

AFV Series Filters

AFV03/07/10/15

Athalon® Multi-Element Fabricated Vessels
Port Size 3", 4", 6" and 8"

Athalon® maximum-life filters deliver the highest level of sustained fluid system protection, across all applications, regardless of severity.

Featuring an industry leading $\text{Beta}_{X(C)} \geq 2000^*$ filter efficiency; the highest rated filter performance available today.
(* per ISO 16889)

Notes and Specifications Filter Housing

- Flows to:
1500 L/min (400 US gpm), AFV03 Series
2500 L/min (660 US gpm), AFV07 Series
3500 L/min (925 US gpm), AFV10 Series
5000 L/min (1320 US gpm), AFV15 Series
- Port size 3", 4", 6" and 8"
- **Working Pressure Design:**
15 bar (217 psi).
- **Fluid Compatibility:**
Compatible with all petroleum oils, water glycols, water-oil emulsions and most synthetic hydraulic and lubrication fluids
- **Temperature Range:**
Nitrile Seals -43°C to 80°C
(-45°F to 175°F)
- **Materials of Construction:**
Carbon steel housing, nozzles and flanges
Carbon steel transfer valve body with S/S valve ball
- **Finish:**
Interior finish: grit blast then coated with rust preventative
Exterior finish: grit blast then coated with primer and paint

Filter Element

- **Filter Element Burst Pressure:**
10 bard (150 psid)
- **Athalon Element Construction:**
Inorganic fibers impregnated and bonded with epoxy resins.
Polymer endcaps. Anti-static media design



Element Pressure Drop

Multiply actual flow rate times factor in table below 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.

310 Series Filter Elements – bard/1000 L/min (psid/US gpm)

Length Code	AZ	AP	AN	AS	AT
40	1.10 (0.060)	0.46 (0.025)	0.36 (0.020)	0.26 (0.014)	0.16 (0.009)

Sample ΔP calculation

AFV03 Duplex Series with 4" split flange ports using AS grade media. Operating conditions 500 L/min flow rate using a lubrication fluid of 100 cSt and specific gravity (s.g.) 0.88.

Total Filter ΔP

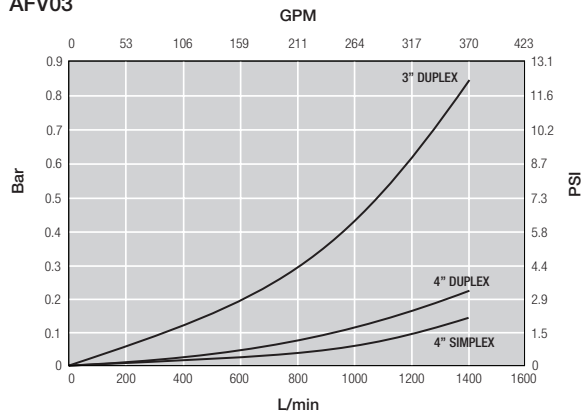
$$\begin{aligned}
 &100 \text{ cSt, S.G. of } 0.88. \\
 &= (0.04 \times 0.88/0.9) \text{ bard (housing)} \\
 &\quad (500/3 \times 0.26/1000 \times 100/32 \times 0.88/0.9) \text{ bard (element)} \\
 &= \mathbf{0.17 \text{ bard (2.47 psid)}}
 \end{aligned}$$

Pressure Drop Information

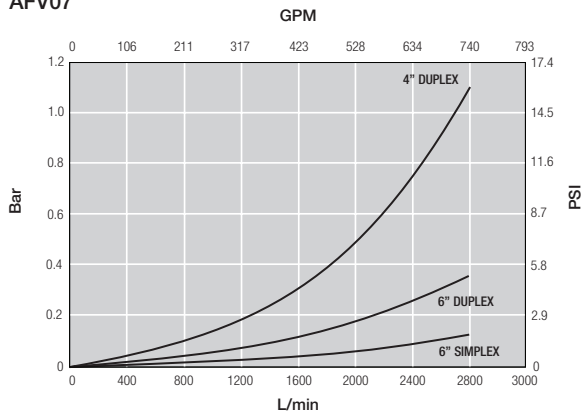
Housing pressure drop using fluid with 0.9 S.G.

Housing pressure drop is directly proportional to specific gravity.

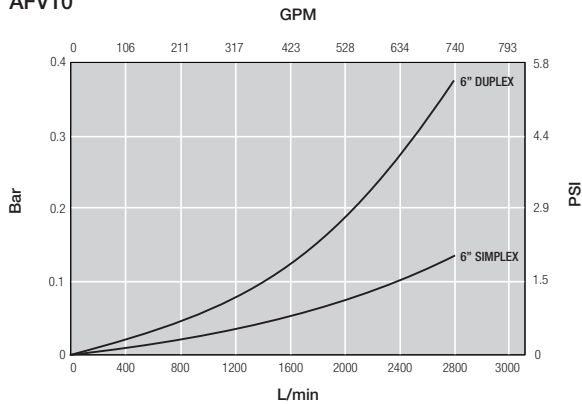
AFV03



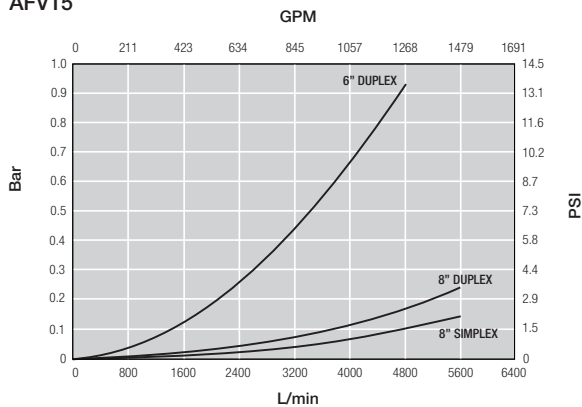
AFV07



AFV10



AFV15



Fabricated Vessels are designed and manufactured in compliance with ASME and PED requirements. Consult Pall for any further information.

Ordering Information

For new installations, select one complete part number from each section below

Section 1

Housing P/N: AFV H
 Table 1 Table 2 Table 3

Note: Pall Athalon filter housings are supplied without filter elements or warning devices fitted. Never operate the filter unless a filter element is fitted and all warning device ports are sealed.

Table 1

Code	Description
03TJ04	3 element Simplex with 4" ANSI class 150# flanges
03DJ03	3 element Duplex with 3" ANSI class 150# flanges
03DJ04	3 element Duplex with 4" ANSI class 150# flanges
07TJ06	7 element Simplex with 6" ANSI class 150# flanges
07DJ04	7 element Duplex with 4" ANSI class 150# flanges
07DJ06	7 element Duplex with 6" ANSI class 150# flanges
10TJ06	10 element Simplex with 6" ANSI class 150# flanges
10DJ06	10 element Duplex with 6" ANSI class 150# flanges
15TJ08	15 element Simplex with 8" ANSI class 150# flanges
15DJ06	15 element Duplex with 6" ANSI class 150# flanges
15DJ08	15 element Duplex with 8" ANSI class 150# flanges

Table 2

Code	Internal Bypass Valve
B	3.4 barg - 50 psid
N	Without Bypass Valve

Table 3

Code	Design Code
CN	GB150
CE	Conforms to EU Pressure Directive
AS	ASME, Code VIII Stamp

Section 2

Element P/N: UE 310 40
 Table 1 Table 2

Note: Z indicates fluorocarbon seals are standard. Other options are available; contact Pall.

Table 1

Code	$\beta_{x(c)} \geq 2000$ based on ISO 16889	CST Rating*
AZ	3	07/04/01
AP	5	11/08/03
AN	7	13/09/04
AS	12	15/11/06
AT	22	16/14/08

* CST: Cyclic Stabilization Test to determine filter rating under stress conditions, based on SAE ARP4205

Table 2

Code	Seal Option
H	Nitrile
Z	Fluorocarbon

Section 3

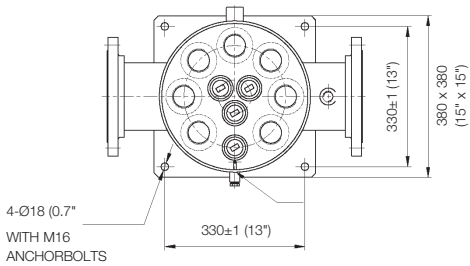
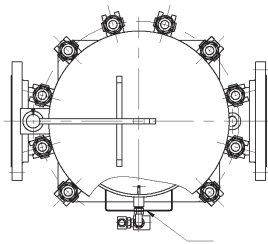
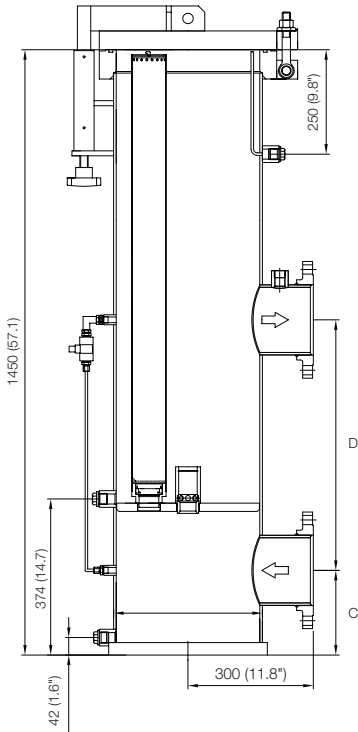
Differential Pressure Indicator

All Pall standard visual indicators or electrical switches can be fitted on these vessels. Contact Pall for any further information.

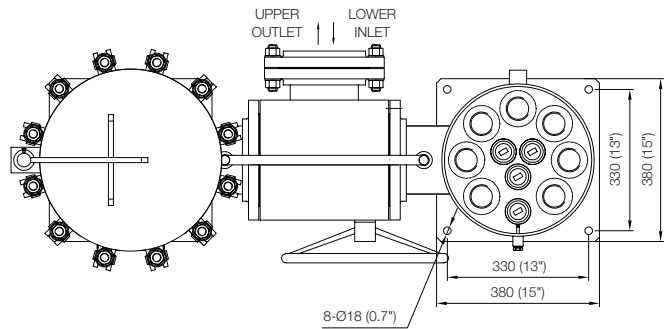
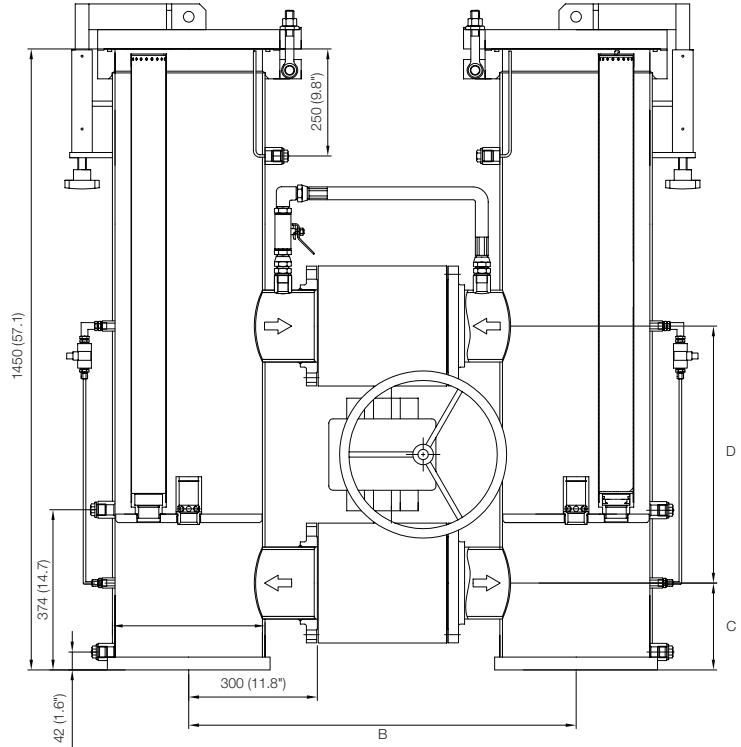
Dimensional Drawings

Dimensions in mm (inches)

AFV07 SIMPLEX ASSEMBLY



AFV07 DUPLEX ASSEMBLY



The equipment has been assessed in accordance with the guidelines laid down in The European Pressure Directive 97/23/EC and has been classified within Sound Engineering Practice S.E.P. Suitable for use with Group 1 and 2 fluids only. Consult Sales for other fluid gas group suitability.

Technical Information

AFV03/05/07/10/15 series Filters

AFV03 Series

	'Nozzle Size	'A' Simplex	'B' Duplex	'C'	'D'	'E'	'F'	'G'
mm	DIN 75	-	644	203	290	273	175	1200
in	3	-	25.4	8.0	11.4	10.7	6.9	47.2
mm	DIN 100	254	664	203	350	273	185	1200
in	4	10.0	26.1	8.0	13.8	10.7	7.3	47.2

AFV07 Series

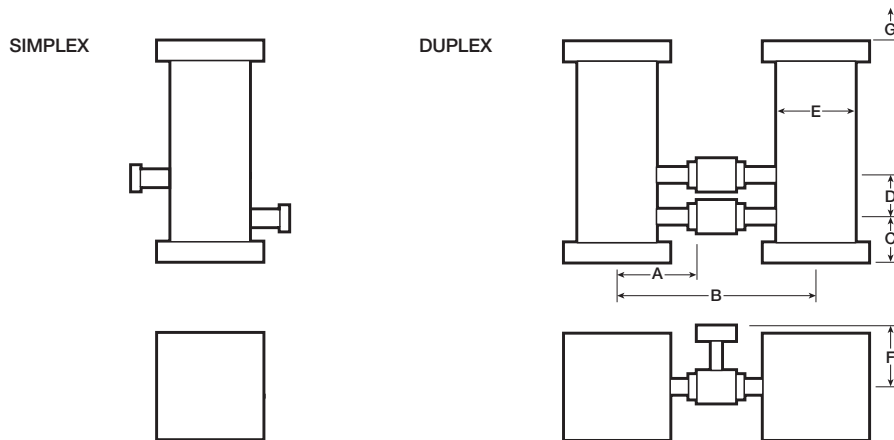
	'Nozzle Size	'A' Simplex	'B' Duplex	'C'	'D'	'E'	'F'	'G'
mm	DIN 100	-	756	203	350	356	185	1200
in	4	-	29.8	8.0	13.8	14.0	7.3	47.2
mm	DIN 150	300	906	203	600	356	215	1200
in	6	11.8	35.7	8.0	23.6	14.0	8.5	47.2

AFV10 Series

	'Nozzle Size	'A' Simplex	'B' Duplex	'C'	'D'	'E'	'F'	'G'
mm	DIN 150	357	1020	203	203	406	215	1200
in	6	14.1	40.2	8.0	8.0	16.0	8.5	47.2

AFV15 Series

	'Nozzle Size	'A' Simplex	'B' Duplex	'C'	'D'	'E'	'F'	'G'
mm	DIN 150	-	1206	250	600	508	215	1200
in	6	-	47.5	9.8	23.6	20.0	8.5	47.2
mm	DIN 200	450	1576	250	860	508	335	1200
in	8	17.7	62.0	9.8	33.9	20.0	13.2	47.2



Pall Corporation

Pall Machinery and Equipment

25 Harbor Park Drive
 Port Washington, NY 11050
 +1 516 484 3600 telephone
 +1 800 289 7255 toll free US


Portsmouth - UK
 +44 (0)23 9233 8000 telephone
 +44 (0)23 9233 8811 fax
www.pall.com/contact

Filtration. Separation. Solution.SM

Visit us on the Web at www.pall.com

Pall Corporation has offices and plants throughout the world. For Pall representatives in your area, please go to www.pall.com/contact

Because of technological developments related to the products, systems, and/or services described herein, the data and procedures are subject to change without notice. Please consult your Pall representative or visit www.pall.com to verify that this information remains valid.

© Copyright 2018, Pall Corporation. Pall, , and Athalon are trademarks of Pall Corporation. © Indicates a trademark registered in the USA. Better Lives. Better Planet. and Filtration. Separation. Solution.SM are service marks of Pall Corporation.

