



Pall Corporation

UFV03/05/10

UFV Series Filters

ULTIPLEAT® SRT MULTI-ELEMENT FABRICATED VESSELS

Port Size 4", 6" and 8"



Features

- Patented laid-over pleat filter medium pack
- Coreless, cageless element configuration
- Pall Stress-Resistant Technology (SRT) Media
- In-to-out filter element flow path
- Flows to:
1500 L/min (400 Usgpm), UFV03 Series
2500 L/min (650 Usgpm), UFV05 Series
4500 L/min (1200 Usgpm), UFV10 Series
- Port size 4", 6" and 8"

Notes and Specifications

Filter Housing

- **Maximum Allowable Working Pressure Limits:**

0-10 bar (0-145 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)

Fluorocarbon Seals -29°C to 80°C
(-20°F to 175°F), 60°C (140°F) maximum in HWCF or water-glycol fluids

- **Materials of Construction:**

Carbon steel housing, nozzles and flanges
Carbon steel transfer valve body with S/S valve ball or S/S butterfly disc on 'D' duplex model

- **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)

- **Ultipleat SRT Element Construction:**

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.

| | Flowrate | | DP vessel | |
|-------|----------|---------|-----------|--------|
| | (L/min) | (Usgpm) | (mbard) | (psid) |
| UFV03 | 500 | 130 | 12 | 0.17 |
| | 1000 | 260 | 45 | 0.65 |
| | 1500 | 400 | 100 | 1.45 |
| UFV05 | 500 | 130 | 3 | 0.04 |
| | 1500 | 400 | 26 | 0.38 |
| | 2000 | 530 | 45 | 0.65 |
| UFV10 | 2500 | 660 | 70 | 1.01 |
| | 1000 | 260 | 4 | 0.06 |
| | 2000 | 530 | 14 | 0.20 |
| | 3000 | 790 | 30 | 0.43 |
| | 4500 | 1190 | 67 | 0.97 |

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.

319 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

UFV03 series with 4" split flange ports using AS grade media. Operating conditions 500 L/min flow rate using a lubrication fluid of 150 cSt and specific gravity (s.g.) 1.2.

Total Filter ΔP

= ΔP housing + ΔP element

= (0.012 x 1.2/0.9) bard (housing) + (500/3 x 0.26/1000) x (150/32 x 1.2/0.9) bard (element)

= 0.016 bard (housing) + 0.271 bard (element)

= 0.287 bard (4.2 psid)

UFV03/05/10 Series Filters

Ordering Information

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

Section 1

Housing P/N:

Note: Pall Ultipleat SRT 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: Number of Elements

| Code | Number of Elements |
|------|--------------------|
| 03 | 3 |
| 05 | 5 |
| 10 | 10 |

Table 2: Housing Assembly

| Code | Assembly |
|------|----------|
| S | Simplex |
| D | Duplex |

Table 3: Changeover Valves*

| Code | Changeover Valves |
|------|-------------------|
| W | Butterfly Valve |
| T | Ball Valve |

* Use only if duplex assembly is selected

Table 4: By-Pass Valve

| Code | By-Pass Valve |
|------|--------------------|
| G | 4.5 bard - 65 psid |
| B | 3.4 bard - 49 psid |
| N | Without |

UFV Table 1 Table 2 Table 3 Table 4 JO Table 5 Table 6 Table 7

Table 5: Flange Connection

| Code | Size | Rating |
|------|---------------------------|--------------|
| 4 | 4" ANSI class 150 flanges | UFV03 series |
| 6 | 6" ANSI class 150 flanges | UFV05 series |
| 8 | 8" ANSI class 150 flanges | UFV10 series |

Table 6: Seal Options

| Code | Seal Options |
|------|--------------|
| Z | Fluorocarbon |
| H | Nitrile |

Table 7: Pall Name Plate and Label Instruction Language Options*

| Code | Language |
|------|------------|
| EN | English |
| GR | German |
| FR | French |
| IT | Italian |
| SP | Spanish |
| DA | Danish |
| SW | Swedish |
| FI | Finnish |
| DU | Dutch |
| PO | Portuguese |

* Use only if duplex assembly is selected

Section 2

Element P/N:

UE 319 Table 1 40 Z

Table 1: Filter Element Options

| Code | $\beta_{x(c)} \geq 1000$ based on ISO 16889 | CST Rating* |
|------|--|-------------|
| AZ | 3 | 08/04/01 |
| AP | 5 | 12/07/02 |
| AN | 7 | 15/11/04 |
| AS | 12 | 16/13/04 |
| AT | 22 | 17/15/08 |

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

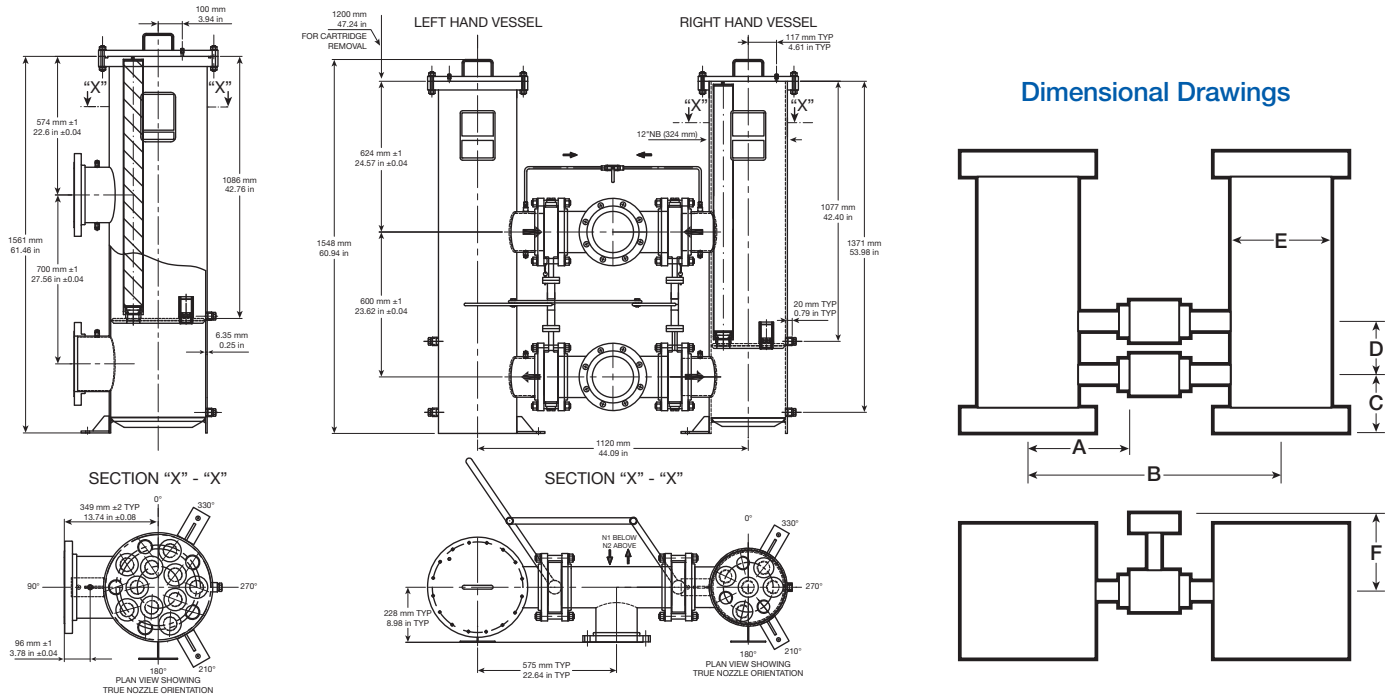
Note: Z indicates fluorocarbon seals are standard. Other options are available; contact Pall.

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.

UFV10 Simplex Assembly UFV05 Duplex Assembly with Butterfly Valve



UFV03 Series (J04 port option)

| | 'A' Simplex only | 'B' Duplex only - W valve | 'B' Duplex only - T valve | 'C' | 'D' | 'E' | 'F' Duplex only - W valve | 'F' Duplex only - T valve | 'G' |
|----|------------------|---------------------------|---------------------------|------|-------|-------|---------------------------|---------------------------|-------|
| mm | 245 | 947 | 643 | 190 | 500 | 273 | 178 | 185 | 1387 |
| in | 9.65 | 37.28 | 25.31 | 7.48 | 19.69 | 10.75 | 7.01 | 7.28 | 54.61 |

UFV05 series (J06 port option)

| | 'A' Simplex only | 'B' Duplex only - W valve | 'B' Duplex only - T valve | 'C' | 'D' | 'E' | 'F' Duplex only - W valve | 'F' Duplex only - T valve | 'G' |
|----|------------------|---------------------------|---------------------------|------|-------|-------|---------------------------|---------------------------|------|
| mm | 261 | 1120 | 855 | 234 | 600 | 324 | 228 | 216 | 1458 |
| in | 10.28 | 44.09 | 33.66 | 9.21 | 23.62 | 12.76 | 8.98 | 8.50 | 57.4 |

UFV10 series (J08 port option)

| | 'A' Simplex only | 'B' Duplex only - W valve | 'B' Duplex only - T valve | 'C' | 'D' | 'E' | 'F' Duplex only - W valve | 'F' Duplex only - T valve | 'G' |
|----|------------------|---------------------------|---------------------------|------|-------|-------|---------------------------|---------------------------|-------|
| mm | 349 | 1378 | 1371 | 287 | 700 | 406 | 280 | 335 | 1561 |
| in | 13.74 | 54.25 | 53.98 | 11.3 | 27.56 | 15.98 | 11.02 | 13.19 | 61.46 |

For detailed engineering drawings contact Pall



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