



# THERMODYNE STEAM TRAP

## MODEL A46S

### THERMODYNAMIC DISC TRAP WITH THERMOSTATIC AIR VENTING

#### Features

**Inline repairable trap of weldable carbon steel for steam mains and coils.**

1. Hardened stainless steel working surfaces.
2. Air-jacketing reduces no-load cycling.
3. Lapped disc provides steam-tight seal without air binding.
4. Built-in, easy-to-clean screen.
5. Air vent ring provides quick thermostatic air venting.
6. Inline replaceable valve seat module.



#### Specifications

Model	A46S			A46SW		
	Screwed	Socket Welded	Flanged	Screwed	Socket Welded	Flanged
Connection						
Size (mm)	15, 20, 25			25	25, 32, 40, 50	
Maximum Operating Pressure (MPaG) PMO				4.6		
Minimum Operating Pressure (MPaG)				0.03		
Maximum Operating Temperature (°C) TMO				425		
Maximum Back Pressure				80% of Inlet Pressure		

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS):  
 Maximum Allowable Pressure (MPaG) PMA: 4.6 (A46SW), 6.5 (A46S)  
 Maximum Allowable Temperature (°C) TMA: 425

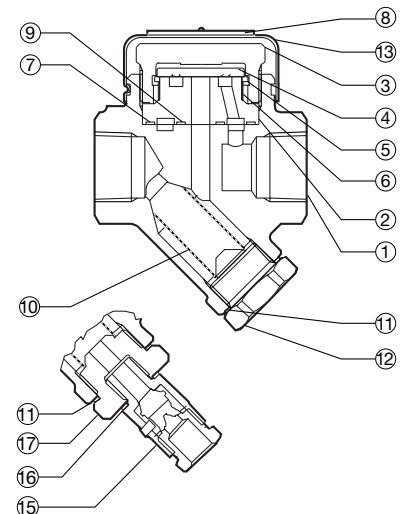
1 MPa = 10.197 kg/cm<sup>2</sup>



#### 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 <sup>(1)</sup>
①	Body	Carbon Steel	—	A105
	Body (A46SW)	Cast Steel	—	A216 Gr. WCB
② <sup>R</sup>	Module Valve Seat	Stainless Steel	SUS420F	AISI420F
③ <sup>R</sup>	Inner Cover	Stainless Steel	SUS420F2	AISI420F2
④ <sup>R</sup>	Disc	Stainless Steel	SUS420J2	AISI420
⑤ <sup>R</sup>	Disc Holder Ring	Stainless Steel	SUS420F2	AISI420F2
⑥ <sup>R</sup>	Air Vent Ring	Bimetal	—	—
⑦ <sup>MR</sup>	Outer Module Gasket	Stainless Steel/Graphite	SUS316L	AISI316L
⑧	Nameplate	Stainless Steel	SUS304	AISI304
⑨ <sup>MR</sup>	Inner Module Gasket	Stainless Steel/Graphite	SUS316L	AISI316L
⑩ <sup>R</sup>	Screen inner/outer	Stainless Steel	SUS304/430	AISI304/430
⑪ <sup>MR</sup>	Screen Holder Gasket	Soft Iron	SUYP	AISI1010
⑫	Screen Holder	Carbon Steel	—	A105
⑬	Cap	Stainless Steel	SUS304	AISI304
⑭	Flange <sup>(4)</sup>	Carbon/Cast Steel <sup>(3)</sup>	—	A105/216 Gr. WCB
	Flange <sup>(4)</sup> (A46SW)	Carbon Steel	—	A105
⑮	Blow-off Valve BO2 <sup>(2)</sup>	Stainless Steel	SUS420F	AISI420F
⑯	Blow-off Valve Gasket <sup>(2)</sup>	Soft Iron	SUYP	AISI1010
⑰	Screen Holder for BO2 <sup>(2)</sup>	Carbon Steel	—	A105



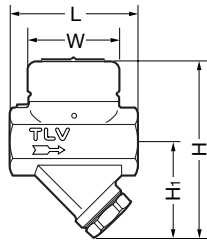
<sup>1</sup> Equivalent <sup>2</sup> Option <sup>3</sup> Material depends on flange specifications

<sup>4</sup> Shown on reverse

Replacement kits available: (M) maintenance parts, (R) repair parts

**Dimensions**

● **A46S/A46SW**  
Screwed

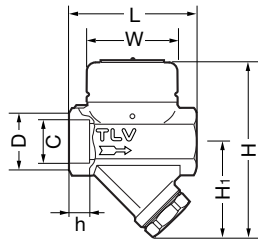


**A46S/A46SW** Screwed\* (mm)

Size	L	H**	H1**	φW	Weight (kg)
15	80	112	62 (62)	57.5 (66.5)	1.2
20					1.4 (1.6)
25 (25)	88 (88)	117 (124)			

( ) Model A46SW \* Rc(PT), other standards available  
\*\* With optional BO2, add 22 mm to H and H1

● **A46S/A46SW**  
Socket Welded

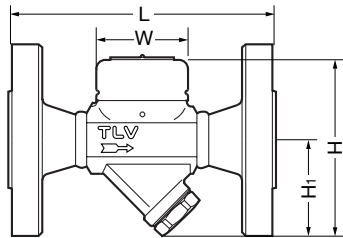


**A46S/A46SW** Socket Welded\* (mm)

Size	φD	φC	h	L	H**	H1**	φW	Weight (kg)
15	30	22.2	13 (14)	80	112	62 (62)	57.5 (66.5)	1.2
20	36	27.7						1.4 (1.6)
25 (25)	44 (44)	34.5 (34.5)		88 (88)	117 (124)			

( ) Model A46SW \*\* With optional BO2, add 22 mm to H and H1

● **A46S/A46SW**  
Flanged

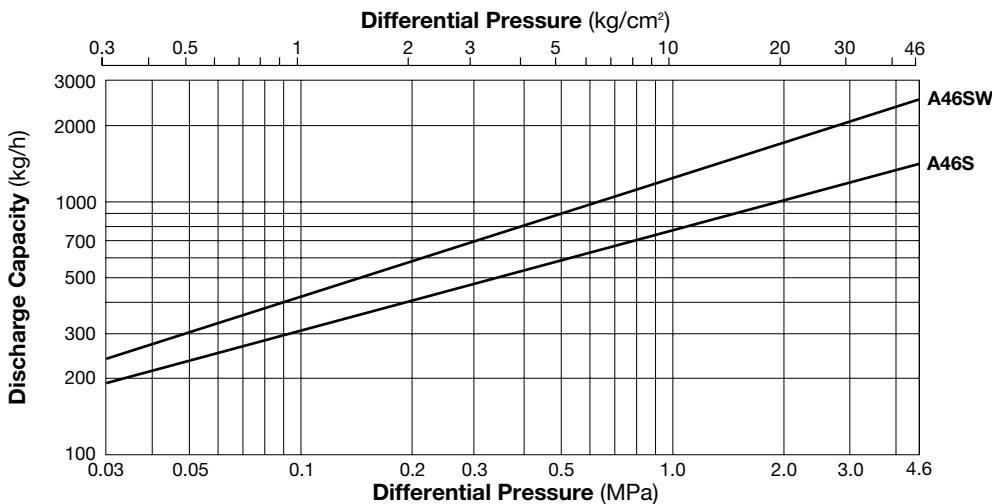


**A46S/A46SW** Flanged\* (mm)

Size	L(ASME Class)			H	H1	φW	Weight (approx.kg)
	150RF	300RF	600RF				
15	140	140	140	112 (124)	62 (62)	57.5 (66.5)	3.3
20	165	165	165				4.7
25 (25)	210 (210)	210 (210)	210 (210)				6.1 (5.7)
(32)	(210)	(210)	(210)				(7.4)
(40)	(210)	(210)	(210)				(9.8)
(50)	(220)	(220)	(220)				(12)

\* Other standards available, but length and weight may vary  
\*\* With optional BO2, add 22 mm to H and H1 ( ) Model A46SW

**Discharge Capacity**



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