FBT Series Filter Housings

3-ROUND FILTER HOUSING
for sanitary liquid filtration
### 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

- T-style multi-round housing
- Suitable for flow rates up to 227 liters/min (60 USgpm) depending upon 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-Band housing closure simplifies handling
- Housings with clamp coupling and butt weld connection options meet the design requirements of 3-A Sanitary Standards #10-04
- Design satisfies EC Pressure Equipment Directive (PED) 97/23/EC, ATEX 94/9/EC Group II Category 2

### Specifications

<table>
<thead>
<tr>
<th>Minimum / Maximum Operating Pressure(^1)</th>
<th>-1 to 10 bar (-14.5 to 150 psig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum / Maximum Operating Temperature(^2)</td>
<td>Fluorocarbon Elastomer and Silicone seals -10 to 150 °C (14 to 300 °F) EPR seals -10 to 121 °C (14 to 250 °F)</td>
</tr>
<tr>
<td>Steam Sterilization(^2)</td>
<td>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)</td>
</tr>
<tr>
<td>Materials of Construction</td>
<td>Wetted parts 316L stainless steel</td>
</tr>
<tr>
<td>Housing Seal Options(^3)</td>
<td>Fluorocarbon Elastomer Silicone EPR</td>
</tr>
<tr>
<td>Surface Finish</td>
<td>≤ 0.8 micron Ra (≤ 32 Ra microinches)</td>
</tr>
<tr>
<td>Connections</td>
<td>DIN 11851 Clamp Coupling Butt Weld</td>
</tr>
<tr>
<td>Filter Cartridge Compatibility(^4)</td>
<td>Pall Code 2 or Code 7 single open-end</td>
</tr>
<tr>
<td>Design Specification</td>
<td>Design capability of 4 times maximum operating pressure. Each housing is hydrostatically tested to 1.6 times maximum</td>
</tr>
</tbody>
</table>

\(^1\) 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.

\(^3\) 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.

\(^4\) Refer to Pall Food and Beverage filter cartridge literature for additional guidelines on use.
FBT Series Filter Housings

Technical Information

FBT03 and FBT03 3-A Series Housings
Nominal Dimensions in mm (inches) – for specific dimensions, please contact Pall

<table>
<thead>
<tr>
<th>Code</th>
<th>Cartridge Height</th>
<th>A</th>
<th>B1 - FBT03</th>
<th>B2 - FBT03 (3-A)</th>
<th>C - Element Removal</th>
<th>D - DIN Connection</th>
<th>D - Clamp Connection</th>
<th>D - Butt Weld Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>254 (10)</td>
<td>820.5 (32.2)</td>
<td>530 (20.9)</td>
<td>558 (22.0)</td>
<td>310 (12.2)</td>
<td>305 (12)</td>
<td>294 (11.6)</td>
<td>314 (12.4)</td>
</tr>
<tr>
<td>20</td>
<td>508 (20)</td>
<td>1070.5 (42.1)</td>
<td>780 (30.7)</td>
<td>808 (31.8)</td>
<td>560 (22.0)</td>
<td>305 (12)</td>
<td>294 (11.6)</td>
<td>314 (12.4)</td>
</tr>
<tr>
<td>30</td>
<td>762 (30)</td>
<td>1330.5 (52.4)</td>
<td>1040 (40.9)</td>
<td>1068 (42.0)</td>
<td>807.5 (31.8)</td>
<td>305 (12)</td>
<td>294 (11.6)</td>
<td>314 (12.4)</td>
</tr>
<tr>
<td>40</td>
<td>1016 (40)</td>
<td>1570.5 (61.2)</td>
<td>1280 (50.4)</td>
<td>1308 (51.5)</td>
<td>1057 (41.6)</td>
<td>305 (12)</td>
<td>294 (11.6)</td>
<td>314 (12.4)</td>
</tr>
</tbody>
</table>

Volume and Weight

<table>
<thead>
<tr>
<th>Code</th>
<th>Volume L (US Gal)</th>
<th>Weight kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>8.2 (2.2)</td>
<td>19 (41.8)</td>
</tr>
<tr>
<td>20</td>
<td>14.2 (3.8)</td>
<td>21.2 (46.6)</td>
</tr>
<tr>
<td>30</td>
<td>20 (5.3)</td>
<td>23.5 (51.7)</td>
</tr>
<tr>
<td>40</td>
<td>26 (6.9)</td>
<td>25.7 (56.5)</td>
</tr>
</tbody>
</table>

Typical Water Flow / Pressure Drop Characteristics*

* The flow/pressure drop curve refers 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.
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 03  G  23L  J  3A

Example Part Number: FBT 03   1   G   23L   J   3A

Table 1 Note: See bold reference codes in the tables.

Table 3

Table 4

Optional Accessories

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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