

SAME DAY SHIPMENT MODEL AVAILABLE!

Spin-On Filter **PAF1**



Features and Benefits

- Spin-On with full ported die cast aluminum head for minimal pressure drop
- Offered in pipe and SAE straight thread porting
- Spin-On thread = 1.00-12UNF-2B
- Visual gauge or electrical switch dirt alarms
- Small profile for use in limited space
- Same day shipment model available

20 gpm
75 L/min
100 psi
7 bar

- ST
- SKB
- Housings
- MTA
- MTB
- ZT
- KT
- RT
- RTI
- KFT
- LRT
- BFT
- QT
- KTK
- LTK

Model No. of filter in photograph is PAF16P10P.



INDUSTRIAL



**AUTOMOTIVE
MANUFACTURING**



**MACHINE
TOOL**



**MINING
TECHNOLOGY**



**STEEL
MAKING**



OFFSHORE



**PAPER
INDUSTRY**



AGRICULTURE



**MOBILE
VEHICLES**

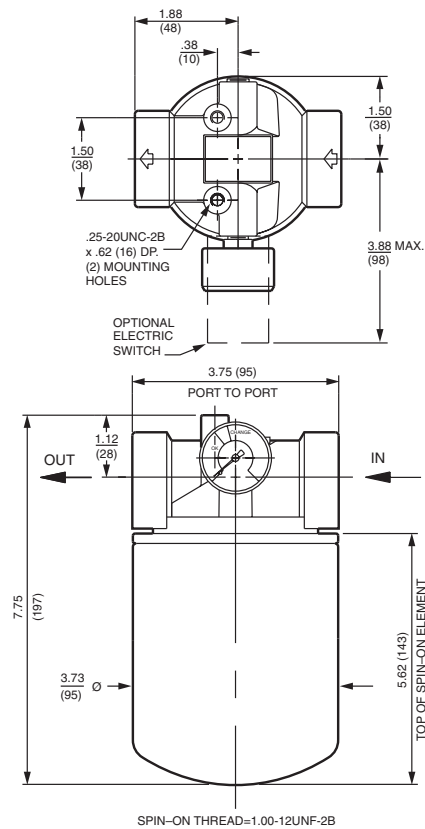
Applications

Accessories
for Tank-
Mounted
Filters

- PAF1**
- MAF1
- MF2
- TF1
- KF3
- LF1—2"
- MLF1
- SRLT
- RLT
- KF8
- K9
- 2K9
- 3K9
- QF15
- QLF15
- SSQLF15
- QFD5

Flow Rating:	Up to 20 gpm (75 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	100 psi (7 bar)
Min. Yield Pressure:	150 psi (10 bar)
Rated Fatigue Pressure:	Contact factory
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 30 psi (2 bar) Full Flow: 36 psi (2 bar)
Porting Head & Cap:	Die Cast Aluminum
Element Case:	Steel
Weight of PAF1-6P:	1.8 lbs. (0.8 kg)
Element Change Clearance:	2.50" (65 mm)

Filter Housing Specifications



Metric dimensions in ().

Installation instructions included on element.

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	
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_{x(c)} \geq 200$	$\beta_{x(c)} \geq 1000$
P10	15.5	16.2	18.0	N/A	N/A
PZ10	7.4	8.2	10.0	8.0	10.0
PZ25	18.0	20.0	22.5	19.0	24.0

Dirt Holding Capacity

Element	DHC (gm)
P10	37
PZ10	N/A
PZ25	N/A

Element Collapse Rating: 100 psid (7 bar)
 Flow Direction: Outside In
 Element Nominal Dimensions: 3.75" (95 mm) O.D. x 5.5" (140 mm) long

Type Fluid	Appropriate Schroeder Media
Petroleum Based Fluids	10 μ E (cellulose) and 25 μ Z (synthetic) media
High Water Content	25 μ Z (synthetic) media
Invert Emulsions	25 μ Z (synthetic) media
Water Glycols	25 μ Z (synthetic) media

Fluid Compatibility

- ST
- SKB
- Housings
- MTA
- MTB
- ZT
- KT
- RT
- RTI
- KFT
- LRT
- BFT
- QT
- KTK
- LTK

Pressure	Element		Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and a 30 psi (2.1 bar) bypass valve.			
	Series	Part No.				
To 100 psi (7 bar)	E Media	P10	P10			
	Z Media	PZ25	PZ25			
Flow	gpm	0	10	20		
	(L/min)	0	25	50	75	

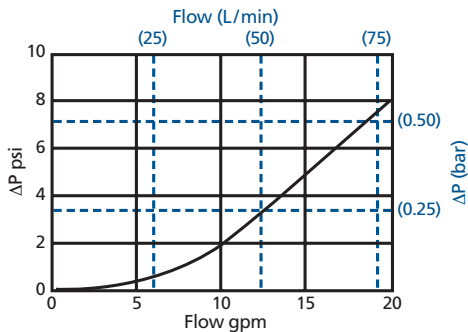
Element Selection Based on Flow Rate

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}

PAF1 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}

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

El. ΔP factors @ 150 SUS (32 cSt):

P10	.17
PZ25	.15

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

PAF1

- MAF1
- MF2
- TF1
- KF3
- LF1—2"
- MLF1
- SRLT
- RLT
- KF8
- K9
- 2K9
- 3K9
- QF15
- QLF15
- SSQLF15
- QF5

Notes

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

Exercise:

Determine ΔP at 10 gpm (38 L/min) for PAF16P10SY2 using 200 SUS (44 cSt) fluid.

Solution:

$$\Delta P_{\text{housing}} = 2.0 \text{ psi } [.18 \text{ bar}]$$

$$\begin{aligned} \Delta P_{\text{element}} &= 10 \times .17 \times (200 \div 150) = 2.3 \text{ psi} \\ &\text{or} \\ &= [38 \times (.17 \div 54.9) \times (44 \div 32)] = .16 \text{ bar} \end{aligned}$$

$$\begin{aligned} \Delta P_{\text{total}} &= 2.0 + 2.3 = 4.3 \text{ psi} \\ &\text{or} \\ &= [.18 + .16 = .34 \text{ bar}] \end{aligned}$$

Filter Model Number Selection

Same Day Shipment Model
See Appendix E for details.

How to Build a Valid Model Number for a Schroeder PAF1:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6
PAF1	-	-	-	-	-

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6				
PAF1	-	6	-	P10	-	P	-	Y2	= PAF16P10PY2

BOX 1	BOX 2	BOX 3	BOX 4
Filter Series	Element Length (in)	Element Size and Media	Seal Material
PAF1	6	P10 = Z size 10 μ Excellement® Z media (synthetic) PZ10 = ZZ size 10 μ Excellement Z media (synthetic) PZ25 = ZZ size 25 μ Excellement Z media (synthetic)	Omit = Buna N

BOX 5	BOX 6
Inlet Porting	Dirt Alarm® Options
P = 3/4" NPTF	Omit = None
S = SAE-12	Visual Y2 = Back-mounted tri-color gauge
	Electrical ES = Electric switch

NOTE:

Box 2. Replacement element part numbers are a combination of Boxes 3 and 4.
Example: P10