

SPIN-ON FILTER

SAF07/11 SERIES FILTER HEADS



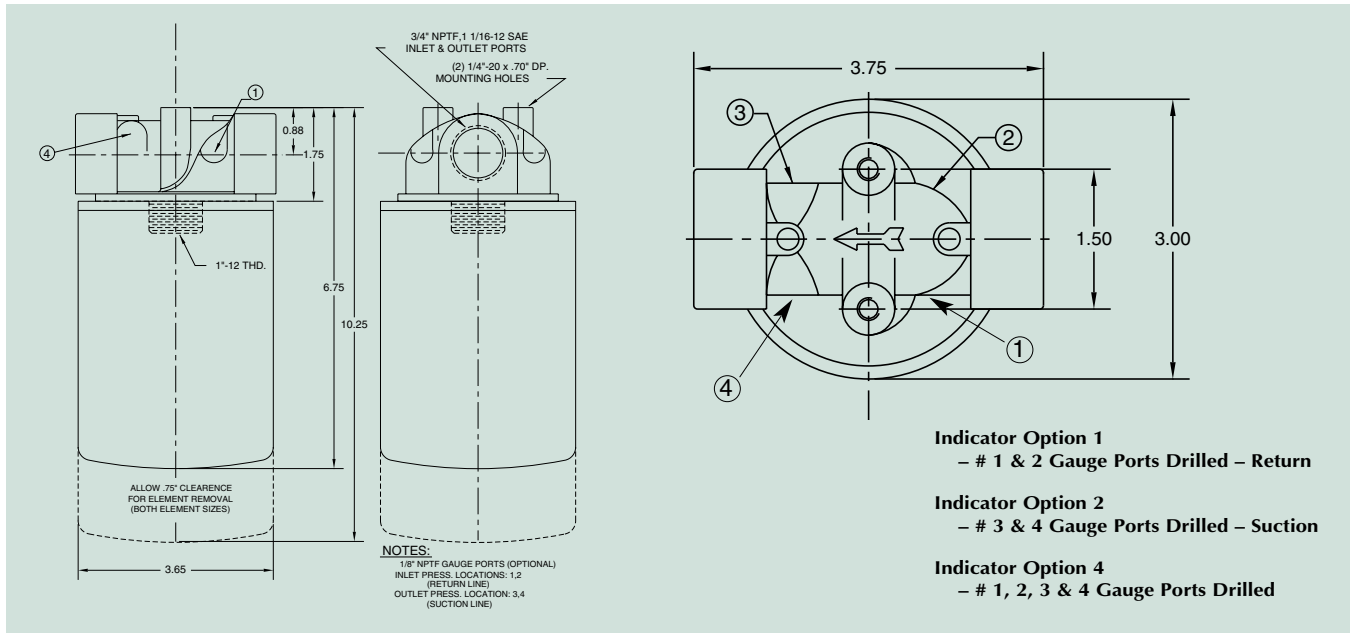
SPECIFICATIONS

- Flows to 25gpm (90 lpm) for Return Line and 6gpm (23 lpm) for Suction Line Applications
- Working Pressure—200psi (14 bar)
- Maximum Pressure Differential of 80psi (5.5 bar) for any Applications with no By-Pass Valve
- For Use With Petroleum Based Fluids Only
- Die Cast Aluminum Head
- Buna-N Seals
- Operating Temperatures From -25°F to 212° (-32°C to 100°C)

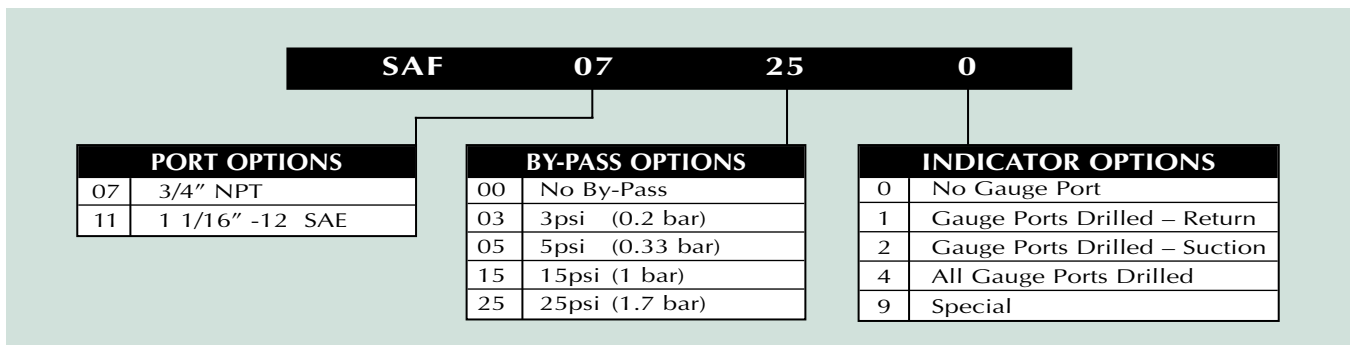
OPTIONS

- NPT or SAE Ports Available
- Gauge Indicator Ports
- Visual and Electrical Indicators Available
- By-Pass Available For Both Suction and Return Line Applications

DIMENSIONS



ORDERING INFORMATION



See Page 136 for Indicator Options Available.

3/00

SPECIFICATIONS

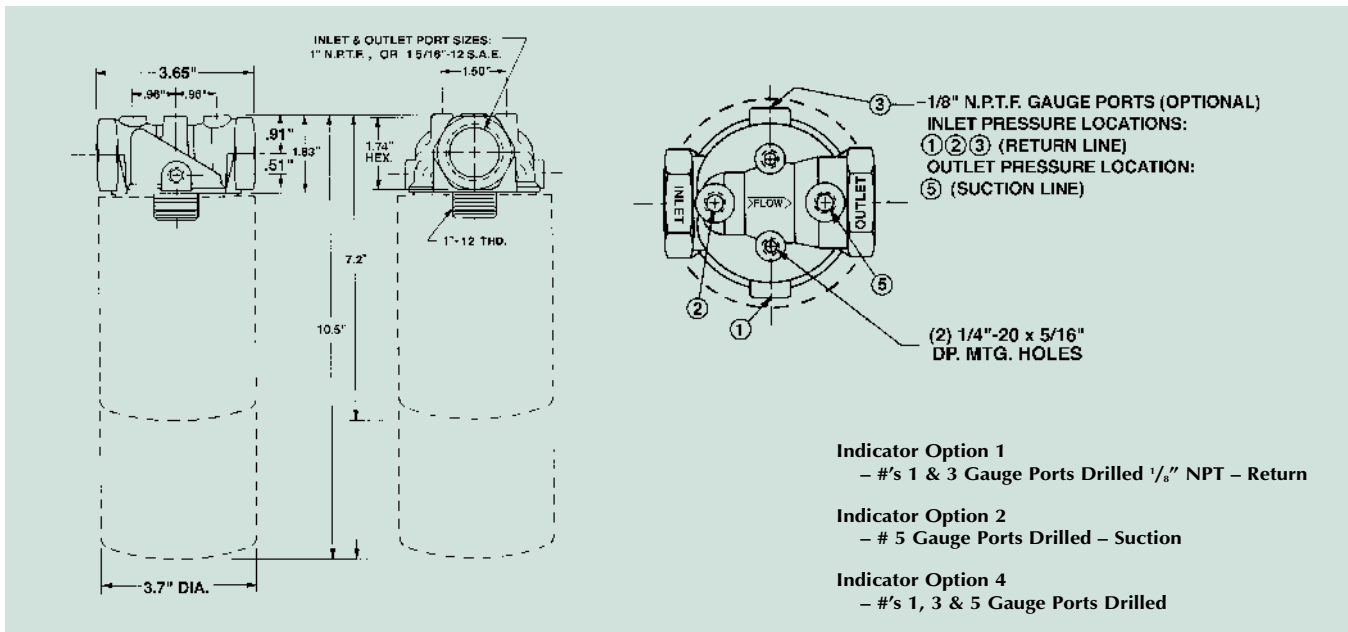
- Flows to 34gpm (128 lpm) for Return Line and 8gpm (30 lpm) for Suction Line Applications
- Working Pressure—200psi (14 bar)
- Maximum Pressure Differential of 80psi (5.5 bar) on Filters With No By-Pass Option
- For Use With Petroleum Based Fluids Only
- Die Cast Aluminum Head
- Buna-N Seals
- Operating Temperatures From -25°F to 212°F (-32°C to 100°C)



OPTIONS

- NPT or SAE Ports Available
- Gauge Indicator Ports
- Visual and Electrical Indicators Available
- By-Pass Available For Both Suction and Return Line Applications

DIMENSIONS



ORDERING INFORMATION

SAF		10		25		1	
PORT OPTIONS		BY-PASS OPTIONS		INDICATOR OPTIONS			
10	1" NPT	00	No By-Pass	0	No Gauge Port		
13	1 5/16" -12 SAE	03	3psi (0.2 bar)	1	Gauge Ports Drilled – Return		
		05	5psi (0.33 bar)	2	Gauge Ports Drilled – Suction		
		15	15psi (1 bar)	4	All Gauge Ports Drilled		
		25	25psi (1.7 bar)	9	Special		

See Page 136 for Indicator Options Available.

SPIN-ON FILTERS / REPLACEMENT ELEMENTS

SF 6500 SERIES



SPECIFICATIONS

- Working Pressure—200psi (14 bar)
- For Use With Petroleum Based Fluids Only
- Operating Temperatures From -25°F to 212°F (-32°C to 100°C)
- Use a Strap-on Chain Wrench For Element Removal

OPTIONS

- Elements Available Individually or in Carton Quantities of 12
- 10 or 25 Micron Nominal Rating Paper Elements Available
- 3, 10 or 25 Micron Synthetic Media, β-rated Elements Available
- Extended Length Elements Available in 10 and 25 Micron Paper

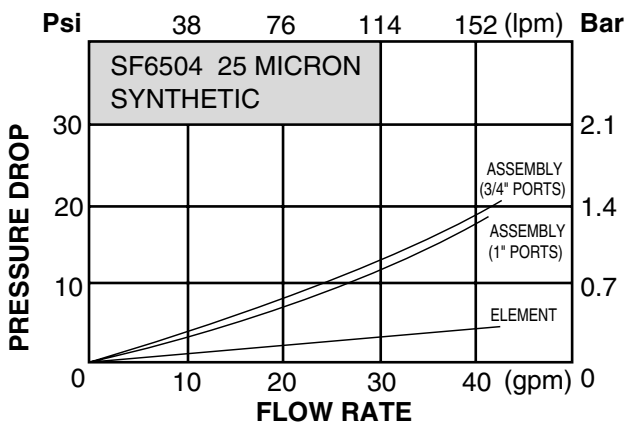
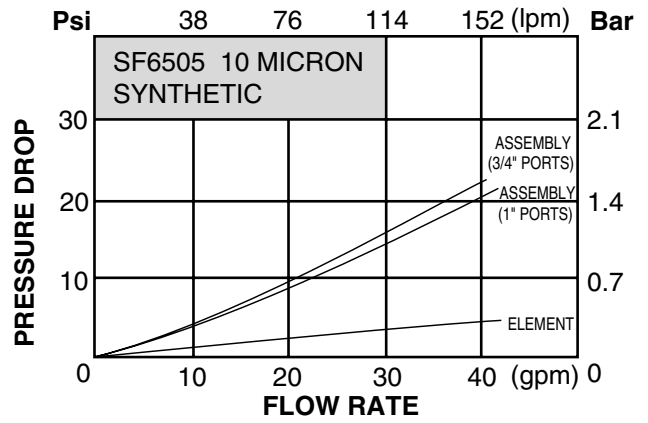
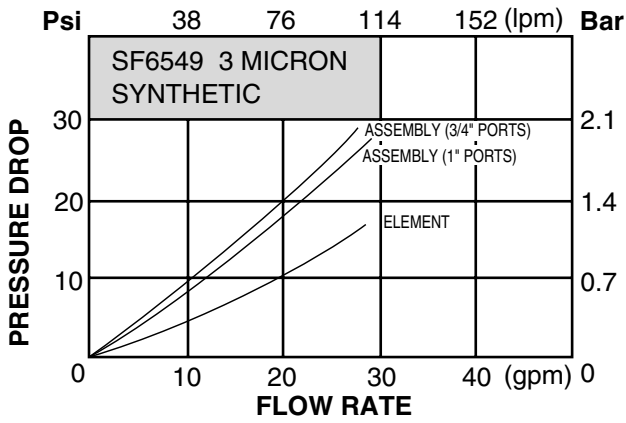
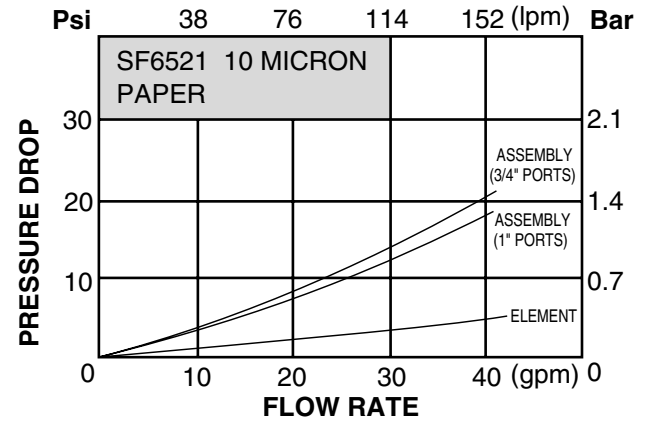
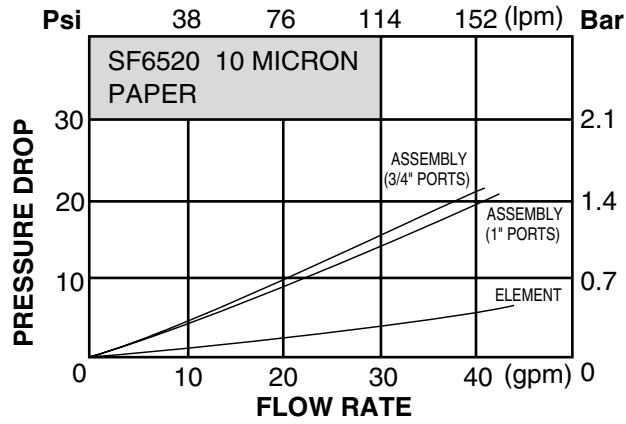
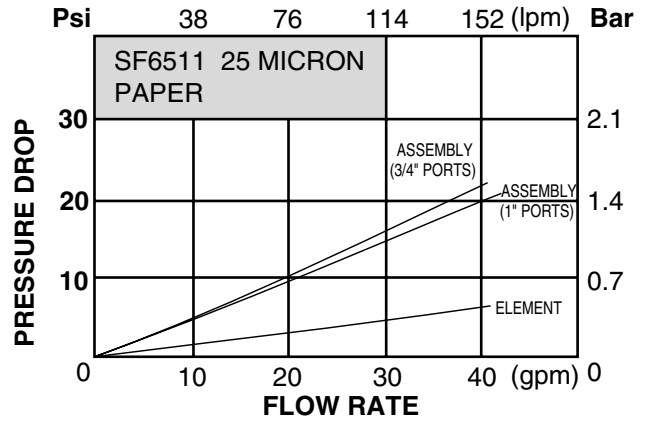
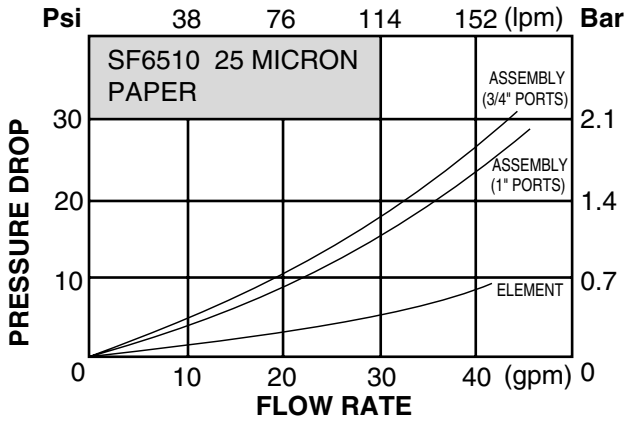
DIMENSIONS / ORDERING INFORMATION

	PAPER								SYNTHETIC							
	SF 6520		SF6521		SF6510		SF6511		SF6549		SF6505		SF6504			
	10 MICRON		10 MICRON		25 MICRON		25 MICRON		3 MICRON		10 MICRON		25 MICRON			
DIAMETER	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		
LENGTH	3.73	95	3.73	95	3.73	95	3.73	95	3.73	95	3.73	95	3.73	95		
ELEMENT THREAD	1"-12 UNF		1"-12 UNF		1"-12 UNF		1"-12 UNF		1"-12 UNF		1"-12 UNF		1"-12 UNF			
β-RATIO	β10-2		β10-2		β25-12		β25-12		β3-75		β10-75		β25-75			
DIRT HOLDING CAPACITY (gm)	17		26		24		37		15		22		33			
FILTRATION AREA	sq.in.	393	602	343	525	391	366	366	sq cm	2535	3882	2212	3386	2521	2360	2360
CARTON QUANTITY	12		12		12		12		12		12		12			
CARTON WEIGHT	lbs.	13.9	(5.2)	18.5	(6.9)	14.2	(5.3)	19.4	(7.2)	19.0	(7.1)	19.0	(7.1)	19.0	(7.1)	
	(kg)															

Note: These filters are not to be used on internal combustion engines as they do not contain an internal relief valve.

3/00

SPIN-ON FILTER PRESSURE DROP vs. FLOW CURVES SAF07/10/11/13, SF6500 SERIES



ACCESSORIES

3/00

TEMPERATURE 100°F VISCOSITY 150 SSU

SPIN-ON FILTER

SSF-120/SSF-160 SERIES FILTER HEADS



SPECIFICATIONS

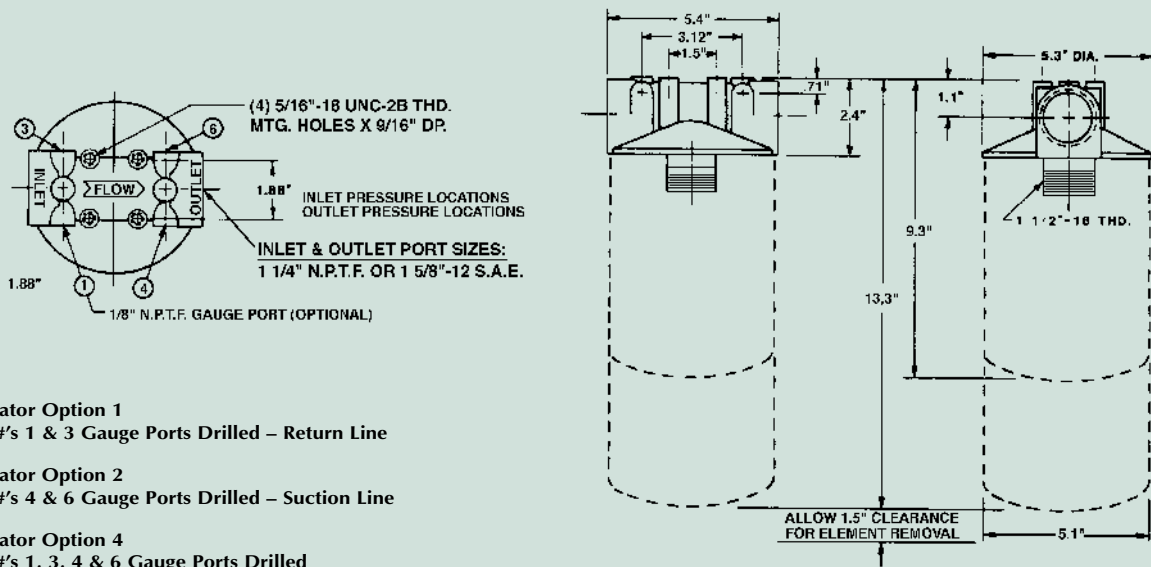
- Flows to 60gpm (225 lpm) for Return Line and 12gpm (46 lpm) for Suction Line Applications
- Working Pressure– 200psi (14 bar)
- Maximum Pressure Differential of 80psi (5.5 bar) on Filters With No By-Pass Valve Option
- For Use With Petroleum Based Fluids Only
- Operating Temperatures From -25°F to 212°F (-32°C to 100°C)

- Buna-N Seals
- Aluminum Die Cast Head

OPTIONS

- NPT or SAE Ports Available
- Visual and Electrical Indicators Available
- With or Without Gauge Indicator Ports
- By-Pass Options Available For Both Suction and Return Line Applications

DIMENSIONS



- Indicator Option 1**
– #'s 1 & 3 Gauge Ports Drilled – Return Line
- Indicator Option 2**
– #'s 4 & 6 Gauge Ports Drilled – Suction Line
- Indicator Option 4**
– #'s 1, 3, 4 & 6 Gauge Ports Drilled

ORDERING INFORMATION

SSF		120		25		0	
PORT OPTIONS		BY-PASS OPTIONS		INDICATOR OPTIONS			
120	1 1/4" NPT	00	No By-Pass	0	No Gauge Port		
160	1 5/8" -12 SAE	03	3psi (0.2 bar)	1	Gauge Ports Drilled – Return		
		05	5psi (0.33 bar)	2	Gauge Ports Drilled – Suction		
		15	15psi (1 bar)	4	All Gauge Ports Drilled		
		25	25psi (1.7 bar)	9	Special		

See Page 136 for Indicator Options Available.

SPECIFICATIONS

- Flows to 120gpm (450 lpm) for Return Line and 25gpm (95 lpm) for Suction Line Applications
- Working Pressure–150psi (10 bar)
- Maximum Pressure Differential of 80psi (5.5 bar) for Filter Heads With No By-Pass Valve Option
- For Use With Petroleum Based Fluids Only
- Parallel Flow Between the Two Filter Head Modules
- Operating Temperatures From -30°F to 212°F (-34°C to 100°C)

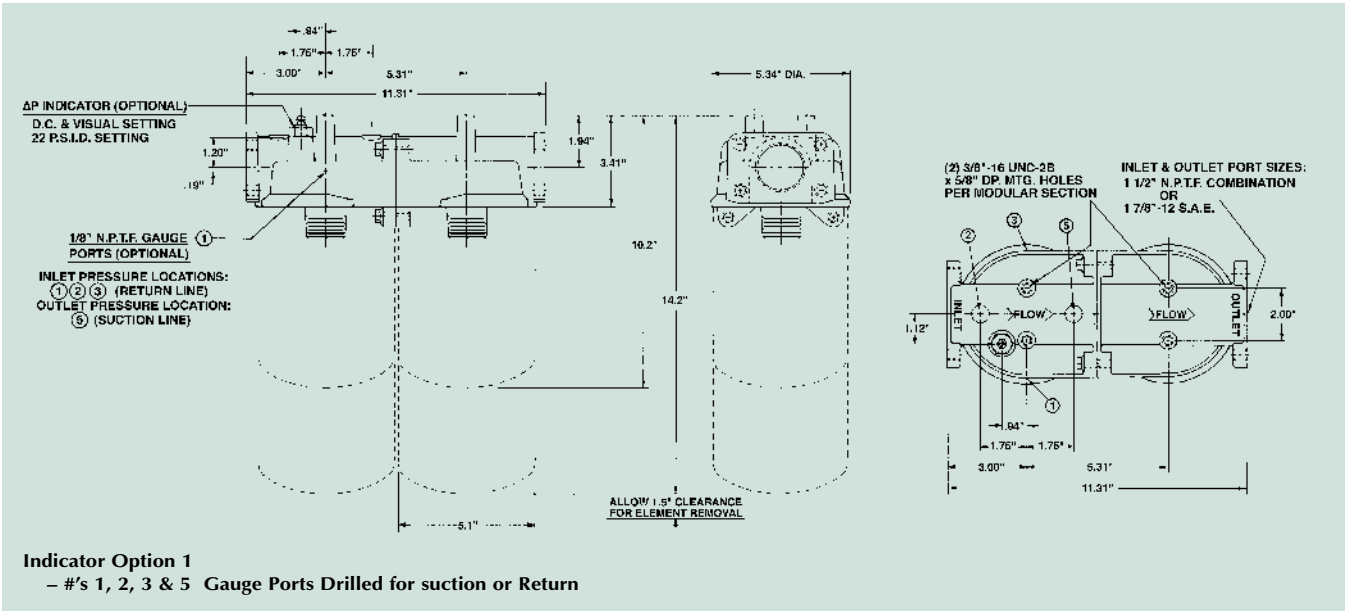


- Buna-N Seals
- Aluminum Die Cast Head

OPTIONS

- NPT and 2" 4-Bolt Flange or SAE Port
- Visual or Electrical Indicators Available
- With or Without Gauge Indicator Ports
- By-Pass Options Available For Both Suction and Return Line Applications

DIMENSIONS



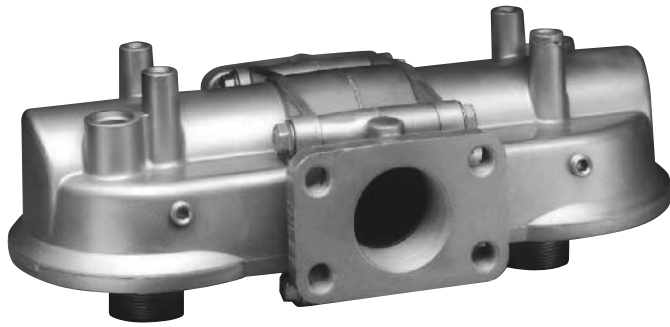
ORDERING INFORMATION

SMF		2215		03		1		V	
PORT OPTIONS		BY-PASS OPTIONS		INDICATOR OPTIONS		INDICATOR			
2215	1 1/2" NPT and 2" SAE Flange	00	No By-Pass	0	No Gauge Port	OO	No Indicator		
218	1 7/8" -12 SAE	03	3psi (0.2 bar)	1	Gauge Ports Drilled – Suction & Return	DL	DC Indicator		
		05	5psi (0.33 bar)	9	Special	E	AC Indicator		
		15	15psi (1 bar)			V	Visual Indicator		
		25	25psi (1.7 bar)						

^{3/00} See Page 135, 136 for Indicator Options Available.

SPIN-ON FILTER

SDF SERIES FILTER HEADS



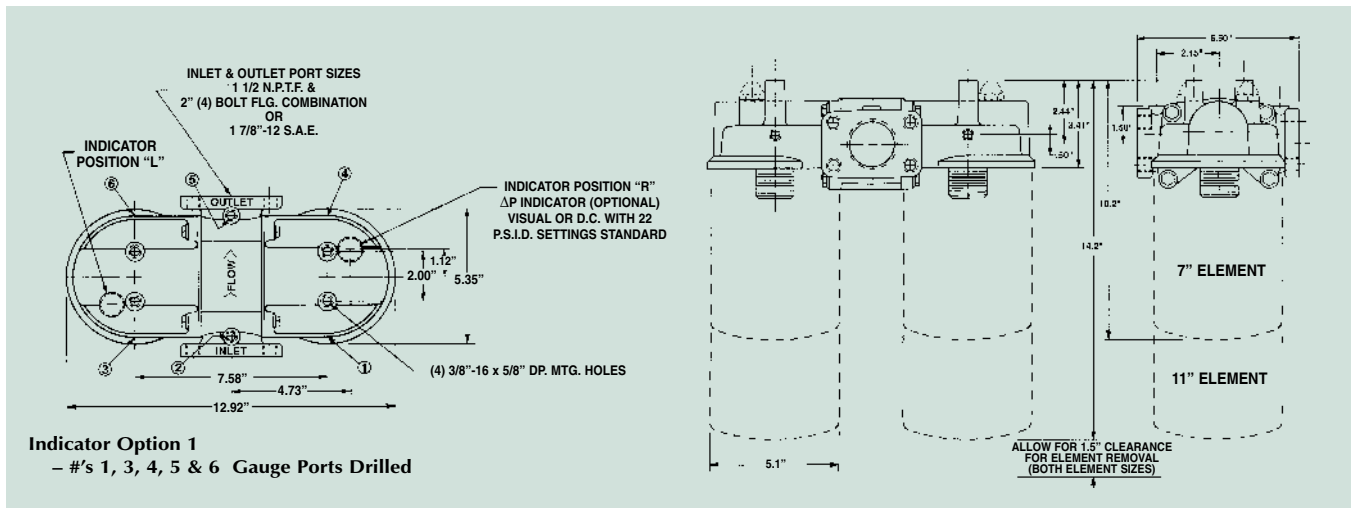
SPECIFICATIONS

- Flows to 120gpm (450 lpm) for Return Line and 25gpm (95 lpm) for Suction Line Applications
- Working Pressure—150psi (10 bar)
- Maximum Pressure Differential of 80psi (5.5 bar) on Heads With No By-Pass Option
- Parallel Flow Between The Two Filter Heads
- For Use With Petroleum Based Fluids Only
- Operating Temperatures From -30°F to 212°F (-34°C to 100°C)
- Buna-N Seals
- Die Cast Aluminum Head

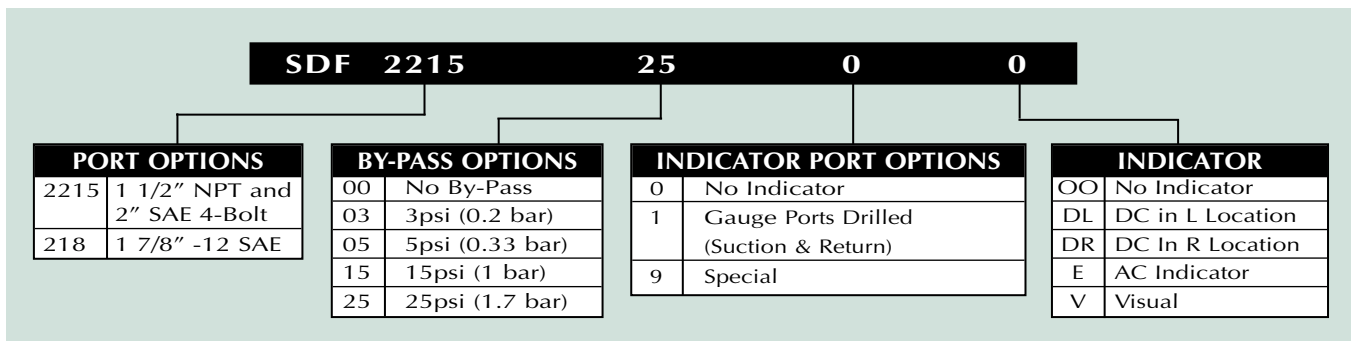
OPTIONS

- 1 1/2" NPT and 2" SAE Flange or SAE Ports
- Visual and Electrical Indicators Available
- With or Without Gauge Indicator Ports
- By-Pass Options Available For Both Suction and Return Applications

DIMENSIONS



ORDERING INFORMATION



See Page 135, 136 for Indicator Options Available.

3/00

SPECIFICATIONS

- Working Pressure– 200psi (10 bar)
- For Use With Petroleum Based Fluids Only
- Operating Temperature From -25°F to 212°F (-32°C to 100°C)
- Use a Strap-on Chain Wrench For Element Removal
- For Use With SSF, SMF and SDF Filter Heads

OPTIONS

- Elements Available Individually or in Carton Quantities of 6
- 10 or 25 Micron Nominal Rating Paper Elements
- 3, 6, 12 or 25 Micron Glass Fiber Elements
- 10 Micron Water Absorbing Elements
- 125 Micron Stainless Steel Wire Mesh Elements



DIMENSIONS / ORDERING INFORMATION

	PAPER								SYNTHETIC																	
	SF 6720		SF6721		SF6710		SF6711		SF6703		SF6704		SF6706		SF6707		SF6730		SF6731		SF6728		SF6726			
	10 MICRON		10 MICRON		25 MICRON		25 MICRON		3 MICRON		3 MICRON		6 MICRON		6 MICRON		12 MICRON		12 MICRON		25 MICRON		25 MICRON			
DIAMETER	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
LENGTH	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128	5.06	128
ELEMENT THREAD	1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF		1 1/2-16 UNF			
β-RATIO	β10-2		β10-2		β25-12		β25-12		β3-75		β3-75		β6-75		β6-75		β12-75		β12-75		β25-75		β25-75			
DIRT HOLDING CAPACITY (grms)	29		53		40		74		27		50		32		61		40		74		54		102			
FILTRATION AREA (sq in)	664		1227		568		1052		680		1262		680		1262		561		1041		673		1267			
(sq cm)	4282		7914		3663		6785		4386		8139		4386		8139		3618		6714		4340		8172			
CARTON QUANTITY	6		6		6		6		6		6		6		6		6		6		6		6			
CARTON lbs. WEIGHT (kg)	14.6	(6.6)	17.5	(7.9)	14.9	(6.7)	20.6	(9.3)	18.0	(8.18)	26.1	(11.86)	18.0	(8.18)	27.2	(12.36)	15.8	(7.18)	23.1	(10.5)	15.6	(7.1)	23	(10.5)		

Note: These filters are not to be used on internal combustion engines as they do not contain an internal relief valve.

ACCESSORIES

SPIN-ON FILTERS
REPLACEMENT ELEMENTS
SF6700 SERIES (CONT.)

DIMENSIONS

	WATER ABSORBING ELEMENTS						STAINLESS STEEL WIRE MESH (125 Micron)			
	SF 6520-W		SF 6620-W		SF6721-W		SF 6790		SF 6791	
	in	mm	in	mm	in	mm	in	mm	in	mm
DIAMETER	3.73	95	3.73	95	5.06	128	5.06	128	5.06	128
LENGTH	5.68	144	5.68	144	10.63	270	6.63	168	10.63	270
ELEMENT THREAD	1" – 12 UNF		1½" – 16 UNF		1½" – 16 UNF		1½" – 16 UNF		1½" – 16 UNF	
β-RATIO	β10=2		β10=2		β10=2		N/A		N/A	
FILTRATION AREA										
(sq in)	190		190		688		200		315	
(sq cm)	1225 cm ²		1225 cm ²		4440 cm ²		1290 cm ²		2032 cm ²	
WATER HOLDING CAPACITY	5.5 oz 0.161 L		4.0 oz 0.12 L		15.0 oz 0.44 L		N/A		N/A	
MAXIMUM OPERATING PRESSURE	100 psi 6.8 bar		250 psi 17.2 bar		100 psi 6.8 bar		100 psi 6.8 bar		100 psi 6.8 bar	

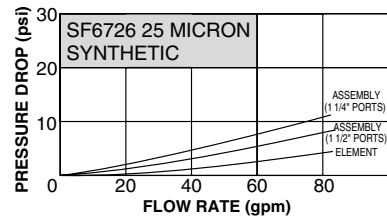
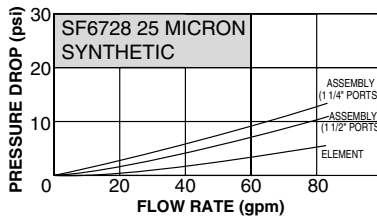
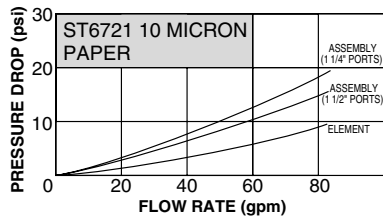
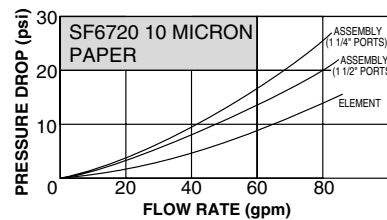
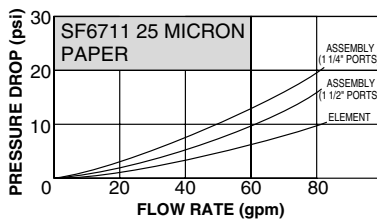
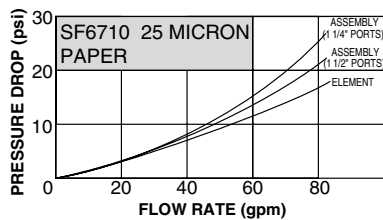
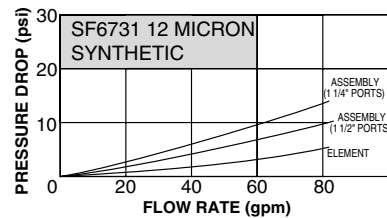
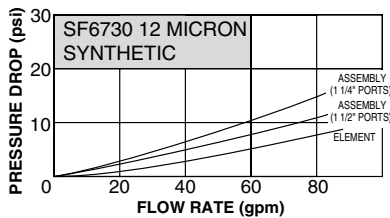
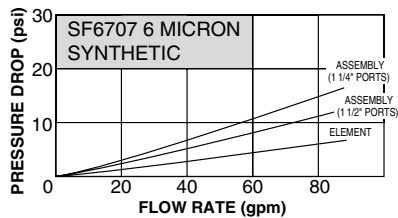
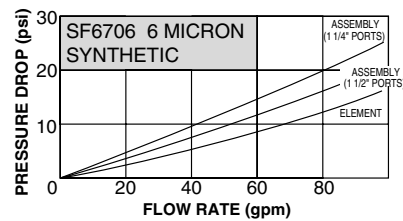
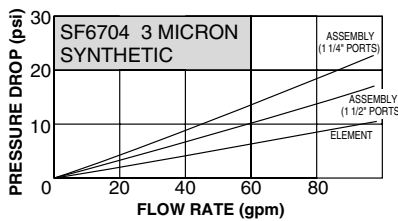
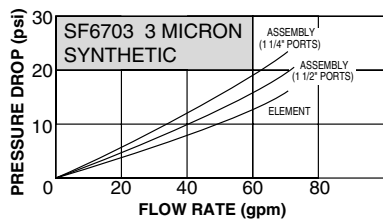
Note: These filters are not to be used on internal combustion engines as they do not contain an internal relief valve.

ACCESSORIES

SPIN-ON FILTERS

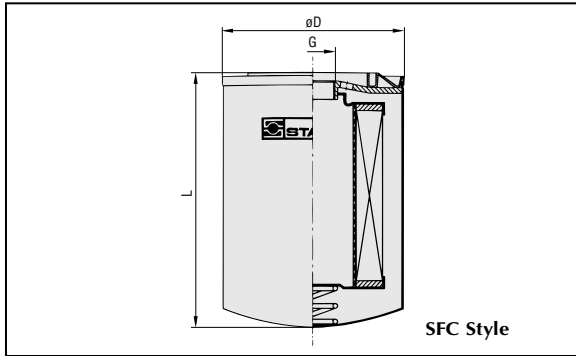
SSF/SMF/SDF/SF 6700 SERIES

PRESSURE DROP vs. FLOW CURVES



ACCESSORIES

EUROPEAN INTERCHANGE REPLACEMENT ELEMENTS



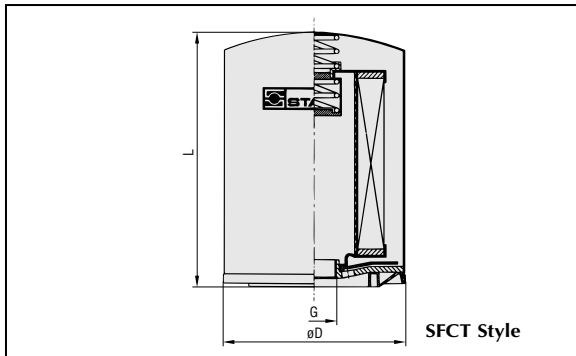
SFC elements (in-line mounting)

Micron Ratings Available

- 10 micron nominal paper
- 10 micron glass fiber

DIMENSIONAL TABLE

Type	SFC-35		SFC-36		SFC-57		SFC-58	
G	G $\frac{3}{4}$		G $\frac{3}{4}$		G $1\frac{1}{4}$		G $1\frac{1}{4}$	
D	3.86	98	3.86	98	5.2	32	5.2	132
L	5.7	145	7.5	190	7.1	80	8.9	226



SFCT elements (tank top mounting)

Micron Ratings Available

- 10 micron nominal paper

DIMENSIONAL TABLE

Type	SFCT-35		SFCT-36		SFCT-57		SFCT-58	
G	G $\frac{3}{4}$		G $\frac{3}{4}$		G $1\frac{1}{4}$		G $1\frac{1}{4}$	
D	3.86	98	3.86	98	5.2	32	5.2	132
L	5.7	145	7.5	190	7.1	80	8.9	226

15psi (1 bar) bypass in top of replacement element
Internal anti-drain back diaphragm in element

ORDERING INFORMATION

SFCT 35 10E R

TYPE	
SFC	Spin-On filter elements (In-line mounting)
SFCT	Spin-On filter elements (Tank top mounting)

INTEGRATED BYPASS VALVE

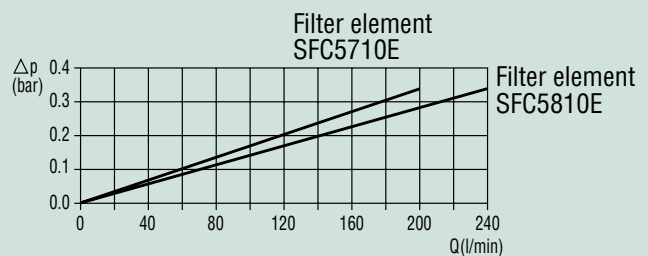
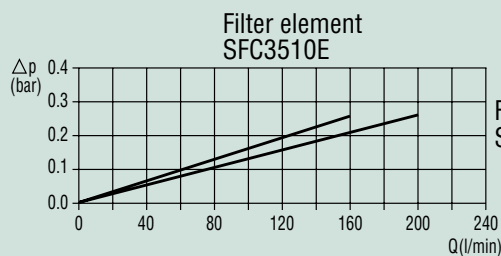
(none)	elements series SFC
R	elements series SFCT

FILTER SIZE	
35	for $\frac{3}{4}$ " BSP Post-Standard
36	for $\frac{3}{4}$ " BSP Post-Long
57	for $1\frac{1}{4}$ " BSP Post-Standard
58	for $1\frac{1}{4}$ " BSP Post-Long

FILTERMATERIAL / MICRON RATING

10AE	10 μ m Glass fibre
10E	10 μ m Paper (standard)
25E	25 μ m Paper (standard)
60E	60 μ m Wire mesh
125E	125 μ m Brass mesh

PRESSURE DROP vs. FLOW CURVES



SPECIFICATIONS

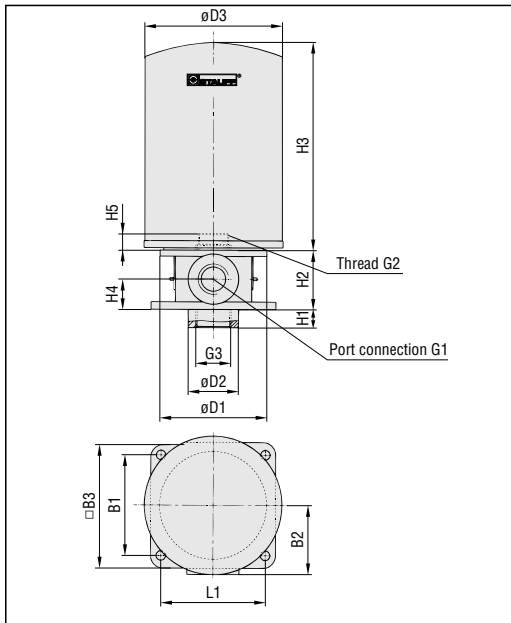
- Tank Top Mounted Spin-On filters
- Working Pressure is 100psi (7 bar)
- For Use With Mineral and Petroleum Based Fluids
- Operating Temperature From -22°F to 212°F (-30°C to 100°C)
- Die-Cast Aluminum Housing
- 15psi (1bar) By-Pass in Filter Element (Return Line Only)

OPTIONS

- Visual and Electrical Indicators Available
- 3/4" and 1 1/2" NPT Ports Available



SERIES SSFT 12, SSFT 20



Spin-On Filters for tank top assembly with one filter element.
DIMENSIONAL TABLE

Type	SSFT12		SSFT20	
	in	mm	in	mm
D1	3.0	76	5.31	135
D2	1.38	35	2.36	60
D3	3.85	98	3.2	132
G1	3/4" NPT		1 1/2" NPT	
G2	3/4" BSP		1 1/4" BSP and 1 1/2" - 16 UNF (dual spigot)	
G3	3/4" NPT		1 1/2" NPT	
H1	0.63	16	0.78	20
H2	1.97	50	2.87	73
H3	see element length for SFCT35/36 (S.27)		see element length for SFCT57/58 (S.27)	
H4	0.98	25	1.97	50
H5	0.55	14	1.34	34
L1	2.75	70	3.93	100
B1	2.75	70	3.93	100
B2	1.97	50	2.75	70
B3	3.55	90	4.72	120

minimum clearance for element installation:
element length + 20 mm (SSFT 12) / + 40 mm (SSFT 20)

For visual indicator use CI-12.

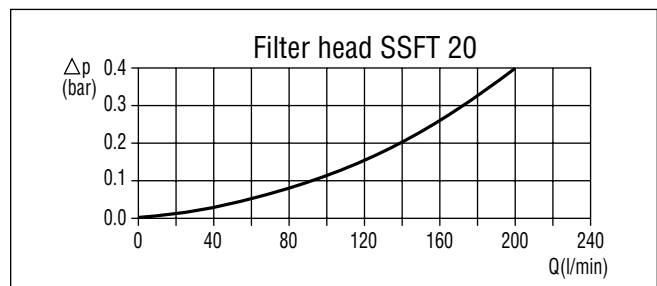
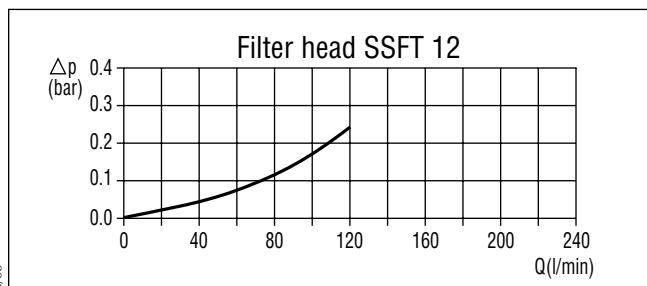
For electrical indicator use EPS-1.

ORDERING CODE

FILTER HEADS: SSFT 12R – 3/4" NPT, INDICATOR PORTS TAPPED 1/8" NPT & PLUGGED
SSFT20R – 1 1/2" NPT, INDICATOR PORTS TAPPED 1/8" NPT & PLUGGED

FILTER ELEMENTS: USE SFCT STYLE ELEMENTS DESCRIBED IN PAGE 129

TECHNICAL INFORMATION – PRESSURE DROP/FLOW



SPIN-ON FILTERS

SSF 24/25 SERIES



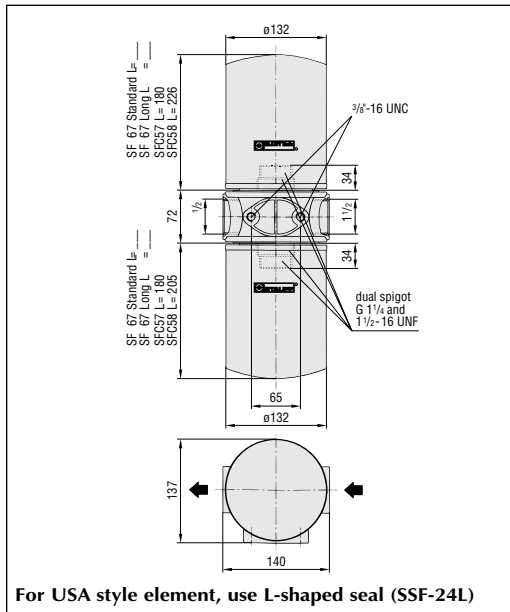
SPECIFICATIONS

- Flows to 120gpm for Return Line and 35gpm for Suction Line Applications
- Working Pressure is 150psi (10 bar)
- For Use With Petroleum Based Fluids Only
- Operating Temperature From -22°F to 212°F (-30°C to 100°C)
- Buna-N Seals
- Cast Aluminum Head
- Dual Port for Filter Elements Which Will Accept Either the USA Style (1½-16" UNF) or European Style Elements (1¼" BSP)

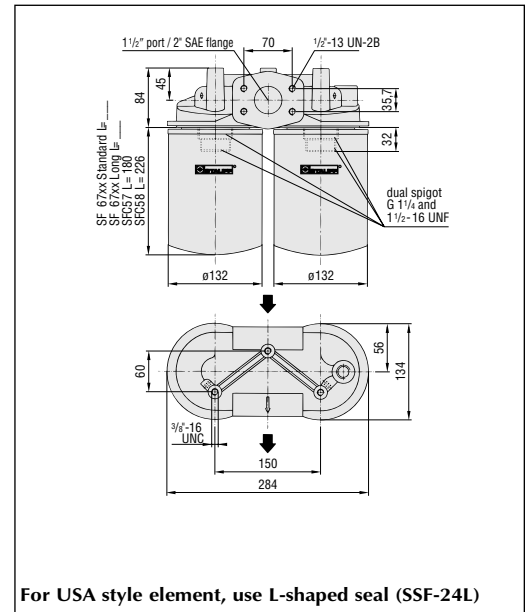
OPTIONS

- A Wide range of Elements Available (see pages 126 & 129)
- Visual or Electrical Indicators Available
- By-pass Options Available for Both Suction or Return

SERIES SSF 24



SERIES SSF 25



ORDERING INFORMATION

SSF24N 25 O O

FILTER HEAD	
SSF-24N	1½" NPT Ports
SSF-24S	1⅞" SAE Ports
SSF-25	1½" NPT/2" SAE Flange

BY-PASS OPTIONS	
00	No By-Pass
03	3psi (0.2 bar)
05	5psi (0.33 bar)
15	15psi (1 bar)
25	25psi (1.7 bar)

INDICATOR	
0	No Indicator
EP	Electrical Pressure
EVS-1	Electrical Vacuum
GV5	For Use With 3psi By-pass
GV10	For Use With 5psi By-pass
CI-12	For Use With 15psi By-pass
CI-20	For Use With 25psi By-pass

INDICATOR PORT OPTIONS	
0	No Indicator
1	All Indicator Ports Drilled and Tapped

See Pages 126, 127 & 129.

3/00

SPECIFICATIONS

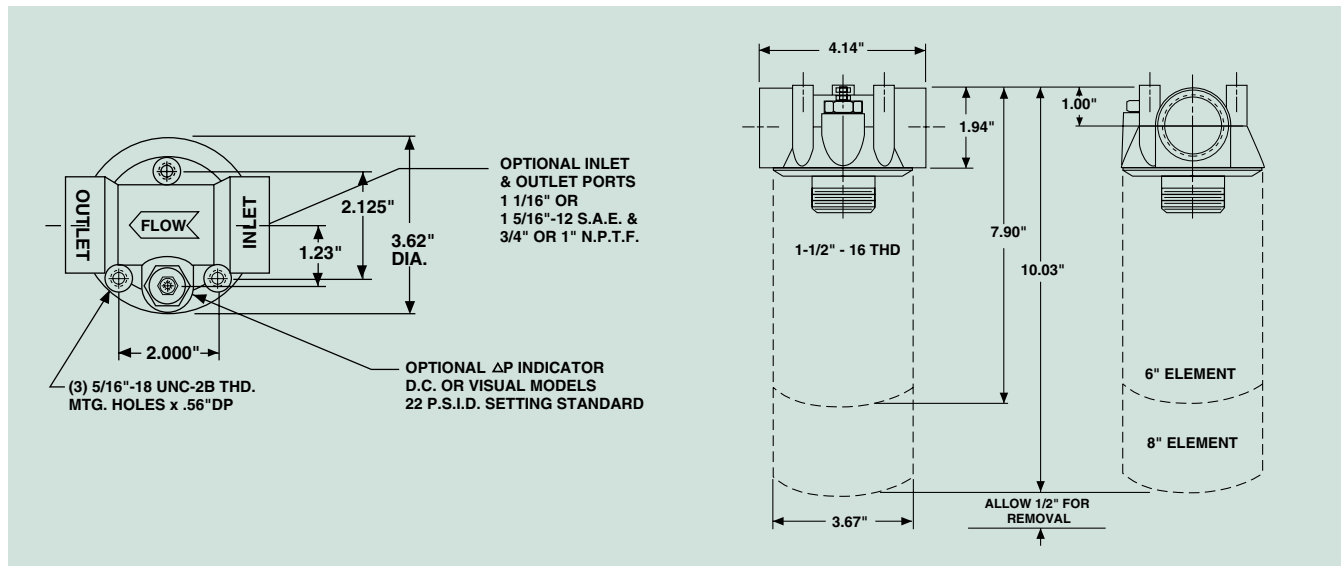
- Flows to 40gpm (150 lpm) for Return Line Application
- Maximum Static Pressure-600psi
- Maximum Pressure Differential of 100psi (7 bar)
 For Heads With No By-Pass Option
- For Use With Petroleum Based Fluids Only
- Operating Temperatures From -25°F to 212°F
 (-32°C to 100°C)
- Buna-N Seals
- Die Cast Aluminum Head

OPTIONS

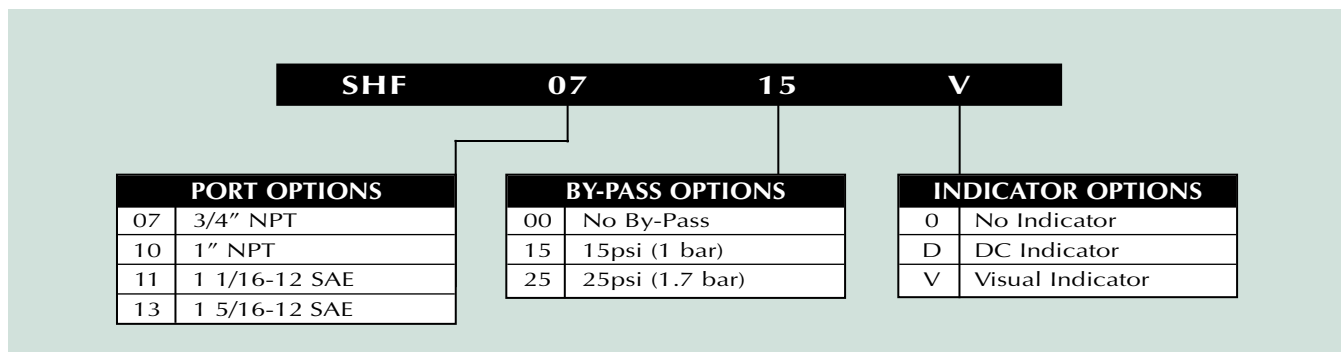
- 3/4" or 1" NPT or SAE Ports
- Visual or DC-Electrical Indicators
- No By-Pass, 15psi (1 bar) or 25psi (1.7 bar) By-Pass Available



DIMENSIONS



ORDERING INFORMATION



See Page 136 for Further Details on Indicator Options.

SPIN-ON FILTERS REPLACEMENT ELEMENTS SF6600 SERIES



SPECIFICATIONS

- Maximum Static Pressure– 600psi
- For Use With Petroleum Based Fluids Only
- Operating Temperature From -25°F to 212°F (-32°C to 100°C)
- Use a Strap-on Chain Wrench For Element Removal

OPTIONS

- Elements Available Individually or in Carton Quantities of 12
- 10 or 25 Micron Nominal Rating Paper Elements
- Extended Length Elements Available

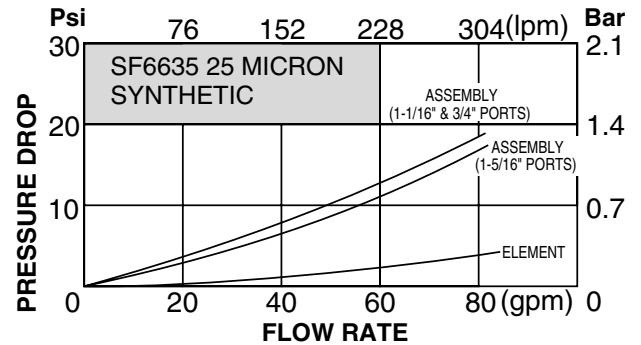
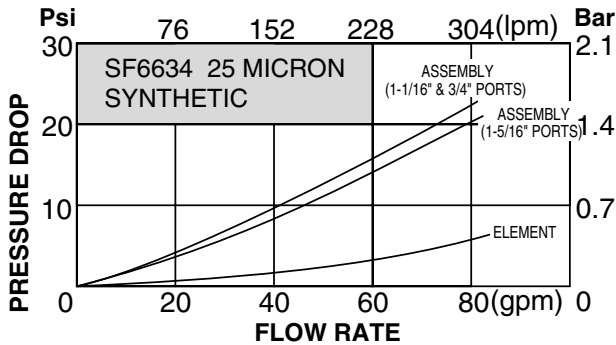
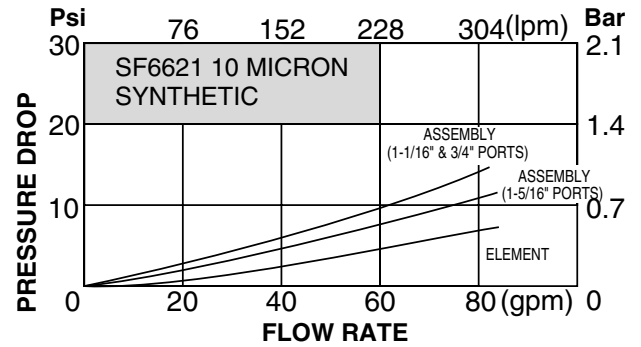
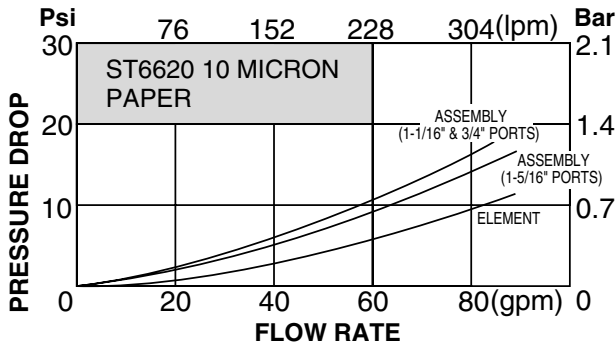
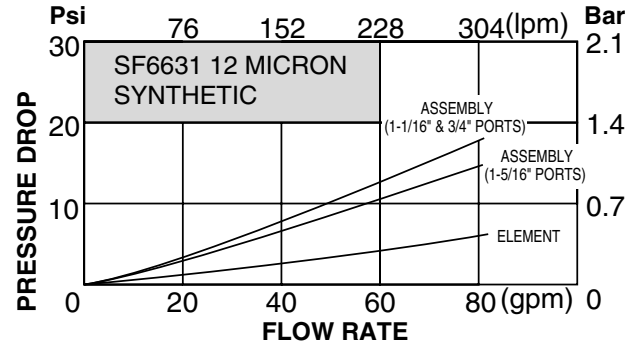
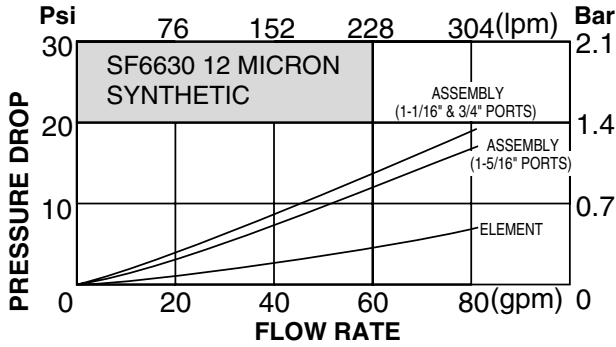
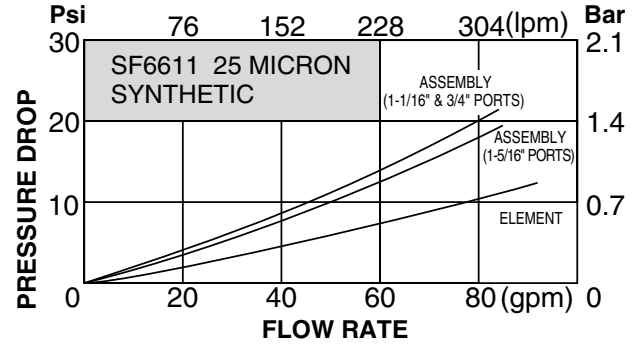
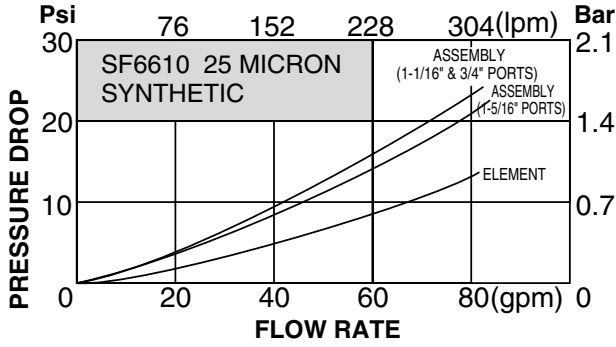
DIMENSIONS / ORDERING INFORMATION

	PAPER								SYNTHETIC							
	SF 6620		SF6621		SF6610		SF6611		SF6630		SF6631		SF6634		SF6635	
DIAMETER	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
LENGTH	5.68	144	8.00	203	5.68	144	8.00	203	5.68	144	8.00	203	5.68	144	8.00	203
ELEMENT THREAD	1 1/2-16 UNC		1 1/2-16 UNC		1 1/2-16 UNC		1 1/2-16 UNC		1 1/2-16 UNC		1 1/2-16 UNC		1 1/2-16 UNC		1 1/2-16 UNC	
β-RATIO	β10-2		β10-2		β25-12		β25-12		β12-75		β12-75		β25-75		β25-75	
DIRT HOLDING CAPACITY (gms)	16		25		23		36		30		29		27		41	
FILTRATION AREA (sq in)	377		576		322		493		304		466		338		518	
(sq cm)	2432		3716		2077		3180		1961		3006		2180		3341	
CARTON QUANTITY	12		12		12		12		12		12		12		12	
CARTON lbs. WEIGHT (kg)	1.20	(0.54)	1.72	(0.78)	1.20	(0.54)	1.52	(0.70)	1.40	(0.64)	1.94	(0.89)	1.48	(0.67)	2.86	(1.3)

3700

ACCESSORIES

SPIN-ON FILTERS SHF/SF 6600 SERIES PRESSURE DROP vs. FLOW CURVES



ACCESSORIES



SPECIFICATIONS

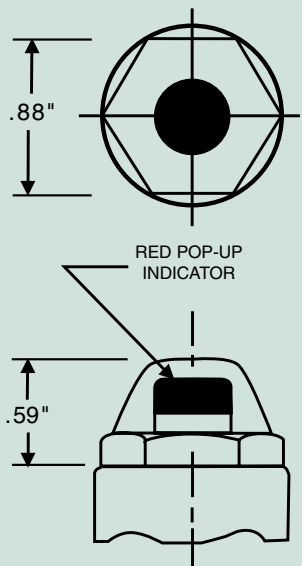
- For Use With SHF, SMF and SDF Filters
- 22 P.S.I.D. Setting Standard for 25psi By-pass
- Indicators Have Automatic Reset After Cold Start Situations or After the Element is Replaced

OPTIONS

- Visual or DC
- Other psi setting— 13.2psi — 15psi By-pass
2.64psi — 3psi By-pass
4.40psi — 5psi By-pass

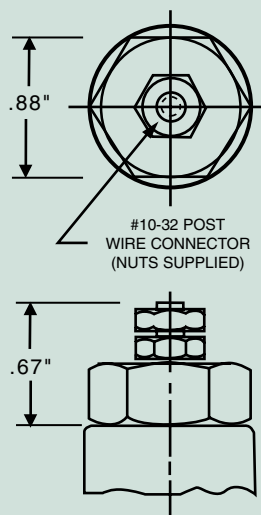
DIMENSIONS

VISUAL INDICATOR



Indication: Red Pop-up Indicator

DC ELECTRICAL INDICATOR



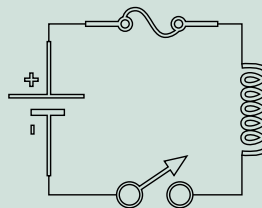
Setting: 22 P.S.I.D. \pm 10%

Indication: Electrical Contact Closes Circuit

Voltage: 36 Volts D.C.

Current: 200 MA

Circuit: Normally Open



Both Models Must be Factory Installed

3/00

VISUAL INDICATORS

• Brass Internals

Vacuum Gauges Suction Line Applications

For use with 3psi filter by-pass valve

For use with 5psi filter by-pass valve

Pressure Gauges Return Line Applications

For use with 15psi filter by-pass valve

For use with 25psi filter by-pass valve

ELECTRICAL INDICATOR

EPS-1

EVS-1

Can Be Field Installed

	EPS-1 (PRESSURE)	EVS-1 (VACUUM)
ELECTRICAL	7AMP 125/250 VAC	7AMP 125/250 VAC
PROTECTION	DIN 43650 IP65	DIN 43650 PIP65
TEMPERATURE RANGE	-40°F TO 180°F (-40°C TO +80°C) AMBIENT & MEDIUM	-40°F TO +180°F (-40°C TO +80°C) AMBIENT & MEDIUM
DIAPHRAGM MATERIAL	EPICHLOROHYDRIN STANDARD	EPICHLOROHYDRIN STANDARD
HOUSING MATERIAL	ZINC PLATED STEEL STANDARD	ALUMINUM AL2024
MAXIMUM OVERPRESSURE	350 PSI (25 BAR) 6:1 SAFETY FACTOR	350 PSI (25 BAR)
ADJUSTMENT RANGES	5/35 PSI (0.35/2.5 BAR)	5/30 IN HG (150/1000 MBAR)
DEAD BAND	20%	25%
MAXIMUM PRESSURE	350 PSI (25 BAR)	350 PSI (25 BAR)
WELTED AREA MATERIAL	ELASTOMER & ZINC PLATED STEEL BRASS	ELASTOMER & ANODIZED ALUMINUM 316SS OPTIONAL
WEIGHT	STEEL HOUSING 0.23 LB (0.11 KG)	0.50 LBS. (0.25 KG)
REPEATABILITY	±2% AT 70°F (20°C) AMBIENT TEMPERATURE	±2% AT 70°F (20°C) AMBIENT TEMPERATURE
HIRSCHMANN CONNECTOR WITH STRAIN RELIEF		

3/00

SUCTION STRAINER

TFS SERIES

METAL END CAP



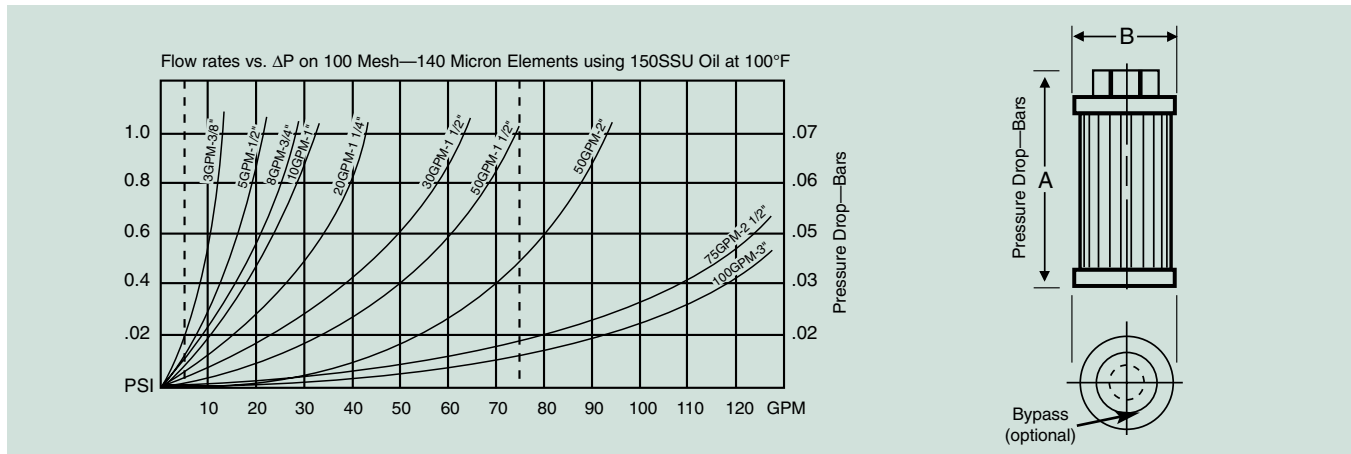
SPECIFICATIONS

- Stainless Steel Mesh 140μ—100 Mesh
- Temperature to 250°F (+120°C)
- Epoxy Bonded for Compatibility with Petroleum & Mineral Based Fluids.
- Aluminum End Caps

OPTIONS

- No By-pass or 3psi By-pass Available
- Custom Sizes on Request

TECHNICAL INFORMATION



DIMENSIONS / ORDERING INFORMATION

PART NO.	PORT (NPT)	NOMINAL FLOW		FILTER AREA		LENGTH A		DIA. B		WT (LB.)
		GPM	L/MIN	IN ²	CM ²	in	mm	in	mm	
TFS-040-0	3/8"	3	11	20	130	3.5	90	1.8	46	0.3
TFS-050-0	1/2"	5	19	25	161	4.2	107	1.8	46	0.4
TFS-070-0	3/4"	8	31	62	400	4.2	107	2.6	64	0.5
TFS-100-0	1"	10	38	110	710	5.5	140	2.6	64	0.7
TFS-120-0	1 1/4"	20	88	162	1050	5.5	174	3.4	86	1.0
tfs-150-0	1 1/2"	30	120	225	1450	5.5	225	3.4	86	1.2
TFS-1540-0	1 1/2"	50	198	340	2190	10.0	260	3.4	86	1.4
TFS-200-0	2"	50	198	340	2190	10.0	260	3.4	86	1.8
TFS-250-0	2 1/2"	75	283	400	2580	8.4	260	5.9	150	2.3
TFS-300-0	3"	100	379	500	3230	10.7	272	5.9	150	3.0

For Bypass Option Specify -3 (Eg. TFS-100-3)

ACCESSORIES

SPECIFICATIONS

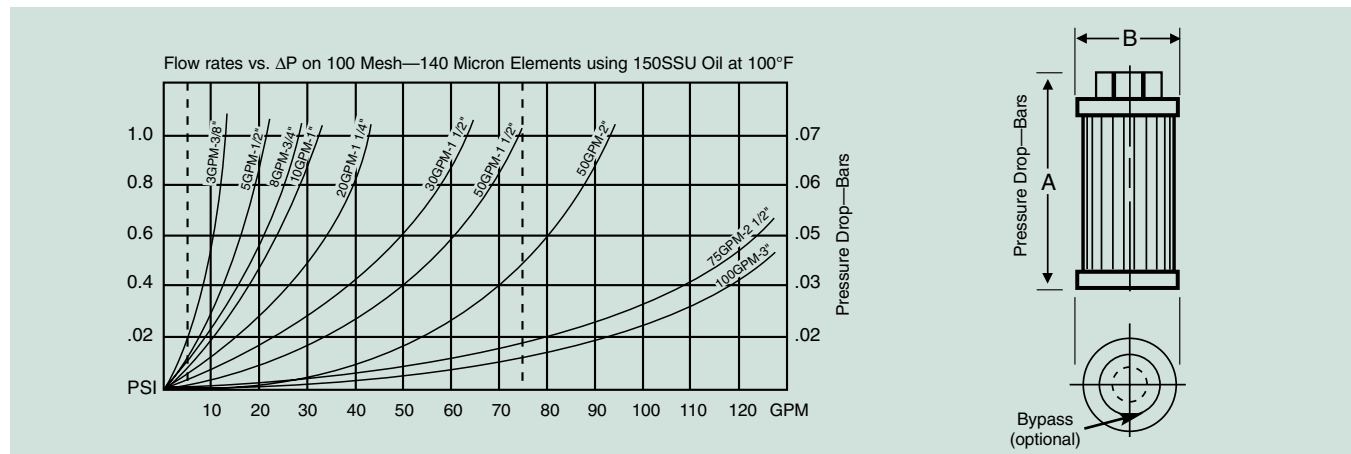
- Stainless Steel Mesh 140 μ —100 Mesh
- Temperature to 250°F (+120°C)
- Epoxy Bonded for Compatibility with Petroleum & Mineral Based Fluids.
- Plastic/Aluminum End Caps

OPTIONS

- No By-pass or 3psi By-pass Available
- Custom Sizes on Request



TECHNICAL INFORMATION



DIMENSIONS / ORDERING INFORMATION

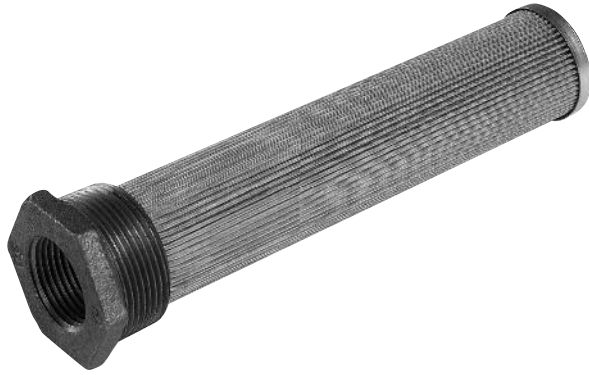
PART NO.	PORT (NPT)	NOMINAL FLOW		FILTER AREA		LENGTH A		DIA. B		WT (LB.)
		GPM	L/MIN	IN ²	CM ²	in	mm	in	mm	
TFS-040-0-P	3/8"	3	11	20	130	1.9	50	1.9	50	0.3
TFS-050-0-P	1/2"	5	19	25	161	4.0	101	1.9	50	0.4
TFS-070-0-P	3/4"	8	31	62	400	4.1	105	2.6	68	0.5
TFS-100-0-P	1"	10	38	110	710	5.5	141	2.6	68	0.7
TFS-120-0-P	1 1/4"	20	88	162	1050	5.5	141	3.5	88	1.0
TFS-150-0-P	1 1/2"	30	120	225	1450	5.5	141	3.5	88	1.2
TFS-1540-0-P	1 1/2"	50	198	340	2190	7.9	201	3.9	102	1.4
TFS-200-0-P	2"	50	198	340	2190	10.2	261	3.9	102	1.8
TFS-250-0-P	2 1/2"	75	283	400	2580	8.4	209	5.1	131	2.3
TFS-300-0-P	3"	100	379	500	3230	10.7	273	5.1	131	3.0

For Bypass Option Specify -3 (Eg. TFS-100-3-P)

3/00

SUCTION STRAINER

TMF SERIES – TANK MOUNTED



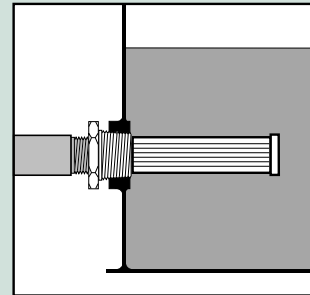
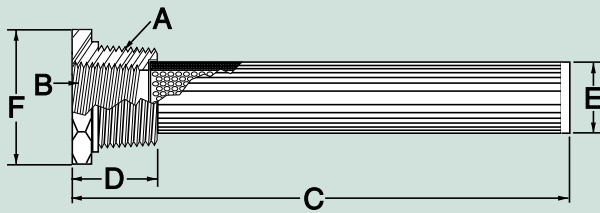
SPECIFICATIONS

- Stainless Steel Mesh 100 Mesh - 140 Micron
- Cast Iron Bushings
- Epoxy Bonded for Compatability with most Petroleum & Mineral Based Fluids
- Perforated Steel Inner Supports

OPTIONS

- No By-Pass or 5psi By-Pass
- Custom Screens Available on Request
- SAE Threads/Hose Barbs Available for OEM Applications

DIMENSIONS / MOUNTING INFORMATION



ORDERING INFORMATION

PART NO.	FLOWRATE		NPT SIZES		C		D		HEX F		E		SCREEN AREA	
			A	B					in	mm			in	mm
	GPM	LPM			in	mm	in	mm	in	mm	in	mm	in ²	mm ²
TMF-05	5	19	1"	1/2"	5.34	135	1.06	27	1.625	41	1.17	29	40	258
TMF-10	10	37.8	1 1/4"	3/4"	8.17	207	1.20	30	1.812	46	1.36	34	67	432
TMF-15	15	56.8	1 1/2"	1"	8.20	208	1.22	31	2.187	55	1.66	42	86	554
TMF-25	25	94.5	2"	1 1/4"	9.04	230	1.35	35	2.562	65	2.12	54	159	1025
TMF-50	50	189	3"	2"	9.7	246	1.70	43	3.875	98	3.0	76	252	1625
TMF-100	100	378	4"	3"	11.3	287	1.80	46	4.750	120	4.0	101	315	2032

For Bypass Option Specify -5 (Eg. TMF-100-5)

SPECIFICATIONS

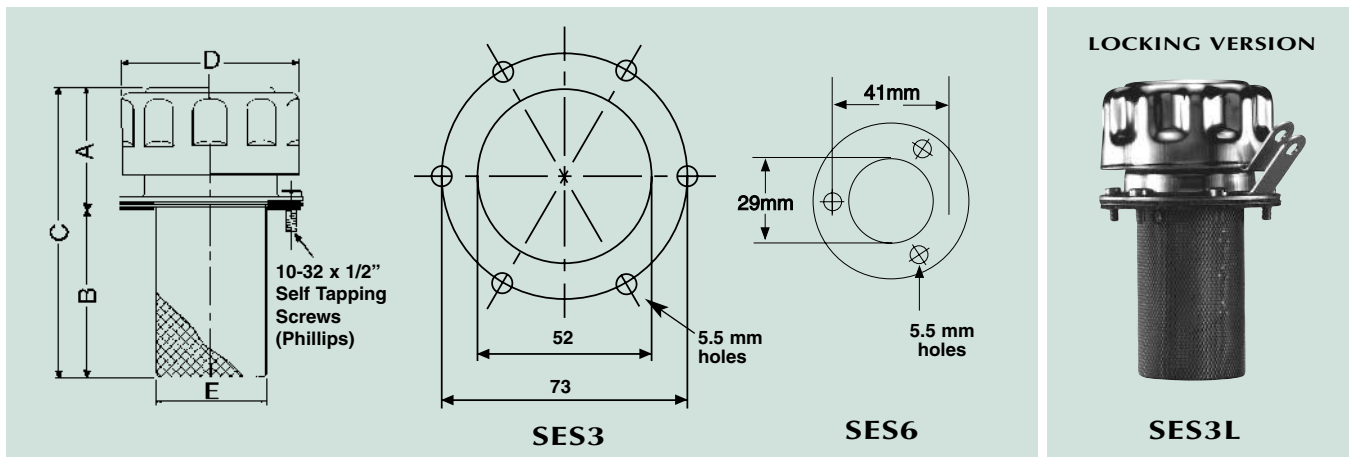
- Chrome-Plated Metal Cap
- 30 Mesh Metal Basket
- Cork Gaskets
- Air Flow to 25cfm

OPTIONS

- Two Diameter Caps Available: 3.15" for SES3, 1.85" for SES6.
- 3µ, 10µ 40 Filtration Available on SES3 Version. 40µ Only on SES6 Version.
- 3, 6, and 8 inches Basket Length Available on SES3.
- Weatherproof Black Epoxy Coated Version Available.
- Special Versions Available on Request



DIMENSIONS



PART NO.	MICRON RATING	AIR FLOW CAPACITY		OIL DISPLACEMENT		A		B		C		D		E		SCREWS
		cfm	m ³ /min	gpm	lpm	in	mm	in	mm	in	mm	in	mm	in	mm	
SES3-03	3	10.0	0.28	72	272	2.17	55	3.14	80	5.32	135	3.15	80	1.90	48	10-32x1/2
SES3-10	10	15.2	0.43	110	416	2.17	55	3.14	80	5.32	135	3.15	80	1.90	48	10-32x1/2
SES3-40	40	26.4	0.75	190	720	2.17	55	3.14	80	5.32	135	3.15	80	1.90	48	10-32x1/2
SES6-40	40	10.0	0.28	72	272	1.89	48	2.44	62	4.41	112	2.05	52	1.14	29	10-32x1/2

ORDERING INFORMATION

SES3		P	40		S80	D		
PRODUCT TYPE			FILTRATION LEVEL			DIPSTICK		
SES3	Standard Air Breather Bayonet		03	3 Micron Paper		D	Dipstick	
SES6	Mini Air Breather Bayonet *		10	10 Micron Foam		Blank	No Dipstick	
SES3L	Lockable Breather		40	40 Micron Foam				
PLATING			BASKET LENGTH					
-	Chrome		S80	Standard 80mm				
P	Weatherproof		S65	Mini Breather Basket (SES 6 only)				
			S150	Extended 150mm				
			S200	Extended 200mm				

*Only 40µ available in SES 6 version.

FILLER BREATHERS

SES5 – SCREW-IN STYLE



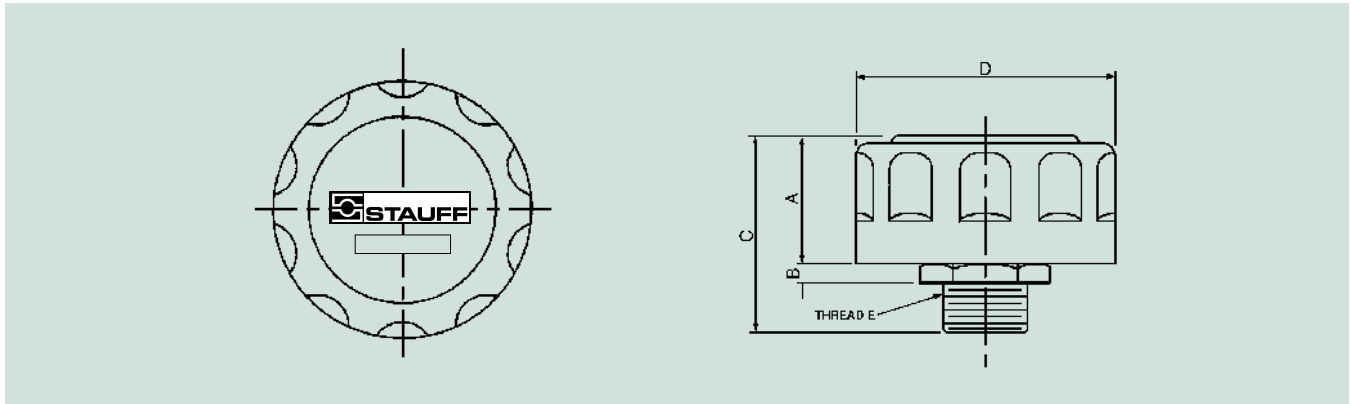
SPECIFICATIONS

- Chrome-Plated Metal Cap
- Airflow to 25 cfm

OPTIONS

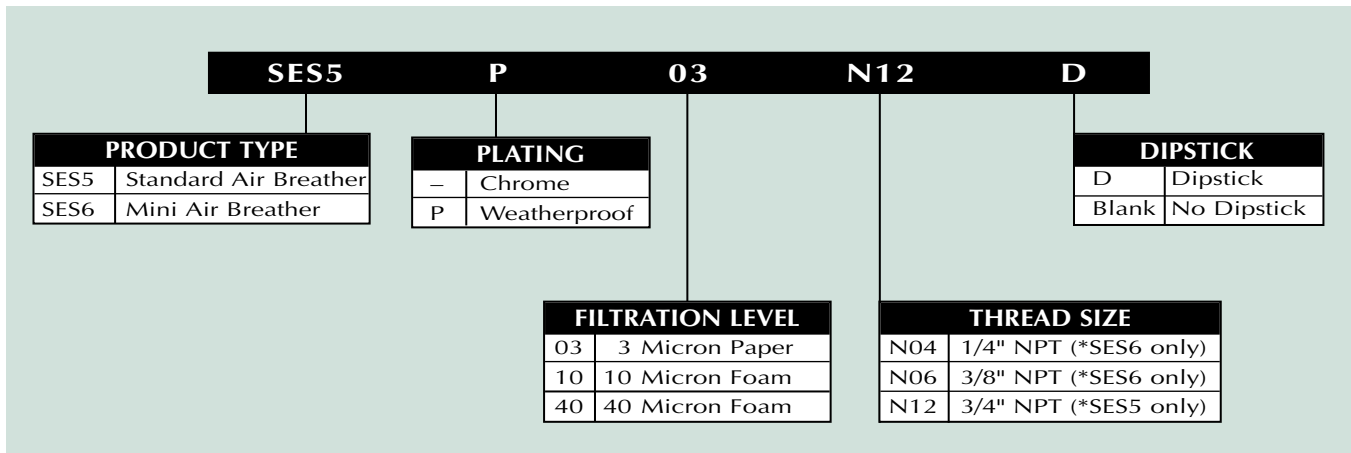
- 3/4" NPT on SES5 Version, 1/4", 3/8" NPT on SES6 Version
- Two Cap Diameters Available: 3.15" for SES5, 1.85" for SES6.
- 3μ, 10μ and 40μ Available on SES5. 40μ Available Only on SES6.
- Dipstick Available
- Weatherproof Black Epoxy Coated Version Available
- Special Versions Available on Request

DIMENSIONS



PART NO.	MICRON RATING	AIR FLOW CAPACITY		OIL DISPLACEMENT		A		B		C		D		THREAD E
		cfm	m ³ /min	gpm	lpm	in	mm	in	mm	in	mm	in	mm	
SES5-03	3	10.0	0.28	72	272	1.61	41	0.50	12.7	2.9	74	3.15	80	3/4" NPT
SES5-10	10	15.2	0.43	110	416	1.61	41	0.50	12.7	2.9	74	3.15	80	3/4" NPT
SES5-40	40	26.4	0.75	190	720	1.61	41	0.50	12.7	2.9	74	3.15	80	3/4" NPT
SES6-40	40	10.0	0.28	72	272	1.89	48	0.25	6.4	2.18	55	1.85	47	1/4", 3/8" NPT

ORDERING INFORMATION



3/00

SPECIFICATIONS

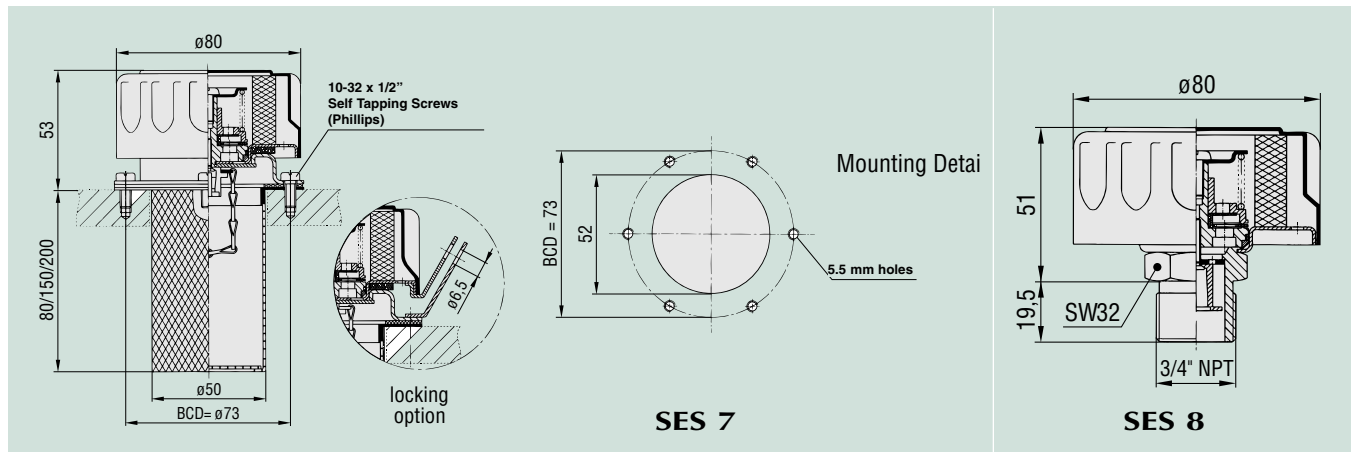
- Chrome Plated Metal Cap
- 30 Mesh Metal Basket
- Buna-N Gaskets
- Air Intake Valve Opens at 0.35psi
- Compatible with Petroleum and Mineral Based Fluids

OPTIONS

- 10 μ & 40 μ Filtration Available
- 5psi or 10psi Relief Valve Setting
- Bayonet or Screw-in Style
- 6" or 8" Stainless Steel Baskets Available
- Weatherproof Black Epoxy Coated Version Available.
- Special Versions Available on Request



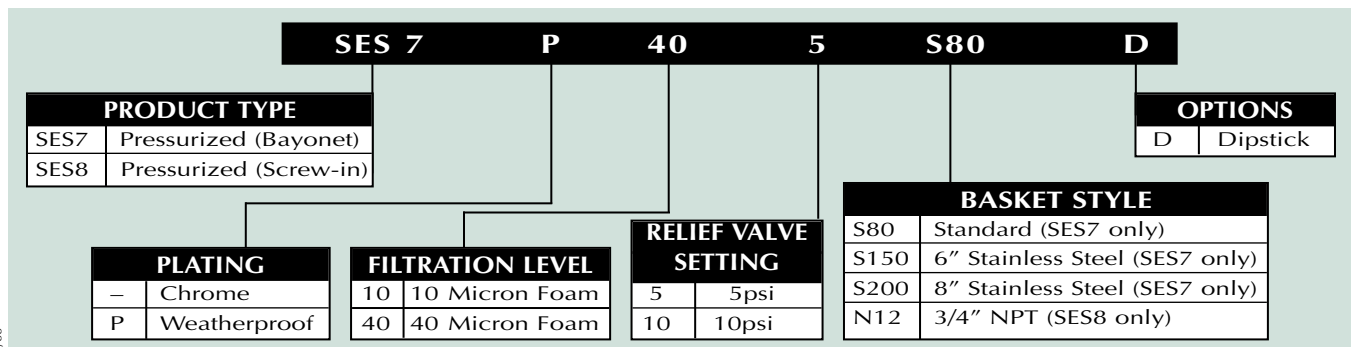
DIMENSIONS



PART NO.	MICRON RATING	AIR FLOW CAPACITY		OIL DISPLACEMENT		SCREWS
		cfm	m ³ /min	gpm	lpm	
SES7-10	10	15.2	0.43	110	416	10-32X1/2"
SES7-40	40	26.4	0.75	190	720	10-32X1/2"

PART NO.	MICRON RATING	AIR FLOW CAPACITY		OIL DISPLACEMENT		THREAD E
		cfm	m ³ /min	gpm	lpm	
SES8-10	10	15.2	0.43	110	416	3/4" NPT
SES8-40	40	26.4	0.75	190	720	3/4" NPT

ORDERING INFORMATION



3/00

FILLER BREATHERS

PLASTIC SPB SERIES



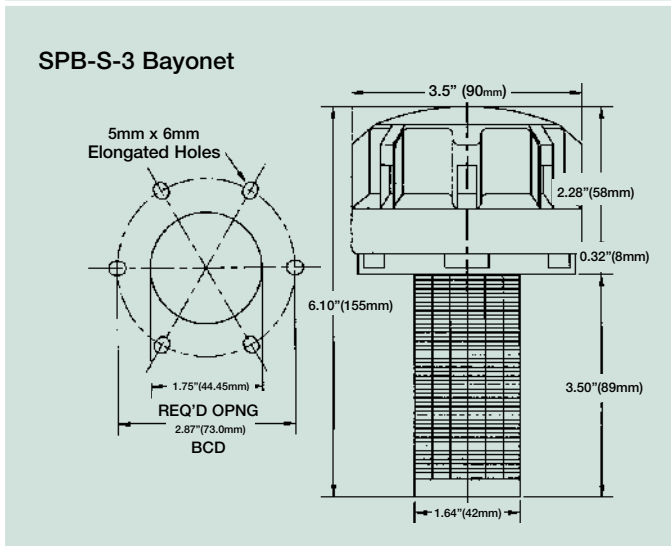
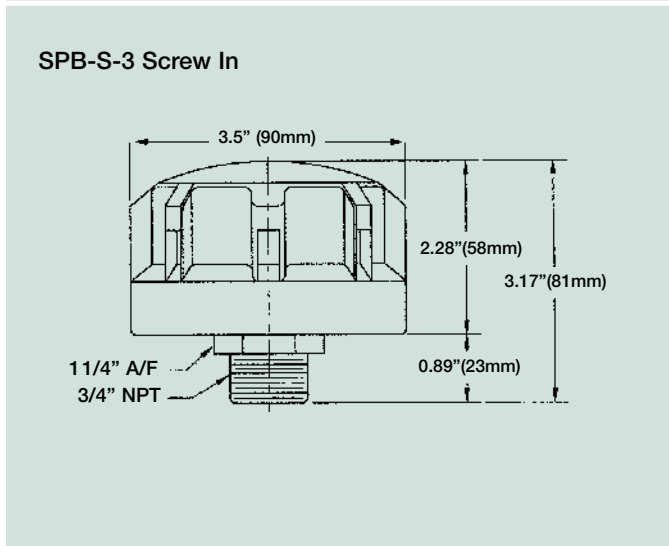
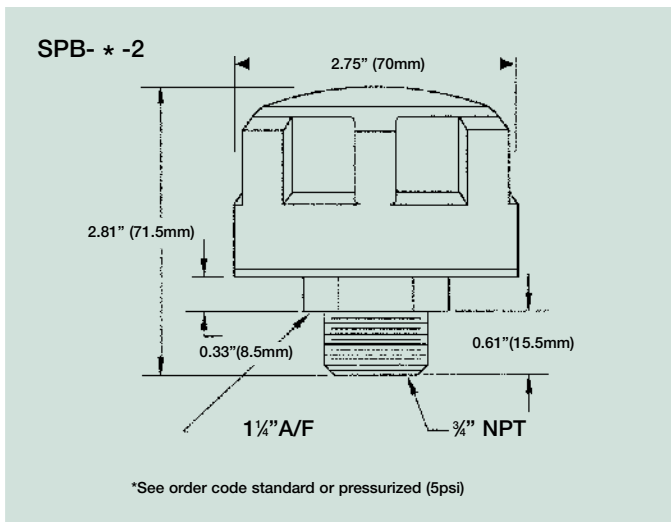
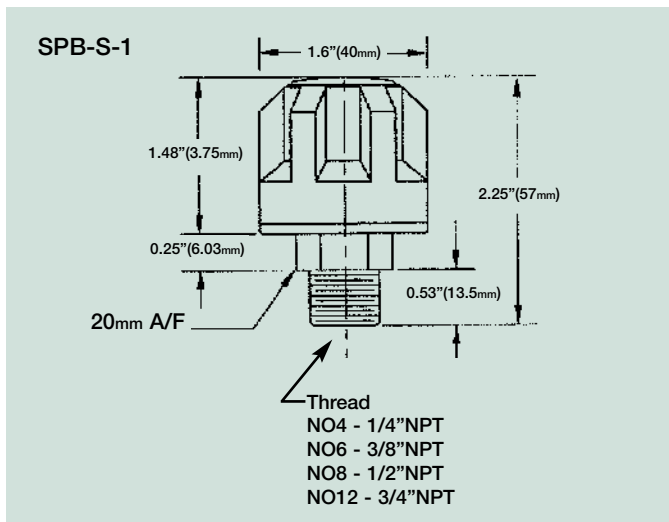
SPECIFICATIONS

- Glass Filled Nylon Construction
- Compatible with Petroleum, Mineral and Water Based Hydraulic Fluids
- 10 Micron Polyurethane Foam Element
- Temperature Range (-40°F – 250°F)
(-40°C – 120°C)
- Displacements to 300 GPM (Without Anti-Splash)

OPTIONS

- Pressurized Version (5psi) Available on 70mm Cap
- Anti-Splash Baffle Available
- Dipstick Available

DIMENSIONS



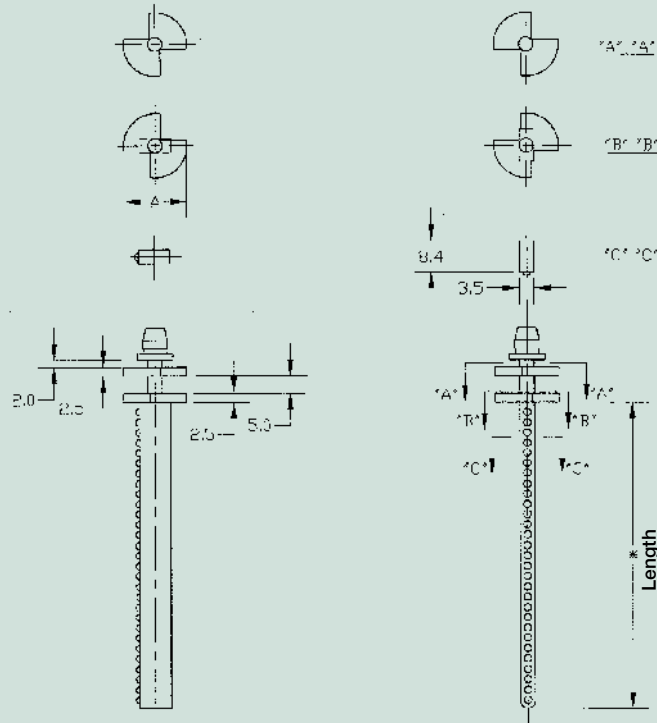
ACCESSORIES

3/00

DIPSTICK OPTION

CAP Ø MM	40	70	90
Thread NPT	3/8" 1/2"	3/4"	3/4"
A	10.0	14.1	18.0
Part No.	DS1-300	DS2-300	DS3-300

*Cut Length to Suit – 300mm MAX.



NOTE: These Dipsticks also fit SES 7 & 8.

ORDERING INFORMATION

SPB S 2 10 N12 A D300

SPB PLASTIC

STYLE

S	STANDARD
P	PRESSURIZED (SPB2 only) 5PSI

CAP SIZE

1	40MM, 1.6" Diameter
2	70MM, 2.75" Diameter
3	90MM, 3.50" Diameter

FILTRATION LEVEL*

10	10 MICRON
----	-----------

DIPSTICK*

OMIT	- NO DIPSTICK
DXXX	- DIPSTICK LENGTH in mm (300 Standard)

ANTI-SPLASH

A	WITH ANTI-SPLASH – NO DIPSTICK
---	--------------------------------

STYLE

NO4	SCREW-IN 1/4 NPT (Size 1 only)
NO6	SCREW-IN 3/8 NPT (Size 1 only)
NO8	SCREW-IN 1/2 NPT (Size 1 only)
NO12	SCREW-IN 3/4 NPT (Size 1 only)
S80	BAYONET

*Consult factory for other options. * Dipstick option always has Anti-splash.

ACCESSORIES

3/00

FILLER BREATHER PLASTIC SES1, SES2



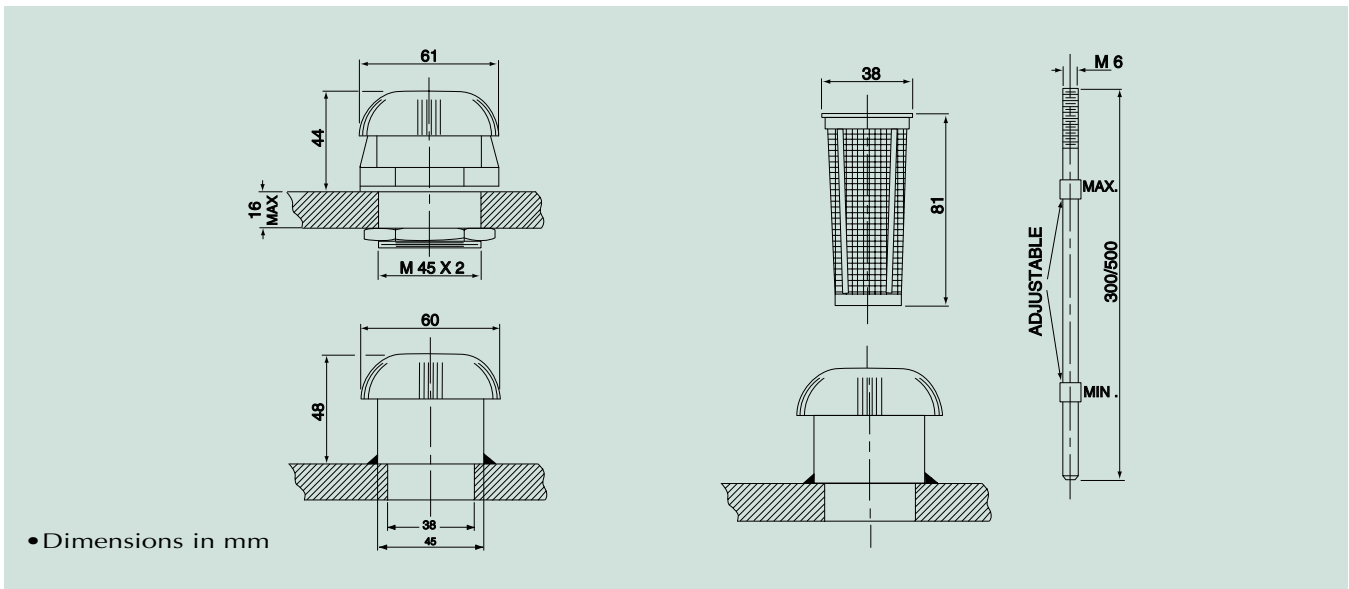
SPECIFICATIONS

- Manufactured from Oil and Acid Resistant Plastic
- Sintered Bronze Air Filter
- Adjustable Minimum and Maximum Indicators on the Optional Dipstick

OPTIONS

- Screw-In or Welded Versions
- Strainer Basket with Length 3.2"
- Dipsticks Available to a Maximum Length of 19.5 in. (500mm).

DIMENSIONS



ORDERING INFORMATION

SES1		S	
PRODUCT TYPE		OTHER OPTIONS	
SES1	Screw-In Version	D	Dipstick
SES2	Welded Version	S	Strainer

• Note: Specify Dipstick Length and Min/Max Marking

3/00

SPECIFICATIONS

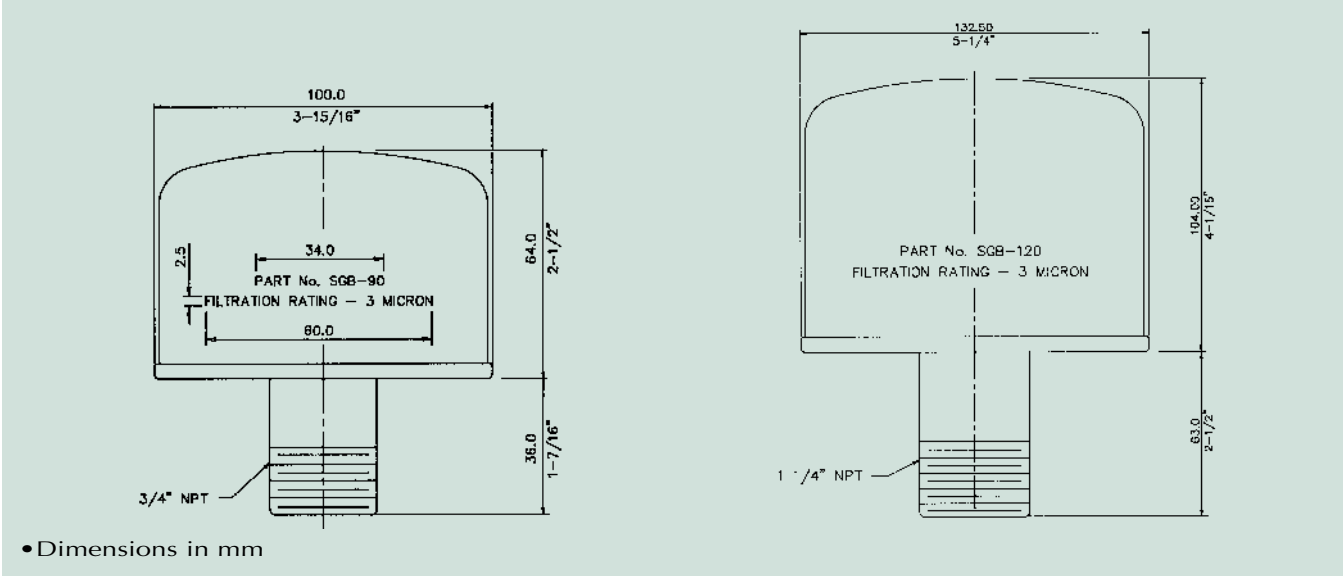
- 3 Micron Absolute Synthetic Media Filtration Element
- Compatible with Petroleum and Mineral Based Fluids
- Air Flow Rates of 135gpm for SGB-90C and of 395gpm for SGB-120C

OPTIONS

- SGB-90C, 3/4" NPT Connector
- SGB-120C, 1 1/4" NPT Connector



DIMENSIONS



SPECIFICATIONS

PART NUMBER	ABSOLUTE MICRON RATING	AIR FLOW CAPACITY		AIR DISPLACEMENT		FILTRATION AREA	
		CFM	M ³ /MIN	GPM	LPM	SQ IN	SQ CM
SGB-90C	3	18	0.51	135	511	109	700
SGB-120C	3	55	1.56	395	1495	279	1800

ORDERING INFORMATION

Assemblies

SGB90C - 03

PRODUCT TYPE		FILTRATION LEVEL	
SGB90C	Filler Breather Assembly	03	3 Micron
SGB120C	Filler Breather Assembly (includes adaptor fitting)		

Replacement Elements (only)

PRODUCT TYPE	
SGB-90	3 Micron Glass Fiber
SGB-120	3 Micron Glass Fiber

ACCESSORIES

3/00

FILLER BREATHER ADAPTORS



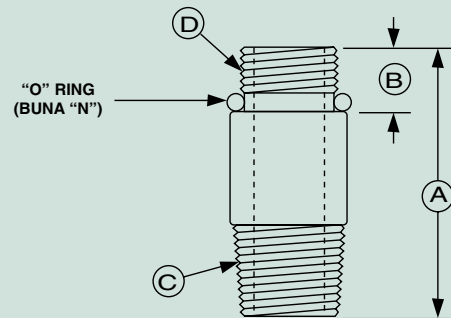
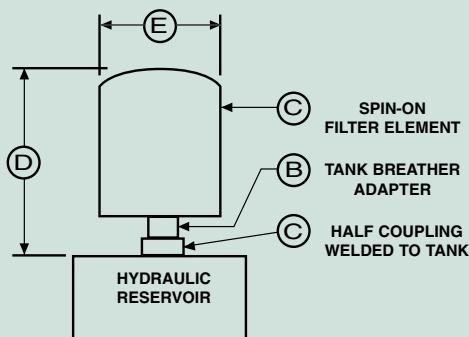
SPECIFICATIONS

- Steel Construction, Zinc Plated
- Buna-N "O"-Ring
- Air Flows to 64 CFM / 480 G.P.M.

OPTIONS

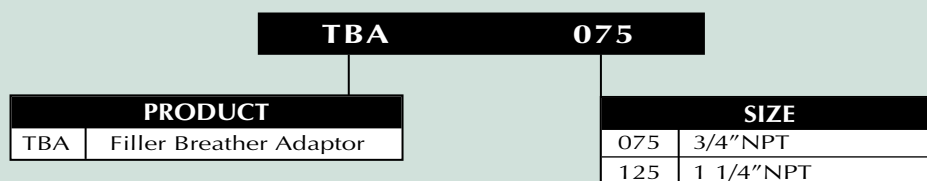
- Available with 3/4" or 1 1/4" Male NPT Attachment
- Available with 1"-12", 1 1/2"-16 Element Attachment Thread to Fit SF6500 & SF6700 Series Element

DIMENSIONS



FILLER BREATHER ADAPTOR	A		B		C MALE PIPE THREAD	D ELEMENT ATTACHED THREAD	ELEMENT	MICRON RATING	AIR FLOW CFM/GPM
	in	mm	in	mm					
TBA-075	2.25"	57.15	0.5"	12.7	3/4"NPT	1"- 12 UNF	SF 6520/21 SF 6549	10µ 3µ	73/172 20/47
TBA-125	3"	76.2	0.5"	12.7	1 1/4"NPT	1 1/2"- 16 UNF	SF 6720/21 SF 6703/04	10µ 3µ	159/440 135/262

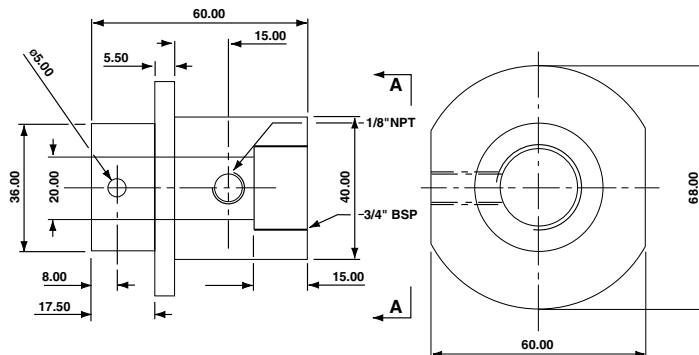
ORDERING INFORMATION



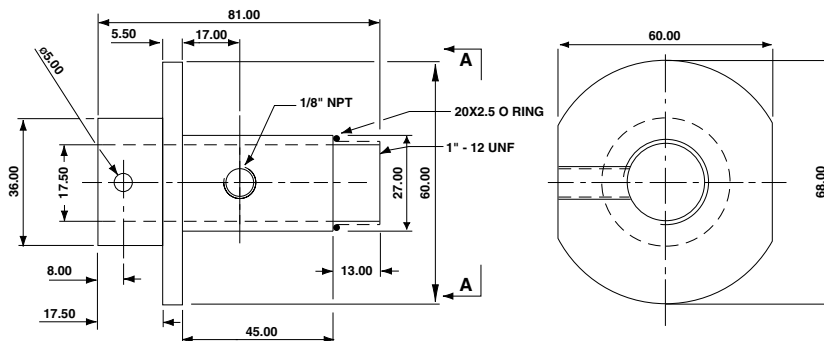
3/00

BAYONET ADAPTORS – BLACK ANODIZED ALUMINUM

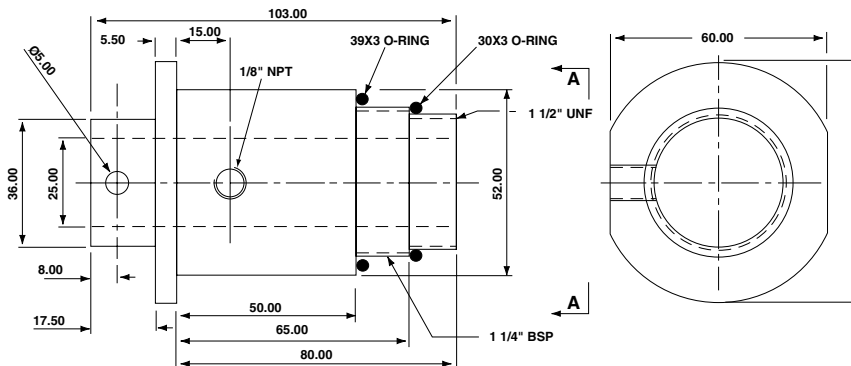
BA-1 • For Use With the SDB-93 and SDB-96 Desiccant Breathers • Buna-N Seals



BA-2 • For Use With the SGB-90 Breather and SF-65xx Series Spin-On Elements • Buna-N Seals

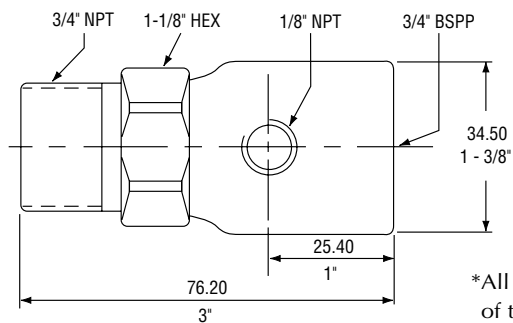


BA-3 • For Use With the SGB-120 Breather and SF-67xx Series Spin-On Elements • Buna-N Seals



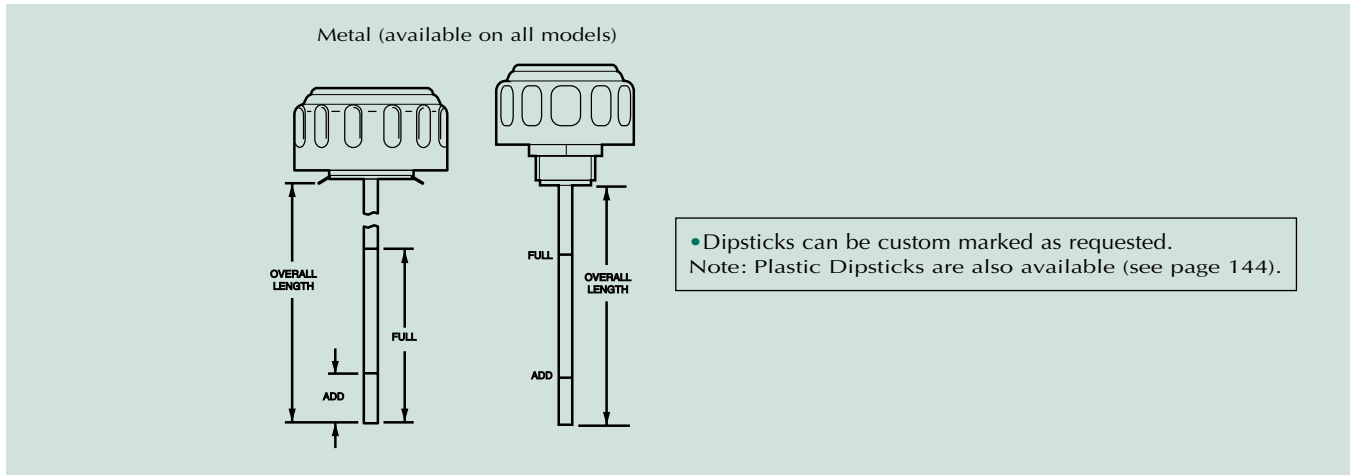
THREADED ADAPTOR – BLACK ANODIZED ALUMINUM

DBA-75 • For Use With the SDB-93 Desiccant Breather



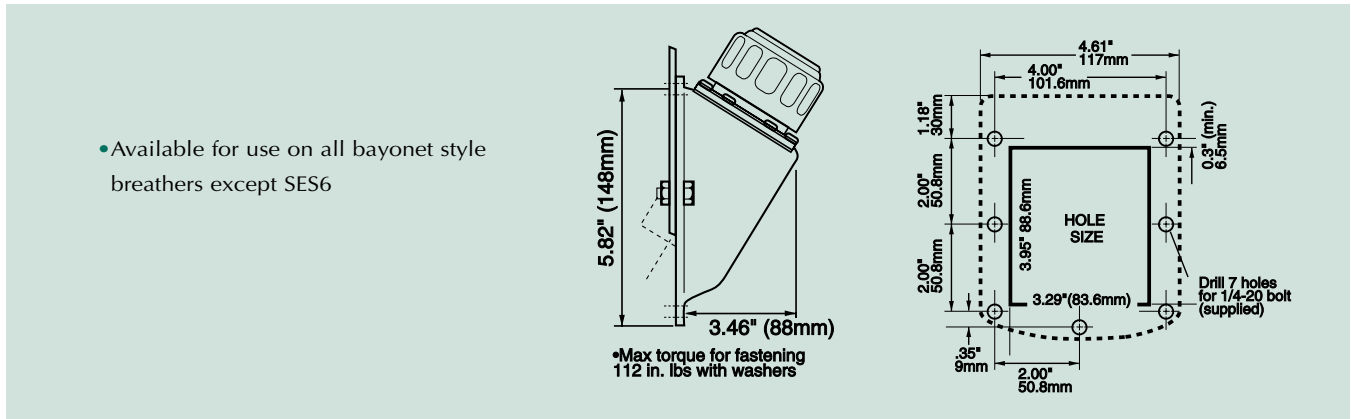
*All Adaptors Have 1/8" NPT Port for Attachment of the FM-1 Filter Minder (see page 151)

DIPSTICK



SIDE MOUNT ASSEMBLY

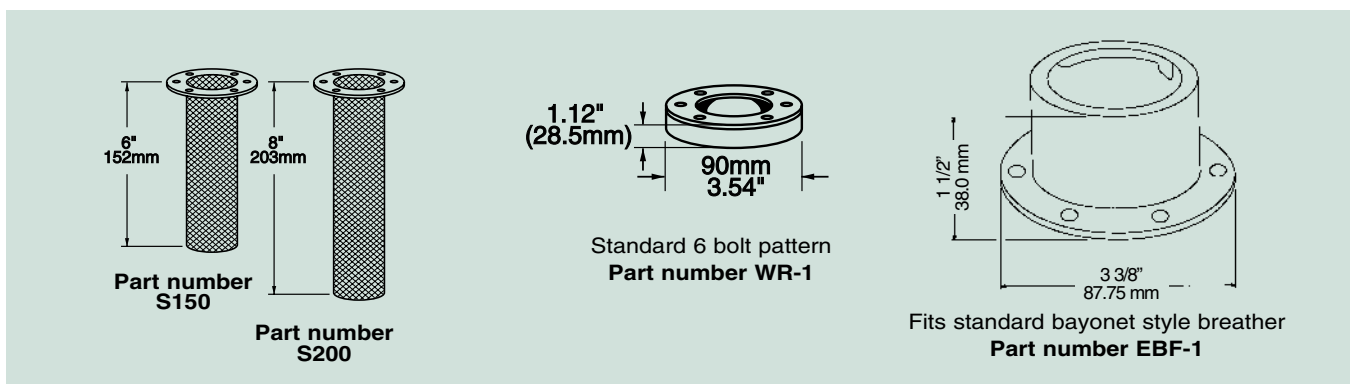
SES – ASMB – 1



ADDITIONAL BASKETS

WELD RISER

EXTENDED BAYONET FLANGE



SPECIFICATIONS

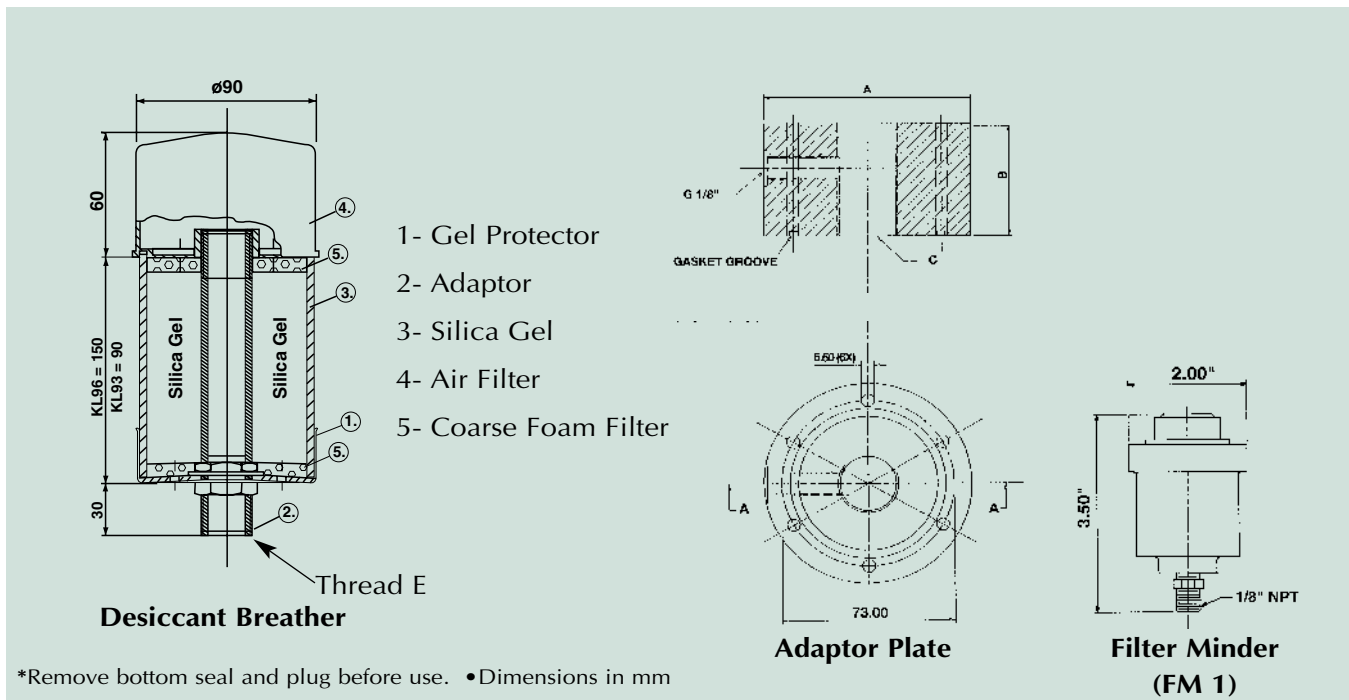
- Combination Air Breather and Water Removal Filter to Handle Air Flows up to 395 gpm
- 3 Micron Absolute Synthetic Media Air Breather
- Desiccant Material - Silica Gel

OPTIONS

- Available in Two Models With 3/4" BSP Connection and Two Models with 1 1/4" BSP Connection
- Adaptor Plate Available for use on Standard 6-Bolt Mounting Pattern (Includes Bolts)
- Filter Minder Available for use as an Air Breather Indicator.



DIMENSIONS



For available Adaptors, see page 148.

DIMENSIONS – DESICCANT BREATHERS

PART NO.	A	B	C	D	E
SDB93	in. 3.54"	2.36"	3.54"	1.18"	3/4" BSP
	mm 90.0	60.0	90.0	30.0	
SDB 96	in. 3.54"	2.36"	5.90"	1.18"	3/4" BSP
	mm 90.0	60.0	150.0	30.0	
SDB 121	in. 5.22"	4.00"	11.18"	1.55"	1 1/4" BSP
	mm 132.5	102.0	284.0	40.0	
SDB 122	in. 5.22"	4.00"	15.50"	1.55"	1 1/4" BSP
	mm 132.5	102.0	394.0	40.0	

ADAPTOR PLATE

PART NO.	A	B	C
AP 1	in. 3.46"	1.97"	3/4" BSP
	mm 88.0	50.0	
AP 2	in. 3.94"	2.75"	1 1/4" BSP
	mm 100.0	70.0	

3/00

CONDENSATION IN RESERVOIRS

When the reservoir breathes, air containing water vapor is ingested into the system. Temperature fluctuations will cause the water vapor to condense. This condensed water will speed up the oxidation of the oil and lead to damage in the machine. The catalytic action of metal particles present in the contamination process speeds up both these processes. The Stauff Air conditioner first dries the air as it passes through the silica gel granules and the dry air passes through a 3 micron β rated synthetic media element to remove any solid contamination particles.

The expelled air reaches the atmosphere via the same route but in the opposite direction.

MOUNTING

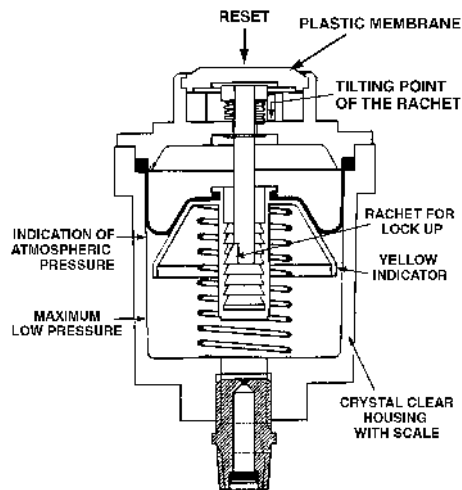
Direct mount onto the reservoir or use an adaptor plate which fits the standard 6 bolt pattern for filler breathers.

Note: Protective covering must be removed from silica gel holes before installation.

MONITORING

Air Dryer - As moisture is absorbed the silica gel granules will gradually change color from a deep blue to pink. When the granules are pink, replace the silica gel.

Air Filter - The adaptor plate has a connection for the "filter minder." This gives a static indication of the air breather. The unit can be reset when the element is changed.

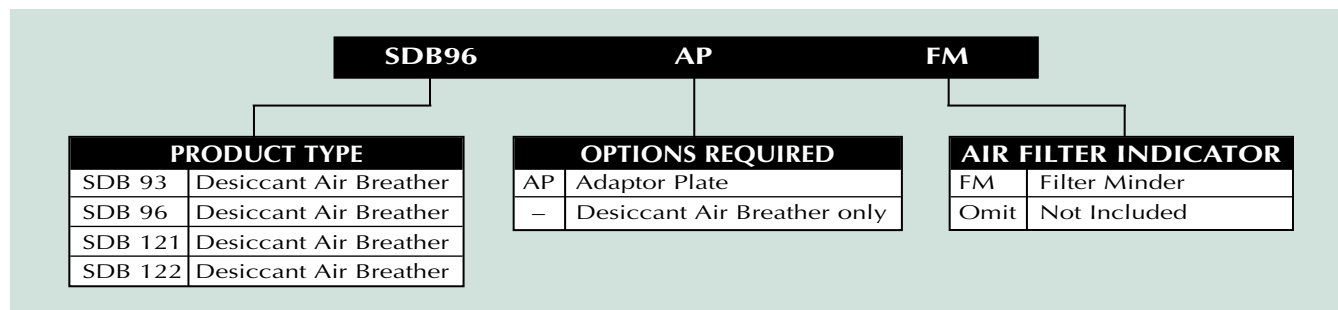


FILTER MINDER

TECHNICAL DETAILS

FILLER BREATHER TYPE		SDB93	SDB96	SDB121	SDB122
DESICCANT VOLUME	ml	300	600	1000	2000
	cu-in	18.3	36.6	61.0	122
MAXIMUM FLOW RATE (NOMINAL)	gpm	135		395	
	lpm	500		1500	
OVERALL WT.	lb	2.21	3.31	6.39	9.48
	kg	1.00	1.5	2.9	4.3
MOUNTING CONNECTOR*		3/4" BSP		1 1/4" BSP	
AMBIENT TEMPERATURE		-22° F TO 140° F (-30° C TO 60° C)			
DESICCANT		SILICA GEL			
DENSITY		56.16 lb/cu ft 900 kg/m ³			
GRANULE SIZE		.11" to .24"			
FILLING WEIGHT	lb	0.5	1.0	1.7	3.3
	grams	225	450	750	1500
MAXIMUM WATER UPTAKE	lb	0.16	0.32	0.53	1.06
	grams	72	144	240	480

ORDERING INFORMATION



For available Adaptors, see page 148.

REPLACEMENT SILICA GEL CARTRIDGE

DESICCANT AIR BREATHES	REPLACEMENT CARTRIDGE	SILICA GEL VOLUME CU IN	ML
SDB 93	RD 93	18.3	300
SDB 96	RD 96	36.6	600
SDB 121	RD 121	61.0	1000
SDB 122	RD 122	122	2000

REPLACEMENT AIR-BREATHES

DESICCANT AIR BREATHES	AIR-BREATHES
SDB 93/96	SGB 90
SDB 121/122	SGB 120

LEVEL GAUGES SNA TYPE



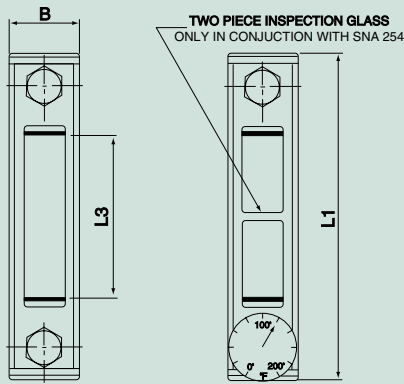
SPECIFICATIONS

- Black Epoxy Coated Metal Shroud with Polyamid Sight Tube
- Suitable for Use with Mineral and Petroleum Based Hydraulic Fluids, Lubricants and /Gasoline.
- Maximum Operating Temperature 194°F (90°C)
- Thermometer Calibration from -20°F to 180°F (-10°C to 80°C)
- SNA 076 has M10 Bolts as Standard
- SNA 127, SNA 254 has M12 Bolts as Standard
- Tightening Torque 70"/lb (7.9 Nm)

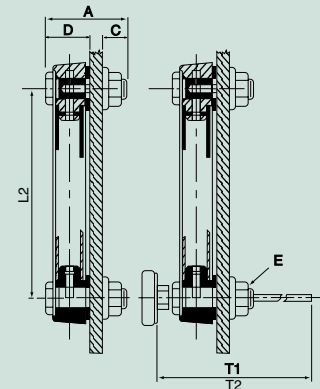
OPTIONS

- Viton Seals
- Dial Thermometer Available with 7.9 in (200mm) or 11.8 in (300mm) Probe
- Other Special Seals on Request
- Special Customized Scale Plates Available
- 1/2" UNC Bolts Available on SNA 127 and 254
- M12 Bolts Available on SNA 076

DIMENSIONS



	SNA 076	SNA 127	SNA 254
A	1.77	1.77	1.77
B	1.34	1.34	1.34
C	0.32 _{MAX}	0.32 _{MAX}	0.32 _{MAX}
D	1.06	1.06	1.06
E	M10	M12	M12
L1	4.25	6.25	11.25
L2	3.00	5.00	10.00
L3	1.45	3.00	8.00
T1	7.88	7.88	7.88
T2	11.88	11.88	11.88



ORDERING INFORMATION

SNA 127 B S T1 12 O60

TYPE	
SNA	

SERIES	
076	SNA 076 (3")
127	SNA 127 (5")
254	SNA 254 (10")

SEAL MATERIAL	
B	NBR (standard)
V	FPM

DESIGN OF SCALE PLATE	
S	With Stauff-Logo
N	Neutral
X	Special executions

THERMO SWITCH (see page 155 for details)	
OMIT	Without Thermo Switch
O60	TS-SNA/SNK-O-60
O70	TS-SNA/SNK-O-70
O80	TS-SNA/SNK-O-80

BANJO BOLTS	
12	M 12
10	M 10
U	1/2" UNC

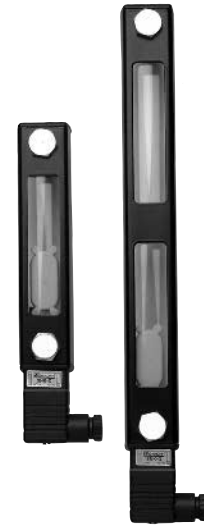
THERMOMETER (Dial thermometer with probe T1/T2 for size M 12 only)	
O	Without Thermometer
T	Capillary Tube Thermometer on Scale Plate
T1	Dial Thermometer With 200 mm Probe
T2	Dial Thermometer With 300 mm Probe

SPECIFICATIONS

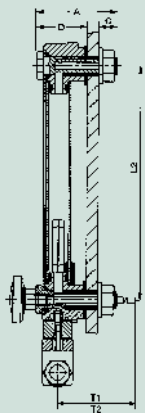
- Black Epoxy Coated Metal Shroud with Polyamid Sight Tube
- Suitable for Use with Mineral and Petroleum Based Hydraulic Fluids, Lubricants and Gasoline.
- Maximum Operating Temperature 194°F (90°C)
- Thermometer Calibration from 20°F to 180°F (-10°C to 80°C)
- Electrical Contact Made at Minimum Oil Level.
- Viton Seals, M12 Bolts
- Tightening Torque 70"/lbs

OPTIONS

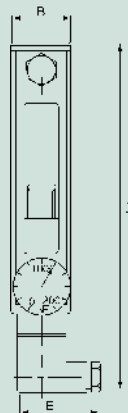
- Dial Thermometer Available with 7.9 in (200mm) or 11.8 in (300mm) Probe.
- 1/2" UNC Bolts Available



DIMENSIONS



	SNK 176		SNK 254	
	in	mm	in	mm
A	2.20	56	2.20	56
B	1.36	34.5	1.36	34.5
C	0.32 _{MAX}	8.2 _{MAX}	0.32 _{MAX}	8.2 _{MAX}
D	1.38	35.1	1.38	35.1
E	1.96	49.8	1.96	49.8
L1	8.00	203.2	13.00	330
L2	5.00	127	10.00	254
T1	7.88	200	7.88	200
T2	11.88	302	11.88	302



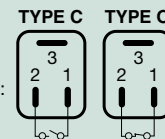
Electrical Connections and Functions

Contact load:
max 10 W (Type C)
max 3 W (Type O)

Bias-reducing Potential:
50 V AC/DC

Current on Contact
max 0,50 A (Type C)
max 0,25 A (Type O)

Electrical switch PG 9
Protection IP65
Connection 3 is not
engaged



ORDERING INFORMATION

SNK 127 V C T1 12 R O60

TYPE
SNK

SERIES	
127	SNK 127 (5")
254	SNK 254 (10")

SEAL MATERIAL	
V	FPM (standard)

ELECTRICAL FUNCTION	
C	Make Contact, Closes at Minimum Level (n/o)
O	Break Contact, Opens at Minimum Level (n/c)

THERMO SWITCH (see page 155 for details)	
(none)	Without Thermo Switch
O60	TS-SNA/SNK-O-60
O70	TS-SNA/SNK-O-70
O80	TS-SNA/SNK-O-80

ELECTRICAL SWITCH	
R	Right Hand Side (Standard)
L	Left Hand Side

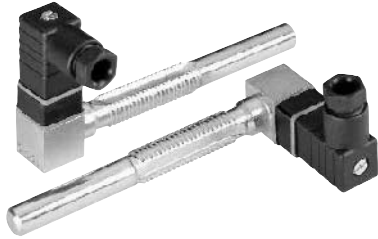
BANJO BOLTS	
12	M 12 (standard)
10	M 10
U	1/2" UNC

THERMOMETER	
O	Without Thermometer
T1	Dial Thermometer With 200 mm probe
T2	Dial Thermometer With 300 mm probe

3/00

ACCESSORIES

THERMO SWITCHES TS SNA/SNK SERIES



Area of Application:

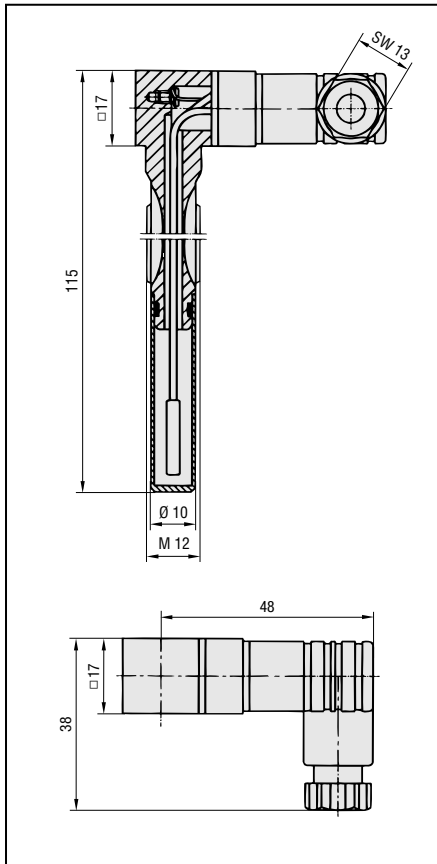
Oil temperature indicator to be used in conjunction with STAUFF level gauges SNA and SNK

Characteristics / Materials:

- available with 60°C, 70°C or 80°C switching temperature
- Activation takes place when the respective switching temperature is exceeded.
- Electrical function: break contact
- Steel parts made out of 1.0718
- Plastic parts made out of glass fibre reinforced polyamide

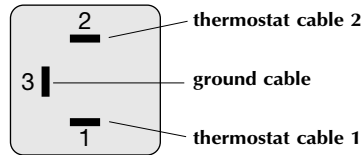
Thermo switches are available for the standard mounting size M12 only.

DIMENSIONS



TECHNICAL DATA (BREAK CONTACT):

Switching temperature: see ordering code
Hysteresis: 20° C
Switching temperature tolerance: 6 5°C.



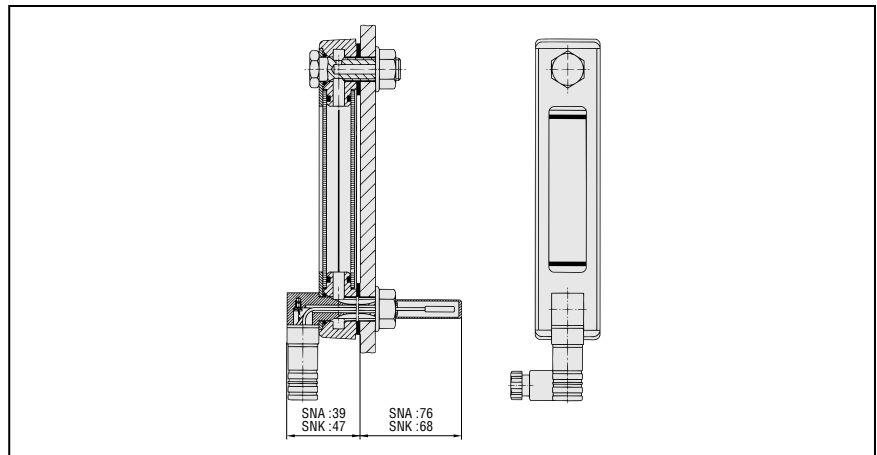
Alternating current

- max voltage 250 V
- max current at 10.000 circuits
≈ 2,5 A at cos w = 1,0
≈ 1,6 A at cos w = 0,6
- max current at 100.000 circuits
≈ 0,5 A at cos w = 1,0
≈ 0,25 A at cos w = 0,6
- min voltage 50 mA

Direct current

- max voltage 42 V
- max current at 10.000 circuits 1 A

EXAMPLE OF APPLICATION



ORDERING CODE AND TEMPERATURE RANGE

TS SNA / SNK O 60

TYPE	
TS	Thermo Switch

SERIES	
SNA / SNK	

SWITCHING TEMPERATURE	
60	60°C / 140°F
70	70°C / 158°F
80	80°C / 176°F

ELECTRICAL FUNCTION	
O	Break Contact (n/c)

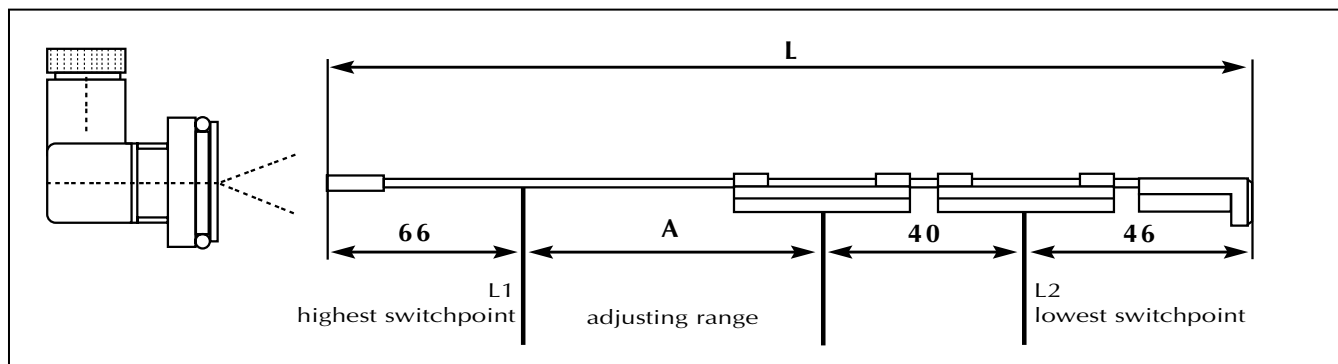
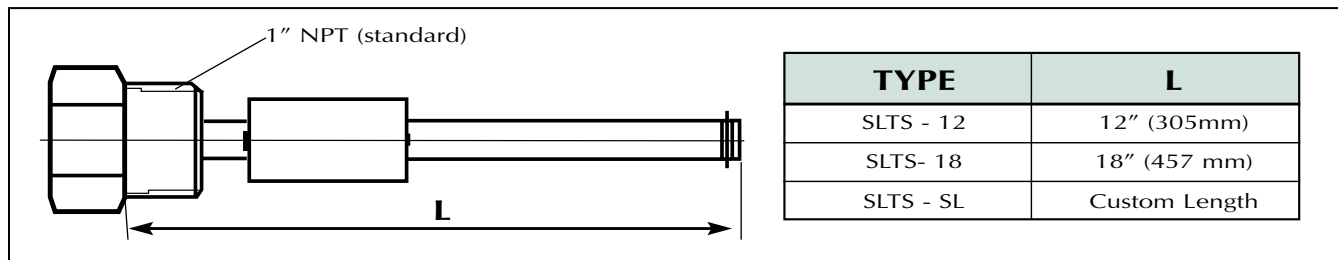
Thermo switches can be ordered both as a single component and in combination with STAUFF level gauges SNA and SNK. See pages 153 and 154.

SPECIFICATIONS

- Brass Stem, Plastic float
- Compatible with mineral oils and petroleum based fluids
- Switches normally closed (NC)
- Max. operating temp 176°F
- Max. operating voltage 115V
- Max. current level contact 0.5A
- Max. current temp contact 2.0A
- Contact load level contact 10VA

OPTIONS

- Any combination of three level temperature contacts
- Easy adjustable switch level
- Wide range of temperature switches
- Custom sizes, configuration and materials available on request



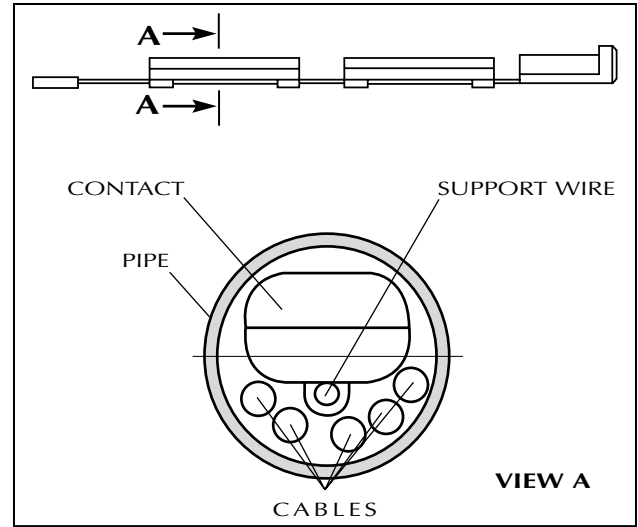
TYPE	L	A
SLTS - 12	12.3" (312mm)	6.3" (160mm)
SLTS- 18	18.3" (464 mm)	12.3" (312 mm)
SLTS - SL	Custom Length	Custom Range

ACCESSORIES

3/00

GENERAL

The Stauff Level / Temperature Switches (SLTS-series) are unique in their design and modularity. One of the greatest advantages is the ability of the end-user to adjust the switching level. The internal support wire carrying the level and temperature switches makes it a simple and quick job to change the level switch position. See the drawings on the next page for the max and min level switch points and the total available switching range. This design permits changing the level switch function from Normally Closed (NC) to Normally Open (NO). Mentioned stem lengths are standard. Custom lengths are available upon request.



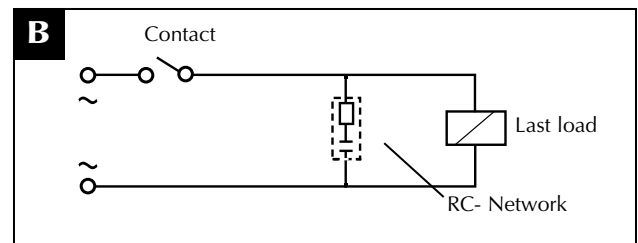
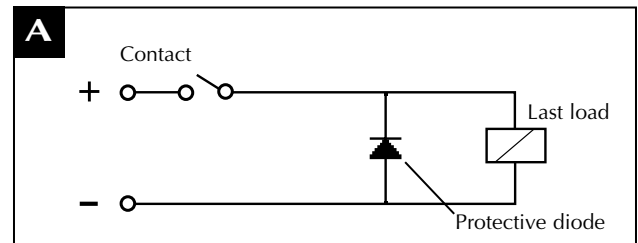
CONTACT LIFE TIME

Due to their design Reed contacts have a very high life expectancy. However, it is worthwhile to note the following information.

CONTACT PROTECTION

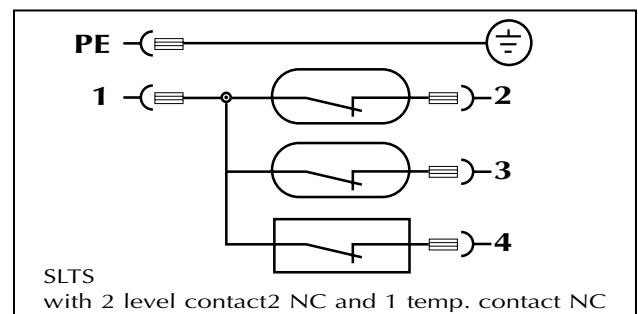
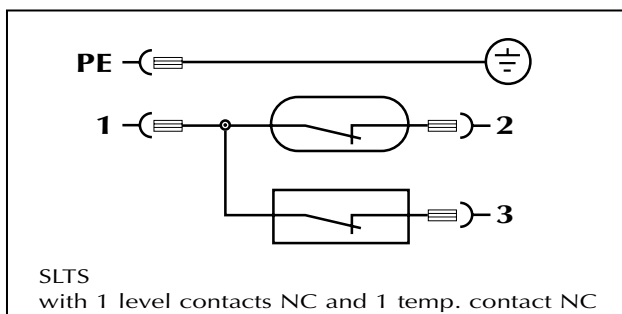
To reduce the high reverse voltage produced when a reed switch opens, the following contact protection can be applied.

- DC voltage: a diode parallel to the load, see figure A
- AC voltage: an RC-network parallel to the load, see figure B and table below.



VA	10	25	50	75	100
Open contact voltage V	R/Ohm - C/μF	R/Ohm - C/μF	R/Ohm - C/μF	R/Ohm - C/μF	R/Ohm - C/μF
24	22 - 0,022	1 - 0,1	1 - 0,47	1 - 1	1 - 1
48	120 - 0,0047	22 - 0,022	1 - 0,1	1 - 0,47	1 - 0,47
110	470 - 0,001	120 - 0,0047	22 - 22	22 - 0,047	22 - 0,1

WIRING DIAGRAM Please refer to the following connection diagrams and the relevant data in the specification sheets.

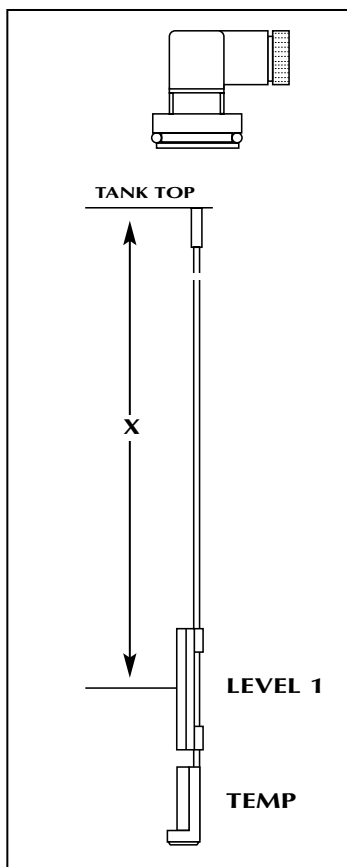


3/00

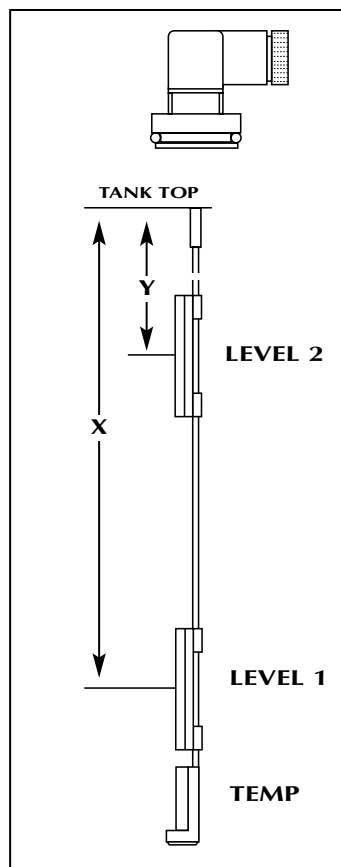
STANDARD FACTORY SETTINGS FOR LEVEL SWITCH POSITION

SLTS TYPE	OPTION 1: LOW LEVEL ONLY (FROM TANK TOP TO SWITCH POSITION)	OPTION 2: HIGH AND LOW LEVEL (FROM TANK TOP TO SWITCH POSITION)	
	X (INCHES / MM)	X (INCHES / MM)	Y (INCHES / MM)
SLTS 12	10.5 / 266	10.5 / 266	2.6 / 66
SLTS 18	16.5 / 418	16.5 / 418	2.6 / 66

OPTION 1



OPTION 2



ORDERING INFORMATION

SLTS		12	140	2	N16	G115
PRODUCT CODE						
STEM LENGTH						
12	12" (305mm)					
18	18" (457mm)					
SL	SPECIAL LENGTH*					
TEMPERATURE SWITCH						
140	140°F/60°C					
158	158°F/70°C					
ST	SPECIAL TEMP OR MORE THAN 1 TEMP SWITCH*					
CONNECTOR						
G115	GS4 (MAX 115 VOLTS) STANDARD					
G048	EUROPE (MAX 48 VOLTS)					
THREAD SIZE						
N16	1" NPT					
B12	3/4" BSP					
ST	SPECIAL THREAD*					
LEVEL SWITCH CONFIGURATION						
1	OPTION 1					
2	OPTION 2					
S	SPECIAL CONFIG.*					

*CONTACT FACTORY

3/00

ACCESSORIES

PORT FLANGES

TYPE SP43, SP104, SP46, SP106



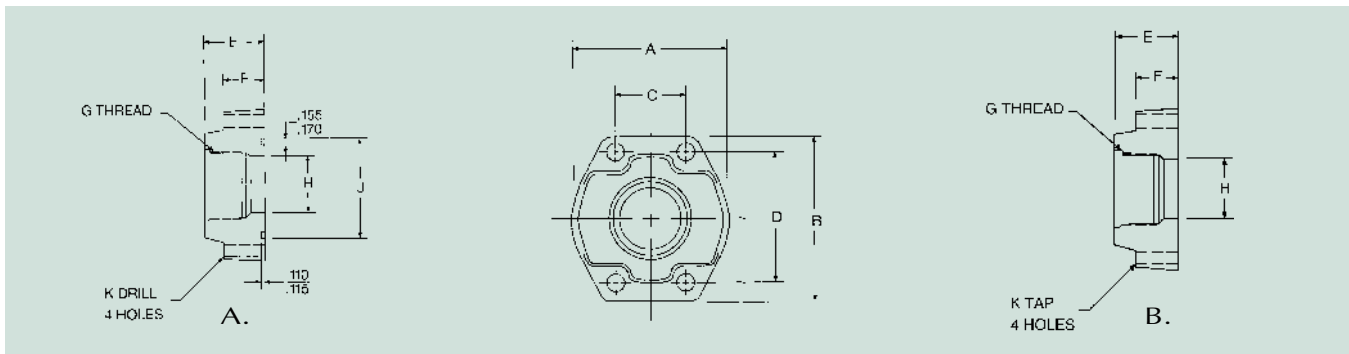
SPECIFICATIONS

- Carbon Steel Forging
- 3000 PSI (200 bar) Code 61

OPTIONS

- NPT or SAE Thread
- Standard and Companion Flanges
- Reducing Options Available.

DIMENSIONS / ORDERING INFORMATION



3000 PSI NPTF THREAD

O RING PART NO. FIG. A.	COMPANION PART NO. FIG. B.	PIPE SIZE	PAD SIZE	A	B	C	D	E	F	G THREAD NPTF	H	J MIN	J MAX	K DRILL DIA.	K TAP UN-2B	O-RING DASH #
SP43-8-8	SP104-8-8	.50	.50	1.81	2.12	.688	1.500	1.25	.91	.50	.50	1.000	1.005	.344	5/16-18	-210
SP43-12-12	SP104-12-12	.75	.75	2.06	2.56	.875	1.875	1.25	.84	.75	.75	1.250	1.255	.406	3/8-16	-214
SP43-16-16	SP104-16-16	1.00	1.00	2.31	2.75	1.031	2.062	1.38	.97	1.00	1.00	1.560	1.565	.406	3/8-16	-219
SP43-20-20	SP104-20-20	1.25	1.25	2.88	3.12	1.188	2.312	1.50	1.03	1.25	1.25	1.750	1.755	.469	7/16-14	-222
SP43-24-24	SP104-24-24	1.50	1.50	3.25	3.69	1.406	2.750	1.62	1.09	1.50	1.50	2.115	2.125	.531	1/2-13	-225
SP43-32-32	SP104-32-32	2.00	2.00	3.81	4.00	1.688	3.062	1.62	1.09	2.00	2.00	2.490	2.500	.531	1/2-13	-228
SP43-40-40	SP104-40-40	2.50	2.50	4.28	4.50	2.000	3.500	2.00	1.47	2.50	2.50	2.995	3.005	.531	1/2-13	-232
SP43-48-48	SP104-48-48	3.00	3.00	5.16	5.31	2.438	4.188	2.25	1.59	3.00	3.00	3.615	3.625	.656	5/8-11	-237

3000 PSI S.A.E. STRAIGHT THREAD

O RING PART NO. FIG. A.	COMPANION PART NO. FIG. B.	PIPE SIZE	PAD SIZE	A	B	C	D	E	F	G STRAIGHT THREAD	H	J MIN	J MAX	K DRILL DIA.	K TAP UN-2B	O-RING DASH #
SP46-8-8	SP106-8-8	.50	.50	1.81	2.12	.688	1.500	1.25	.91	3/4-16	.50	1.000	1.005	.344	5/16-18	-210
SP46-12-12	SP106-12-12	.75	.75	2.06	2.56	.875	1.875	1.25	.84	1 1/16-12	.75	1.250	1.255	.406	3/8-16	-214
SP46-16-16	SP106-16-16	1.00	1.00	2.31	2.75	1.031	2.062	1.38	.97	1 5/16-12	1.00	1.560	1.565	.406	3/8-16	-219
SP46-20-20	SP106-20-20	1.25	1.25	2.88	3.12	1.188	2.312	1.50	1.03	1 5/8-12	1.25	1.750	1.755	.469	7/16-14	-222
SP46-24-24	SP106-24-24	1.50	1.50	3.25	3.69	1.406	2.750	1.62	1.09	1 7/8-12	1.50	2.115	2.125	.531	1/2-13	-225

SPECIFICATIONS

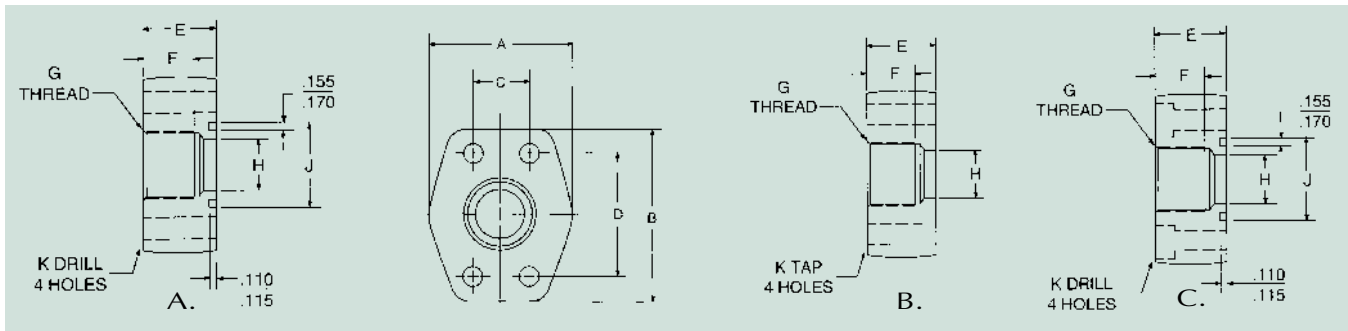
- Carbon Steel Forging
- 6000 psi (400 Bar) Code 62

OPTIONS

- NPT or SAE Thread
- Standard and Companion Flanges



DIMENSIONS / ORDERING INFORMATION



6000 PSI NPTF THREAD

O RING PART NO. FIG. A.	FLAT FACE PART NO. FIG. B.	TUBE SIZE	PAD SIZE	A	B	C	D	E	F MIN.	G THREAD NPTF	H DIA.	J DIA. MIN.	J DIA. MAX.	K DRILL DIA.	K TAP UN-2B	O-RING DASH #
SP44-12-12	SP45-12-12	.75	.75	2.38	2.81	.937	2.000	1.25	.760	.75	.75	1.250	1.255	.406	3/8-16	-214
SP44-16-16	SP45-16-16	1.00	1.00	2.75	3.19	1.093	2.250	1.50	.922	1.00	1.00	1.560	1.565	.469	7/16-14	-219
SP44-20-20	SP45-20-20	1.25	1.25	3.06	3.75	1.250	2.625	1.50	.940	1.25	1.25	1.750	1.755	.531	1/2-13	-222
SP44-24-24	SP45-24-24	1.50	1.50	3.75	4.44	1.437	3.125	1.75	.940	1.50	1.50	2.115	2.125	.656	5/8-11	-225
SP44-32-32	SP45-32-32	2.00	2.00	4.50	5.25	1.750	3.812	1.75	.957	2.00	2.00	2.490	2.500	.781	3/4-10	-228

6000 PSI S.A.E. STRAIGHT THREAD

O RING PART NO. FIG. C.	FLAT FACE PART NO. FIG. B.	TUBE SIZE	PAD SIZE	A	B	C	D	E	F MIN.	G STRAIGHT THREAD UN-28	H DIA.	J DIA. MIN.	J DIA. MAX.	K DRILL DIA.	K TAP UN-28	O-RING DASH #
SP48-12-12	SP49-12-12	.75	.75	2.38	2.81	.937	2.000	1.250	.750	1 1/16-12	.75	1.250	1.255	.406	3/8-16	-214
SP48-16-16	SP49-16-16	1.00	1.00	2.75	3.19	1.093	2.250	1.500	.750	1 5/16-12	1.00	1.560	1.565	.469	7/16-14	-219
SP48-20-20	SP49-20-20	1.25	1.25	3.06	3.75	1.250	2.625	1.500	.750	1 5/8-12	1.25	1.750	1.755	.531	1/2-13	-222
SP48-24-24	SP49-24-24	1.50	1.50	3.75	4.44	1.437	3.125	1.750	.750	1 7/8-12	1.50	2.115	2.125	.656	5/8-11	-225
SP48-32-32	SP49-32-32	2.00	2.00	4.50	5.25	1.750	3.812	1.750	.750	2 1/2-12	2.00	2.490	2.500	.781	3/4-10	-228

3/00

ACCESSORIES

PORT FLANGES

TYPE SP6, SP62, SP58, SP63



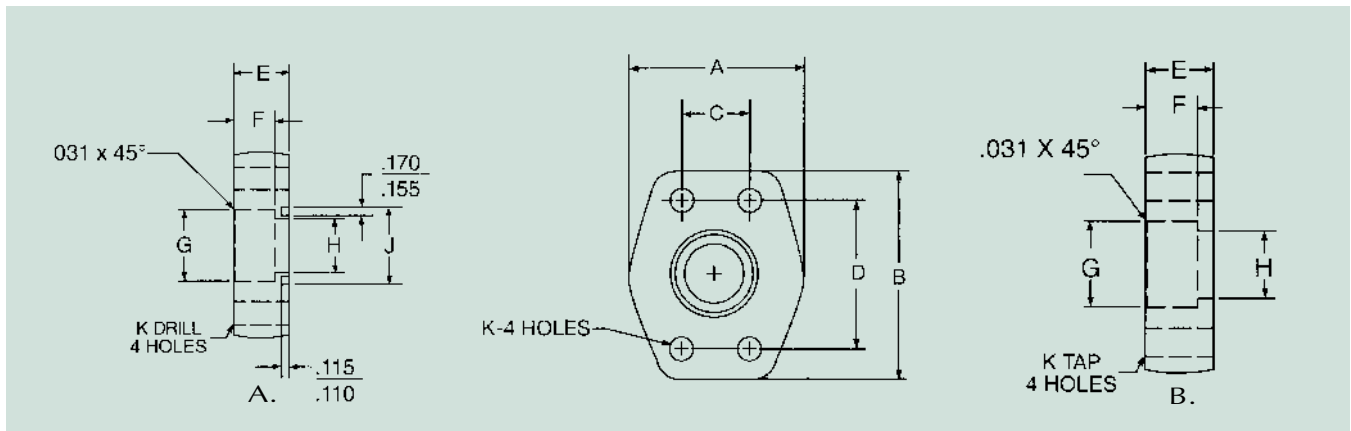
SPECIFICATIONS

- Carbon Steel Forging
- Socket Tube

OPTIONS

- Standard and Companion Flanges
- 3000psi (200 Bar) Code 61 or 6000psi (400 Bar) Code 62
- Reducing Options Available

DIMENSIONS / ORDERING INFORMATION



3000 PSI FLAT SOCKET TUBE

O RING PART NO. FIG. A.	FLAT FACE PART NO. FIG. B.	TUBE SIZE	PAD SIZE	A	B	C	D	E	F	G DIA. +.003 -0.000	H DIA.	J DIA. MIN.	J DIA. MAX.	K DRILL DIA.	K TAP UN-2B	O-RING DASH #
SP6-12-12	SP62-12-12	.75	.75	2.060	2.560	.875	1.875	.750	.560	.752	.625	1.250	1.255	.406	3/8-16	-214
SP6-16-16	SP62-16-16	1.00	1.00	2.310	2.750	1.031	2.062	.880	.630	1.002	.875	1.560	1.565	.406	3/8-16	-219
SP6-20-20	SP62-20-20	1.25	1.25	2.880	3.120	1.188	2.312	.940	.690	1.252	1.125	1.750	1.755	.469	7/16-14	-222
SP6-24-24	SP62-24-24	1.50	1.50	3.250	3.690	1.406	2.750	1.190	.750	1.502	1.375	2.115	2.125	.531	1/2-13	-225
SP6-32-32	SP62-32-32	2.00	2.00	3.810	4.000	1.688	3.062	1.375	.875	2.002	1.875	2.490	2.500	.531	1/2-13	-228

6000 PSI FLAT SOCKET TUBE

O RING PART NO. FIG. A.	FLAT FACE PART NO. FIG. B.	TUBE SIZE	PAD SIZE	A	B	C	D	E	F	G DIA. +.003 -0.000	H DIA.	J DIA. MIN.	J DIA. MAX.	K DRILL DIA.	K TAP UN-2B	O-RING DASH #
SP58-12-12	SP63-12-12	.75	.75	2.38	2.81	.937	2.000	1.250	.560	.752	.625	1.250	1.256	.406	3/8-16	-214
SP58-16-16	SP63-16-16	1.00	1.00	2.75	3.19	1.093	2.250	1.500	.630	1.002	.875	1.560	1.565	.469	7/16-14	-219
SP58-20-20	SP63-20-20	1.25	1.25	3.06	3.75	1.250	2.625	1.500	.690	1.252	1.125	1.750	1.755	.531	1/2-13	-222
SP58-24-24	SP63-24-24	1.50	1.50	3.75	4.44	1.437	3.125	1.750	.750	1.502	1.375	2.115	2.125	.656	5/8-11	-225
SP58-32-32	SP63-32-32	2.00	2.00	4.50	5.25	1.750	3.812	1.750	.875	2.002	1.875	2.490	2.500	.781	3/4-10	-228

3/00

SPECIFICATIONS

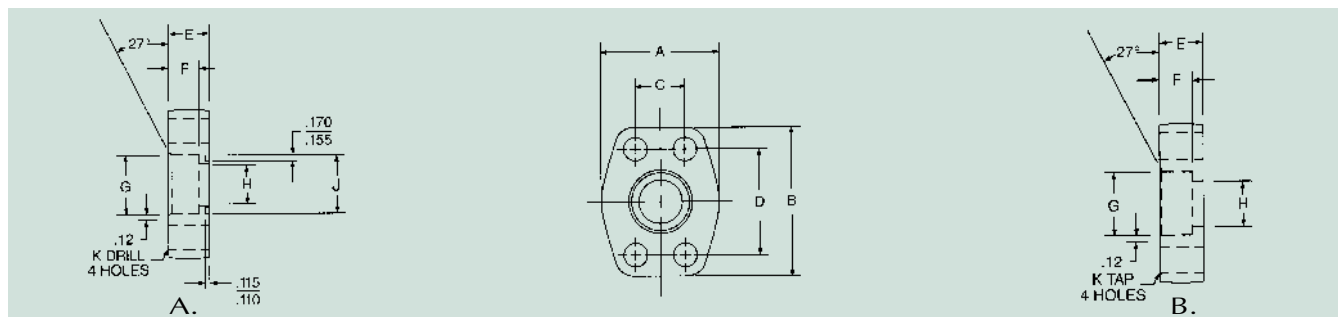
- Carbon Steel Forging
- For Socket-Pipe
- Sizes to 5" Pipe

OPTIONS

- 3000 psi (200 Bar), or 6000 psi (400 Bar) or 500 psi (35 Bar)
- Standard and Companions Flanges



DIMENSIONS / ORDERING INFORMATION



3000 PSI FLAT SOCKET PIPE															
O RING PART NO. FIG. A.	FLAT FACE PART NO. FIG. B.	PIPE SIZE	PAD	A	B	C	D	E	F	G DIA.	H DIA.	J DIA. MIN	J DIA. MAX	K DRILL DIA.	K TAP UN-2B
SP4-8-8	SP61-8-8	.50	.50	1.813	2.125	.688	1.500	.750	.560	.855	.50	1.000	1.005	.344	5/16-18
SP4-12-12	SP61-12-12	.75	.75	2.063	2.563	.875	1.875	.750	.560	1.062	.75	1.250	1.255	.406	3/8-16
SP4-16-16	SP61-16-16	1.00	1.00	2.313	2.750	1.031	2.063	.880	.630	1.328	1.00	1.560	1.565	.406	3/8-16
SP4-20-20	SP61-20-20	1.25	1.25	2.875	3.125	1.188	2.313	.940	.690	1.672	1.25	1.750	1.755	.469	7/16-14
SP4-24-24	SP61-24-24	1.50	1.50	3.250	3.688	1.406	2.750	1.190	.750	1.922	1.50	2.115	2.125	.531	1/2-13
SP4-32-32	SP61-32-32	2.00	2.00	3.813	4.000	1.688	3.063	1.380	.875	2.406	2.00	2.490	2.500	.531	1/2-13
SP4-40-40	SP61-40-40	2.50	2.50	4.281	4.500	2.000	3.500	1.750	1.000	2.906	2.50	2.995	3.005	.531	1/2-13
SP4-48-48	SP61-48-48	3.00	3.00	5.156	5.313	2.438	4.188	2.120	1.25	3.547	3.00	3.615	3.625	.656	5/8-11

6000 PSI FLAT SOCKET PIPE															
O RING PART NO. FIG. A.	FLAT FACE PART NO. FIG. B.	PIPE SIZE	PAD	A	B	C	D	E	F	G DIA.	H DIA.	J DIA. MIN	J DIA. MAX	K DRILL DIA.	K TAP UN-2B
SP59-8-8	SP60-8-8	.50	.50	1.88	2.22	.718	1.594	.870	.560	.855	.50	1.000	1.005	.344	5/16-18
SP59-12-12	SP60-12-12	.75	.75	2.38	2.81	.937	2.000	1.250	.560	1.062	.75	1.250	1.255	.406	3/8-16
SP59-16-16	SP60-16-16	1.00	1.00	2.75	3.19	1.093	2.250	1.500	.630	1.328	1.00	1.560	1.565	.469	7/16-14
SP59-20-20	SP60-20-20	1.25	1.25	3.06	3.75	1.250	2.625	1.500	.690	1.672	1.25	1.750	1.755	.531	1/2-13
SP59-24-24	SP60-24-24	1.50	1.50	3.75	4.44	1.437	3.125	1.750	.750	1.922	1.50	2.115	2.125	.656	5/8-11
SP59-32-32	SP60-32-32	2.00	2.00	4.50	5.25	1.750	3.812	1.750	.875	2.406	2.00	2.490	2.500	.781	3/4-10
SP59-40-40	SP60-40-40	2.50	2.50	5.87	6.87	2.312	4.875	2.060	1.000	2.906	2.50	2.995	3.005	.906	7/8-9
SP59-48-48	SP60-48-48	3.00	3.00	7.00	8.50	2.812	6.000	2.620	1.250	3.547	3.00	3.615	3.625	1.156	1 1/8-7

500 PSI FLAT SOCKET PIPE															
O RING PART NO. FIG. A.	FLAT FACE PART NO. FIG. B.	PIPE SIZE	PAD	A	B	C	D	E	F	G DIA.	H DIA.	J DIA. MIN	J DIA. MAX	K DRILL DIA.	K TAP UN-2B
SP72-48-48	SP91-48-48	3.00	3.00	5.12	5.31	2.438	4.188	1.380	1.120	3.547	3.000	3.625	3.615	.656	5/8-11
SP72-56-56	SP91-56-56	3.50	3.50	5.50	6.00	2.750	4.750	1.440	1.190	4.047	3.500	4.115	4.095	.656	5/8-11
SP72-64-64	SP91-64-64	4.00	4.00	6.00	6.38	3.062	5.125	1.500	1.250	4.578	4.000	4.615	4.595	.656	5/8-11
SP72-80-80	SP91-80-80	5.00	5.00	7.12	7.25	3.625	6.000	1.750	1.380	5.641	5.000	5.615	5.595	.656	5/8-11

SPLIT FLANGES

TYPE SF3, SF6

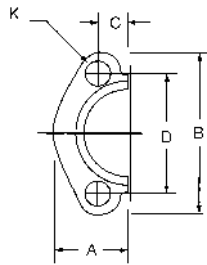


SPECIFICATIONS

- Carbon Steel

OPTIONS

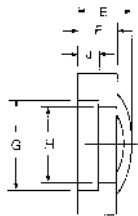
- 3000psi (200 Bar) Code 61 or 6000psi (400 Bar) Code 62



DIMENSIONS / ORDERING INFORMATION

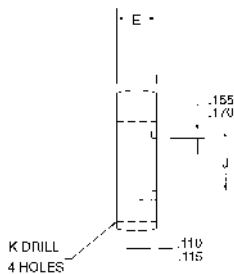
CODE 61 SPLIT FLANGE

PART NO.	FLANGE SIZE	A	B	C	D	E	F	G	H	J	K	WORKING PRESS MAX.	O-RING DASH #
SF3-12	.75	.98	2.56	.438	1.875	.88	.56	1.531	1.265	.245	.406	5000	-214
SF3-16	1.00	1.11	2.75	.515	2.062	.94	.62	1.781	1.515	.295	.406	5000	-219
SF3-20	1.25	1.39	3.12	.594	2.312	.88	.62	2.031	1.720	.295	.469	4000	-222
SF3-24	1.50	1.58	3.69	.703	2.750	1.00	.56	2.406	2.000	.295	.531	3000	-225
SF3-32	2.00	1.86	4.00	.844	3.062	1.03	.62	2.844	2.470	.355	.531	3000	-228
SF3-40	2.50	2.09	4.50	1.000	3.500	1.50	.75	3.344	2.950	.355	.531	2500	-232
SF3-48	3.00	2.53	5.31	1.219	4.188	1.62	.88	4.031	3.580	.355	.656	2000	-237



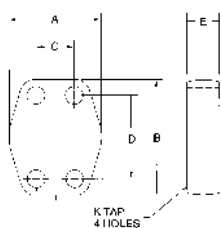
CODE 62 SPLIT FLANGE

PART NO.	FLANGE SIZE	A	B	C	D	E	F	G	H	J	K	WORKING PRESS MAX.	O-RING DASH #
SF6-12	.75	1.14	2.81	.469	2.000	1.12	.75	1.656	1.280	.325	.406	6000	-214
SF6-16	1.00	1.33	3.19	.547	2.250	1.31	.94	1.906	1.530	.355	.469	6000	-219
SF6-20	1.25	1.48	3.75	.625	2.625	1.50	1.06	2.156	1.750	.385	.531	6000	-222
SF6-24	1.50	1.83	4.44	.719	3.125	1.69	1.19	2.531	2.030	.475	.656	6000	-225
SF6-32	2.00	2.20	5.25	.875	3.812	2.06	1.44	3.156	2.660	.475	.781	6000	-228



3000 PSI BLANKING

O-RING PART NO. FIG. A	FLAT FACE PART NO. FIG. B	PAD SIZE	A	B	C	D	E	J MIN	J MAX	K DRILL DIA.	K TAP UN-2B	O-RING DASH #
SP36-12-12	SP37-12-12	.750	2.063	2.563	.875	1.875	.750	1.250	1.255	.406	3/8-16	-214
SP36-16-16	SP37-16-16	1.000	2.313	2.750	1.031	2.063	.880	1.560	1.565	.406	3/8-16	-219
SP36-20-20	SP37-20-20	1.250	2.875	3.125	1.188	2.313	.940	1.755	1.755	.469	7/16-14	-222
SP36-24-24	SP37-24-24	1.500	3.250	3.688	1.406	2.750	1.190	2.115	2.125	.531	1/2-13	-225
SP36-32-32	SP37-32-32	2.000	3.813	4.000	1.688	3.063	1.380	2.490	2.500	.531	1/2-13	-228
SF36-40-40	SP37-40-40	2.500	4.281	4.500	2.000	3.500	1.750	2.995	3.005	.531	1/2-13	-232
SF36-48-48	SP37-48-48	3.000	5.156	5.313	2.438	4.188	2.120	3.615	3.625	.656	5/8-11	-237



6000 PSI BLANKING

O-RING PART NO. FIG. A	FLAT FACE PART NO. FIG. B	PAD SIZE	A	B	C	D	E	J MIN	J MAX	K DRILL DIA.	K TAP UN-2B	O-RING DASH #
SP38-12-12	SP39-12-12	.750	2.380	2.810	.937	2.000	1.250	1.250	1.255	.406	3/8-16	-214
SP38-16-16	SP39-16-16	1.000	2.750	3.190	1.093	2.250	1.500	1.560	1.565	.469	7/16-14	-219
SP38-20-20	SP39-20-20	1.250	3.060	3.750	1.250	2.625	1.500	1.755	1.755	.531	1/2-13	-222
SP38-24-24	SP39-24-24	1.500	3.750	4.440	1.437	3.125	1.750	2.115	2.125	.656	5/8-11	-225
SP38-32-32	SP39-32-32	2.000	4.500	5.250	1.750	3.812	1.750	2.490	2.500	.781	3/4-10	-228

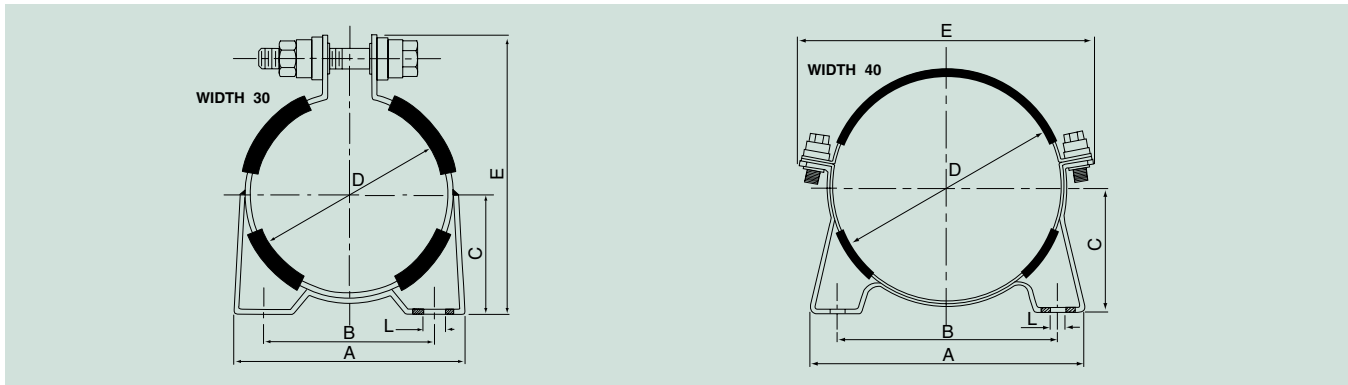
3/00

SPECIFICATIONS

- Plated Metal Support with Rubber Cushion Single Piece Construction



DIMENSIONS / ORDERING INFORMATION



ITEM PART NO.	D		A		B		C		E		L		WEIGHT	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	lbs.	kg
AMP 114	108-114	5.44	138	3.94	100	2.52	64	5.91	150	.35	8.9	1.63	.74	
AMP 120	115-121	5.35	136	3.94	100	2.78	71	6.50	165	.35	8.9	1.10	.50	
AMP 146	140-146	6.69	170	5.36	136	3.26	83	7.52	191	.35	8.9	1.88	.85	
AMP 172	168-177	7.80	198	6.02	153	4.52	115	8.82	224	.50	12.5	2.33	1.06	
AMP 206	206-215	10.12	257	8.46	215	4.52	115	9.76	248	.59	15	2.6	1.18	
AMP 222	214-228	9.75	248	8.58	218	4.71	120	10.82	275	.35	8.9	2.63	1.20	

ITEM PART NO.	D		A		B		C		E		L		WEIGHT	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	lbs.	kg
AMP/D 206	206-215	10.39	264	8.23	209	4.61	117	11.02	280	.59	15	3.50	1.59	
AMP/D 210	208-220	10.63	270	8.46	215	4.76	121	11.02	280	.59	15	3.80	1.73	
AMP/D 219	215-225	10.63	270	8.46	215	4.84	123	11.61	295	.59	15	3.80	1.73	
AMP/D 228	220-230	10.63	270	8.50	216	4.84	133	11.61	295	.59	15	3.60	1.65	
AMP/D 254	245-260	10.63	270	8.50	216	4.84	123	11.61	295	.59	15	4.10	1.90	
AMP/D 286	280-290	12.99	330	10.94	278	6.46	164	14.17	360	.59	15	4.50	2.05	
AMP/D 310	300-310	12.99	330	10.94	278	6.73	171	14.76	375	.59	15	4.80	2.18	
AMP/D 362	358-365	16.81	427	14.37	365	7.68	195	16.69	424	.59	15	5.50	2.50	

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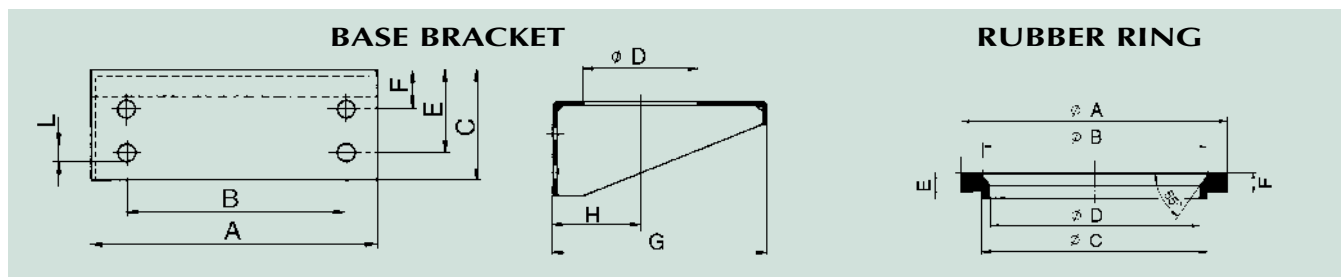
BASE BRACKETS, RUBBER RINGS BB SERIES



SPECIFICATIONS

- Rubber Cushioning to Reduce Vibration and Noise
- Compensation for Thermal Expansion and Contraction
- Galvanized and Painted to Resist Corrosion
- Special Sizes and Designs are Available on Request

DIMENSIONS / ORDERING INFORMATION



MODEL	DIMENSIONS IN INCHES										WEIGHT/ LBS.
	A	B	C	D	E	F	G	H	L		
BASE BRACKET WITH RUBBER RING (TO SPECIFY BASE BRACKET LESS RUBBER RING REMOVE "R" FROM MODEL NUMBER)											
BB120R	10.24	7.87	3.94	4.69	2.95	1.38	8.86	3.62	.67	5.5	
BB170R	10.24	7.88	3.94	6.65	2.95	1.38	8.86	4.84	.67	5.3	
BB211R	15.35	10.63	9.45	8.31	7.09	2.36	15.35	7.68	.87	44.4	
RUBBER RING											
RR108	5.91	4.72	4.72	4.25	.79	.59					
RR160	7.87	6.69	6.69	6.6	.79	.59					
RR200	9.84	8.66	8.27	7.87	.98	.79					

ACCUMULATOR SIZE	CLAMP NUMBER	QNTY.	DIA. (in.)	BASE BRACKET
1 QUART	AMP114	1	4.5	
2 QUART	AMP114	1	4.5	
1 GALLON	AMP172	1	6.7	BB120R
2.5 GALLON	AMPD228	1	9.0	BB170R
5 GALLON	AMPD228	2	9.0	BB170R
7.5 GALLON	AMPD228	2	9.0	BB170R
10 GALLON	AMPD228	2	9.0	BB170R
15 GALLON	AMPD228	3	9.0	BB170R
25 GALLON	AMPD362	3	14.25	BB211R
40 GALLON	AMPD362	3	14.25	BB211R

ACCUMULATOR SIZE	CLAMP NUMBER	QNTY.	DIA. (in.)	BASE BRACKET
1 QUART	AMP114	1	4.5	
2 QUART	AMP114	1	4.5	
	AMP114	2	4.5	
1 GALLON	AMP146	2	5.5	
	AMP172	1	7.0	BB120
	AMP114	2	4.5	
1.5 GALLON	AMP146	2	5.5	
	AMP172	1	7.0	BB120
2 GALLON	AMP114	2	4.5	
	AMP146	2	5.5	
2.5 GALLON	AMP172	1	7.0	BB120
	AMP206	1	8.0	BB170
	AMP146	2	5.5	
3 GALLON	AMP172	1	7.0	BB120
	AMP206	1	8.0	BB170
	AMP146	3	5.5	
4 GALLON	AMP172	1	7.0	BB120
	AMP206	1	8.0	BB170

ACCUMULATOR SIZE	CLAMP NUMBER	QNTY.	DIA. (in.)	BASE BRACKET
	AMP146	3	5.5	
5 GALLON	AMP172	2	7.0	BB120
	AMPD206	1	8.0	BB170
	AMPD225	1	9.0	BB170
	AMP172	2	7.0	BB170
7.5 GALLON	AMP206	2	8.0	BB170
	AMPD226	1	9.0	BB170
10 GALLON	AMPD206	2	8.0	BB170
	AMPD226	2	9.0	BB170
15 GALLON	AMPD206	2	8.0	BB170
	AMPD226	2	9.0	BB170
17.5 GALLON	AMPD226	3	8.0	BB170
20 GALLON	AMPD206	3	8.0	BB170
	AMPD226	3	9.0	BB170
23 GALLON	AMPD226	3	9.0	BB170
25 GALLON	AMPD226	4	9.0	BB170

ACCESSORIES

SPECIFICATIONS

- For Accurate Alignment Between Pump and Motor
- Lightweight, High Strength Aluminum Casting
- Snap-In Cover for Access Hole (Standard)
- Suitable for Electric Motors to 100 HP



VERTICAL MOUNTS DIMENSIONAL INFORMATION

MOUNTS OFFER EASY ASSEMBLY OF PUMP TO VERTICAL MOTOR

V70 & V71 MOUNT

V72 & V73 MOUNT

Note:
Outside diameter of pilot on vertical V70 & V71 mount is 4 7/8\"/>
Outside diameter of pilot on vertical V72 & V73 mount is 5 3/4\"/>

Vertical pump mounts allow pump/motor assembly to be directly mounted to reservoir. Pump coupling and shafts are within reservoir for enclosed, quiet operation. Faster assembly of equipment with this accurately machined, aluminum casting.

VERTICAL MOUNT ADAPTOR FOR ELECTRIC MOTORS

FRAME NUMBER	PUMP MOUNT PART NUMBER	MOTOR FRAME SIZE	SAE PUMP FLANGE	FACE TO FACE	DIMENSIONS OF NEMA-C FACE MOUNT END (INCHES)			DIMENSIONS OF PUMP FACE MOUNT END (INCHES)		
					A	B	C	D NOMINAL	PUMP BOLT CIRCLE	
E70	V70-A4	56C 143-145 TC	4F17	3.50"	4.50	6.625	5.875	1.78	2.828	
	V70-AA		AA-2 BOLT					2.00	3.25	
	V70-A2		A-2 BOLT					3.25	4.188	
E71	V71-A4	56C 143-145 TC	4F17	4.40"	4.50	6.625	5.875	1.78	2.828	
	V71-AA		AA-2 BOLT					2.00	3.25	
	V71-A2		A-2 BOLT					3.25	4.188	
E72	V72-A4	182-184 TC	4F17	5.12"	8.50	8.75	7.25	1.78	2.828	
	V72-AA	213-215 TC	AA-2 BOLT					2.00	3.25	
	V72-A2	254-256 TC	A-2 BOLT					3.25	4.188	
E73	V73-A4	182-184 TC	4F17	6.40"	8.50	8.75	7.25	1.78	2.828	
	V73-AA	213-215 TC	AA-2 BOLT					2.00	3.25	
	V73-A2	254-256 TC	A-2 BOLT					3.25	4.188	

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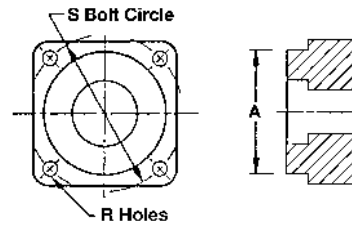
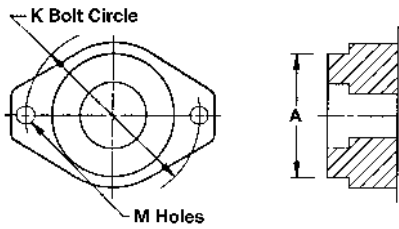
HORIZONTAL MOUNTS FOR ELECTRIC MOTORS

HORIZONTAL MOUNTS FOR ELECTRIC MOTORS											
FRAME NUMBER	PUMP MOUNT PART NUMBER	MOTOR FRAME SIZE	SAE PUMP FLANGE	FACE TO FACE	DIMENSIONS OF NEMA-C FACE MOUNT END (INCHES)			DIMENSIONS OF PUMP FACE MOUNT END (INCHES)		MAXIMUM COUPLING DIAMETER	
					A	B	C	D NOMINAL	PUMP BOLT CIRCLE		
E49	E49-A4	56C 143-145 TC	4F17	3.50"	4.50	6.625	5.875	1.78	2.828	3.00	
	E49-AA		AA-2 BOLT					2.00	3.25		
	E49-A2		A-2 BOLT					3.25	4.188		
E50	E50-A4	56C 143-145 TC	4F17	4.40"	4.50	6.625	5.875	1.78	2.828	3.00	
	E50-AA		AA-2 BOLT					2.00	3.25		
	E50-A2		A-2 BOLT					3.25	4.188		
	E50Z-A 2/4	56C-145TC	A 2/4					3.25	4.188		
E51	E51-A4	182-184 TC	4F17	5.12"	8.50	8.75	7.25	1.78	2.828	3.50	
	E51-AA		AA-2 BOLT					2.00	3.25		
	E51-A2		A-2 BOLT					3.25	4.188		
E52	E52-A4	213-215 TC	4F17	6.40"	8.50	8.75	7.25	1.78	2.828	3.50	
	E52-AA	254-256 TC	AA-2 BOLT					2.00	3.25		
	E52-A2		A-2 BOLT					3.25	4.188		
E53	E53-A2	182-184 TC	A-2 BOLT	5.81"	8.50	8.75	7.25	3.25	4.188	3.50	
E54	E54-B2		B-2 BOLT					4.00	5.75		
E55	E55-A2		213-215 TC					A-2 BOLT	6.81"		
E56	E56-B2	254-256 TC	B-2 BOLT	5.06"	8.50	8.75	7.25	4.00	5.75	4.00	
E57	E57-A2S		A-2 BOLT					3.25	4.188		
	E57-A2L		A-2 BOLT					5.12"	3.25		
	E57Z-A 2/4	182-256TC	A 2/4	5.25	3.25	4.188	3.50				
E58	E58-A2	182-182 TC	A-2 BOLT	5.81"	8.50	8.75	7.25	3.25	4.188	4.00	
	E58-B2	213-215TC	B-2 BOLT					4.00	5.75		
	E58-C2	254-256 TC	C-2 BOLT					5.00	7.125		
E59	E59-A2	182-184 TC	A-2 BOLT	6.81"	8.50	8.75	7.25	3.25	4.188	4.00	
	E59-B2	213-215 TC	B-2 BOLT					4.00	5.75		
	E59-C2	254-256 TC	C-2 BOLT					5.00	7.125		
E62	E62-A2	284-286 TC	A-2 BOLT	6.87"	10.50	11.00	9.00	3.25	4.188	4.50	
	E62-B2	284-286 TSC	B-2 BOLT					4.00	5.75		
	E62-C2		C-2 BOLT					5.00	7.125		
E63	E63-A2	284-286 TC	A-2 BOLT	7.87"	10.50	11.00	9.00	3.25	4.188	4.50	
	E63-B2	284-286 TSC	B-2 BOLT					4.00	5.75		
	E63-C2		C-2 BOLT					5.00	7.125		
E64	E64-A2	324-326 TSC	A-2 BOLT	6.62"	12.50	13.00	11.00	3.25	4.188	5.25	
	E64-B2/4	364-365 TSC	B-4 BOLT					4.00	5.75		
		404-405 TSC	C-2 BOLT					5.00	7.125		
	E64-C2/4		C-4 BOLT					5.00	6.375		
E65	E65-A2	324-326 TSC	A-2 BOLT	7.06"	12.50	13.00	11.00	3.25	4.188	5.25	
	E65-B2/4	364-326 TSC	B-4 BOLT					4.00	5.75		
		404-405 TSC	C-2 BOLT					5.00	7.125		
	E65-C2/4		C-4 BOLT					5.00	6.375		
E66	E66-A2	324-326 TSC	A-2 BOLT	8.75"	12.50	13.00	11.00	3.25	4.188	5.25	
	E66-B2/4	369-365 TSC	B-4 BOLT					4.00	5.75		
		404-405 TSC	C-2 BOLT					5.00	7.125		
	E66-C2/4		C-4 BOLT					5.00	6.375		
E67	E67-D2/4	324-326 TSC	D-2 BOLT	7.06"	12.50	13.00	11.00	6.00	9.00	6.00	
		264-365 TSC 404-405 TSC	D-4 BOLT					6.00	9.00		
E68	E68-D2/4	324-326 TSC	D2 BOLT	8.75	12.50	13.00	11.00	6.00	9.00	6.00	
		269-365 TSC 404-405 TSC	D4 BOLT					6.00	9.00		
ADAPTOR FOR E51-E59 TO CONVERT TO 284-286 TSC MOTORS											
E69	E69				10.50	11.00	9.00				

**NOTE: USE THE E69 ADAPTOR RING WITH E58 AND E59 MOUNTS FOR ALL E62 AND E63 MOUNTS

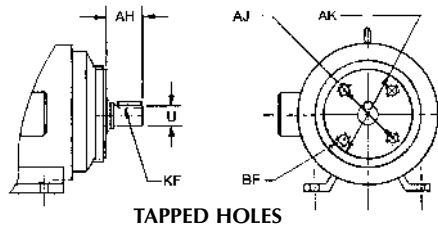
ACCESSORIES

SAE 2 BOLT & 4 BOLT NEMA ELECTRIC MOTORS MOUNTING DIMENSIONS



SAE-2 BOLT MOUNT			
MOUNTING FLANGE	PILOT DIMENSIONS	FLANGE DIMENSIONS	
		SAE	A
AA	2.000/1.998	3.255 3.245	0.406
A	3.250/3.248	4.192 4.182	0.438
B	4.000/3.998	5.755 5.745	0.562
C	5.000/4.998	7.130 7.120	0.687
D	6.000/5.998	9.005 8.995	0.812
E	6.500/6.498	12.503 12.495	1.062
F	7.000/6.998	13.786 13.776	1.062

SAE-4 BOLT MOUNT			
MOUNTING FLANGE	PILOT DIMENSIONS	FLANGE DIMENSIONS	
		SAE	A
USA 4F17	1.781/1.779	2.843 2.833	0.375
A	3.250/3.248	4.130 4.120	0.438
B	4.000/3.998	5.005 4.995	0.562
C	5.000/4.998	6.380 6.370	0.562
D	6.000/5.998	9.005 8.995	0.812
E	6.500/6.498	12.505 12.495	0.812
F	7.000/6.998	13.786 13.776	1.062



TAPPED HOLES

NEMA ELECTRIC MOTOR SHAFT AND C-FACE DIMENSION									
NEMA MOTOR	FRAME	BOLT CIRCLE AJ	REGISTER AK	SHAFT DIAMETER U	SHAFT LENGTH AH	KEY SQ.	KEY LENGTH	BP TAPPED HOLES	
								SIZE	NO. REQ'D.
	56C	5-7/8	4-1/2	5/8	2-1/16	3/16	1	3/8-16	4
	143TC	5-7/8	4-1/2	7/8	2-1/8	3/16	1-3/8	3/8-16	4
	145TC	5-7/8	4-1/2	7/8	2-1/8	3/16	1-3/8	3/8-16	4
	182TC	7-1/4	8-1/2	1-1/8	2-5/8	1/4	1-3/4	1/2-13	4
	184TC	7-1/4	8-1/2	1-1/8	2-5/8	1/4	1-3/4	1/2-13	4
	213TC	7-1/4	8-1/2	1-3/8	3-1/8	5/16	2-3/8	1/2-13	4
	215TC	7-1/4	8-1/2	1-3/8	3-1/8	5/16	2-3/8	1/2-13	4
	254TC	7-1/4	8-1/2	1-5/8	3-3/4	3/8	2-7/8	1/2-13	4
	256TC	7-1/4	8-1/2	1-5/8	3-3/4	3/8	2-7/8	1/2-13	4
	284TC	9	10-1/2	1-7/8	4-3/8	1/2	3-1/4	1/2-13	4
	284TSC	9	10-1/2	1-5/8	3	3/8	1-7/8	1/2-13	4
	286TC	9	10-1/2	1-7/8	4-3/8	1/2	3-1/4	1/2-13	4
	286TSC	9	10-1/2	1-5/8	3	3/8	1-7/8	1/2-13	4
	324TC	11	12-1/2	2-1/8	5	1/2	3-7/8	5/8-11	4
	324TSC	11	12-1/2	1-7/8	3-1/2	1/2	2	5/8-11	4
	326TC	11	12-1/2	2-1/8	5	1/2	3-7/8	5/8-11	4
	326TSC	11	12-1/2	1-7/8	3-1/2	1/2	2	5/8-11	4
	364TC	11	12-1/2	2-3/8	5-5/8	5/8	4-1/4	5/8-11	8
	364TSC	11	12-1/2	1-7/8	3-1/2	1/2	2	5/8-11	8
	365TC	11	12-1/2	2-3/8	5-5/8	5/8	4-1/4	5/8-11	8
	365TSC	11	12-1/2	1-7/8	3-1/2	1/2	2	5/8-11	8
	404TC	11	12-1/2	2-7/8	7	3/4	5-5/8	5/8-11	8
	404TSC	11	12-1/2	2-1/8	4	1/2	2-3/4	5/8-11	8
	405TC	11	12-1/2	2-7/8	7	3/4	5-5/8	5/8-11	8
	405TSC	11	12-1/2	2-1/8	4	1/2	2-3/4	5/8-11	8
	444TC	14	16	3-3/8	8-1/4	7/8	6-7/8	5/8-11	8
	444TSC	14	16	2-3/8	4-1/2	5/8	3	5/8-11	8
	445TC	14	16	3-3/8	8-1/4	7/8	6-7/8	5/8-11	8
	445TSC	14	16	2-3/8	4-1/2	5/8	3	5/8-11	8

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ACCESSORIES

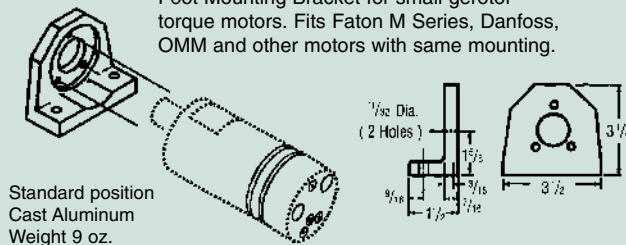
FOOT MOUNT BRACKETS FOR HYDRAULIC PUMPS

SPECIFICATIONS

- Lightweight Aluminum Casting
- Sizes Available: SAEAA - 4 Bolt
SAEAA - 2 Bolt
SAEA - 2 Bolt
SAEB - 2 Bolt

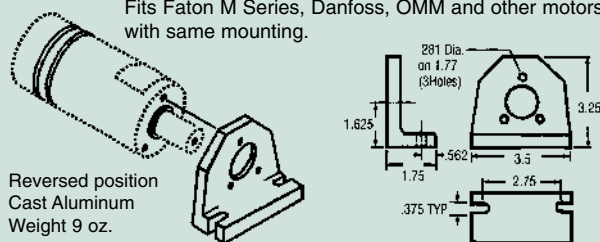
FM-36-M3

Foot Mounting Bracket for small gerotor torque motors. Fits Faton M Series, Danfoss, OMM and other motors with same mounting.

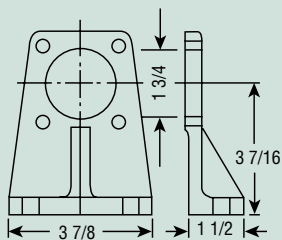


FM-37-M3R

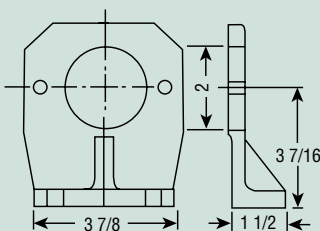
Foot Mounting Bracket for small gerotor torque motors. Fits Faton M Series, Danfoss, OMM and other motors with same mounting.



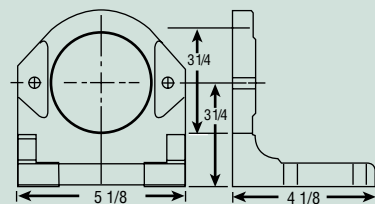
FM-38-4F



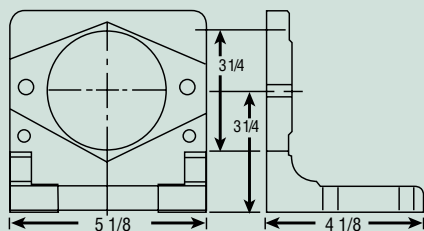
FM-39-AA2



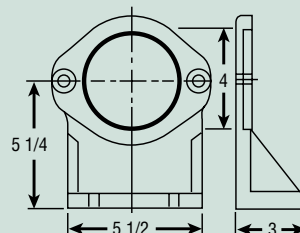
FM-40-A2



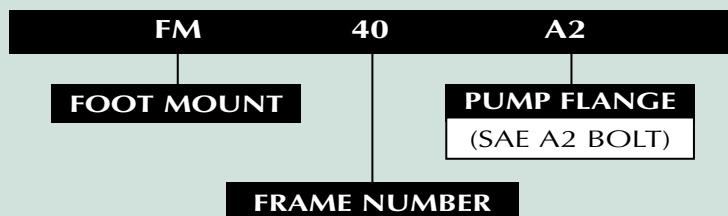
FM-41-A2C



FM-42-B2



ORDERING INFORMATION

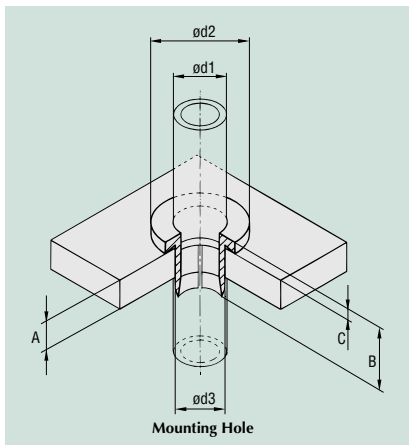


SPECIFICATIONS

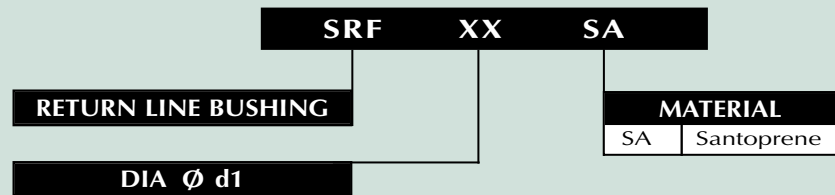
- Material: Santoprene
- Diameter: 1/4" to 2"
- Compatible with Most Hydraulic Fluids
- Packaged in Bags of Ten



DIMENSIONS

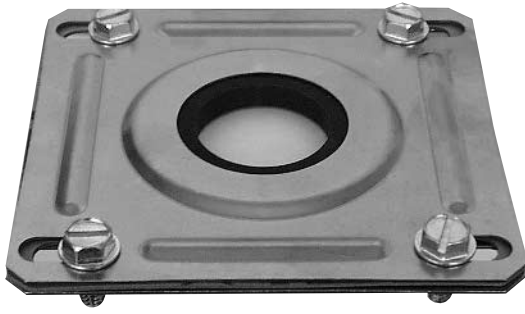


ORDERING INFORMATION



Tube Dia.	1/4" T	-	3/8" T	1/8" P	1/2" T	1/4" P	-	5/8" T	-	3/4" T	7/8" T	1" T	-	-	-	1 1/2" T	1 1/4" P
Ø d1	6	8	10	12	14	15	16	18	20	22	25	28	30	35	38	42	
d2	18 0.71	20 0.78	22 0.86	24 0.94	26 1.02	28 1.10	28 1.10	30 1.18	32 1.25	34 1.33	38 1.49	41 1.61	43 1.69	48 1.88	51 2.00	55 2.16	
d3	10 0.39	12 0.47	14 0.55	16 0.63	18 0.71	20 0.78	20 0.78	22 0.86	24 0.94	26 1.02	33 1.29	33 1.29	35 1.37	40 1.57	43 1.69	47 1.84	
A	0.16" - 0.5" / 4 - 12mm																
B	0.9" / 23mm																
C	0.16" / 4mm																

SUCTION FLANGES SF SERIES

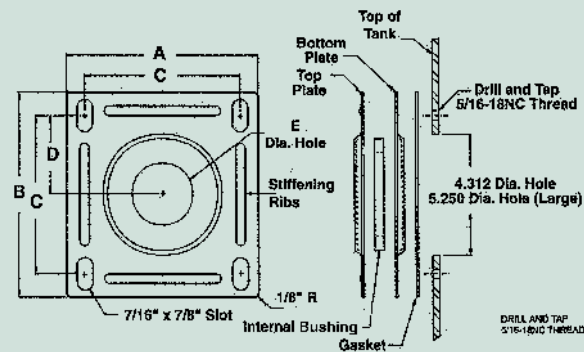


SPECIFICATIONS

- Designed to seal suction lines passing through the top plate of reservoir
- Allows access for easy removal of suction elements for inspection and cleaning
- Includes top plate, bottom plate, gasket, rubber bushing and 4 x 5/16-18 thread forming screws

PART NO.	DIMENSIONS										NOMINAL PIPE SIZE
	A		B		C		D		E		
	in	mm	in	mm	in	mm	in	mm	in	mm	
SF-050	4.25	108	5.25	133	5.50	140	4.25	108	0.44	11	1/2"
SF-075	4.25	108	5.25	133	5.50	140	4.25	108	0.44	11	3/4"
SF-100	4.25	108	5.25	133	5.50	140	4.25	108	0.44	11	1"
SF-125	4.25	108	5.25	133	5.50	140	4.25	108	0.44	11	1 1/4"
SF-150	4.25	108	5.25	133	5.50	140	4.25	108	0.44	11	1 1/2"
SF-200	4.25	108	5.25	133	5.50	140	4.25	108	0.44	11	2"
SF-250	6.25	159	7.50	190	7.50	190	6.25	159	0.44	11	2 1/2"
SF-300	6.25	159	7.50	190	7.50	190	6.25	159	0.44	11	3"

DIMENSIONS



Area of Application:

Flow, pressure and temperature measuring of fluids (mobile and industrial hydraulics and grease systems)

Characteristics:

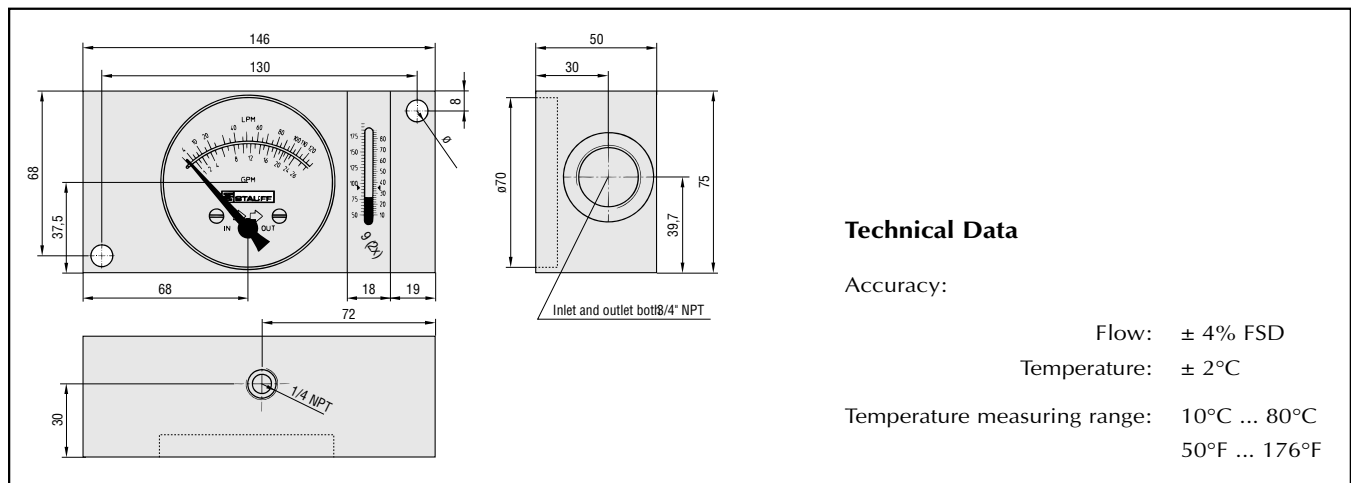
- Suitable for mineral oil (aluminium), HFC fluids
- Designed for in-line installation
- Mechanical process (off the line)
- 1/4 NPT connection for pressure gauge
- 2 1/2" (63mm) Dial.
- Standard calibration for 150 SSU fluids
- Accuracy within $\pm 4\%$ full scale deflection

SDM indicator offer a simultaneous measurement of pressure, flow and temperature (dual scale in °C and °F).

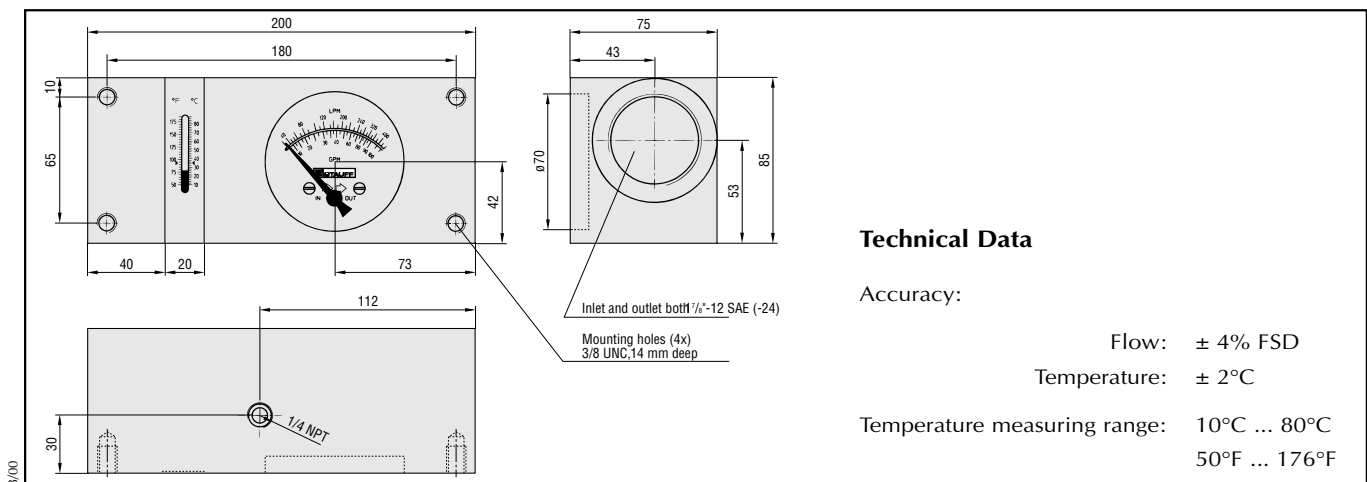
- Bronze versions for water available on request



DIMENSIONS SDM-750



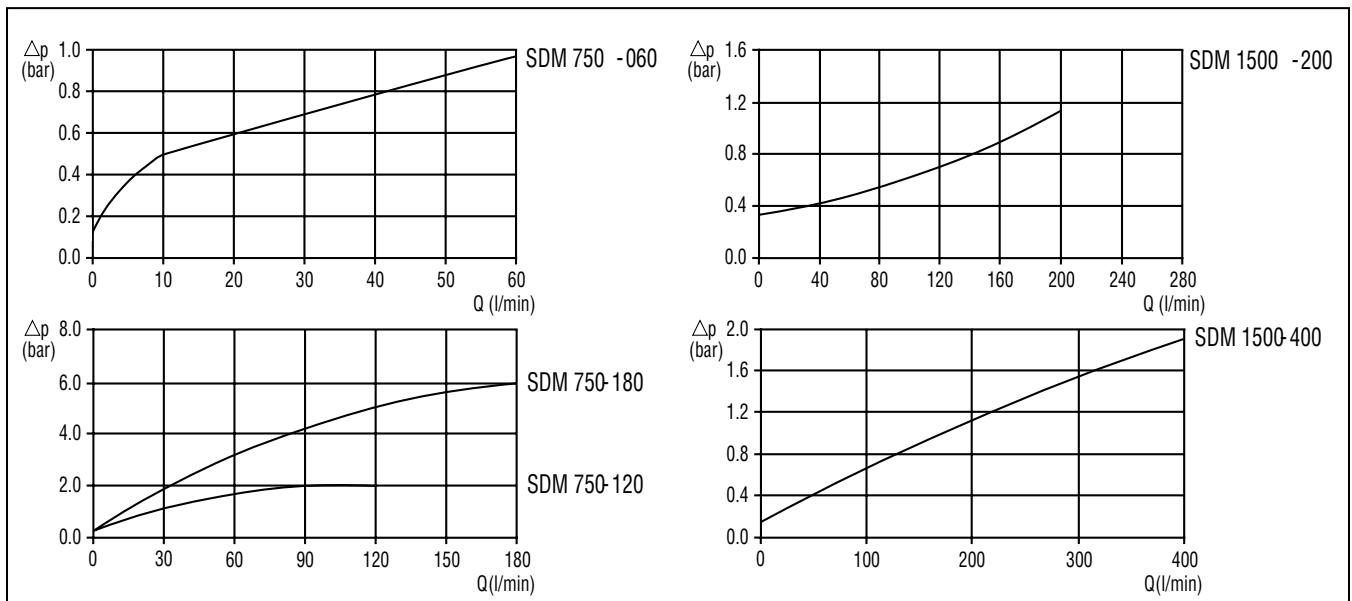
DIMENSIONS SDM-1500



TECHNICAL DATA

PART NUMBER	MAX WORKING PRESSURE		FLOW RANGE		WEIGHT		CONNECTION
	PSI	BAR	GPM	L/MIN	LB	KG	
SDM-750-A-060-T0	6000	420	0.8-16	3 – 60	3	1.36	3/4 NPT
SDM-750-A-120-T0	6000	420	1.3-32	5 – 120	3	1.36	3/4 NPT
SDM-750-A-180-T0	6000	420	2.6-47	10 – 180	3	1.36	3/4 NPT
SDM-1500-A-200-T	4000	280	2.6-53	10 – 200	6.6	3.00	1 ⁷ / ₈ -12 SAE
SDM-1500-A-400-T	4000	280	8-105	30 – 400	6.6	3.00	1 ⁷ / ₈ -12 SAE

FLOW CURVES



ORDERING CODE

SDM 750N A 016 T

TYPE	
SDM	Flow Indicator

THERMOMETER	
T	with integrated thermometer (standard)

SIZE	
750	size 750N
1500	size 1500S

FLOW	
060	0.8 - 16 gpm (3 - 6 lpm) - size 750
120	1.3 - 32 gpm (5-120lpm) - size 750
180	2.6 - 47 gpm (10-180 lpm) - size 750
200	2.6 - 53 gpm (10-200 lpm) - size 750
400	8 - 105 gpm (20-400 lpm) - size 750

HOUSING	
A	Aluminium
B	Bronze (special order)