

TSF-13,13F

- Bucket

Float

Disc

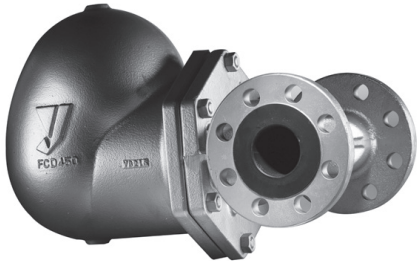
Bellows
- Bimetal

Wafer

By-pass

Stainless steel
- Connector

Side to side



■Features

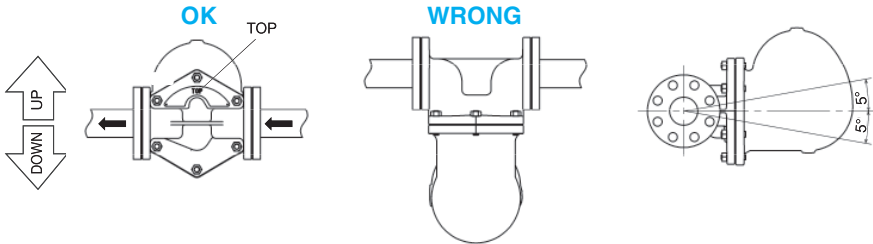
1. Reliable performance and large discharge capacity ensured by double-port structure.
2. All main parts such as valves, seats, air vents and floats are made of stainless steel that offer excellent corrosion resistance and durability.
3. By adopting the air vent, to exhaust the air in the steam piping system quickly, significantly shorten the equipment start-up time.
4. Stable operation realized by adopting large float.

■Specifications

Model		TSF-13	TSF-13F	
Nominal size		40A, 50A		
Application		Steam Condensate		
Max. differential pressure (ΔPMX)		TSF-13-5: 0.01-0.5 MPa TSF-13-10: 0.01-1.0 MPa TSF-13-14: 0.01-1.4 MPa	TSF-13F-5: 0.01-0.5 MPa TSF-13F-10: 0.01-1.0 MPa	TSF-13F-5: 0.01-0.5 MPa TSF-13F-10: 0.01-1.0 MPa TSF-13F-14: 0.01-1.4 MPa
Maximum working pressure		1.6 MPa	1.0 MPa	1.6 MPa
Minimum differential pressure		0.01 MPa		
Maximum temperature		220°C		
Material	Body	Ductile cast iron		
	Float	Stainless steel		
	Valve, valve seat	Stainless steel		
Connection		JIS Rc screwed NPT screwed	JIS 10K RF flanged ASME class 150	JIS 20K RF flanged EN 1092 PN16 or PN25 ASME class 300

- *1. Install a strainer (recommended: 80 mesh) at the inlet side to protect TSF-13 from scale or other substances. Due to the double-port structure, foreign substances stuck on the valve and valve seat may cause significant steam leakage.
- *2. Check installation posture. Do not tilt the product during use.
Wrong posture hampers proper operation (The figure below is an image of the product piping situation when viewed from the side).
- *3. Keep the product tilt within 5°. Support the product as needed.

■Caution for Installation



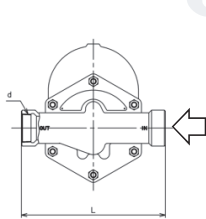
■Dimensions (mm) and Weights (kg)

•TSF-13

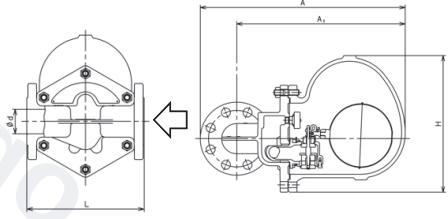
Nominal size	Connection	d	L	A	A ₁	H	Weight
40A	JIS Rc	Rc 1-1/2	270	313	281	290	19
50A	NPT	Rc 2	300	328	291	290	20

•TSF-13F

Nominal size	Connection	d	L	A	A ₁	H	Weight
40A	JIS 10KRF/20KRF	40	228	423	353	290	24
	EN 1092 PN16 or PN25	40	230	428	353	290	24.5
	ASME Calss 150	40	221	416	353	290	23
	ASME Calss 300	40	221	431	353	290	25.7
50A	JIS 10KRF/20KRF	50	239	436	358	290	25
	EN 1092 PN16 or PN25	50	230	441	358	290	25.3
	ASME Calss 150	50	220	433	358	290	24.5
	ASME Calss 300	50	239	441	358	290	26.8



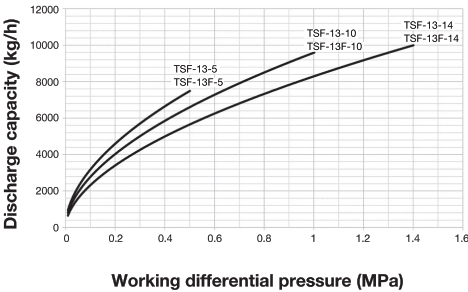
TSF-13



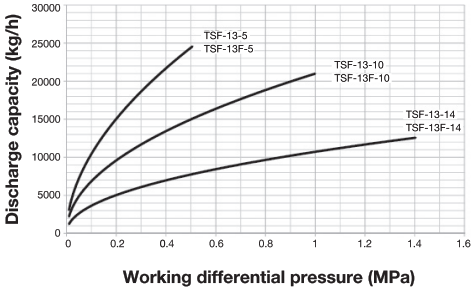
TSF-13F

■Maximum Continuous Discharge Capacity Chart

•TSF-13, 13F, 40A



•TSF-13, 13F, 50A



The discharge capacity shown in the charts on the above is the maximum value. In designing the system, select a steam trap with a sufficient safety factor(more than two times the regular level).