



FREE FLOAT[®] DRAIN TRAP

MODEL SS1VG

FREE FLOAT DRAIN TRAP WITH TIGHT SHUT-OFF FOR AIR AND INERT GAS SERVICE

Features

Stainless steel trap to be installed in pipe ends. Automatically drains condensate from air and inert gas systems.

1. Constant water seal and unique rotational seating design eliminate concentrated wear to ensure a longer service life.
2. Three-point seating provides a tight seal even under no-load conditions (with rubber orifice).
3. Precision ground float ensures superior sealing.
4. Built-in screen with large surface area ensures extended trouble-free operation.
5. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.



Specifications

Model		SS1VG-R (Rubber Orifice)	SS1VG-M (Metal Orifice)
Connection		Screwed, Socket Welded, Flanged	
Size (in)		1/2, 3/4, 1	
Orifice No.		10	G5, G10, G16, G21
Maximum Operating Pressure (psig)	PMO	150	75, 150, 230, 300
Maximum Differential Pressure (psi)	ΔPMX	150	75, 150, 230, 300
Minimum Operating Pressure (psig)		1.5	
Maximum Operating Temperature (°F)	TMO	302	428
Maximum Allowable Pressure (psig)	PMA	300	
Maximum Allowable Temperature (°F)	TMA	428	
Minimum Condensate Load for Tight Sealing (lb/h)		0	1.1
Applicable Fluids*		Air, Inert Gasses*	

* Do not use for toxic, flammable or otherwise hazardous fluids.

** For specific gravities other than 1.00, use table below.

SS1VG is a non-standard product, consult TLV for delivery time required.

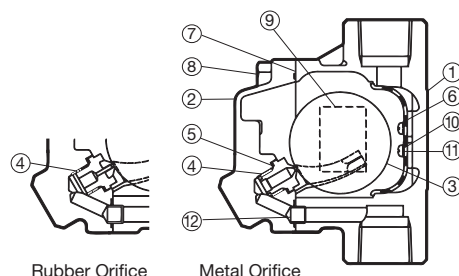
Model	Orifice No.	Specific Gravity											
		1.00	0.99 – 0.95	0.94 – 0.90	0.89 – 0.85	0.84 – 0.80	0.79 – 0.75	0.74 – 0.70	0.69 – 0.65	0.64 – 0.60	0.59 – 0.55	0.54 – 0.50	
		Maximum Operating Pressure PMO (psig) & Maximum Differential Pressure ΔPMX (psi)											
SS1VG-R	10	150	140	126	112	98	83	69	55	40	26	12	
SS1VG-M	G5	75	70	63	56	49	42	34	27	20	13	6	
	G10	150	140	126	112	98	83	69	55	40	26	12	
	G16	230	213	192	170	148	127	105	83	61	40	18	
	G21	300	293	263	233	203	174	144	114	84	55	25	

No.	Description	Material	ASTM/AISI*	JIS
①	Body	Cast Stainless Steel	A351/A351M Gr.CF8	—
②	Cover	Cast Stainless Steel	A351/A351M Gr.CF8	—
③	Float	Stainless Steel	AISI316L	SUS316L
④	Orifice	SS1VG-R Fluorine Rubber/Stainl. Steel	D2000HK/AISI303	FPM/SUS303
		SS1VG-M	—	—
⑤	Orifice Gasket	Fluorine Resin	—	PTFE
⑥	Screen	Stainless Steel	AISI304	SUS304
⑦	Cover Gasket	Fluorine Resin	—	PTFE
⑧	Cover Bolt	Stainless Steel	—	—
⑨	Nameplate	Stainless Steel	AISI304	SUS304
⑩	Screw	Stainless Steel	AISI304	SUS304
⑪	Spring Washer	Stainless Steel	AISI304	SUS304
⑫	Connector	Stainless Steel	AISI304	SUS304
⑬	Flange**	Cast Stainless Steel	A351/A351M Gr.CF8	—

* Equivalent materials ** Shown on reverse

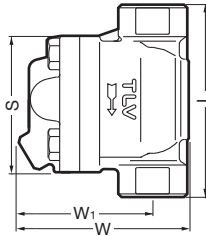


CAUTION To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

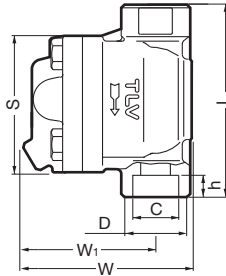


Dimensions

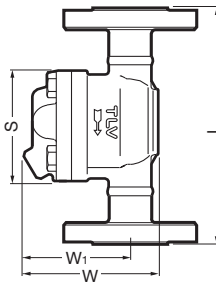
● SS1VG Screwed



● SS1VG Socket Welded



● SS1VG Flanged



SS1VG Screwed* (in)

Size	L	W	W ₁	S	Weight (lb)
1	5 1/8	4 1/16	3 3/16	3 3/8	4.0

* NPT, other standards available

SS1VG Socket Welded* (in)

Size	L	W	W ₁	S	φ D	φ C	h	Weight (lb)
1/2	4 5/16	4 1/16	3 13/16	3 3/8	1 3/16	0.855	1/2	3.5
3/4	4 3/4				1 7/16	1.065		3.7
1	5 1/8				1 3/4	1.330		4.0

* ASME B16.11-2005, other standards available

SS1VG Flanged (in)

Size	L		W	W ₁	S	Weight** (lb)
	Connects to ASME Class					
	150RF	300RF				
½	6 7⁄8	6 7⁄8	4 1⁄16	3 3⁄16	3 3⁄8	6.4
¾	7 11⁄16	7 11⁄16				8.6
1	8 7⁄16	8 7⁄16				10

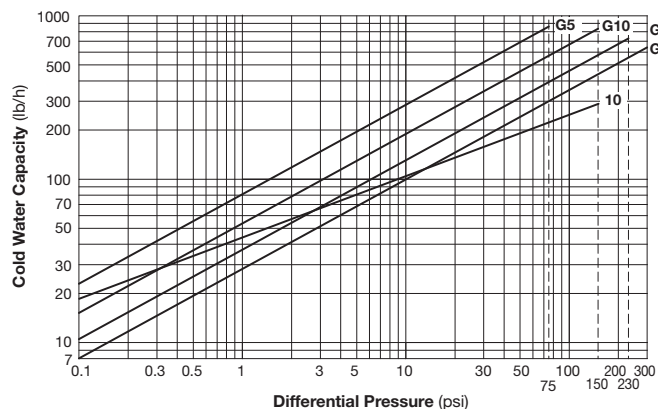
Other standards available, but length and weight may vary

* Weight is for Class 300 RF

NOTE:

Install the shortest possible vertical condensate pipe to the trap to ensure unobstructed condensate flow.

Discharge Capacity



● Discharge 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 discharge capacity chart, multiply the required capacity (including safety factor) by the appropriate conversion factor for the specific gravity of the liquid to be discharged.

Choose from the table above or use the following formula: Conversion Factor = $\frac{1}{\sqrt{S.G.}}$



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.



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

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Manufacturer

TLV CO., LTD.

Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001
ISO 14001

