



PROCESS LEVER FLOAT STEAM TRAP

MODEL SW1U-A/SW1U-B

ULTRA HIGH-CAPACITY CARBON STEEL STEAM TRAP WITH UNIQUE LEVER FLOAT MECHANISM

Benefits

Super heavy duty process lever float steam trap ideal for quickly and instantaneously draining very large quantities of condensate from process machinery, utilizing TLV's unique TLY® (Tetra-Leaf & Yoke) construction.

1. TLY construction enables massive discharge capacity with a compact design.
2. Stable operation with long service life due to durable materials.
3. Suitable for continuously operating equipment using large quantities of steam, such as reboilers or large heat exchangers.
4. Valve opening adjusts according to the amount of in-flowing condensate, reducing steam loss and condensate accumulation in the steam-using equipment.

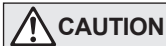


Specifications

Model	SW1U-A	SW1U-B
Size (in)	3, 4	4, 6, 8
Connection	Flanged	
Maximum Operating/Allowable Pressure (psig) PMO/PMA	230	
Maximum Differential Pressure (psi) ΔPMX	55 (30*)	115 (55*)
Maximum Operating/Allowable Temperature (°F) TMO/TMA	428	

* For water below 212 °F

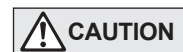
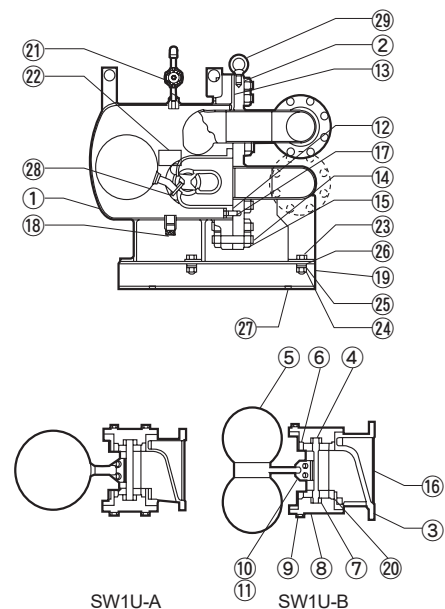
SW1U is a non-standard product, consult TLV for delivery time required.



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	ASTM/AISI*	JIS
①	Body Unit	Carbon Steel**	—	—
②	Cover Unit	Stainless Steel/Carbon Steel	—	—
③	Valve Seat Body	Cast Stainless Steel	A351 Gr.CF8	—
④	TLY Valve	Stainless Steel	AISI303	SUS303
⑤	Float Unit	Stainless Steel	AISI316L	SUS316L
⑥	Seal Ring	Stainless Steel	AISI303	SUS303
⑦	Bearing	Stainless Steel	AISI303	SUS303
⑧	Valve Holder	Stainless Steel	AISI303	SUS303
⑨	Valve Holder Bolt	Stainless Steel	AISI304	SUS304
⑩	Lever Bolt	Stainless Steel	AISI304	SUS304
⑪	Spring Washer	Stainless Steel	AISI304	SUS304
⑫	Valve Seat Body Gasket	Fluorine Resin	PTFE	PTFE
⑬	Cover Gasket	Graphite/Stainless Steel	-/AISI304	-/SUS304
⑭	Cover Bolt	Alloy Steel	A193 Gr.B7	SNB7
⑮	Cover Nut	Carbon Steel	AISI1045	S45C
⑯	Baffle	Stainless Steel	AISI304	SUS304
⑰	Valve Seat Body Bolt	Stainless Steel	AISI304	SUS304
⑱	Drain Plug	Malleable Cast Iron	A47 Gr.32510	FCMB
⑲	Mounting Base	Carbon Steel	A6	SS400
⑳	Wave Spring	Stainless Steel	AISI301	SUS301
㉑	Bellows Sealed Valve	Carbon Steel	A105	—
㉒	Nameplate	Stainless Steel	AISI304	SUS304
㉓	Mounting Bolt	Carbon Steel	A6	SS400
㉔	Mounting Nut	Carbon Steel	A6	SS400
㉕	Spring Washer	Carbon Steel	AISI1055	SWRH57
㉖	Washer	Carbon Steel	A6	SS400
㉗	Foundation Bolt	Carbon Steel	A6	SS400
㉘	Set Screw	Stainless Steel	AISI304	SUS304
㉙	Eye Bolt	Carbon Steel	A6	SS400

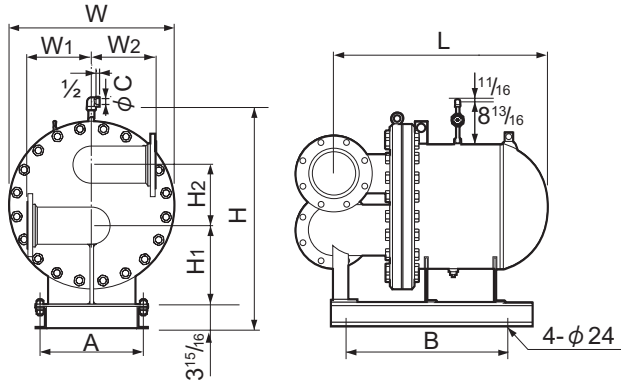
* Equivalent ** Body material differs slightly for SW1U-A and SW1U-B



Install outlet piping leading from the bellows valve to a drainage vessel or ditch and make sure the end of the pipe is above the waterline.

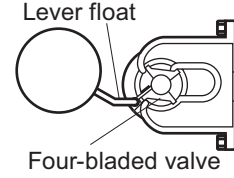
Dimensions

● SW1U-A/SW1U-B Flanged



TLY® Construction

TLY® (Tetra-Leaf & Yoke) construction was developed for process lever float steam traps, and comprises a four-bladed valve connected directly to a lever float.



As the valve opening and closing forces created by the pressure differential between inlet and outlet pressures are balanced, a four-bladed valve ensures stable trap operation at all times.

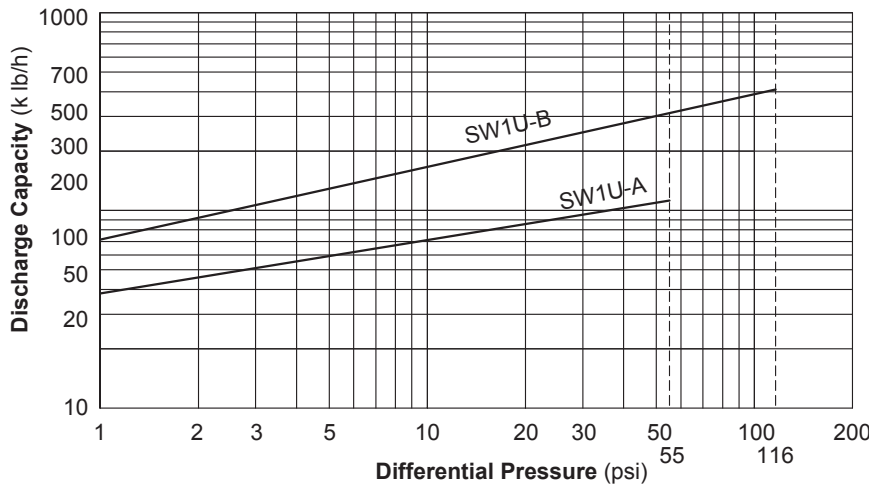
TLY is a registered trademark of TLV CO., LTD.

SW1U-A/SW1U-B Flanged (in)

Model	Size	Connects to ASME Class	L	H	H ₁	H ₂	W	W ₁ / W ₂	A	B	C	Weight (lb)
SW1U-A	3	150RF	29 ¹⁵ / ₁₆	35 ¹ / ₄	11	7 ¹¹ / ₁₆	23 ⁷ / ₁₆	7 ⁷ / ₁₆	13 ³ / ₁₆	19 ¹¹ / ₁₆	0.855	584
		300RF	30 ¹¹ / ₁₆				25 ⁹ / ₁₆					661
	150RF	29 ¹⁵ / ₁₆	23 ⁷ / ₁₆				595					
	300RF	30 ¹¹ / ₁₆	25 ⁹ / ₁₆				717					
SW1U-B	4	150RF	37 ³ / ₈	42 ¹ / ₈	14 ³ / ₈	10 ¹ / ₄	29 ¹ / ₂	11 ¹³ / ₁₆	18 ⁷ / ₈	25 ⁹ / ₁₆	0.855	1257
		300RF	38 ³ / ₁₆	43 ⁵ / ₁₆	15 ⁹ / ₁₆		33 ⁷ / ₁₆					1598
	150RF	37 ³ / ₈	42 ¹ / ₈	14 ³ / ₈	29 ¹ / ₂		1279					
	300RF	38 ³ / ₁₆	43 ⁵ / ₁₆	15 ⁹ / ₁₆	33 ⁷ / ₁₆		1642					
	6	150RF	37 ³ / ₈	42 ¹ / ₈	14 ³ / ₈		29 ¹ / ₂					1356
		300RF	38 ³ / ₁₆	43 ⁵ / ₁₆	15 ⁹ / ₁₆		33 ⁷ / ₁₆					1698

Other standards available, but length and weight may vary

Discharge Capacity



- Line numbers within the graph are orifice numbers.
- Differential pressure is the difference between the inlet and outlet pressure of the trap.
- Capacities are based on continuous discharge of condensate 11 °F below saturated steam temperature.
- Recommended safety factor: at least 1.5.



DO NOT use this product under conditions that exceed maximum differential pressure, as condensate backup will occur!



DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE. Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

TLV CORPORATION

13901 South Lakes Drive, Charlotte, NC 28273-6790
Tel: 704-597-9070 Fax: 704-583-1610
E-mail: tlv@tlvengineering.com <https://www.tlv.com>
For Technical Service 1-800 "TLV TRAP"



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

