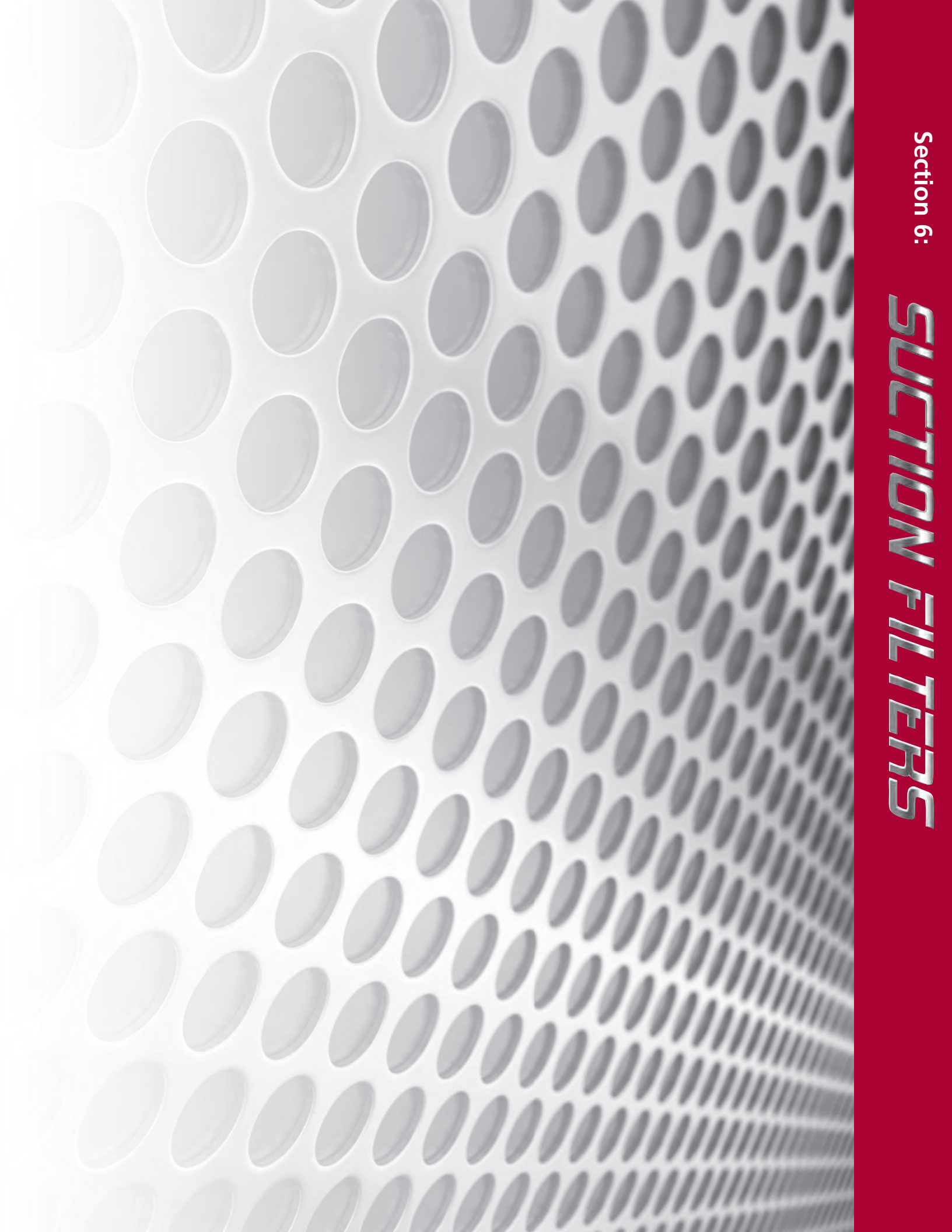


Section 6:

SUCTION FILTERS



Section 6 Suction Filters Selection Guide

		Pressure psi (bar)	Flow gpm (L/min)	Element Length/Size	Page
Suction Filters	Tank-Mounted Suction Filter				
	ST	N/A	20 (75)	K, KT	283
	In-Line Magnetic Suction Separator				
	TF-SKB	N/A	12.5 (47)	SKB	287
	Tank-Mounted Magnetic Suction Separators				
	KF3-SKB	N/A	35 (130)	SKB	288
	BFT-SKB	N/A	75 (285)	SKB	289

Tank-Mounted Suction Filter **ST**



Features and Benefits

- Tank-mounted suction filter for hydrostatic suction service
- Optional check valve prevents reservoir siphoning
- Easy Element changeout
- Inlet filter protects pump, reduces start-up failures

20 gpm
75 L/min

ST

TF-SKB

KF3-SKB

BFT-SKB

Model No. of filter in photograph is ST1K105Y.



INDUSTRIAL



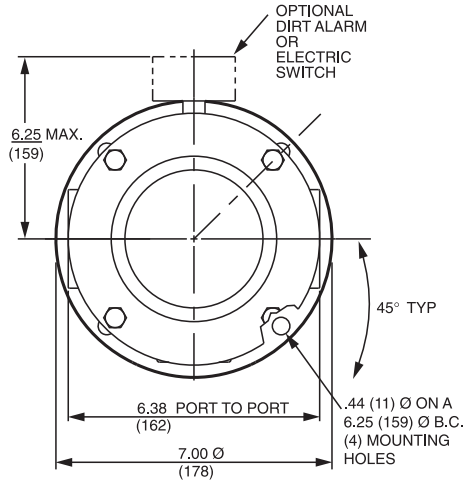
MOBILE
VEHICLES

Applications

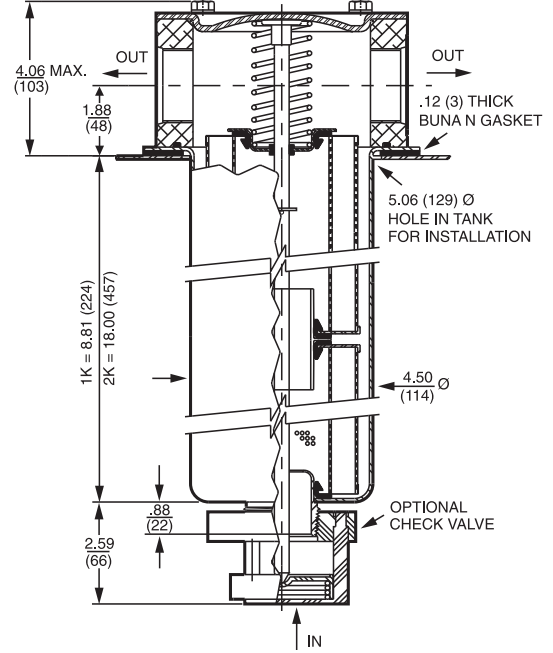
Flow Rating:	Up to 20 gpm (75 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	Suction Filter
Min. Yield Pressure:	Not Applicable
Rated Fatigue Pressure:	Not Applicable
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Non-bypassing
Porting Head:	Die Cast Aluminum
Cap:	Steel
Element Case:	Steel
Weight of ST-1K:	11.1 lbs. (5.0 kg)
Weight of ST-2K:	14.7 lbs. (6.7 kg)
Element Change Clearance:	7.25" (185 mm) for 1K; 17.50" (445 mm) for KK

Filter Housing Specifications

ST Tank-Mounted Suction Filter



Optional mounting ring (P/N A-LFT-813) available to weld to tank.



Metric dimensions in ().

Element Performance Information

Element	Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Filtration Ratio wrt ISO 16889 Using APC calibrated per ISO 11171	
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_{x(c)} \geq 200$	$\beta_{x(c)} \geq 1000$
K10	15.5	16.2	18.0	N/A	N/A
KTZ10	7.4	8.0	10.0	8.0	10.0

Dirt Holding Capacity

Element	DHC (gm)
K10	44
KTZ10	56

Element Collapse Rating: 150 psid (10 bar)

Flow Direction: Inside Out

Element Nominal Dimensions: 3.9" (99 mm) O.D. x 9.0" (230 mm) long

Tank-Mounted Suction Filter **ST**

Type Fluid	Appropriate Schroeder Media
Petroleum Based Fluids	All E media (cellulose) and Z-Media™ (synthetic)
High Water Content	10 μ Z-Media (synthetic)
Invert Emulsions	10 μ Z-Media (synthetic)
Water Glycols	10 μ Z-Media (synthetic)
Phosphate Esters	10 μ Z-Media (synthetic) with H (EPR) seal designation and 10 μ E media (cellulose) with H (EPR) seal designation
Skydrol®	10 μ Z-Media (synthetic) with H.5 seal designation (EPR seals and stainless steel wire mesh in element, and light oil coating on housing exterior)

Fluid Compatibility

ST

TF-SKB

KF3-SKB

Skydrol is a registered trademark of Solutia Inc.

BFT-SKB

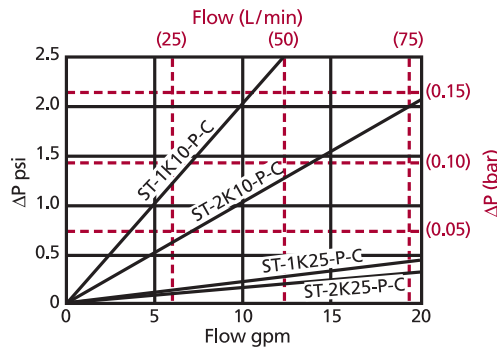
Pressure	Element		Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid.				
	Series	Part No.	1K10		2K10†		
Hydrostatic Suction Service	E Media	K10	1K10		2K10†		
		K25	1K25		2K25†		
	Z-Media	KTZ10	1KTZ10		2KTZ10†		
Flow	gpm	0	5	10	15	20	
	(L/min)	0	25	50	75		

Element Selection Based on Flow Rate

Note: Contact factory regarding use of E Media in High Water Content, Invert Emulsion and Water Glycol Applications. For more information, refer to Fluid Compatibility: Fire Resistant Fluids, pages 19 and 20.

$$\Delta P_{\text{filter}} = \Delta P_{\text{housing}} + \Delta P_{\text{element}}$$

Note: Plotted curves shown in graph below include both housing and elements as indicated for fluids with sp gr = 0.86.



sp gr = specific gravity

Sizing of elements should be based on element flow information provided in the Element Selection chart above.

Pressure Drop Information Based on Flow Rate and Viscosity

Notes



Tank-Mounted Suction Filter

Filter Model Number Selection

How to Build a Valid Model Number for a Schroeder ST:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
ST	-	-	-	-	-	-	-

Example: NOTE: Only box 8 may contain more than one option

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8				
ST	-	1	-	K25	-	P	-	-	Y	-	= ST1K25PY

BOX 1	BOX 2	BOX 3	BOX 4
Filter Series	Number of Elements	Element Part Number	Seal Material
ST	1 2	K10 = K size 10 μ E media (cellulose) K25 = K size 25 μ E media (cellulose) KTZ3 = K size 3 μ Excellement® Z-Media™ (synthetic) inside-out flow KTZ5 = K size 5 μ Excellement Z-Media (synthetic) inside-out flow KTZ10 = K size 10 μ Excellement Z-Media (synthetic) inside-out flow KTZ25 = K size 25 μ Excellement Z-Media (synthetic) inside-out flow	Omit = Buna N H = EPR W = Buna N H.5 = Skydrol® compatibility

BOX 5	BOX 6	BOX 7						
Outlet Porting	Optional Check Valve	Dirt Alarm® Options						
P = 1½" NPTF PP = Dual 1½" NPTF S = SAE-24 SS = Dual SAE-24 B = ISO 228 G-1½" BB = Dual ISO 228 G-1½"	Omit = None C = Check valve	<table border="1"> <tr> <td></td> <td>Omit = None</td> </tr> <tr> <td>Visual</td> <td>Y = Vacuum gauge YR = Vacuum gauge mounted on opposite side of standard location</td> </tr> <tr> <td>Electrical</td> <td>VS = Electric vacuum switch VSR = Electric vacuum switch mounted on opposite side of standard location VS1 = Heavy-duty vacuum switch</td> </tr> </table>		Omit = None	Visual	Y = Vacuum gauge YR = Vacuum gauge mounted on opposite side of standard location	Electrical	VS = Electric vacuum switch VSR = Electric vacuum switch mounted on opposite side of standard location VS1 = Heavy-duty vacuum switch
	Omit = None							
Visual	Y = Vacuum gauge YR = Vacuum gauge mounted on opposite side of standard location							
Electrical	VS = Electric vacuum switch VSR = Electric vacuum switch mounted on opposite side of standard location VS1 = Heavy-duty vacuum switch							

BOX 8
Additional Options
Omit = None G2293 = Cork gasket G547 = Two ⅜" gauge ports

NOTES:

Box 3. Replacement element part numbers are identical to contents of Boxes 3 and 4.

Box 4. For options H and W, all aluminum parts are anodized.
H.5 seal designation includes the following:
EPR seals, stainless steel wire mesh on elements, and light oil coating on housing exterior.
Skydrol is a registered trademark of Solutia Inc.

Box 6. See also "Accessories for Tank-Mounted Filters," page 267.

In-Line Magnetic Suction Separators

In addition to offering our magnetic suction strainer (SKB) as a stand alone product, we also offer the SKB enclosed in a housing, so that it can be used either in-line (TF-SKB or KF3-SKB) or as a reservoir-mounted filter (BFT-SKB). Flow rates and available porting vary—refer to the specifications for each.

Features and Benefits

- Protects components downstream by capturing potentially harmful ferrous particles

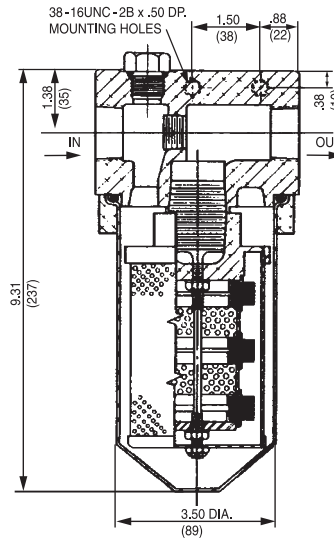
Specifications

Flow Rating: 12.5 gpm (47 L/min)

Element Replacement Part Number: SKB-1

Element Change Clearance: 2.5" (65 mm)

Weight of TF-SKB: 5.8 lbs (2.6 kg)



TF-SKB

TF-SKB

KF3-SKB

BFT-SKB

How to Build a Valid Model Number for a Schroeder TF-SKB:

BOX 1	BOX 2	BOX 3	BOX 4
TF-SKB	-	-	-

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4
TF-SKB	-	P	Y

= TF-SKBPY

BOX 1	BOX 2	BOX 3	BOX 4
Filter Series	Seal Material	Porting	Dirt Alarm® Options
TF-SKB	Omit = Buna N	P = 1" NPTF	Omit = None
			Visual Y = Vacuum gauge
			Electrical VS = Electric vacuum switch VS1 = Heavy-duty vacuum switch

Filter Model Number Selection

NOTE:

Box 1. Element replacement part number: SKB-1.

In-Line Magnetic Suction Separators

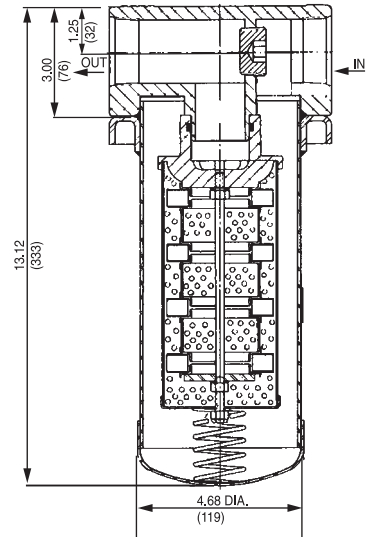
KF3-SKB

Features and Benefits

- Protects components downstream by capturing potentially harmful ferrous particles

Specifications

Flow Rating:	35 gpm (130 L/min)
Element Replacement Part Number:	A-LF-1789
Element Change Clearance:	1.5" (40 mm)
Weight of KF3-SKB:	11.5 lbs (5.2 kg)



Applications



INDUSTRIAL



MOBILE VEHICLES

Filter Model Number Selection

How to Build a Valid Model Number for a Schroeder KF3-SKB:



Example: NOTE: One option per box



BOX 1	BOX 2	BOX 3	BOX 4
Filter Series	Seal Material	Porting	Dirt Alarm® Options
KF3-SKB	Omit = Buna N	P = 1½" NPTF	Omit = None
			Visual Y = Vacuum gauge
			Electrical VS = Electric vacuum switch VS1 = Heavy-duty vacuum switch

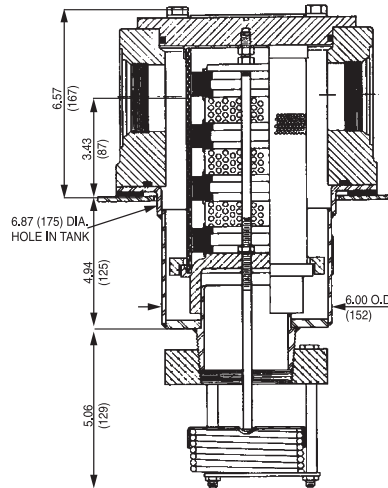
NOTE:

Box 1. Element replacement part number: A-LF-1789.

Tank-Mounted Magnetic Suction Separators

Features and Benefits

- Protects components downstream by capturing potentially harmful ferrous particles



BFT-SKB

ST

TF-SKB

KF3-SKB

BFT-SKB

Flow Rating: 75 gpm (285 L/min)

Element Replacement with check valve: A-SKB-3-76
Part Number: without check valve: SKB-3

Element Change Clearance: 13.5" (345 mm)

Weight of BFT-SKB: 32.0 lbs (14.5 kg)

Specifications



INDUSTRIAL



MOBILE
VEHICLES

Applications

Tank-Mounted Magnetic Suction Separators

Filter Model Number Selection

How to Build a Valid Model Number for a Schroeder BFT-SKB:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
BFT-SKB	-	-	-	-

Example: *NOTE: One option per box*

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	
BFT-SKB	-	P	-	Y	= BFT-SKBPY

BOX 1
Filter Series
BFT-SKB

BOX 2
Seal Material
Omit = Buna N

BOX 3
Porting
P = 2½" NPTF
PP = Dual 2½" NPTF
F = 2½" SAE 4-bolt flange Code 61
FF = Dual 2½" SAE 4-bolt flange Code 61

BOX 4
Other Options
Omit = None
C = Check valve

BOX 5	
Dirt Alarm® Options	
	Omit = None
Visual	Y = Vacuum gauge YR = Vacuum gauge on opposite side of standard location
Electrical	VS = Electric vacuum switch VSR = Electric vacuum switch on opposite side of standard location VS1 = Heavy-duty vacuum switch

Notes

NOTE:
Box 1. See specifications on previous page for element replacement part numbers.