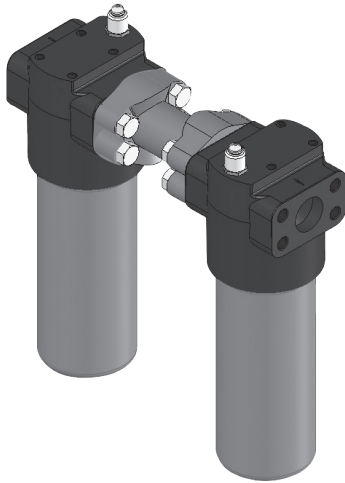


Top-Ported Pressure Filter

MHS60

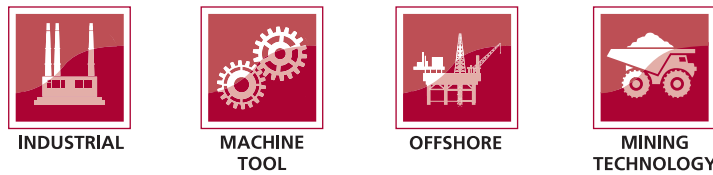


Features and Benefits

- Bi-directional version of the HS60 includes two housings plumbed in series, allowing for filtration in both directions
- Top-ported design capable of handling 100 gpm flow
- Offered in SAE straight thread and flange porting
- Thread on bowl with drain plug for easy element service
- Available with non-bypass option with high collapse element
- 6000 psi cyclic
- Contact factory for higher flow applications

Model No. of filters in photograph is MHS6013HZ3F24

100 gpm
380 L/min
6000 psi
415 bar



INDUSTRIAL

MACHINE
TOOL

OFFSHORE

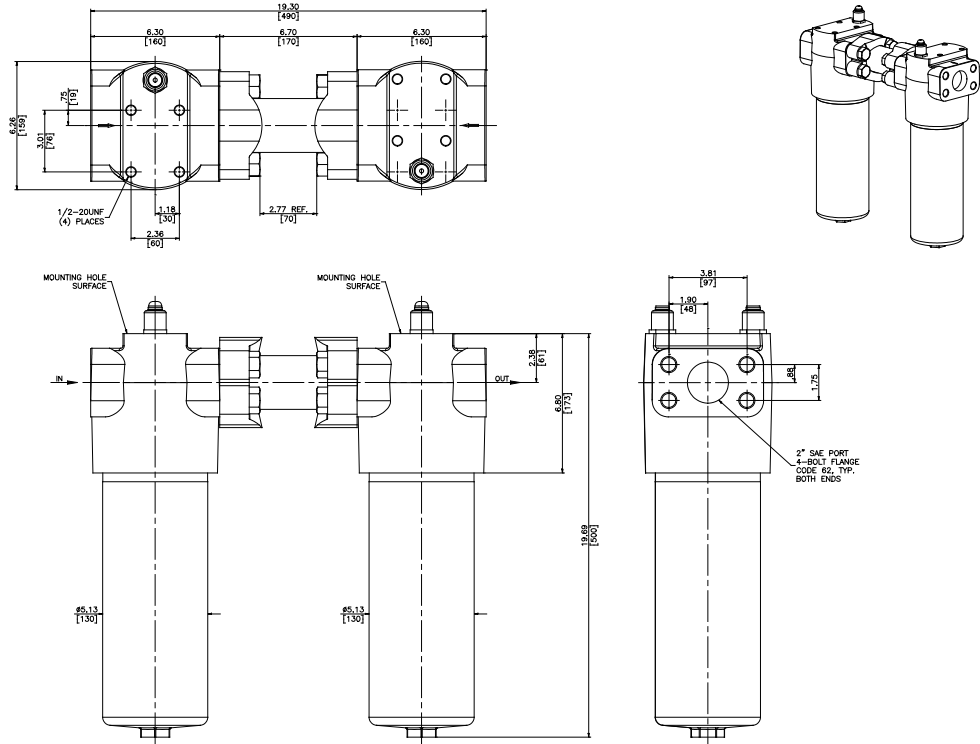
MINING
TECHNOLOGY

Applications

Flow Rating:	Up to 100 gpm (380 L/min)
Max. Operating Pressure:	6000 psi (415 bar) only for flange ported models
Min. Yield Pressure:	Contact factory
Rated Fatigue Pressure:	6000 psi (415 bar) (only with 4-bolt flange porting)
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 87 psi (5.9 bar)
Porting Head:	Ductile Iron
Element Case:	Steel
Weight of MHS60:	160 lbs. (72.6 kg)
Element Change Clearance:	4.0" (103 mm)

Filter Housing Specifications

- NF30
- NFS30
- YF30
- CFX30
- PLD
- DF40
- CF40
- PF40
- LC50
- RFS50
- RF60
- CF60
- CTF60
- VF60
- LW60
- KF30
- TF50
- KF50
- KC50
- MKF50
- KC65
- NOF30-05
- NOF50
- FOF60-03
- NMF30
- RMF60
- Cartridge Elements
- HS60
- MHS60**
- KFH50



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 per ISO 16889 Using APC calibrated per ISO 11171	
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_x(c) \geq 200$	$\beta_x(c) \geq 1000$
13HZ3/13HZX3	<1.0	<1.0	<2.0	<4.0	4.8
13HZ5/13HZX5	2.5	3.0	4.0	4.8	6.3
13HZ10/13HZX10	7.4	8.2	10.0	8.0	10.0
13HZ25/13HZX25	18.0	20.0	22.5	19.0	24.0

Dirt Holding Capacity

Element	DHC (gm)	Element	DHC (gm)
13HZ3	100.7	13HZX3	75.7
13HZ5	113.2	13HZX5	74.1
13HZ10	119.7	13HZX10	81.4
13HZ25	123.5	13HZX25	92.9

Element Collapse Rating: 290 psi (20 bar) for standard elements
3045 psi (210 bar) for high collapse (ZX) versions

Flow Direction: Outside In

Element Nominal Dimensions: 13HZ : 3.5" (90 mm) O.D. x 13" (325 mm) long

Top-Ported Pressure Filter

MHS60

Type Fluid	Appropriate Schroeder Media
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

Fluid Compatibility

- NF30
- NFS30
- YF30
- CFX30

Pressure	Element Series	Part No.	Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and a 50 psi (3.4 bar) bypass valve.						
			0	20	40	60	80	100	
To 6000 psi (415 bar)	Z- Media®	13HZ3							
		13HZ5							
		13HZ10							
		13HZ25							
	Z- Media® (High Collapse)	13HZX3							
		13HZX5							
		13HZX10							
		13HZX25							
Flow	gpm	0	20	40	60	80	100		
	(L/min)	0	75	150	225	300	380		

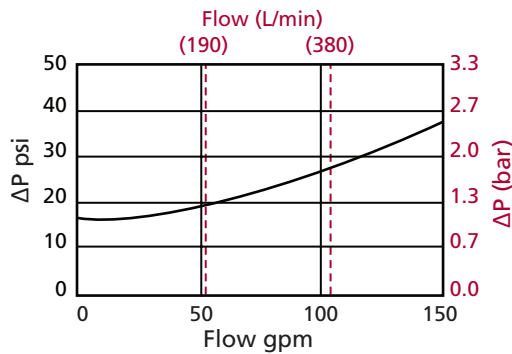
Element Selection
Based on
Flow Rate

- PLD
- DF40
- CF40
- PF40
- LC50
- RFS50
- RF60
- CF60

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

ΔP_{housing}

MHS60 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 @ 141 SUS (30 cSt):

13HZ3	0.134	13HZX3	0.176
13HZ5	0.098	13HZX5	0.104
13HZ10	0.060	13HZX10	0.054
13HZ25	0.043	13HZX25	0.048

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

Viscosity factor: Divide viscosity by 141 SUS (30 cSt).

Pressure Drop Information
Based on
Flow Rate
and Viscosity

- LW60
- KF30
- TF50
- KF50
- KC50
- MKF50
- KC65
- NOF30-05
- NOF50
- FOF60-03
- NMF30
- RMF60
- Cartridge Elements

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

Exercise:

Determine ΔP at 85 gpm (320 L/min) for HS60... using 141 SUS (30 cSt) fluid.

Solution:

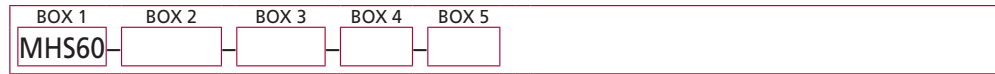
$$\begin{aligned} \Delta P_{\text{housing}} &= 13.5 \text{ psi [0.93 bar]} \\ \Delta P_{\text{element}} &= 85 \times .134 \times (141 \div 141) = 11.39 \text{ psi} \\ &\text{or} \\ &= [320 \times (.134 \div 54.9) \times (32 \div 32)] = .79 \text{ bar} \\ \Delta P_{\text{total}} &= 13.5 + 11.39 = 24.89 \text{ psi} \\ &\text{or} \\ &= [.93 + .79 = 1.71 \text{ bar}] \end{aligned}$$

MHS60

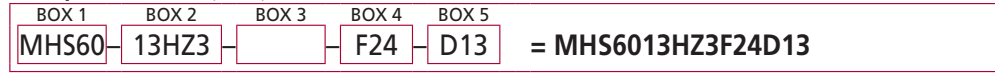
KFH50

Filter Model Number Selection

How to Build a Valid Model Number for a Schroeder MHS60:



Example: NOTE: One option per box



BOX 1	BOX 2	BOX 3																																																																	
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NOTES:

- Box 1. MHS60 is two HS60's plumbed in series facing one another to ensure filtration in both flow directions.
- Box 2. Replacement element part numbers are identical to contents of Boxes 2 and 3.
- Box 3. Viton® is a registered trademark of DuPont Dow Elastomers.
- Box 5. All Dirt Alarm® Indicators must be Stainless Steel. Standard indicator setting is 75 psi. For replacement indicators, contact the factory.