

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

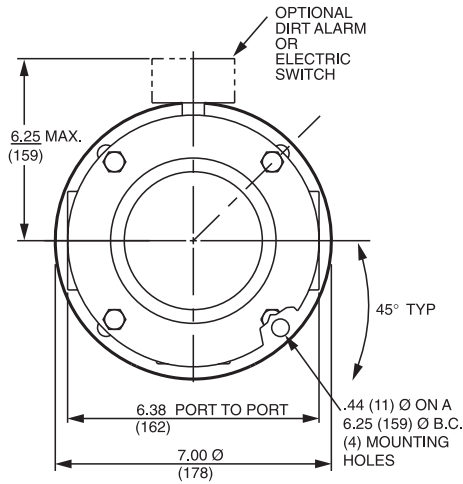
Applications

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

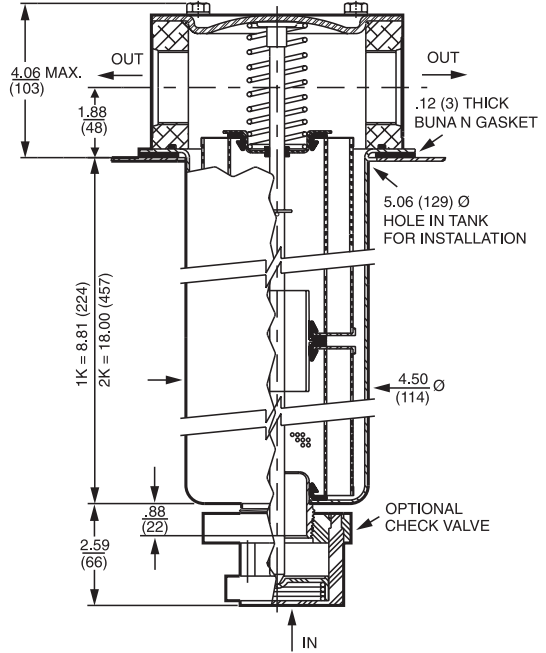
Filter Housing Specifications



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

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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

TF-SKB

KF3-SKB

BFT-SKB

Skydrol® is a registered trademark of Solutia Inc.

Pressure	Element		Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid.			
	Series	Part No.				
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

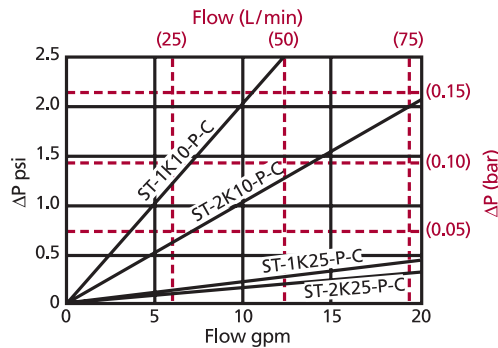
Note: Contact factory regarding use of E Media in High Water Content, Invert Emulsion and Water Glycol Applications. For more information, refer to Fluid Compatibility: Fire Resistant Fluids, pages 19 and 20.

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

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

Pressure Drop Information

Based on Flow Rate and Viscosity



sp gr = specific gravity

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

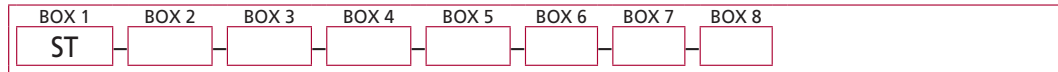
Notes



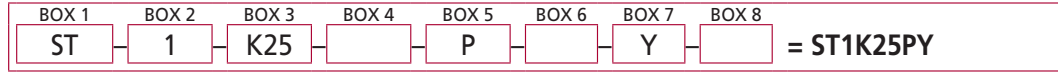
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Filter Model Number Selection

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



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



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	BOX 8						
Outlet Port	Optional Check Valve	Dirt Alarm® Options	Additional Options						
P = 1½" NPTF PP = Dual 1½" NPTF S = SAE 24 SS = Dual SAE 24 B = ISO 228 G-1½" BB = 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 guage YR = Vacuum guage mounted on opposite side of standard location </td> </tr> <tr> <td>Electrical</td> <td> VS = Electrical Vacuum Switch VSR = Electrical Vacuum Switch mounted on opposite side of standard location VSR1 = Heavy-Duty Vacuum Switch </td> </tr> </table>		Omit = None	Visual	Y = Vacuum guage YR = Vacuum guage mounted on opposite side of standard location	Electrical	VS = Electrical Vacuum Switch VSR = Electrical Vacuum Switch mounted on opposite side of standard location VSR1 = Heavy-Duty Vacuum Switch	Omit = None G2293 = Cork Gasket G547 = Two ⅛" guage ports
	Omit = None								
Visual	Y = Vacuum guage YR = Vacuum guage mounted on opposite side of standard location								
Electrical	VS = Electrical Vacuum Switch VSR = Electrical Vacuum Switch mounted on opposite side of standard location VSR1 = Heavy-Duty Vacuum Switch								

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.
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Box 6. See also "Accessories for Tank-Mounted Filters," page 295.