

# G310 Series Versalon™ Medium Pressure Filters



M&EG310ENE

## Features

- Flows to 120 L/min (32 US gpm)
- Pressures to 250 bar (3625 psi)
- Port size: 1"
- Out-to-in filter element flow path

## Notes and Specifications Filter Housing

### Maximum Allowable

### Working Pressure:

250 bar (3625 psi)

### Rated Fatigue Pressure:

0-240 bar (0-3480 psi) per NFPA T2.6.1 R2-2001 CAT C/90. Verified by testing at 0-280 bar (0-4060 psi) for 1 million cycles. Contact Pall for applications with higher pressures at lower cycles

### Fluid Compatibility:

Compatible with all petroleum oils, water glycols, water-oil emulsions and most synthetic hydraulic and lubrication fluids

### Temperature Range:

#### Maximum operating temperature:

120 °C (250 °F)

#### Minimum operating temperature:

-25 °C (-13 °F)

#### Minimum ambient temperature:

-40 °C (-40 °F)

### Bypass Valve Setting:

'G' option – 4.5 ± 0.5 bard (65 ± 7 psid)

### Indicator Pressure Setting:

3.4 ± 0.4 bard (50 ± 6 psid)

### Materials of Construction:

Head - SG Iron  
Bowl - Carbon steel

## Filter Element

### Filter Element

### Burst Pressure:

10 bard (145 psid)

### Filter Element

### Construction:

Inorganic fibers impregnated and bonded with epoxy resins. Polyamide endcaps. Corrosion protected carbon steel core.

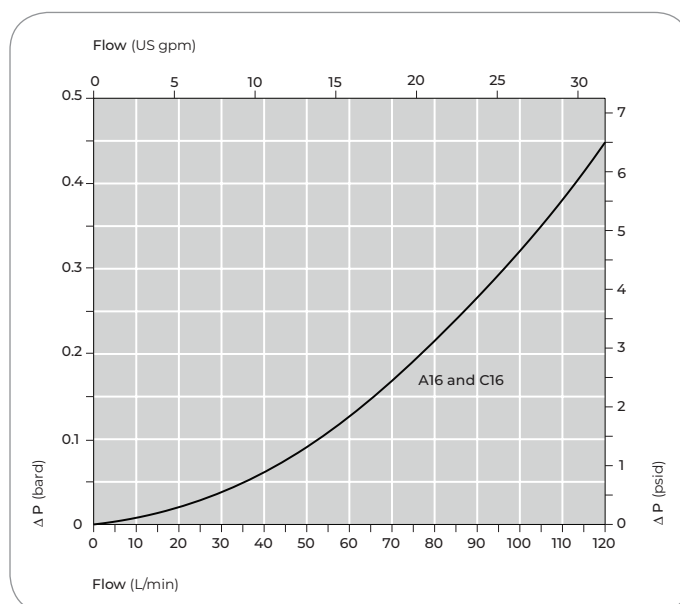


G310 series filter housing

## Pressure Drop Information

Housing pressure drop using fluid with 0.9 S.G.

Housing pressure drop is directly proportional to specific gravity.



## HCG300 Filter Elements – bard/1000 L/min (psid/US gpm)

Length Code	RN	RS	RD	RT
04	5.60 (0.31)	4.17 (0.23)	2.68 (0.15)	2.87 (0.16)

Multiply actual flow rate times factor in table above to determine pressure drop with fluid at 32 cSt (150 SUS), 0.9 S.G. Correct for other fluids by multiplying new viscosity in cSt/32 (SUS/150) x new S.G./0.9. Note: factors are per 1000 L/min and per 1 US gpm.

*Note: factors are per 1000 L/min and per 1 US gpm.*

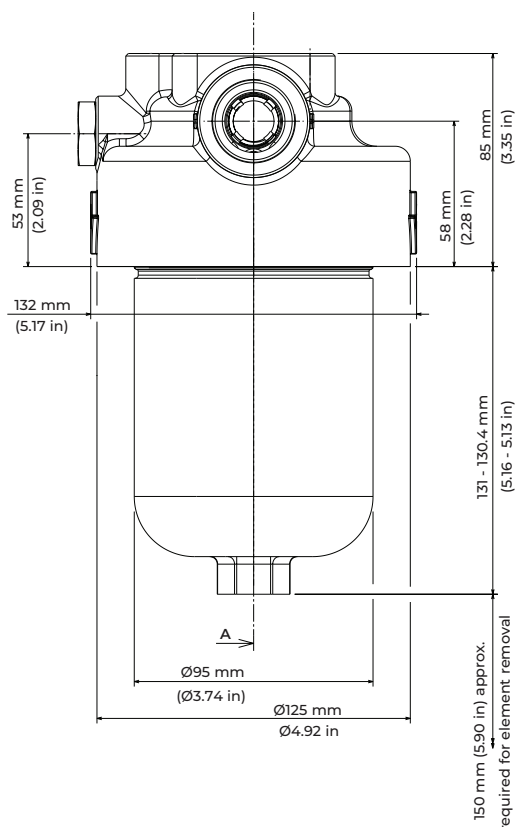
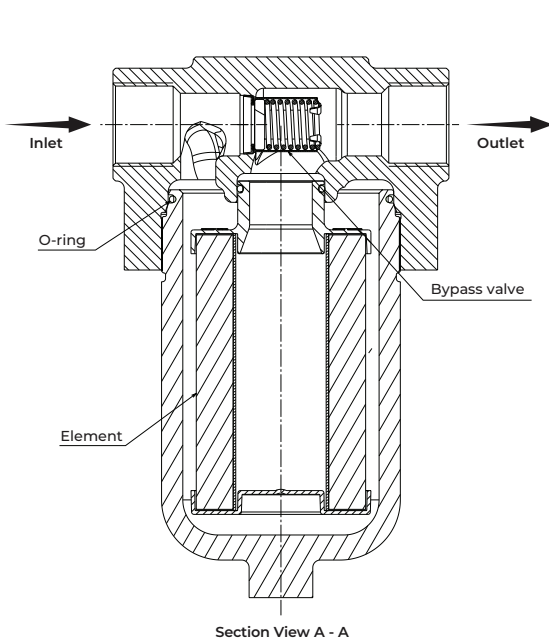
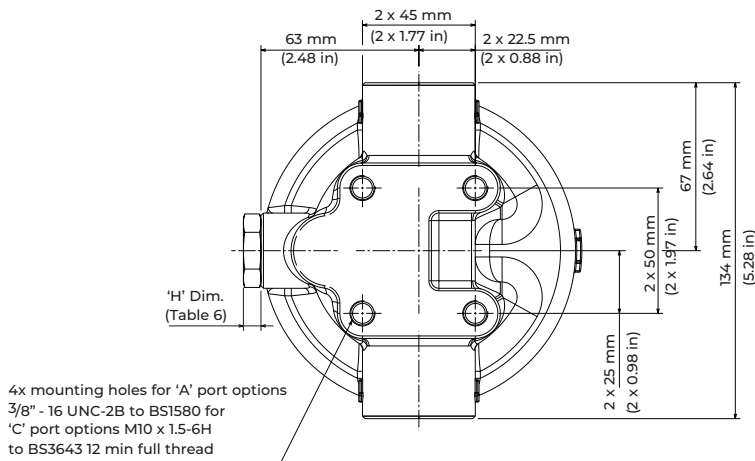
## Sample ΔP calculation

G310 Series 4" length housing with C16 ports using N grade media. Operating conditions 50 L/min flow rate using a hydraulic fluid at 45 cSt and specific gravity (s.g.) 1.2.

### Total Filter ΔP

$$\begin{aligned}
 &= \Delta P \text{ housing} + \Delta P \text{ element} \\
 &= (0.09 \times 1.2/0.9) \text{ bard (housing)} \\
 &+ ((50 \times 5.35/1000) \times 45/32 \times 1.2/0.9) \text{ bard (element)} \\
 &= 0.73 \text{ bard (housing)} + 0.46 \text{ bard (element)} \\
 &= \mathbf{0.12 \text{ bard (housing)} + 0.50 \text{ bard (element)}} \\
 &= \mathbf{0.62 \text{ bard (8.99 psid)}}
 \end{aligned}$$

## Dimensional Drawings



## Ordering Information

### Assembly P/N\*

HZG310A16RSRG1X160	HZG310C16RSRG1X160
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\* Other options available, contact factory

**Element P/N: HCG300F** 2 4Z

**Seal P/N: G300SKZ**

Table 1: Housing Port Style Options

Code	Port Style
A16	SAE J1926 straight thread
C16	BSP threads to ISO 228

Table 2: Filter Element Options

Code	$\beta_{x(c)} \geq 2000$ based on ISO 16889
RN	7
RS	12
RD	19
RT	22

Table 3: Differential Pressure Indicator Port Options

Code	Indicator
1	Machined port with plastic shipping plug Indicator must be installed prior to operation



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