

PARTICULATE FILTRATION

QF5 Series

In-Line Filter

500 psi • up to 300 gpm



Model No. of filter in photograph is QF539QZ10P32.



For applications requiring higher flow rates of 300 to 600 gpm, or increased contamination holding capacity for flow rates of up to 300 gpm, please contact the factory regarding the 2QF5 solution.

Description

A versatile, base ported high flow particulate filter housing for use with diesel fuel. The QF5 can be configured in a single housing assembly to support 300 gpm of flow, or expand the capacity by choosing the 2QF5 assembly configured in parallel.

Features

- Element changeout from the top minimizes fuel spillage
- For fuel filtration applications, the ECOmicron® is chosen as standard with FKM seals.
- Offered in pipe, SAE straight thread, and flange porting
- Optional inlet and outlet test points
- Various element service indicator options

Applications

- Industrial
- Automotive manufacturing
- Machine tool
- Steel making
- Mining technology
- Power generation
- Pulp & paper
- Bulk fuel filtration

Technical Specifications

Flow Rating	Up to 300 gpm (1135 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure	500 psi (35 bar)
Min. Yield Pressure	2500 psi (172 bar), per NFPA T2.6.1-R1-2005
Rated Fatigue Pressure	Contact Factory
Temperature Range	-20°F to 212°F (-29°C to 100°C)
Bypass Setting	Cracking: 30 psi (2.1 bar) Full Flow: 55 psi (3.8 bar)
Porting Head Element Case	Cast Aluminum Steel
Cap:	Ductile Iron
Weight of QF539	185 lbs. (84 kg)
Element Change Clearance	39Q 33.8" (859 mm)

Model Code

QF5 - 39 - Q - 03 V P32 - - VM

Filter Series

QF5 = In-Line Filter

Element Length (in)

39

Element Style

Q

Micron Rating

03 = 3 µm ECOmicron®

05 = 5 µm ECOmicron®

10 = 10 µm ECOmicron®

Housing Seal Material

Omit = Buna N

V = Fluorocarbon elastomer (FKM)

Porting

P32 = 2" NPTF

P40 = 2 1/2" NPTF

P48 = 3" NPTF

S32 = SAE -32 o-ring boss

F32 = -32 (2") SAE 4-bolt flange Code 61

F40 = -40 (2 1/2") SAE 4-bolt flange Code 61

F48 = -48 (3") SAE 4-bolt flange Code 61

Bypass Setting

Omit = 30 psi cracking

Differential Pressure Clogging Indicator Options

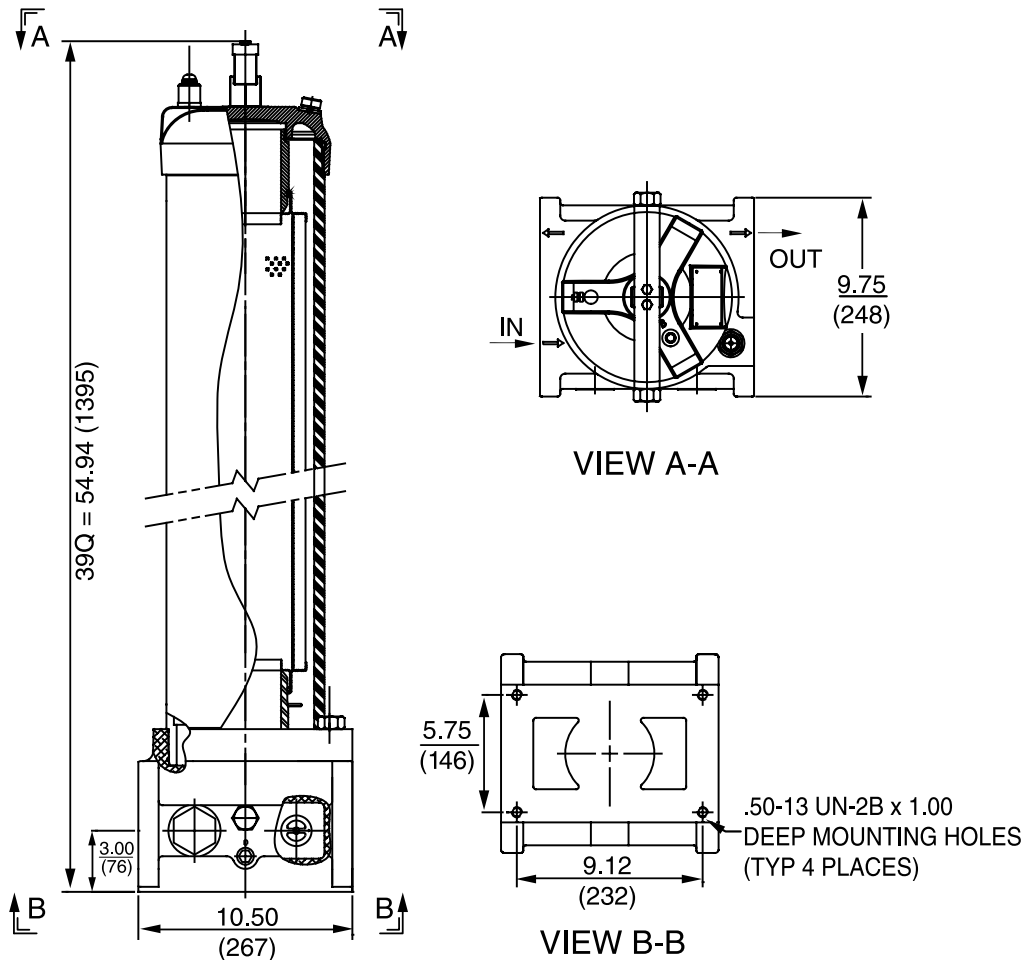
Omit = None

VM = Visual pop-up, manual reset

*for electrical indicators, contact factory

PARTICULATE FILTRATION

Dimensions QF5



Element Performance Information

Element		Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171	
		$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_x(c) \geq 200$	$\beta_x(c) \geq 1000$
39Q	03	<1.0	<1.0	<2.0	<4.0	4.8
	05	2.5	3.0	4.0	4.8	6.3
	10	7.4	8.2	10.0	8.0	10.0

Dirt Holding Capacity

Element	DHC (gm)
03	1293
05	1302
10	1214

Element Collapse Rating: ECOmicron: 145 psid (10 bar)
Flow Direction: Outside In

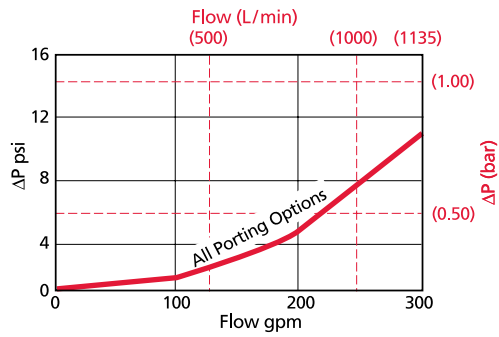
Element Nominal Dimensions: Q: 6.0" (150 mm) O.D. x 40.0"
(1016 mm) long

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

Fluid Compatibility

Compatible Fluid Types
Diesel Fuel
Biodiesel (with FKM seals)

Housing Pressure Drop QF5



sp gr = specific gravity

Sizing of elements should be based on element flow information provided in the Element Selection chart above.

$$\Delta P_{\text{element}} = \text{flow} \times \text{element } \Delta P \text{ factor} \times \text{viscosity factor}$$

El. ΔP factors @ 150 SUS (32 cSt):

16QCLQFZ3	.05	Q03	.02
16QCLQFZ5	.05	Q05	.02
16QCLQFZ10	.04	Q10	.01

If working in units of bars & L/min, divide above factor by 54.9.

Viscosity factor: Divide viscosity by 150 SUS (32 cSt).