



FREE FLOAT DRAIN TRAP

MODEL SH6NLA/SH6NLG

DRAIN TRAP WITH TIGHT SHUT-OFF FOR INERT (SH6NLA) AND HAZARDOUS (SH6NLG) GASES

Benefits

High-pressure, inline repairable free float trap with tight shut-off. Automatically drains condensate from air and gas systems.

1. Constant water seal and unique rotational seating design eliminate concentrated wear to ensure long life.
2. Three-point seating provides a tight seal even under no-load conditions.
3. Easy, inline access to internal parts simplifies cleaning and lowers maintenance costs.
4. Built-in screen with large surface area ensures extended trouble-free service.



Specifications

Model	SH6NLA-M*			SH6NLA-R*			SH6NLG-M*			SH6NLG-R*		
	Screwed			Socket Weld			Screwed			Socket Weld		
Connection	Screwed			Socket Weld			Screwed			Socket Weld		
Size (in)	1			1, 1½			1			1, 1½		
Orifice No.	5, 10, 22, 32, 46			10, 22, 40			G5, G10, G22, G32, G46			10, 22, 40		
Maximum Operating Pressure (psig)	PMO**			75, 150, 315, 450, 650			150, 315, 600			75, 150, 315, 450, 650		
Maximum Differential Pressure (psi)	ΔPMX**			75, 150, 315, 450, 650			150, 315, 600			75, 150, 315, 450, 650		
Minimum Operating Pressure (psig)	TMO			Vacuum			Vacuum			Vacuum		
Maximum Operating Temperature (°F)				428			300			428		
Maximum Allowable Pressure (psig)	PMA			925			925			925		
Maximum Allowable Temperature (°F)	TMA			428			428			428		

* M: Metal orifice, R: Rubber orifice ** For specific gravities other than 1.00, use table below

SH6NLA/SH6NLG are non-standard products, consult TLV for delivery time required.

Orifice No.		Specific Gravity										
		1.00	0.99-0.95	0.94-0.90	0.89-0.85	0.84-0.80	0.79-0.75	0.74-0.70	0.69-0.65	0.64-0.60	0.59-0.55	0.54-0.50
		Max. Operating Pressure PMO (psig) & Max. Differential Pressure ΔPMX (psi)										
10	Rubber	150	150	148	131	113	96	78	61	43	25	8
22	Rubber	315	315	315	315	287	243	198	154	109	65	20
40	Rubber	600	600	600	600	600	526	430	333	237	140	44
5	Metal	75	70	63	55	48	40	33	26	18	11	3
10	Metal	150	150	135	119	103	87	71	55	39	23	7
22	Metal	315	315	290	256	221	187	153	118	84	50	15
32	Metal	450	450	450	450	413	349	285	221	157	93	29
46	Metal	650	650	650	650	585	444	303	163	22	—	—



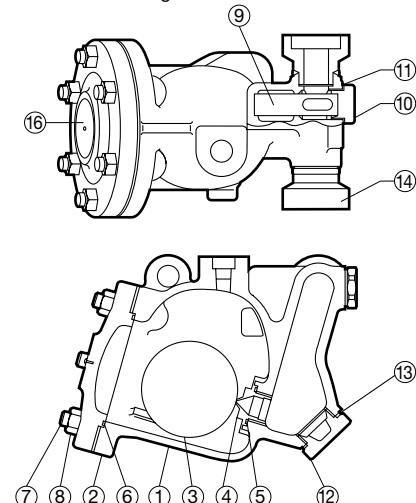
To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range.

Local regulations may restrict use of this product to below the conditions quoted.

For SH6NLG, consult TLV for toxic, flammable or otherwise hazardous gases; DO NOT USE SH6NLA for these gases.

No.	Description	Material	ASTM/AISI*	JIS
①	Body	Cast Steel	A216 Gr. WCB	SCPH2
②	Cover	Cast Steel	A216 Gr. WCB	SCPH2
③	Float	Stainless Steel	AISI316L	SUS316L
④	Orifice (Metal) SH6NLA-M	Stainless Steel	AISI420F	SUS420F
	(Metal) SH6NLG-M	Stainless Steel + Stellite	AISI316L	SUS316L
	(Rubber)	Stainl. St./Fluorine Rubber	AISI303/D2000HK	SUS303/FPM
⑤	Orifice Gasket	Stainless Steel/Graphite	AISI316L	SUS316L
⑥	Cover Gasket	Fluorine Resin	PTFE	PTFE
⑦	Cover Bolt	Alloy Steel	A193 Gr. B7	SNB7
⑧	Cover Nut	Carbon Steel	AISI1045	S45C
⑨	Screen	Stainless Steel	AISI430	SUS430
⑩	Screen Holder	Cast Stainless Steel	A217 Gr. CA15	SCS2A
⑪	Screen Holder Gasket	Soft Iron	AISI1010	SUYP
⑫	Orifice Plug	Cast Stainless Steel	A351 Gr. CF8	SCS13A
⑬	Orifice Plug Gasket	Soft Iron	AISI1010	SUYP
⑭	Socket	Carbon Steel	A105	—
⑮	Flange**	Carbon Steel	A105	—
⑯	Nameplate	Stainless Steel	AISI304	SUS304

* Equivalent ** Shown on reverse



Options

1. Body material stainless steel.
2. Flanged or screwed balancing port connection.
3. Orifice material NBR (Nitrile Rubber) or EPDM (Ethylene Propylene Rubber) with a TMO of 212 °F.

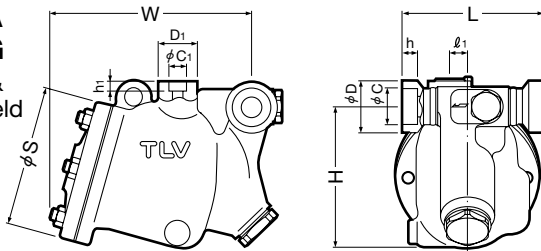
Leakage Rating

ANSI/FCI Leakage Rating Equivalent

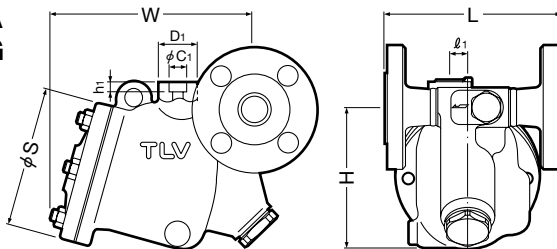
Model	Metal Orifice	Rubber Orifice
SH6NLA	Class 3	Class 6
SH6NLG	Class 3	Class 6

Dimensions

- **SH6NLA**
SH6NLG
Screwed & Socket Weld



- **SH6NLA**
SH6NLG
Flanged



SH6NLA/SH6NLG Screwed* & Socket Weld (in)

Size	L	H	W	S	D	C	h	Weight (lb)
1	7	7 1/8	10 1/8	7 1/16	1 15/16	1 3/8	9/16	46
1 1/2**					2 5/8	1 15/16		49

* NPT, other standards available ** Socket weld only

SH6NLA/SH6NLG Flanged (in)

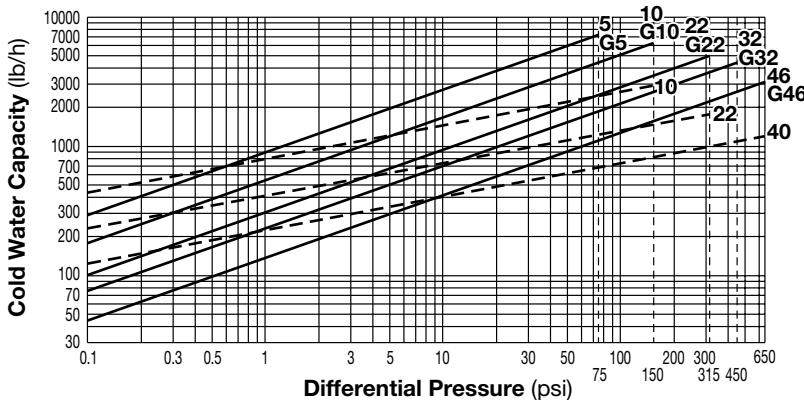
Size	L				H	W	φS	Weight* (lb)
	ASME Class							
	150RF	300RF	600RF	900RF				
1	8 3/4	8 3/4	8 3/4	9 1/8	7 1/8	10 1/8	7 1/16	51
1 1/2				10 5/8				57

Other standards available, but length and weight may vary *Weight is for Class 600 RF

NOTE:

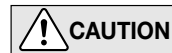
A pressure balancing line must be connected with the gas or air system from the balancing port at the top of the trap to a place above any possible condensate accumulation in the system. D1=2 1/16, C1=1/8, h1=1/2, l1=7/8.

Discharge Capacity



- Rubber Orifice
- Metal Orifice

1. Line numbers within the graph refer to orifice numbers.
2. Differential pressure is the difference between the inlet and outlet pressure of the trap.
3. The chart is applicable to condensate below 212 °F.
4. The discharge capacity is for a liquid with specific gravity of 1.
5. Recommended safety factor: at least 1.5.



DO NOT use traps under conditions that exceed maximum differential pressure, as condensate backup will occur!

Capacity Conversion Factors

Specific gravity (S.G.)	0.95	0.9	0.85	0.8	0.75	0.7	0.65	0.6	0.55	0.5
Conversion factor	1.03	1.06	1.08	1.12	1.16	1.19	1.24	1.29	1.35	1.41

Before using the capacity chart, multiply the required capacity (including safety factor) by the appropriate conversion factor for the specific gravity of the liquid. Choose from the table above or use the following formula: Conversion factor = $\frac{1}{\sqrt{S.G.}}$

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

ISO 9001/ISO 14001

