

# F8

## Medium Pressure Filter High Flow Filter Assembly

Ideal for high viscosity lubricating fluids, high flow hydraulic, and heavily contaminated fuel applications. Drop-in mounting interchange for common pulp and paper industry 8300/8310/8314 filter assemblies.

**Max Operating Pressure: 500 psi (34.5 bar)**



[hyprofiltration.com/](http://hyprofiltration.com/)



## Filtration starts with the filter.

Advanced DFE rated filter elements deliver lower operating ISO Codes with high efficiency particulate removal and retention efficiency. With a range of media options down to  $\beta_{3, [c]} > 4000$  + water absorbing options, you get the perfect element for your application, every time.



## Minimize the mess.

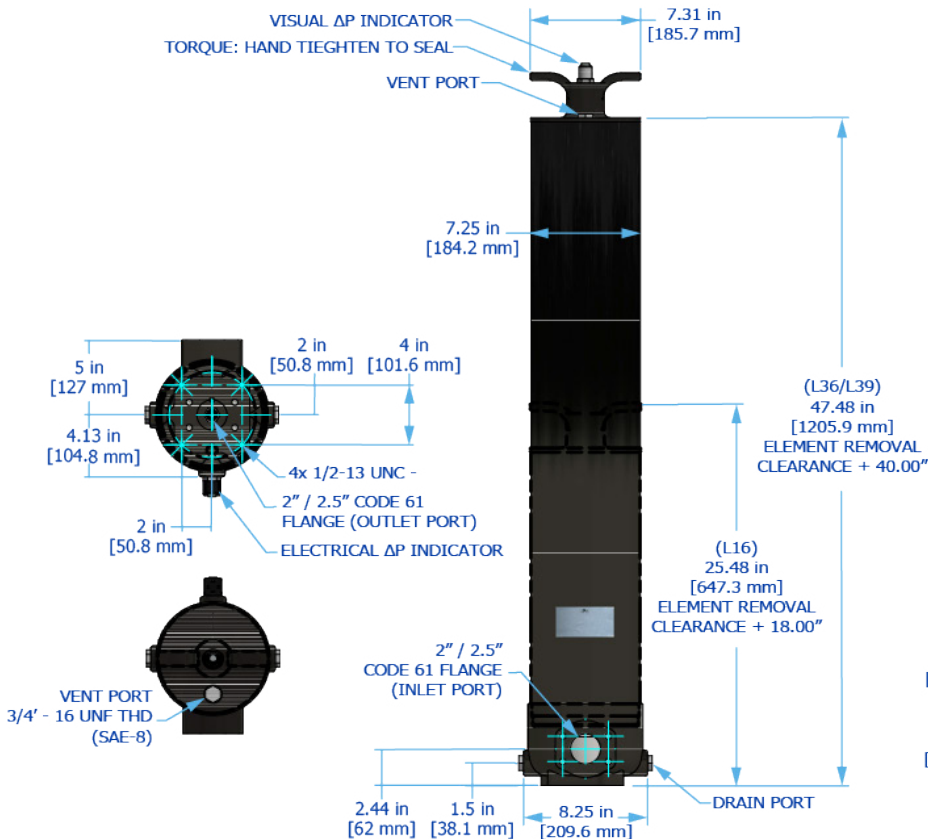
The top loading housing on F8 filter assemblies provide easy and clean access when servicing or changing the element. Accessing the element is as simple as removing the housing cover, meaning you have no heavy bowl to lift and can get back in operation more quickly than ever.

## Setting the new (industry) standard.

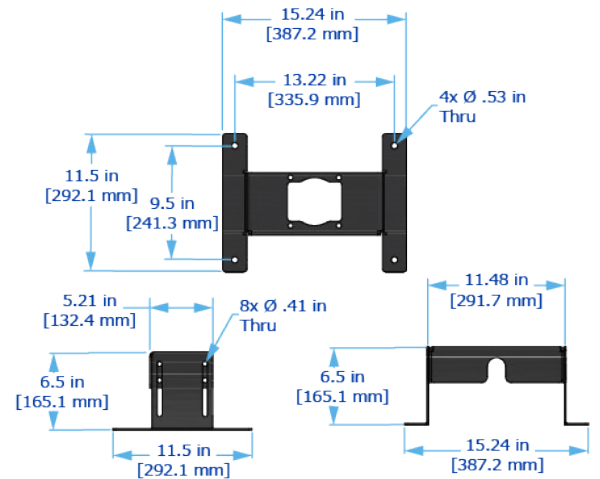
Designed as a drop-in replacement for industry standard 8300 series filter housings, only the F8 from Hy-Pro gives you the flexibility to choose from numerous DFE rated filter arrangements. Even upgrade your existing 83\*\* series filter elements with the HP107 series to get a new integral bypass valve with every filter.



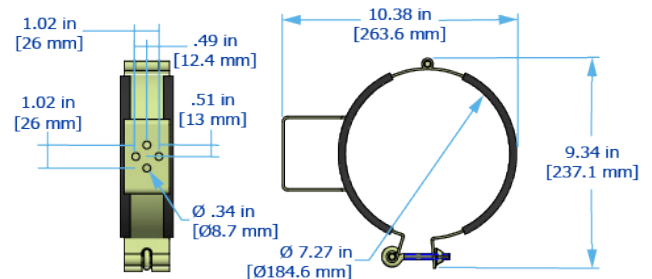
## F8 Installation Drawing



## M1 Option Mounting Stand



## M2 Option Stabilizing Bracket



# F8 Specifications

**Dimensions** See Installation Drawings on page 191 for model specific dimensions.

**Operating Temperature** -20°F to 250°F  
(-29°C to 121°C)

**Operating Pressure** 500 psi (34.5 bar) max

**ΔP Indicator Trigger** 15 psi (1 bar): 25 psid bypass  
35 psi (2.4 bar): 50 psid bypass + non bypass

**Materials of Construction**

<b>Head/Lid</b> Cast aluminum (coated)	<b>Bowl</b> Industrial coated steel
-------------------------------------------	----------------------------------------

**Media Description**

<b>M</b> G8 Dualglass, our latest generation of DFE rated, high performance glass media for all hydraulic & lubrication fluids. $\beta_{x_{10}} \geq 4000$	<b>A</b> G8 Dualglass high performance media combined with water removal scrim. $\beta_{x_{10}} \geq 4000$	<b>W</b> Stainless steel wire mesh media $\beta_{x_{10}} \geq 2$	<b>VTM</b> $\beta_{3_{10}} \geq 4000$ particulate, insoluble oxidation by-product and water removal media
---------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------

**Replacement Elements** To determine replacement elements, use corresponding codes from your assembly part number:

Element Type Code	Filter Element Part Number	Example
5	HP105L[Length Code] - [Media Selection Code][Seal Code]	HP105L36-6AB
6	HP106L[Length Code] - [Media Selection Code][Seal Code]	HP106L16-10MV
7	HP107L[Length Code] - [Media Selection Code][Seal Code]	HP107L36-1MV
32	HP8310L[Length Code] - [Media Selection Code][Seal Code]	HP8310L16-25AV
35	HP8310L[Length Code] - [Media Selection Code][Seal Code]	HP8310L39-3MB
8X	HP8314L[Length Code] - [Media Selection Code][Seal Code]	HP8314L39-25WV
82	HP8314L[Length Code] - [Media Selection Code][Seal Code]	HP8314L16-12MB
85	HP8314L[Length Code] - [Media Selection Code][Seal Code]	HP8314L39-16ME-WS

**Fluid Compatibility** Petroleum and mineral based fluids, #2 diesel fuels (standard). For polyol ester, phosphate ester, and other specified synthetic fluids use fluorocarbon seal option or contact factory.

**Filter Assembly Sizing<sup>1</sup>** Filter assembly clean element ΔP after actual viscosity correction should not exceed 10% of filter assembly bypass setting. For applications with extreme cold start condition contact Hy-Pro for sizing recommendations.

**Step 1: Calculate ΔP coefficient for actual viscosity**

**Using Saybolt Universal Seconds (SUS)**

$$\Delta P \text{ Coefficient} = \frac{\text{Actual Operating Viscosity}^1 \text{ (SUS)}}{150} \times \frac{\text{Actual Specific Gravity}}{0.86}$$

**Using Centistokes (cSt)**

$$\Delta P \text{ Coefficient} = \frac{\text{Actual Operating Viscosity}^1 \text{ (cSt)}}{32} \times \frac{\text{Actual Specific Gravity}}{0.86}$$

**Step 2: Calculate actual clean filter assembly ΔP at both operating and cold start viscosity**

$$\text{Actual Assembly Clean } \Delta P = \text{Flow Rate} \times \Delta P \text{ Coefficient (from Step 1)} \times \text{Assembly } \Delta P \text{ Factor (from sizing table)}$$

**ΔP Factors<sup>1</sup>**

Length	Units	Media						
		1M	3M	6L	10M	16M	25M	**W
16	psid/gpm	0.0463	0.0391	0.0303	0.0271	0.0266	0.0256	0.0046
	bard/lpm	0.0008	0.0007	0.0006	0.0005	0.0005	0.0005	0.0001
36/39	psid/gpm	0.0324	0.0273	0.0212	0.0190	0.0186	0.0179	0.0032
	bard/lpm	0.0006	0.0005	0.0004	0.0003	0.0003	0.0003	0.0001

<sup>1</sup>Max flow rates and ΔP factors assume u = 150 SUS, 32 cSt. See filter assembly sizing guideline for viscosity conversion formula on page 22 for viscosity change.



# F8 Part Number Builder



Connection	Port Option	Max Flow Rate
<b>F32</b>	2" Code 61 flange	300 gpm (1,136 lpm) <sup>1</sup>
<b>F40</b>	2.5" Code 61 flange	300 gpm (1,136 lpm) <sup>1</sup>

Element Type				
<b>5</b>	HP105 – no bypass	<b>32</b>	HP8310 – 25 psid (1.7 bard) integral housing bypass	
<b>6</b>	HP106 – 25 psid (1.7 bard) integral element bypass	<b>35</b>	HP8310 – 50 psid (3.4 bard) integral housing bypass	
<b>7</b>	HP107 – 50 psid (3.4 bard) integral element bypass	<b>8X</b>	HP8314 – no bypass	
		<b>82</b>	HP8314 – 25 psid (1.7 bard) integral housing bypass	
		<b>85</b>	HP8314 – 50 psid (3.4 bard) integral housing bypass	

Element Length		
<b>16</b>	L16 single length filter housing	
<b>36<sup>2</sup></b>	L36 single length filter housing	
<b>39<sup>2</sup></b>	L39 single length filter housing	

ΔP Indicator	Indicator Options	Thermal Lockout	Surge Control	Reset
<b>D</b>	Visual / Electrical (DIN 43650)	No	No	Auto
<b>S</b>	Visual / Electrical (DIN 43650)	Yes	Yes	Manual
<b>V</b>	Visual	No	No	Auto
<b>X</b>	No indicator (port plugged)	-	-	-
<b>Y</b>	Visual	Yes	Yes	Manual

Special Options	
<b>M1</b>	Mounting stand for base mount applications
<b>M2</b>	Stabilizing bracket

Media Selection	G8 Dualglass	G8 Dualglass + water removal
<b>0.5M</b>	$\beta_{0.9, [C]} \geq 4000$	<b>3A</b> $\beta_{4, [C]} \geq 4000$
<b>1M</b>	$\beta_{3, [C]} \geq 4000$	<b>6A</b> $\beta_{6, [C]} \geq 4000$
<b>3M</b>	$\beta_{4, [C]} \geq 4000$	<b>10A<sup>3</sup></b> $\beta_{11, [C]} \geq 4000$
<b>6L</b>	$\beta_{7, [C]} \geq 4000$	<b>25A</b> $\beta_{22, [C]} \geq 4000$
<b>10M<sup>3</sup></b>	$\beta_{11, [C]} \geq 4000$	
<b>16M</b>	$\beta_{16, [C]} \geq 4000$	
<b>25M</b>	$\beta_{22, [C]} \geq 4000$	

	Dynafuzz stainless fiber	Stainless wire mesh
<b>3SF</b>	$\beta_{4, [C]} \geq 4000$	<b>25W</b> 25μ nominal
<b>6SF</b>	$\beta_{6, [C]} \geq 4000$	<b>40W</b> 40μ nominal
<b>10SF</b>	$\beta_{11, [C]} \geq 4000$	<b>74W</b> 74μ nominal
<b>25SF</b>	$\beta_{22, [C]} \geq 4000$	<b>149W</b> 149μ nominal

Seals	
<b>B</b>	Nitrile (Buna)
<b>V</b>	Fluorocarbon
<b>E-WS</b>	EPR seals + stainless steel support mesh

<sup>1</sup>Maximum recommended flow rate based on velocity through port and internal flow path. Consult sizing guidelines or consult factory for sizing based on flow rate, viscosity, temperature, filter media selection.  
<sup>2</sup>Compatibility will be based on Element Type selection. For elements HP105, HP106, and HP107, use Length Code 36. Length Code 39 only compatible with HP8310 and HP8314.  
<sup>3</sup>For elements HP8310 and HP8314, use 12M or 12A for respective media code in place of 10M or 10A.  
 For all up to date option details and compatibilities, please reference our [Contamination Solutions Price List](#) or contact customer service.

Want to find out more? Get in touch.  
 hyprofiltration.com  
 info@hyprofiltration.com  
 +1 317 849 3535

