



# TRAP STATION

## MODEL V1P/V2P

### HIGH PERFORMANCE FORGED PISTON VALVE TRAP STATION RATED TO 725 PMO

#### Benefits

**Compact valve and steam trap station for use with condensate manifolds or applications with limited installation space or high PMA requirements.**

1. Rugged, compact and versatile design minimizes installation area and easily adapts to plant PMA requirements.
2. Employs a high performance piston valve comprised of upper and lower valve rings made of alternating layers of stainless steel and graphite that provide exceptional tight-sealing.
3. The CLASS 800 design piston valves provide for long service reliability.
4. QuickTrap two-bolt universal connection permits trap unit replacement in minutes without disturbing piping.
5. Built-in screen with large surface area ensures trouble-free operation.
6. Includes built-in BD2 blowdown and/or test valves on some models for station blowdown and trap testing.

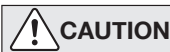


#### Specifications

Model	V1P-RL	V1P-RB	V1P-LB	V1P-RW	V1P-LW	V1P-RV	V1P-LV	V2P-RL	V2P-RB	V2P-LB
Body Material	<b>Carbon Steel (A105)</b> or <b>Stainless Steel (A182 F304)</b>									
Connection	S	SW	S	SW	S	SW	S	SW	S	SW
Size (in)	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4
Built-in Valve Location	One valve at trap inlet							One valve each at trap inlet & outlet		
Maximum Operating Pressure (psig) PMO	725*									
Maximum Operating Temperature (°F) TMO	800*									
Maximum Allowable Pressure (psig) PMA	725*									
Maximum Allowable Temperature (°F) TMA	800*									
Seat Leakage (Gas test in accordance with API 598)	0 bubbles/15 seconds @ 87 psig									

\* For trap station only; further restricted by mounted trap unit.

**Body material, connections and sizes in bold are standard**  
S = Screwed, SW = Socked Weld

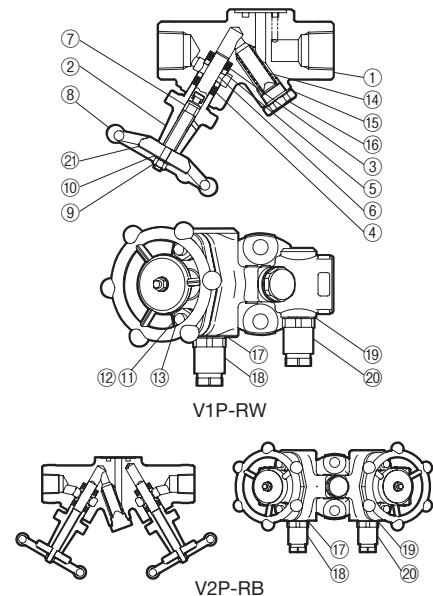


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	ASTM/AISI	JIS	
①	Body	See Specifications table above for available materials			
②	Valve Bonnet	Carbon Steel	A105	—	
③	Lower Valve Ring	Graphite/Stainless Steel	—	—	
④	Upper Valve Ring	Graphite/Stainless Steel	—	—	
⑤	Lantern Bushing	Stainless Steel	A182 F316	—	
⑥	Piston	Stainless Steel	A182 F316	—	
⑦	Spindle	Stainless Steel	A479 410	—	
⑧	Handwheel	Carbon Steel	A105	—	
⑨	Handwheel Nut	Carbon Steel	—	—	
⑩	Washer	Carbon Steel	—	—	
⑪	Bonnet Nut	Carbon Steel	—	—	
⑫	Washer	Carbon Steel	—	—	
⑬	Bonnet Bolt	Alloy Steel	A193 Gr.B7	—	
⑭	Screen <sup>3)</sup>	Stainless Steel	AISI430 <sup>1)</sup>	SUS430	
⑮	Screen Holder Gasket <sup>3)</sup>	Carbon Steel Body	Soft Iron	AISI1010 <sup>1)</sup>	SUYF
		Stain. Steel Body	Stainless Steel	AISI316L <sup>1)</sup>	SUS316L
⑯	Screen Holder	Carbon Steel Body	Carbon Steel	A105	—
		Stain. Steel Body	Stainless Steel	AISI303 <sup>1)</sup>	SUS303
⑰	Blowdown Valve Gasket <sup>2,3)</sup>	Carbon Steel Body	Soft Iron	AISI1010 <sup>1)</sup>	SUYF
		Stain. Steel Body	Stainless Steel	AISI316L <sup>1)</sup>	SUS316L
⑱	Blowdown Valve (BD2) <sup>2)</sup>	Cast Stainless Steel	A351 Gr.CF8	—	
⑲	Test Valve Gasket <sup>2,3)</sup>	Carbon Steel Body	Soft Iron	AISI1010 <sup>1)</sup>	SUYF
		Stain. Steel Body	Stainless Steel	AISI316L <sup>1)</sup>	SUS316L
⑳	Test Valve (BD2) <sup>2)</sup>	Cast Stainless Steel	A351 Gr.CF8	—	
㉑	Nameplate	Aluminum	—	—	

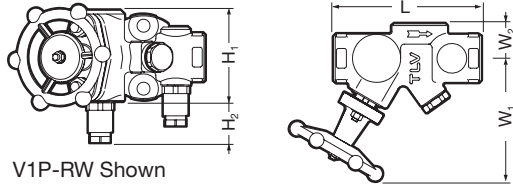
<sup>1)</sup> Equivalent <sup>2)</sup> See next page for available models.

<sup>3)</sup> Aside from those indicated, replacement parts are not normally supplied. Consult TLV if other parts are needed. Furthermore, the material for the gasket varies depending on the body material of the product. Include the body material of your product when ordering a replacement gasket.

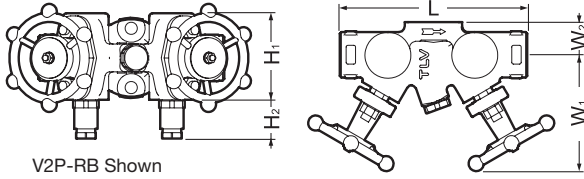


## Dimensions

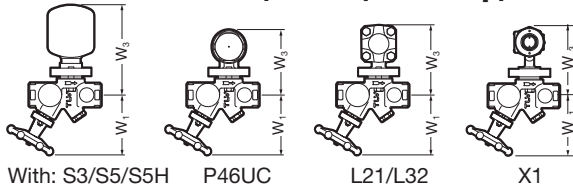
### ● V1P Series Screwed & Socket Weld



### ● V2P Series Screwed & Socket Weld



### ● Mounted Steam Trap Units (QuickTrap)



### V1P Series Screwed & Socket Weld (in)

Size	L	H <sub>1</sub>	H <sub>2</sub>	W <sub>1</sub> *	W <sub>2</sub>	Weight** (lb)
1/2	4 3/4	2 15/16	1 15/16	4 3/4	1 1/8	5.3
3/4						

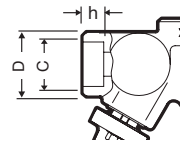
Screwed connections are NPT; other standards available  
 \* At full-open position \*\* With blowdown and test valves

### V2P Series Screwed & Socket Weld (in)

Size	L	H <sub>1</sub>	H <sub>2</sub>	W <sub>1</sub> *	W <sub>2</sub>	Weight** (lb)
1/2	6 5/16	2 15/16	1 5/16	4 3/4	1 1/8	8.4
3/4						

Screwed connections are NPT; other standards available  
 \* At full-open position \*\* With blowdown and test valves

### Socket Weld Connections (in)



Size	φD	φC	h
1/2	1 7/16	0.855	1/2
3/4		1.065	

\* ASME B16.11-2005, other standards available

Model	W <sub>1</sub> *	W <sub>3</sub>	Weight** (lb)	
			With V1P	With V2P
S3	4 3/4	5 5/8	7.5	10.6
S5		7	8.4	11.5
S5H		7 1/8	8.6	11.7
P46UC		7.5	10.6	
L21/L32		4 3/8	7.7	7.7
X1				

\* At full-open position \*\* Combined weight of trap station with mounted trap unit

## Valve Series

Model	V1P-RL*	V1P-RB	V1P-LB	V1P-RW	V1P-LW	V1P-RV	V1P-LV	V2P-RL*	V2P-RB	V2P-LB
Station Picture										
Flow Diagram										
Flow Direction	Right or Left	Right	Left	Right	Left	Right	Left	Right or Left	Right	Left
Inlet Valve	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Outlet Valve	—	—	—	—	—	—	—	✓	✓	✓
Blowdown Valve	—	✓	✓	✓	✓	—	—	—	✓	✓
Test Valve	—	—	—	✓	✓	✓	✓	—	✓	✓
Available	Free Float S3 / S5 / S5H									
Trap	Thermodynamic P46UC									
Units**	Thermostatic L21 / L32 / X1									

### ● Steam Trap Units Specifications\*\*

Free Float Steam Trap S3 / S5 / S5H		Thermodynamic Steam Trap P46UC		Thermostatic Steam Trap L21 / L32 / X1	
PMO: 300 / 450 / 650 psig		PMO: 650 psig		PMO: 300 / 450 / 300 psig	
TMO: 752 / 752 / 800 °F		TMO: 750 °F		TMO: 455 / 464 / 662 °F	
Max. Discharge Capacity*** 475 / 1510 / 530 lb/h		Max. Discharge Capacity*** 1630 lb/h		Max. Discharge Capacity*** 1050 / 930 / 680 lb/h	
	S3/S5/S5H	P46UC		L21/L32	X1

\* Can be used for flow in either direction

\*\* For more information, see the QuickTrap specifications data sheet for the steam trap employing the desired trap unit (trap unit - QuickTrap data sheet):

S3 - FS3/FS5; S5 - FS3/FS5; S5H - FS5H; P46UC - FP46UC; L21 - FL21/FL32; L32 - FL21/FL32; X1 - FX1

\*\*\* Capacities shown here will vary depending on orifice numbers, type of X-element and/or pressure differential.



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

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For Technical Service 1-800 "TLV TRAP"



Manufacturer

**TLV CO., LTD.**

Kakogawa, Japan

is approved by LRAA Ltd. to ISO 9001/14001

ISO 9001  
ISO 14001

