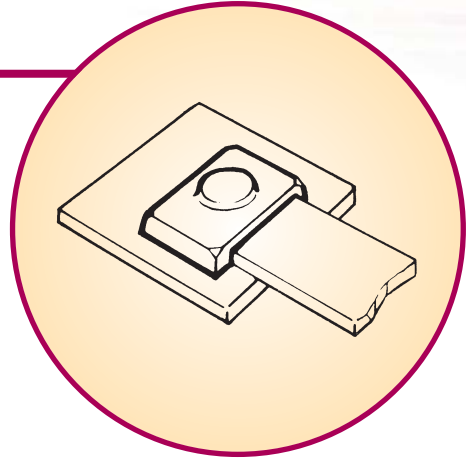
### BS1

See Page C-130



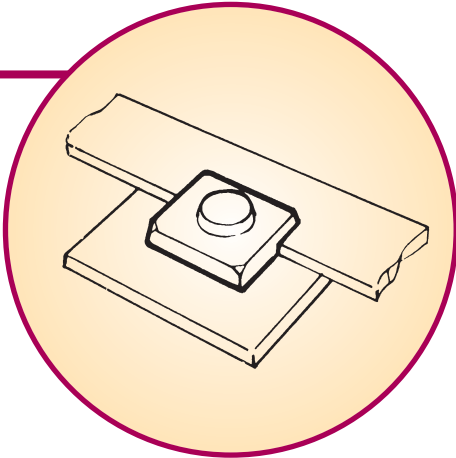
### BS2

See Page C-130



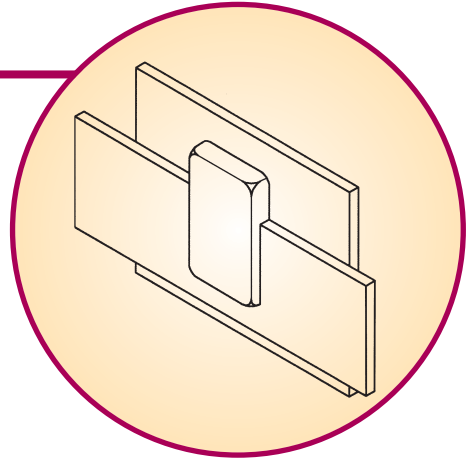
### BS3

See Page C-131



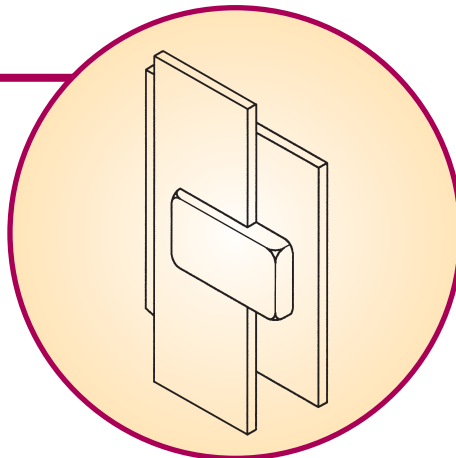
### BS4

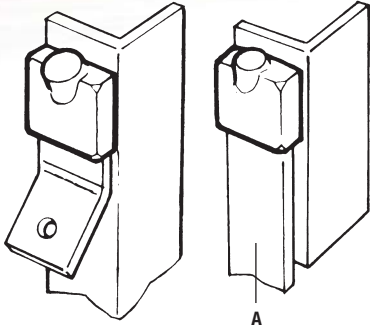
See Page C-131



### BS5

See Page C-132



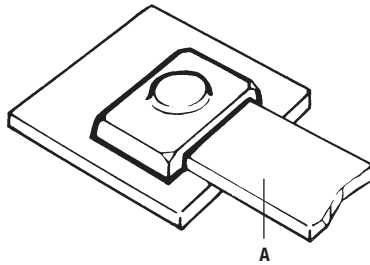


- Rectangular Tape or Bar

### BS1 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BS1-4-181	1/8" X 1"	115BKB	HCPK4	4	1
BS1-4-18112	1/8" X 1 1/2"	150BKB	HCPK4	4	1
BS1-4-182	1/8" X 2"	200BKB	HCPK4	4	1
BS1-4-3161	3/16" X 1"	150BKB	HCPK4	4	1
BS1-4-316112	3/16" X 1 1/2"	200BKB	HCPK4	4	1
BS1-4-3162	3/16" X 2"	250BKB	HCPK4	4	1
BS1-4-141	1/4" X 1"	150BKB	HCPK4	4	1
BS1-4-14114	1/4" X 1 1/4"	200BKB	HCPK4	4	1
BS1-4-14112	1/4" X 1 1/2"	250BKB	HCPK4	4	1
BS1-5-142	1/4" X 2"	2 X 150BKB	HCPK4	4	1
BS1-4-381	3/8" X 1"	200BKB	HCPK5	4	1
BS1-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	4	1
BS1-5-382	3/8" X 2"	2 X 200BKB	HCPK5	5	1
BS1-4-121	1/2" X 1"	250BKB	HCPK4	4	1
BS1-5-12112	1/2" X 1 1/2"	2 X 200BKB	HCPK5	5	1
BS1-5-122	1/2" X 2"	2 X 250BKB	HCPK5	5	1

Mold Sealing Compound (MSC) will be required if surface is uneven.

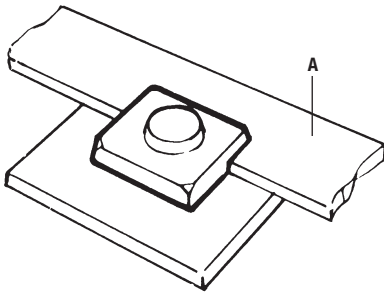


- Rectangular Tape or Bar

### BS2 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BS2-4-181	1/8" X 1"	115BKB	HCPK4	—	1
BS2-4-18112	1/8" X 1 1/2"	150BKB	HCPK4	—	1
BS2-4-182	1/8" X 2"	200BKB	HCPK4	—	1
BS2-4-3161	3/16" X 1"	150BKB	HCPK4	—	1
BS2-4-316112	3/16" X 1 1/2"	200BKB	HCPK4	—	1
BS2-4-3162	3/16" X 2"	250BKB	HCPK4	—	1
BS2-4-141	1/4" X 1"	150BKB	HCPK4	—	1
BS2-4-14114	1/4" X 1 1/4"	200BKB	HCPK4	—	1
BS2-4-14112	1/4" X 1 1/2"	250BKB	HCPK4	—	1
BS2-5-142	1/4" X 2"	2 X 150BKB	HCPK4	—	1
BS2-4-381	3/8" X 1"	200BKB	HCPK5	—	1
BS2-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	—	1
BS2-5-382	3/8" X 2"	2 X 200BKB	HCPK5	—	1
BS2-4-121	1/2" X 1"	250BKB	HCPK4	—	1
BS2-5-12112	1/2" X 1 1/2"	2 X 200BKB	HCPK5	—	1
BS2-5-122	1/2" X 2"	2 X 250BKB	HCPK5	—	1

Mold Sealing Compound (MSC) will be required if surface is uneven.

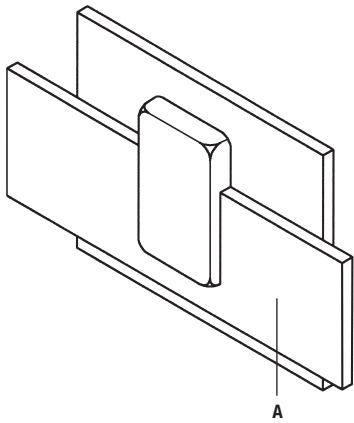


- Rectangular Tape or Bar

### BS3 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BS3-4-181	1/8" X 1"	115BKB	HCPK4	—	1
BS3-4-18112	1/8" X 1 1/2" and wider	150BKB	HCPK4	—	1
BS3-4-3161	3/8" X 1"	150BKB	HCPK4	—	1
BS3-4-316112	3/8" X 1 1/2" and wider	200BKB	HCPK4	—	1
BS3-4-141	1/4" X 1"	150BKB	HCPK4	—	1
BS3-4-14114	1/4" X 1 1/4"	200BKB	HCPK4	—	1
BS3-4-14112	1/4" X 1 1/2" and wider	250BKB	HCPK4	—	1
BS3-4-381	3/8" X 1"	200BKB	HCPK5	—	1
BS3-4-38112	3/8" X 1 1/2" and wider	250BKB	HCPK4	—	1
BS3-4-121	1/2" X 1"	250BKB	HCPK4	—	1
BS3-5-12112	1/2" X 1 1/2" and wider	2 X 200BKB	HCPK5	—	1

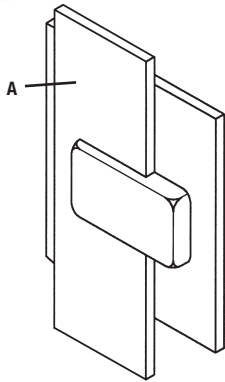
Mold Sealing Compound (MSC) will be required if surface is uneven.



### BS4 – For Flat Surfaces

CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BS4-4-181	1/8" X 1"	115BKB	HCPK4	—	1
BS4-4-18112	1/8" X 1 1/2"	150BKB	HCPK4	—	1
BS4-4-182	1/8" X 2"	200BKB	HCPK4	—	1
BS4-4-3161	3/8" X 1"	150BKB	HCPK4	—	1
BS4-4-316112	3/8" X 1 1/2"	200BKB	HCPK4	—	1
BS4-4-3162	3/8" X 2"	250BKB	HCPK4	—	1
BS4-4-141	1/4" X 1"	150BKB	HCPK4	—	1
BS4-4-14114	1/4" X 1 1/4"	200BKB	HCPK4	—	1
BS4-4-14112	1/4" X 1 1/2"	250BKB	HCPK4	—	1
BS4-5-142	1/4" X 2"	2 X 150BKB	HCPK4	—	1
BS4-4-381	3/8" X 1"	200BKB	HCPK5	—	1
BS4-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	—	1
BS4-5-382	3/8" X 2"	2 X 200BKB	HCPK5	—	1
BS4-4-121	1/2" X 1"	250BKB	HCPK4	—	1
BS4-5-12112	1/2" X 1 1/2"	2 X 200BKB	HCPK5	—	1
BS4-5-122	1/2" X 2"	2 X 250BKB	HCPK5	—	1

Mold Sealing Compound (MSC) will be required if surface is uneven.

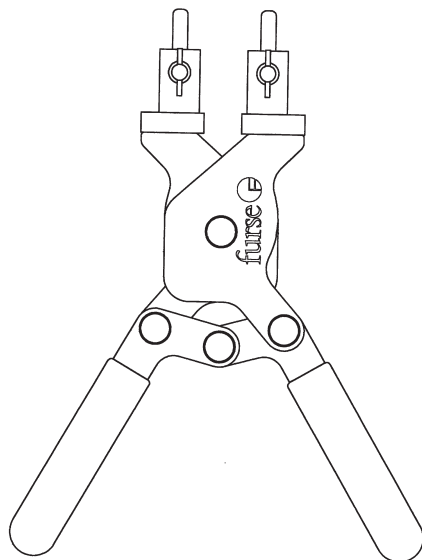


### BS5 – For Flat Surfaces

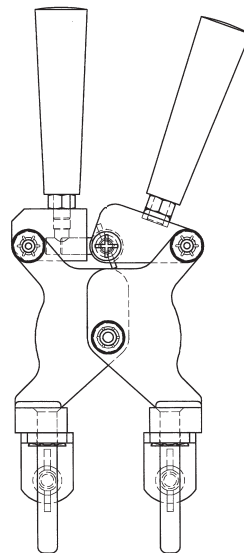
CAT. NO.	BAR SIZE (A)	WELDING POWDER SIZE	HANDLE CLAMP TYPE	SLEEVE	STD. CTN.
BS5-4-181	1/8" X 1"	115BKB	HCPK4	—	1
BS5-4-18112	1/8" X 1 1/2"	150BKB	HCPK4	—	1
BS5-4-182	1/8" X 2" and wider	200BKB	HCPK4	—	1
BS5-4-3161	3/16" X 1"	150BKB	HCPK4	—	1
BS5-4-316112	3/16" X 1 1/2"	200BKB	HCPK4	—	1
BS5-4-3162	3/16" X 2" and wider	250BKB	HCPK4	—	1
BS5-4-141	1/4" X 1"	150BKB	HCPK4	—	1
BS5-4-14114	1/4" X 1 1/4"	200BKB	HCPK4	—	1
BS5-4-14112	1/4" X 1 1/2"	250BKB	HCPK4	—	1
BS5-5-142	1/4" X 2" and wider	2 X 150BKB	HCPK5	—	1
BS5-4-381	3/8" X 1"	200BKB	HCPK5	—	1
BS5-4-38112	3/8" X 1 1/2"	250BKB	HCPK4	—	1
BS5-5-382	3/8" X 2" and wider	2 X 200BKB	HCPK5	—	1
BS5-4-121	1/2" X 1"	250BKB	HCPK4	—	1
BS5-5-12112	1/2" X 1 1/2"	2 X 200BKB	HCPK5	—	1
BS5-5-122	1/2" X 2" and wider	2 X 250BKB	HCPK5	—	1

Mold Sealing Compound (MSC) will be required if surface is uneven.

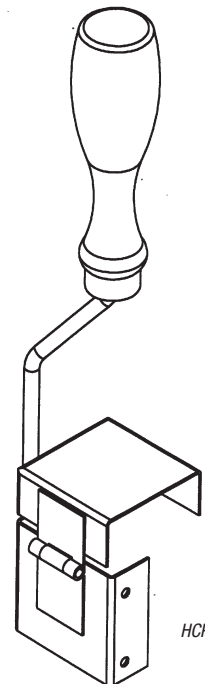
### Handle Clamps



HCPK3



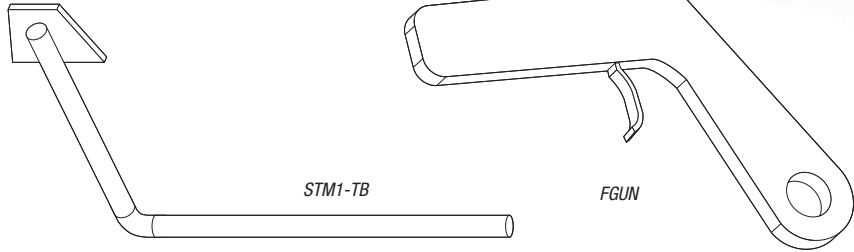
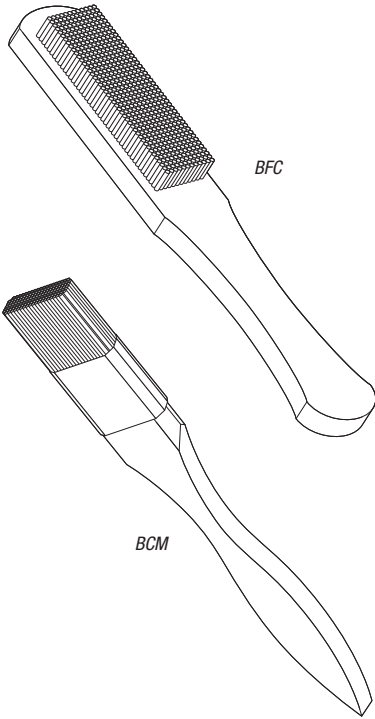
HCPK4



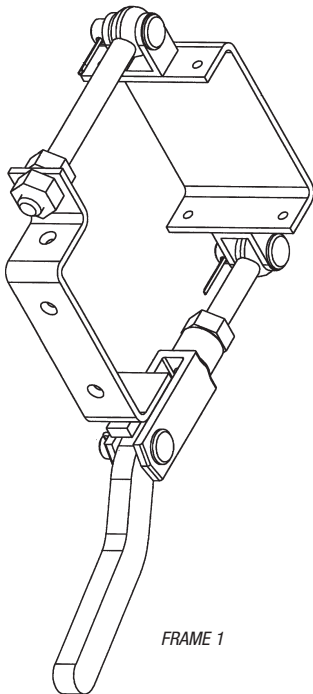
HCPK2

## Handle Clamps, Tools and Accessories

### Tools and Accessories



MOLD PART NO.	DESCRIPTION	APPLICATIONS	STD. CTN.
WWB1	Cable Cleaning Brush	Cleaning of stranded and other circular section conductors	6
WRB1	Replacement Elements (Pair)		3
BFC	Card Cloth Brush	Cleaning of conductors and surfaces.	10
FGUN	Flint Ignitor Gun	Starting powder ignition.	10
BCM	Mold Cleaning Brush	Soft brush for mold cleaning.	10
STM1-TB	Mold Scraper Tool	Break up and removal of slag in mold crucible.	10
MSC	Mold Sealing Compound	"Mold sealing on un—even surfaces, and general mold sealing."	5
PACK-A	Packing	Mold sealing on rebar surfaces.	50
SLEEVE#6	Sleeve for #6 wire	Prevents burning of small section wire.	100
SLEEVE#6S	Sleeve for #6S wire	Prevents burning of small section wire.	100
SLEEVE#8	Sleeve for #8 wire	Prevents burning of small section wire.	100
SLEEVE#8S	Sleeve for #8S wire	Prevents burning of small section wire.	100
SHIM	Copper shim.	For sealing around undersize conductors.	100



MOLD PART NO.	DESCRIPTION	APPLICATIONS	STD. CTN.
HCPK1	Price Key 1 Handle	For use on price key 1 molds	1
HCPK2	Price Key 2 Handle	For use on price key 2 molds	1
HCPK3	Price Key 3 Handle Clamp	For use on price key 3 molds	1
HCPK3A	Price Key 3A Handle Clamp	Type 3A molds (connections to vertical rebars).	1
HCPK3B	Price Key 3B Handle Clamp	Type 3B molds (connections to horizontal rebars).	1
HCPK3BMOD	Price Key 3B Modified Clamp	Type 3B molds (cross connections to horizontal rebars).	1
HCPK4	Price Key 4 Handle Clamp	For use on price key 4 molds.	1
HCPK5	Price Key 5 Handle Clamp	For use on price key 5 molds.	1
HCPK7	Price Key 7 Handle Clamp	For use on price key 7 molds.	1
HCPK8	Price Key 8 Handle Clamp	For use on price key 8 molds.	1
FRAME1	Price Key 9 Frame	For use with HCPK4 on price key 9 molds.	1
FRAME2	Price Key 10 Frame	For use with HCPK5 on price key 10 molds.	1

# Blackburn®

## Sure Shot® Welding Mold

Quick, easy and disposable —  
no maintenance required!

### Sure Shot® Welding Mold for Conductor to Copper Ground Rod

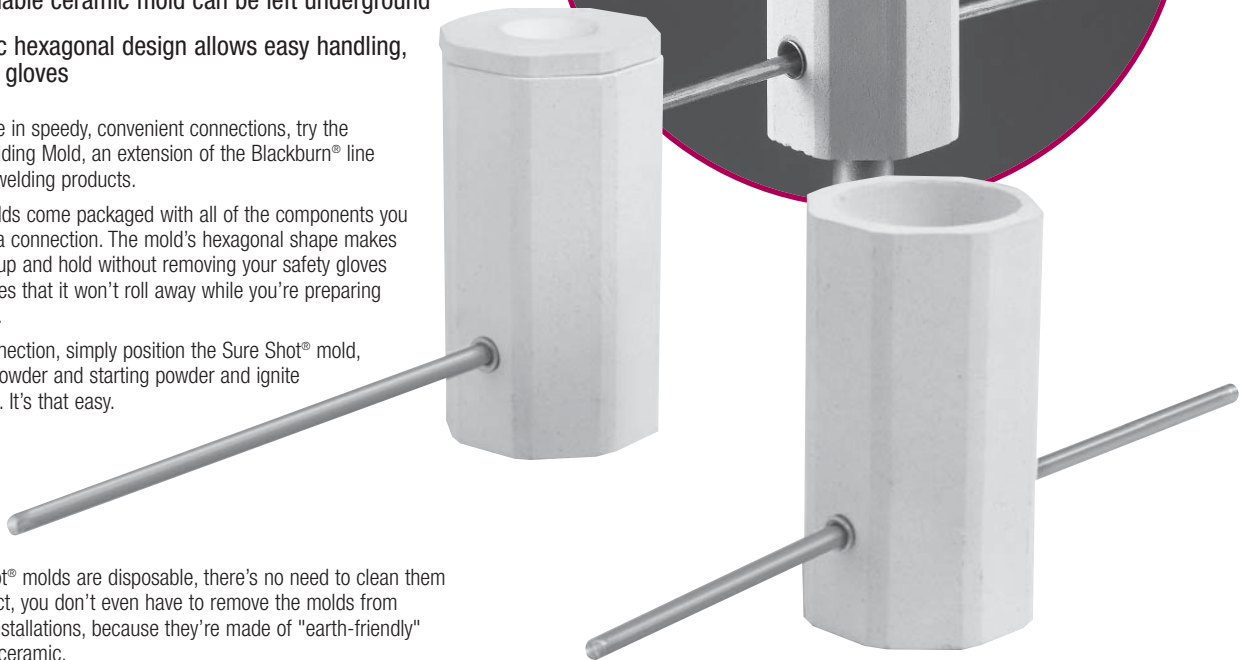
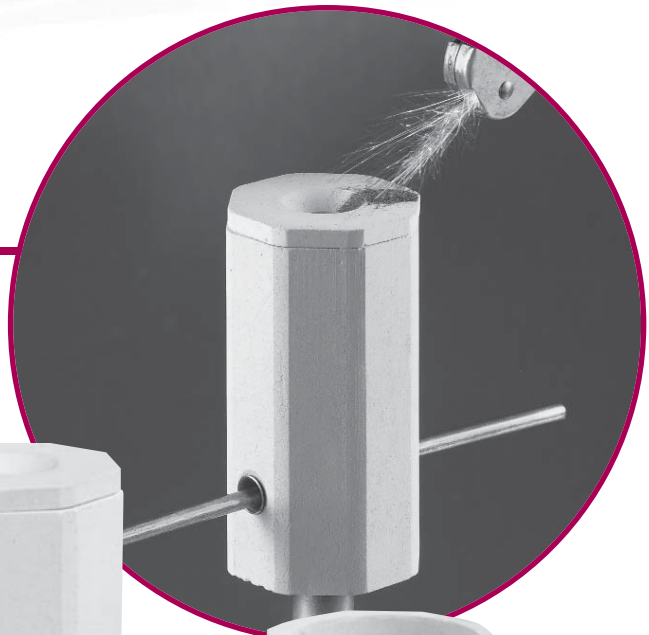
- Fast and simple to use
- Maintenance-free disposable molds
- Packaged with everything necessary to make a connection
- Biodegradable ceramic mold can be left underground
- Ergonomic hexagonal design allows easy handling, even with gloves

For the ultimate in speedy, convenient connections, try the Sure Shot® Welding Mold, an extension of the Blackburn® line of exothermic welding products.

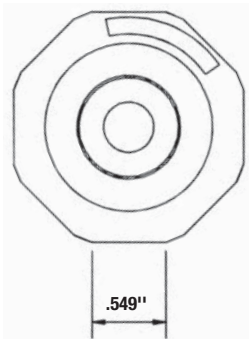
Sure Shot® molds come packaged with all of the components you need to make a connection. The mold's hexagonal shape makes it easy to pick up and hold without removing your safety gloves and also ensures that it won't roll away while you're preparing the connection.

To make a connection, simply position the Sure Shot® mold, add the weld powder and starting powder and ignite with a flint gun. It's that easy.

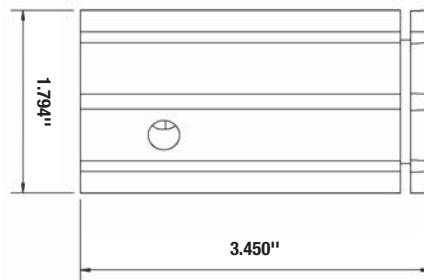
Since Sure Shot® molds are disposable, there's no need to clean them after use. In fact, you don't even have to remove the molds from underground installations, because they're made of "earth-friendly" biodegradable ceramic.



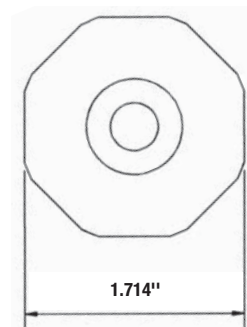
### Dimensions



Cover



Welding Mold

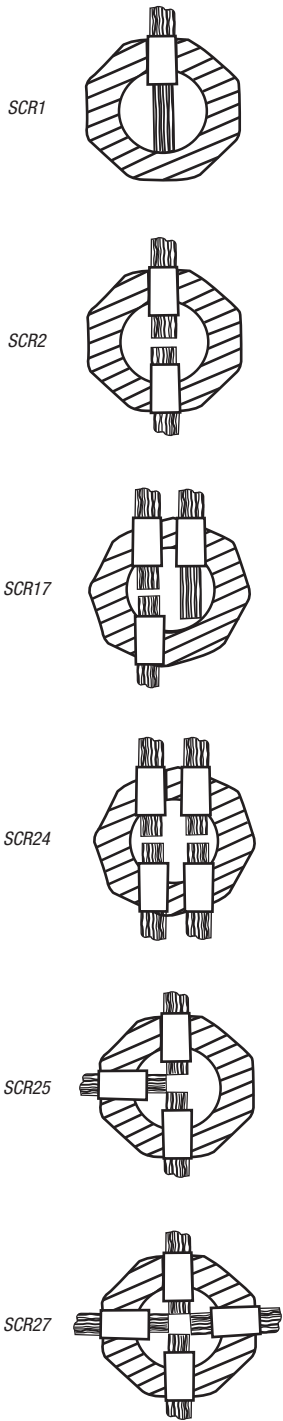


Disk



### Specifications

### Wire Positioning



CAT. NO.	GROUND ROD SIZE	CONDUCTOR SIZE	
		SOLID	STRANDED
<b>Blackburn Type SCR1</b>			
SCR1-58-6808	5/8 <sup>11</sup>	6,8	8
SCR1-58-3446	5/8 <sup>11</sup>	3,4	4,6
SCR1-58-1223	5/8 <sup>11</sup>	1,2	2,3
SCR1-58-2010	5/8 <sup>11</sup>	2/0,1/0	1/0,1
SCR1-58-0020	5/8 <sup>11</sup>	—	2/0
SCR1-34-6808	3/4 <sup>11</sup>	6,8	8
SCR1-34-3446	3/4 <sup>11</sup>	3,4	4,6
SCR1-34-1223	3/4 <sup>11</sup>	1,2	2,3
SCR1-34-2010	3/4 <sup>11</sup>	2/0,1/0	1/0,1
SCR1-34-0020	3/4 <sup>11</sup>	—	2/0
SCR1-34-0040	3/4 <sup>11</sup>	—	4/0
<b>Blackburn Type SCR2</b>			
SCR2-58-6808	5/8 <sup>11</sup>	6,8	8
SCR2-58-3446	5/8 <sup>11</sup>	3,4	4,6
SCR2-58-1223	5/8 <sup>11</sup>	1,2	2,3
SCR2-58-2010	5/8 <sup>11</sup>	2/0,1/0	1/0,1
SCR2-58-0020	5/8 <sup>11</sup>	—	2/0
SCR2-34-6808	3/4 <sup>11</sup>	6,8	8
SCR2-34-3446	3/4 <sup>11</sup>	3,4	4,6
SCR2-34-1223	3/4 <sup>11</sup>	1,2	2,3
SCR2-34-2010	3/4 <sup>11</sup>	2/0,1/0	1/0,1
SCR2-34-0020	3/4 <sup>11</sup>	—	2/0
SCR2-34-0040	3/4 <sup>11</sup>	—	4/0
<b>Blackburn Type SCR17</b>			
SCR17-58-6808	5/8 <sup>11</sup>	6,8	8
SCR17-58-3446	5/8 <sup>11</sup>	3,4	4,6
SCR17-58-1223	5/8 <sup>11</sup>	1,2	2,3
SCR17-34-6808	3/4 <sup>11</sup>	6,8	8
SCR17-34-3446	3/4 <sup>11</sup>	3,4	4,6
SCR17-34-1223	3/4 <sup>11</sup>	1,2	2,3
<b>Blackburn Type SCR24</b>			
SCR24-58-6808	5/8 <sup>11</sup>	6,8	8
SCR24-58-3446	5/8 <sup>11</sup>	3,4	4,6
SCR24-58-1223	5/8 <sup>11</sup>	1,2	2,3
SCR24-34-6808	3/4 <sup>11</sup>	6,8	8
SCR24-34-3446	3/4 <sup>11</sup>	3,4	4,6
SCR24-34-1223	3/4 <sup>11</sup>	1,2	2,3
<b>Blackburn Type SCR25</b>			
SCR25-58-6808	5/8 <sup>11</sup>	6,8	8
SCR25-58-3446	5/8 <sup>11</sup>	3,4	4,6
SCR25-58-1223	5/8 <sup>11</sup>	1,2	2,3
SCR25-34-6808	3/4 <sup>11</sup>	6,8	8
SCR25-34-3446	3/4 <sup>11</sup>	3,4	4,6
SCR25-34-1223	3/4 <sup>11</sup>	1,2	2,3
<b>Blackburn Type SCR27</b>			
SCR27-58-6808	5/8 <sup>11</sup>	6,8	8
SCR27-58-3446	5/8 <sup>11</sup>	3,4	4,6
SCR27-34-6808	3/4 <sup>11</sup>	6,8	8
SCR27-34-3446	3/4 <sup>11</sup>	3,4	4,6
SCR27-34-1223	3/4 <sup>11</sup>	1,2	2,3

\* The weight per 100 is 20 lbs. and the standard carton/outer pack is 6 for all catalog numbers.

CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
BAC-JE	M-1135	BB1-4-121
BAC-EE	M-1122	BB1-4-141
BAC-EG	M-1124	BB1-4-14112
BAC-EF	M-1123	BB1-4-14114
BAC-EH	M-1125	BB1-4-142
BAC-EJ	M-6346	BB1-4-14212
BAC-CE	M-1118	BB1-4-181
BAC-CG	M-2557	BB1-4-18112
BAC-CH	M-1119	BB1-4-182
BAC-CK	M-6298	BB1-4-183
BAD-CM	M-5315	BB1-4-184
BAC-DE	M-1120	BB1-4-3161
BAC-DH	M-1121	BB1-4-3162
BAC-GE	M-1130	BB1-4-381
BAC-GG	M-1131	BB1-4-38112
BAD-JH	M-1136	BB1-5-122
BAD-EK	M-1126	BB1-5-143
BAD-EM	M-1127	BB1-5-144
BAD-GH	M-1132	BB1-5-382
BAD-GK	M-1133	BB1-5-38
BAD-GM	M-1134	BB1-5-384
EPC-JE	M-1247	BB2-4-121
EPC-EE	M-1234	BB2-4-141
EPC-EG	M-1236	BB2-4-14112
EPC-EF	M-1235	BB2-4-14114
EPC-EH	M-1237	BB2-4-142
EPC-EJ	M-6352	BB2-4-14212
EPC-CE	M-1230	BB2-4-181
EPC-CG	M-6347	BB2-4-18112
EPC-CH	M-1231	BB2-4-182
EPC-CK	M-6348	BB2-4-183
EPD-CM	M-6351	BB2-4-184
EPC-DE	M-1232	BB2-4-3161
EPC-DH	M-1233	BB2-4-3162
EPC-GE	M-1242	BB2-4-381
EPC-GG	M-1243	BB2-4-38112
EPD-JH	M-1248	BB2-5-122
EPD-EK	M-1238	BB2-5-143
EPD-EM	M-1239	BB2-5-144
EPD-GH	M-1244	BB2-5-382
EPD-GK	M-1245	BB2-5-383
EPD-GM	M-1246	BB2-5-384
BQC-EEEE	M-1102	BB3-4-141
BQC-EGEG	M-1104	BB3-4-14112
BQC-EFEF	M-1103	BB3-4-14114
BQC-CECE	M-1098	BB3-4-181
BQC-CHCH	M-1099	BB3-4-182
BQC-DEDE	M-1100	BB3-4-3161
BQC-DHDH	M-1101	BB3-4-3162
BQC-GEGE	M-1108	BB3-4-381
BQD-JEJE	M-1113	BB3-5-121

Cadweld is a trademark of Erico International Corporation.

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CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
BQD-JHJH	M-1114	BB3-5-122
BQD-EHEH	M-1105	BB3-5-142
BQD-GGGG	M-1109	BB3-5-38112
BQD-GHGH	M-1110	BB3-5-382
BQF-EKEK	M-1106	BB3-6-143
BQF-GK GK	M-1111	BB3-6-383
BWC-JE	M-1051	BS1-4-121
BWC-EE	M-1045	BS1-4-141
BWC-EG	M-1047	BS1-4-14112
BWC-EF	M-1046	BS1-4-14114
BWC-CE	M-1043	BS1-4-181
BWC-CG	M-6354	BS1-4-18112
BWC-CH	M-1044	BS1-4-182
BWC-DE	M-6056	BS1-4-3161
BWC-DG	M-6355	BS1-4-316112
BWC-DH	M-6356	BS1-4-3162
BWC-GE	M-1049	BS1-4-381
BWC-GG	M-6357	BS1-4-38112
BWD-JG	M-6358	BS1-5-12112
BWD-JH	M-1052	BS1-5-122
BWD-EH	M-1048	BS1-5-142
BWD-GH	M-1050	BS1-5-382
CGC-JE	M-1084	BS2-4-121
CGC-EE	M-1077	BS2-4-141
CGC-EG	M-1079	BS2-4-14112
CGC-EF	M-1078	BS2-4-14114
CGC-CE	M-1072	BS2-4-181
CGC-CG	M-1073	BS2-4-18112
CGC-CH	M-1074	BS2-4-182
CGC-DE	M-1075	BS2-4-3161
CGC-DG	M-6359	BS2-4-316112
CGC-DH	M-1076	BS2-4-3162
CGC-GE	M-1081	BS2-4-381
CGC-GG	M-1082	BS2-4-38112
CGD-JG	M-1085	BS2-5-12112
CGD-JH	M-1086	BS2-5-122
CGD-EH	M-1080	BS2-5-142
CGD-GH	M-1083	BS2-5-382
CHC-JE	M-1095	BS3-4-121
CHC-EE	M-1090	BS3-4-141
CHC-EG	M-1092	BS3-4-14112
CHC-EF	M-1091	BS3-4-14114
CHC-CE	M-1088	BS3-4-181
CHC-CG	M-1089	BS3-4-18112
CHC-DE	M-6353	BS3-4-3161
CHC-DG	M-7163	BS3-4-316112
CHC-GE	M-1093	BS3-4-381
CHC-GG	M-1094	BS3-4-38112
CHD-JG	M-1096	BS3-5-12112
CCC-JE	M-1060	BS4-4-121
CCC-EE	M-1056	BS4-4-141





CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
CCC-EG	M-6369	<b>BS4-4-14112</b>
CCC-EF	M-5566	<b>BS4-4-14114</b>
CCC-CE	M-1054	<b>BS4-4-181</b>
CCC-CG	M-6360	<b>BS4-4-18112</b>
CCC-CH	M-1055	<b>BS4-4-182</b>
CCC-DE	M-6361	<b>BS4-4-3161</b>
CCC-DG	M-6362	<b>BS4-4-316112</b>
CCC-DH	M-6367	<b>BS4-4-3162</b>
CCC-GE	M-1058	<b>BS4-4-381</b>
CCC-GG	M-6370	<b>BS4-4-38112</b>
CCD-JG	M-6372	<b>BS4-5-12112</b>
CCD-JH	M-1061	<b>BS4-5-122</b>
CCD-EH	M-1057	<b>BS4-5-142</b>
CCD-GH	M-1059	<b>BS4-5-382</b>
CFC-JE	M-1069	<b>BS5-4-121</b>
CFC-EE	M-1065	<b>BS5-4-141</b>
CFC-EG	M-6379	<b>BS5-4-14112</b>
CFC-EF	M-6377	<b>BS5-4-14114</b>
CFC-CE	M-1063	<b>BS5-4-181</b>
CFC-CF	M-6373	<b>BS5-4-18112</b>
CFC-CH	M-1064	<b>BS5-4-182</b>
CFC-DE	M-6374	<b>BS5-4-3161</b>
CFC-DG	M-6375	<b>BS5-4-316112</b>
CFC-DH	M-6376	<b>BS5-4-3162</b>
CFC-GE	M-1067	<b>BS5-4-381</b>
CFC-GG	M-6382	<b>BS5-4-38112</b>
CFD-JG	M-6383	<b>BS5-5-12112</b>
CFD-JH	M-1070	<b>BS5-5-122</b>
CFD-EH	M-1066	<b>BS5-5-142</b>
CFD-GH	M-1068	<b>BS5-5-382</b>
LAC-1YCE	M-977	<b>CB1-4-#1181</b>
LAC-1VCE	M-975	<b>CB1-4-#2181</b>
LAC-1TCE	—	<b>CB1-4-#2S181</b>
LAC-1LCE	M-971	<b>CB1-4-#4181</b>
LAC-2CEE	M-979	<b>CB1-4-1/0141</b>
LAC-2CCE	M-978	<b>CB1-4-1/0181</b>
LAC-2CDE	M-6075	<b>CB1-4-1/03161</b>
LAC-2GEE	M-981	<b>CB1-4-2/0141</b>
LAC-2GCE	M-980	<b>CB1-4-2/0181</b>
LAC-2GDE	M-6579	<b>CB1-4-2/03161</b>
LAC-2VEE	M-988	<b>CB1-4-250K141</b>
LAC-2VEG	M-990	<b>CB1-4-250K14112</b>
LAC-2VEH	M-8784	<b>CB1-4-250K142</b>
LAC-2VEK	M-1916	<b>CB1-4-250K143</b>
LAC-2VDE	M-8277	<b>CB1-4-250K3161</b>
LAC-2LEE	M-983	<b>CB1-4-3/0141</b>
LAC-2LCE	M-6284	<b>CB1-4-3/0181</b>
LAC-2LDE	M-982	<b>CB1-4-3/03161</b>
LAC-3AEE	M-991	<b>CB1-4-300K141</b>
LAC-3AEG	M-993	<b>CB1-4-300K14112</b>
LAC-3AEH	M-6288	<b>CB1-4-300K142</b>

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CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
LAC-3AEK	M-1917	<b>CB1-4-300K143</b>
LAC-3DEE	M-994	<b>CB1-4-350K141</b>
LAC-3DEG	M-996	<b>CB1-4-350K14112</b>
LAC-3DEH	M-6289	<b>CB1-4-350K142</b>
LAC-3DEK	M-1918	<b>CB1-4-350K143</b>
LAC-2QEE	M-985	<b>CB1-4-4/0141</b>
LAC-2QEG	M-987	<b>CB1-4-4/014112</b>
LAC-2QEH	M-5657	<b>CB1-4-4/0142</b>
LAC-2QEK	M-1915	<b>CB1-4-4/0143</b>
LAC-2QDE	M-984	<b>CB1-4-4/03161</b>
LAC-3QEG	M-1001	<b>CB1-4-500K14112</b>
LAC-3QEH	M-1002	<b>CB1-4-500K142</b>
LAC-3QEK	M-1920	<b>CB1-4-500K143</b>
LAC-3QGG	M-1004	<b>CB1-4-500K38112</b>
LAD-4YJH	M-1011	<b>CB1-5-1000K122</b>
LAD-4YJK	M-6295	<b>CB1-5-1000K123</b>
LAD-4YKE	M-6292	<b>CB1-5-1000K143</b>
LAD-4YGH	M-1009	<b>CB1-5-1000K382</b>
LAD-4YGK	M-1922	<b>CB1-5-1000K383</b>
LAD-4LEH	M-1006	<b>CB1-5-750K142</b>
LAD-4LEK	M-1921	<b>CB1-5-750K143</b>
LAD-4LGG	M-1007	<b>CB1-5-750K38112</b>
LAD-4LGH	M-1008	<b>CB1-5-750K382</b>
LAD-4LGK	M-6291	<b>CB1-5-750K383</b>
LQJ-JH1Y	—	<b>CB29-10-#1122</b>
LQJ-EH1Y	—	<b>CB29-10-#1142</b>
LQJ-GH1Y	—	<b>CB29-10-#1382</b>
LQJ-JH1V	—	<b>CB29-10-#2122</b>
LQJ-JH1T	—	<b>CB29-10-#2S122</b>
LQJ-JH2C	—	<b>CB29-10-1/0122</b>
LQJ-EH2C	—	<b>CB29-10-1/0142</b>
LQJ-GH2C	—	<b>CB29-10-1/0382</b>
LQJ-JH2G	—	<b>CB29-10-2/0122</b>
LQJ-EH2G	—	<b>CB29-10-2/0142</b>
LQJ-GH2G	—	<b>CB29-10-2/0382</b>
LQJ-JH2V	—	<b>CB29-10-250K122</b>
LQJ-EH2V	—	<b>CB29-10-250K142</b>
LQJ-GH2V	—	<b>CB29-10-250K382</b>
LQJ-JH2Q	—	<b>CB29-10-4/0122</b>
LQJ-EH2Q	—	<b>CB29-10-4/0142</b>
LQJ-GH2Q	—	<b>CB29-10-4/0382</b>
LQJ-JH3Q	—	<b>CB29-10-500K122</b>
LQJ-EH3Q	—	<b>CB29-10-500K142</b>
LQJ-GH3Q	—	<b>CB29-10-500K382</b>
LQJ-JH4L	—	<b>CB29-10-750K122</b>
LQJ-EH4L	—	<b>CB29-10-750K142</b>
LQJ-GH4L	—	<b>CB29-10-750K382</b>
LQE-EH1V	—	<b>CB29-9-#2142</b>
LQE-GH1V	—	<b>CB29-9-#2382</b>
LQE-EH1T	—	<b>CB29-9-#2S142</b>
LQE-GH1T	—	<b>CB29-9-#2S382</b>

CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
LJC-JG1V	—	CB4-4-#212112
LJC-EG1V	—	CB4-4-#214112
LJC-GG1V	—	CB4-4-#238112
LJC-JG1T	—	CB4-4-#2S12112
LJC-EG1T	—	CB4-4-#2S14112
LJC-GG1T	—	CB4-4-#2S38112
LJC-JG2C	M-1671	CB4-4-1/012112
LJC-EG2C	M-1651	CB4-4-1/014112
LJC-GG2C	M-1660	CB4-4-1/038112
LJC-JG2G	M-1672	CB4-4-2/012112
LJC-EG2G	M-1652	CB4-4-2/014112
LJC-GG2G	M-1661	CB4-4-2/038112
LJC-JG2V	M-1675	CB4-4-250K12112
LJC-EG2V	M-1655	CB4-4-250K14112
LJC-GG2V	M-1664	CB4-4-250K38112
LJC-JG2L	M-1673	CB4-4-3/012112
LJC-EG2L	M-1653	CB4-4-3/014112
LJC-GG2L	M-1662	CB4-4-3/038112
LJC-JG3A	M-1676	CB4-4-300K12112
LJC-EG3A	M-1656	CB4-4-300K14112
LJC-GG3A	M-1665	CB4-4-300K38112
LJC-JG3D	M-1677	CB4-4-350K12112
LJC-EG3D	M-1657	CB4-4-350K14112
LJC-GG3D	M-1666	CB4-4-350K38112
LJC-JG2Q	M-1674	CB4-4-4/012112
LJC-EG2Q	M-1654	CB4-4-4/014112
LJC-GG2Q	M-1663	CB4-4-4/038112
LJC-EG3Q	M-1659	CB4-4-500K14112
LJC-GG3Q	M-1668	CB4-4-500K38112
LJD-JG4Y	M-1681	CB4-5-1000K12112
LJD-GG4Y	M-1670	CB4-5-1000K38112
LJD-JG3Q	M-1679	CB4-5-500K12112
LJD-JG4L	M-1680	CB4-5-750K12112
LJD-GG4L	M-1669	CB4-5-750K38112
XBC-1Y1Y	M-2691	CC11-7-#1#1
XBC-1Y1V	M-2692	CC11-7-#1#2
XBC-1Y1L	M-2693	CC11-7-#1#4
XBC-1V1V	M-2689	CC11-7-#2#2
XBC-1V1L	M-2690	CC11-7-#2#4
XBC-1T1T	M-2689-S	CC11-7-#2S#2S
XBC-1L1L	M-2687	CC11-7-#4#4
XBP-1H1H	M-5432	CC11-7-#6#6
XBP-1G1G	M-5432-S	CC11-7-#6S#6S
XBM-2C1Y	M-2695	CC11-7-1/0#1
XBM-2C1V	M-2696	CC11-7-1/0#2
XBM-2C1L	M-2697	CC11-7-1/0#4
XBM-2C2C	M-2694	CC11-7-1/01/0
XBM-2G1Y	M-2700	CC11-7-2/0#1
XBM-2G1V	M-2701	CC11-7-2/0#2
XBM-2G2C	M-2699	CC11-7-2/01/0
XBM-2G2G	M-2698	CC11-7-2/02/0

CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
XBM-2V1Y	M-2718	CC11-7-250K#1
XBM-2V1V	M-2719	CC11-7-250K#2
XBM-2V2C	M-2717	CC11-7-250K1/0
XBM-2V2G	M-2716	CC11-7-250K2/0
XBM-2V2V	M-2713	CC11-7-250K250K
XBM-2V2L	M-2715	CC11-7-250K3/0
XBM-2V2Q	M-2714	CC11-7-250K4/0
XBM-2L1Y	M-2705	CC11-7-3/0#1
XBM-2L1V	M-2706	CC11-7-3/0#2
XBM-2L2C	M-2704	CC11-7-3/01/0
XBM-2L2G	M-2703	CC11-7-3/02/0
XBM-2L2L	M-2702	CC11-7-3/03/0
XBM-3A1Y	M-2726	CC11-7-300K#1
XBM-3A1V	M-2727	CC11-7-300K#2
XBM-3A2C	M-2725	CC11-7-300K1/0
XBM-3A2G	M-2724	CC11-7-300K2/0
XBM-3A2L	M-2723	CC11-7-300K3/0
XBM-3A2Q	M-2722	CC11-7-300K4/0
XBM-3D1Y	M-2735	CC11-7-350K#1
XBM-3D1V	M-2736	CC11-7-350K#2
XBM-3D2C	M-2734	CC11-7-350K1/0
XBM-3D2G	M-2733	CC11-7-350K2/0
XBM-2Q1Y	M-2711	CC11-7-4/0#1
XBM-2Q1V	M-2712	CC11-7-4/0#2
XBM-2Q2C	M-2710	CC11-7-4/01/0
XBM-2Q2G	M-2709	CC11-7-4/02/0
XBM-2Q2L	M-2708	CC11-7-4/03/0
XBM-2Q2Q	M-2707	CC11-7-4/04/0
XBM-3Q2C	M-2755	CC11-7-500K1/0
XBV-3A2V	M-2721	CC11-8-300K250K
XBV-3A3A	M-2720	CC11-8-300K300K
XBV-3D2V	M-2730	CC11-8-350K250K
XBV-3D2L	M-2732	CC11-8-350K3/0
XBV-3D3A	M-2729	CC11-8-350K300K
XBV-3D3D	M-2728	CC11-8-350K350K
XBV-3D2Q	M-2731	CC11-8-350K4/0
XBV-3Q2G	M-2754	CC11-8-500K2/0
XBV-3Q2V	M-2751	CC11-8-500K250K
XBV-3Q2L	M-2753	CC11-8-500K3/0
XBV-3Q3A	M-2750	CC11-8-500K300K
XBV-3Q3D	M-2749	CC11-8-500K350K
XBV-3Q2Q	M-2752	CC11-8-500K4/0
XBV-3Q3Q	M-2747	CC11-8-500K500K
SST-1Y	M-5626	CC1-3-#1
SST-1X	M-5626-S	CC1-3-#1S
SST-1V	M-5625	CC1-3-#2
SST-1T	M-5625-S	CC1-3-#2S
SST-1Q	M-5624	CC1-3-#3
—	—	CC1-4-#2
SSC-2C	M-205	CC1-4-1/0
SSC-2B	M-205-S	CC1-4-1/0S

Cadweld is a trademark of Erico International Corporation.

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CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
SSC-2G	M-206	CC1-4-2/0
SSC-2V	M-209	CC1-4-250K
SSC-2L	M-207	CC1-4-3/0
SSC-3A	M-210	CC1-4-300K
SSC-3D	M-211	CC1-4-350K
SSC-2Q	M-208	CC1-4-4/0
SSC-2P	M-208-S	CC1-4-4/0S
SSC-3Q	M-213	CC1-4-500K
SSD-4Y	M-215	CC1-5-1000K
SSD-4L	M-214	CC1-5-750K
TAC-1Y1Y	M-225	CC2-4-#1#1
TAC-1Y1V	M-226	CC2-4-#1#2
TAC-1Y1T	M-5879	CC2-4-#1#2S
TAC-1Y1L	M-227	CC2-4-#1#4
TAC-1V1V	M-223	CC2-4-#2#2
TAC-1V1T	M-5869	CC2-4-#2#2S
TAC-1T1L	M-224	CC2-4-#2#4
TAC-1V1L	M-5859	CC2-4-#2#4
TAC-1T1V	M-5856	CC2-4-#2S#2
TAC-1T1T	M-223-S	CC2-4-#2S#2S
TAC-1L1L	M-221	CC2-4-#4#4
TAC-2C1Y	M-229	CC2-4-1/0#1
TAC-2C1V	M-230	CC2-4-1/0#2
TAC-2C1T	M-5311	CC2-4-1/0#2S
TAC-2C1L	M-231	CC2-4-1/0#4
TAC-2C2C	M-228	CC2-4-1/01/0
TAC-4Y2C	M-308	CC2-4-1000K1/0
TAC-4Y2G	M-307	CC2-4-1000K2/0
TAC-4Y2V	M-305	CC2-4-1000K250K
TAC-4Y3A	M-304	CC2-4-1000K300K
TAC-4Y3D	M-303	CC2-4-1000K350K
TAC-4Y2Q	M-306	CC2-4-1000K4/0
TAC-2G1Y	M-234	CC2-4-2/0#1
TAC-2G1V	M-235	CC2-4-2/0#2
TAC-2G1T	M-8093	CC2-4-2/0#2S
TAC-2G1L	M-5475	CC2-4-2/0#4
TAC-2G2C	M-233	CC2-4-2/01/0
TAC-2G2G	M-232	CC2-4-2/02/0
TAC-2V1Y	M-252	CC2-4-250K#1
TAC-2V1V	M-253	CC2-4-250K#2
TAC-2V1T	M-5889	CC2-4-250K#2S
TAC-2V1L	M-5425	CC2-4-250K#4
TAC-2V2C	M-251	CC2-4-250K1/0
TAC-2V2G	M-250	CC2-4-250K2/0
TAC-2V2V	M-247	CC2-4-250K250K
TAC-2V2L	M-249	CC2-4-250K3/0
TAC-2V2Q	M-248	CC2-4-250K4/0
TAC-2L1Y	M-239	CC2-4-3/0#1
TAC-2L1V	M-240	CC2-4-3/0#2
TAC-2L1T	M-5884	CC2-4-3/0#2S
TAC-2L1L	M-5574	CC2-4-3/0#4

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CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
TAC-2L2C	M-238	CC2-4-3/01/0
TAC-2L2G	M-237	CC2-4-3/02/0
TAC-2L2L	M-236	CC2-4-3/03/0
TAC-3A1Y	M-260	CC2-4-300K#1
TAC-3A1V	M-261	CC2-4-300K#2
TAC-3A1T	M-5903	CC2-4-300K#2S
TAC-3A1L	M-6397	CC2-4-300K#4
TAC-3A2C	M-259	CC2-4-300K1/0
TAC-3A2G	M-258	CC2-4-300K2/0
TAC-3A2V	M-255	CC2-4-300K250K
TAC-3A2L	M-257	CC2-4-300K3/0
TAC-3A3A	M-254	CC2-4-300K300K
TAC-3A2Q	M-256	CC2-4-300K4/0
TAC-3D1Y	M-269	CC2-4-350K#1
TAC-3D1V	M-270	CC2-4-350K#2
TAC-3D1L	M-6398	CC2-4-350K#4
TAC-3D2C	M-268	CC2-4-350K1/0
TAC-3D2G	M-267	CC2-4-350K2/0
TAC-3D2V	M-264	CC2-4-350K250K
TAC-3D2L	M-266	CC2-4-350K3/0
TAC-3D3A	M-263	CC2-4-350K300K
TAC-3D3D	M-262	CC2-4-350K350K
TAC-3D2Q	M-265	CC2-4-350K4/0
TAC-2Q1Y	M-245	CC2-4-4/0#1
TAC-2Q1V	M-246	CC2-4-4/0#2
TAC-2Q1T	M-5348	CC2-4-4/0#2S
TAC-2Q1L	M-5021	CC2-4-4/0#4
TAC-2Q2C	M-244	CC2-4-4/01/0
TAC-2Q2G	M-243	CC2-4-4/02/0
TAC-2Q2L	M-242	CC2-4-4/03/0
TAC-2Q2Q	M-241	CC2-4-4/04/0
TAC-3Q1Y	M-288	CC2-4-500K#1
TAC-3Q1V	M-289	CC2-4-500K#2
TAC-3Q1L	M-8113	CC2-4-500K#4
TAC-3Q2C	M-287	CC2-4-500K1/0
TAC-3Q2G	M-286	CC2-4-500K2/0
TAC-3Q2V	M-284	CC2-4-500K250K
TAC-3Q3A	M-283	CC2-4-500K300K
TAC-3Q3D	M-282	CC2-4-500K350K
TAC-3Q2Q	M-285	CC2-4-500K4/0
TAC-3Q3Q	M-280	CC2-4-500K500K
TAC-4L2C	M-298	CC2-4-750K1/0
TAC-4L2G	M-297	CC2-4-750K2/0
TAC-4L2V	M-295	CC2-4-750K250K
TAC-4L3A	M-294	CC2-4-750K300K
TAC-4L3D	M-293	CC2-4-750K350K
TAC-4L2Q	M-296	CC2-4-750K4/0
TAD-4Y4Y	M-299	CC2-5-1000K1000K
TAD-4Y3Q	M-301	CC2-5-1000K500K
TAD-4Y4L	M-300	CC2-5-1000K750K
TAD-4L3Q	M-291	CC2-5-750K500K

CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
TAD-4L4L	M-290	CC2-5-750K750K
—	—	CC2HD-4-4/04/0
XAC-1Y1Y	M-427	CC4-4-#1#1
XAC-1Y1V	M-428	CC4-4-#1#2
XAC-1Y1L	M-429	CC4-4-#1#4
XAC-1V1V	—	CC4-4-#2#2
XAC-1V1L	—	CC4-4-#2#4
XAC-1T1T	—	CC4-4-#2S#2S
XAC-1L1L	—	CC4-4-#4#4
XAC-2C1Y	M-431	CC4-4-1/0#1
XAC-2C1V	M-432	CC4-4-1/0#2
XAC-2C1L	M-433	CC4-4-1/0#4
XAC-2C2C	M-430	CC4-4-1/01/0
XAC-2G1Y	M-436	CC4-4-2/0#1
XAC-2G1V	M-437	CC4-4-2/0#2
XAC-2G2C	M-435	CC4-4-2/01/0
XAC-2G2G	M-434	CC4-4-2/02/0
XAC-2V1Y	M-454	CC4-4-250K#1
XAC-2V1V	M-455	CC4-4-250K#2
XAC-2V2C	M-453	CC4-4-250K1/0
XAC-2V2G	M-452	CC4-4-250K2/0
XAC-2V2V	M-449	CC4-4-250K250K
XAC-2V2L	M-451	CC4-4-250K3/0
XAC-2V2Q	M-450	CC4-4-250K4/0
XAC-2L1Y	M-441	CC4-4-3/0#1
XAC-2L1V	M-442	CC4-4-3/0#2
XAC-2L2C	M-440	CC4-4-3/01/0
XAC-2L2G	M-439	CC4-4-3/02/0
XAC-2L2L	M-438	CC4-4-3/03/0
XAC-3A1Y	M-462	CC4-4-300K#1
XAC-3A1V	M-463	CC4-4-300K#2
XAC-3A2C	M-461	CC4-4-300K1/0
XAC-3A2G	M-460	CC4-4-300K2/0
XAC-3A2V	M-457	CC4-4-300K250K
XAC-3A2L	M-459	CC4-4-300K3/0
XAC-3A3A	M-456	CC4-4-300K300K
XAC-3A2Q	M-458	CC4-4-300K4/0
XAC-3D1Y	M-471	CC4-4-350K#1
XAC-3D1V	M-472	CC4-4-350K#2
XAC-3D2C	M-470	CC4-4-350K1/0
XAC-3D2G	M-469	CC4-4-350K2/0
XAC-3D2V	M-466	CC4-4-350K250K
XAC-3D2L	M-468	CC4-4-350K3/0
XAC-3D3A	M-465	CC4-4-350K300K
XAC-3D3D	M-464	CC4-4-350K350K
XAC-3D2Q	M-467	CC4-4-350K4/0
XAC-2Q1Y	M-447	CC4-4-4/0#1
XAC-2Q1V	M-448	CC4-4-4/0#2
XAC-2Q2C	M-446	CC4-4-4/01/0
XAC-2Q2G	M-445	CC4-4-4/02/0
XAC-2Q2L	M-444	CC4-4-4/03/0

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CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
XAC-2Q2Q	M-443	CC4-4-4/04/0
XAC-3Q2C	M-491	CC4-4-500K1/0
XAC-3Q2G	M-490	CC4-4-500K2/0
XAD-3Q2V	M-487	CC4-5-500K250K
XAD-3Q2L	M-489	CC4-5-500K3/0
XAD-3Q3A	M-486	CC4-5-500K300K
XAD-3Q3D	M-485	CC4-5-500K350K
XAD-3Q2Q	M-488	CC4-5-500K4/0
XAD-3Q3Q	M-483	CC4-5-500K500K
PCC-1Y1V	M-1282	CC6-4-#1#2
PCC-1Y1L	M-1283	CC6-4-#1#4
PCC-1Y1H	M-1284	CC6-4-#1#6
PCC-1Y1G	M-1285	CC6-4-#1#6S
PCC-1Y1D	M-1286	CC6-4-#1#8S
PCC-1V1V	M-1276	CC6-4-#2#2
PCC-1V1L	M-1277	CC6-4-#2#4
PCC-1V1H	M-1278	CC6-4-#2#6
PCC-1V1G	M-1279	CC6-4-#2#6S
PCC-1V1D	M-1280	CC6-4-#2#8S
PCC-1T1V	—	CC6-4-#2S#2
PCC-1T1T	—	CC6-4-#2S#2S
PCC-1T1H	—	CC6-4-#2S#6
PCC-1T1G	—	CC6-4-#2S#6S
PCC-1T2C	—	CC6-4-#2S1/0
PCC-1T2G	—	CC6-4-#2S2/0
PCC-1L1L	—	CC6-4-#4#4
PCC-1L1H	—	CC6-4-#4#6
PCC-1L1G	—	CC6-4-#4#6S
PCC-1L1D	—	CC6-4-#4#8S
PCC-2C1V	M-1289	CC6-4-1/0#2
PCC-2C1L	M-1290	CC6-4-1/0#4
PCC-2C1H	M-1291	CC6-4-1/0#6
PCC-2C1G	M-1292	CC6-4-1/0#6S
PCC-2C1D	M-1293	CC6-4-1/0#8S
PCC-2G1V	M-1297	CC6-4-2/0#2
PCC-2G1L	M-1298	CC6-4-2/0#4
PCC-2G1H	M-1299	CC6-4-2/0#6
PCC-2G1G	M-1300	CC6-4-2/0#6S
PCC-2G1D	M-1301	CC6-4-2/0#8S
—	—	CC6-4-2/02/0
PCC-2Q1Y	M-1305	CC6-4-4/0#1
PCC-2Q1V	M-1306	CC6-4-4/0#2
PCC-2Q1L	M-1307	CC6-4-4/0#4
PCC-2Q1H	M-1308	CC6-4-4/0#6
PCC-2Q1G	M-1309	CC6-4-4/0#6S
PCC-2Q1D	M-1310	CC6-4-4/0#8S
—	—	CC6-4-4/02/0
—	—	CC6-4-4/04/0
PTC-1Y1Y	M-1315	CC7-4-#1#1
PTC-1Y1X	M-6013	CC7-4-#1#1S
PTC-1Y1V	M-1316	CC7-4-#1#2



CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
PTC-1Y1T	M-6017	CC7-4-#1#2S
PTC-1Y1L	M-1317	CC7-4-#1#4
PTC-1Y1H	M-5636	CC7-4-#1#6
PTC-1Y1G	M-5637	CC7-4-#1#6S
PTC-1Y1E	M-5638	CC7-4-#1#8
PTC-1Y1D	M-5639	CC7-4-#1#8S
PTC-1X1Y	M-5998	CC7-4-#1S#1
PTC-1X1V	M-6001	CC7-4-#1S#2
PTC-1X1T	M-1316-S	CC7-4-#1S#2S
PTC-1X1L	M-6008	CC7-4-#1S#4
PTC-1X1H	M-6010	CC7-4-#1S#6
PTC-1X1G	M-5636-S	CC7-4-#1S#6S
PTC-1X1E	M-6012	CC7-4-#1S#8
PTC-1X1D	M-5638-S	CC7-4-#1S#8S
PTC-1V1V	M-1313	CC7-4-#2#2
PTC-1V1L	M-1314	CC7-4-#2#4
PTC-1V1H	M-5631	CC7-4-#2#6
PTC-1V1G	M-5632	CC7-4-#2#6S
PTC-1V1E	M-5634	CC7-4-#2#8
PTC-1V1D	M-5635	CC7-4-#2#8S
PTC-1T1V	M-5973	CC7-4-#2S#2
PTC-1T1T	M-1313-S	CC7-4-#2S#2S
PTC-1T1L	M-5987	CC7-4-#2S#4
PTC-1T1H	M-5989	CC7-4-#2S#6
PTC-1T1G	M-5631-S	CC7-4-#2S#6S
PTC-1T1E	M-5993	CC7-4-#2S#8
PTC-1T1D	M-5634-S	CC7-4-#2S#8S
PTC-1L1L	M-1311	CC7-4-#4#4
PTC-1L1H	M-5627	CC7-4-#4#6
PTC-1L1G	M-8882	CC7-4-#4#6S
PTC-1L1E	M-5629	CC7-4-#4#8
PTC-1L1D	M-5630	CC7-4-#4#8S
PTC-2C1Y	M-1319	CC7-4-1/0#1
PTC-2C1X	M-6036	CC7-4-1/0#1S
PTC-2C1V	M-1320	CC7-4-1/0#2
PTC-2C1T	M-6044	CC7-4-1/0#2S
PTC-2C1L	M-1321	CC7-4-1/0#4
PTC-2C1H	M-5642	CC7-4-1/0#6
PTC-2C1G	M-1208	CC7-4-1/0#6S
PTC-2C1E	M-5644	CC7-4-1/0#8
PTC-2C1D	M-5645	CC7-4-1/0#8S
PTC-2C2C	M-1318	CC7-4-1/01/0
PTC-2C2B	M-6035	CC7-4-1/01/0S
PTC-2B1Y	M-6019	CC7-4-1/0S#1
PTC-2B1X	M-1319-S	CC7-4-1/0S#1S
PTC-2B1V	M-6023	CC7-4-1/0S#2
PTC-2B1T	M-1320-S	CC7-4-1/0S#2S
PTC-2B1L	M-6026	CC7-4-1/0S#4
PTC-2B1H	M-6806	CC7-4-1/0S#6
PTC-2B1G	M-5462-S	CC7-4-1/0S#6S
PTC-2B1E	M-6028	CC7-4-1/0S#8

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CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
PTC-2B1D	M-5644-S	CC7-4-1/0S#8S
PTC-2B2C	M-6227	CC7-4-1/0S1/0
PTC-2B2B	M-1318-S	CC7-4-1/0S1/0S
PTC-2G1Y	M-1324	CC7-4-2/0#1
PTC-2G1X	M-6052	CC7-4-2/0#1S
PTC-2G1V	M-1325	CC7-4-2/0#2
PTC-2G1L	M-5659	CC7-4-2/0#4
PTC-2G1H	M-5342	CC7-4-2/0#6
PTC-2G1G	M-5652	CC7-4-2/0#6S
PTC-2G1E	M-5668	CC7-4-2/0#8
PTC-2G1D	M-5943	CC7-4-2/0#8S
PTC-2G2C	M-1323	CC7-4-2/01/0
PTC-2G2B	M-6047	CC7-4-2/01/0S
PTC-2G2G	M-1322	CC7-4-2/02/0
PTC-2L1Y	M-1329	CC7-4-3/0#1
PTC-2L1X	M-6064	CC7-4-3/0#1S
PTC-2L1V	M-1330	CC7-4-3/0#2
PTC-2L1T	M-6065	CC7-4-3/0#2S
PTC-2L1L	M-6046	CC7-4-3/0#4
PTC-2L1H	M-5676	CC7-4-3/0#6
PTC-2L1G	M-5679	CC7-4-3/0#6S
PTC-2L1E	M-5680	CC7-4-3/0#8
PTC-2L1D	M-5682	CC7-4-3/0#8S
PTC-2L2C	M-1328	CC7-4-3/01/0
PTC-2L2B	M-6062	CC7-4-3/01/0S
PTC-2L2G	M-1327	CC7-4-3/02/0
PTC-2L2L	M-1326	CC7-4-3/03/0
PTC-2Q1Y	M-1335	CC7-4-4/0#1
PTC-2Q1X	M-6804	CC7-4-4/0#1S
PTC-2Q1V	M-1336	CC7-4-4/0#2
PTC-2Q1T	M-6805	CC7-4-4/0#2S
PTC-2Q1L	M-5340	CC7-4-4/0#4
PTC-2Q1H	M-5684	CC7-4-4/0#6
PTC-2Q1G	M-6552	CC7-4-4/0#6S
PTC-2Q1E	M-5686	CC7-4-4/0#8
PTC-2Q1D	M-5688	CC7-4-4/0#8S
PTC-2Q2C	M-1334	CC7-4-4/01/0
PTC-2Q2B	M-2551	CC7-4-4/01/0S
PTC-2Q2G	M-1333	CC7-4-4/02/0
PTC-2Q2L	M-1332	CC7-4-4/03/0
PTC-2Q2Q	M-1331	CC7-4-4/04/0
PTC-2Q2P	M-6803	CC7-4-4/04/0S
PTC-2P1Y	M-6089	CC7-4-4/0S#1
PTC-2P1X	M-1335-S	CC7-4-4/0S#1S
PTC-2P1V	M-6090	CC7-4-4/0S#2
PTC-2P1T	M-1336-S	CC7-4-4/0S#2S
PTC-2P1L	M-6109	CC7-4-4/0S#4
PTC-2P1H	M-6111	CC7-4-4/0S#6
PTC-2P1G	M-5684-S	CC7-4-4/0S#6S
PTC-2P1E	M-6112	CC7-4-4/0S#8
PTC-2P1D	M-5686-S	CC7-4-4/0S#8S

## Cross Reference

CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
PTC-2P2C	M-6085	CC7-4-4/OS1/0
PTC-2P2B	M-1334-S	CC7-4-4/OS1/OS
PTC-2P2G	M-6082	CC7-4-4/OS2/0
PTC-2P2L	M-6081	CC7-4-4/OS3/0
PTC-2P2Q	M-6071	CC7-4-4/OS4/0
PTC-2P2P	M-1331-S	CC7-4-4/OS4/OS
GRT-14A1V	—	CR1-3-500#2
GRT-14A1T	—	CR1-3-500#2S
GRT-14A1L	M-8403	CR1-3-500#4
GRT-14A1K	M-8403-S	CR1-3-500#4S
GRT-14A1H	M-8402	CR1-3-500#6
GRT-14A1G	M-8402-S	CR1-3-500#6S
GRT-14B1V	—	CR1-3-500L#2
GRT-14B1T	—	CR1-3-500L#2S
GRT-14B1L	M-8403-T	CR1-3-500L#4
GRT-14B1K	M-8403-ST	CR1-3-500L#4S
GRT-14B1H	M-8402-T	CR1-3-500L#6
GRT-14B1G	M-8402-ST	CR1-3-500L#6S
GRT-161L	M-8415	CR1-3-625#4
GRT-161K	M-8415-S	CR1-3-625#4S
GRT-161H	M-8414	CR1-3-625#6
GRT-161G	M-8414-S	CR1-3-625#6S
GRP-181L	M-8426	CR1-3-750#4
GRP-181K	M-8426-S	CR1-3-750#4S
GRT-181H	M-8422	CR1-3-750#6
GRT-181G	M-8422-S	CR1-3-750#6S
GRC-151Y	M-496	CR1-4-500#1
GRC-152C	M-497	CR1-4-5001/0
GRC-152B	M-497-S	CR1-4-5001/OS
GRC-152G	M-498	CR1-4-5002/0
GRC-152V	M-501	CR1-4-500250K
GRC-152L	M-499	CR1-4-5003/0
GRC-153A	M-502	CR1-4-500300K
GRC-152Q	M-500	CR1-4-5004/0
GRC-141Y	M-496-T	CR1-4-500L#1
GRC-142C	M-497-T	CR1-4-500L1/0
GRC-142B	M-497-ST	CR1-4-500L1/OS
GRC-142G	M-498-T	CR1-4-500L2/0
GRC-142V	M-501-T	CR1-4-500L250K
GRC-142L	M-499-T	CR1-4-500L3/0
GRC-143A	M-502-T	CR1-4-500L300K
GRC-142Q	M-500-T	CR1-4-500L4/0
GRC-161Y	M-504	CR1-4-625#1
GRC-161V	M-503	CR1-4-625#2
GRT-161V	—	CR1-4-625#2
GRC-161T	—	CR1-4-625#2S
GRT-161T	—	CR1-4-625#2S
GRC-162C	M-505	CR1-4-6251/0
GRC-162B	M-505-S	CR1-4-6251/OS
GRC-162G	M-506	CR1-4-6252/0
GRC-162V	M-509	CR1-4-625250K

CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
GRC-162L	M-507	CR1-4-6253/0
GRC-163A	M-510	CR1-4-625300K
GRC-163D	M-511	CR1-4-625350K
GRC-162Q	M-508	CR1-4-6254/0
GRC-163Q	M-513	CR1-4-625500K
GRC-181Y	M-514	CR1-4-750#1
GRC-181V	M-5781	CR1-4-750#2
GRC-181T	—	CR1-4-750#2S
GRC-182C	M-515	CR1-4-7501/0
GRC-182B	M-515-S	CR1-4-7501/OS
GRC-182G	M-516	CR1-4-7502/0
GRC-182V	M-519	CR1-4-750250K
GRC-182L	M-517	CR1-4-7503/0
GRC-183A	M-520	CR1-4-750300K
GRC-183D	M-521	CR1-4-750350K
GRC-182Q	M-518	CR1-4-7504/0
GRC-183Q	M-523	CR1-4-750500K
—	—	CR17-4-7504/0
GTT-14A1L	M-8435	CR2-3-500#4
GTT-14A1K	M-8435-S	CR2-3-500#4S
GTT-14A1H	M-8434	CR2-3-500#6
GTT-14A1G	M-8434-S	CR2-3-500#6S
GTT-14B1L	M-8435-T	CR2-3-500L#4
GTT-14B1K	M-8435-ST	CR2-3-500L#4S
GTT-14B1H	M-8434-T	CR2-3-500L#6
GTT-14B1G	M-8434-ST	CR2-3-500L#6S
GTT-161L	M-8442	CR2-3-625#4
GTT-161K	M-8442-S	CR2-3-625#4S
GTT-161H	M-8441	CR2-3-625#6
GTT-161G	M-8441-S	CR2-3-625#6S
GTP-181L	M-8454	CR2-3-750#4
GTP-181K	M-8454-S	CR2-3-750#4S
GTP-181H	M-8452	CR2-3-750#6
GTP-181G	M-8452-S	CR2-3-750#6S
GTC-151Y	M-538	CR2-4-500#1
GTC-151V	M-537	CR2-4-500#2
GTC-151T	—	CR2-4-500#2S
GTC-152C	M-539	CR2-4-5001/0
GTC-152B	M-539-S	CR2-4-5001/OS
GTC-152G	M-540	CR2-4-5002/0
GTC-152V	M-543	CR2-4-500250K
GTC-152L	M-541	CR2-4-5003/0
GTC-153A	M-544	CR2-4-500300K
GTC-152Q	M-542	CR2-4-5004/0
GTC-141Y	M-538-T	CR2-4-500L#1
GTC-141V	M-537-T	CR2-4-500L#2
GTC-141T	—	CR2-4-500L#2S
GTC-142C	M-539-T	CR2-4-500L1/0
GTC-142B	—	CR2-4-500L1/OS
GTC-142G	M-540-T	CR2-4-500L2/0
GTC-142V	M-543-T	CR2-4-500L250K

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Thermoweld is a trademark of Continental Industries.



CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
GTC-142L	M-541-T	CR2-4-500L3/0
GTC-143A	M-544-T	CR2-4-500L300K
GTC-142Q	M-542-T	CR2-4-500L4/0
GTC-161Y	M-546	CR2-4-625#1
GTC-161V	M-545	CR2-4-625#2
GTC-161T	—	CR2-4-625#2S
GTC-162C	M-547	CR2-4-6251/0
GTC-162B	M-547-S	CR2-4-6251/0S
GTC-162G	M-548	CR2-4-6252/0
GTC-162V	M-551	CR2-4-625250K
GTC-162L	M-549	CR2-4-6253/0
GTC-163A	M-552	CR2-4-625300K
GTC-163D	M-553	CR2-4-625350K
GTC-162Q	M-550	CR2-4-6254/0
GTC-163Q	M-555	CR2-4-625500K
GTC-181Y	M-557	CR2-4-750#1
GTC-181V	M-556	CR2-4-750#2
GTC-181T	—	CR2-4-750#2S
GTC-182C	M-558	CR2-4-7501/0
GTC-182B	M-558-S	CR2-4-7501/0S
GTC-182G	M-559	CR2-4-7502/0
GTC-182V	M-562	CR2-4-750250K
GTC-182L	M-560	CR2-4-7503/0
GTC-183A	M-563	CR2-4-750300K
GTC-183D	M-564	CR2-4-750350K
GTC-182Q	M-561	CR2-4-7504/0
GTC-183Q	M-566	CR2-4-750500K
GYJ-163Q	M-1593	CR3-10-625500K
GYJ-183D	M-1599	CR3-10-750350K
GYJ-183Q	M-1601	CR3-10-750500K
GYE-152C	M-1581	CR3-9-5001/0
GYE-152B	M-1581-S	CR3-9-5001/0S
GYE-152G	M-1582	CR3-9-5002/0
GYE-152V	M-1584	CR3-9-500250K
GYE-152L	M-6267	CR3-9-5003/0
GYE-153A	M-1585	CR3-9-500300K
GYE-152Q	M-1583	CR3-9-5004/0
GYE-142C	M-1581-T	CR3-9-500L1/0
GYE-142B	M-1581-ST	CR3-9-500L1/0S
GYE-142G	M-1582-T	CR3-9-500L2/0
GYE-142V	M-1584-T	CR3-9-500L250K
GYE-142L	M-6267-T	CR3-9-500L3/0
GYE-143A	M-1585-T	CR3-9-500L300K
GYE-142Q	M-1583-T	CR3-9-500L4/0
—	—	CR3-9-625#2
GYE-162C	M-1586	CR3-9-6251/0
GYE-162B	M-1586-S	CR3-9-6251/0S
GYE-162G	M-1587	CR3-9-6252/0
GYE-162V	M-1589	CR3-9-625250K
GYE-162L	M-8305	CR3-9-6253/0
GYE-163A	M-1590	CR3-9-625300K

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CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
GYE-163D	M-1591	CR3-9-625350K
GYE-162Q	M-1588	CR3-9-6254/0
GYE-182C	M-1594	CR3-9-7501/0
GYE-182B	M-1594-S	CR3-9-7501/0S
GYE-182G	M-1595	CR3-9-7502/0
GYE-182V	M-1597	CR3-9-750250K
GYE-182L	M-6608	CR3-9-7503/0
GYE-183A	—	CR3-9-750300K
GYE-182Q	M-1596	CR3-9-7504/0
RR	—	CRE1-3-#1Y
RR	—	CRE1-3-#1Z
RR	—	CRE1-3-#2SY
RR	—	CRE1-3-#2SZ
RR	—	CRE1-3-#2Y
RR	—	CRE1-3-#2Z
RR	—	CRE1-3-#4Y
RR	—	CRE1-3-#4Z
RR	—	CRE1-3-1/0Y
RR	—	CRE1-3-1/0Z
RR	—	CRE1-3-2/0Y
RR	—	CRE1-3-2/0Z
RR	—	CRE1-3-3/0Y
RR	—	CRE1-3-3/0Z
RR	—	CRE1-3-4/0Y
RR	—	CRE1-3-4/0Z
RRC-511Y	M-7503	CRE1-4-#13R
RRC-511V	M-7502	CRE1-4-#23R
RRC-511T	—	CRE1-4-#2S3R
RRC-511L	M-7501	CRE1-4-#43R
RRC-512C	M-7504	CRE1-4-1/03R
RRC-512G	M-7505	CRE1-4-2/03R
RRC-512L	M-7506	CRE1-4-3/03R
RRC-512Q	M-7507	CRE1-4-4/03R
RC	—	CRE3-3-#2SY
RC	—	CRE3-3-#2SZ
RC	—	CRE3-3-#2Y
RC	—	CRE3-3-#2Z
RC	—	CRE3-3-#4Y
RC	—	CRE3-3-#4Z
—	—	CRE3-3-1/0Y
—	—	CRE3-3-1/0Z
—	—	CRE3-3-2/0Y
—	—	CRE3-3-2/0Z
RC	—	CRE3-4-#1Y
RC	—	CRE3-4-#1Z
RC	—	CRE3-4-1/0Y
RC	—	CRE3-4-1/0Z
RC	—	CRE3-4-2/0Y
RC	—	CRE3-4-2/0Z
RC	—	CRE3-4-3/0Y
RC	—	CRE3-4-3/0Z

CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
RC	—	CRE3-4-4/OY
RC	—	CRE3-4-4/OZ
RD	—	CRE4-3-#1Y
RD	—	CRE4-3-#1Z
RD	—	CRE4-3-#2SY
RD	—	CRE4-3-#2SZ
RD	—	CRE4-3-#2Y
RD	—	CRE4-3-#2Z
RD	—	CRE4-3-#4Y
RD	—	CRE4-3-#4Z
RD	—	CRE4-3-1/OY
RD	—	CRE4-3-1/OZ
RD	—	CRE4-3-2/OY
RD	—	CRE4-3-2/OZ
RD	—	CRE4-3-3/OY
RD	—	CRE4-3-3/OZ
RD	—	CRE4-3-4/OY
RD	—	CRE4-3-4/OZ
RJ	—	CRE6-3-#1Y
RJ	—	CRE6-3-#1Z
RJ	—	CRE6-3-#2SY
RJ	—	CRE6-3-#2SZ
RJ	—	CRE6-3-#2Y
RJ	—	CRE6-3-#2Z
RJ	—	CRE6-3-#4Y
RJ	—	CRE6-3-#4Z
RJ	—	CRE6-4-1/OY
RJ	—	CRE6-4-1/OZ
RJ	—	CRE6-4-2/OY
RJ	—	CRE6-4-2/OZ
RJ	—	CRE6-4-3/OY
RJ	—	CRE6-4-3/OZ
RJ	—	CRE6-4-4/OY
RJ	—	CRE6-4-4/OZ
HSC-2C	M-644	CS1-4-1/0
HSD-4Y	M-654	CS1-4-1000K
HSC-2G	M-645	CS1-4-2/0
HSC-2V	M-648	CS1-4-250K
HSC-2L	M-646	CS1-4-3/0
HSC-3A	M-649	CS1-4-300K
HSC-3D	M-650	CS1-4-350K
HSC-2Q	M-647	CS1-4-4/0
HSC-3Q	M-652	CS1-4-500K
HSD-4L	M-653	CS1-4-750K
HTC-2C	M-616	CS2-4-1/0
HTC-2G	M-617	CS2-4-2/0
HTC-2V	M-620	CS2-4-250K
HTC-2L	M-618	CS2-4-3/0
HTC-3A	M-621	CS2-4-300K
HTC-3D	M-622	CS2-4-350K
HTC-2Q	M-619	CS2-4-4/0

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CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
VBC-1Y	M-5361	CS25-4-#1
VBC-1Y-V3	—	CS25-4-#1C
VBC-1Y-V5	—	CS25-4-#1D
VBC-1Y-V8	—	CS25-4-#1F
VBC-1Y-V21C	—	CS25-4-#1G
VBC-1V	M-2781	CS25-4-#2
VBC-1V-V3	—	CS25-4-#2C
VBC-1V-V5	—	CS25-4-#2D
VBC-1V-V8	—	CS25-4-#2F
VBC-1V-V21C	—	CS25-4-#2G
VBC-1T	—	CS25-4-#2S
VBC-1T-V3	—	CS25-4-#2SC
VBC-1T-V5	—	CS25-4-#2SD
VBC-1T-V8	—	CS25-4-#2SF
VBC-1T-V21	—	CS25-4-#2SG
VBC-1L	M-5359	CS25-4-#4
VBC-1L-V3	—	CS25-4-#4C
VBC-1L-V5	—	CS25-4-#4D
VBC-1L-V8	—	CS25-4-#4F
VBC-1L-V21	—	CS25-4-#4G
VBC-2C	M-2189	CS25-4-1/0
VBC-2C-V3	—	CS25-4-1/0C
VBC-2C-V5	—	CS25-4-1/0D
VBC-2C-V8	—	CS25-4-1/0F
VBC-2C-V20	—	CS25-4-1/0G
VBC-2G	M-2540	CS25-4-2/0
VBC-2G-V3	—	CS25-4-2/0C
VBC-2G-V5	—	CS25-4-2/0D
VBC-2G-V8	—	CS25-4-2/0F
VBC-2G-V20	—	CS25-4-2/0G
VBC-2V	M-8165	CS25-4-250K
VBC-2L	M-5362	CS25-4-3/0
VBC-2L-V3	—	CS25-4-3/0C
VBC-2L-V5	—	CS25-4-3/0D
VBC-2L-V8	—	CS25-4-3/0F
VBC-2L-V20	—	CS25-4-3/0G
VBC-3A	M-5363	CS25-4-300K
VBC-3D	M-9029	CS25-4-350K
VBC-2Q	M-8718	CS25-4-4/0
VBC-2Q-V3	—	CS25-4-4/0C
VBC-2Q-V5	—	CS25-4-4/0D
VBC-2Q-V8	—	CS25-4-4/0F
VBC-2Q-V20	—	CS25-4-4/0G
VBR-3Q	M-8512	CS25-4-500K
HTD-3Q	M-624	CS2-5-500K
VGC-1Y	M-6279	CS27-4-#1
VGC-1Y-V3	—	CS27-4-#1C
VGC-1Y-V5	—	CS27-4-#1D
VGC-1Y-V8	—	CS27-4-#1F
VGC-1Y-V21C	—	CS27-4-#1G
VGC-1V	M-5822	CS27-4-#2





CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
VGC-1V-V3	—	CS27-4-#2C
VGC-1V-V5	—	CS27-4-#2D
VGC-1V-V8	—	CS27-4-#2F
VGC-1V-V21C	—	CS27-4-#2G
VGC-1T	—	CS27-4-#2S
VGC-1T-V3	—	CS27-4-#2SC
VGC-1T-V5	—	CS27-4-#2SD
VGC-1T-V8	—	CS27-4-#2SF
VGC-1T-V21	—	CS27-4-#2SG
VGC-1H	M-5245	CS27-4-#4
VGC-1L	M-5816	CS27-4-#4
VGC-1L-V3	—	CS27-4-#4C
VGC-1L-V5	—	CS27-4-#4D
VGC-1L-V8	—	CS27-4-#4F
VGC-1L-V21	—	CS27-4-#4G
VGC-2C	M-1168	CS27-4-1/O
VGC-2C-V3	—	CS27-4-1/OC
VGC-2C-V5	—	CS27-4-1/OD
VGC-2C-V8	—	CS27-4-1/OF
VGC-2C-V20	—	CS27-4-1/OG
VGC-2G	M-9242	CS27-4-2/O
VGC-2G-V3	—	CS27-4-2/OC
VGC-2G-V5	—	CS27-4-2/OD
VGC-2G-V8	—	CS27-4-2/OF
VGC-2G-V20	—	CS27-4-2/OG
VGC-2V	M-2520	CS27-4-250K
VGC-2L	M-6195	CS27-4-3/O
VGC-2L-V3	—	CS27-4-3/OC
VGC-2L-V5	—	CS27-4-3/OD
VGC-2L-V8	—	CS27-4-3/OF
VGC-2L-V20	—	CS27-4-3/OG
VGC-2Q	M-2177	CS27-4-4/O
VGC-2Q-V3	—	CS27-4-4/OC
VGC-2Q-V5	—	CS27-4-4/OD
VGC-2Q-V8	—	CS27-4-4/OF
VGC-2Q-V20	—	CS27-4-4/OG
VNC-1Y	M-6060	CS31-4-#1
VGC-1Y-V3	—	CS31-4-#1C
VGC-1Y-V5	—	CS31-4-#1D
VGC-1Y-V8	—	CS31-4-#1F
VGC-1Y-V21C	—	CS31-4-#1G
VNC-1V	M-2569	CS31-4-#2
VGC-1V-V3	—	CS31-4-#2C
VGC-1V-V5	—	CS31-4-#2D
VGC-1V-V8	—	CS31-4-#2F
VGC-1V-V21C	—	CS31-4-#2G
VNC-1T	—	CS31-4-#2S
VGC-1T-V3	—	CS31-4-#2SC
VGC-1T-V5	—	CS31-4-#2SD
VGC-1T-V8	—	CS31-4-#2SF
VGC-1T-V21	—	CS31-4-#2SG

Cadweld is a trademark of Erico International Corporation.

CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
VNC-1L	M-2761	CS31-4-#4
VGC-1L-V3	—	CS31-4-#4C
VGC-1L-V5	—	CS31-4-#4D
VGC-1L-V8	—	CS31-4-#4F
VGC-1L-V21	—	CS31-4-#4G
VNC-1H	M-5910	CS31-4-#6
VNC-2C	M-5419	CS31-4-1/O
VGC-2C-V3	—	CS31-4-1/OC
VGC-2C-V5	—	CS31-4-1/OD
VGC-2C-V8	—	CS31-4-1/OF
VGC-2C-V20	—	CS31-4-1/OG
VNC-2G	M-2567	CS31-4-2/O
VGC-2G-V3	—	CS31-4-2/OC
VGC-2G-V5	—	CS31-4-2/OD
VGC-2G-V8	—	CS31-4-2/OF
VGC-2G-V20	—	CS31-4-2/OG
VNC-2V	M-2568	CS31-4-250K
VNC-2L	M-6072	CS31-4-3/O
VGC-2L-V3	—	CS31-4-3/OC
VGC-2L-V5	—	CS31-4-3/OD
VGC-2L-V8	—	CS31-4-3/OF
VGC-2L-V20	—	CS31-4-3/OG
VNC-3A	M-6061	CS31-4-300K
VNC-3D	M-6067	CS31-4-350K
VNC-2Q	M-9253	CS31-4-4/O
VGC-2Q-V3	—	CS31-4-4/OC
VGC-2Q-V5	—	CS31-4-4/OD
VGC-2Q-V8	—	CS31-4-4/OF
VGC-2Q-V20	—	CS31-4-4/OG
VNC-3Q	M-8359	CS31-4-500K
HAA-1Y-325C	M-6269	CS32-2-#1D
HAA-1Y-7C	M-6270	CS32-2-#1F
HAA-1Y-11C	M-6271	CS32-2-#1G
HAA-1V-162C	M-6016	CS32-2-#2C
HAA-1V-350C	M-2576	CS32-2-#2D
HAA-1V-7C	M-2514	CS32-2-#2F
HAA-1V-11C	M-2515	CS32-2-#2G
HAA-1T-162C	—	CS32-2-#2SC
HAA-1T-350C	—	CS32-2-#2SD
HAA-1T-7C	—	CS32-2-#2SF
HAA-1T-11C	—	CS32-2-#2SG
HAA-1L-162C	M-8014	CS32-2-#4C
HAA-1L-350C	M-8015	CS32-2-#4D
HAA-1L-7C	M-2516	CS32-2-#4F
HAA-1L-11C	M-2517	CS32-2-#4G
HAH-2C-350C	M-8504	CS32-4-1/OD
HAH-2C-8C	M-8505	CS32-4-1/OF
HAH-2C-20C	M-6272	CS32-4-1/OG
HAH-2G-350C	M-2776	CS32-4-2/OD
HAH-2G-8C	M-6273	CS32-4-2/OF
HAH-2G-20C	M-6274	CS32-4-2/OG

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CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
HAH-2L-350C	M-6275	CS32-4-3/0D
HAH-2L-8C	M-6276	CS32-4-3/0F
HAH-2L-20C	M-6278	CS32-4-3/0G
HAH-2Q-350C	M-9236	CS32-4-4/0D
HAH-2Q-8C	M-9237	CS32-4-4/0F
HAH-2Q-20C	M-9238	CS32-4-4/0G
VSC-1Y	M-589	CS3-4-#1
VSC-1Y-V3C	M-2482	CS3-4-#1C
VSC-1Y-V5C	M-2483	CS3-4-#1D
VSC-1Y-V8C	M-2484	CS3-4-#1F
VSC-1Y-V21C	M-2485	CS3-4-#1G
VSC-1V	M-588	CS3-4-#2
VSC-1V-V3C	M-9233	CS3-4-#2C
VSC-1V-V5C	M-2480	CS3-4-#2D
VSC-1V-V8C	M-2583	CS3-4-#2F
VSC-1V-V21C	M-2481	CS3-4-#2G
VSC-1T	—	CS3-4-#2S
VSC-1T-V3C	—	CS3-4-#2SC
VSC-1T-V5C	—	CS3-4-#2SD
VSC-1T-V8C	—	CS3-4-#2SF
VSC-1T-V21C	—	CS3-4-#2SG
VSC-1L	M-586	CS3-4-#4
VSC-1L-V3C	M-2476	CS3-4-#4C
VSC-1L-V5C	M-2477	CS3-4-#4D
VSC-1L-V8C	M-2478	CS3-4-#4F
VSC-1L-V21C	M-2479	CS3-4-#4G
VSC-1H	M-585	CS3-4-#6
VSC-2C	M-590	CS3-4-1/0
VSC-2C-V3C	M-2486	CS3-4-1/0C
VSC-2C-V5C	M-2487	CS3-4-1/0D
VSC-2C-V8C	M-2488	CS3-4-1/0F
VSC-2C-V21C	M-2489	CS3-4-1/0G
HCA-1Y-350C	—	CS34-2-#1D
HCA-1Y-7C	—	CS34-2-#1F
HCA-1Y-11C	—	CS34-2-#1G
HCA-1V-162C	—	CS34-2-#2C
HCA-1V-350C	—	CS34-2-#2D
HCA-1V-7C	—	CS34-2-#2F
HCA-1V-11C	—	CS34-2-#2G
HCA-1T-162C	—	CS34-2-#2SC
HCA-1T-350C	—	CS34-2-#2SD
HCA-1T-7C	—	CS34-2-#2SF
HCA-1T-11C	—	CS34-2-#2SG
HCA-1L-162C	—	CS34-2-#4C
HCA-1L-350C	—	CS34-2-#4D
HCA-1L-7C	—	CS34-2-#4F
HCA-1L-11C	—	CS34-2-#4G
VSC-2G	M-591	CS3-4-2/0
VSC-2G-V3C	M-8833	CS3-4-2/0C
VSC-2G-V5C	M-2490	CS3-4-2/0D
VSC-2G-V8C	M-2491	CS3-4-2/0F

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CADWELD CAT. NO.	THERMOWELD CAT. NO.	BLACKBURN CAT. NO.
VSC-2G-V21C	M-2492	CS3-4-2/0G
VSC-2V	M-594	CS3-4-250K
VSC-2L	M-592	CS3-4-3/0
VSC-2L-V3C	M-2493	CS3-4-3/0C
VSC-2L-V5C	M-2494	CS3-4-3/0D
VSC-2L-V8C	M-2495	CS3-4-3/0F
VSC-2L-V21C	M-2496	CS3-4-3/0G
VSC-3A	M-595	CS3-4-300K
VSC-3D	M-596	CS3-4-350K
VSC-2Q	M-593	CS3-4-4/0
VSC-2Q-V3C	M-9021	CS3-4-4/0C
VSC-2Q-V5C	M-2497	CS3-4-4/0D
VSC-2Q-V8C	M-2498	CS3-4-4/0F
VSC-2Q-V21C	M-2499	CS3-4-4/0G
HTC-2C-350C	—	CS34-4-1/0D
HTC-2C-8C	—	CS34-4-1/0F
HTC-2C-20C	—	CS34-4-1/0G
HTC-2G-350C	—	CS34-4-2/0D
HTC-2G-8C	—	CS34-4-2/0F
HTC-2G-20C	—	CS34-4-2/0G
HTC-2L-350C	—	CS34-4-3/0D
HTC-2L-8C	—	CS34-4-3/0F
HTC-2L-20C	—	CS34-4-3/0G
HTC-2Q-350C	—	CS34-4-4/0D
HTC-2Q-8C	—	CS34-4-4/0F
HTC-2Q-20C	—	CS34-4-4/0G
VSC-3Q	M-598	CS3-4-500K
VSD-4Y	M-600	CS3-5-1000K
VSD-4L	M-599	CS3-5-750K
WC-1Y	M-1219	CS4-4-#1
WC-1Y-V3	—	CS4-4-#1C
WC-1Y-V5	—	CS4-4-#1D
WC-1Y-V8	—	CS4-4-#1F
WC-1Y-V21	—	CS4-4-#1G
WC-1V	M-1218	CS4-4-#2
WC-1V-V3	—	CS4-4-#2C
WC-1V-V5	—	CS4-4-#2D
WC-1V-V8	—	CS4-4-#2F
WC-1V-V21	—	CS4-4-#2G
WC-1T	—	CS4-4-#2S
WC-1T-V3	—	CS4-4-#2SC
WC-1T-V5	—	CS4-4-#2SD
WC-1T-V8	—	CS4-4-#2SF
WC-1T-V21	—	CS4-4-#2SG
WC-1L	M-1216	CS4-4-#4
WC-1L-V3	—	CS4-4-#4C
WC-1L-V5	—	CS4-4-#4D
WC-1L-V8	—	CS4-4-#4F
WC-1L-V21	—	CS4-4-#4G
WC-1H	M-1215	CS4-4-#6
WR-2C	M-1220	CS4-5-1/0



CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
WR-2C-V3	—	CS4-5-1/OC
WR-2C-V5	—	CS4-5-1/OD
WR-2C-V8	—	CS4-5-1/OF
WR-2C-V20	—	CS4-5-1/OG
WR-2G	M-1221	CS4-5-2/O
WR-2G-V3	—	CS4-5-2/OC
WR-2G-V5	—	CS4-5-2/OD
WR-2G-V8	—	CS4-5-2/OF
WR-2G-V20	—	CS4-5-2/OG
WR-2V	M-1224	CS4-5-250K
WR-2L	M-1222	CS4-5-3/O
WR-2L-V3	—	CS4-5-3/OC
WR-2L-V5	—	CS4-5-3/OD
WR-2L-V8	—	CS4-5-3/OF
WR-2L-V20	—	CS4-5-3/OG
WR-2Q	M-1223	CS4-5-4/O
WR-2Q-V3	—	CS4-5-4/OC
WR-2Q-V5	—	CS4-5-4/OD
WR-2QV8	—	CS4-5-4/OF
WR-2Q-V20	—	CS4-5-4/OG
VFC-1Y	M-1639	CS7-4-#1
VFC-1Y-V3	—	CS7-4-#1C
VFC-1Y-V5	—	CS7-4-#1D
VFC-1Y-V8	—	CS7-4-#1F
VFC-1Y-V21	—	CS7-4-#1G
VFC-1V	M-1638	CS7-4-#2
VFC-1V-V3	—	CS7-4-#2C
VFC-1V-V5	—	CS7-4-#2D
VFC-1V-V8	—	CS7-4-#2F
VFC-1V-V21	—	CS7-4-#2G
VFC-1T	—	CS7-4-#2S
VFC-1T-V3	—	CS7-4-#2SC
VFC-1T-V5	—	CS7-4-#2SD
VFC-1T-V8	—	CS7-4-#2SF
VFC-1T-V21	—	CS7-4-#2SG
VFC-1L	M-1636	CS7-4-#4
VFC-1L-V3	—	CS7-4-#4C
VFC-1L-V5	—	CS7-4-#4D
VFC-1L-V8	—	CS7-4-#4F
VFC-1L-V21	—	CS7-4-#4G
VFC-2C	M-1640	CS7-4-1/O
VFC-2C-V3	—	CS7-4-1/OC
VFC-2C-V5	—	CS7-4-1/OD
VFC-2C-V8	—	CS7-4-1/OF
VFC-2C-V20	—	CS7-4-1/OG
VFC-2G	M-1641	CS7-4-2/O
VFC-2G-V3	—	CS7-4-2/OC
VFC-2G-V5	—	CS7-4-2/OD
VFC-2G-V8	—	CS7-4-2/OF
VFC-2G-V20	—	CS7-4-2/OG
VFR-2V	M-1644	CS7-5-250K

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CADWELD CAT. NO.	THERMOWELD CAT NO.	BLACKBURN CAT. NO.
VFR-2L	M-1642	CS7-5-3/O
VFR-2L-V3	—	CS7-5-3/OC
VFR-2L-V5	—	CS7-5-3/OD
VFR-2L-V8	—	CS7-5-3/OF
VFR-2L-V20	—	CS7-5-3/OG
VFR-3A	M-1645	CS7-5-300K
VFR-2Q	M-1643	CS7-5-4/O
VFR-2Q-V3	—	CS7-5-4/OC
VFR-2Q-V5	—	CS7-5-4/OD
VFR-2Q-V8	—	CS7-5-4/OF
VFR-2Q-V20	—	CS7-5-4/OG
VFF-3D	M-1646	CS7-6-350K
VFF-3Q	M-1648	CS7-6-500K
HAA-1Y	M-631	CS8-2-#1
HAA-1V	M-630	CS8-2-#2
HAA-1T	—	CS8-2-#2S
HAA-1L	M-629	CS8-2-#4
HAA-1H	M-628	CS8-2-#6
HCA-1Y	M-605	CS9-2-#1
HCA-1V	M-604	CS9-2-#2
HCA-1T	—	CS9-2-#2S
HCA-1L	M-603	CS9-2-#4
HCA-1H	M-602	CS9-2-#6
15	15	15BKB
25	25	25BKB
32	32	32BKB
45	45	45BKB
65	65	65BKB
90	90	90BKB
115	115	115BKB
150	150	150BKB
200	200	200BKB
250	250	250BKB
L160	40-0106-00	HCPK4
L159	40-0107-00	HCPK5
T314	38-0135-00	WWB1
T314A	38-0135-01	WRB1
T313	38-0306-00	BFC
T320	38-0309-00	FGUN
T394	38-3922-00	BCM
B136A/B	40-0319-01/3/5/6	STM1
T403	38-4129-00	MSC
B144A/B/C/E	38-4061/2/3/4-00	PACK-A

### Type CR1

GROUND ROD SIZE	CONDUCTOR SIZE		CADWELD CAT. NO. TYPE GR(CR1)	THERMOWELD CAT. NO. TYPE CR-1	BLACKBURN CAT. NO. TYPE CR1
	SOLID	STRANDED			
1/2"	6,8	8	GR1-141G	—	—
	3,4	4,6	GR1-141L	—	—
	1,2	2,3	GR1-141V	—	—
5/8"	6,8	8	GR1-161G	M-2012	SCR1-58-6808
	3,4	4,6	GR1-161L	M-2013	SCR1-58-3446
	1,2	2,3	GR1-161V	M-2014	SCR1-58-1223
	2/0,1/0	1/0,1	GR1-162C	M-2015	SCR1-58-2010
	—	2/0	GR1-162G	M-2016	SCR1-58-0020
3/4"	6,8	8	GR1-181G	M-2017	SCR1-34-6808
	3,4	4,6	GR1-181L	M-2018	SCR1-34-3446
	1,2	2,3	GR1-181V	M-2019	SCR1-34-1223
	2/0,1/0	1/0,1	GR1-182C	M-2020	SCR1-34-2010
	—	2/0	GR1-182G	M-2021	SCR1-34-0020
	—	4/0	GR1-182Q	—	SCR1-34-0040

### Type CR2

GROUND ROD SIZE	CONDUCTOR SIZE		CADWELD CAT. NO. TYPE GT(CR2)	THERMOWELD CAT. NO. TYPE CR-2	BLACKBURN CAT. NO. TYPE CR2
	SOLID	STRANDED			
1/2"	6,8	8	GT1-141G	—	—
	3,4	4,6	GT1-141L	—	—
	1,2	2,3	GT1-141V	—	—
5/8"	6,8	8	GT1-161G	M-2027	SCR2-58-6808
	3,4	4,6	GT1-161L	M-2028	SCR2-58-3446
	1,2	2,3	GT1-161V	M-2029	SCR2-58-1223
	2/0,1/0	1/0,1	GT1-162C	M-2030	SCR2-58-2010
	—	2/0	—	—	SCR2-58-0020*
3/4"	6,8	8	GT1-181G	M-2031	SCR2-34-6808
	3,4	4,6	GT1-181L	M-2032	SCR2-34-3446
	1,2	2,3	GT1-181V	M-2033	SCR2-34-1223
	2/0,1/0	1/0,1	GT1-182C	M-2034	SCR2-34-2010
	—	2/0	—	—	SCR2-34-0020*
	—	4/0	—	—	SCR2-34-0040*

\* Future Development

### Type CR17

GROUND ROD SIZE	CONDUCTOR SIZE		CADWELD CAT. NO. TYPE NT(CR17)	THERMOWELD CAT. NO. —	BLACKBURN CAT. NO. TYPE CR17
	SOLID	STRANDED			
1/2"	6,8	8	NT1-141G	—	—
	3,4	4,6	NT1-141L	—	—
	1,2	2,3	—	—	—
5/8"	6,8	8	NT1-161G	—	SCR17-58-6808
	3,4	4,6	NT1-161L	—	SCR17-58-3446
	1,2	2,3	NT1-161V	—	SCR17-58-1223
	2/0,1/0	1/0,1	—	—	SCR17-58-2010*
	—	2/0	—	—	SCR17-58-0020*
3/4"	6,8	8	NT1-181G	—	SCR17-34-6808
	3,4	4,6	NT1-181L	—	SCR17-34-3446
	1,2	2,3	NT1-181V	—	SCR17-34-1223
	2/0,1/0	1/0,1	—	—	SCR17-34-2010*
	—	2/0	—	—	SCR17-34-0020*
	—	4/0	—	—	SCR17-34-0040*

\* Future Development

Cadweld is a trademark of Erico International Corporation.

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### Type CR24

GROUND ROD SIZE	CONDUCTOR SIZE		CADWELD CAT. NO. TYPE NX(CR24)	THERMOWELD CAT. NO. —	BLACKBURN CAT. NO. TYPE CR24
	SOLID	STRANDED			
½"	6,8	8	NX1-141G	—	—
	3,4	4,6	NX1-141L	—	—
	1,2	2,3	—	—	—
¾"	6,8	8	NX1-161G	—	SCR24-58-6808
	3,4	4,6	NX1-161L	—	SCR24-58-3446
	1,2	2,3	NX1-161V	—	SCR24-58-1223
	2/0,1/0	1/0,1	—	—	SCR24-58-2010*
	—	2/0	—	—	SCR24-58-0020*
¾"	—	4/0	—	—	SCR24-34-0040*
	6,8	8	NX1-181G	—	SCR24-34-6808
	3,4	4,6	NX1-181L	—	SCR24-34-3446
	1,2	2,3	NX1-181V	—	SCR24-34-1223
	2/0,1/0	1/0,1	—	—	SCR24-34-2010*

\* Future Development

### Type CR25

GROUND ROD SIZE	CONDUCTOR SIZE		CADWELD CAT. NO. —	THERMOWELD CAT. NO. TYPE CR-25	BLACKBURN CAT. NO. TYPE CR25
	SOLID	STRANDED			
¾"	6,8	8	—	M-2006	SCR25-58-6808
	3,4	4,6	—	M-2007	SCR25-58-3446
	1,2	2,3	—	M-2008	SCR25-58-1223
¾"	2/0,1/0	1/0,1	—	M-2023	SCR25-58-12010
	6,8	8	—	M-2068	SCR25-34-6808
	3,4	4,6	—	M-2069	SCR25-34-3446

\* Future Development

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### Conductor Properties

SIZE (AWG OR KCMIL)	CONDUCTORS										DIRECT-CURRENT RESISTANCE AT 75°C (167°F)					
	AREA			STRANDING		DIAMETER		OVERALL			COPPER				ALUMINUM	
	MM2	CIRCULAR MILS	QUANTITY	DIAMETER		DIAMETER		AREA		UNCOATED		COATED		OHM/ KM	OHM/ KFT	
				MM	IN.	MM	IN.	MM2	IN.2	OHM/ KM	OHM/ KFT	OHM/ KM	OHM/ KFT			
18	0.823	1620	1	—	—	1.02	0.040	0.823	0.001	25.5	7.77	26.5	8.08	42.0	12.8	
18	0.823	1620	7	0.39	0.015	1.16	0.046	1.06	0.002	26.1	7.95	27.7	8.45	42.8	13.1	
16	1.31	2580	1	—	—	1.29	0.051	1.31	0.002	16.0	4.89	16.7	5.08	26.4	8.05	
16	1.31	2580	7	0.49	0.019	1.46	0.058	1.68	0.003	16.4	4.99	17.3	5.29	26.9	8.21	
14	2.08	4110	1	—	—	1.63	0.064	2.08	0.003	10.1	3.07	10.4	3.19	16.6	5.06	
14	2.08	4110	7	0.62	0.024	1.85	0.073	2.68	0.004	10.3	3.14	10.7	3.26	16.9	5.17	
12	3.31	6530	1	—	—	2.05	0.081	3.31	0.005	6.34	1.93	6.57	2.01	10.45	3.18	
12	3.31	6530	7	0.78	0.030	2.32	0.092	4.25	0.006	6.50	1.98	6.73	2.05	10.69	3.25	
10	5.261	10380	1	—	—	2.588	0.102	5.26	0.008	3.984	1.21	4.148	1.26	6.561	2.00	
10	5.261	10380	7	0.98	0.038	2.95	0.116	6.76	0.011	4.070	1.24	4.226	1.29	6.679	2.04	
8	8.367	16510	1	—	—	3.264	0.128	8.37	0.013	2.506	0.764	2.579	0.786	4.125	1.26	
8	8.367	16510	7	1.23	0.049	3.71	0.146	10.76	0.017	2.551	0.778	2.653	0.809	4.204	1.28	
6	13.30	26240	7	1.56	0.061	4.67	0.184	17.09	0.027	1.608	0.491	1.671	0.510	2.652	0.808	
4	21.15	41740	7	1.96	0.077	5.89	0.232	27.19	0.042	1.010	0.308	1.053	0.321	1.666	0.508	
3	26.67	52620	7	2.20	0.087	6.60	0.260	34.28	0.053	0.802	0.245	0.833	0.254	1.320	0.403	
2	33.62	66360	7	2.47	0.097	7.42	0.292	43.23	0.067	0.634	0.194	0.661	0.201	1.045	0.319	
1	42.41	83690	19	1.69	0.066	8.43	0.332	55.80	0.087	0.505	0.154	0.524	0.160	0.829	0.253	
1/0	53.49	105600	19	1.89	0.074	9.45	0.372	70.41	0.109	0.399	0.122	0.415	0.127	0.660	0.201	
2/0	67.43	133100	19	2.13	0.084	10.62	0.418	88.74	0.137	0.3170	0.0967	0.329	0.101	0.523	0.159	
3/0	85.01	167800	19	2.39	0.094	11.94	0.470	111.9	0.173	0.2512	0.0766	0.2610	0.0797	0.413	0.126	
4/0	107.2	211600	19	2.68	0.106	13.41	0.528	141.1	0.219	0.1996	0.0608	0.2050	0.0626	0.328	0.100	
250	—	—	37	2.09	0.082	14.61	0.575	168	0.260	0.1687	0.0515	0.1753	0.0535	0.2778	0.0847	
300	—	—	37	2.29	0.090	16.00	0.630	201	0.312	0.1409	0.0429	0.1463	0.0446	0.2318	0.0707	
350	—	—	37	2.47	0.097	17.30	0.681	235	0.364	0.1205	0.0367	0.1252	0.0382	0.1984	0.0605	
400	—	—	37	2.64	0.104	18.49	0.728	268	0.416	0.1053	0.0321	0.1084	0.0331	0.1737	0.0529	
500	—	—	37	2.95	0.116	20.65	0.813	336	0.519	0.0845	0.0258	0.0869	0.0265	0.1391	0.0424	
600	—	—	61	2.52	0.099	22.68	0.893	404	0.626	0.0704	0.0214	0.0732	0.0223	0.1159	0.0353	
700	—	—	61	2.72	0.107	24.49	0.964	471	0.730	0.0603	0.0184	0.0622	0.0189	0.0994	0.0303	
750	—	—	61	2.82	0.111	25.35	0.998	505	0.782	0.0563	0.0171	0.0579	0.0176	0.0927	0.0282	
800	—	—	61	2.91	0.114	26.16	1.030	538	0.834	0.0528	0.0161	0.0544	0.0166	0.0868	0.0265	
900	—	—	61	3.09	0.122	27.79	1.094	606	0.940	0.0470	0.0143	0.0481	0.0147	0.0770	0.0235	
1000	—	—	61	3.25	0.128	29.26	1.152	673	1.042	0.0423	0.0129	0.0434	0.0132	0.0695	0.0212	

FPN: The construction information is per NEMA WC8-1992 or ANSI/UL 1581-1998. The resistance is calculated per National Bureau of Standards Handbook 100, dated 1966, and Handbook 109, dated 1972.

70-625 TABLES

NATIONAL ELECTRICAL CODE, 2002 Edition

### Table B.310.1

Ampacities of Two or Three Insulated Conductors, Rated 0 Through 2000 Volts, Within an Overall Covering (Multiconductor Cable), in Raceway in Free Air Based on Ambient Air Temperature of 30°C (86°F)

#### Temperature Rating of Conductor. (See Table 310.13.)

Size (AWG or kcmil)	60°C (140°F)	75°C (167°F)	90°C (194°F)	60°C (140°F)	75°C (167°F)	90°C (194°F)	Size (AWG or kcmil)
	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, ZW	Types THHN, THHW, THW-2, THWN-2, RHH, RWH-2, USE-2, XHHW-2, ZW-2	Type TW	Types RHW, THHW, THW, THWN, XHHW	Types THHN, THHW, THW-2, THWN-2, RHH, RWH-2, USE-2, XHHW, XHHW-2, ZW-2	
	COPPER			ALUMINUM OR COPPER-CLAD ALUMINUM			
14	16*	18*	21*	—	—	—	14
12	20*	24*	27*	16*	18*	21*	12
10	27*	33*	36*	21*	25*	28*	10
8	36	43	48	28	33	37	8
6	48	58	65	38	45	51	6
4	66	79	89	51	61	69	4
3	76	90	102	59	70	79	3
2	88	105	119	69	83	93	2
1	102	121	137	80	95	106	1
1/0	121	145	163	94	113	127	1/0
2/0	138	166	186	108	129	146	2/0
3/0	158	189	214	124	147	167	3/0
4/0	187	223	253	147	176	197	4/0
250	205	245	276	160	192	217	250
300	234	281	317	185	221	250	300
350	255	305	345	202	242	273	350
400	274	328	371	218	261	295	400
500	315	378	427	254	303	342	500
600	343	413	468	279	335	378	600
700	376	452	514	310	371	420	700
750	387	466	529	321	384	435	750
800	397	479	543	331	397	450	800
900	415	500	570	350	421	477	900
1000	448	542	617	382	460	521	1000

#### Correction Factors

Ambient Temp. (°C)	For ambient temperatures other than 30°C (86°F), multiply the ampacities shown above by the appropriate factor shown below.						Ambient Temp. (°F)
21–25	1.08	1.05	1.04	1.08	1.05	1.04	70–77
26–30	1.00	1.00	1.00	1.00	1.00	1.00	79–86
31–35	0.91	0.94	0.96	0.91	0.94	0.96	88–95
36–40	0.82	0.88	0.91	0.82	0.88	0.91	97–104
41–45	0.71	0.82	0.87	0.71	0.82	0.87	106–113
46–50	0.58	0.75	0.82	0.58	0.75	0.82	115–122
51–55	0.41	0.67	0.76	0.41	0.67	0.76	124–131
56–60	—	0.58	0.71	—	0.58	0.71	133–140
61–70	—	0.33	0.58	—	0.33	0.58	142–158
71–80	—	—	0.41	—	—	0.41	160–176

\*Unless otherwise specifically permitted elsewhere in this Code, the overcurrent protection for these conductor types shall not exceed 15 amperes for 14 AWG, 20 amperes for 12 AWG, and 30 amperes for 10 AWG copper; or 15 amperes for 12 AWG and 25 amperes for 10 AWG aluminum and copper-clad aluminum.

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### Metric Conductors

WIRE SIZE		# OF STRANDS	STRAND DIAMETER	DIAMETER MM	DIAMETER INCH	COLOR CODE	DIE CODE
MM	AWG						
10	8	19,730	1	3.57	3.57	0.140	Red 21
10	8	19,730	7	1.35	4.05	0.159	Red 21
16	6	31,558	1	4.50	4.50	0.177	Blue 24
16	6	31,558	7	1.70	5.10	0.200	Blue 24
25	2	49,325	7	2.14	6.42	0.253	Gray 29
25	2	49,325	19	1.35	6.75	0.266	Brown 33
35	1	69,055	19	1.53	7.65	0.300	Green 37
50	1/0	98,650	19	1.78	8.90	0.350	Pink 42
70	2/0	138,110	19	2.14	10.70	0.421	Black 45
95	3/0	187,500	19	2.52	12.60	0.496	Orange 50
95	3/0	187,500	37	1.78	12.46	0.490	Orange 50
120	250	236,760	37	2.03	14.21	0.560	Purple 54
150	300	295,950	37	2.25	15.75	0.620	White 66
185		365,000	61	2.52	17.64	0.695	Red 71
240	500	473,500	61	2.25	20.25	0.797	Brown 87
300		591,900	61	2.52	22.68	0.893	Green 94
400		789,200	61	2.85	25.65	1.000	Black 106
400		789,200	91	2.36	25.96	1.022	Black 106
500		986,500	61	3.20	28.80	1.134	— 125
500		986,500	91	2.65	29.15	1.148	— —
630		1,243,000	127	2.52	32.76	1.290	— —
800		1,578,400	127	2.85	37.05	1.459	— —
1000		1,973,000	127	3.20	41.60	1.638	— —

### Table C1

Maximum Number of Conductors or Fixture Wires in Electrical Metallic Tubing (EMT) (Based on Table 1, Chapter 9)

TYPE	CONDUCTOR SIZE (AWG/KCMIL)	CONDUCTORS									
		METRIC DESIGNATOR (TRADE SIZE)									
		16 (2)	21 (3)	27 (4)	35 (5)	41 (6)	53 (8)	63 (10)	78 (12)	91 (14)	103 (16)
RHH,	14	4	7	11	20	27	46	80	120	157	201
RHW,	12	3	6	9	17	23	38	66	100	131	167
RHW-2	10	2	5	8	13	18	30	53	81	105	135
	8	1	2	4	7	9	16	28	42	55	70
	6	1	1	3	5	8	13	22	34	44	56
	4	1	1	2	4	6	10	17	26	34	44
	3	1	1	1	4	5	9	15	23	30	38
	2	1	1	1	3	4	7	13	20	26	33
	1	0	1	1	1	3	5	9	13	17	22
	1/0	0	1	1	1	2	4	7	11	15	19
	2/0	0	1	1	1	2	4	6	10	13	17
	3/0	0	0	1	1	1	3	5	8	11	14
	4/0	0	0	1	1	1	3	5	7	9	12
	250	0	0	0	1	1	1	3	5	7	9
	300	0	0	0	1	1	1	3	5	6	8
	350	0	0	0	1	1	1	3	4	6	7
	400	0	0	0	1	1	1	2	4	5	7
	500	0	0	0	0	1	1	2	3	4	6
	600	0	0	0	0	1	1	1	3	4	5
	700	0	0	0	0	0	1	1	2	3	4
	750	0	0	0	0	0	1	1	2	3	4
	800	0	0	0	0	0	1	1	2	3	4
	900	0	0	0	0	0	1	1	1	3	3
	1000	0	0	0	0	0	1	1	1	2	3
TW,	14	8	15	25	43	58	96	168	254	332	424
THHW,	12	6	11	19	33	45	74	129	195	255	326
THW,	10	5	8	14	24	33	55	96	145	190	243
THW-2	8	2	5	8	13	18	30	53	81	105	135
RHH*,	14	6	10	6	28	39	64	112	169	221	282
RHW*,	12	4	8	13	23	31	51	90	136	177	227
RHW-2*,	10	3	6	10	18	24	40	70	106	138	177
	8	1	4	6	10	14	24	42	63	83	106

TYPE	CONDUCTOR SIZE (AWG/KCMIL)	CONDUCTORS									
		METRIC DESIGNATOR (TRADE SIZE)									
		16 (2)	21 (3)	27 (4)	35 (5)	41 (6)	53 (8)	63 (10)	78 (12)	91 (14)	103 (16)
RHH*,	6	1	3	4	8	11	18	32	48	63	81
RHW*,	4	1	1	3	6	8	13	24	36	47	60
RHW-2*,	3	1	1	3	5	7	12	20	31	40	52
TW, THW,	2	1	1	2	4	6	10	17	26	34	44
THHW,	1	1	1	1	3	4	7	12	18	24	31
THW-2	1/0	0	1	1	2	3	6	10	16	20	26
	2/0	0	1	1	1	3	5	9	13	17	22
	3/0	0	1	1	1	2	4	7	11	15	19
	4/0	0	0	1	1	1	3	6	9	12	16
	250	0	0	1	1	1	3	5	7	10	13
	300	0	0	1	1	1	2	4	6	8	11
	350	0	0	0	1	1	1	4	6	7	10
	400	0	0	0	1	1	1	3	5	7	9
	500	0	0	0	1	1	1	3	4	6	7
	600	0	0	0	1	1	1	2	3	4	6
	700	0	0	0	0	1	1	1	3	4	5
	750	0	0	0	0	1	1	1	3	4	5
	800	0	0	0	0	1	1	1	3	3	5
	900	0	0	0	0	0	1	1	2	3	4
	1000	0	0	0	0	0	1	1	2	3	4
THHN,	14	12	22	35	61	84	138	241	364	476	608
THWN,	12	9	16	26	45	61	101	176	266	347	443
THWN-2	10	5	10	16	28	38	63	111	167	219	279
	8	3	6	9	16	22	36	64	96	126	161
	6	2	4	7	12	16	26	46	69	91	116
	4	1	2	4	7	10	16	28	43	56	71
	3	1	1	3	6	8	13	24	36	47	60
	2	1	1	3	5	7	11	20	30	40	51
	1	1	1	1	4	5	8	15	22	29	37
	1/0	1	1	1	3	4	7	12	19	25	32
	2/0	0	1	1	2	3	6	10	16	20	26
	3/0	0	1	1	1	3	5	8	13	17	22
	4/0	0	1	1	1	2	4	7	11	14	18
	250	0	0	1	1	1	3	6	9	11	15
	300	0	0	1	1	1	3	5	7	10	13
	350	0	0	1	1	1	2	4	6	9	11
	400	0	0	0	1	1	1	4	6	8	10
	500	0	0	0	1	1	1	3	5	6	8
	600	0	0	0	1	1	1	2	4	5	7
	700	0	0	0	1	1	1	2	3	4	6
	750	0	0	0	0	1	1	1	3	4	5
	800	0	0	0	0	1	1	1	3	4	5
	900	0	0	0	0	1	1	1	3	3	4
	1000	0	0	0	0	1	1	1	2	3	4

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### Table C4

Maximum Number of Conductors or Fixture Wires in Intermediate Metal Conduit (IMC) (Based on Table 1, Chapter 9)

TYPE	CONDUCTOR SIZE (AWG/KCMIL)	CONDUCTORS									
		METRIC DESIGNATOR (TRADE SIZE)									
		16 (½)	21 (¾)	27 (1)	35 (1¼)	41 (1½)	53 (2)	63 (2½)	78 (3)	91 (3½)	103 (4)
RHH, RHW, RHW-2	14	4	8	13	22	30	49	70	108	144	186
RHH, RHW, RHW-2	12	4	6	11	18	25	41	58	89	120	154
RHH, RHW, RHW-2	10	3	5	8	15	20	33	47	72	97	124
RHH, RHW, RHW-2	8	1	3	4	8	10	17	24	38	50	65
RHH, RHW, RHW-2	6	1	1	3	6	8	14	19	30	40	52
RHH, RHW, RHW-2	4	1	1	3	5	6	11	15	23	31	41
RHH, RHW, RHW-2	3	1	1	2	4	6	9	13	21	28	36
RHH, RHW, RHW-2	2	1	1	1	3	5	8	11	18	24	31
RHH, RHW, RHW-2	1	0	1	1	2	3	5	7	12	16	20
RHH, RHW, RHW-2	1/0	0	1	1	1	3	4	6	10	14	18
RHH, RHW, RHW-2	2/0	0	1	1	1	2	4	6	9	12	15
RHH, RHW, RHW-2	3/0	0	0	1	1	1	3	5	7	10	13
RHH, RHW, RHW-2	4/0	0	0	1	1	1	3	4	6	9	11
RHH, RHW, RHW-2	250	0	0	1	1	1	3	5	6	8	10
RHH, RHW, RHW-2	300	0	0	0	1	1	1	3	4	6	7
RHH, RHW, RHW-2	350	0	0	0	1	1	1	2	4	5	7
RHH, RHW, RHW-2	400	0	0	0	1	1	1	2	3	4	6
RHH, RHW, RHW-2	500	0	0	0	1	1	1	1	2	3	4
RHH, RHW, RHW-2	600	0	0	0	1	1	1	1	1	3	4
RHH, RHW, RHW-2	700	0	0	0	0	1	1	1	1	3	4
RHH, RHW, RHW-2	750	0	0	0	0	1	1	1	1	2	3
RHH, RHW, RHW-2	800	0	0	0	0	1	1	1	1	2	3
RHH, RHW, RHW-2	900	0	0	0	0	1	1	1	1	2	3
RHH, RHW, RHW-2	1000	0	0	0	0	1	1	1	1	2	3
RHH, RHW, RHW-2	1250	0	0	0	0	1	1	1	1	1	2
RHH, RHW, RHW-2	1500	0	0	0	0	0	1	1	1	1	1
RHH, RHW, RHW-2	1750	0	0	0	0	0	1	1	1	1	1
RHH, RHW, RHW-2	2000	0	0	0	0	0	1	1	1	1	1
TW, THW, THW-2	14	10	17	27	47	64	104	147	228	304	392
TW, THW, THW-2	12	7	13	21	36	49	80	113	175	234	301
TW, THW, THW-2	10	5	9	15	27	36	59	84	130	174	224
TW, THW, THW-2	8	3	5	8	15	20	33	47	72	97	124
RHH*, RHW*, RHW-2*	14	6	11	18	31	42	69	98	151	202	261
RHH*, RHW*, RHW-2*	12	5	9	14	25	34	56	79	122	163	209
RHH*, RHW*, RHW-2*	10	4	7	11	19	26	43	61	95	127	163
RHH*, RHW*, RHW-2*	8	2	4	7	12	16	26	37	57	76	98
RHH*, RHW*, RHW-2*	6	1	3	5	9	12	20	28	43	58	75
RHH*, RHW*, RHW-2*	4	1	2	4	6	9	15	21	32	43	56

TYPE	CONDUCTOR SIZE (AWG/KCMIL)	CONDUCTORS									
		METRIC DESIGNATOR (TRADE SIZE)									
		16 (½)	21 (¾)	27 (1)	35 (1¼)	41 (1½)	53 (2)	63 (2½)	78 (3)	91 (3½)	103 (4)
TW, THW, THW-2	3	1	1	3	6	8	13	18	28	37	48
TW, THW, THW-2	2	1	1	3	5	6	11	15	23	31	41
TW, THW, THW-2	1	1	1	1	3	4	7	11	16	22	28
TW, THW, THW-2	1/0	1	1	1	3	4	6	9	14	19	24
TW, THW, THW-2	2/0	0	1	1	2	3	5	8	12	16	20
TW, THW, THW-2	3/0	0	1	1	1	3	4	6	10	13	17
TW, THW, THW-2	4/0	0	1	1	1	2	4	5	8	11	14
TW, THW, THW-2	250	0	0	1	1	1	3	4	7	9	12
TW, THW, THW-2	300	0	0	1	1	1	2	4	6	8	10
TW, THW, THW-2	350	0	0	1	1	1	2	3	5	7	9
TW, THW, THW-2	400	0	0	0	1	1	1	3	4	6	8
TW, THW, THW-2	500	0	0	0	1	1	1	2	4	5	7
TW, THW, THW-2	600	0	0	0	1	1	1	1	3	4	5
TW, THW, THW-2	700	0	0	0	0	1	1	1	3	4	5
TW, THW, THW-2	750	0	0	0	0	1	1	1	2	3	4
TW, THW, THW-2	800	0	0	0	0	1	1	1	2	3	4
TW, THW, THW-2	900	0	0	0	0	1	1	1	2	3	4
TW, THW, THW-2	1000	0	0	0	0	1	1	1	1	3	3
THHN, THWN, THWN-2	14	14	24	39	68	91	149	211	326	436	562
THHN, THWN, THWN-2	12	10	17	29	49	67	109	154	238	318	410
THHN, THWN, THWN-2	10	6	11	18	31	42	68	97	150	200	258
THHN, THWN, THWN-2	8	3	6	10	18	24	39	56	86	115	149
THHN, THWN, THWN-2	6	2	4	7	13	17	28	40	62	83	107
THHN, THWN, THWN-2	4	1	3	4	8	10	17	25	38	51	66
THHN, THWN, THWN-2	3	1	2	4	6	9	15	21	32	43	56
THHN, THWN, THWN-2	2	1	1	3	5	7	12	17	27	36	47
THHN, THWN, THWN-2	1	1	1	2	4	5	9	13	20	27	35
THHN, THWN, THWN-2	1/0	1	1	1	3	4	8	11	17	23	29
THHN, THWN, THWN-2	2/0	1	1	1	3	4	6	9	14	19	24
THHN, THWN, THWN-2	3/0	0	1	1	2	3	5	7	12	16	20
THHN, THWN, THWN-2	4/0	0	1	1	1	2	4	6	9	13	17
THHN, THWN, THWN-2	250	0	0	1	1	1	3	5	8	10	13
THHN, THWN, THWN-2	300	0	0	1	1	1	3	4	7	9	12
THHN, THWN, THWN-2	350	0	0	1	1	1	2	4	6	8	10
THHN, THWN, THWN-2	400	0	0	1	1	1	2	3	5	7	9
THHN, THWN, THWN-2	500	0	0	0	1	1	1	3	4	6	7
THHN, THWN, THWN-2	600	0	0	0	1	1	1	2	3	5	6
THHN, THWN, THWN-2	700	0	0	0	1	1	1	1	3	4	5
THHN, THWN, THWN-2	750	0	0	0	1	1	1	1	3	4	5
THHN, THWN, THWN-2	800	0	0	0	0	1	1	1	3	4	5
THHN, THWN, THWN-2	900	0	0	0	0	1	1	1	2	3	4
THHN, THWN, THWN-2	1000	0	0	0	0	1	1	1	2	3	4

Note: This table is for concentric stranded conductors only. For compact stranded conductors, Table C4(A) should be used.

\*Types RHH, RHW, and RHW-2 without outer covering.

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### Table C8

Maximum Number of Conductors or Fixture Wires in Rigid Metal Conduit (RMC) (Based on Table 1, Chapter 9)

TYPE	CONDUCTORS													
	CONDUCTOR SIZE (AWG/KCMIL)	METRIC DESIGNATOR (TRADE SIZE)												
		16 (1/4)	21 (3/8)	27 (1)	35 (1 1/4)	41 (1 1/2)	53 (2)	63 (2 1/2)	78 (3)	91 (3 1/2)	103 (4)	129 (5)	155 (6)	
RHH,	14	4	7	12	21	28	46	66	102	136	176	276	398	
RHW,	12	3	6	10	17	23	38	55	85	113	146	229	330	
RHW-2	10	3	5	8	14	19	31	44	68	91	118	185	267	
	8	1	2	4	7	10	16	23	36	48	61	97	139	
	6	1	1	3	6	8	13	18	29	38	49	77	112	
	4	1	1	2	4	6	10	14	22	30	38	60	87	
	3	1	1	2	4	5	9	12	19	26	34	53	76	
	2	1	1	1	3	4	7	11	17	23	29	46	66	
	1	0	1	1	1	3	5	7	11	15	19	30	44	
	1/0	0	1	1	1	2	4	6	10	13	17	26	38	
	2/0	0	1	1	1	2	4	5	8	11	14	23	33	
	3/0	0	0	1	1	1	3	4	7	10	12	20	28	
	4/0	0	0	1	1	1	3	4	6	8	11	17	24	
	250	0	0	0	1	1	1	3	4	6	8	13	18	
	300	0	0	0	1	1	1	2	4	5	7	11	16	
	350	0	0	0	1	1	1	2	4	5	6	10	15	
	400	0	0	0	1	1	1	1	3	4	6	9	13	
	500	0	0	0	1	1	1	1	3	4	5	8	11	
	600	0	0	0	0	1	1	1	2	3	4	6	9	
	700	0	0	0	0	1	1	1	1	3	4	6	8	
	750	0	0	0	0	0	1	1	1	3	3	5	8	
	800	0	0	0	0	0	1	1	1	2	3	5	7	
	900	0	0	0	0	0	1	1	1	2	3	5	7	
	1000	0	0	0	0	0	1	1	1	1	3	4	6	
TW,	14	9	15	25	44	59	98	140	216	288	370	581	839	
THHW,	12	7	12	19	33	45	75	107	165	221	284	446	644	
THW,														
THW-2	10	5	9	14	25	34	56	80	123	164	212	332	480	
	8	3	5	8	14	19	31	44	68	91	118	185	267	
RHH*,	14	6	10	17	29	39	65	93	143	191	246	387	558	
RHW*,														
RHW-2*														
RHH*,	12	5	8	13	23	32	52	75	115	154	198	311	448	
RHW*,														
RHW-2*	10	3	6	10	18	25	41	58	90	120	154	242	350	
RHH*,	8	1	4	6	11	15	24	35	54	72	92	145	209	
RHW*,														
RHW-2*														

TYPE	CONDUCTORS													
	CONDUCTOR SIZE (AWG/KCMIL)	METRIC DESIGNATOR (TRADE SIZE)												
		16 (1/4)	21 (3/8)	27 (1)	35 (1 1/4)	41 (1 1/2)	53 (2)	63 (2 1/2)	78 (3)	91 (3 1/2)	103 (4)	129 (5)	155 (6)	
RHH*,	6	1	3	5	8	11	18	27	41	55	71	111	160	
RHW*,	4	1	1	3	6	8	14	20	31	41	53	83	120	
RHW-2*,	3	1	1	3	5	7	12	17	26	35	45	71	103	
TW,	2	1	1	2	4	6	10	14	22	30	38	60	87	
THW,	1	1	1	1	3	4	7	10	15	21	27	42	61	
THHW,	1/0	0	1	1	2	3	6	8	13	18	23	36	52	
THW-2	2/0	0	1	1	2	3	5	7	11	15	19	31	44	
	3/0	0	1	1	1	2	4	6	9	13	16	26	37	
	4/0	0	0	1	1	1	3	5	8	10	14	21	31	
	250	0	0	1	1	1	3	4	6	8	11	17	25	
	300	0	0	1	1	1	2	3	5	7	9	15	22	
	350	0	0	0	1	1	1	3	5	6	8	13	19	
	400	0	0	0	1	1	1	3	4	6	7	12	17	
	500	0	0	0	1	1	1	2	3	5	6	10	14	
	600	0	0	0	1	1	1	1	3	4	5	8	12	
	700	0	0	0	0	1	1	1	2	3	4	7	10	
	750	0	0	0	0	1	1	1	2	3	4	7	10	
	800	0	0	0	0	1	1	1	2	3	4	6	9	
	900	0	0	0	0	1	1	1	1	3	4	6	8	
	1000	0	0	0	0	0	1	1	1	2	3	5	8	
THHN,	14	13	22	36	63	85	140	200	309	412	531	833	1202	
THWN,	12	9	16	26	46	62	102	146	225	301	387	608	877	
THWN-2	10	6	10	17	29	39	64	92	142	189	244	383	552	
	8	3	6	9	16	22	37	53	82	109	140	221	318	
	6	2	4	7	12	16	27	38	59	79	101	159	230	
	4	1	2	4	7	10	16	23	36	48	62	98	141	
	3	1	1	3	6	8	14	20	31	41	53	83	120	
	2	1	1	3	5	7	11	17	26	34	44	70	100	
	1	1	1	1	4	5	8	12	19	25	33	51	74	
	1/0	1	1	1	3	4	7	10	16	21	27	43	63	
	2/0	0	1	1	2	3	6	8	13	18	23	36	52	
	3/0	0	1	1	1	3	5	7	11	15	19	30	43	
	4/0	0	1	1	1	2	4	6	9	12	16	25	36	
	250	0	0	1	1	1	3	5	7	10	13	20	29	
	300	0	0	1	1	1	3	4	6	8	11	17	25	
	350	0	0	1	1	1	2	3	5	7	10	15	22	
	400	0	0	1	1	1	2	3	5	7	8	13	20	
	500	0	0	0	1	1	1	2	4	5	7	11	16	
	600	0	0	0	1	1	1	1	3	4	6	9	13	
	700	0	0	0	1	1	1	1	3	4	5	8	11	
	750	0	0	0	0	1	1	1	3	4	5	7	11	
	800	0	0	0	0	1	1	1	2	3	4	7	10	
	900	0	0	0	0	1	1	1	2	3	4	6	9	
	1000	0	0	0	0	1	1	1	1	3	4	6	8	

Note: This table is for concentric stranded conductors only. For compact stranded conductors, Table C8(A) should be used.

\*Types RHH, RHW, and RHW-2 without outer covering.

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