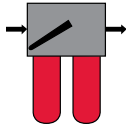
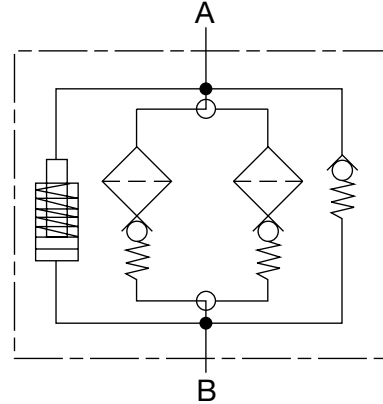


FLND Series Inline Duplex Filters 360 psi • up to 100 gpm



Hydraulic Symbol



Features

- Lightweight duplex filter constructed of aluminum.
- Aluminum alloy is water tolerant - anodization is not required for high water based fluids (HWBF).
- The filter housings are designed to withstand pressure surges as well as high static pressure loads.
- The screw-in bowl allows the filter element to be easily removed for replacement or cleaning.
- A visual (pop-up), electrical, electrical/visual (lamp), or electronic differential type clogging indicator
- The standard model is supplied with vent and drain plugs, and also a connection for differential clogging indicator.
- The pressure is equalized between chambers by raising the change-over lever prior to switching it to the relevant filter side. Thus, the filter contains an integrated equalization valve.

Technical Details

Mounting Method	4 mounting holes - filter head									
Port Connection	SAE-24 (1-7/8-12UN)									
Flow Direction	Inlet: Side	Outlet: Side								
Construction Materials	Aluminum									
Flow Capacity	<table border="0"> <tr> <td>160</td> <td>42 gpm (160 lpm)</td> </tr> <tr> <td>250</td> <td>66 gpm (250 lpm)</td> </tr> <tr> <td>400</td> <td>105 gpm (400 lpm)</td> </tr> </table>		160	42 gpm (160 lpm)	250	66 gpm (250 lpm)	400	105 gpm (400 lpm)		
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Housing Pressure Rating	<table border="0"> <tr> <td>Max. Operating Pressure</td> <td>360 psi (25 bar)</td> </tr> <tr> <td>Proof Pressure</td> <td>540 psi (38 bar)</td> </tr> <tr> <td>Fatigue Pressure</td> <td>360 psi (25 bar)</td> </tr> <tr> <td>Burst Pressure</td> <td>Contact HYDAC office</td> </tr> </table>		Max. Operating Pressure	360 psi (25 bar)	Proof Pressure	540 psi (38 bar)	Fatigue Pressure	360 psi (25 bar)	Burst Pressure	Contact HYDAC office
Max. Operating Pressure	360 psi (25 bar)									
Proof Pressure	540 psi (38 bar)									
Fatigue Pressure	360 psi (25 bar)									
Burst Pressure	Contact HYDAC office									
Element Collapse Pressure Rating	BN/HC, W/HC 290 psid (20 bar)									
Fluid Temperature Range	-22° to 250°F (-30° to 121°C)									
Fluid Compatibility	Compatible with all petroleum oils and synthetic fluids rated for use with Fluoroelastomer or Ethylene Propylene seals. Contact HYDAC for information on special housing and element constructions available for use with water glycols, oil/water emulsions, and HWBF.									
Indicator Trip Pressure	<table border="0"> <tr> <td>$\Delta P = 29$ psid (2 bar) -10%</td> </tr> <tr> <td>$\Delta P = 72$ psid (5 bar) -10%</td> </tr> <tr> <td>$\Delta P = 116$ psid (8 bar) -10%</td> </tr> </table>		$\Delta P = 29$ psid (2 bar) -10%	$\Delta P = 72$ psid (5 bar) -10%	$\Delta P = 116$ psid (8 bar) -10%					
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$\Delta P = 116$ psid (8 bar) -10%										
Bypass Valve Cracking Pressure	<table border="0"> <tr> <td>$\Delta P = 43$ psid (3 bar) +10%</td> </tr> <tr> <td>$\Delta P = 102$ psid (7 bar) +10%</td> </tr> </table>		$\Delta P = 43$ psid (3 bar) +10%	$\Delta P = 102$ psid (7 bar) +10%						
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Applications



Automotive



Gearboxes



Industrial



Power Generation



Pulp & Paper

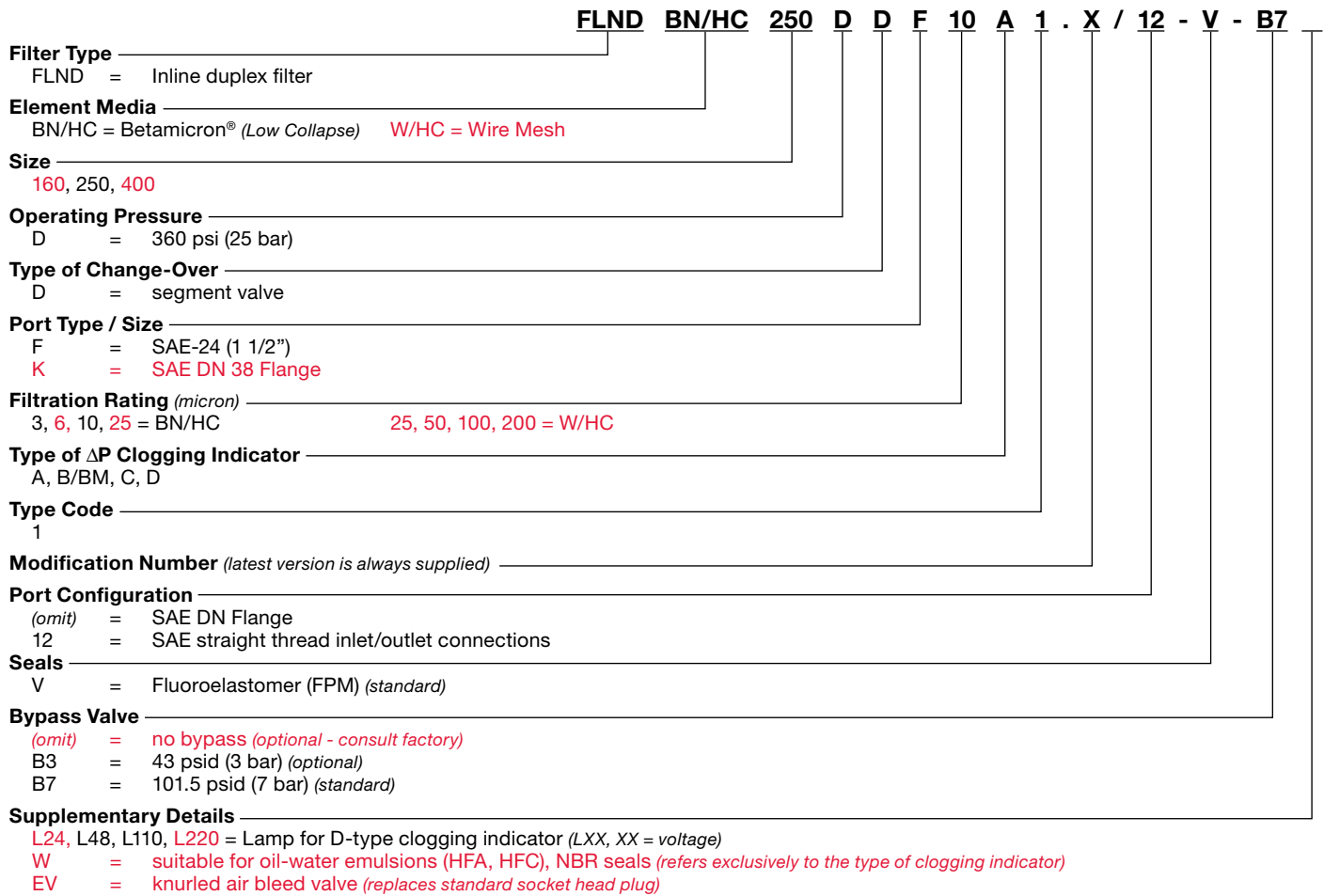


Shipbuilding

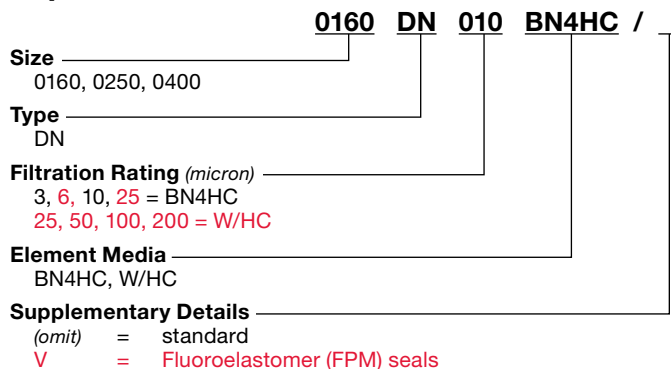


Steel / Heavy Industry

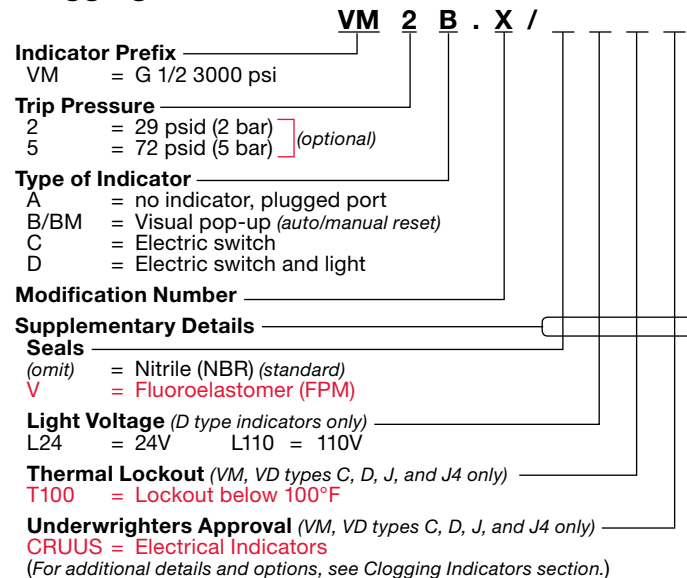
Model Code



Replacement Element Model Code

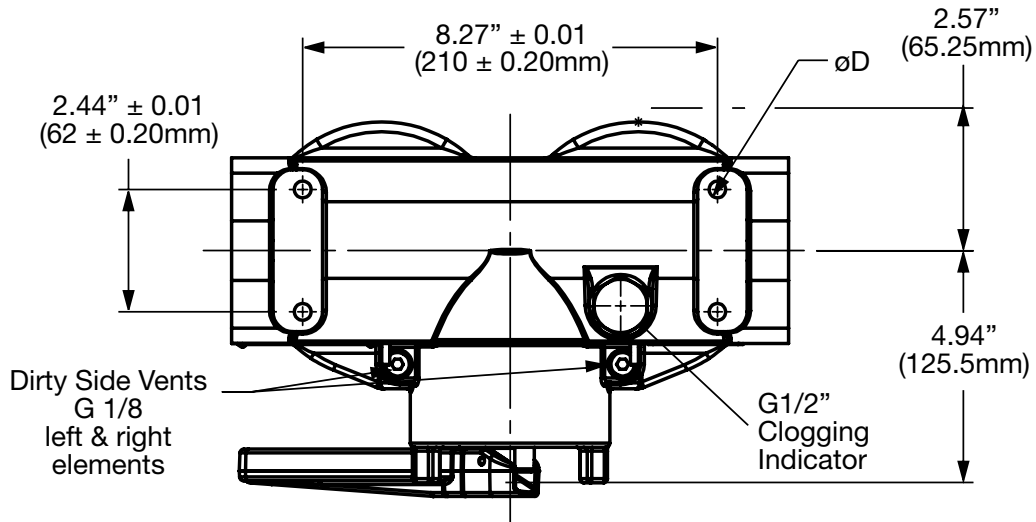


Clogging Indicator Model Code

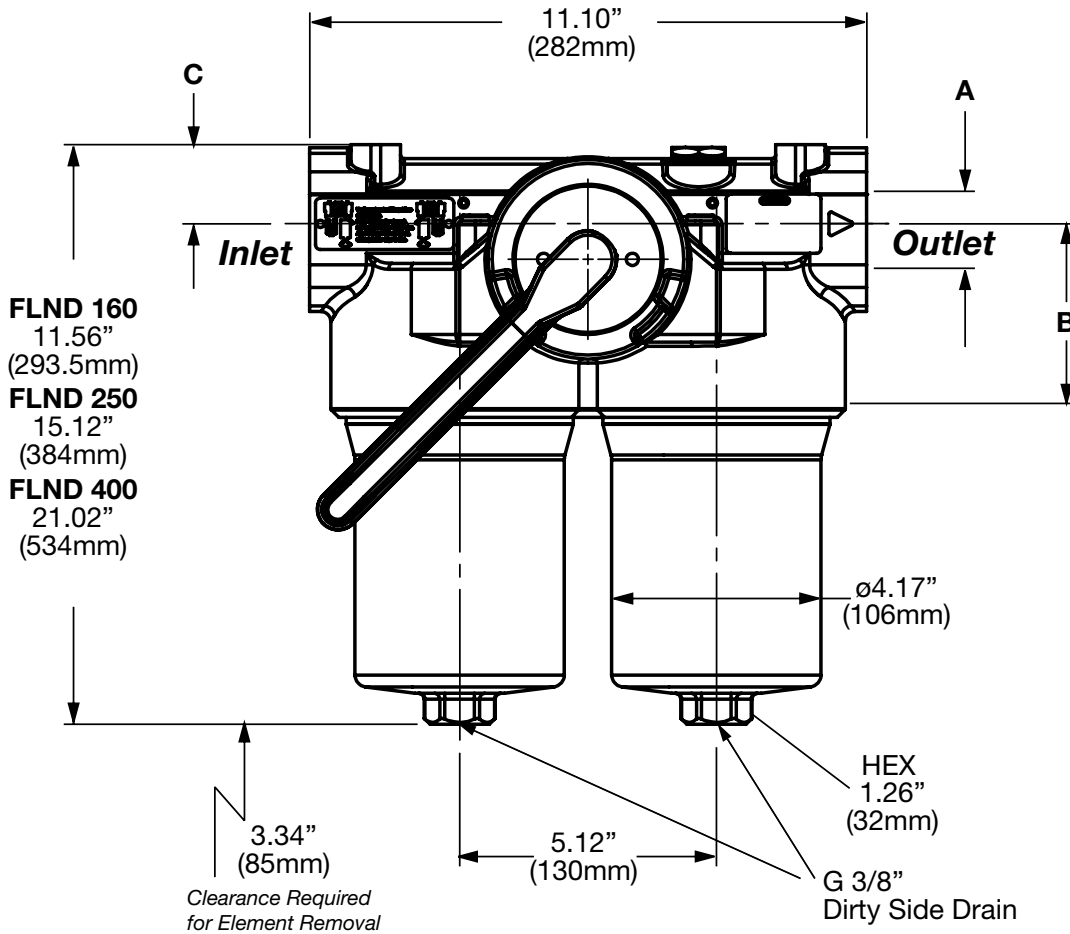


Model Codes Containing RED are non-stock items — Minimum quantities may apply — Contact HYDAC for information and availability

Dimensions



A	B	C
SAE-24	3.622" (92)	1.575" (40)
DN 38	3.504" (89)	1.693" (43)



Size	160	250	400
Weight (lbs.)	22.7	25.6	28.7

Dimensions shown are for general information and overall envelope size only. Weights listed are without element. For complete dimensions please contact HYDAC to request a certified print.

Sizing Information

Total pressure loss through the filter is as follows:

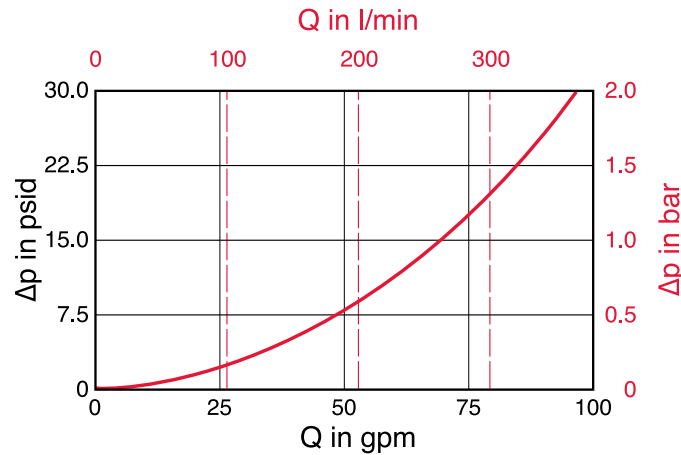
$$\text{Assembly } \Delta P = \text{Housing } \Delta P + \text{Element } \Delta P$$

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 section on page 19)



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)

Size	...DN...BN4HC (Betamicon® Low Collapse)			
	3 μm	6 μm	10 μm	25 μm
0160	0.439	0.280	0.190	0.143
0250	0.280	0.177	0.117	0.093
0400	0.178	0.111	0.071	0.055

All Element K Factors in psi / gpm.