



*A more robust  
and reliable  
filter assembly*

## F7L Series Duplex Filters

*Medium Pressure Hydraulic Filter Assemblies*

### Features

- 2,400 psi (165 bar) Operating Pressure
- Flows to 100 gpm (378 lpm)
- SAE -24 Straight Thread or SAE 4-Bolt Flange Ports
- Available with  $\beta_{X(c)} \geq 1000$  Glas-Tech<sup>®</sup> Media
- Optional Visual & Electrical Indicators
- Self Locking Transfer Valve
- Automatic Bleed-Over Valve

### Product Description

The F7L Series duplex filter assemblies provide continuous filtration for critical applications and are rated for 2,400 psi (165 bar) service and flows to 100 gpm (378 lpm). The filters are available with either SAE -24 straight thread o-ring ports or SAE 4-bolt flanges. A variety of micron ratings and indicator options allow you to select the right filter for your application. F7L Series Filters use PTI's Glas-Tech Media with Beta 1,000 (ISO 16889) filtration ratings providing high performance cost effective contamination control for the most demanding applications.



# F7L Series Duplex Filters



## Technical Data

### Pressure & Temperature Rating:

Operating Pressure:	2,400 psi (165 bar)
Proof Pressure:	3,600 psi (248 bar)
Burst Pressure:	8,000 psi (551 bar)
Operating Temperature:	-40 °F to +250 °F (-40 °C to +121 °C)

### Materials of Construction:

Head:	Carbon Steel
Bowl - :	Carbon Steel

### Bypass Options:

Bypass Valve Setting:	100 psid (7.0 bar) ±10%
	Non-Bypass

### Differential Pressure Indicators:

Visual Indicator :	75 psid (5.2 bar) ±10% activation, manual reset
Visual & Electrical Indicator:	75 psid (5.2 bar) ±10% activation
	12 to 220 Volt AC/DC, 2.5 AMP, 60VA, 40W
	Contacts - SPST NO or NC, DIN Connector
Thermal Lockout Options:	Lockout below 70°F (21°C)
	Release above 95°F (35°C)

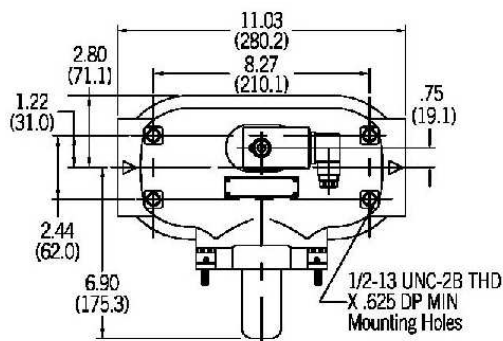
### Seal Material Options:

- Buna
- Viton

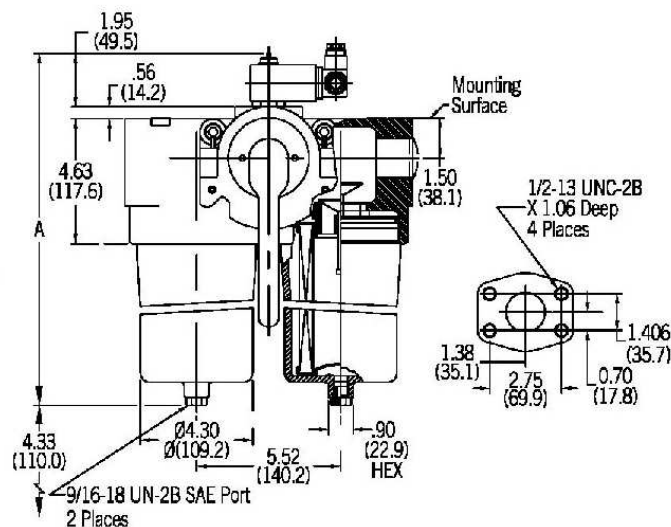
### Filter Assembly (Housing & Element) Weight:

Size	040	080	100
Weight	68 lbs (30.8 kg)	84 lbs (38.1 kg)	98 lbs (44.5 kg)

## Dimensions\*



Dimensions	-040	-080	-100
Nominal Flow	-040	-080	-100
Dimension A	12.8 in (325.1mm)	17.4 in (442.0mm)	22.0 in (558.0mm)



\* Dimensions in inches (mm)

# Elements

## Glas-Tech - High Performance Micro-Fiberglass Media

F7L filter assemblies incorporate PG series filter elements and are available in V, G, H, K and J medias. PG series elements use PTI's proven Glas-Tech micro-fiberglass media with a multi-layer construction for increased dirt-holding

capacity and low pressure drop providing cost-effective contamination control for the most demanding applications. PTI filters are tested to the latest industry standards including ISO 16889 procedure for multipass efficiency testing.

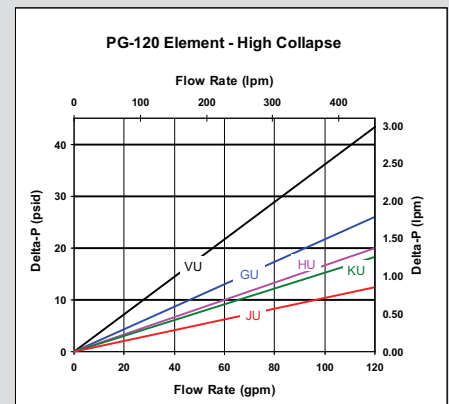
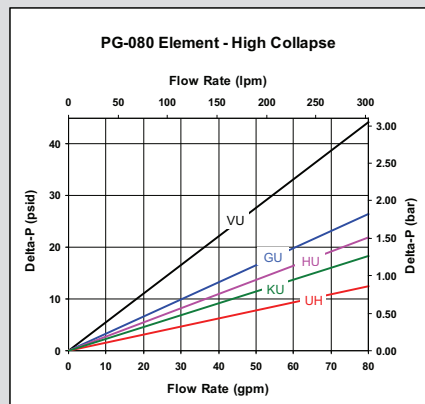
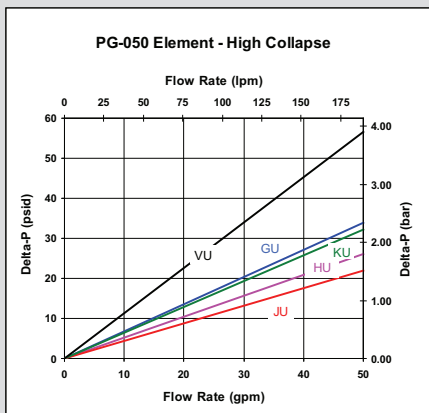
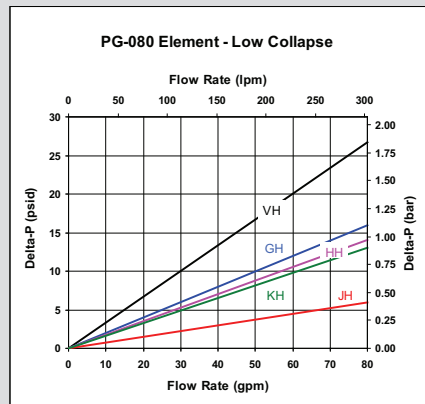
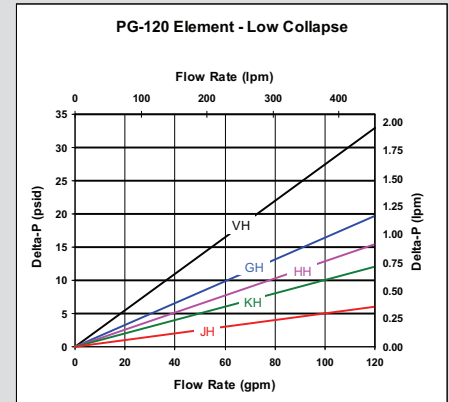
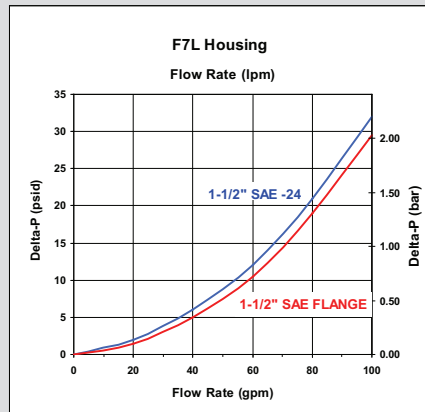
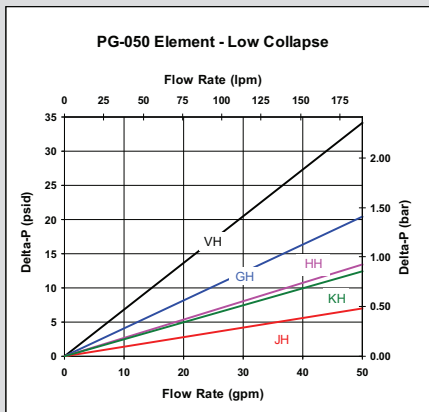
### Filtration Rating

Multipass Test results per old ISO 4572 and new ISO 16889 test procedures  
 Particle size (x) in microns at which the Beta Ratio (β) is greater than or equal to the indicated value (200 or 1000).

Media	Per ISO 45729	Per ISO 16889	
	$\beta_x \geq 200$	$\beta_{x(c)} \geq 200$	$\beta_{x(c)} \geq 1000$
V	1	4.2	4.2
G	3	5	7
H	6	7	9
K	12	12	15
J	23	21	24

## Flow Rate/Pressure Drop Curve

Pressure drop curves are for clean elements using 150 SUS (32 cSt) petroleum base hydraulic fluid of 0.9 S.G.  
 Filter Assembly ΔP = Housing ΔP + Element ΔP



# Ordering Information

## Assembly

F7L	XXX	X	X	-	X	X	X	X	X	X
TBL 1	TBL 2	TBL 3	TBL 4	TBL 5	TBL 6	TBL 7	TBL 8	TBL 9		

F7L Series Filters

Code	Nominal Flow
040	40 gpm (95 lpm)
080	80 gpm (302 lpm)
100	100 gpm (378 lpm)

Code	Micron Rating	Media
V	$\beta_{4.2(c)} \geq 1000$	Glas-Tech
G	$\beta_{7(c)} \geq 1000$	Glas-Tech
H	$\beta_{9(c)} \geq 1000$	Glas-Tech
K	$\beta_{15(c)} \geq 1000$	Glas-Tech
J	$\beta_{24(c)} \geq 1000$	Glas-Tech
N	No Filter Element	

Code	Collapse Rating
H	300 psid (20 bar)
U	3,000 psid (200 bar)

Code	Option
P	1-1/2" SAE (-24)
4	1-1/2" SAE Flange Code 61*

\* SAE J518

Code	Material
B	Buna
V	Viton

Code	Option
O	None
T*	Thermal Lockout - NO
U*	Normally Closed - NC

Code	Option
D	Visual 72 psid (5.0 bar) $\pm 10\%$ Manual Reset
M	Visual/Electrical 72 psid (5.0 bar) $\pm 10\%$
P	None (Blind Plug)

Code	Option
L	100 psid (7 bar) $\pm 10\%$
N	None

Code	Option
X	Vent & Drain Ports

\* Options only available for M code Indicator (See Table 7)

## Element

PG	-	XXX	-	X	X
TBL 1		TBL 2		TBL 3	

Code	Used On
050	F7F040
080	F7F080
120	F7F100

Code	Micron Rating	Media
V	$\beta_{4.2(c)} \geq 1000$	Glas-Tech
G	$\beta_{7(c)} \geq 1000$	Glas-Tech
H	$\beta_{9(c)} \geq 1000$	Glas-Tech
K	$\beta_{15(c)} \geq 1000$	Glas-Tech
J	$\beta_{24(c)} \geq 1000$	Glas-Tech

Code	Collapse Rating
H	300 psi (20 bar)
U	3,000 psi (200 bar)



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