



*A more robust
and reliable
filter assembly*

F5D Series In-Tank Filter Assemblies

For Hydraulic Applications

Features

- 150 psi (10 bar) operating pressure
- Element collapse rating of 75 psid (5 bar) & 150 psid (10 bar)
- 70, 100 & 150 gpm (265, 379 & 568 lpm) nominal flow rates
- NPT or SAE straight thread ports
- Elements available with Glas-Tech® $\beta_{x(c)} \geq 1000$ media
- Optional visual & electrical indicators
- 3 & 25 psid bypass options available

Technical Data

Pressure & Temperature Rating

Operating Pressure:	150 psi (10 bar)
Proof Pressure:	225 psi (16 bar)

Materials of Construction

Head:	Cast Aluminum
Bowl:	Zinc Plated Steel

Bypass Options

Bypass Valve Settings:	3 psi (0.2 bar) \pm 10%
	25 psi (1.7 bar) \pm 10%

Seal Material Options

Seal Material:	Buna
	Viton®

Product Description

The F5D In-Tank Series is suited for most hydraulic applications but extremely popular on mobile equipment where space is often critical. The F5D series also meets the AIAG Automotive Standard (Model 100 only) and utilizes the PTI interchange elements for the Schroeder "K" Series. These elements are available in Glas-Tech® $\beta_{x(c)} \geq 1000$ and stainless steel wire mesh media. The unique cover design provides for quick element replacement.

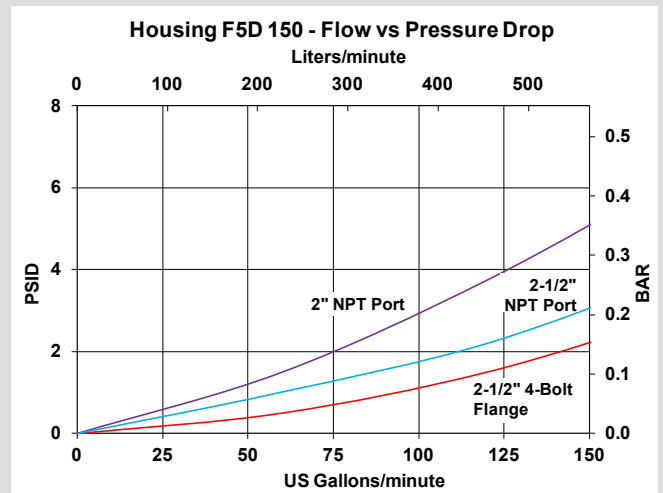
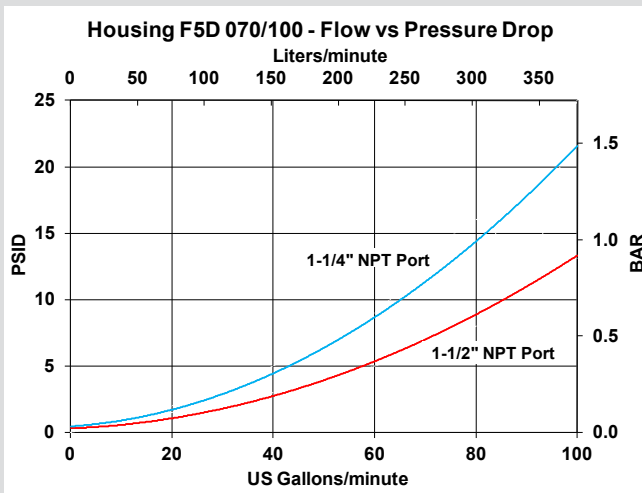
Elements

PTI filter elements are manufactured with the highest quality materials. PTI filter elements feature multi-layer construction for increased dirt-holding capacity and low pressure drop. PTI elements provide cost-effective contamination control for the most demanding applications. All elements 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).			
	Per ISO 4572	Per ISO 16889	
Code	$\beta_x \geq 200$	$\beta_{x(c)} \geq 200$	$\beta_{x(c)} \geq 1000$
G	3 μ m	5 μ m	7 μ m
H	6 μ m	7 μ m	9 μ m
K	12 μ m	12 μ m	15 μ m
J	23 μ m	21 μ m	24 μ m

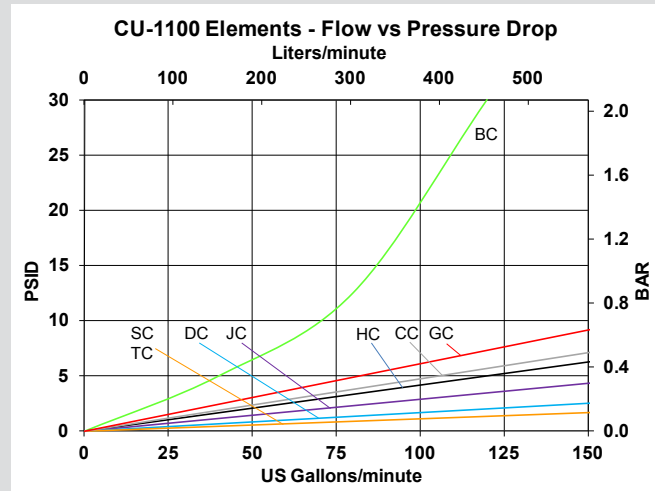
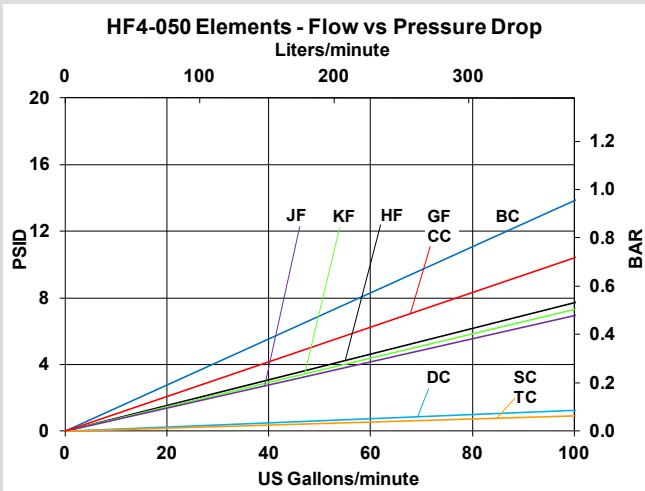
Code	Micron Rating	Media
B	3 μ m	Cellulose
C	10 μ m	Cellulose
D	25 μ m	Cellulose
R	238 μ m Nominal	CRES Wire Mesh
S	75 μ m Nominal	CRES Wire Mesh
T	149 μ m Nominal	CRES Wire Mesh

Flow Rate/Pressure Drop Curves



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

Flow Rate/Pressure Drop Curves

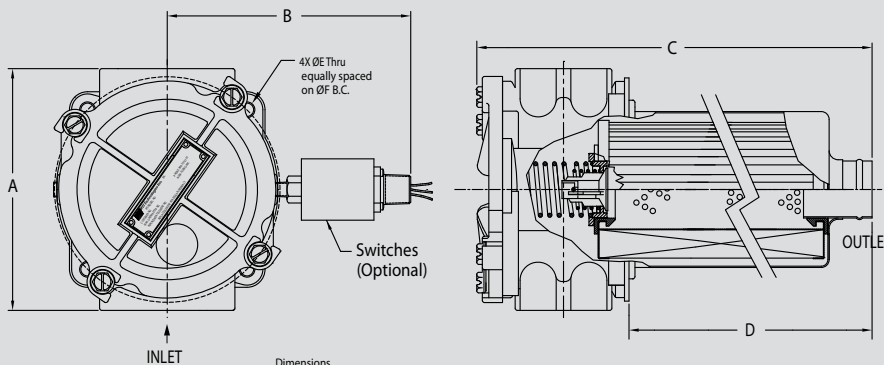


Note: The F5D-100 Housing requires two (2) each HF4-050 Filter Elements.
 Use one-half of the pressure drop values above when calculating total pressure drop for F5D-100 applications.

Pressure drop curves are for clean elements using 150 SUS (32 cSt) petroleum base hydraulic fluid of 0.9 S.G.
 Filter Assembly $\Delta P = \text{Housing } \Delta P + \text{Element } \Delta P$

Dimensions*

* Dimensions in inches (mm)



Dimensions	-070	-100	-150
Nominal Flow	-070	-100	-150
Dimension A	6.70 (170)	6.70 (170)	8.74 (222)
Dimension B	6.80 (173)	6.80 (173)	6.85 (174)
Dimension C	15.47 (393)	23.40 (594)	21.90 (556)
Dimension D	11.30 (288)	19.30 (490)	16.30 (414)
Dimension E	0.44 (11)	0.44 (11)	0.41 (10)
Dimension F	6.25 (159)	6.25 (159)	8.68 (220)

Ordering Information

Assembly:

F5D	XXX	XX	-	X	X	-	X	X	X	X	X
TBL 1	TBL 2	TBL 3	TBL 4	TBL 5	TBL 6	TBL 7	TBL 8				

Table 1 Size

Code	Nominal Flow
070	70 gpm (265 lpm)
100	100 gpm (379 lpm)
150	150 gpm (568 lpm)

Table 4 Ports

Code	Port Style
F*	1-1/4" NPT
N*	1-5/8"-12 SAE
G*	1-1/2" NPT
P*	1-17/8" x 12 SAE
4*	1-1/2" SAE 4-Bolt Flange
H**	2" NPT
S**	2-1/2" SAE 4-Bolt Flange

* Model F5D - 070 & F5D - 100 only
 ** Model F5D - 150 only

Table 2 Filtration /Collapse Rating

Code	Micron Rating	Media	Collapse Rating
BC ¹	3 µm	Cellulose	75 psid
CC ¹	10 µm	Cellulose	75 psid
DC ¹	25 µm	Cellulose	75 psid
GC ²	$\beta_{7(c)} \geq 1000$	Glas-Tech	75 psid
HC ²	$\beta_{9(c)} \geq 1000$	Glas-Tech	75 psid
KC ²	$\beta_{15(c)} \geq 1000$	Glas-Tech	75 psid
JC ²	$\beta_{24(c)} \geq 1000$	Glas-Tech	150 psid
TC ²	149 µm	CRES	75 psid
GF ³	$\beta_{7(c)} \geq 1000$	Glas-Tech	150 psid
HF ³	$\beta_{9(c)} \geq 1000$	Glas-Tech	150 psid
KF ³	$\beta_{15(c)} \geq 1000$	Glas-Tech	150 psid
JF ³	$\beta_{24(c)} \geq 1000$	Glas-Tech	150 psid
N	No Filter Element		

1 Available for all models
 2 Available only for F5D 150
 3 Available only for F5D 070 & 100

Table 3 Seals

Code	Material
B	Buna
V*	Viton®
N	No Filter Element

* Glas-Tech & wire mesh elements only
 Viton® is a registered trademark of DuPont Performance Elastomers

Table 5 Gauge Options

Code	Type
5	Pressure Gauge (Color Coded Dial)
6	Electric Pressure Switch
7	Gauge & Switch
P	None (Plugged)

Table 6 Gauge Ports

Code	Type
2	2 each 1/8" NPT Inlet Side
4*	2 each 1/4" NPT Inlet Side

* On Model F5D - 150 only

Table 7 Bypass

Code	Option
F	25 psid (1.7 bar) ±10

Table 8 Options

Code	Option
N	None

Element: Model 070 & 100

HF4-	050	-	XX	-	X	-	X
TBL 1	TBL 2	TBL 3					

Note: Model F5D 070 requires one (1) HF4-050 element.

Model F5D 100 requires two (2) HF4-050 Elements.

Table 2 Seals

Code	Material
B	Buna
V*	Viton®

* Glas-Tech elements only
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Table 1 Filtration /Collapse Rating

Code	Micron Rating	Collapse Rating
BC	3 µm Cellulose	75 psid
CC	10 µm Cellulose	75 psid
DC	25 µm Cellulose	75 psid
GF	$\beta_{7(c)} \geq 1000$ Glas-Tech	150 psid
HF	$\beta_{9(c)} \geq 1000$ Glas-Tech	150 psid
KF	$\beta_{15(c)} \geq 1000$ Glas-Tech	150 psid
JF	$\beta_{24(c)} \geq 1000$ Glas-Tech	150 psid
SF	74 µm CRES	150 psid
TF	149 µm CRES	150 psid

Table 3 Options

Code	Options
Omit	Standard Element
W	DryPak™ Configuration

Element: Model 150

CU-	1100	-	XX
TBL 1			

Table 1 Filtration /Collapse Rating

Code	Micron Rating	Collapse Rating
BC	3 µm Cellulose	75 psid
CC	10 µm Cellulose	75 psid
DC	25 µm Cellulose	75 psid
GC	$\beta_{7(c)} \geq 1000$ Glas-Tech	75 psid
HC	$\beta_{9(c)} \geq 1000$ Glas-Tech	75 psid
KC	$\beta_{15(c)} \geq 1000$ Glas-Tech	75 psid
JC	$\beta_{24(c)} \geq 1000$ Glas-Tech	75 psid
SC	74 µm CRES	75 psid
TC	149 µm CRES	75 psid
RC	238 µm CRES	75 psid