

PARTICULATE FILTRATION

GHPF Series

GeoSeal® High-Flow Particulate Filter

150 psi • up to 100 gpm



Model No. of filter in photograph is:
GHPFG03VS24VMR

Description

The GHPF is a high flow, compact particulate filter for use where superior performance is needed in fuel transfer, kidney-loop, or dispensing applications. The filter assembly uses a performance optimized synthetic filter media along with the GeoSeal® element interface to ensure quality filtration with every replacement. The filter dimensions allow for installations where spin-on filters are commonly used.

Features

- Diesel fuel particulate filter for dispensing, transfer or polishing filtration applications
- Uses patented GeoSeal® elements
- All-aluminum filter housing is fully compatible with diesel and biodiesel
- Minimal clearance needed for element service, ideal for enclosure installations
- Cartridge style element improves performance and reduces waste compared to spin-on solutions
- Port to port and mounting pattern dimensions match standard spin-on assembly

Applications

- Fleet fill/bulk fuel transfer
- Bulk fuel unloading
- Protection for high-flow fuel injection systems
- Bulk tank kidney loop/recirculation

Technical Specifications

Flow Rating	Up to 100 gpm (380 l/min)
Max. Operating Pressure	150 psi (10.3 bar)
Min. Yield Pressure	2600 psi (179 bar)
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Bypass Setting	Cracking: 40 psi (2.8 bar)
Porting Head Element Case	Cast Aluminum, Anodized Aluminum, Anodized
Weight GHPF	7.64 lbs. (3.47 kg)
Element Change Clearance	2" (51 mm)

Markets

- Industrial
- Mobile Vehicles
- Marine
- Mining Technology
- Agriculture
- Power Generation
- Common Rail Injector Systems
- Fleet
- Railroad
- Bulk Fuel Filtration

Model Code

GHPF - G - 03 - V S24 - VM - R

Filter Series

GHPF = GeoSeal® High-Flow Particulate Filter

Element Series

G = GeoSeal®

Micron Rating (microns)

01 = (1 µm)
 03 = (3 µm)
 05 = (5 µm)
 10 = (10 µm)
 25 = (25 µm)

Sealing Material

V = Fluorocarbon Elastomer (FKM)

Bypass Setting

Omit = 40psid

Inlet Port

S24 = SAE-24
 P24 = 1.5" NPTF

Dirt Alarm® Options

VM = Visual pop-up with manual reset

Indicator Orientation

R = Right side
 L = Left side

Options

Omit = None
 U = Downstream test point

Element Performance Information

Media Type	Element	Filtration Ratio Per ISO 16889 Using automated particle counter (APC) calibrated per ISO 11171	
		$\beta_x(c) \geq 200$	$\beta_x(c) \geq 1000$
Betamicon® Media	5.40.11 D 01 BN4 /-V-G	<4.0	4.5
	5.40.11 D 03 BN4 /-V-G	4.6	5.8
	5.40.11 D 05 BN4 /-V-G	5.9	7.8
	5.40.11 D 10 BN4 /-V-G	11.4	13.2
	5.40.11 D 25 BN4 /-V-G	15.8	17.5

Dirty Holding Capacity

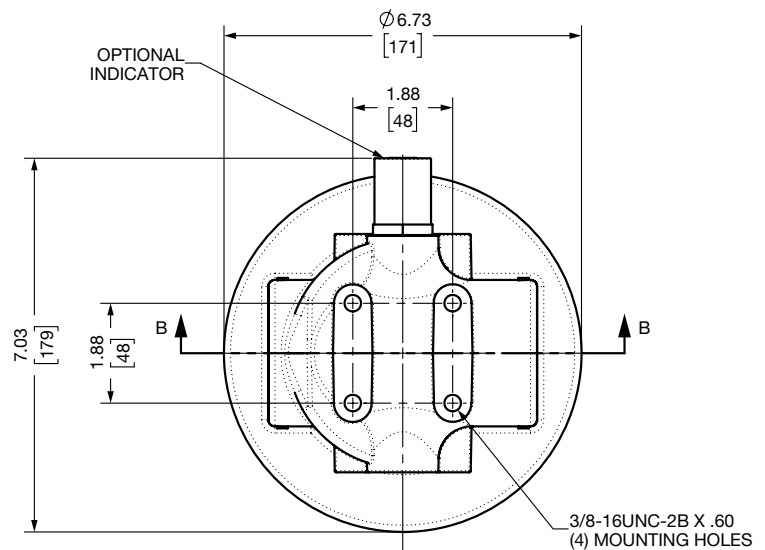
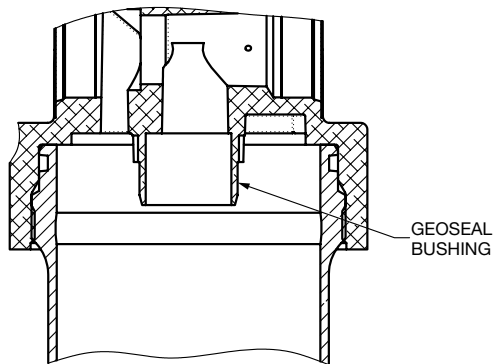
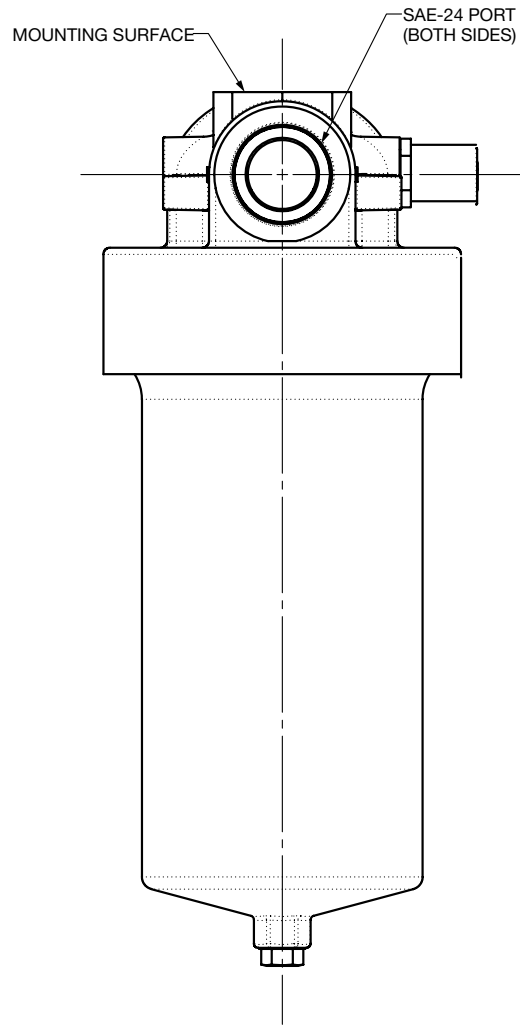
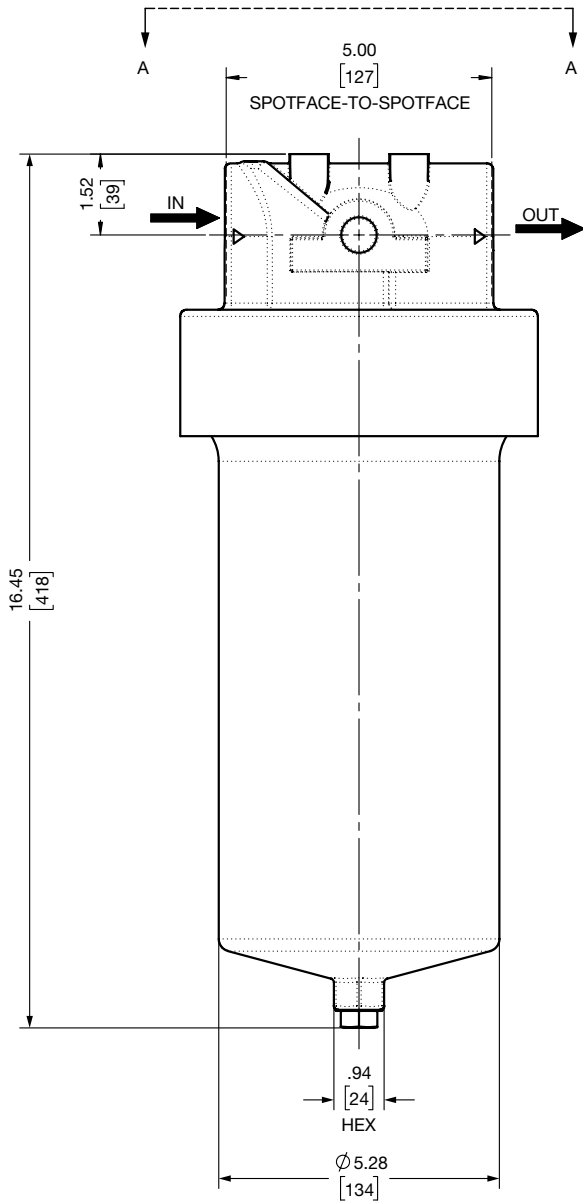
Media Type	Element	DHC (gm)
Betamicon® Media	5.40.11 D 01 BN4 /-V-G	172
	5.40.11 D 03 BN4 /-V-G	148
	5.40.11 D 05 BN4 /-V-G	174
	5.40.11 D 10 BN4 /-V-G	165
	5.40.11 D 25 BN4 /-V-G	164

Element Collapse Rating: 150 psid (10.3 bar) for standard and non-bypassing elements

Flow Direction: Outside In
 Element Nominal Dimensions: 5" (127 mm) O.D. x 11" (305 mm) long

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Dimensions GHPF



Dimensions shown are inches [millimeters] and for general information only. For complete dimensions please contact HYDAC to request a certified print.

Fluid Compatibility

Diesel Fuel and Biodiesel (B100).

For other Distillate Petroleum, Contact Factory.

Element Selection

Pressure	Element		Element selections are predicated on the use of 37 SUS (3 cSt) Diesel Fuel and Biodiesel (B100), SAE-24 porting, and a 40 psi (2.8 bar) bypass valve.					
	Series	Micron Rating						
To 150 psi (10.3 bar)	5.40.11 D xx BN4	1	5.40.11 D 01 BN4					
		3	5.40.11 D 03 BN4					
		5	5.40.11 D 05 BN4					
		10	5.40.11 D 10 BN4					
		25	5.40.11 D 25 BN4					
Flow		gpm (L/min)	0	20	40	60	80	100
			0	50	150	250	380	

Sizing Information

Total pressure loss through the filter is as follows:

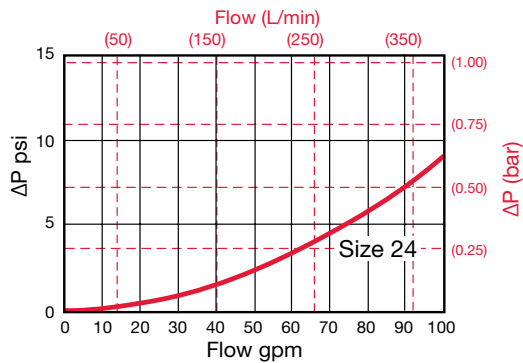
Assembly ΔP = Housing ΔP + Element ΔP

Housing Curve

Pressure loss through housing is as follows:

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

Housing Pressure Drop GHPF



Element K Factors

ΔP Elements = Elements (K) Flow Factor \times Flow Rate (gpm) \times $\frac{\text{Actual Viscosity (SUS)}}{37 \text{ SUS}}$ \times $\frac{\text{Actual Specific Gravity}}{0.86}$

Betamicron Size	5.40.11 D xx BN4				
	1 μ	3 μ	5 μ	10 μ	25 μ
5.40.11 D XX BN4	0.074	0.052	0.049	0.049	0.039