

# TLV®

# PowerDyne® STEAM TRAP

## MODEL P46SRN/P46SRM/P46SRW

### THERMODYNAMIC DISC TRAP WITH THERMOSTATIC AIR VENTING

#### Features

**Inline repairable trap for steam mains, tracers and coils, with wide capacity range to match various conditions. Available in carbon steel or stainless steel.**

1. Inline replaceable valve module.
2. Air jacketing reduces no-load cycling.
3. Lapped disc provides steam-tight seal without air binding.
4. Built-in screen for trouble-free service.
5. Bimetal ring provides quick thermostatic air venting.
6. Hardened stainless steel working surfaces.



#### Specifications

Model	P46SRN				P46SRM				P46SRW				
	Carbon Steel (A105)		Stainless Steel* (A182 F304)		Carbon Steel (A105)		Stainless Steel* (A182 F304)		Cast Steel (A216 Gr.WCB)				
Connection	Screwed	S.Welded	Flanged	Screwed	S.Welded	Screwed	S.Welded	Flanged	Screwed	S.Welded	Screwed	S.Welded	Flanged
Size (mm)	15, 20, 25				15, 20, 25				25, 32, 40, 50				
Max. Operating Press. (MPaG) PMO					4.6								
Min. Operating Press. (MPaG)					0.03								
Max. Operating Temp. (°C) TMO					425								
Maximum Back Pressure	80% of inlet pressure												
Max. Allowable Press. (MPaG) PMA**	8.2 @ 40°C		8.9 @ 40°C		8.2 @ 40°C		8.9 @ 40°C		7.6 @ 40°C				
Max. Allowable Temp. (°C) TMA**	425 @ 5.0 MPaG		550 @ 4.6 MPaG		425 @ 5.0 MPaG		550 @ 4.6 MPaG		425 @ 4.6 MPaG				

\* Contact TLV for optional flanged stainless steel model.

Standard TLV coating is applied to stainless steel models as well.

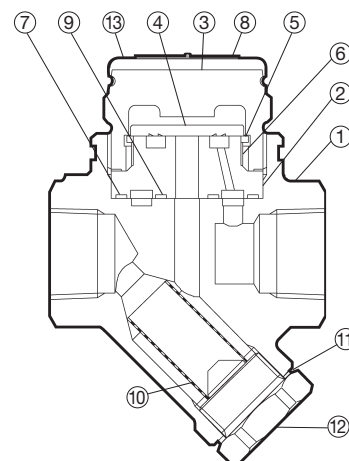
1 MPa = 10.197 kg/cm<sup>2</sup>

\*\* PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS). Refer to Pressure Temperature Rating section on reverse side for details.

**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.

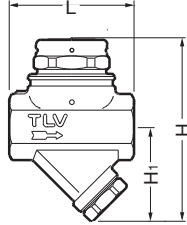
No.	Description	Material	JIS	ASTM/AISI*
①	Body	See Specifications table for available materials		
② <sup>R</sup>	Module Valve Seat	Stainless Steel	SUS420F	AISI420F
③ <sup>R</sup>	Cover	Stainless Steel	—	A182 F304
④ <sup>R</sup>	Disc	Stainless Steel	SUS420J2	AISI420
⑤ <sup>R</sup>	Disc Holder Ring	Stainless Steel	SUS420J2	AISI420
⑥ <sup>R</sup>	Air Vent Ring	Bimetal	—	—
⑦ <sup>MR</sup>	Outer Module Gasket	Graphite/Stainless Steel	- /SUS316L	- /AISI316L
⑧ <sup>R</sup>	Nameplate	Stainless Steel	SUS304	AISI304
⑨ <sup>MR</sup>	Inner Module Gasket	Graphite/Stainless Steel	- /SUS316L	- /AISI316L
⑩ <sup>R</sup>	Screen inside/outside	Stainless Steel	SUS304/430	AISI304/430
⑪ <sup>MR</sup>	Screen Holder Gasket	Soft Iron	SUYP	AISI1010
		Stainless Steel**	SUS316L	AISI316L
⑫	Screen Holder	Cast Stainless Steel	—	A351 Gr.CF8
⑬ <sup>R</sup>	Cap	Stainless Steel	SUS304	AISI304
⑭	Flange***	Carbon Steel	—	A105

\* Equivalent \*\* For models with stainless steel body \*\*\* Shown on reverse  
Replacement kits available: (M) maintenance parts, (R) repair parts

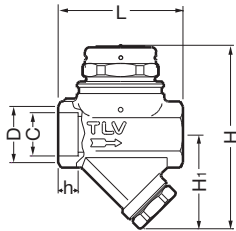


**Dimensions**

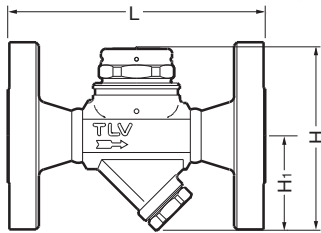
● **P46SRN/P46SRM/P46SRW** Screwed



● **P46SRN/P46SRM/P46SRW** Socket Welded



● **P46SRN/P46SRM/P46SRW** Flanged



**P46SRN/P46SRM/P46SRW** Screwed\* (mm)

Size	L	H	H <sub>1</sub>	Weight (kg)
15	80	120	62	1.2
20				
25	88	125 (129)		1.4 (1.6)

( ) Model P46SRW  
\* Rc (PT), other standards available

**P46SRN/P46SRM/P46SRW** Socket Welded (mm)

Size	L	H	H <sub>1</sub>	φ D	φ C	h	Weight (kg)
15	80	120	62	30	22.2	13	1.2
20				36	27.7		
25	88	125 (129)		44	34.5	13 (14)	1.4 (1.6)

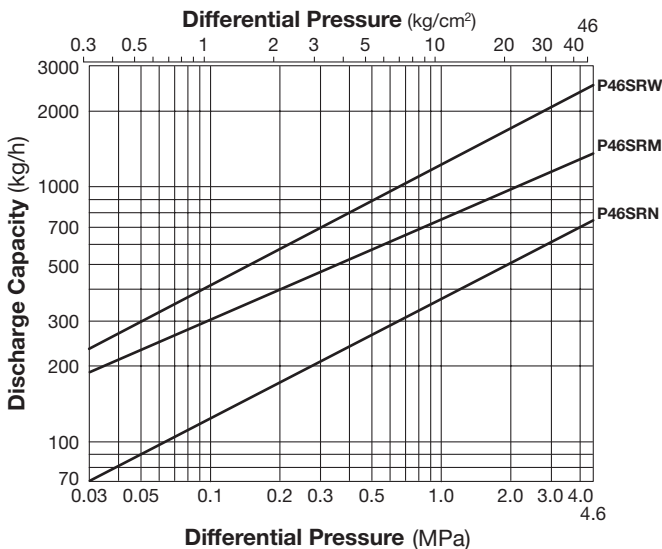
( ) Model P46SRW

**P46SRN/P46SRM/P46SRW** Flanged (mm)

Size	L*			H	H <sub>1</sub>	Weight** (kg)
	ASME Class					
	150RF	300RF	600RF			
15	140	140	140	120	62	3.3
20	165	165	165			4.7
25	210	210	210	120 (129)		6.1 (5.7)
32***				7.4		
40***				129	9.8	
50***	220	220	220			12

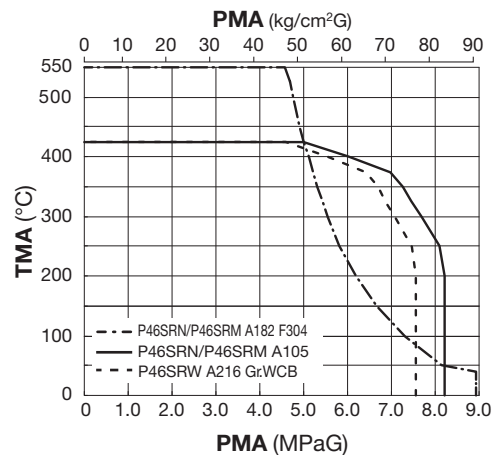
( ) Model P46SRW  
Other standards available, but length and weight may vary  
\* Length and weight of optional stainless steel model may differ  
\*\* Weight is for Class 600 RF \*\*\* P46SRW only

**Discharge Capacity**



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

**Pressure Temperature Rating\***



\*This Rating Graph is based on Allowable Stress Values of ASTM-Materials at each temperature.

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

