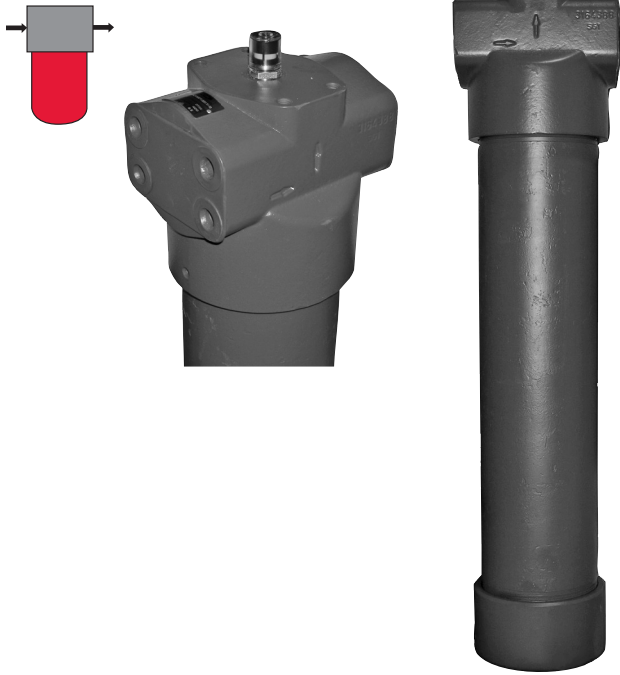


HIGH PRESSURE FILTERS

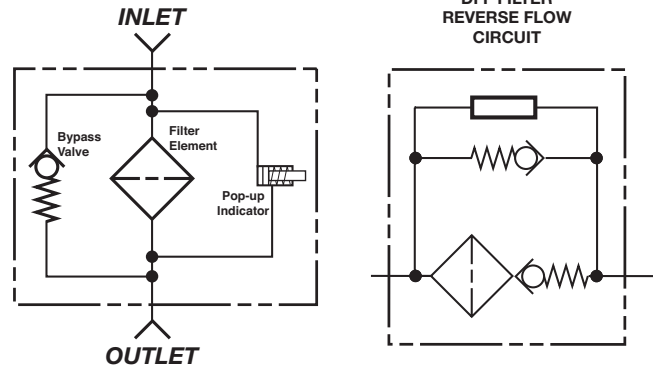
DF/DFF 1500 Series

Inline Filters

6090 psi • up to 250 gpm



Hydraulic Symbol



Features

- Available in T ported or L ported configurations
- Handles high flows to 250 GPM (pricing competitive)
- Available in bidirectional flow and single flow configurations
- Two part bowl for ease of operation and element change-out
- Filter head made of ductile iron
- Filter housing (bowl) and lid made of steel
- Can mount head on top with bottom access (2.x) or head on bottom with top access (3.x)
- Single flow version (DF) can be supplied with bypass (located in head assembly).
- Bidirectional flow version (DFF) can only be supplied with no-bypass.

Technical Specifications

Mounting Method	4 Mounting holes in the filter head - M-12 Threads
Port Connection	SAE-32 four bolt code 62 Flange (DN 51) with metric bolt threads (M20 x 30mm deep) 2" SAE 32 straight thread O-Ring Boss / 2" BSPP thread
Flow Direction	Side inlet and outlet - Indicator on top Side inlet and top outlet - Indicator on side
Construction Materials	Head: Ductile Iron (GGG40) Filter housing (bowl) & lid: Steel
Flow Capacity	250 gpm (950 lpm)
Housing Pressure Rating	Max. Allowable Working Pressure 6090 psi (420 bar) Fatigue Pressure 6090 psi (420 bar) @ 300,000 cycles Burst Pressure Contact HYDAC
Element Collapse Pressure Rating	ON, W/HC 290 psid (20 bar) BH4HC, V 3045 psid (210 bar)
Fluid Temperature Range	14°F to 212°F (-10°C to 100°C) Consult HYDAC for applications operating below 14°F (-10°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
Indicator Trip Pressure	$\Delta P = 29$ psid (2 bar) -10% $\Delta P = 72$ psid (5 bar) -10% $\Delta P = 116$ psid (8 bar) -10% (non-bypass)
Bypass Valve Cracking Pressure	$\Delta P = 43$ psid (3 bar) +10% $\Delta P = 87$ psid (6 bar) +10% Non Bypass Available

Applications



Agricultural



Automotive



Construction



Gearboxes



Industrial



Offshore



Commercial Municipal



Power Generation



Pulp & Paper



Railways

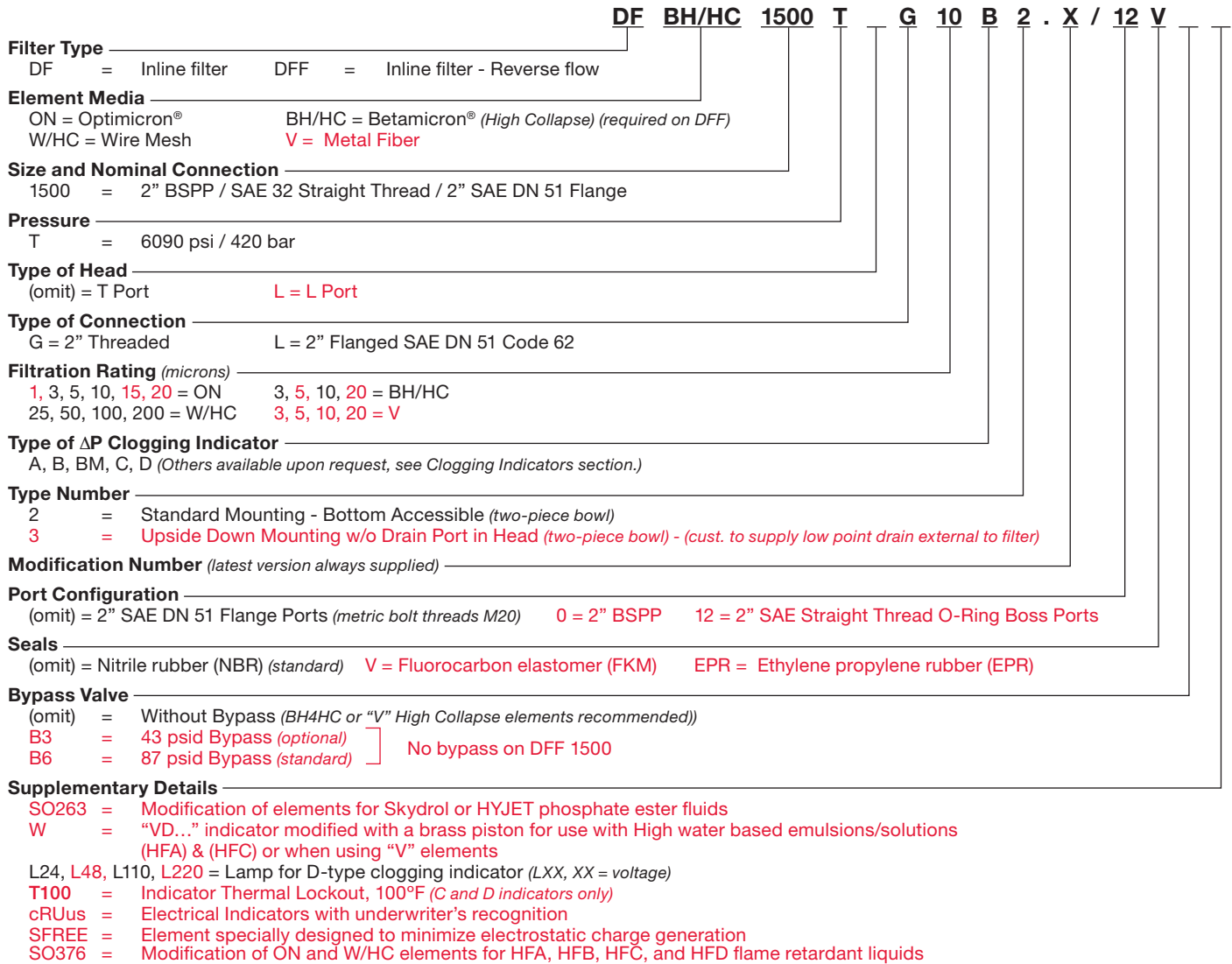


Shipbuilding

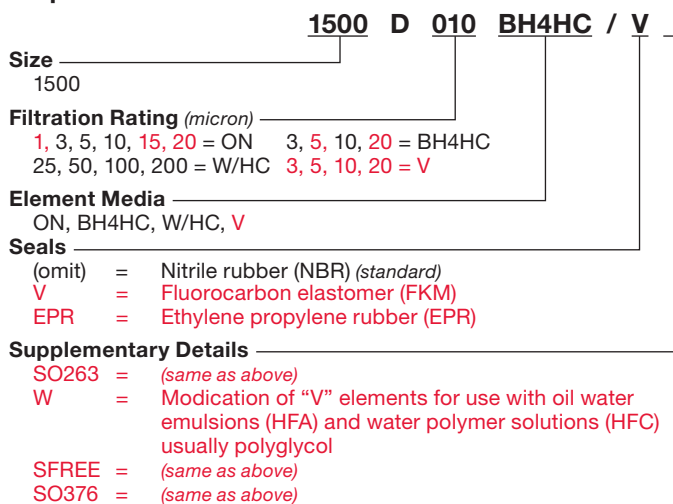


Steel / Heavy Industry

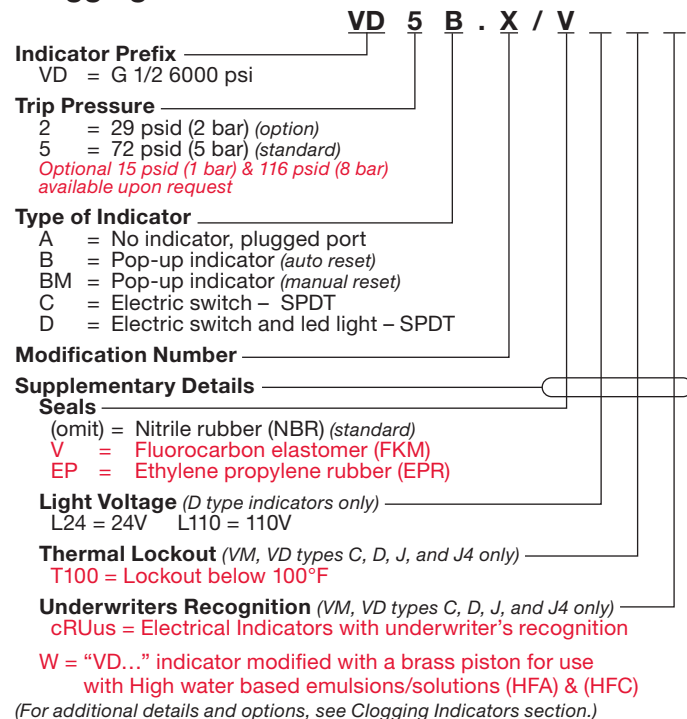
Model Code



Replacement Element Model Code



Clogging Indicator Model Code

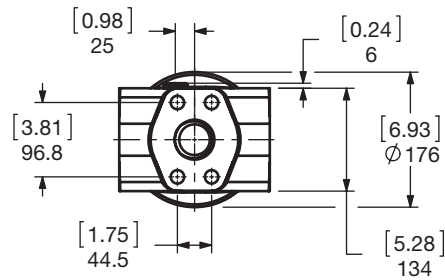


Model Codes Containing RED are non-stock items — Minimum quantities may apply — Contact HYDAC for information and availability

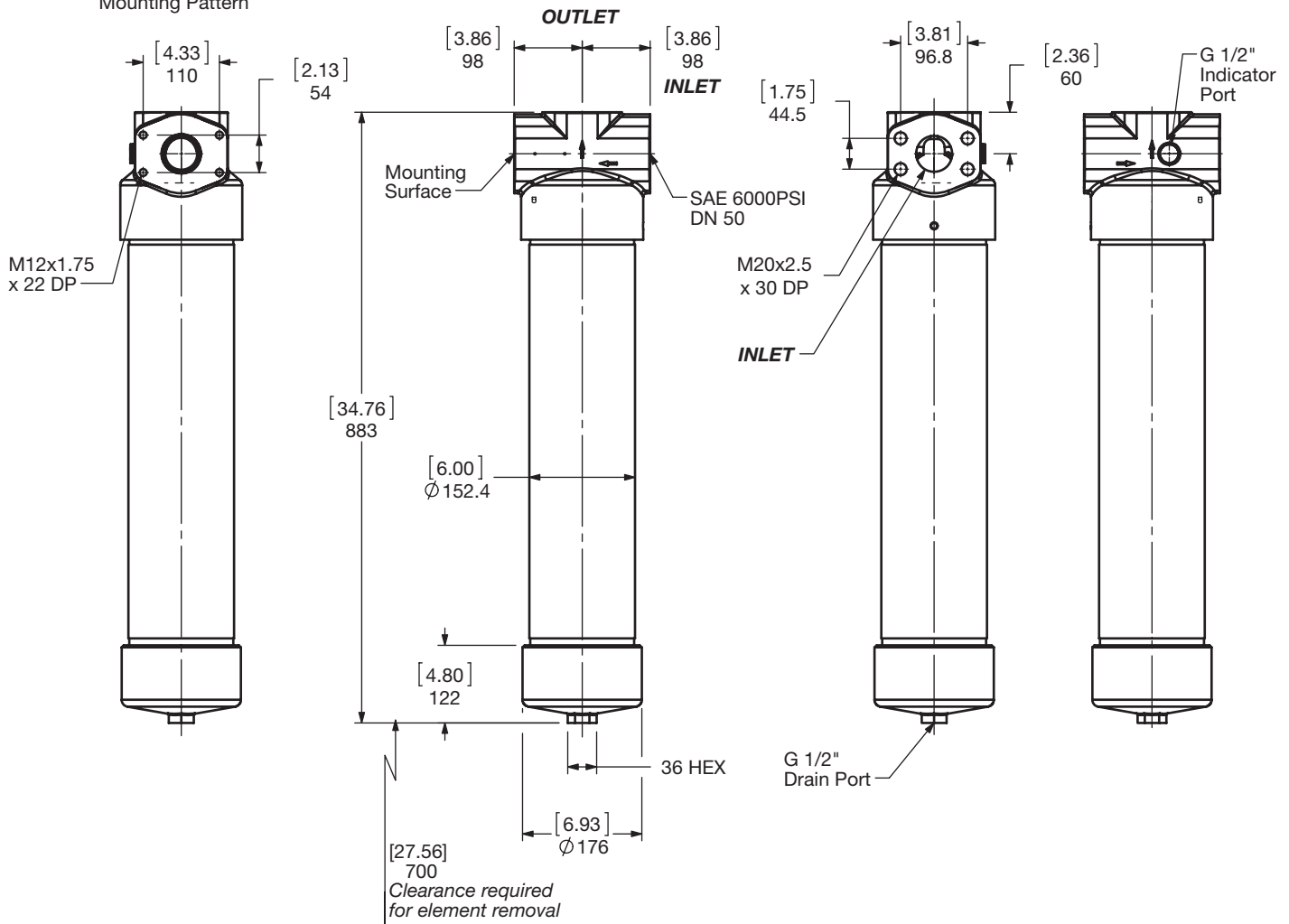
HIGH PRESSURE FILTERS

Dimensions

DF/DFE 1500 2.0 L Configuration



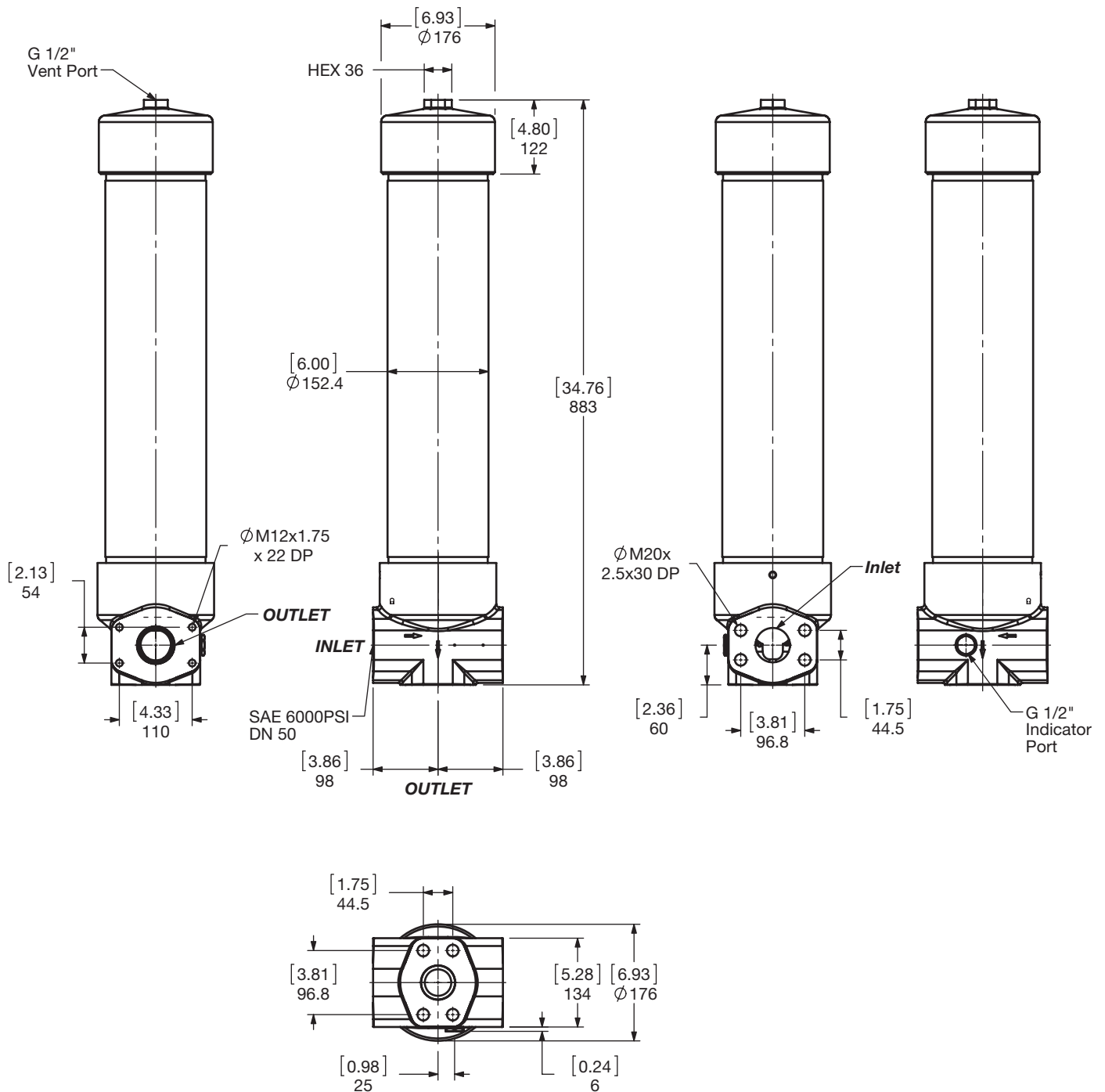
Mounting Pattern



Size	DF/DFE 1500 2.0 "L"
Weight (lbs.)	152.8

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/DFE 1500 3.0 L Configuration



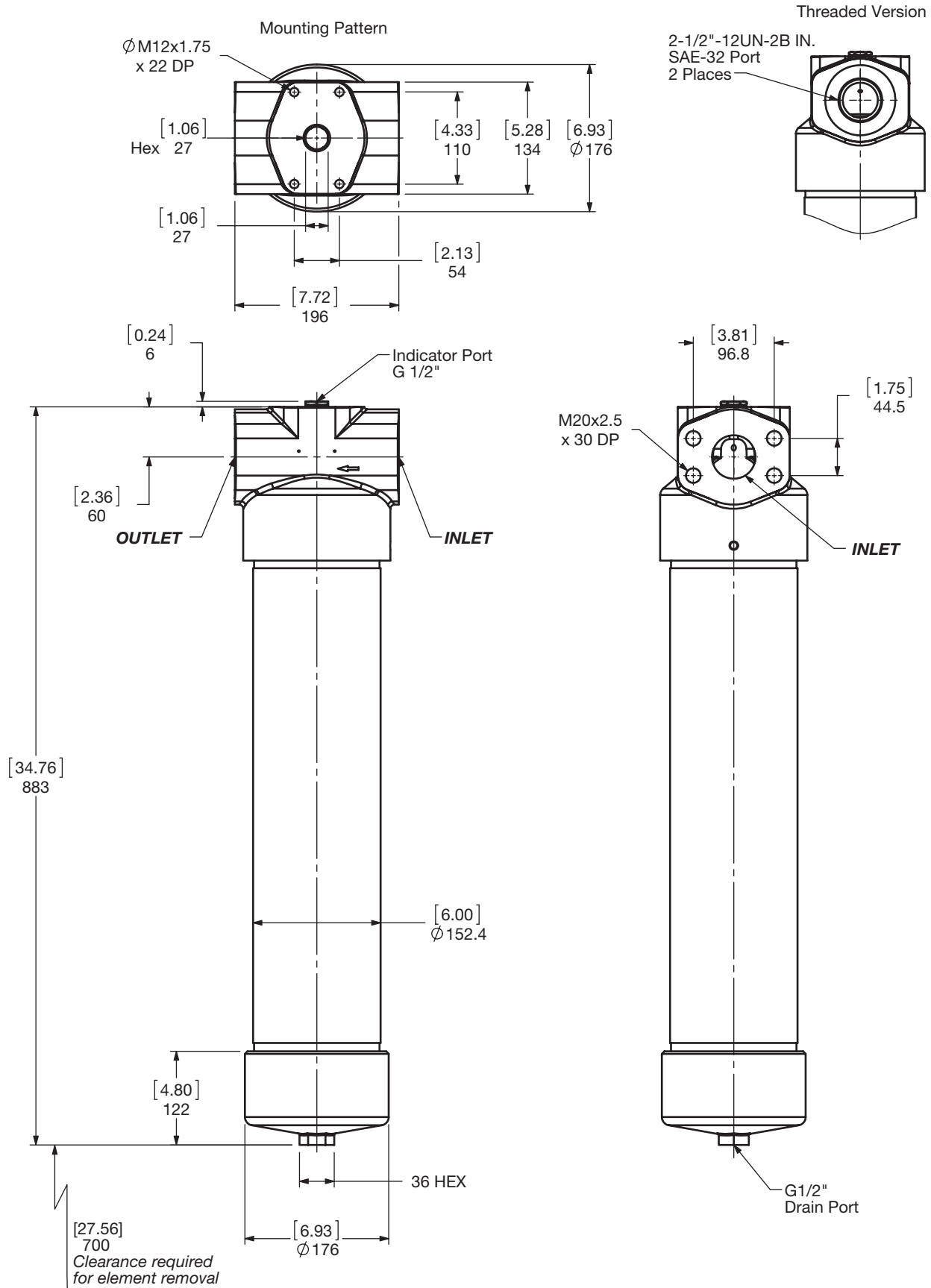
Size	DF/DFE 1500 3.0 "L"
Weight (lbs.)	152.6

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

Dimensions

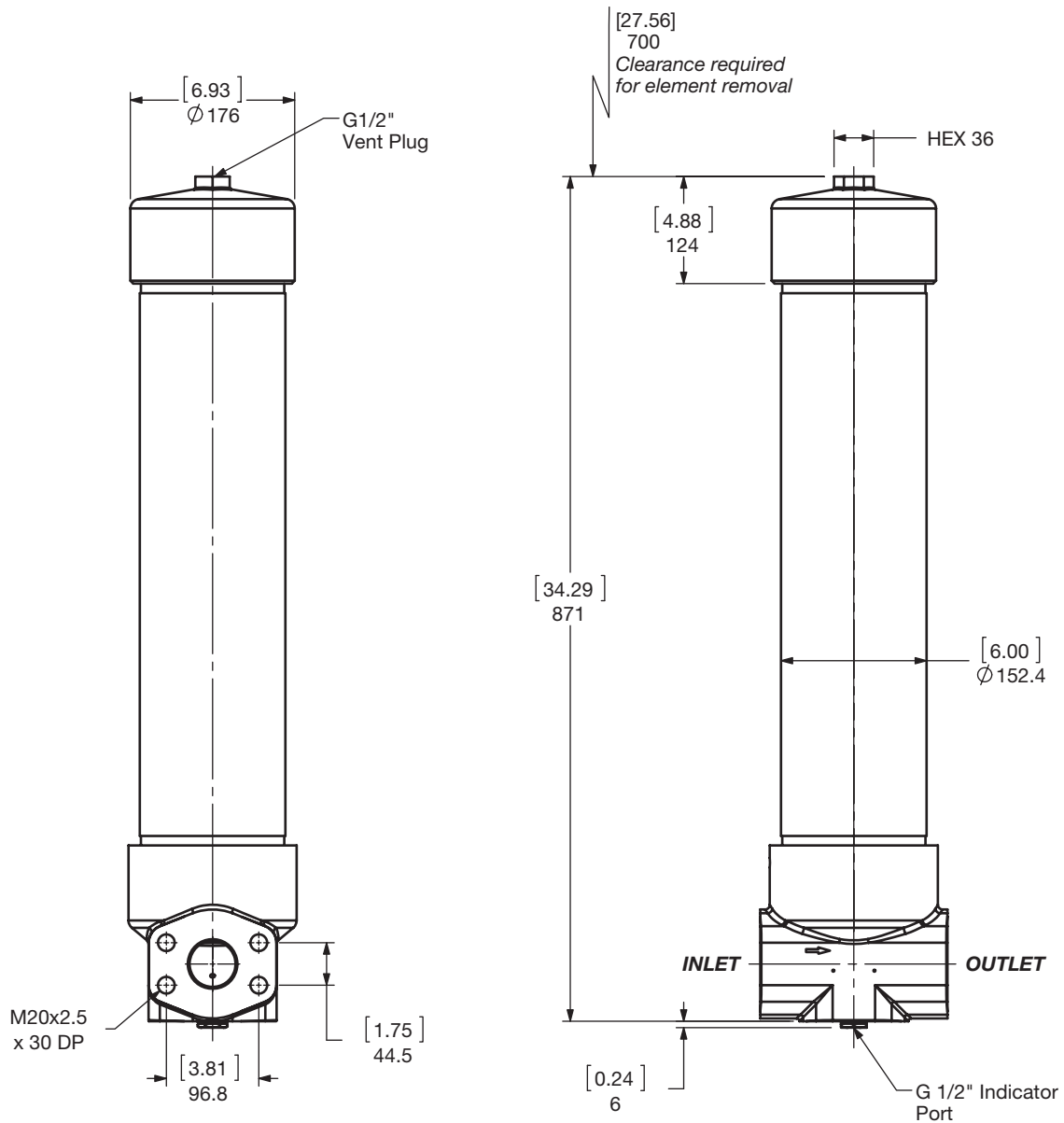
DF/DFE 1500 2.0 T Configuration



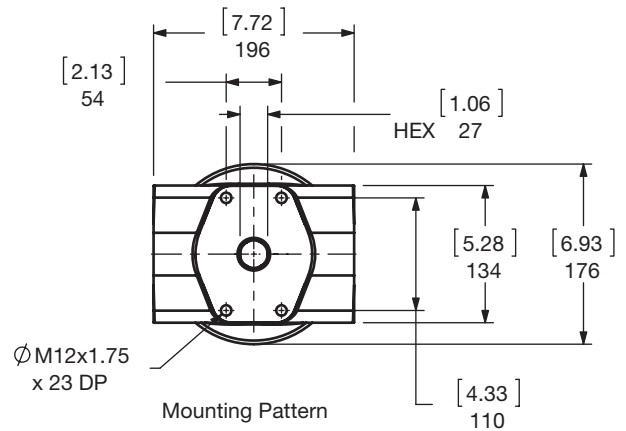
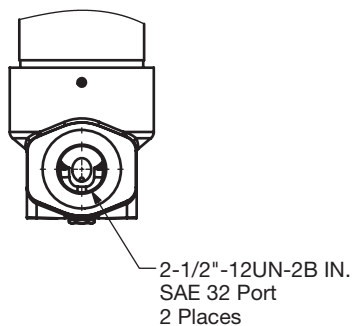
Size	DF/DFE 1500 2.0 "T"
Weight (lbs.)	152.8

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/DFE 1500 3.0 T Configuration



Threaded Version



Size	DF/DFE 1500 3.0 "T"
Weight (lbs.)	152.6

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:

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

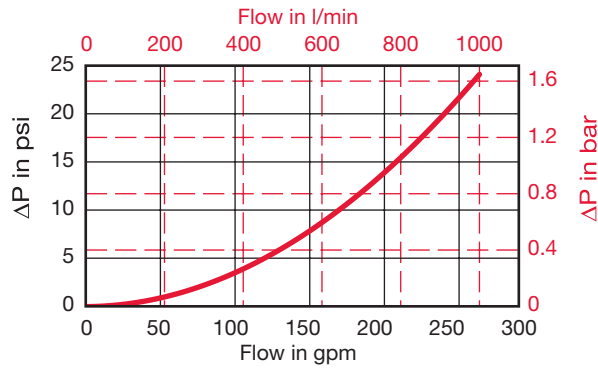
Housing Curve:

Pressure loss through housing is as follows:

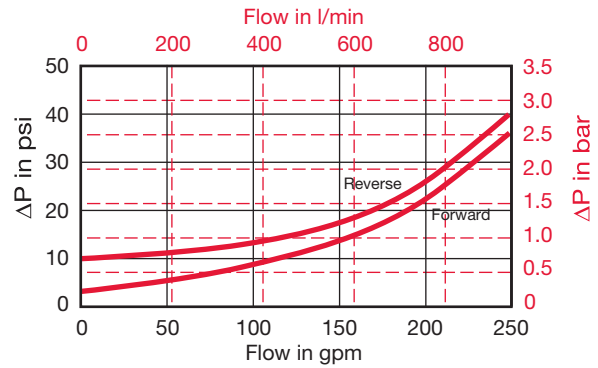
$$\text{Housing } \Delta P = \text{Housing Curve } \Delta P \times \frac{\text{Actual Specific Gravity}}{0.86}$$

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

DF 1500



DFF 1500



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	...D...ON (Pressure Elements)					
Size	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
1500 D XXX ON	0.09	0.053	0.038	0.026	0.02	0.015

Betamicron	...D...BH4HC (High Collapse)			
Size	3 μm	5 μm	10 μm	20 μm
1500 D XXX BH4HC	0.077	0.044	0.033	0.027

Wire Mesh	...D...W/HC Elements
Size	...D...W/HC Elements 25, 50, 100, 200 μm
1500 D XXX W/HC	0.001

Metal Fiber	...D...V Elements (High Collapse)			
Size	3 μm	5 μm	10 μm	20 μm
1500 D XXX V	0.016	0.011	0.011	0.005

All Element K Factors in psi / gpm.

