



# TRAP STATION

## MODEL V1/V2

### FORGED TRAP STATION EQUIPPED WITH BUILT-IN BELLOWS SEALED VALVE

#### Features

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

1. All wetted components are stainless steel.
2. Rugged, compact and versatile design minimizes installation area and easily adapts to plant requirements.
3. Built-in bellows-sealed valves have durable stainless steel bellows to eliminate gland leakage.
4. Good seal with stellite hardened surfaces on valve plug and valve seat.
5. **QuickTrap** 2-bolt universal connection permits trap unit replacement in minutes without disturbing piping.
6. Built-in screen with large surface area ensures trouble-free operation.
7. Includes built-in BD2 blowdown valves on some models for station blowdown and trap testing.

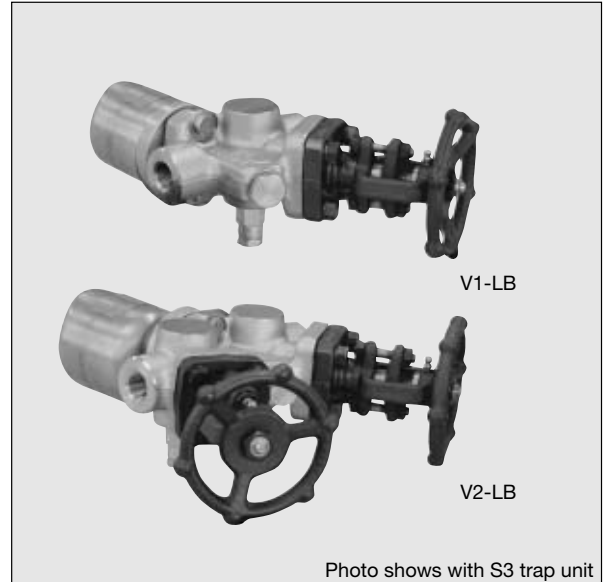


Photo shows with S3 trap unit

#### Specifications

Model	V1-RL, V1-LB, V1-RB		V2-RL, V2-LB, V2-RB	
	Connection	Screwed	Socket Welded	Screwed
Size (mm)	15, 20		15, 20	
Built-in Valve Location	1 valve at trap inlet		1 valve at trap inlet, 1 valve at trap outlet	
Maximum Operating Pressure (MPaG) PMO	4.6*			
Maximum Operating Temperature (°C) TMO	400*			

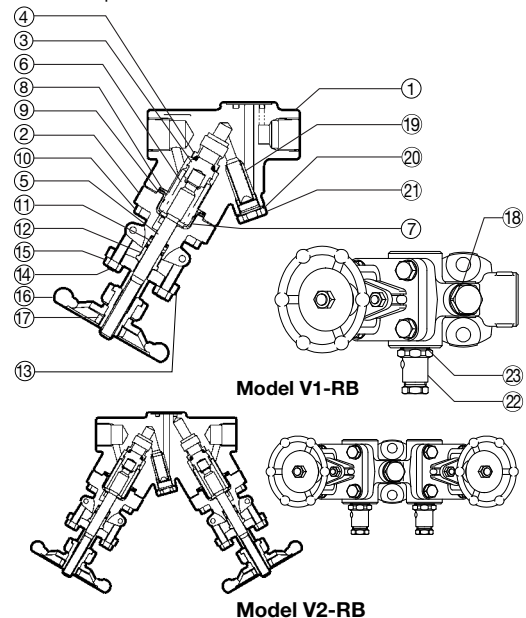
PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 4.6\* 1 MPa = 10.197 kg/cm<sup>2</sup>  
 Maximum Allowable Temperature (°C) TMA: 400\*

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



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	Body	Stainless Steel	SUS304	AISI304
② <sup>R</sup>	Valve Bonnet	Carbon Steel	—	A105
③ <sup>R</sup>	Valve Plug	Stainless Steel + Stellite	—	A276-304
④	Valve Seat	Stainless Steel + Stellite	—	A276-410
⑤ <sup>R</sup>	Valve Stem	Stainless Steel	—	A276-410
⑥ <sup>R</sup>	Bellows	Stainless Steel	SUS316L	AISI316L
⑦ <sup>R</sup>	Bellows Flange	Stainless Steel	—	A276-316L
⑧ <sup>R</sup>	Lower Bonnet Gasket	Graphite/Stainless Steel	- /SUS316	- /AISI316
⑨ <sup>R</sup>	Upper Bonnet Gasket	Graphite/Stainless Steel	- /SUS304	- /AISI304
⑩ <sup>R</sup>	Bonnet Bolt	Alloy Steel	—	A193 Gr.B7
⑪ <sup>R</sup>	Gland Packing	Graphite	—	—
⑫ <sup>R</sup>	Gland Bushing	Stainless Steel	—	A276-410
⑬ <sup>R</sup>	Gland Flange	Carbon Steel	—	A105
⑭ <sup>R</sup>	Gland Eye Bolt	Alloy Steel	—	A193 Gr.B7
⑮ <sup>R</sup>	Gland Nut	Carbon Steel	—	A194 Gr.2H
⑯ <sup>R</sup>	Handwheel	Ductile Cast Iron	FCD450	A536
⑰ <sup>R</sup>	Handwheel Nut	Carbon Steel	S25C	AISI1025
⑱	Nameplate	Stainless Steel	SUS304	AISI304
⑲ <sup>R</sup>	Screen inside/outside	Stainless Steel	AISI304/430	AISI304/430
⑳ <sup>MR</sup>	Screen Holder Gasket	Stainless Steel	SUS316L	AISI316L
㉑	Screen Holder Plug	Stainless Steel	SUS303	AISI303
㉒	Blowdown Valve BD2**	Cast Stainless Steel	—	A351 Gr.CF8
㉓ <sup>MR</sup>	BD2 Gasket**	Stainless Steel	SUS316L	AISI316L



\* Equivalent \*\* Not included with V1-RL and V2-RL  
 Replacement kits available: (M) maintenance parts, (R) repair parts  
 Kits include parts for only one valve unit; V2 may require two kits.

## Valve Series

V1 Series		Shut-off Position Inlet Side		
Model		V1-RL*	V1-RB	V1-LB
Station Picture				
Flow Diagram				
Flow Direction		Right or Left	Right	Left
Inlet Valve		✓	✓	✓
Outlet Valve		—	—	—
Trap Inlet Blowdown Valve		—	✓	✓
Trap Outlet Blowdown Valve		—	—	—
Available Trap Units*	Free Float	S3 / S5 / S5H		
	Thermodynamic	P46UC		
	Thermostatic	L21 / L32		

V2 Series		Shut-off Position Inlet and Outlet Side		
Model		V2-RL*	V2-RB	V2-LB
Station Picture				
Flow Diagram				
Flow Direction		Right or Left	Right	Left
Inlet Valve		✓	✓	✓
Outlet Valve		✓	✓	✓
Trap Inlet Blowdown Valve		—	✓	✓
Trap Outlet Blowdown Valve		—	✓	✓
Available Trap Units**	Free Float	S3 / S5 / S5H		
	Thermodynamic	P46UC		
	Thermostatic	L21 / L32		

\* Trap station is reversible; it can be installed with either a right or a left flow direction.

\*\* Select steam trap type according to intended use; see data sheets (SDS) for details.

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; S5 - FS5; S5H - FS5; P46UC - FP46UC; L21 - FL21/FL32; L32 - FL21/FL32

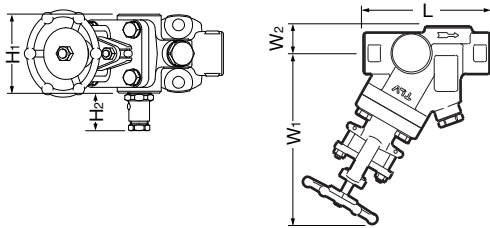
### ● Steam Trap Unit Specifications

Free Float Steam Trap S3 / S5 / S5H		Thermodynamic Steam Trap P46UC		Thermostatic Steam Trap L21 / L32	
PMO: 2.1 / 3.2 / 4.6 MPaG		PMO: 4.6 MPaG		PMO: 2.1 / 3.2 MPaG	
TMO: 400 / 400 / 425 °C		TMO: 400 °C		TMO: 235 / 240 °C	
Max. Discharge Capacity* 215 / 670 / 245 kg/h		Max. Discharge Capacity* 740 kg/h		Max. Discharge Capacity* 760 / 530 kg/h	

\* Capacities shown here will vary, depending on the conditions that lead to maximum flow. Actual capacities will vary depending on orifice numbers, type of X-element and/or pressure differential.

**Dimensions**

● **V1-RL · V1-RB · V1-LB** Screwed

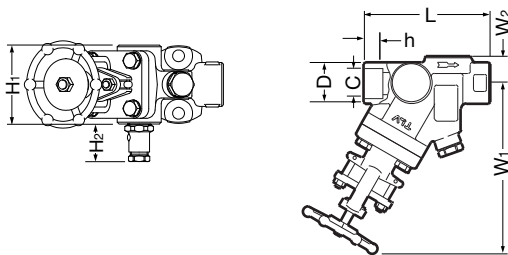


**V1-RL · V1-RB · V1-LB** Screwed\* (mm)

Size	L	H <sub>1</sub>	H <sub>2</sub>	W <sub>1</sub> **	W <sub>2</sub>	Weight (kg)
15	120	70	33	180	26	3.4
20						

\* Rc(PT) or NPT, other standards available  
 \*\* At full-open position

● **V1-RL · V1-RB · V1-LB** Socket Welded

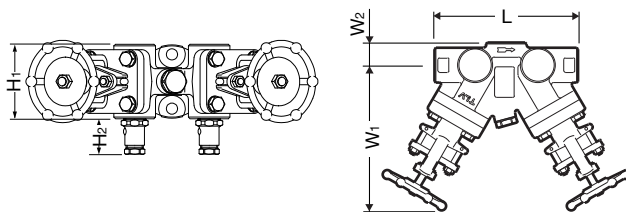


**V1-RL · V1-RB · V1-LB** Socket Welded\* (mm)

Size	L	H <sub>1</sub>	H <sub>2</sub>	W <sub>1</sub> **	W <sub>2</sub>	φD	φC		h	Weight (kg)
							JIS	ASME		
15	120	70	33	180	26	36	22.2	21.8	13	3.4
20							27.7	27.2		

\* JIS or ASME B16.11-2005  
 \*\* At full-open position

● **V2-RL · V2-RB · V2-LB** Screwed

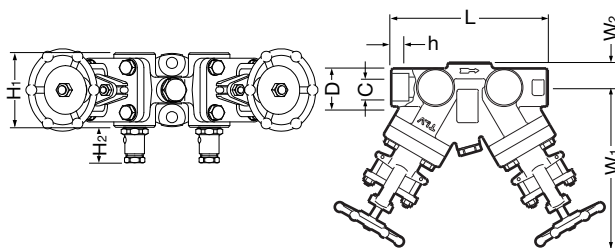


**V2-RL · V2-RB · V2-LB** Screwed\* (mm)

Size	L	H <sub>1</sub>	H <sub>2</sub>	W <sub>1</sub> **	W <sub>2</sub>	Weight (kg)
15	160	70	33	180	26	5.8
20						

\* Rc(PT) or NPT, other standards available  
 \*\* At full-open position

● **V2-RL · V2-RB · V2-LB** Socket Welded



**V2-RL · V2-RB · V2-LB** Socket Welded\* (mm)

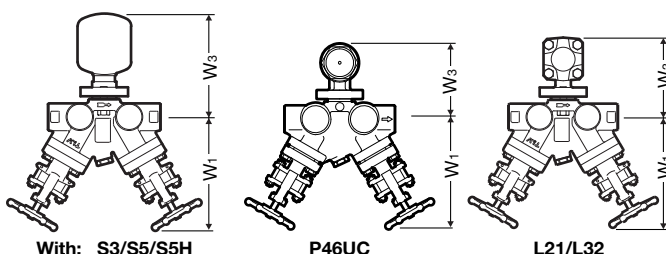
Size	L	H <sub>1</sub>	H <sub>2</sub>	W <sub>1</sub> **	W <sub>2</sub>	φD	φC		h	Weight (kg)
							JIS	ASME		
15	160	70	33	180	26	36	22.2	21.8	13	5.8
20							27.7	27.2		

\* JIS or ASME B16.11-2005  
 \*\* At full-open position

V1-RB and V2-RB shown; V1-LB and V2-LB are inverted (opposite flow direction)

Note:  
 As models V1-RL and V2-RL have no blowdown valve, H<sub>2</sub> does not apply.

● **Mounted Steam Trap Units (QuickTrap)**



Model	W <sub>1</sub> (mm)	W <sub>3</sub> (mm)	Weight (kg)	
			With V1*	With V2*
S3	180	143	4.3	6.7
S5		175	4.7	7.1
S5H		178	4.4	6.8
P46UC		110	4.4	6.8
L21/L32		110	4.4	6.8

\* Combined weight of trap station with mounted trap unit

Memo:

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

ISO 9001/ISO 14001

