

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

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

(\* per ISO 16889)

### Notes and Specifications Filter Housing

- Flows to 1140 L/min (300 US gpm)
- Pressures to 10 bar (145 psi)
- Inlet Port Size: 2½" and 3"  
Outlet Port Size: 3" (all options)
- **Rated Fatigue Pressure:**  
0 - 10 bar (145 psi) per NFPA T2.06.01R2-2001 CAT C/90/\*, verified by testing at 0 - 12 bar (174 psi) for ¼ million cycles.
- **Filter Element Burst Pressure:**  
10 bard (150 psid)
- **Fluid Compatibility:**  
Compatible with all petroleum oils and most water glycols, water-oil emulsions, and synthetic hydraulic and lubrication fluids
- **Temperature Range:**  
Fluorocarbon Seals:  
-29 °C to 120 °C (-20 °F to 248 °F)  
60 °C (140 °F) maximum in HWCF or water glycol fluids
- **Bypass Valve Setting:**  
3.4 bard (50 psid)  
1.7 bard (25 psid)

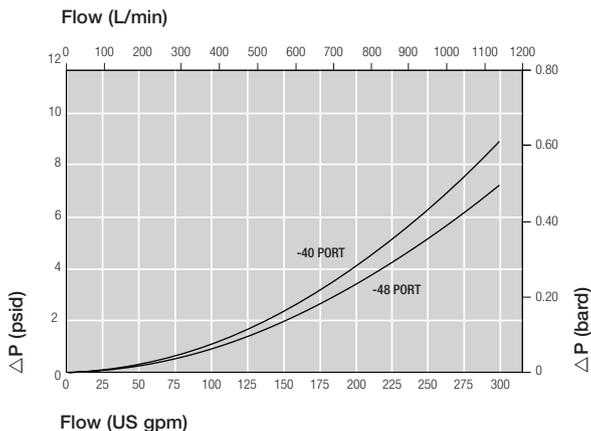
Available with or without anti-backflow valve

- **Indicator Pressure Setting:**  
2.5 Bard (36 psid)  
1.1 bard (16 psid)
- **Materials of Construction:**  
Head, cover and tube: Aluminium
- **Filter Element :**  
Inorganic fibers impregnated and bonded with epoxy resins.  
Polymer endcaps. Anti-static media design

### Pressure Drop Information

**Housing pressure drop using fluid with 0.9 S.G.**

Housing pressure drop is directly proportional to specific gravity.

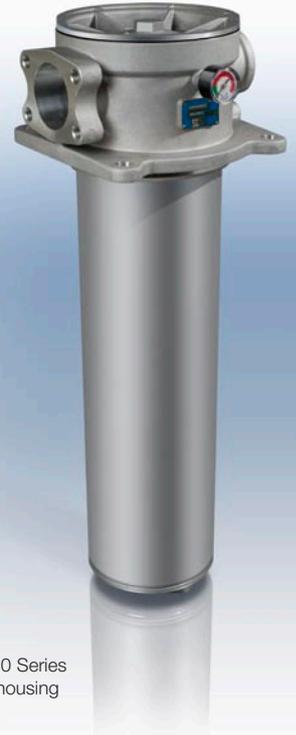


## New: UT610 Series Athalon™ Tank Mounted Filters

- Keeps fluids the cleanest, longest, for the greatest value
- Provides consistent, reliable, protection of system components over the full service life of the filter element
- Rapidly achieves and sustains required fluid system cleanliness
- Delivers maximum filter capacity in the smallest footprint
- Prevents electrostatic discharge from damaging your filter and degrading your fluid

### Features

- Patented Ultipleat (laid-over pleat) filter medium pack
- Pall Stress-Resistant Technology (SRT) Media
- Coreless filter element configuration
- Low clean differential pressure for low energy operation



### Element Pressure Drop

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

Length Code	AZ	AP	AN	AS	AT
20	1.31 (0.072)	0.56 (0.030)	0.43 (0.023)	0.31 (0.017)	0.19 (0.011)
40	0.70 (0.038)	0.30 (0.016)	0.23 (0.013)	0.17 (0.009)	0.10 (0.006)

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

### Sample ΔP calculation

UT610 Series 20" length housing with F40 (2½" split flange) ports using AN grade media. Operating conditions 600 L/min flow rate using a hydraulic fluid of 50 cSt and specific gravity (s.g.) 1.2.

#### Total Filter ΔP

$$\begin{aligned}
 &= \Delta P_{\text{housing}} + \Delta P_{\text{element}} \\
 &= (0.18 \times 1.2/0.9) \text{ bard (housing)} \\
 &+ ((600 \times 0.23/1000) \times 50/32 \times 1.2/0.9) \text{ bard (element)} \\
 &= 0.24 \text{ (housing)} + 0.29 \text{ bard (element)} \\
 &= \mathbf{0.53 \text{ bard (7.7 psid)}}
 \end{aligned}$$

## Ordering Information

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

### Section 1 Housing P/N: UT610

Table A Table 4

**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.

**Note:** Z indicates fluorocarbon seals are standard. Other options are available; contact Pall. Housing P/N designates indicator port fitted with a plastic shipping plug.

Table A

#### Port & Length Options

#### Tables 1, 2 and 3

D4020Z

D4040Z

D4840Z

F4020Z

F4040Z

F4840Z

Table 1: Housing Port Options

Code	Port Style
D	Flange J518C code 61
F	ISO 6162 split flange

Table 2: Inlet Port Style

Code	Inlet Port Style
40	2½" nominal
48	3" nominal

Table 3: Housing Length and Seal Options

Code	Length and Seal Material
20Z	20" nominal length, fluorocarbon seals
40Z	40" nominal length, fluorocarbon seals

Table 4: Bypass Valve

Code	Bypass Valve and Service Type
A	1.7 bard (25 psid) bypass valve, cover service
B	3.4 bard (50 psid) bypass valve, cover service
8	1.7 bard (25 psid) bypass with anti-backflow valve
9	3.4 bard (50 psid) bypass with anti-backflow valve

### Seal Kit P/N: ST610SKZ

\*Other seal material options are available; Contact Pall.

### Section 2 Element P/N: UE 610

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

Table 5 Table 3

Table 5: Filter Element Options

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	25	16/14/08

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

## Section 3

### Differential Pressure Indicator P/N:

Table 6: Gauge / Switch Options

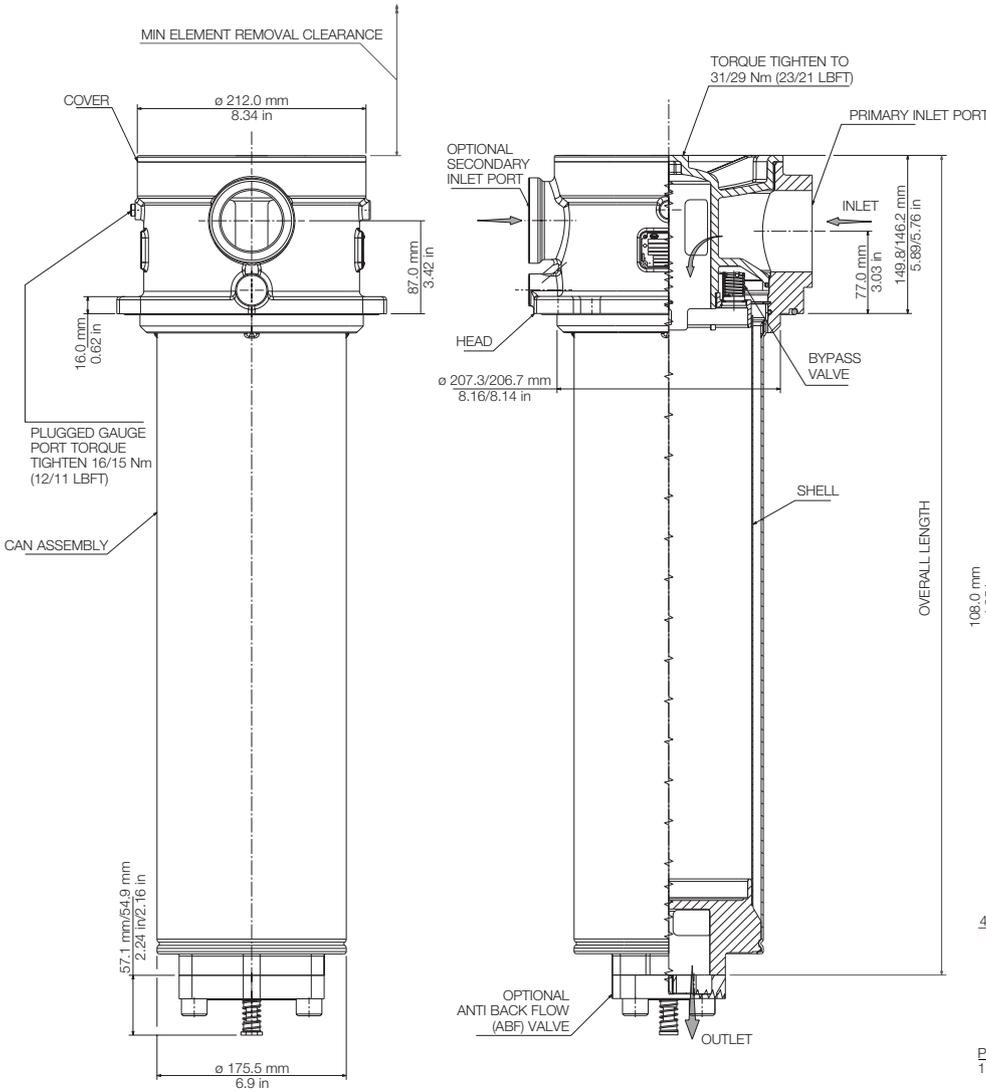
Part No.	Rating	Indicator
1373772	-	'B' option 1/8" blanking plug
9004D370-11	0 -10 bard (150 psid)	'A' type pressure Gauge
9004D370- 34	0 -10 bard (150 psid)	'G' type Pressure Gauge
HCA132-11	1.1 bard (16 psid)	Electrical absolute pressure switch 24VDC
HCA132-24	2.4 bard (35 psid)	Electrical absolute pressure switch 220VDC with Hirschmann connector
HC0618-11	1.1 bard (16 psid)	Electrical absolute pressure switch 220VAC with 3 (15") flying leads
HC0618-24	2.4 bard (35 psid)	
HC0380-11	1.1 bard (16 psid)	
HC0380-24	2.4 bard (35 psid)	

**Note:** Use 1.1 bar rating for A and 8 valve options  
Use 2.4 bar rating for B and 9 valve options

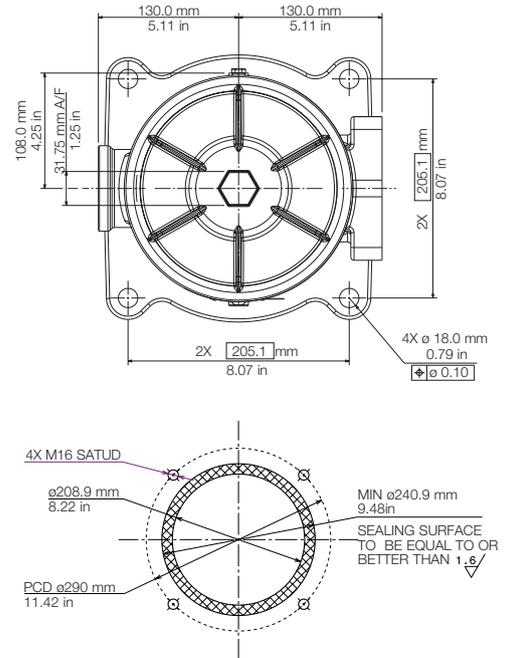
# Dimensional Drawings

Dimensions in mm (inches)

Length Code	Overall length mm (in)	Cover Service Element Removal Clearance mm (in)	Empty Weight kg (lb)
20	767.1 (30.20)	548 (21.57)	13.6 (30)
40	1275.1 (50.20)	1056 (41.57)	15.1 (33.3)



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.



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