

Food and Beverage

FBT Series Filter Housings

SINGLE-ROUND FILTER HOUSING

for sanitary liquid filtration



Filtration. Separation. Solution.sm

FBT Series

SINGLE-ROUND FILTER HOUSING

FBT Series Filter Housings Technical Information

Description

FBT Series sanitary housings are designed specifically for liquid filtration in the food and beverage industry.

- Enhanced cleanability and microbiological safety due to crevice-free, polished and hygienic design
- Corrosion resistance and durability with 316L stainless steel wetted parts and high-quality welds
- Cost-effective without sacrificing quality and performance

FBT Housings are available in a standard sanitary design allowing a variety of connection options, or in a 3-A sanitary design, which meets the requirements of 3-A Sanitary Standards #10-04.

Features and Benefits

- Suitable for flow rates up to 91 liters/min (24 USgpm) depending on cartridge type and size.
- Suitable for CIP and SIP.
- Beveled housing tube sheet and aseptic-style housing seal provides enhanced drainability and a crevice-free connection between the housing head and bowl.
- Electropolished head and elbows and mirror polished bowl ensures optimal cleanability in critical areas while maintaining cost-effectiveness.
- New cartridge locking design features additional cut-outs to traditional half-moon portions of the Code 7 bayonet locks, enhancing cleanability and drainability, (Figure 1).
- Operator-friendly V-Clamp housing closure simplifies handling.
- Design satisfies EC Pressure Equipment Directive (PED) 97/23/EC, ATEX 94/9/EC Group II Category 2.

Specifications

Minimum / Maximum Operating Pressure ¹	-1 to 10 bar (-14.5 to 150 psig)
Minimum / Maximum Operating Temperature ²⁵	Fluorocarbon Elastomer and Silicone seals -10 to 150 °C (14 to 300 °F) EPR seals -10 to 121 °C (14 to 250 °F)
Steam Sterilization ²⁵	Fluorocarbon Elastomer and Silicone seals 3.7 bar / 150 °C max (53 psig / 300 °F) EPR seals 1 bar / 121 °C max (14.5 psig / 250 °F)
Materials of Construction	Wetted parts 316L stainless steel
Housing Seal Options 34	Fluorocarbon Elastomer Silicone EPR
Surface Finish	≤ 0.8 micron Ra (≤ 32 Ra microinches)
Connections	DIN 11851 Clamp Coupling Butt Weld
Filter Cartridge Compatibility ⁵	Pall Code 2 or Code 7 single open-end
Design Specification	Design capability of 4 times maximum operating pressure. Each housing is hydrostatically tested to 1.6 times maximum

¹ Maximum operating pressure ratings are vessel ratings only. Safe operating temperature and pressure will depend on filter cartridge and seal used. For compatibility details, please contact Pall

- ² For applications involving fluids below 0 °C (32 °F), please contact Pall.
- ³ Check local pressure vessel code requirements.
- ⁴ Seal materials meet FDA requirements for food contact use detailed in 21 CFR Section 177.2600 (excluding milk and edible oils). Additionally, seal materials in 3-A Series housings meet the requirements specified by 3-A Sanitary Standards #10-04.

⁵ Refer to Pall Food and Beverage filter cartridge literature for additional guidelines on use.



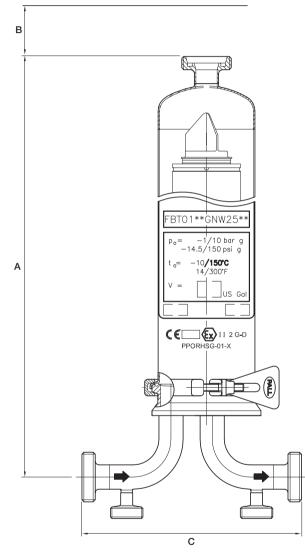


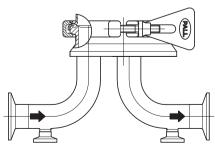
Figure 1

FBT Series Filter Housings Technical Information

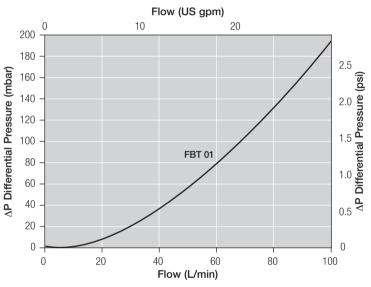
Nominal Dimensions in mm (inches) - for specific dimensions, please contact Pall

Code	Cartridge Height	A DIN Connection	A Clamp Connection	A Butt Weld Connection	B Element Removal	C DIN Connection	C Clamp Connection	C Butt Weld Connection
05	127 (5)	316.5 (12.5)	309.1 (12.2)	302 (11.9)	180 (7.1)	230 (9.1)	215 (8.5)	173 (6.8)
1	254 (10)	441.5 (17.4)	434.1 (17.1)	427 (16.8)	300 (11.8)	230 (9.1)	215 (8.5)	173 (6.8)
2	508 (20)	701.5 (27.6)	694.1 (27.3)	687 (27.0)	550 (21.7)	230 (9.1)	215 (8.5)	173 (6.8)
3	762 (30)	961.5 (37.9)	954.1 (37.6)	947 (37.3)	800 (31.5)	230 (9.1)	215 (8.5)	173 (6.8)





Typical Water Flow / Pressure Drop Characteristics**



** Flow/pressure drop characteristics refer to the empty housing only, for water at 20 °C (68 °F). For other liquids, multiply housing pressure drop by the specific gravity of the fluid.

Volume and Weight

Code	Volume L (US gal)	Weight kg (lb)
05	1.4 (0.37)	3.4 (7.5)
1	2.4 (0.63)	3.9 (8.6)
2	4.4 (1.16)	5.0 (11.0)
3	6.3 (1.66)	6.0 (13.2)

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FBT Series Filter Housings Ordering Information

This is a guide to the part numbering structure and possible options only. For availability of specific options, please contact Pall.

Part Number: FBT 01

G Table 2 Table 3 Table 4

Example Part Number: FBT 01 1 G NW25 J

Vent

NW25 DIN 11851

1" Clamp Coupling

Butt Weld 12.7 x 1.6

Note: See bold reference codes in the tables

Inlet / Outlet

NW25 DIN 11851

1" Clamp Coupling

Butt Weld 25.4 x 1.6

Table 1		Table 2
Code	Cartridge Height	Code
05	127 mm (5")	NW25
1	254 mm (10")	23
2	508 mm (20")	02
3	762 mm (30")	

Table 1

Toble 4

Table 4	
Code	Housing Design
Blank	Standard
ЗA	3-A Series

Note: Housings with clamp coupling and butt weld connections options are only available in 3-A series design. Housings with DIN connections are only available in standard design.

Drain

NW15 DIN 11851

1/2" Clamp Coupling

Butt Weld 12.7 x 1.6

Spare Parts

Table 3

Code

Н

H4

J

Description	Standard Design / 3-A Design
Bowl Seal	GK1242PH01 (Fluorocarbon Elastomer) GK1242QL01 (Silicone) GK1242PX01 (EPR)
Bowl V-Clamp	ACS0942DA

Silicone

EPR

Housing Seal Options

Fluorocarbon Elastomer



Figure 2



Figure 4



34

Figure 5

Optional Accessories

Description	Connections	Seal Material	Part Number	Connections	Seal Material	Part Number
Vent Kit - Gauge (Figure 2)	NW25	H H4 J	ACS0949AM ACS0950AU ACS0951AM	1" Clamp Coupling	H H4 J	ACS0958AM ACS0959AU ACS0960AM
Vent Kit - Stäubli* Vent Valve (Figure 3)	NW25	H H4 J	ACS0952AM ACS0953AU ACS0954AM	1" Clamp Coupling	H H4 J	ACS0961AM ACS0962AU ACS0963AM
Vent Kit - Stäubli* Vent Tee (Figure 4)	NW25	H H4 J	ACS0946AM ACS0947AU ACS0948AM	1" Clamp Coupling	H H4 J	ACS0955AM ACS0956AU ACS0957AM
Drain Kit - Hosetail Valve (Figure 5, 2 required per housing)	NW15	H H4 J	ACS0929EM ACS0930EU ACS0931EM	½" Clamp Coupling	H H4 J	ACS0932AM ACS0933AU ACS0934AM

Note: Kits are supplied with connection piece (nut/clamp coupling) and seal. Seal Material options are H (Fluorocarbon Elastomer), H4 (Silicone) and J (EPR).

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