

SAME DAY SHIPMENT MODEL AVAILABLE!

Tank-Mounted Filter

ZT



Features and Benefits

- Low pressure tank-mounted filter
- Available with dual inlet porting
- Offered in pipe, SAE straight thread and ISO 228 porting
- Various Dirt Alarm® options
- Same day shipment model available

40 gpm
150 L/min

100 psi
7 bar

IRF
 TF1
 KF3
 KL3
 LF1-2"
 MLF1
 RLD
 GRTB
 MTA
 MTB

Model No. of filter in photograph is ZT8ZZ10PY2.



INDUSTRIAL



AUTOMOTIVE
MANUFACTURING



MOBILE
VEHICLES



MACHINE
TOOL

Applications

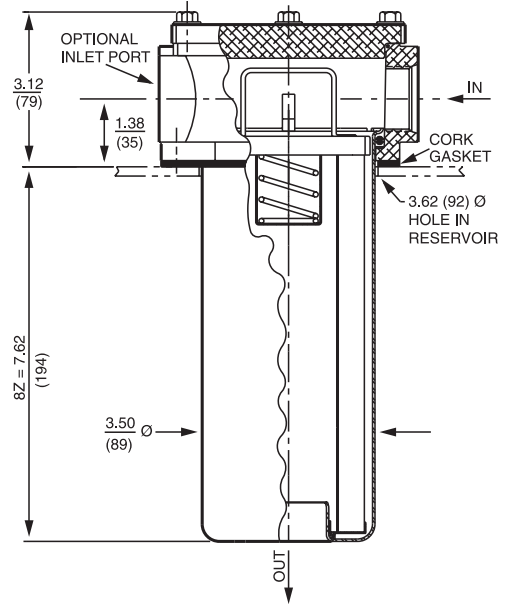
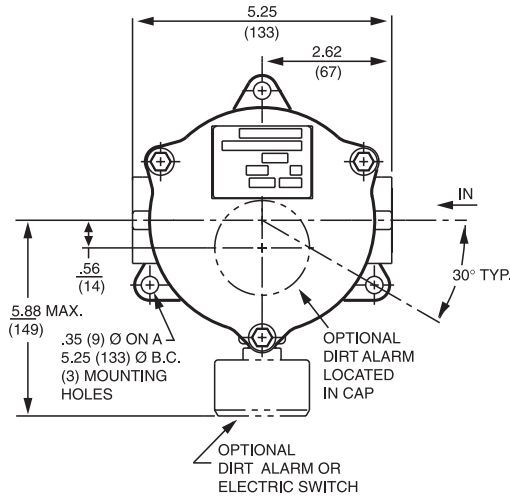
ZT
 KFT
 RT
 RTI
 LRT
 ART
 BFT
 QT
 KTK
 LTK
 MRT

Flow Rating:	Up to 40 gpm (150 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	100 psi (7 bar)
Min. Yield Pressure:	400 psi (28 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	90 psi (6 bar), per NFPA T2.6.1-R1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 25 psi (1.7 bar) Full Flow: 39 psi (2.7 bar)
Porting Head & Cap:	Die Cast Aluminum
Element Case:	Steel
Weight of ZT-8Z:	3.7 lbs. (1.7 kg)
Element Change Clearance:	10.0" (254 mm)

Filter Housing Specifications

Accessories for Tank-Mounted Filters

PAF1
 MAF1
 MF2



Optional mounting ring (P/N A-LFT-1295) 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	
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_x(c) \geq 200$	$\beta_x(c) \geq 1000$
8Z3	6.8	7.5	10.0	N/A	N/A
8Z10	15.5	16.2	18.0	N/A	N/A
8ZZ1	<1.0	<1.0	<1.0	<4.0	4.2
8ZZ3	<1.0	<1.0	<2.0	<4.0	4.8
8ZZ5	2.5	3.0	4.0	4.8	6.3
8ZZ10	7.4	8.2	10.0	8.0	10.0
8ZZ25	18.0	20.0	22.5	19.0	24.0

Dirt Holding Capacity

Element	DHC (gm)
8Z3	39
8Z10	32
8ZZ1	51
8ZZ3	52
8ZZ5	59
8ZZ10	55
8ZZ25	77

Element Collapse Rating: 150 psid (10 bar)
 Flow Direction: Outside In
 Element Nominal Dimensions: 3.2" (81 mm) O.D. x 9.25" (235 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	All Z-Media (synthetic)
Invert Emulsions	10 and 25 µ Z-Media® (synthetic)
Water Glycols	3, 5, 10 and 25 µ Z-Media® (synthetic)
Phosphate Esters	All Z-Media® (synthetic) with H (EPR) seal designation
Skydrol®	3, 5, 10 and 25 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

IRF
TF1
KF3
KL3
LF1-2"

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 and a 25 psi (1.7 bar) bypass valve.			
	Series	Part No.				
Return Line -Tank-Mounted	E Media	8Z3 paper	8Z3 (cellulose media)			
		8Z10 paper	8Z10 (cellulose media)			
		8Z25 paper	8Z25 (cellulose media)			
	Z-Media®	8ZZ3	8ZZ3			
		8ZZ5	8ZZ5			
		8ZZ10	8ZZ10			
		8ZZ25	8ZZ25			
	Flow	gpm	0	10	20	30
(L/min)		0	50	100	150	

Element Selection Based on Flow Rate

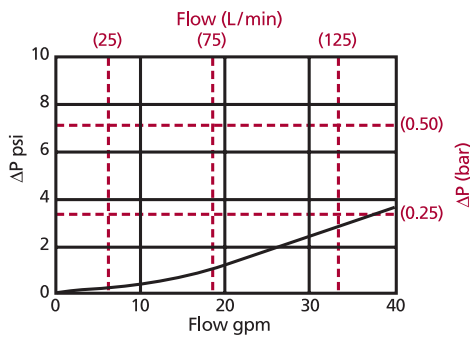
MLF1
RLD
GRTB
MTA
MTB
ZT

Shown above are the elements most commonly used in this housing.

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.

ΔP_{housing}

ZT ΔP_{housing} 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.

ΔP_{element}

ΔP_{element} = flow x element ΔP factor x viscosity factor

El. ΔP factors @ 150 SUS (32 cSt):

8Z3	.25
8Z10	.09
8Z25	.02
8ZZ1	.37
8ZZ3	.21
8ZZ5	.13
8ZZ10	.11
8ZZ25	.08

If working in units of bars & L/min, divide above factor by 54.9.

Viscosity factor: Divide viscosity by 150 SUS (32 cSt).

Pressure Drop Information Based on Flow Rate and Viscosity

RT
RTI
LRT
ART
BFT
QT
KTK
LTK
MRT

Notes

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

Exercise:

Determine ΔP at 20 gpm (76 L/min) for ZT8ZZ1PES using 200 SUS (44 cSt) fluid.

Solution:

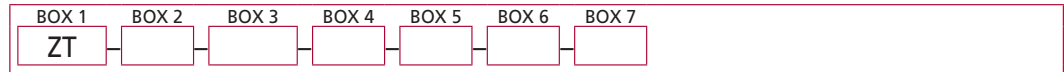
$$\begin{aligned} \Delta P_{\text{housing}} &= 1 \text{ psi } [.07 \text{ bar}] \\ \Delta P_{\text{element}} &= 20 \times .37 \times (200 \div 150) = 9.8 \text{ psi} \\ &\text{or} \\ &= [76 \times (.37 \div 54.9) \times (44 \div 32) = 0.7 \text{ bar}] \\ \Delta P_{\text{total}} &= 1.0 + 9.8 = 10.8 \text{ psi} \\ &\text{or} \\ &= [.07 + .7 = .77 \text{ bar}] \end{aligned}$$

Accessories for Tank-Mounted Filters
PAF1
MAF1
MF2

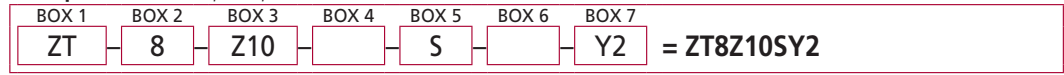
Filter Model Number Selection

Same Day Shipment Model
See inside back cover for details.

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



Example: NOTE: One option per box



BOX 1	BOX 2	BOX 3	BOX 4
Filter Series	Element Length (in)	Element Size and Media	Seal Material
ZT	8	Z3 = Z size 3 μ E media (cellulose) Z10 = Z size 10 μ E media (cellulose) Z25 = Z size 25 μ E media (cellulose) ZZ1 = Z size 1 μ Excellement® Z-Media® (synthetic) ZZ3 = Z size 3 μ Excellement® Z-Media® (synthetic) ZZ5 = Z size 5 μ Excellement® Z-Media® (synthetic) ZZ10 = Z size 10 μ Excellement® Z-Media® (synthetic) ZZ25 = Z size 25 μ Excellement® Z-Media® (synthetic)	Omit = Buna N H = EPR
BOX 5	BOX 6	BOX 7	
Inlet Porting	Outlet Porting	Dirt Alarm® Options	
P = 1" NPTF PP = Dual 1" NPTF S = SAE-16 SS = Dual SAE-16 B = ISO 228 G-1" BB = Dual ISO 228 G-1"	Omit = Non-threaded OP = 1½" NPTF Male	Omit = None Y2 = Back-mounted tri-color gauge Y2C = Bottom-mounted gauge in cap Y5 = Back-mounted gauge in cap ES = Electric switch ES1 = Heavy-duty electric switch with conduit connection	

NOTES:

Box 2. Replacement element part numbers are a combination of Boxes 2, 3, and 4.
Example: 8Z10H

Box 3. E media elements are only available with Buna N seals.

Box 4. For option H, all aluminum parts are anodized.