

## Description

The FlexBowl filter housing has been specifically designed for the challenging ultrapure chemical applications used in semiconductor manufacture. It meets Pall's same high standards for cleanliness, purity, compatibility, and mechanical strength as its Megaplast™ housings. The housing's extremely flexible design allows for easier and safer filter handling, and reduces cost of ownership.

The key to the flexibility of the FlexBowl filter housing design is a universal manifold, which can accommodate a reusable housing. This design connects easily to the manifold with a quarter turn of the locking ring.

Housings are available in 4 in (102 mm), 10 in (254 mm), and 20 in (508 mm) sizes. The 10 in (254 mm) housing is designed to fit standard 10 in (254 mm) filter cartridges with a diameter of up to 3.25 in (82.5 mm) and a nominal length of 10 in (254 mm). Standard semiconductor industry inlet and outlet connection fittings for this system are also offered in a variety of different sizes and styles.

## Features & Benefits

- Filter cartridge can be securely sealed in the bowl before approaching the tool.
- Housing accepts standard length cartridges without the need for special adapters that add cost and may impede fluid flow and cleaning.
- Assembled housing and cartridge unit is inserted into the manifold and securely sealed with a quarter turn of the manifold locking ring using a spanner wrench.<sup>1</sup> It can be disengaged from the manifold quickly with a quarter turn of the locking ring.
- Cartridge and bowl are removed as a unit, requiring minimal space in the tool.
- Cartridge, still sealed within the housing, can be safely transported to an appropriate area for changeout, with minimal exposure to chemicals at the tool.



<sup>1</sup> Part number ACS0655AA

## Specifications

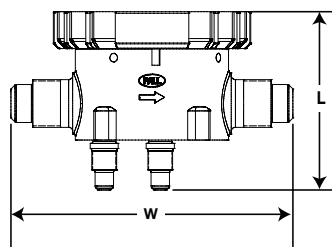
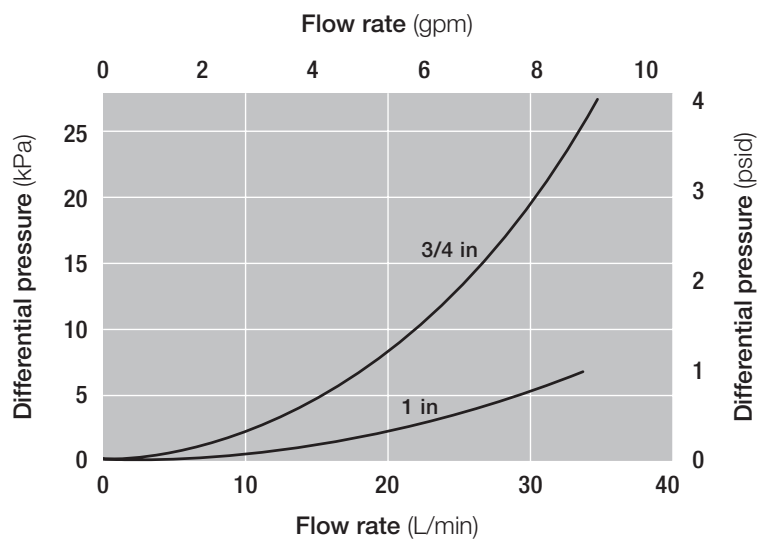
### Materials

Manifold	
Manifold	PFA
Locking Ring	Polyetherimide (PEI)
Bowl	
Bowl	PFA
Ring Nut	PVDF
O-ring	H1 : FEP-encapsulated fluoroelastomer H11F : Kalrez <sup>2</sup>
Housing Head	
Housing Head	PFA
O-ring	Kalrez <sup>2</sup>

Connections	Inlet / Outlet	1", 3/4"
	Vent / Drain	1/2", 1/4"
Maximum Operating Temperature		95 °C (203 °F)
Maximum Operating Pressure:		0.56 MPa (80 psid) @ 30 °C (86 °F) 0.28 MPa (40 psid) @ 95 °C (200 °F)

<sup>2</sup> Kalrez is a registered trademark of DuPont Performance Elastomers.

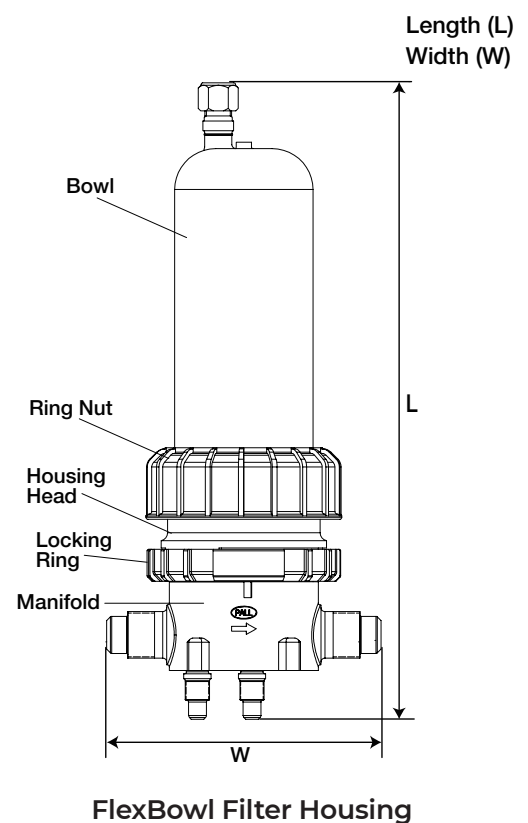
## Typical Flow Characteristics – 1 cP fluid, 20 °C



Universal Manifold

Manifold Inlet/Outlet Connections Style	Width (mm / in)
1 in butt weld	196.85 / 7.75
3/4 in flare style	190.50 / 7.50
1 in flare style	214.63 / 8.45
3/4 in pillar	217.67 / 8.57
1 in pillar	255.50 / 8.76

## Dimensions



## Part Numbers / Ordering Information

Part Number	Description	Connections Inlet, Outlet / Vent, Drain	Nominal Length (L) (mm/in.)
<b>Complete Housing System</b>			
FBMH04T17E71H1	4 in. complete housing system	1 in. Pillar / 1/2 in. Pillar	396.14 / 15.60
FBMH04T13E71H1	4 in. complete housing system	3/4 in. Pillar / 1/2 in. Pillar	396.14 / 15.60
FBMH04T17E51H1	4 in. complete housing system	1 in. flare style / 1/2 in. flare style	351.04 / 13.82
FBMH04T13E51H1	4 in. complete housing system	3/4 in. flare style / 1/2 in. flare style	351.04 / 13.82
FBMH04T16EBWH1	4 in. complete housing system	1 in. butt weld / 1/2 in. butt weld	335.69 / 13.22
FBMH04T174E51H1 <sup>3</sup>	4 in. complete housing system	1 in. flare style / 1/4 in. flare style	346.96 / 13.66
FBMH04T134E51H1 <sup>3</sup>	4 in. complete housing system	3/4 in. flare style / 1/4 in. flare style	346.96 / 13.66
FBMH1T17E71H1	10 in. complete housing system	1 in. Pillar / 1/2 in. Pillar	528.64 / 20.81
FBMH1T13E71H1	10 in. complete housing system	3/4 in. Pillar / 1/2 in. Pillar	528.64 / 20.81
FBMH1T17E51H1	10 in. complete housing system	1 in. flare style / 1/2 in. flare style	483.54 / 19.04
FBMH1T13E51H1	10 in. complete housing system	3/4 in. flare style / 1/2 in. flare style	483.54 / 19.04
FBMH1T16EBWH1	10 in. complete housing system	1 in. butt weld / 1/2 in. butt weld	468.19 / 18.43
FBMH1T174E51H1 <sup>3</sup>	10 in. complete housing system	1 in. flare style / 1/4 in. flare style	479.54 / 18.88
FBMH1T134E51H1 <sup>3</sup>	10 in. complete housing system	3/4 in. flare style / 1/4 in. flare style	479.54 / 18.88
FBMH2T17E71H1	20 in. complete housing system	1 in. Pillar / 1/2 in. Pillar	784.14 / 30.87
FBMH2T13E71H1	20 in. complete housing system	3/4 in. Pillar / 1/2 in. Pillar	784.14 / 30.87
FBMH2T17E51H1	20 in. complete housing system	1 in. flare style / 1/2 in. flare style	744.54 / 29.31
FBMH2T13E51H1	20 in. complete housingsystem	3/4 in. flare style / 1/2 in. flare style	744.54 / 29.31
FBMH2T16EBWH1	20 in. complete housingsystem	1 in. butt weld / 1/2 in. butt weld	723.69 / 28.49

<sup>3</sup> The manifold vent and drain connections are 1/2 in. flare style. The housing bowl vent is 1/4 in. flare style.

Part Number	Description	Connections Inlet, Outlet / Vent, Drain	Nominal Length (L) (mm/in.)
<b>Manifold Only</b>			
FBMT17E71	Manifold only	1 in. Pillar / ½ in. Pilla	144.01 / 5.67
FBMT13E71	Manifold only	¾ in. Pillar / ½ in. Pillar	144.01 / 5.67
FBM17E51	Manifold only	1 in. flare style / ½ in. flare style	136.14 / 5.36
FBM13E51	Manifold only	¾ in. flare style / ½ in. flare style	136.14 / 5.36
FBM16EBW	Manifold only	1 in. butt weld / ½ in. butt weld	129.79 / 5.11
<b>Housing Kit (Bowl, Housing Head)</b>			
FBHT04EBWH1	4 in. G2 bowl	n/a / ½ in. butt weld	
FBHT044E51H1	4 in. G2 bowl	n/a / ¼ in. flare style	
FBHT04E51H1	4 in. G2 bowl	n/a / ½ in. flare style	
FBHT04E71H1	4 in. G2 bowl	n/a / ½ in. Pillar	
FBHT1EBWH1	10 in. G2 bowl	n/a / ½ in. butt weld	
FBHT14E51H1	10 in. G2 bowl	n/a / ¼ in. flare style	
FBHT1E51H1	10 in. G2 bowl	n/a / ½ in. flare style	
FBHT1E71H1	10 in. G2 bowl	n/a / ½ in. Pillar	
FBHT2EBWH1	20 in. G2 bowl	n/a / ½ in. butt weld	
FBHT2E51H1	20 in. G2 bowl	n/a / ½ in. flare style	
FBHT2E71H1	20 in. G2 bowl	n/a / ½ in. Pillar	



#### Microelectronics

25 Harbor Park Drive  
Port Washington, NY 11050  
+1 516 484 3600 telephone  
+1 800 360 7255 toll free US

#### Nihon Pall Ltd.

6-5-1, Nishishinjuku,  
Shinjuku-ku  
Tokyo 163-1325 Japan  
+81 3 6901 5700 telephone  
+81 3 5322 2109 fax

Visit us on the Web at [www.pall.com/microelectronics](http://www.pall.com/microelectronics)  
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