FREE FLOAT® DRAIN TRAP

MODEL JAH5RG

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

Features

Medium-capacity cast steel* free float trap automatically drains condensate and oil from air and inert gas systems.

1. Self-modulating free float provides continuous, smooth, low-velocity condensate discharge as process loads vary.
2. Precision-ground float and three-point seating provide superior sealing, even under no-load conditions (with rubber orifice).
3. Only one moving part, the free float, eliminates concentrated valve wear and provides long maintenance-free service life.
4. Built-in screen with large surface area ensures extended trouble-free service.

* Stainless steel body available on request

Specifications

Model		JAH5RG-R (Rubber Orifice)			JAH5RG-M (Metal Orifice)		
Connection		Screwed	Socket Welded	Flanged	Screwed	Socket Welded	Flanged
Size (mm)		15, 20, 25	15, 20, 25, 40		15, 20, 25	15, 20, 25, 40	
Orifice No.		10, 22			G5, G10, G22, G40, G46		
Maximum Operating Pressure (MPaG)	PMO**	1.0, 2.2			0.5, 1.0, 2.2, 4.0, 4.6		
Maximum Differential Pressure (MPa)	ΔPMX**	1.0, 2.2			0.5, 1.0, 2.2, 4.0, 4.6		
Minimum Operating Pressure (MPaG)		0.01			0.01		
Maximum Operating Temperature (C)	TMO	150			425		
Minimum Condensate Load for Tight Sealing (kg/h)		0			1		
Applicable Fluids*		Air, Inert Gases					

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

1 MPa = 10.197 kg/cm²

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

** For fluids with specific gravities other than 1.0, use the table below

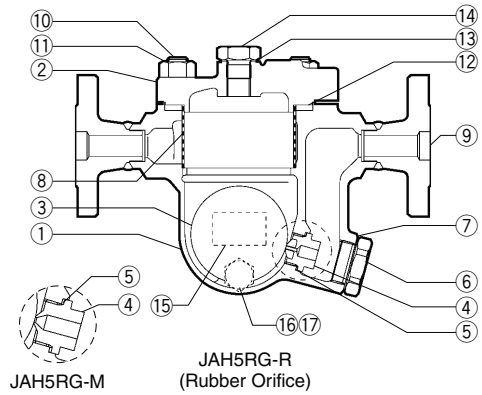
Model	Orifice No.	Specific Gravity										
		1.00	0.99 – 0.95	0.94 – 0.90	0.89 – 0.85	0.84 – 0.80	0.79 – 0.75	0.74 – 0.70	0.69 – 0.65	0.64 – 0.60	0.59 – 0.55	0.54 – 0.50
		Maximum Operating Pressure PMO (MPaG) & Maximum Differential Pressure PMX (MPa)										
JAH5RG-R	10	1.00	1.00	1.00	1.00	1.00	0.85	0.70	0.56	0.41	0.26	0.11
	22	2.20	2.20	2.20	2.20	2.20	1.96	1.62	1.28	0.94	0.60	0.26
JAH5RG-M	G5	0.50	0.50	0.50	0.50	0.48	0.41	0.34	0.27	0.20	0.13	0.05
	G10	1.00	1.00	1.00	1.00	1.00	0.85	0.70	0.56	0.41	0.26	0.11
	G22	2.20	2.20	2.20	2.20	2.20	1.96	1.62	1.28	0.94	0.60	0.26
	G40	4.00	4.00	4.00	4.00	3.87	3.30	2.73	2.16	1.58	1.01	0.44
	G46	4.60	4.60	4.60	4.60	4.27	3.37	2.46	1.55	0.64	—	—

⚠ 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		Cast Steel	—	A216 Gr. WCB
②	Cover		Carbon Steel	—	A105
③	Float		Stainless Steel	SUS316L	AISI316L
④	Orifice	JAH5RG-R	Fluorine Rubber/Stain. Steel	FPM/SUS316L	D2000HK/AISI316L
		JAH5RG-M	—	—	—
⑤	Orifice Gasket		Soft Iron	SUYP	AISI1010
⑥	Orifice Plug		Cast Stainless Steel	—	A351 Gr.CF8
⑦	Orifice Plug Gasket		Soft Iron	SUYP	AISI1010
⑧	Screen		Stainless Steel	SUS430	AISI430
⑨	Socket**/Flange		Carbon Steel	—	A105
⑩	Cover Bolt		Alloy Steel	SNB16	A193 Gr. B16
⑪	Cover Nut		Carbon Steel	S45C	AISI1045
⑫	Cover Gasket		Graphite/Stainless Steel	–/SUS304	–/AISI304
⑬	Plug Gasket		Soft Iron	SUYP	AISI1010
⑭	Balancing Line Plug		Carbon Steel	S25C	AISI1025
⑮	Nameplate		Stainless Steel	SUS304	AISI304
⑯	Drain Plug Gasket***		Soft Iron	SUYP	AISI1010
⑰	Drain Plug***		Carbon Steel	S25C	AISI1025

* Equivalent ** Shown on reverse *** Option

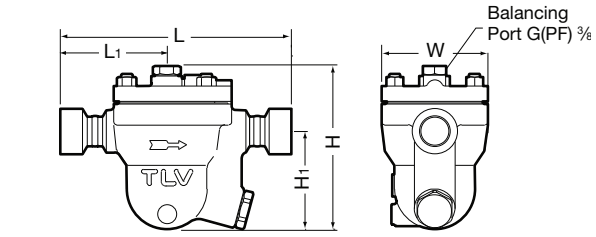


JAH5RG-M (Metal Orifice)

JAH5RG-R (Rubber Orifice)

Dimensions

● **JAH5RG** Screwed

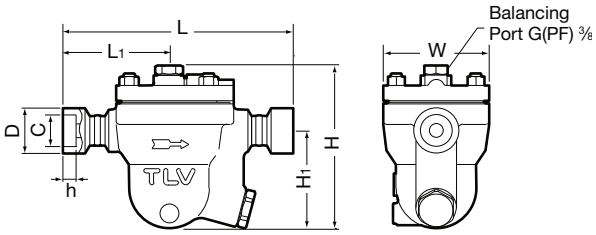


JAH5RG Screwed* (mm)

Size	L	L_1**	H**	H_1**	W	Weight (kg)
15	234	110	175	105	115	6.5
20	246	115				6.6
25	258	120				6.7

* Rc(PT), other standards avalilable ** Approx.

● **JAH5RG** Socket Welded

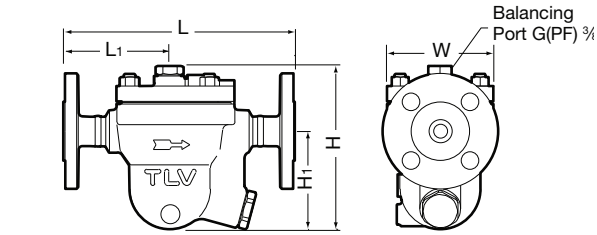


JAH5RG Socket Welded (mm)

Size	L	L_1*	H*	H_1*	W	ϕD	ϕC	h	Weight (kg)
15	234	110	175	105	115	33	22.2	12	6.5
20	246	115				39.5	27.7	14	6.6
25	258	120				48	34.5		6.7
40	246	115				64	49.1		9.1

* Approx.

● **JAH5RG** Flanged



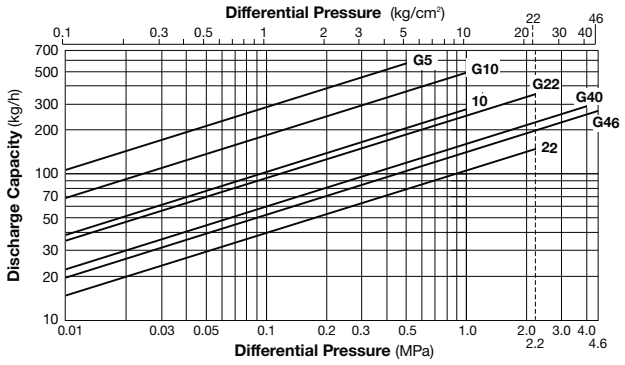
JAH5RG Flanged (mm)

Size	L ASME Class 150RF	L ASME Class 300RF	L ASME Class 600RF	L_1*	H*	H_1*	W	Weight** (kg)
15	239	239	239	110	175	105	115	8.4
20	264	264	264	125				9.8
25	309	309	309	145				11
40	290	290	290	135				15

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

Note: • A pressure-balancing line must be connected to the air/gas system from the balancing port at the top of the trap to a place above any possible condensate accumulation in the system.
• Balancing port options: 10 or 15 mm, flanged, socket welded or screwed with other thread standards.

Discharge Capacity



1. Line numbers within the graph refer to orifice numbers. Orifice numbers beginning with “G” are for JAH5RG-M (metal orifice); other numbers are for JAH5RG-R (rubber orifice).
2. Differential pressure is the difference between the inlet and outlet pressure of the trap.
3. The chart is applicable to condensate below 100 °C.
4. The discharge capacity is for liquids with a specific gravity of 1. See the Discharge Capacity Conversion Factors table for other specific gravities.
5. Recommended safety factor: at least 1.5.

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

●**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 = $\frac{1}{\sqrt{S.G.}}$

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

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Products for intended use only.
Specifications subject to change without notice.