

# HIGH PRESSURE FILTERS

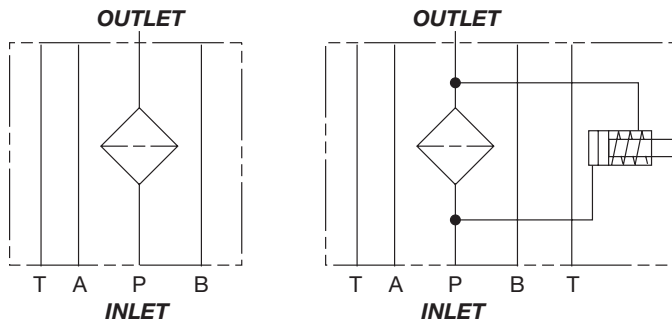
## DFZ Series

Modular Stacking Filters

4568 psi • up to 10 gpm



### Hydraulic Symbol



### Features

- A visual (pop-up), electrical, electrical/visual (lamp) differential type clogging indicator can be installed.
- The DFZ filter can be ordered with the bowl on the left or the right side for easy element changeout.
- The DFZ filter is available in two mounting patterns to fit different hydraulic manifolds:  
ANSI/B93.7M-D03 / Cetop R35 (was B93.7-D01) DF 30 Z  
ANSI/B93.7M-D05 / Cetop R35 (was V93.7-D02)\* DF 60 Z or DF 110 Z  
\*includes fifth port for optional tank connection
- Filter does not contain a bypass valve. Only available with non bypass, high collapse elements required.

### Technical Specifications

<b>Mounting Method</b>	4 mounting holes ( <i>manifold mount</i> )	
<b>Port Connection</b>		
30	ø.25"	ANSI DO3/A6 DIN 24340 / Cetop R35
60/110	ø.44"	ANSI DO5/A10 DIN 24340 / Cetop R35
<b>Flow Direction</b>	Inlet: Side	Outlet: Side
<b>Construction Materials</b>		
Head, Bowl	Steel	
<b>Flow Capacity</b>		
30	6 gpm (23 lpm)	
60/110	10 gpm (38 lpm)	
<b>Housing Pressure Rating</b>		
Max. Allowable Working Pressure	4568 psi (315 bar)	
Fatigue Pressure	30	4568 psi (315 bar) @ 250,000 cycles
	60/110	4568 psi (315 bar) @ 1 million cycles
Burst Pressure	> 18,270 psi (1260 bar)	
<b>Element Collapse Pressure Rating</b>		
BH4HC, V	3045 psid (210 bar)	
<b>Fluid Temperature Range</b>	14°F to 212°F (-10°C to 100°C) Consult HYDAC for applications operating below 14°F (-10°C)	
<b>Fluid Compatibility</b>	Compatible with all hydrocarbon based, synthetic, water glycol, oil/water emulsion, and high water based fluids when the appropriate seals are selected.	
<b>Indicator Trip Pressure</b>	ΔP = 116 psid (8 bar) -10% (standard)	

### Applications



Agricultural



Automotive



Construction



Industrial



Power Generation

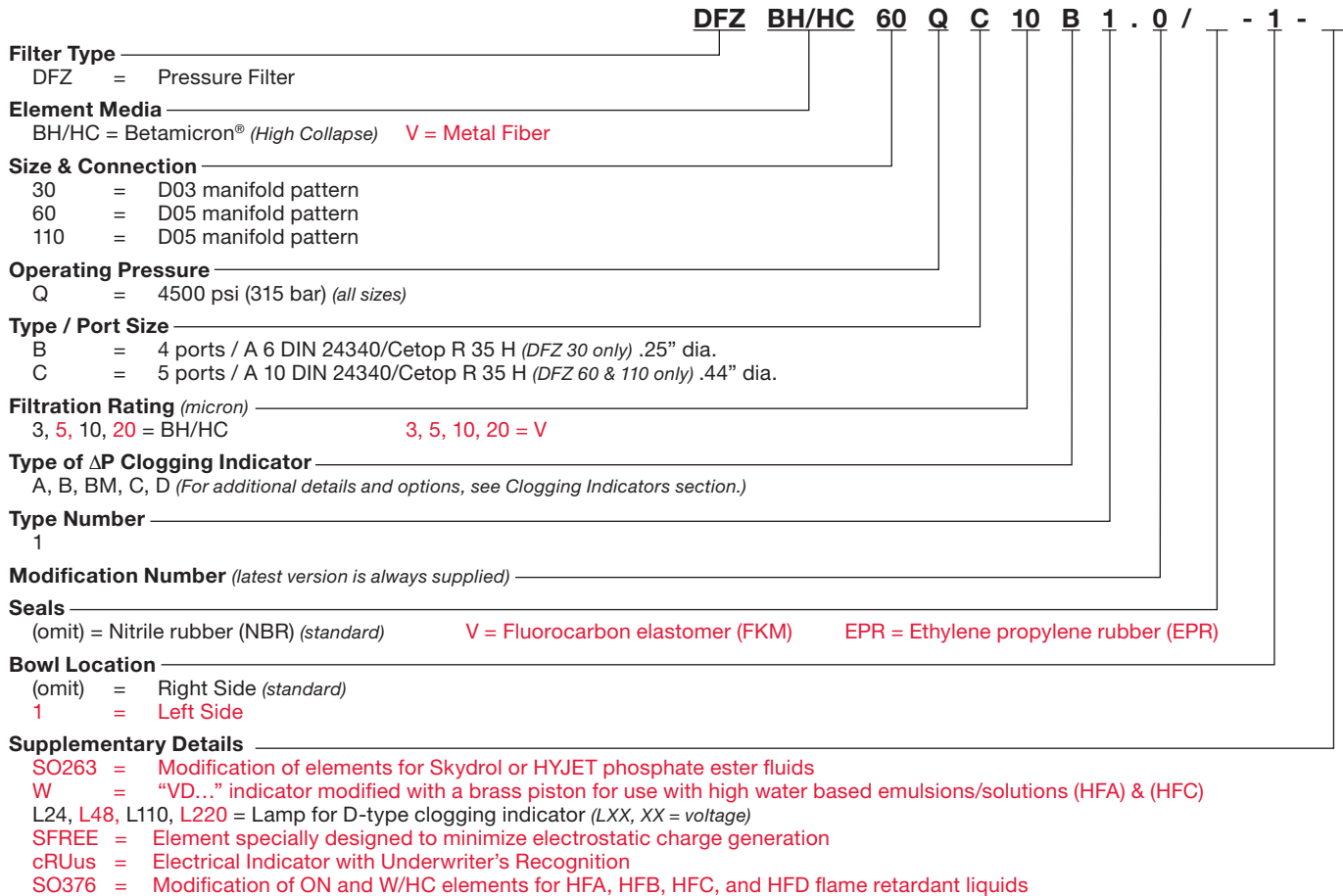


Railways

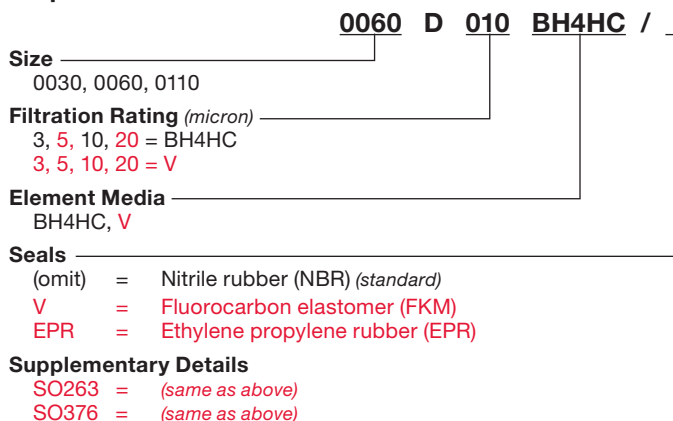


Steel / Heavy Industry

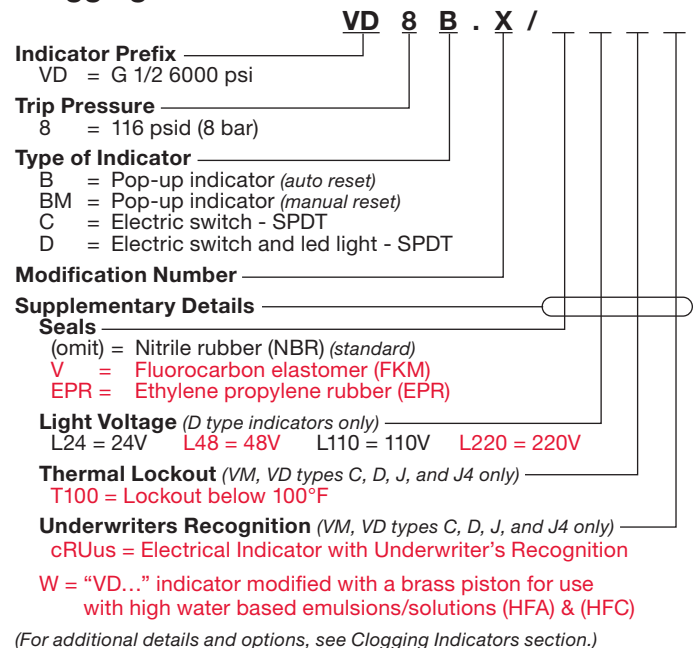
## Model Code



## Replacement Element Model Code



## Clogging Indicator Model Code

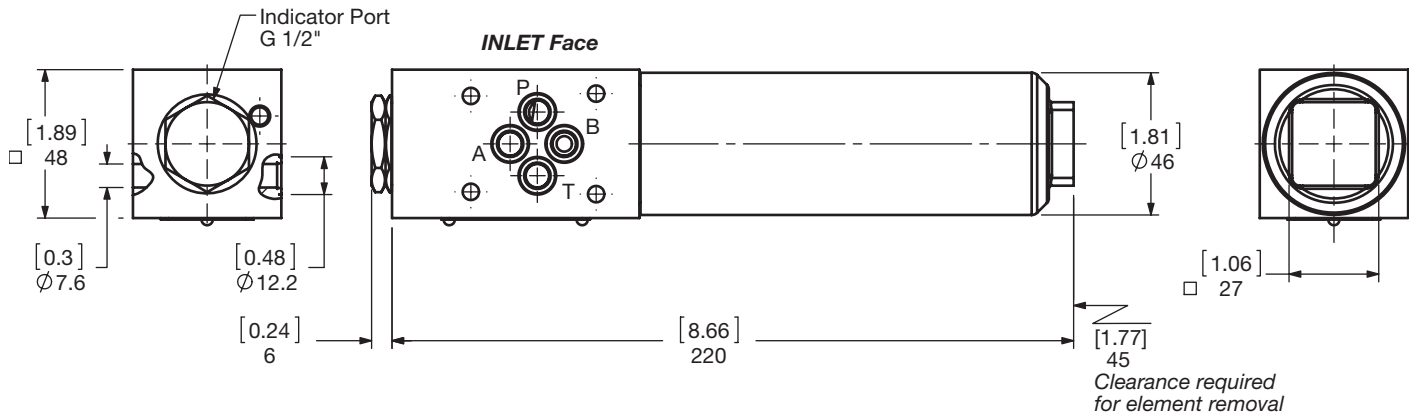


Model Codes Containing RED are non-stock items — Minimum quantities may apply — Contact HYDAC for information and availability

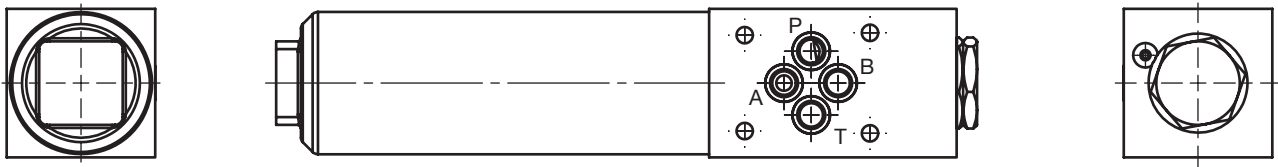
# HIGH PRESSURE FILTERS

Dimensions  
DF 30 Z

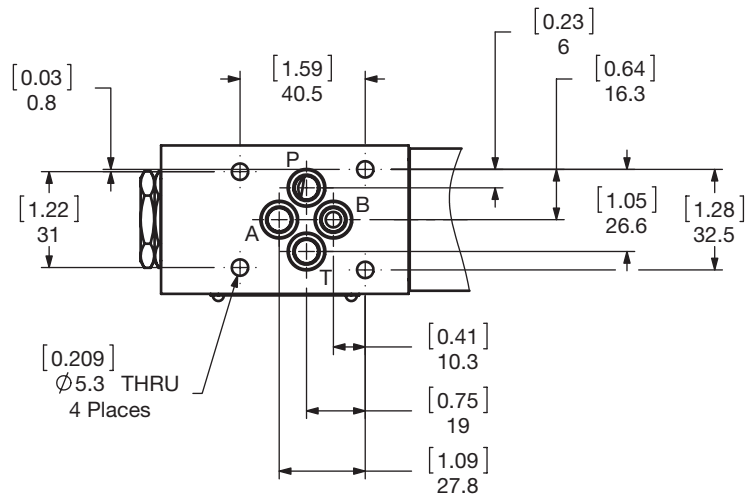
(Right Hand Version) - (optional)



(Left Hand Version) - (optional)



D03 Pattern

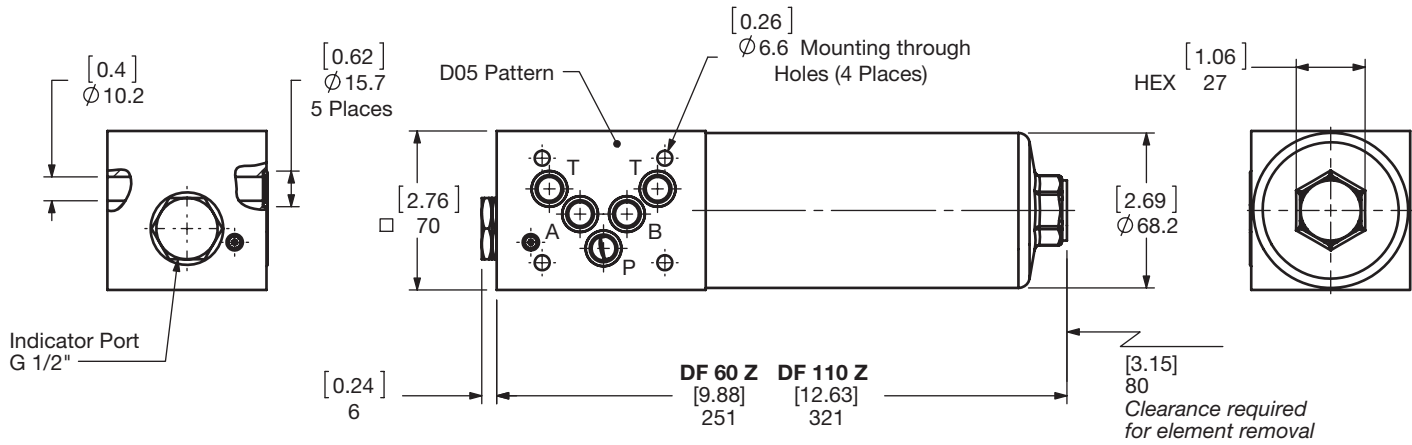


Size	30
Weight (lbs.)	5.3

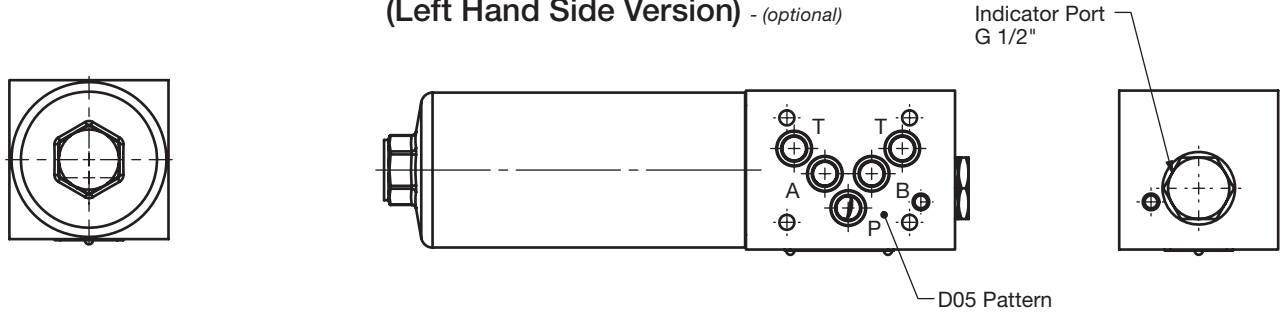
Dimensions shown are [inches] millimeters for general information and overall envelope size only. Weights listed include element.  
For complete dimensions please contact HYDAC to request a certified print.

## Dimensions DF 60 / 110 Z

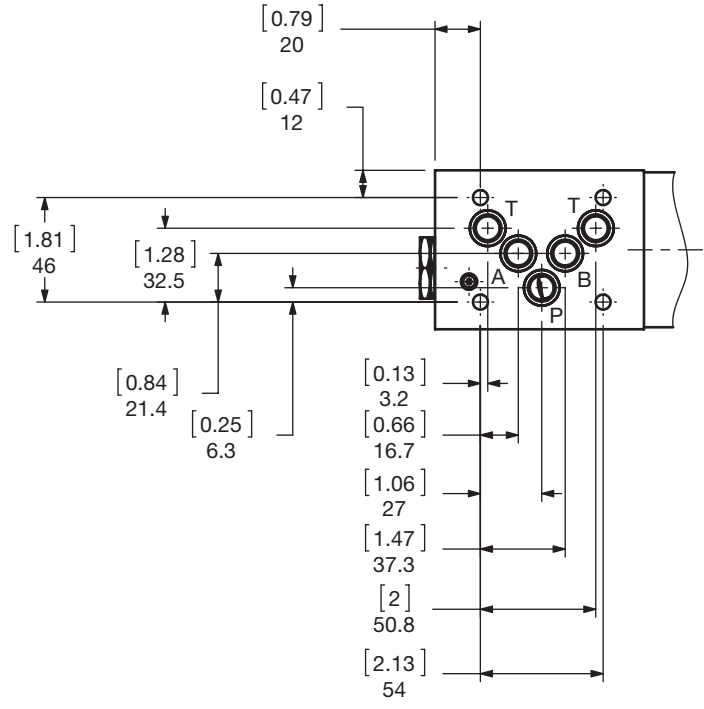
### (Right Hand Side Version) - (standard)



### (Left Hand Side Version) - (optional)



### D05 Pattern



Size	60	110
Weight (lbs.)	13.1	15

Dimensions shown are [inches] millimeters for general information and overall envelope size only. Weights listed include element. For complete dimensions please contact HYDAC to request a certified print.

# HIGH PRESSURE FILTERS

## Sizing Information

Total pressure loss through the filter is as follows:

Assembly  $\Delta P = \text{Housing } \Delta P + \text{Element } \Delta P$

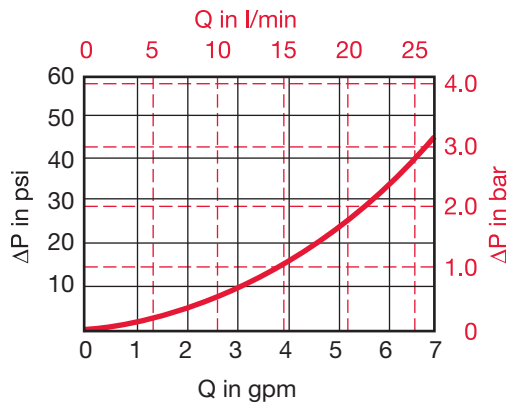
### Housing Curve:

Pressure loss through housing is as follows:

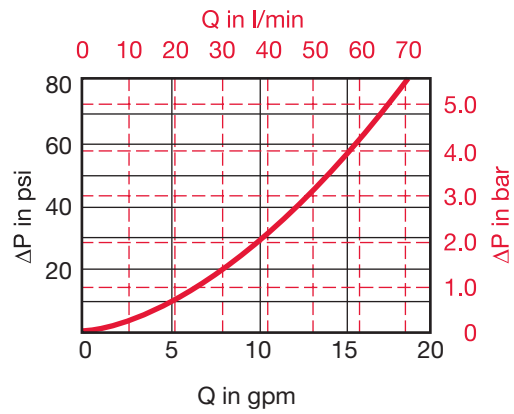
Housing  $\Delta P = \text{Housing Curve } \Delta P \times \frac{\text{Actual Specific Gravity}}{0.86}$

Adjustments must be made for viscosity & specific gravity of the fluid to be used! (see "Sizing HYDAC Filter Assemblies" in Section B - Overview)

**DFZ 30 Housing**



**DFZ 60 / 110 Housing**



## Element K Factors

$\Delta P \text{ Elements} = \text{Elements (K) Flow Factor} \times \text{Flow Rate (gpm)} \times \frac{\text{Actual Viscosity (SUS)} \times \text{Actual Specific Gravity}}{141 \text{ SUS} \times 0.86}$   
(From Tables Below)

Betamicon	...D...BH4HC Elements (High Collapse)			
	3 μm	5 μm	10 μm	20 μm
0030 D XXX BH4HC	5.005	2.782	1.992	1.043
0060 D XXX BH4HC	3.216	1.789	0.993	0.670
0110 D XXX BH4HC	1.394	0.818	0.489	0.307

Metal Fiber	...D...V Elements (High Collapse)			
	3 μm	5 μm	10 μm	20 μm
0030 D XXX V	1.011	0.740	0.411	0.200
0060 D XXX V	0.877	0.511	0.296	0.183
0110 D XXX V	0.452	0.304	0.182	0.118

All Element K Factors in psi / gpm.

## Notes

