**Applications for FT series**

- Scissors Lifts
- Fork Lifts
- Industrial Power Units
- Off-highway
- Turf Equipment
- Aerial Lift
- Confined Installation Areas

The rugged all metal design FT with options for a fill port, breather, and dipstick provides multifunctional capability in a compact package. This relates to reduced space and lower costs due to the elimination of sight gauges, fill ports, and reservoir breathers. The FT series is ideal for low flow, return line applications where both space and filtration performance are critical.
Features

**Cover**
- Cast aluminum is lightweight and durable.

**Fill Port (Optional)**
- Optional port allows for filling of system fluid through the filter. This insures clean fluid is supplied to system efficiently with no mess.

**Gauge**
- Color-coded face indicates when element should be serviced.

**Dipstick (Optional)**
- Allows for fluid level monitoring without the need for additional accessories.

**Breather Assembly (Optional)**
- Integral to the filter, this option protects the system from airborne contaminants. This feature along with the fill port option can eliminate the need for a standard filler/breather cap.

**Bowl**
- Can be removed during element service, allowing for removal of sediment.

**Bowl Adapter (Optional)**
- Optional connection permits the use of extensions to prevent aeration of fluid and improve system performance.

**Element**
- High capacity, high efficiency Microglass III elements provide maximum service life with consistent removal efficiency.
Tank Top Filters
FT Series

FTA Element Performance

![Efficiency Chart]

![Capacity Chart]

Flow vs. Pressure Loss

![Flow vs. Pressure Loss Graphs]
FTB Element Performance

**Efficiency**

- Beta Rating 10,000
- Efficiency %
- Efficiency vs. Particle Size (Micrometre)

**Capacity (grams)**

<table>
<thead>
<tr>
<th>MODEL FTB</th>
<th>Media Code</th>
<th>Single Length</th>
<th>Double Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>20Q</td>
<td>14.9</td>
<td>29.1</td>
<td></td>
</tr>
<tr>
<td>10Q</td>
<td>14.8</td>
<td>29.0</td>
<td></td>
</tr>
<tr>
<td>05Q</td>
<td>14.7</td>
<td>28.9</td>
<td></td>
</tr>
</tbody>
</table>

**Flow vs. Pressure Loss**

- LPM vs. GPM
- PSID vs. BAR
- 150 SUS
- Single Length
- Double Length
- Bypass Valve
**FTC Element Performance**

![Graph showing FTC Element Performance](image)

**Capacity (grams)**

<table>
<thead>
<tr>
<th>MODEL FTC</th>
<th>Media Code</th>
<th>Single Length</th>
<th>Double Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>20Q</td>
<td>50.7</td>
<td>85.0</td>
<td></td>
</tr>
<tr>
<td>10Q</td>
<td>50.5</td>
<td>84.7</td>
<td></td>
</tr>
<tr>
<td>05Q</td>
<td>50.3</td>
<td>82.8</td>
<td></td>
</tr>
</tbody>
</table>

**Flow vs. Pressure Loss**

![Graph showing Flow vs. Pressure Loss](image)
Specifications: FTA, FTB, FTC Series

Pressure Ratings:
Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)
Rated Fatigue Pressure: 100 psi (6.9 bar)
Design Safety Factor: 2:1

Operating Temperatures:
-22°F (-30°C) to 230°F (110°C)

Element Collapse Rating:
Standard: 150 psi (10.3 bar)

Materials:
Head: aluminum
Cover: aluminum
Bowl: mild steel (FTA & FTB), aluminum (FTC)

Breather:
5 micron cellulose

Sipping Weights (approximate):
<table>
<thead>
<tr>
<th>Model</th>
<th>Single length</th>
<th>Double length</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTA</td>
<td>1.5 lbs. (0.7 kg)</td>
<td>1.8 lbs. (0.8 kg)</td>
</tr>
<tr>
<td>FTB</td>
<td>2.9 lbs. (1.3 kg)</td>
<td>3.5 lbs. (1.6 kg)</td>
</tr>
<tr>
<td>FTC</td>
<td>6.4 lbs. (2.9 kg)</td>
<td>8.0 lbs. (3.6 kg)</td>
</tr>
</tbody>
</table>

Element Condition Indicators:
“G” Option Pressure Gauge (0-30 psi color coded)

Breather Performance

FTA
Air Flow (SCFM)

FTB
Air Flow (SCFM)
### Installation

<table>
<thead>
<tr>
<th>Dimensions are in (mm)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FTA</strong></td>
<td>2.19 (55.5)</td>
<td>4.13 (106)</td>
<td>7.91 (201)</td>
<td>1.02 (26)</td>
<td>1.18 (30)</td>
<td>2.00 (51)</td>
<td>2.60 (66)</td>
<td>1.77 (45)</td>
<td>1.87 (47.5)</td>
<td>3.11 (74)</td>
<td>3.46 (88)</td>
<td>3.07 (78)</td>
<td>2.36 (60)</td>
</tr>
<tr>
<td><strong>FTB</strong></td>
<td>2.87 (73)</td>
<td>4.41 (112)</td>
<td>8.74 (222)</td>
<td>1.22 (31)</td>
<td>1.50 (38)</td>
<td>2.56 (65)</td>
<td>3.19 (81)</td>
<td>2.32 (59)</td>
<td>2.38 (60.5)</td>
<td>3.86 (98)</td>
<td>4.53 (115)</td>
<td>3.94 (100)</td>
<td>2.95 (75)</td>
</tr>
<tr>
<td><strong>FTC</strong></td>
<td>4.25 (108)</td>
<td>6.69 (170)</td>
<td>11.38 (289)</td>
<td>1.50 (38)</td>
<td>3.11 (79)</td>
<td>3.90 (99)</td>
<td>N/A</td>
<td>N/A</td>
<td>3.23 (82)</td>
<td>6.50 (165)</td>
<td>5.59 (142)</td>
<td>6.89 (175)</td>
<td>4.72 (120)</td>
</tr>
</tbody>
</table>

**FTA**

- Single Length - B
- Double Length - C

**FTB**

- Single Length - B
- Double Length - C

**FTC**

- Single Length - B
- Double Length - C

Optional Fill Port, SAE-6

60°

45°
**Element Service**

*(Hydraulic)*

1. Stop the system’s power unit.
2. Rotate the cover counter clockwise and remove.
3. Element and bowl are removable through the head by using the element pull tab.
4. Discard the element and clean the inside of the bowl.
5. Check the integrity of the bowl o-ring and replace if necessary.
6. Insert new element assembly into bowl and place into head, be sure element and bowl are seated securely.
7. Check integrity of the cover o-ring and replace if necessary.
8. Center the cover spring over the bypass assembly and rotate the cover clockwise until handtight.

---

**Element Service**

*(Breather)*

1. Stop the system’s power unit.
2. Loosen socket hood cap screw (SHCS).
3. Discard complete breather assembly and replace.
4. Rotate SHCS clockwise until handtight.

---

**Parts List**

<table>
<thead>
<tr>
<th>Index</th>
<th>Description</th>
<th>FTA</th>
<th>FTB</th>
<th>FTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Head</td>
<td>Consult Factory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cover Without Fill Port</td>
<td>102770-001-S</td>
<td>102770-001-S</td>
<td>101768</td>
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<tr>
<td>3</td>
<td>Cover With Fill Port</td>
<td>102770-005-S</td>
<td>102772-005-S</td>
<td>NA</td>
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<tr>
<td>4</td>
<td>Spring</td>
<td>931149</td>
<td>931149</td>
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<tr>
<td>5</td>
<td>Spring Retainer</td>
<td>101789</td>
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<tr>
<td>6</td>
<td>Seal Kit</td>
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<tr>
<td>7</td>
<td>Sealing Kit Nitrile</td>
<td>FTS-0001</td>
<td>FTS-0003</td>
<td>FTS-0005</td>
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<tr>
<td>8</td>
<td>Seal Kit Fluorocarbon</td>
<td>FTS-0002</td>
<td>FTS-0004</td>
<td>FTS-0006</td>
</tr>
<tr>
<td>9</td>
<td>Bypass Assembly</td>
<td>S02101</td>
<td>S02102</td>
<td>S02103</td>
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<tr>
<td>10</td>
<td>Element Service</td>
<td>See How To Order Page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Single Length</td>
<td>929712</td>
<td>929714</td>
<td>929716</td>
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<td>12</td>
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<td>929713</td>
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<tr>
<td>13</td>
<td>Breather Replacement Kit</td>
<td>FTS-0011</td>
<td>FTS-0011</td>
<td>NA</td>
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<tr>
<td>14</td>
<td>Fill Port</td>
<td>934320</td>
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<td>NA</td>
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<tr>
<td>15</td>
<td>Dipstick</td>
<td>FTS-0014</td>
<td>FTS-0014</td>
<td>NA</td>
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<tr>
<td>16</td>
<td>Gauge - 25 psi</td>
<td>934237</td>
<td>934237</td>
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<tr>
<td>17</td>
<td>Pressure Switch - 25 psi</td>
<td>929477</td>
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<tr>
<td>18</td>
<td>Gauge Adapter</td>
<td>935266</td>
<td>935266</td>
<td>935266</td>
</tr>
</tbody>
</table>
## Tank Top Filters
### FT Series

**HOW TO ORDER:**
Select the desired symbol (in the correct position) to construct a model code.

**Example:**

<table>
<thead>
<tr>
<th>BOX 1</th>
<th>BOX 2</th>
<th>BOX 3</th>
<th>BOX 4</th>
<th>BOX 5</th>
<th>BOX 6</th>
<th>BOX 7</th>
<th>BOX 8</th>
<th>BOX 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTA</td>
<td>1</td>
<td>A</td>
<td>20Q</td>
<td>P</td>
<td>25</td>
<td>N8</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**BOX 1: Basic Assembly**
- **Symbol**: FTA, FTB, FTC
- **Description**: 15 gpm (57 L/MIN), 40 gpm (151 L/MIN), 80 gpm (303 L/MIN)

**BOX 2: Bowl/Element Length**
- **Symbol**: 1, 2
- **Description**: Single Length, Double Length

**BOX 3: Seals**
- **Symbol**: A, B
- **Description**: Nitrile, Fluoroelastomer

**BOX 4: Element Media**
- **Symbol**: 05Q, 10Q, 20Q
- **Description**: Microglass III

**BOX 5: Indicator**
- **Symbol**: N, P, V, E
- **Description**: None, Plugged, Visual Pressure Gauge, Electrical Pressure Switch

**BOX 6: Bypass**
- **Symbol**: 25
- **Description**: 25 PSID (1.7bar)

**BOX 7: Ports**
- **Symbol**: FTA, N8, M18, S8, FTB, N16, M33, S16, FTC, N24, M42, S24

**BOX 8: Modifications**
- **Symbol**: X, Y, A, B, C, D, E, F
- **Description**: None, All (Breather, Fill Port, Bowl Adaptor), Breather Only, Fill Port Only, Bowl Adaptor Only, Fill Port & Bowl Adaptor, Fill Port & Breather, Breather & Bowl Adaptor

**Note**: All modifications apply to FTA and FTB only, for FTC use X

**BOX 9: Design Number**
- **Description**: Applied to the filter by Parker Hydraulic Filter Division. Use the full model code, including the design number when ordering replacement parts.

### Replacement Elements (Fluorocarbon Seals)

<table>
<thead>
<tr>
<th>Media</th>
<th>FTA Single Length</th>
<th>FTA Double Length</th>
<th>FTB Single Length</th>
<th>FTB Double Length</th>
<th>FTC Single Length</th>
<th>FTC Double Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>05Q</td>
<td>FTAE1B05Q</td>
<td>FTAE2B05Q</td>
<td>FTBE1B05Q</td>
<td>FTBE2B05Q</td>
<td>FTCE1B05Q</td>
<td>FTCE2B05Q</td>
</tr>
<tr>
<td>10Q</td>
<td>FTAE1B10Q</td>
<td>FTAE2B10Q</td>
<td>FTBE1B10Q</td>
<td>FTBE2B10Q</td>
<td>FTCE1B10Q</td>
<td>FTCE2B10Q</td>
</tr>
<tr>
<td>20Q</td>
<td>FTAE1B20Q</td>
<td>FTAE2B20Q</td>
<td>FTBE1B20Q</td>
<td>FTBE2B20Q</td>
<td>FTCE1B20Q</td>
<td>FTCE2B20Q</td>
</tr>
</tbody>
</table>

*Please note the bolded options reflect standard options with a reduced lead-time. Consult factory on all other lead-time options.*