

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/



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.

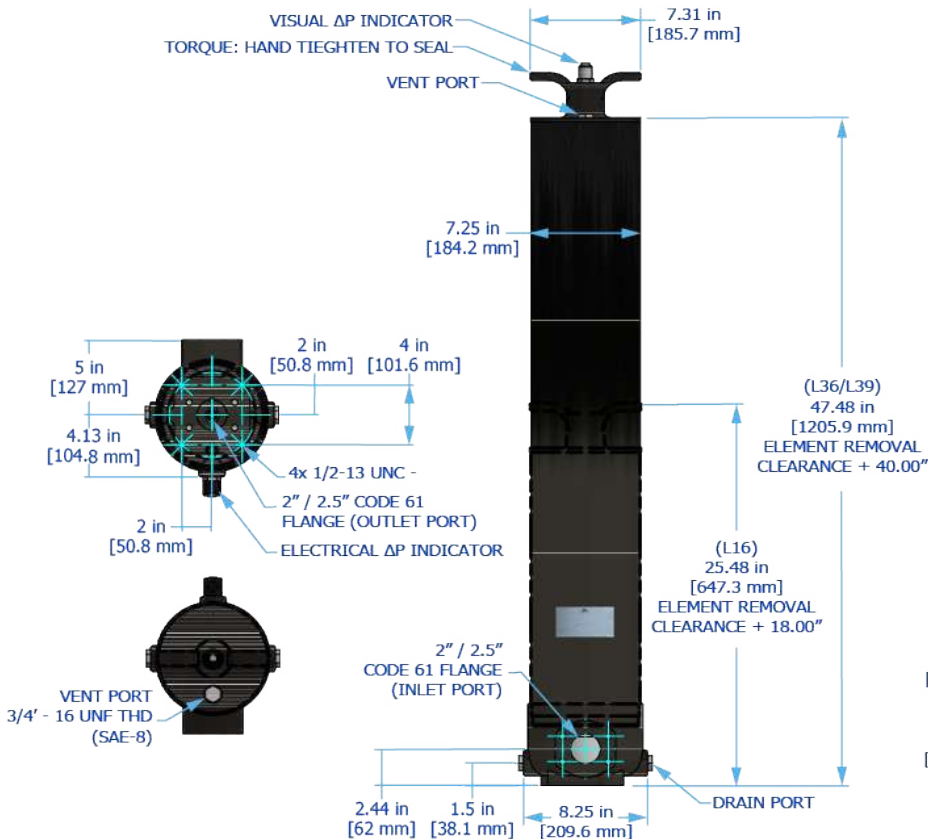
The top loading housing on F8 filter assemblies provide easy and clean access when servicing or changing the element. Accessing the element is as simple as removing the housing cover, meaning you have no heavy bowl to lift and can get back in operation more quickly than ever.

Setting the new (industry) standard.

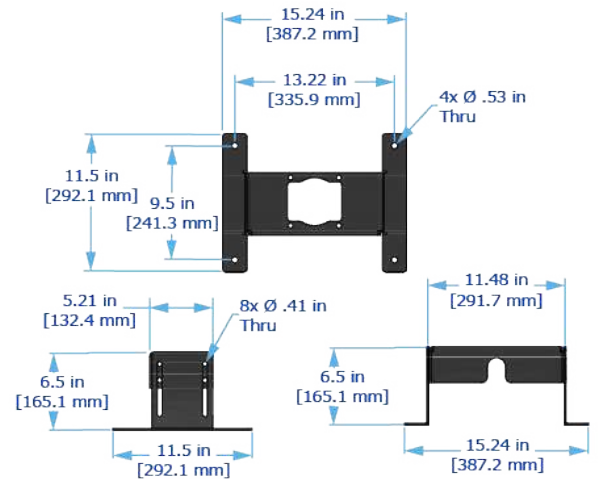
Designed as a drop-in replacement for industry standard 8300 series filter housings, only the F8 from Hy-Pro gives you the flexibility to choose from numerous DFE rated filter arrangements. Even upgrade your existing 83** series filter elements with the HP107 series to get a new integral bypass valve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



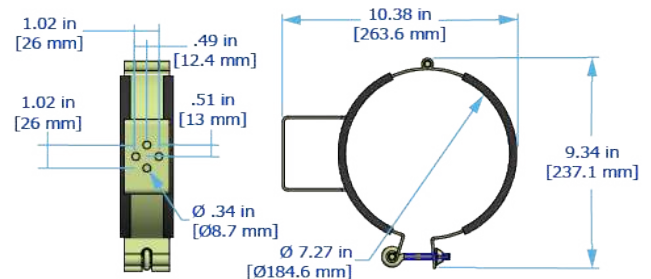
F8 Installation Drawing



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	Head/Lid	Bowl
	Cast aluminum (coated)	Industrial coated steel

Media Description	M	A	W	VTM
	G8 Dualglass, our latest generation of DFE rated, high performance glass media for all hydraulic & lubrication fluids. $\beta_{x_{[C]}} \geq 4000$	G8 Dualglass high performance media combined with water removal scrim. $\beta_{x_{[C]}} \geq 4000$	Stainless steel wire mesh media $\beta_{x_{[C]}} \geq 2$	$\beta_{3_{[C]}} \geq 4000$ 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 Sizing¹ 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

<p>Using Saybolt Universal Seconds (SUS)</p> $\Delta P \text{ Coefficient} = \frac{\text{Actual Operating Viscosity}^1 \text{ (SUS)}}{150} \times \frac{\text{Actual Specific Gravity}}{0.86}$	or	<p>Using Centistokes (cSt)</p> $\Delta P \text{ Coefficient} = \frac{\text{Actual Operating Viscosity}^1 \text{ (cSt)}}{32} \times \frac{\text{Actual Specific Gravity}}{0.86}$
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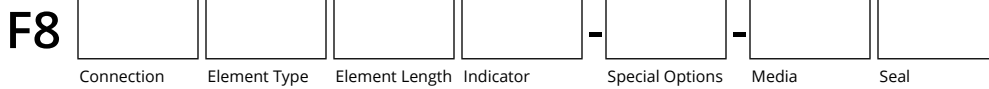
Step 2: Calculate actual clean filter assembly ΔP at both operating and cold start viscosity

Actual Assembly Clean ΔP	=	Flow Rate	X	ΔP Coefficient (from Step 1)	X	Assembly ΔP Factor (from sizing table)
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ΔP Factors ¹	Length	Units	Media						**W
			1M	3M	6L	10M	16M	25M	
	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

¹Max 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
F32	2" Code 61 flange	300 gpm (1,136 lpm) ¹
F40	2.5" Code 61 flange	300 gpm (1,136 lpm) ¹

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

Element Length	
16	L16 single length filter housing
36²	L36 single length filter housing
39²	L39 single length filter housing

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

Special Options	
M1	Mounting stand for base mount applications
M2	Stabilizing bracket

Media Selection	G8 Dualglass	G8 Dualglass + water removal
0.5M	$\beta_{0.9, [C]} \geq 4000$	3A $\beta_{4, [C]} \geq 4000$
1M	$\beta_{3, [C]} \geq 4000$	6A $\beta_{6, [C]} \geq 4000$
3M	$\beta_{4, [C]} \geq 4000$	10A³ $\beta_{11, [C]} \geq 4000$
6L	$\beta_{7, [C]} \geq 4000$	25A $\beta_{22, [C]} \geq 4000$
10M³	$\beta_{11, [C]} \geq 4000$	
16M	$\beta_{16, [C]} \geq 4000$	
25M	$\beta_{22, [C]} \geq 4000$	

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

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

¹Maximum 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. 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. ²For elements HP8310 and HP8314, use 12M or 12A for respective media code in place of 10M or 10A. ³For all up to date option details and compatibilities, please reference our [Contamination Solutions Price List](#) or contact customer service.

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