

F410 Series

Versalon™ Medium Pressure Filters

Features

- Flows to 250 L/min (66 US gpm)
- Pressures to 70 bar (1015 psi)
- Port size 1¼" and 1½"
- Out-to-in filter element flow path

Notes and Specifications

Filter Housing

- **Maximum Allowable Working Pressure:**
70 bar (1015 psi)
- **Rated Fatigue Pressure:**
0 - 40 bar (580 psi) per NFPA T2.6.1 R2-2001 CAT C/90, verified by testing at 0 - 46.5 bar (675 psi)
- **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 Settings:**
'G' option – 4.5±0.5 barg (65±7 psid)
- **Indicator Pressure Settings:**
3.4±0.4 barg (50±6 psid) for 'G' option
- **Materials of Construction:**
Head: SG Iron
Bowl: Aluminium

Filter Element

- **Filter Element Collapse Pressure:**
10 barg (145 psid)
- **Filter Element Construction:** Inorganic fibers impregnated and bonded with specifically formulated resins. Polyamide endcaps. Corrosion protected carbon steel core.

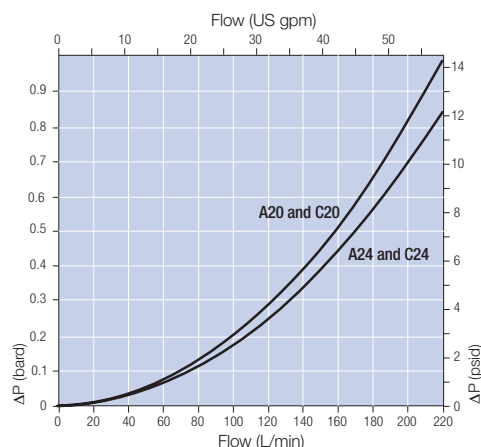


F410 Series filter housing

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 – barg/1000 L/min (psid/US gpm)

Length Code	CN	CS	KD	CT
10	2.42 (0.13)	1.8 (0.10)	1.13 (0.06)	1.24 (0.07)
13	1.91 (0.10)	1.42 (0.08)	0.85 (0.05)	0.98 (0.05)

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.

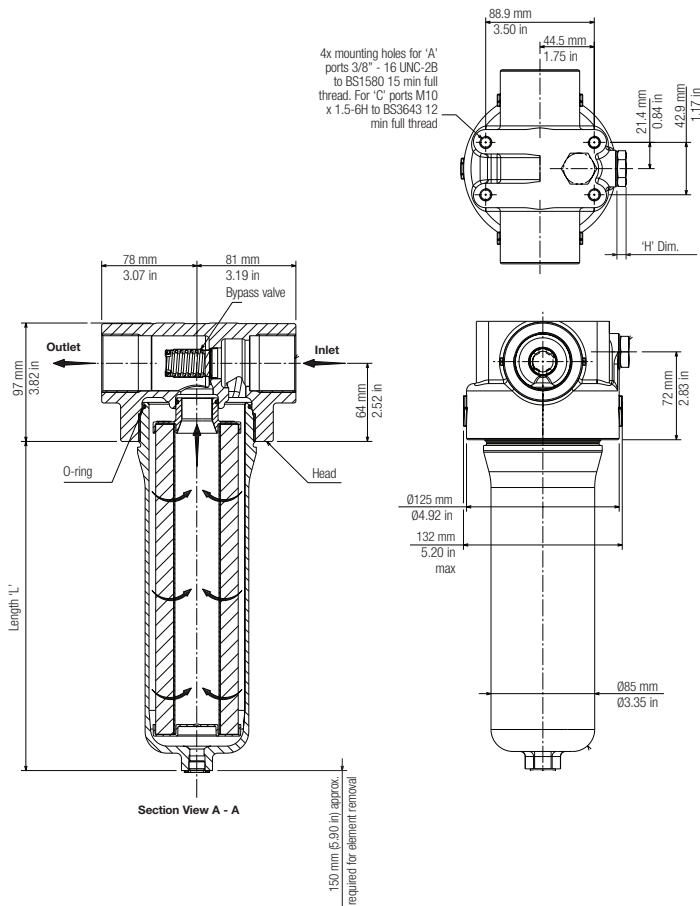
Sample ΔP calculation

F410 Series 10" length housing with C20 ports using KN grade media. Operating conditions 100 L/min flow rate using a hydraulic fluid at 20 cSt and specific gravity (s.g.) 1.2.

Total Filter ΔP

$$\begin{aligned}
 &= \Delta P_{\text{housing}} + \Delta P_{\text{element}} \\
 &= (0.21 \times 1.2/0.9) \text{ barg (housing)} \\
 &\quad + ((100 \times 2.2/1000) \times 20/32 \times 1.2/0.9) \text{ barg (element)} \\
 &= 0.28 \text{ barg (housing)} + 0.18 \text{ barg (element)} \\
 &= \mathbf{0.46 \text{ barg (6.67 psid)}}
 \end{aligned}$$

Dimensional Drawings



Ordering Information

Assembly P/N*:

HZF410A20CSKG1X160

HZF410A24CSTG1X160

HZF410C20CSKG1X160

HZF410C24CSTG1X160

* Other options available, contact factory

Element P/N: HCG300F   Z

Table 2 Table 3

Seal P/N: G300SKZ

Table 1: Housing Port & Size Options

Code	Port Size	Port Style Option
A20	1 1/4"	SAE J1926 straight thread
A24	1 1/2"	
C20	1 1/4"	BSP threads to ISO 228
C24	1 1/2"	

Table 2: Filter Element Options

Code	$\beta_{x(c)} \geq 1000$ based on ISO 16889
CN	7
CS	12
KD	19
CT	22

Table 3: Length Options

Housing Code	Element Code	Length (in)*
K	10	271 mm (10.67 in)
T	13	339 mm (13.35 in)

* Nominal length

Table 4: 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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