

3M Separation and Purification Sciences Division Data Sheet

# **3M<sup>™</sup> High Flow Series Housings**

# **Housings for High Flow Series Filters**

The 3M<sup>™</sup> High Flow series housing range is constructed of 316L stainless steel Housing body and 316 stainless steel (flanges, cartridge plug-base) and has a maximum allowable working pressure of 150 psi @ 250°F (10 bar @ 121°C). The outer surface finish is electropolished and the housing's internal finish is bead blasted.

3M High Flow Series filter housings are available in a variety of standard sizes to accommodate from 1 to 7 filter cartridges in 10-inch, 40-inch and 60-inch lengths. The standard housings are also designed to meet global requirements such as:

- European Pressure Equipment Directive 2014/68/EU
- ATEX Directive 2014/34/EU, for use in ATEX condition II 2 GD c IIC/IIIC
- Australian Standard AS 1210 Pressure Vessel
- ASME Section VIII Div2 U-stamp (US versions)
- Housing wetted parts are 316/316L stainless steel (Generally Regarded As Safe) with o-rings that are compliant for food contact.

#### Marking and documentation

The housings are clearly marked and delivered with a Certificate of Conformity. The user of these housings must ensure they are used in compliance with the requirements of local regulations, and in accordance with the instruction manual supplied.

## **Features & Benefits**

#### **Compact design**

• Smaller diameter housing vs. those of conventional filters for a given flow rate

#### Robust cartridge center-post design

• Eliminates bulky support plates providing easy access to housing internals.

#### Manufactured from 316 and 316L stainless steel

- Excellent corrosion protection
- Generally regarded as safe for food contact

#### Upstream and downstream gauge ports and drains

Hinged cover (single-round housings) and user-friendly cover lifting device (multi-round housings)

• Allows for easy element change-outs



# **Applications**

#### **Industrial Water:**

- Municipal water
- Pre-RO filtration
- Reclaimed water
- Coolants
- Condensate

#### **Chemical:**

- Quench water
- Final product load-out
- Process cooling water

#### **Petrochemicals:**

- Waterflood
- Produced water
- Enhanced oil recovery
- Completion fluids
- Amine sweetening

#### **Electronics:**

- Pre-RO filtration,
- Process cooling water

#### Food and Beverage:

- Process and blending water
- Bottled water
- Beer clarification

Housing Model	Housing OD (in/mm)	Inlet & Outlet Flange Size (in/DN)	Vent & Drain NPT (in/mm)	Maximum Flow (gpm/lpm)	Empty Weight (Ibs / kg)	Housing Dimension, approx,² length x width x height (in / mm)
01HF10 <sup>1</sup>	8 / 203.2	2 / 50	0.25 / 6.35	85 / 320	39.7 / 18	L – 12 / 304.8 W – 8 / 203.2 H – 24 / 609.6
01HF40	8.5 / 216	4 / 100	0.25 and 0.75 (6.35 & 19.05)	350 / 1325	121.25 / 55	L – 60 / 1500 W – 9.9 / 252 H – 12.8 / 326
01HF60	8.5 / 216	4 / 100	0.25 and 0.75 (6.35 & 19.05)	500 / 1893	143.3 / 65	L – 81 / 2057 W – 9.9 / 252 H - 12.8 / 326

### 3M High Flow Filter Single Cartridge Housings, Model 01HF

<sup>1</sup> 10 inch High Flow housing is available only in non-ASME code design

<sup>2</sup> Single round 40 inch and 60 inch housing dimension without mounting legs: this allows for mounting the housings on a frame. Standard mounting legs are available as an optional accessory and can be obtained separately. Horizontal design mounting legs fits both 40" and 60" housings. Leg assemblies are also available for the housing for the 40" housing in the vertical orientation.

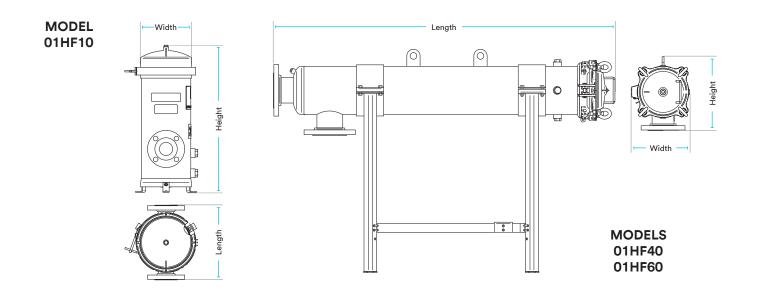
### 3M High Flow Filter Multi-Around Cartridge Housings, Models 03HF, 05HF, 07HF

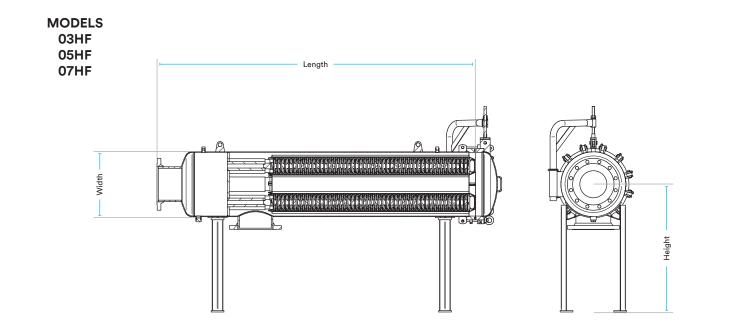
Housing Model	Housing OD (in/mm)	Inlet & Outlet Flange Size (in/DN)	Vent & Drain NPT (in/mm)	Maximum Flow (gpm/lpm)	Empty Weight (Ibs / kg)	Housing Dimension, approximate length x width x height (in / mm)
03HF40	16 / 406	6 / 150	0.5 / 12.7	875 / 3300	489.5 / 222	L – 71.2 / 1808.5 W – 15.98 / 406 H – 39.4 / 1000
03HF60	16 / 406	8 / 200	0.5 / 12.7	1500 / 5700	586.5 / 266	L – 94.25 / 2394 W – 15.98 / 406 H - 39.4 / 1000
05HF40	20 / 508	8 / 200	0.5 / 12.7	1550/5867	751.8 / 341	L – 75.1 / 1908 W – 20 / 508 H – 39.4 / 1000
05HF60	20 / 508	10 / 250	0.5 / 12.7	2450/9274	888.5 / 403	L – 98.2 / 2494 W – 20 / 508 H – 39.4 / 1000
07HF40	22 / 560	10 / 200	1 / 25.4	2450/9274	945.8 / 429	L – 81.6 / 2073 W – 22.1 / 560 H – 39.4 / 1000
07HF60	22 / 560	12 / 300	1 / 25.4	3500/13249	1084.7 / 492	L – 100.2 / 2545 W – 22.1 / 560 H – 39.4 / 1000

### 3M<sup>™</sup> High Flow Series Sanitary Design Filter Housing specifications

Housing Part Number	Housing OD	Material of Construction	Inlet / Outlet	Maximum Flow	Height	Footprint	Drain	Vent	Gauge
1HF10VCS <sup>1</sup>	8"	316L SS	2" Sanitary	85 GPM	35"	8" Diameter	1⁄2" Sanitary	½" Sanitary	1½" Sanitary
1HFX60HCS <sup>1</sup>	10¾"	316L SS	3" Sanitary	250 GPM	50"	75" L X 18" W	1" Sanitary	½" Sanitary	1½" Sanitary

<sup>1</sup> Non-code sanitary designs, mounting legs included







In addition to the standard housing designs, the 3M<sup>™</sup> High Flow Series Housings can be built upon request to a wide range of specifications, design and construction standards. Please consult your local 3M SPSD representative for further information.

#### Oil & gas service:

Specially designed 3M High Flow Series housings are available upon request to accommodate requirements typically found in oil & gas applications:

- Corrosion allowances
- Higher pressure ratings
- Swing bolt closure design
- Non-destructive examination
- NACE (National Association of Corrosion Engineers)
  Compliance
- Post weld heat treatment

#### Food & beverage service:

Specially designed 3M High Flow Sanitary Design Housings are designed to deliver all of the system's benefits in a compact footprint:

- 316L Stainless steel construction generally regarded as safe
- Internal/external polished surfaces
- Sanitary flange connections (for inlet, outlet, bleed & drain ports)

Intended Uses: The 3M High Flow Series Housing products are intended for use in standard industrial filtration applications of aqueous fluids in accordance with the applicable product instructions and specifications.

3M High Flow Series Housing products are also intended for use with non-aqueous fluids where materials of construction are compatible.

Certain limited 3M High Flow Series Housing products are also intended for use in Food and Beverage (F&B) applications. Refer to the specific 3M High Flow Series Housing product's data sheet to determine whether it includes a F&B designation and can be used for such applications.

Since there are many factors that can affect a product's use, the customer and user remains responsible for determining whether the 3M product is suitable and appropriate for the user's specific application, including user conducting an appropriate risk assessment and evaluating the 3M product in user's application.

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