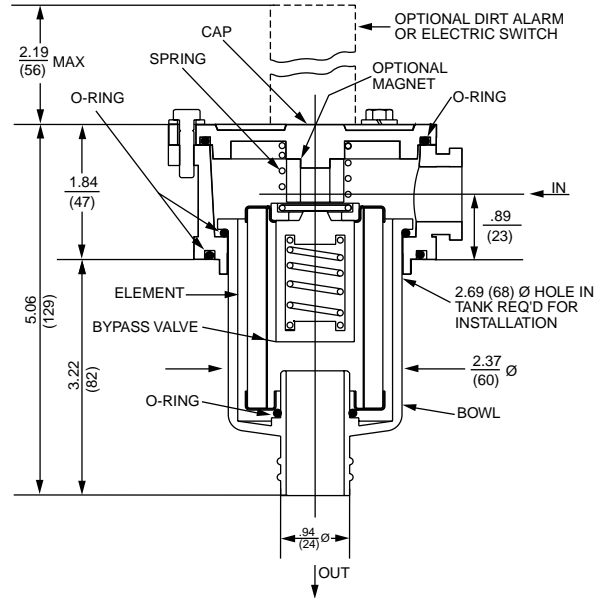
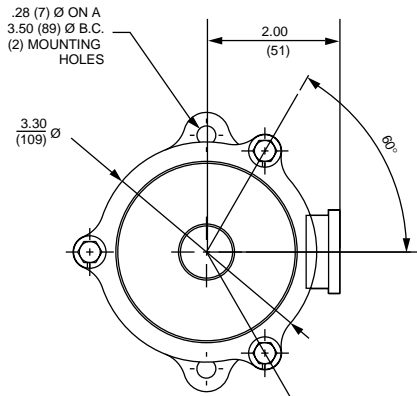


MTA MiniMiser Tank-Mounted Filter

15 gpm
55 L/min
100 psi
7 bar



Metric dimensions in ().
Model No. of filter in photograph is MTA3TAZ10P8.

Filter Housing Specifications

Flow Rating:	Up to 15 gpm (55 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	100 psi (7 bar)
Min. Yield Pressure:	269 psi (18 bar)
Rated Fatigue Pressure:	Contact factory
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 25 psi (2 bar) Full Flow: 48 psi (3.3 bar)
Porting Head & Cap:	Die Cast Aluminum
Element Case:	Glass Filled Nylon
Weight of MTA-3:	1.0 lbs. (0.5 kg)
Element Change Clearance:	3.0" (76 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
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_{x(c)} \geq 200$	$\beta_{x(c)} \geq 1000$	
3TA10	15.5	16.2	18.0	N/A	N/A	N/A
3TAZ3	<1.0	<1.0	<2.0	4.7	5.8	4
3TAZ5	2.5	3.0	4.0	6.5	7.5	4
3TAZ10	7.4	8.2	10.0	10.0	12.7	4
3TAZ25	18.0	20.0	22.5	19.0	24.0	4

Element Collapse Rating: 150 psid (10 bar)
Flow Direction: Outside In
Element Nominal Dimensions: 2.0" (51 mm) O.D. x 3.0" (76 mm) long

Fluid Compatibility

Type Fluid
Petroleum Based Fluids

Appropriate Schroeder Media
All Paper (E) and Synthetic (Z) media

For more information, refer to Fluid Compatibility: Fire Resistant Fluids, pages 19 and 20.

MiniMiser Tank-Mounted Filter **MTA**

- Cost effective alternative to spin-on filters. ■ Compact size minimizes space requirements.
- Special filter design provides aftermarket benefits.

Features

ST
SKB Housings

Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and a 25 psi (1.7 bar) bypass valve.

Pressure	Element Series	Part No.	
Return Line Tank-Mounted	E	10	3TA10 See MTB
		25	3TA25 See MTB
	Z	Z3	3TAZ3 See MTB
		Z5	3TAZ5 See MTB
		Z10	3TAZ10 See MTB
		Z25	3TAZ25 See MTB
Flow	gpm	0 5 10 15	
	(L/min)	0 (25) (50)	

Element Selection Based on Flow Rate

MTA
MTB
GT
ZT
KT

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

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

Exercise:
Determine ΔP at 7 gpm (27 L/min) for MTA3TAZ10P8 using 150 SUS (32 cSt) fluid.

Solution:

$$\Delta P_{\text{housing}} = 2.0 \text{ psi } [.14 \text{ bar}]$$

$$\Delta P_{\text{element}} = 7 \times 1.48 = 10.3 \text{ psi}$$

or

$$= [27 \times (1.48 \div 54.9) = .73 \text{ bar}]$$

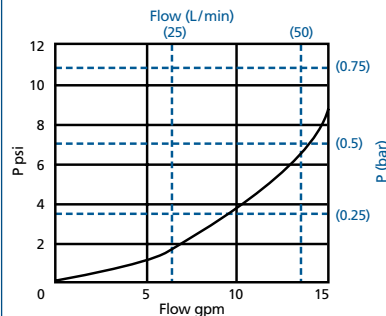
$$\Delta P_{\text{total}} = 2.0 + 10.3 = 12.3 \text{ psi}$$

or

$$= [.14 + .73 = .87 \text{ bar}]$$

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

MTA $\Delta P_{\text{housing}}$ 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):

3TA	Factor
3TA10	1.40
3TA25	.33
3TAZ1	4.27
3TAZ3	2.20
3TAZ5	1.73
3TAZ10	1.48
3TAZ25	.68

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

RTI
KFT
LRT
BFT
QT

Accessories for Tank-Mounted Filters

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

Filter Series	Element Part No.		Optional Magnet	Porting Options	Dirt Alarm® (See Appendix A for complete list of options)
	Length	Media			
MTA	3"	TA10 TA25 TAZ3 TAZ5 TAZ10 TAZ25	(Omit) = None M = Magnet	P8 = 1/2" NPTF S8 = 3/4" -16 SAE Straight (SAE-8) B8 = IS) 228 G-1/2 (1/2-14 BSPP)	Y2C = Bottom Mounted Gauge in Cap Y5 = Back Mounted Gauge in Cap ESC = Electrical Pressure Switch (2 Terminals)

Filter Model Number Selection

PAF1
MAF1
MF2
TF1
KF3
LF1—2"
MLF1
SRLT
RLT
KF8

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

Other Available Options

K9
QF15
QLF15
QFD5