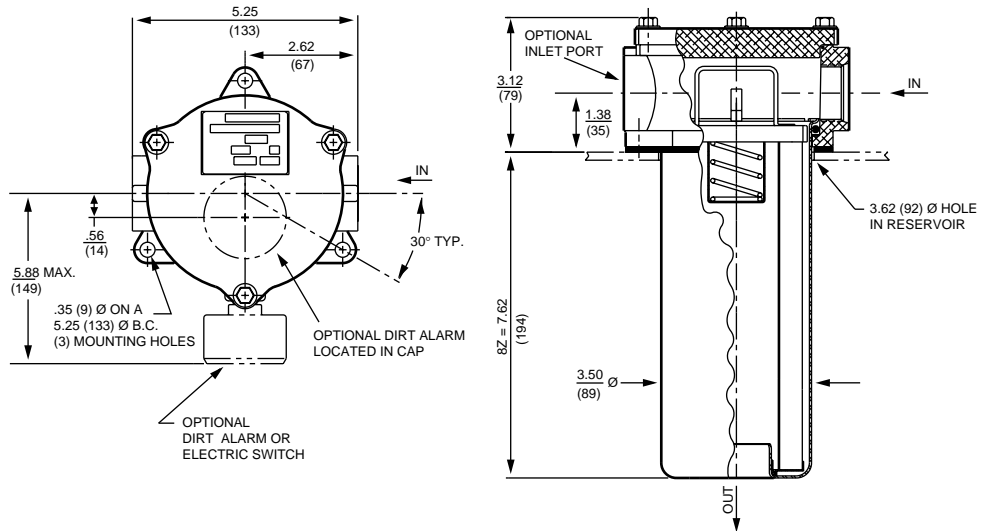


ZT Tank-Mounted Filter

40 gpm
150 L/min
100 psi
7 bar



Optional mounting ring available to weld to tank.

Metric dimensions in (.).
Model No. of filter in photograph is ZT8ZZ10PY2.

Filter Housing Specifications

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)
Rated Fatigue Pressure:	90 psi (6 bar), per NFPA T2.6.1-R1-1991
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)

Element Performance Information

Element	Absolute Rating Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Abs. Rating wrt ISO 16889 Using APC calibrated per ISO 11171		Dirt Holding Capacity gm
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_{x(e)} \geq 200$	$\beta_{x(e)} \geq 1000$	
8Z3	6.8	7.5	10.0	N/A	N/A	39
8Z10	15.5	16.2	18.0	N/A	N/A	32
8Z1	<1.0	<1.0	<1.0	<4.0	4.2	51
8Z3	<1.0	<1.0	<2.0	4.7	5.8	52
8Z5	2.5	3.0	4.0	6.5	7.5	43
8Z10	7.4	8.2	10.0	10.0	12.7	55
8Z25	18.0	20.0	22.5	19.0	24.0	56

Element Collapse Rating: 150 psid (10 bar)
Flow Direction: Outside In
Element Nominal Dimensions: 3.0" (75 mm) O.D. x 9.25" (235 mm) long

Fluid Compatibility

Type Fluid	Appropriate Schroeder Media
Petroleum Based Fluids	All Paper (E) and Synthetic (Z) media
High Water Content	Z1, Z3, Z5, Z10, Z25
Invert Emulsions	Z10, Z25
Water Glycols	Z3, Z5, Z10, Z25
Phosphate Esters	All Z media with EPR Seals
Skydrol	Z3H.5, Z5H.5, Z10H.5 and Z25H.5

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.

Tank-Mounted Filter ZT

■ Dual inlet porting available.

Features

ST
SKB Housings

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	40
	(L/min)	0	50	100	150	

Element Selection

Based on Flow Rate

ZT

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

Pressure Drop Information

Based on Flow Rate and Viscosity

BFT
Accessories for Tank-Mounted Filters
Air Breathers
Filler Strainer Assemblies
Magnetic Suction Separators
Suction Strainers

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

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

Solution:

$$\Delta P_{\text{housing}} = 1 \text{ psi } [0.07 \text{ bar}]$$

$$\Delta P_{\text{element}} = 20 \times .37 \times (200 \div 150) = 9.8 \text{ psi}$$

or

$$= [76 \times (.37 \div 54.9) \times (44 \div 32) = 0.7 \text{ bar}]$$

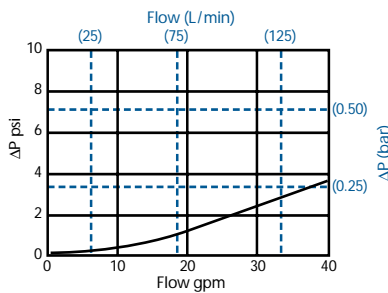
$$\Delta P_{\text{total}} = 1.0 + 9.8 = 10.8 \text{ psi}$$

or

$$= [.07 + .7 = .77 \text{ bar}]$$

$\Delta P_{\text{housing}}$

ZT $\Delta P_{\text{housing}}$ for fluids with sp gr = 0.86:



sp gr = specific gravity

$\Delta P_{\text{element}}$

$\Delta P_{\text{element}} = \text{flow} \times \text{element } \Delta P \text{ factor} \times \text{viscosity factor}$

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).

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

Filter Model Number Selection

PAF1
MAF1
MF2
TF1
TF3
KF3
WKF3
LF1
LF1—2"
MLF1
SRLT
ESAFE SRLT
TRLT
RLT
ESAFE RLT

Filter Series	Element Length	Element Part No. Media	Seal Material	Inlet Porting	Outlet Porting	Dirt Alarm (See Appendix A for complete list of options)
ZT	8"	Z3** Z10** Z25** ZZ1 ZZ3 ZZ5 ZZ10 ZZ25	(Omit) = Buna N H = EPR*	P = 1" NPTF PP = Dual 1" NPTF S = 1 1/16" -12 SAE Straight (SAE-16) SS = Dual 1 1/16" -12 SAE Straight (SAE-16) B = ISO 228 G-1 (1-11 BSPP) BB = Dual ISO 228 G-1 (1-11 BSPP)	(Omit) = Non-threaded OP = 1 1/2" NPTF Male	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

*When "H" seals are ordered all aluminum filter parts are anodized.
**Only available with Buna N seals.

See also "Accessories for Tank-Mounted Filters" section.

See Appendix B for additional information on these options and instructions on how to order.

Other Available Options

WRLT
KF8
QF5
MQF5
QFD2
4QFD2
Filtration Carts