FREE FLOAT® STEAM TRAP

MODEL FS5 QuickTrap®

UNIVERSAL FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

Features

Inline replaceable 2-bolt universal flange steam trap for steam mains, tracers and light process.

1. Two-bolt flange connector permits trap replacement in minutes without disturbing piping.
2. Universal flange allows trap to be positioned in the correct attitude, regardless of pipeline configuration.
3. Precision-ground float, constant water seal and three-point seating design ensure a steam tight seal, even under no-load conditions.
4. Thermostatic air venting with bimetal strip allows for fast start-up.
5. One screen located in connector and one in trap ensure trouble-free operation.

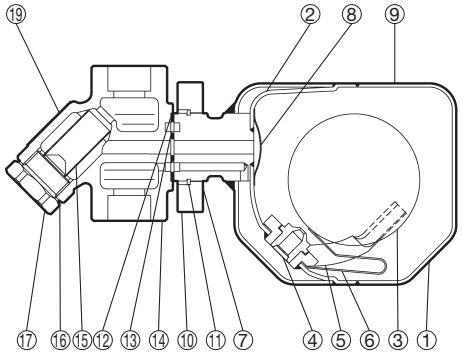
Specifications

Model		FS5			FS5H		
Connection		Screwed*	Socket Welded	Flanged	Screwed*	Socket Welded	Flanged
Size (mm)		15, 20, 25			15, 20, 25		
Orifice No.		10, 21, 32			46		
Maximum Operating Pressure (MPaG)	PMO	1.0, 2.1, 3.2			4.6		
Maximum Differential Pressure (MPa)	ΔPMX	1.0, 2.1, 3.2			4.6		
Minimum Operating Pressure (MPaG)		0.01			0.01		
Maximum Operating Temperature (°C)	TMO	400			425		
Connector Unit		F46			F46		
Trap Unit		S5**			S5H**		

* Screwed connection is optional and requires special installation procedure. Consult TLV for details.
1 MPa = 10.197 kg/cm²
** Designed for use with F46, F32 Connector Units and V1/V2/V1P/V2P Trap Stations.
Trap and Connector Units sent as separate units for flexible installation.
PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 3.2 (FS5), 4.6 (FS5H)
Maximum Allowable Temperature (°C) TMA: 400 (FS5), 425 (FS5H)

⚠ CAUTION To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range.
Local regulations may restrict the use of this product to below the conditions quoted.

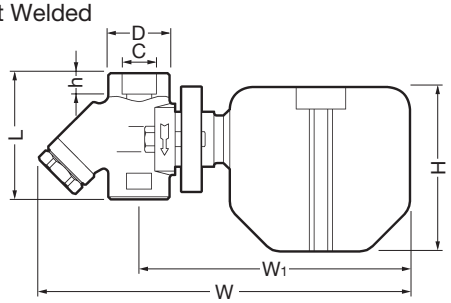
No.	Description	Material	JIS	ASTM/AISI*
①T	Trap Body	Stainless Steel	—	A240 Type 316L
②T	Inner Cover	Stainless Steel	—	A240 Type 316L
③T	Float	Stainless Steel	SUS316L	AISI316L
④T	Orifice	—	—	—
⑤T	Float Guide	Cast Stainless Steel	—	A351 Gr.CF3M
⑥T	Air Vent Strip	Bimetal	—	—
⑦T	Connector Joint	Stainless Steel	SUS304	AISI304
⑧T	Trap Screen	Stainless Steel	SUS304	AISI304
⑨T	Nameplate	Stainless Steel	SUS304	AISI304
⑩T	Connector Flange	Carbon Steel	—	A105
⑪T	Snap Ring	Carbon Steel	SWRH57	AISI1055
⑫MT	Outer Connector Gasket	Graphite/Stainless Steel	-/SUS304	-/AISI304
⑬MT	Inner Connector Gasket	Graphite/Stainless Steel	-/SUS304	-/AISI304
⑭	Connector Body	Cast Stainless Steel	—	A351 Gr.CF8
⑮	Screen inside/outside	Stainless Steel	SUS304/430	AISI304/430
⑯M	Screen Holder Gasket	Stainless Steel	SUS316L	AISI316L
⑰	Screen Holder	Cast Stainless Steel	—	A351 Gr.CF8
⑱T	Connector Bolt**	Alloy Steel	SNB7	A193 Gr.B7
⑲	Connector Nameplate	Stainless Steel	SUS304	AISI304
⑳	Flange***	Cast Stainless Steel/ Stainless Steel	-/SUS304	A351 Gr.CF8/ AISI304



* Equivalent ** Shown on reverse
*** Shown on reverse, shape and material depend on flange specifications
Replacement kits available: (M) maintenance parts, (T) trap unit S5/S5H
Replacement parts for former connector body F32 differ from those for F46.

Dimensions

● **FS5/FS5H**
Socket Welded

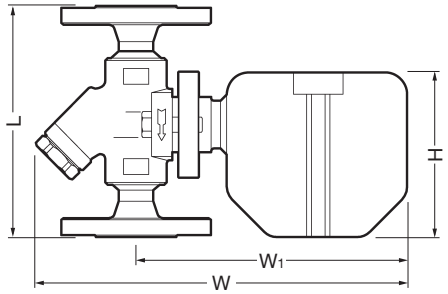


FS5/FS5H Socket Welded

(mm)

Model	Size	L	ϕH	W	W1	ϕD	ϕC	h	Weight (kg)
FS5	15	80	104	236	172	36	22.2	12	2.1
	20						27.7	14	
	25	96		238	176	44	34.5		2.5
FS5H	15	80	108	238	174	36	22.2	12	2.2
	20						27.7	14	
	25	96		240	178	44	34.5		2.6

● **FS5/FS5H**
Flanged



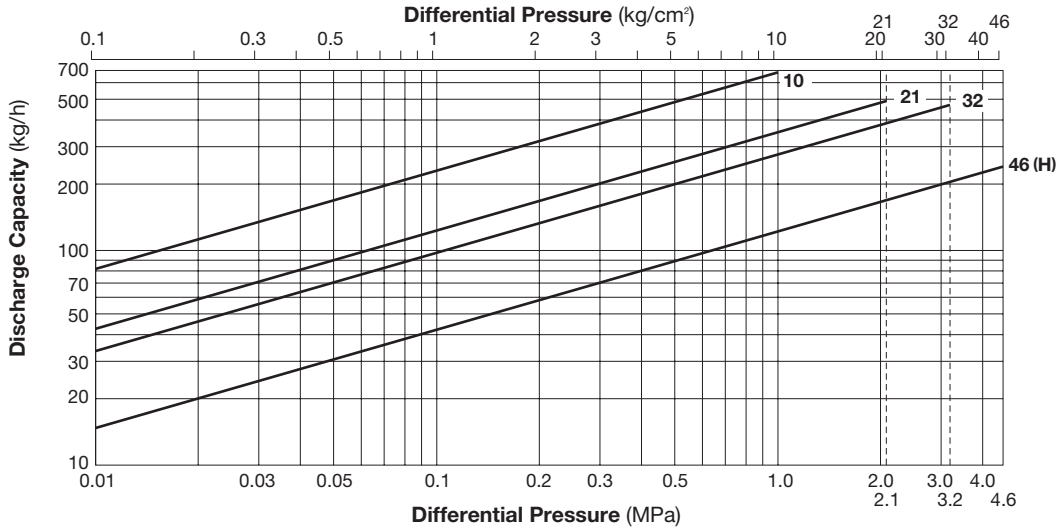
FS5/FS5H Flanged

(mm)

Model	Size	L			ϕH	W	W1	Weight* (kg)
		ASME Class						
		150RF	300RF	600RF				
FS5	15	150	150	180	104	236	172	3.8 (4.4)
	20							5.2 (5.6)
	25	160	160	190				5.2 (6.4)
FS5H	15	–	–	180	108	238	174	(4.5)
	20							(5.7)
	25			190				(6.5)

Other standards available, but length and weight may vary
* Weight is for Class 300 (600) RF

Discharge Capacity



1. Line numbers within the graph refer to orifice numbers.
2. Differential pressure is the difference between the inlet and outlet pressure of the trap.
3. Capacities are based on continuous discharge of condensate 6˚C below saturated steam temperature.
4. Recommended safety factor: at least 1.5.

CAUTION DO NOT use traps under conditions that exceed maximum differential pressure as condensate back up will occur!

Manufacturer
TLV® CO., LTD.
Kakogawa, Japan
is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001/ISO 14001