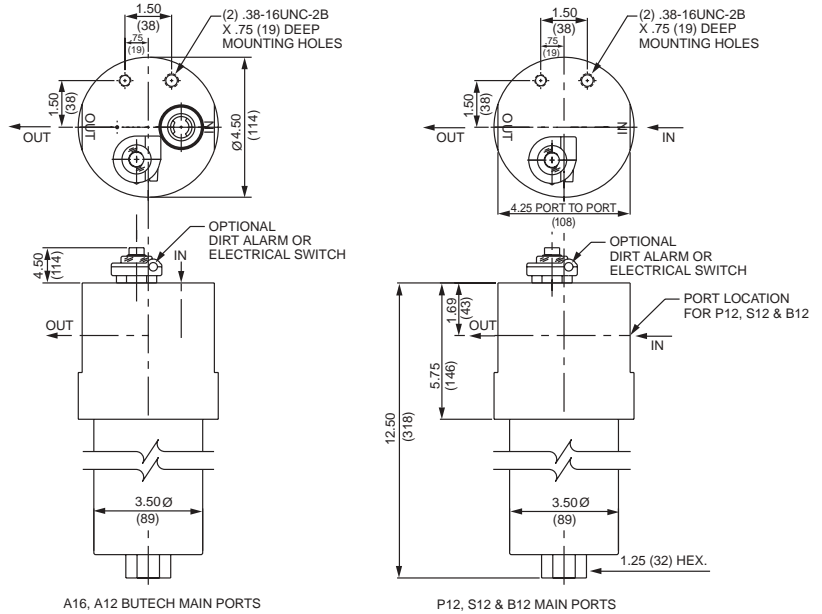


R10K Top-Ported Pressure Filter

25 gpm
100 L/min
10,000 psi
690 bar



Metric dimensions in (.).
Model No. of filter in photograph is R10K6RZ10P12.

Filter Housing Specifications

Flow Rating:	Up to 25 gpm (100 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	10,000 psi (690 bar)
Min. Yield Pressure:	40,000 psi (2759 bar) for P12, A16 ports without Dirt Alarm Option 30,000 psi (2069 bar) for P12, A16 ports with Dirt Alarm Option
Rated Fatigue Pressure:	6500 psi (450 bar) per NFPA T2.6.1-1991 for A12 & A16 porting only.
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 50 psi (3.4 bar)
Porting Head:	Stainless Steel
Element Case:	Stainless Steel
Weight of R10K:	32.0 lbs. (14.5 kg)
Element Change Clearance:	4.25" (108 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
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_{x(e)} \geq 200$	$\beta_{x(e)} \geq 1000$	
6RZ1	<1.0	<1.0	<1.0	<4.0	4.2	15
6RZ3	<1.0	<1.0	<2.0	4.7	5.8	15
6RZ5	2.5	3.0	4.0	6.5	7.5	12
6RZ10	7.4	8.2	10.0	10.0	12.7	14
6RZ25	18.0	20.0	22.5	19.0	24.0	25

Element Collapse Rating: 150 psid (10 bar)
Flow Direction: Outside In
Element Nominal Dimensions: 2.0" (50 mm) O.D. x 6.0" (150 mm) long

Fluid Compatibility

Type Fluid	Appropriate Schroeder Media
Petroleum Based Fluids	All 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, Z25H.5 and WH.5

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

Top-Ported Pressure Filter **R10K**

■ Withstands high cyclic applications. ■ All stainless steel construction. ■ Non-corrosive.

Features

NF30

NFS30

DF40

CF40

CFX30

EF60

EFS50

CF60

CFS50

VF60

ELF65

JF20

TF30

KF30

KFX30

TF50

KF50

KC50

KFH50

MKF50

KFD50

TFD50

KC65

R10K

NCF30

EOF30-07

FOF30-03

NOF30-05

Cartridge Elements

Element Selection

Based on Flow Rate

Pressure	Element		Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and a 50 psi (3.4 bar) bypass valve.				
	Series	Part No.					
To 10,000 psi (690 bar)	Z Media	6RZ1	6RZ1				
		6RZ3	6RZ3				
		6RZ5	6RZ5				
		6RZ10	6RZ10				
		6RZ25	6RZ25				
Flow	gpm	0	5	10	15	20	25
	(L/min)	0	25	50	75	100	

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

Pressure Drop Information

Based on Flow Rate and Viscosity

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

Exercise:
Determine ΔP at 15 gpm (57 L/min) for R10K6RZ25P12HV5 using 200 SUS (44 cSt) fluid.

Solution:

$$\Delta P_{\text{housing}} = 4.0 \text{ psi } [.28 \text{ bar}]$$

$$\Delta P_{\text{element}} = 15 \times .14 \times (200 \div 150) = 2.8 \text{ psi}$$

or

$$= [57 \times (.14 \div 54.9) \times (44 \div 32) = .20 \text{ bar}]$$

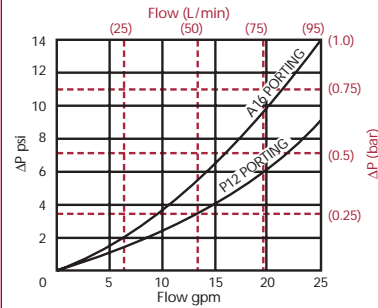
$$\Delta P_{\text{total}} = 4.0 + 2.8 = 6.8 \text{ psi}$$

or

$$= [.28 + .20 = .48 \text{ bar}]$$

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

RK10 $\Delta P_{\text{housing}}$ 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):

6RZ1	1.11
6RZ3	.55
6RZ5	.50
6RZ10	.46
6RZ25	.14

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 Series	Element Part No. Length	Media	Seal Material	Porting	Dirt Alarm (See Appendix A for complete list of options)
R10K	6"	RZ1 RZ3 RZ5 RZ10 RZ25	(Omit) = Buna N H = EPR V = Viton	P12 = 3/4" NPTF S12 = 1 1/16" -12 SAE Straight (SAE-12)* B12 = ISO 228 G-3/4 (3/4-14 BSPP)* A16 = 1.00" M/P Butech Port Type A12 = 3/4" M/P Butech Port Type	HV5 = Cartridge Electric Cartridge: HE5AC/DC/LC Family

Filter Model Number Selection

6GR Esafe elements are also available.



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

Other Available Options