



# THERMODYNE STEAM TRAP

## MODEL A46S/A50S/A65S

### THERMODYNAMIC DISC TRAP WITH THERMOSTATIC AIR VENTING

#### Benefits

**Inline repairable trap with carbon steel weldability for steam mains, tracers and coils.**

1. Inline replaceable valve module to lower repair costs.
2. Air jacketing reduces no-load cycling and extends life.
3. Quick thermostatic air venting with bimetal ring for fast start-up.
4. Lapped disc provides steam-tight seal without air binding for long life.
5. Built-in screen for extended trouble-free service.
6. Hardened stainless steel working surfaces for long life.



**CAUTION** 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.

#### Specifications

Model	A46S	A46SR		A46SW		A50S	A65S	
Connection	<b>Screwed, Socket Weld</b>	<b>Screwed, Socket Weld</b>	Flanged	<b>Screwed</b>	Socket Weld	<b>Screwed, Socket Weld</b>	<b>Screwed</b>	Socket Weld
Size (in)	<b>1/2, 3/4, 1</b>	<b>1/2, 3/4, 1</b>	1/2, 3/4, 1	<b>1</b>	1	<b>1/2, 3/4, 1</b>	<b>1/2, 3/4, 1</b>	1/2, 3/4, 1
Maximum Operating Pressure (psig) PMO	650			5		710	925	
Minimum Operating Pressure (psig)				5				
Maximum Operating Temperature (°F) TMO				800				
Maximum Allowable Pressure (psig) PMA	925			650		925		
Maximum Allowable Temperature (°F) TMA				800				
Maximum Back Pressure				80% of Inlet Pressure				

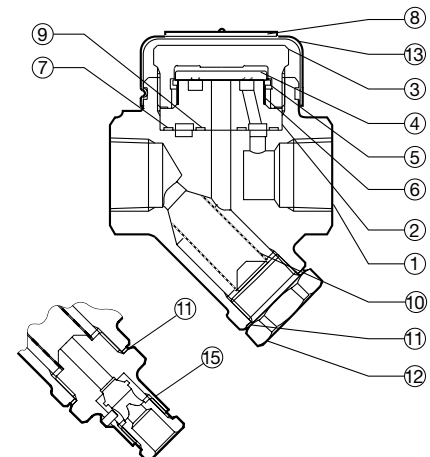
Connections and sizes in bold are standard

No.	Description	Material	ASTM/AISI <sup>1)</sup>	JIS
①	Body	Carbon Steel	A105	—
	Body (A46SW)	Cast Steel	A216 Gr.WCB	—
② <sup>R</sup>	Module Valve Seat	Stainless Steel	AISI420F	SUS420F
	Module Valve Seat (A50S, A65S)	Stainless Steel	AISI440C	SUS440C
③ <sup>R</sup>	Inner Cover	Stainless Steel	AISI420F2	SUS420F2
	Inner Cover (A46SW)	Stainless Steel	AISI420	SUS420J2
④ <sup>R</sup>	Disc	Stainless Steel	AISI420	SUS420J2
	Disc (A50S, A65S)	Stainless Steel	AISI440C	SUS440C
⑤ <sup>R</sup>	Disc Holder Ring	Stainless Steel	AISI420	SUS420J2
	Disc Holder Ring (A50S, A65S)	Stainless Steel	AISI630	SUS630
⑥ <sup>R</sup>	Air Vent Ring	Bimetal	—	—
⑦ <sup>MR</sup>	Outer Module Gasket	Graphite/Stainl. Stl.	-/AISI316L	-/SUS316L
⑧	Nameplate	Stainless Steel	AISI304	SUS304
⑨ <sup>MR</sup>	Inner Module Gasket	Graphite/Stainl. Stl.	-/AISI316L	-/SUS316L
⑩ <sup>R</sup>	Screen	Stainless Steel	AISI430	SUS430
⑪ <sup>MR</sup>	Screen Holder Gasket	Soft Iron	AISI1010	SUYP
⑫	Screen Holder	Carbon Steel	A105	—
⑬	Cap	Stainless Steel	AISI304	SUS304
⑭	Flange <sup>4)</sup>	Carbon/Cast Steel <sup>3)</sup>	A105/216 Gr.WCB	—
⑮	BD2 Blowdown Valve <sup>2)</sup>	Cast Stainless Steel	A351 Gr.CF8	—
⑯	Socket (A50S, A65S) <sup>4)</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



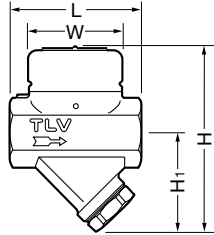
To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.



**Dimensions**

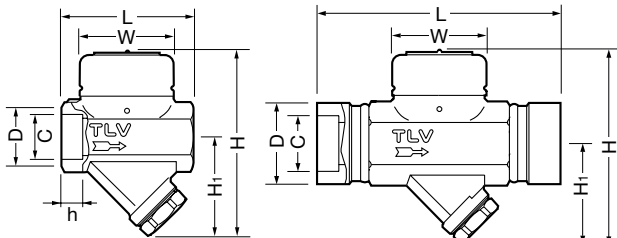
● **A46S/A46SR/A46SW/A50S/A65S**

Screwed



● **A46S/A46SR/A46SW/A50S/A65S**

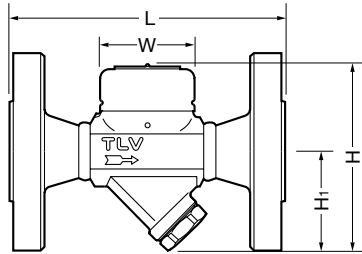
Socket Weld



Size 1" (A50S, A65S)

● **A46SR**

Flanged



**A46S/A46SR/A46SW/A50S/A65S** Screwed\* (in)

Model	Size	L	H**	H1**	φW	Weight (lb)
A46S	1/2	3 3/8	4 7/16	2 7/16	2 1/4	2.6
A46SR	3/4					
A50S	1	3 7/16	4 5/8	2 7/16	2 1/4	3.1
A65S						
A46SW	1	3 7/16	4 7/8	2 7/16	2 5/8	3.5

\* NPT, other standards available

\*\* With optional BD2, add approx. 9/16" to H and H1

**A46S/A46SR/A46SW/A50S/A65S** Socket Weld\* (in)

Model	Size	L	H**	H1**	φW	φD	φC	h	Weight (lb)
A46S	1/2	3 3/8	4 7/16	2 7/16	2 1/4	1 3/16	0.855	1/2	2.6
	3/4					1 7/16	1.065		
A46SR	1	3 7/16	4 5/8	2 7/16	2 1/4	1 3/4	1.330	9/16	3.1
	1					1 3/4	1.330		
A46SW	1	3 7/16	4 7/8	2 7/16	2 5/8	1 3/4	1.330	9/16	3.5
A50S	1/2	3 3/8	4 7/16	2 7/16	2 1/4	1 3/16	0.855	1/2	2.6
	3/4					1 3/4	1.065		
A65S	1	5 7/8	4 5/8	2 7/16	2 1/4	2	1.330	9/16	3.7
	1					2	1.330		

\* ASME B11.16-2005, other standards available

\*\* With optional BD2, add approx. 9/16" to H and H1

**A46SR** Flanged (in)

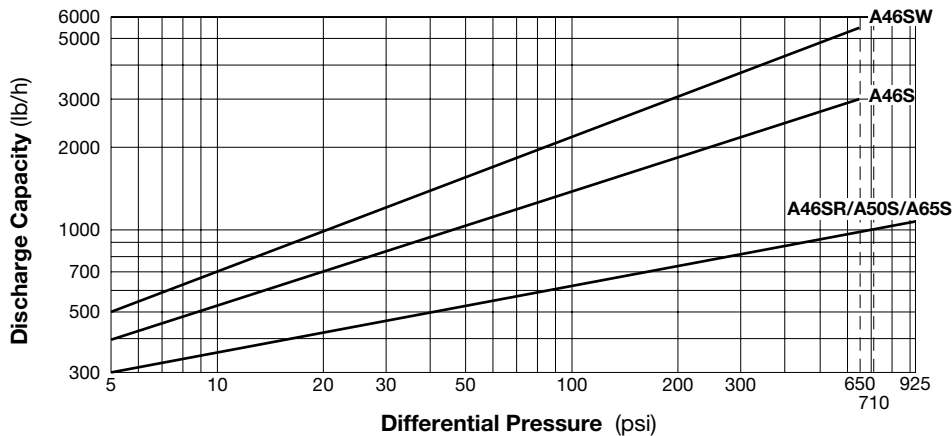
Model	Size	L			H*	H1*	φW	Weight** (lb)
		ASME Class						
		150RF	300RF	600RF				
A46SR	1/2	5 1/2	5 1/2	5 1/2	4 7/16	2 7/16	2 1/4	7.3
	3/4	6 1/2	6 1/2	6 1/2				
	1	8 1/4	8 1/4	8 1/4				

Other standards available, but length and weight may vary

\* With optional BD2, add approx. 9/16" to H and H1

\*\* Weight is for Class 600 RF

**Discharge Capacity**



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

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Manufacturer

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

ISO 9001/ISO 14001

