



# BALANCED PRESSURE THERMOSTATIC STEAM TRAP

## MODEL FL21/FL32 QuickTrap®

UNIVERSAL BALANCED PRESSURE THERMOSTATIC TRAP WITH "FAIL OPEN" DESIGN

### Features

**Inline replaceable and cleanable 2-bolt universal flange steam trap with high air venting capability. For steam mains, tracers, dryers and heaters.**

1. Two-bolt flange connector permits trap replacement or cleaning in minutes without disturbing piping.
2. Universal flange allows trap to be positioned in the correct attitude, regardless of pipeline configuration.
3. "Fail open" feature for critical service.
4. Rugged yet light construction withstands superheat and water hammer.
5. Cyclic operation with fixed subcooling throughout the whole pressure range.
6. Built-in screens in connector and trap body protect and keep trap module replacement costs low.
7. Easily cleanable and repairable design.
8. Hardened stainless steel valve head and seat.
9. Models FL21-C and FL32-C with built-in check valve available upon request.



### Specifications

Model	FL21	FL32
Connection	Screwed, Socket Welded, Flanged	
Size (mm)	15, 20, 25	
Max. Operating Pressure (MPaG) PMO	2.1	3.2
Min. Operating Pressure (MPaG)	0.01	
Maximum Back Pressure	90% of inlet pressure	
Max. Operating Temperature (°C) TMO	see graph at right	
Subcooling of X-element Fill (°C)	up to 6	
Type of X-element	B	
Connector Unit	F46	
Trap Unit	L21*	L32*

\* Designed for use with the F46, F32 Connector Units 1 MPa = 10.197 kg/cm<sup>2</sup> and V1/V2/V1P/V2P Trap Stations.

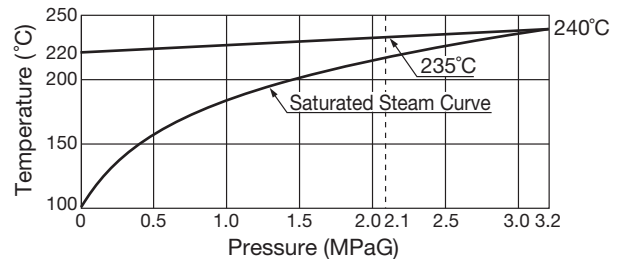
Trap and Connector Units sent as separate units for flexible installation.

**PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS):**

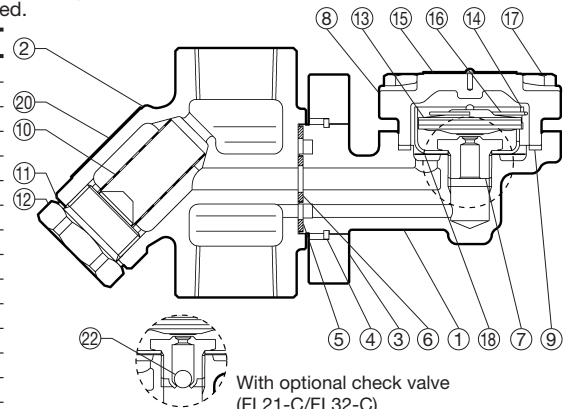
Maximum Allowable Pressure (MPaG) PMA: 3.2

Maximum Allowable Temperature (°C) TMA: 300

**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*
① <sup>T</sup>	Trap Body	Cast Stainless Steel	—	A351 Gr.CF8
②	Connector Body	Cast Stainless Steel	—	A351 Gr.CF8
③ <sup>T</sup>	Connecting Flange	Carbon Steel	—	A105
④ <sup>T</sup>	Snap Ring	Carbon Steel	SWRH57	A1055
⑤ <sup>MRT</sup>	Outer Connector Gasket	Graphite/Stainless Steel	- /SUS304	- /AISI304
⑥ <sup>MRT</sup>	Inner Connector Gasket	Graphite/Stainless Steel	- /SUS304	- /AISI304
⑦ <sup>RT</sup>	Valve Seat	Stainless Steel	SUS420F	AISI420F
⑧ <sup>T</sup>	Trap Cover	Carbon Steel	—	A105
⑨ <sup>MRT</sup>	Cover Gasket	Graphite/Stainless Steel	- /SUS316L	- /AISI316L
⑩ <sup>R</sup>	Screen inside/outside	Stainless Steel	SUS304/430	AISI304/430
⑪ <sup>MRT</sup>	Screen Holder Gasket	Stainless Steel	SUS316L	AISI316L
⑫	Screen Holder	Cast Stainless Steel	—	A351 Gr.CF8
⑬ <sup>RT</sup>	X-element	Stainless Steel	—	—
⑭ <sup>RT</sup>	X-element Guide	Stainless Steel	SUS304	AISI304
⑮ <sup>T</sup>	Nameplate	Stainless Steel	SUS304	AISI304
⑯ <sup>RT</sup>	Spring Clip	Stainless Steel	SUS304	AISI304
⑰ <sup>T</sup>	Cover Bolt	Carbon Steel	S45C	AISI1045
⑱ <sup>RT</sup>	Trap Screen	Stainless Steel	SUS304	AISI304
⑲ <sup>T</sup>	Connector Bolt**	Alloy Steel	SNB7	A193 Gr.B7
⑳	Connector Nameplate	Stainless Steel	SUS304	AISI304
㉑	Flange**	Carbon Steel	—	A105
㉒	Steel Ball (Check Valve)	Stainless Steel	SUS440C	AISI440C



\* Equivalent

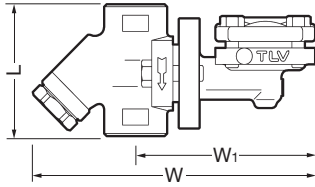
\*\* Shown on reverse

Replacement kits available:

(M) maintenance parts, (R) repair parts (T) trap unit L21/L32  
Replacement parts for former connector body F32 differ from those for F46.

**Dimensions**

● **FL21/FL32**  
Screwed

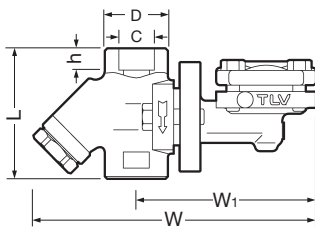


**FL21/FL32** Screwed\* (mm)

Size	L	W	W <sub>1</sub>	Weight (kg)
15	80	169	105	1.8
20				
25	96	171	109	2.1

\* Rc(PT) other standards available

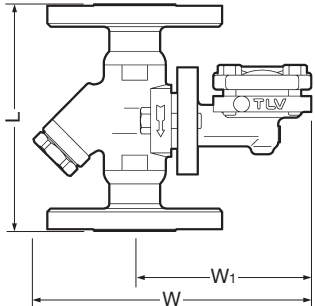
● **FL21/FL32**  
Socket Welded



**FL21/FL32** Socket Welded (mm)

Size	L	W	W <sub>1</sub>	φD	φC	h	Weight (kg)
15	80	169	105	36	22.2	12	1.8
20							
25	96	171	109	44	34.5	14	2.1

● **FL21/FL32**  
Flanged

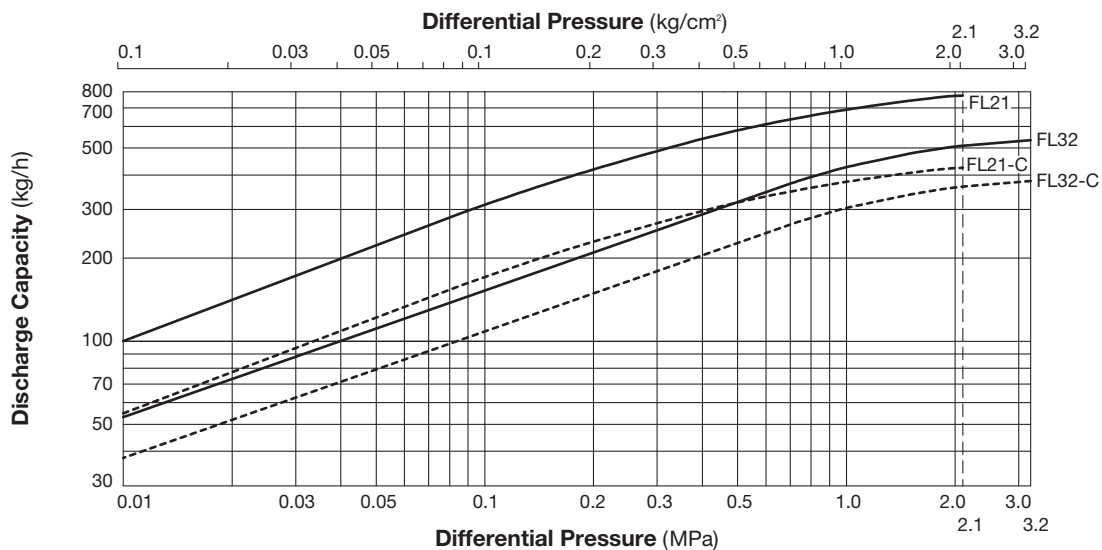


**FL21/FL32** Flanged (mm)

Size	L			W	W <sub>1</sub>	Weight* (kg)
	ASME Class					
	150RF	300RF	600RF			
15	140	140	140	169	105	4.8
20	165	165	165			5.3
25	210	210	210			6.4

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

**Discharge Capacity**



- Differential pressure is the difference between the inlet and outlet pressure of the trap.
- Recommended safety factor: at least 2

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

