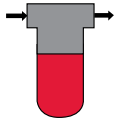


MEDIUM PRESSURE FILTERS

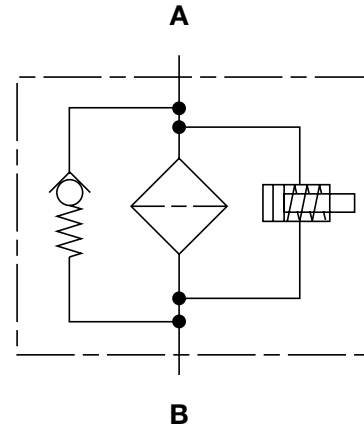
LPFH Series

Inline Filters

500 psi • up to 112 gpm



Hydraulic Symbol



Features

- LPFH filters are manufactured with cast aluminum head and aluminum cold formed bowls.
- Aluminum alloy is water tolerant - anodization is not required for water based fluids (HWBF).
- LPFH filters are a desirable substitute for spin-on filters when dynamic fluid conditions call for the superior durability and leak-proof quality of a well-constructed cartridge filter.
- Quick-response, bypass valves, located in the filter head, protect against high differential pressures caused by cold start-ups, flow surges and pressure spikes. Filters can also be supplied without bypasses.
- The simple inline design minimizes pressure drop and provides the significant benefit of compactness. The use of lightweight materials, makes these filters ideal for mobile equipment applications.
- Integrated retrofit protection.

Technical Specifications

Mounting Method	325 - 425: 5 mounting hole options	
Port Connection	325 - 425 SAE-24, 1 1/2" BSPP	
Flow Direction	Inlet: Side	Outlet: Side
Construction Materials	Head Cast Aluminum Bowl Aluminum Extrusion	
Flow Capacity	325 87 gpm (325 lpm) 425 112 gpm (425 lpm)	
Housing Pressure Rating	Max. Allowable Working Pressure 325 - 425 500 psi (34 bar) Fatigue Pressure 325 - 425 500 psi (34 bar) (10 ⁶ cycles) Burst Pressure 325 - 425 > 2700 psi (186 bar)	
Element Collapse Pressure Rating	ON, W/HC 290 psid (20 bar)	
Fluid Temp. Range	-22°F to 212°F (-30°C to 100°C) Consult HYDAC for applications operating below -22°F (-30°C)	
Fluid Compatibility	Compatible with all hydrocarbon based, synthetic, water glycol, oil/water emulsion, and high water based fluids when the appropriate seals are selected	
ΔP Indicator Trip Pressure	ΔP = 29 psid (2 bar) -10% (optional) ΔP = 36.25 psid (2.5 bar) (BF indicator) ΔP = 72 psid (5 bar) -10% (standard)	
Bypass Valve Cracking Pressure	ΔP = 43 psid (3 bar) +10% (optional) ΔP = 72 psid (5 bar) +10% (optional) ΔP = 87 psid (6 bar) +10% (optional)	

Applications



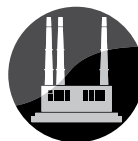
Agricultural



Automotive



Construction

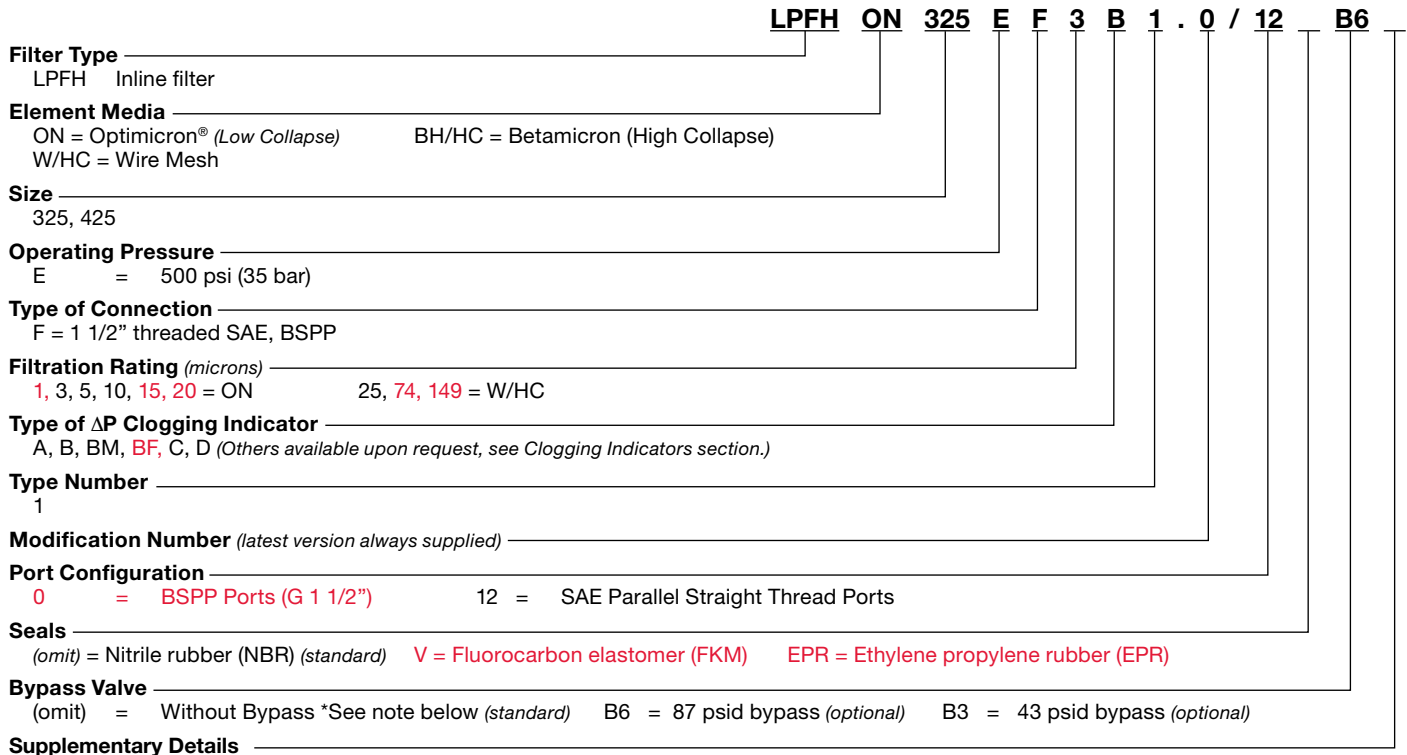


Industrial



Steel / Heavy Industry

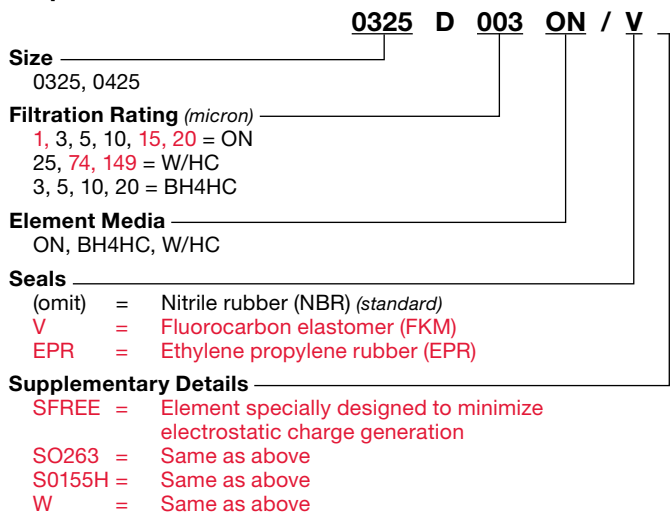
Model Code



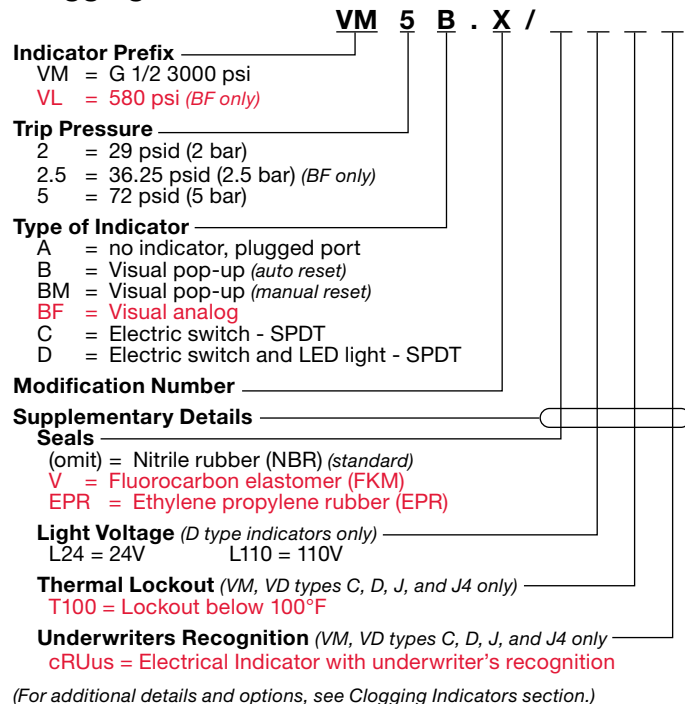
- L24, L48, L110, L220 = Lamp for D-type clogging indicator (LXX, XX = voltage)
- SO263 = Modification of ON & W/HC (Betamicon® Low Collapse) Elements For Phosphate Ester Fluids
- SO155H = Modification of BH4HC (Betamicon® High Collapse) Element For Phosphate Ester Fluids
- T100 = Thermal Lockout on indicator at 100°F (contact HYDAC for B or BM type indicators)
- W = Modification of "W/HC" and "V" elements for use with oil water emulsions (HFA) and water polymer solutions (HFC)
- BFL = BF Clogging indicator on left looking into inlet.
- BFR = BF Clogging indicator on right looking into inlet.
- SFREE = Element specially designed to minimize electrostatic charge generation
- cRUus = Electrical Indicator with underwriter's recognition

*Note: Use 5 bar indicator when filter has no bypass. Replace element when indicator trips.

Replacement Element Model Code



Clogging Indicator Model Codes



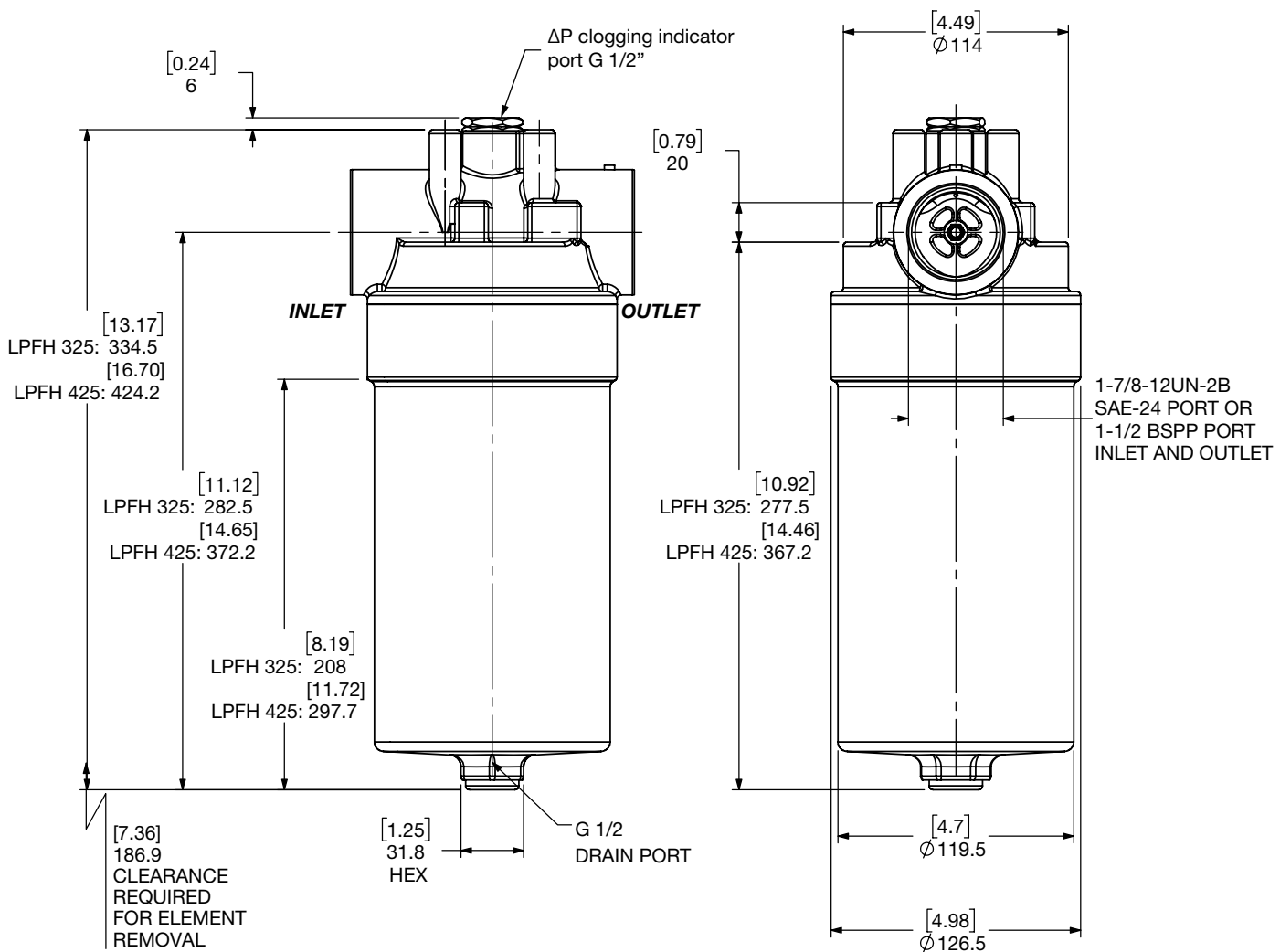
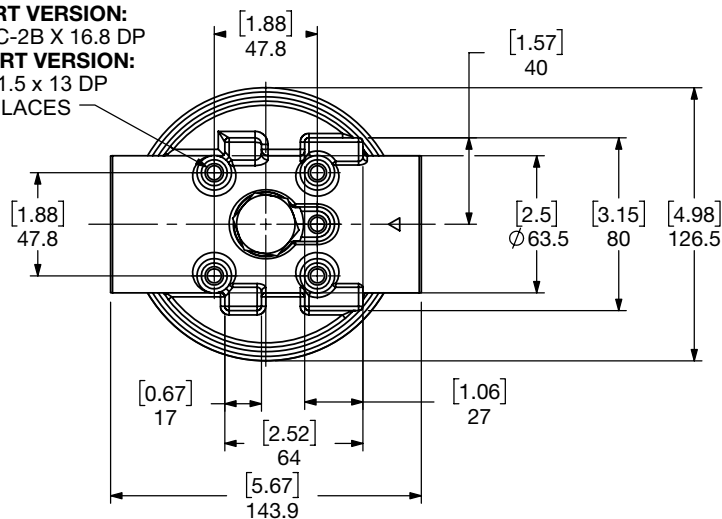
Model Codes Containing RED are non-stock items — Minimum quantities may apply — Contact HYDAC for information and availability

MEDIUM PRESSURE FILTERS

Dimensions

LPFH 325 / 425

SAE PORT VERSION:
3/8-16 UNC-2B X 16.8 DP
BSPP PORT VERSION:
M10 x 1.5 x 13 DP
5 PLACES



Dimensions are [inches] Millimeters

Size	325	425
Weight (lbs.)	8.0	10.0

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.

Sizing Information

Total pressure loss through the filter is as follows:

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

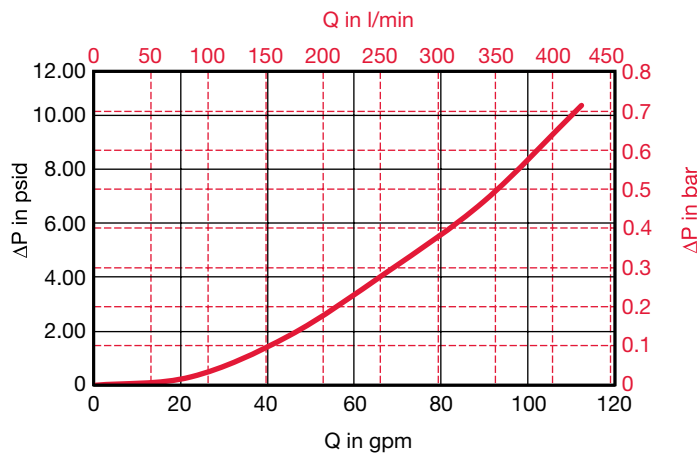
Housing Curve:

Pressure loss through housing is as follows:

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

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

LPFH 325 / 425 Housing



Element K Factors

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

(From Tables Below)

Optimicron Size	...D...ON					
	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0325 D XXX ON	0.444	0.204	0.150	0.081	0.070	0.056
0425 D XXX ON	0.289	0.143	0.104	0.06	0.046	0.038

Wire Mesh Size	...D...W/HC
	...D...W/HC Elements 25, 50, 74, 100, 149, 200 μm
0325 D XXX W/HC	0.011
0425 D XXX W/HC	0.007

Betamicron Size	...D...BH/HC					
	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0325 D XXX BH/HC	Consult factory upon request					
0425 D XXX BH/HC						

All Element K Factors in psi / gpm.