Pall Corporation

MSO High Flow Series Filter Housings

Industrial ASME Code High Flow Multi-Cartridge Filter Housings

- Accepts Twelve to Eighty-Eight 20" (50.8 cm), 30" (76.2 cm) or 40" (102 cm) DOE Style Filter Cartridges
- Housings can be Modified to Accept SOE Style Cartridges
- Carbon Steel, 304, 304L, 316, and 316L Stainless Steel Materials of Construction
- 150 psig (10.3 bar) Maximum Operating Pressure Permits Use in a Wide Range of Applications
- ASME Code Section VIII, Division I "U" Stamp Available
- Accu-Seal™ Sealing Device and Uni-Seal™ Sealing Device Permit Fast and Easy Cartridge Change-Out

Housing Specifications

Maximum Operating Pressure:

Carbon Steel: 150 psig (10.3 bar) @ 500°F (260°C)
Stainless Steel: 150 psig (10.3 bar) @ 200°F (93°C)

NOTE: Maximum operating pressure ratings are vessel ratings only. Safe operating temperature and pressure will depend on filter cartridge and gasket/O-ring used. For inquiries on compatibility, contact the factory or your Pall distributor.

Construction:

Standard: ASME UM Stamp[1]
Optional: ASME U Stamp

Connections:

Inlet/Outlet: 3"- 8" Flange
Drain: 1 ½" NPT
Vent: 1" NPT
Gauge (2): ¼" NPT (Upstream/Downstream)

Shell O-Rings:

Nitrile (standard), Silicone Elastomer, Neoprene, Ethylene Propylene, Fluorocarbon Elastomer

Closure Bolts:

Zinc Plated Carbon Steel (standard)[4]

Internal Components:

316 stainless steel top seat plate assemblies and tube guides are standard with internal parts option. Accu-Seal sealing and Uni-Seal sealing mechanisms are optional.

Reverse Flow Option:

Housings can be modified for reverse flow applications. Consult factory for further information.

Davit Assembly:[3, 4]

Standard on 12, 18, 22, 36, 55, and 88 column models.

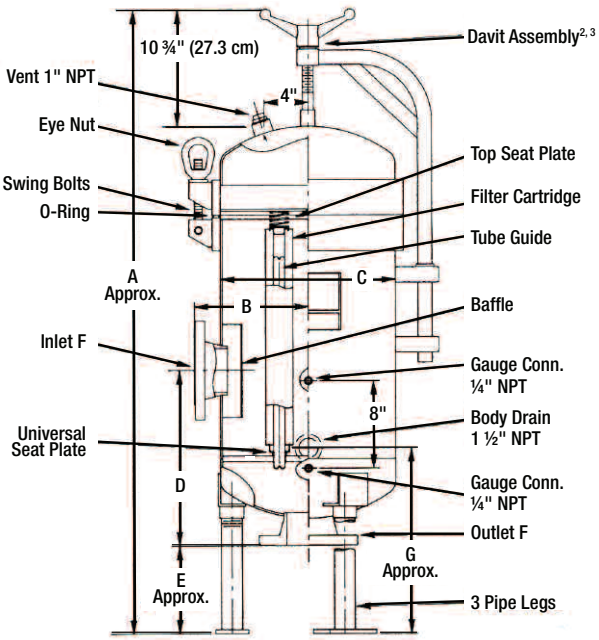
Weld Finish:

As welded (standard), ground or polish options (contact the factory).

[1] *Certain MSO Series housings require ASME U stamp as standard.*

[2] *Pipe legs and davit arm are carbon steel on stainless steel housings. Stainless steel legs and davit arms are optional.*

Dimensional Drawing - Side View



[3] *Davit hardware consists of a steel zinc plated lift screw, a cast aluminum handwheel, and a bronze bushing.*

[4] *Stainless materials are optional and require design considerations. For inquiries, contact the factory.*

Dimensional Data[5]

12 Columns	A[6] in (cm)	B in (cm)	C in (cm)	D in (cm)	E in (cm)	F in (cm)	G[7] in (cm)	Flow Rate gpm (lpm)
24MSO2	59 (149.9)	8 ¼ (21)	12 (30.5)	16 (40.6)	11 (27.9)	3 (7.6)	18 3/16 (46.2)	120 (454)
36MSO3	69 (175.3)	8 ¼ (21)	12 (30.5)	21 (53.3)	11 (27.9)	3 (7.6)	18 3/16 (46.2)	180 (681)
48MSO4	80 (203.2)	8 ¼ (21)	12 (30.5)	21 (53.3)	11 (27.9)	3 (7.6)	18 3/16 (46.2)	240 (909)
18 Columns	**A[6] in (cm)**	**B in (cm)**	**C in (cm)**	**D in (cm)**	**E in (cm)**	**F in (cm)**	**G[7] in (cm)**	**Flow Rate gpm (lpm)**
36MSO2	61 (154.9)	9 ¼ (23.5)	14 (35.6)	16 (40.6)	11 (27.9)	3 (7.6)	19 ½ (49.5)	180 (681)
54MSO3	71 (180.3)	9 ¼ (23.5)	14 (35.6)	21 (53.3)	11 (27.9)	3 (7.6)	19 ½ (49.5)	270 (1022)
72MSO4	82 (208.3)	9 ¼ (23.5)	14 (35.6)	21 (53.3)	11 (27.9)	3 (7.6)	19 ½ (49.5)	360 (1363)
22 Columns	**A[6] in (cm)**	**B in (cm)**	**C in (cm)**	**D in (cm)**	**E in (cm)**	**F in (cm)**	**G[7] in (cm)**	**Flow Rate gpm (lpm)**
44MSO2	62 (157.5)	10 3/8 (26.4)	16 (40.6)	16 (40.6)	12 (30.5)	4 (10.2)	21 13/16 (53.8)	220 (833)
66MSO3	72 (182.9)	10 3/8 (26.4)	16 (40.6)	21 (53.3)	12 (30.5)	4 (10.2)	21 13/16 (53.8)	330 (1249)
88MSO4	83 (210.8)	10 3/8 (26.4)	16 (40.6)	21 (53.3)	12 (30.5)	4 (10.2)	21 13/16 (53.8)	440 (1666)
36 Columns	**A[6] in (cm)**	**B in (cm)**	**C in (cm)**	**D in (cm)**	**E in (cm)**	**F in (cm)**	**G[7] in (cm)**	**Flow Rate gpm (lpm)**
72MSO2	71 (180.3)	12 ½ (31.8)	20 (50.8)	18 (45.7)	16 (40.6)	6 (15.2)	27 1/8 (68.9)	360 (1363)
108MSO3	81 (205.7)	12 ½ (31.8)	20 (50.8)	18 (45.7)	16 (40.6)	6 (15.2)	27 1/8 (68.9)	540 (2044)
144MSO4	92 (233.7)	12 ½ (31.8)	20 (50.8)	18 (45.7)	16 (40.6)	6 (15.2)	27 1/8 (68.9)	720 (2726)
55 Columns	**A[6] in (cm)**	**B in (cm)**	**C in (cm)**	**D in (cm)**	**E in (cm)**	**F in (cm)**	**G[7] in (cm)**	**Flow Rate gpm (lpm)**
110MSO2	74 (188)	14 5/8 (37.1)	24 (61)	20 (50.8)	16 (40.6)	6 (15.2)	28 1/8 (71.4)	550 (2082)
165MSO3	84 (213.4)	14 5/8 (37.1)	24 (61)	24 (61)	16 (40.6)	6 (15.2)	28 1/8 (71.4)	825 (3123)
220MSO4	95 (241.3)	14 5/8 (37.1)	24 (61)	24 (61)	16 (40.6)	6 (15.2)	28 1/8 (71.4)	1100 (4164)
88 Columns	**A[6] in (cm)**	**B in (cm)**	**C in (cm)**	**D in (cm)**	**E in (cm)**	**F in (cm)**	**G[7] in (cm)**	**Flow Rate gpm (lpm)**
176MSO2	81 (205.7)	18 (45.7)	30 (76.2)	21 (53.3)	19 (48.3)	8 (20.3)	33 (83.8)	880 (3331)
264MSO3	91 (231.1)	18 (45.7)	30 (76.2)	23 (58.4)	19 (48.3)	8 (20.3)	33 (83.8)	1320 (4997)
352MSO4	102 (259.1)	18 (45.7)	30 (76.2)	23 (58.4)	19 (48.3)	8 (20.3)	33 (83.8)	1760 (6662)

Part Numbers/Ordering Information

■ MSO ● – ◗ – ◆ FD – C150 ◗ – ☯ (e.g., 54MSO3–304–3FD–C150UM–IP)

Code ■	No. of 10" Equivalents		
24	24"	108	108
36	36"	110	110
44	44"	144	144
48	48"	165	165
54	54	176	176
66	66	220	220
72	72	264	264
88	88	352	352

Code ●	No. of 10" Equivalents Per Column
1	1
2	2
3	3
4	4

Code ◗	ASME Stamp Designation
U	U Stamp
UM	UM Stamp

Code ◗	Materials of Construction
Blank	Carbon Steel
304	304 Stainless Steel
304L	304L Stainless Steel
316	316 Stainless Steel
316L	316L Stainless Steel

Code ◆	Inlet/Outlet Connection Sizes
3	3"
4	4"
6	6"
8	8"

Code ☯	Internal Parts[8]
Blank	No Internal Parts
IP	Internal Parts

[5] *Data presented in this section represents typical dimensions for MSO housings. For critical installation requirements, request certified drawing.*

[6] *The "A" dimension for MSO Stainless Steel housings may vary up to 1" (2.5 cm) from the given dimension.*

[7] *The "G" dimension for MSO Stainless Steel housings may vary up to ½" (1.3 cm) from the given dimension.*

[8] *Standard vessels include internal parts of top seat plates and tube guides. Basic vessels without internal parts may be ordered as non-stock items.*

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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.

Filtration. Separation. Solution.SM

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