

spirax/sarco®

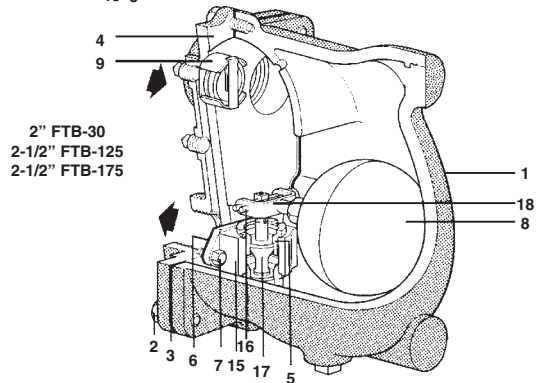
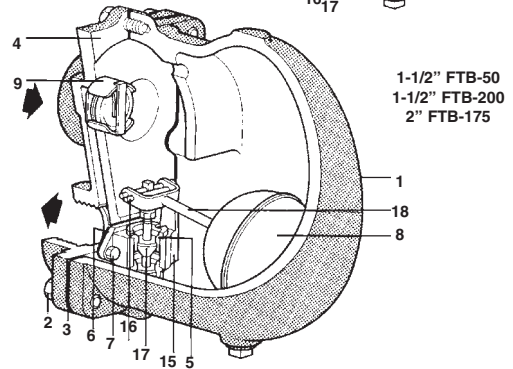
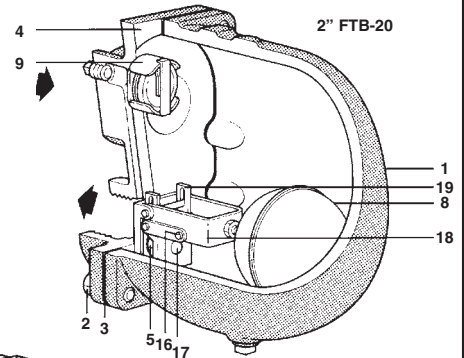
Cast Iron Float & Thermostatic Steam Traps FTB Super Capacity Series

The trap contains a float valve mechanism which modulates to discharge condensate continuously at steam temperature. Non-condensable gases are released by a separate internal balanced pressure thermostatic air vent.

| Model | FTB-20 | FTB-30 | FTB-50 | FTB-125 | FTB-175 | FTB-200 |
|---------------------|-----------------------------|---------|---------|----------|------------|----------|
| PMO | 20 psig | 30 psig | 50 psig | 125 psig | 175 psig | 200 psig |
| Sizes | 2" | 2" | 1-1/2" | 2-1/2" | 2", 2-1/2" | 1-1/2" |
| Connections | NPT | | | | | |
| Construction | Cast Iron Body | | | | | |
| | Stainless Steel Internals | | | | | |
| Options | Gauge glass, Vacuum Breaker | | | | | |

Typical Applications

All process heat exchange equipment, particularly when controlled by modulating temperature control valves; unit heaters and air heating coils.



Construction Materials

| No. | Part | Material | |
|-----|----------------------------|--------------------------|--------------------|
| 1 | Body | Cast Iron | ASTM A126 CL B |
| 2 | Cover Screws | Carbon Steel | ASTM A449 Type 1 |
| 3 | Cover Gasket | Graphite | |
| 4 | Cover | Cast Iron | ASTM A126 CL B |
| 5 | Valve Seat | Stainless Steel | Type 303 |
| 6 | Valve Seat Gasket | Stainless Steel (FTB-20) | Type 302 |
| | Valve Assembly Gasket | Graphite | |
| 7 | Main Valve Assembly Screws | Stainless Steel | ASTM A193 Grade B8 |
| 8 | Ball Float | Stainless Steel | Type 304 |
| 9 | Air Vent Assembly | Stainless Steel | |
| | Air Vent Head | Stainless Steel | Type 440 GR B |
| | Air Vent Seat | Stainless Steel | Type 303 |
| 15 | Main Valve Assy Housing | Stainless Steel | ASTM A743 CF8M |
| 16 | Pivot Pin | Stainless Steel | Type 303 |
| 17 | Valve Head | Stainless Steel | Type 303 |
| | | (FTB-20, 175, 200) | ASTM A351GR. CF-8M |
| | | Cast Stainless Steel | (FTB-30, 125, 200) |
| 18 | Float Arm | Stainless Steel | Type 301 |
| 19 | Seat Bracket | Stainless Steel (FTB-20) | Type 304 |
| | Head Bracket, Stop, Link | Stainless Steel (FTB-20) | Type 301 |

For Capacities, see TI-2-317-US

Limiting Operating Conditions

| | | |
|-------------------------------|-------------------|-------------|
| Max. Operating Pressure (PMO) | FTB-20: 20 psig | (1.4 barg) |
| | FTB-30: 30 psig | (2.1 barg) |
| | FTB-50: 50 psig | (3.4 barg) |
| | FTB-125:125 psig | (8.6 barg) |
| | FTB-175:175 psig | (12.1 barg) |
| | FTB-200: 200 psig | (14.0 barg) |
| Max. Operating Temperature | 450°F @ 200 psig | |

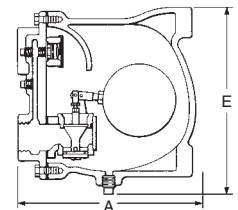
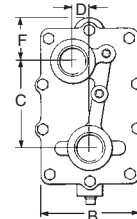
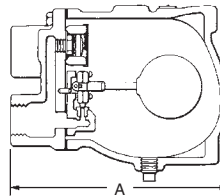
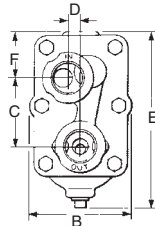
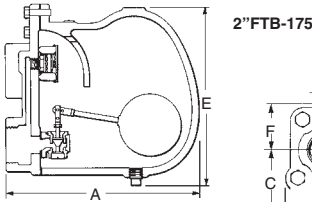
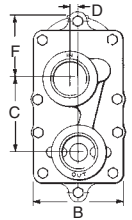
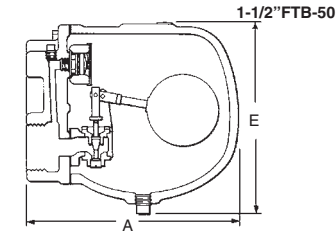
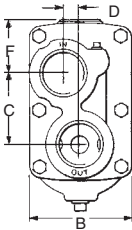
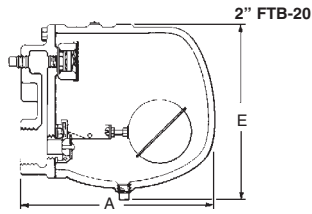
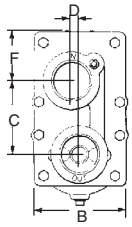
Pressure Shell Design Conditions

| | | | |
|------------------------------------|---------|----------------------|-----------------------|
| PMA Max. allowable temp. | FTB-125 | 175 psig/up to 450°F | 12.1 barg/up to 232°C |
| | FTB-175 | | |
| | FTB-200 | 200 psig/up to 450°F | 14 barg/up to 232°C |
| | FTB-20 | | |
| | FTB-30 | 125 psig/up to 450°F | 8.6 barg/up to 232°C |
| FTB-50 | | | |
| TMA Max. allowable temp. | FTB-125 | 450° F/0-175 psig | 232°C/0-12.1 barg |
| | FTB-175 | | |
| | FTB-20 | 450° F/0-125 psig | 232°C/0-8.6 barg |
| | FTB-30 | | |
| | FTB-50 | 450°F/0-200 psig | |
| FTB-200 | | | |

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only. In the interests of development and improvement of the product, we reserve the right to change the specification.

Cast Iron Float & Thermostatic Steam Traps

FTB Super Capacity Series



| Dimensions (nominal) in inches and millimeters | | | | | | | Weight |
|---|--------------|-------------|-------------|------------|-------------|------------|------------------|
| Type & Size | A | B | C | D | E | F | |
| FTB-20 2" | 12.2 309 | 5.9 149 | 4.5 114 | 0.5 13 | 10.7 271 | 3 76 | 43 lb 19.5 kg |
| FTB-30 2" | 15.25 387 | 9.25 235 | 7.25 184 | 1.4 35 | 15.6 397 | 3.75 95 | 89 lb 40.4 kg |
| FTB-50 1-1/2" | 8.8 224 | 4.25 108 | 3 76 | 0.68 17 | 8.3 211 | 2.5 64 | 22 lb 10.0 kg |
| FTB-125 2-1/2" | 15.6 390 | 9.25 235 | 7.25 184 | 1.4 35 | 15.6 397 | 3.75 95 | 90 lb 40.8 kg |
| FTB-175 2" | 12.1 306 | 5.9 149 | 4.5 114 | 0.5 13 | 11.8 300 | 4 102 | 48 lb 21.8 kg |
| FTB-175 2-1/2" | 15.4 390 | 9.25 235 | 7.25 184 | 1.4 35 | 15.6 397 | 3.75 95 | 90 lb 40.8 kg |
| FTB-200 1-1/2" | 10.8 273 | 5.8 146 | 3 76 | 0.6 14 | 9.1 232 | 2.3 64 | 31 lb |

1-1/2" FTB-200

2" FTB-30, 2-1/2" FTB-125 & 175

Installation

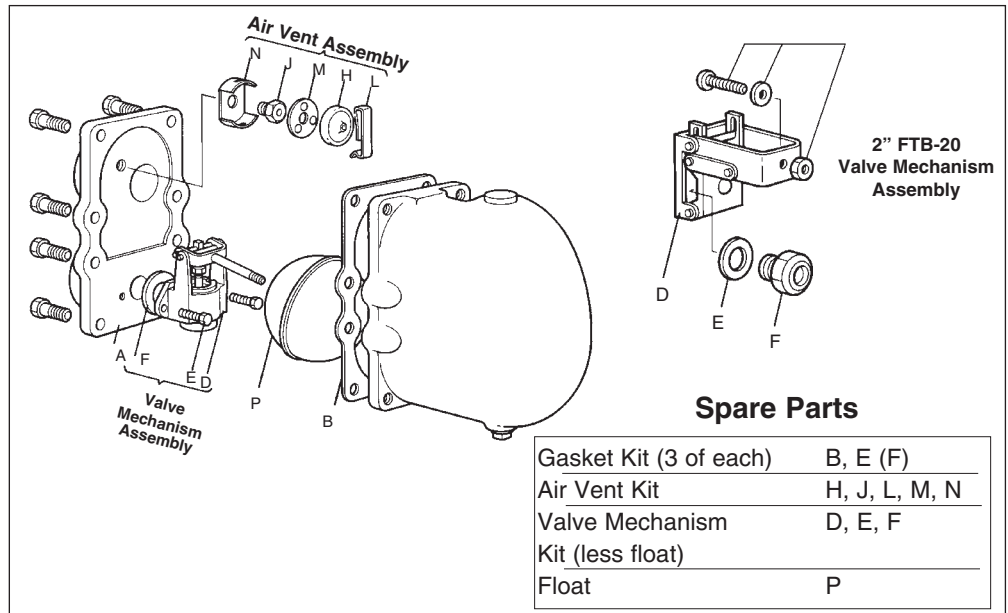
A pipeline strainer should be installed ahead of any steam trap. Full-port isolating valves should be placed to permit servicing. The trap should be installed below the drainage point of the equipment with a collecting leg before the trap, in a position with the float arm in a horizontal plane so that the float rises and falls vertically, and with the direction of flow as indicated on the cover. Refer to IM-2-300-US for complete instructions.

Maintenance

This product can be maintained without disturbing the piping connections. Complete isolation from both supply and return line is required before any servicing is performed. The trap should be disassembled periodically for inspection and cleaning of the valve head and seat, and operating mechanism. Worn or damaged parts should be replaced using a complete valve mechanism assembly and/or air vent assembly. Complete installation and maintenance instructions are given in IM-2-300-US, which accompanies the product.

Sample Specification

Steam traps shall be of the mechanical float type having cast iron bodies, NPT connections, and stainless steel valve heads and seats. Incorporated into the trap body shall be a stainless steel balanced pressure thermostatic air vent capable of withstanding 45°F(25°C) of superheat and resisting waterhammer without sustaining damage. Internals of the trap shall be completely servicable without disturbing the piping.



| Spare Parts | |
|----------------------------------|---------------|
| Gasket Kit (3 of each) | B, E (F) |
| Air Vent Kit | H, J, L, M, N |
| Valve Mechanism Kit (less float) | D, E, F |
| Float | P |

TI-2-315-US 9.08