

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Series G, GH, MG, MGH

Thermostatic Radiator Steam Traps

Sizes 1/2" – 1"

For operating pressures up to 125 psi (4.5 bar)

Series G, GH, MG, MGH Thermostatic Radiator Steam Traps are designed to remove condensate, air and non-condensable gases from heating systems, while still sensitive enough to close tightly in the presence of steam. The balanced pressure duplex phosphor bronze diaphragm is a highly sensitive modulating unit thermally programmed to provide accurate steam conserving operation. Available in a choice of various body patterns including angle, straightway, left hand corner, right hand corner, vertical and vertical double union.

Features

- Rugged brass construction with union inlet. Duplex phosphor bronze diaphragm sensitive within 3°F
- Stainless steel valve seat
- Diaphragm and seat both replaceable
- Uniform operation within pressure range
- Superior operation under highest vacuum
- Each trap factory tested
- Standard patterns in 1/2", 3/4", and 1"

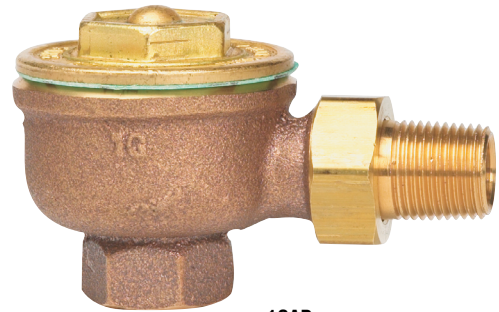
Applications

Model G and GH – 25" HG vacuum to 25 psi

- Low pressure and vacuum heating
- Convectors
- Unit Ventilators
- Radiators
- Fin pipes
- Drip points
- Air vents

Model MG and MGH – 25" HG vacuum to 125 psi

- Medium pressure heating equipment
- Process equipment
- Sterilizers
- Autoclaves
- Tracer lines
- Cooking equipment



1GAP

Specifications

The thermostatic/radiator steam trap shall be installed as indicated on the plans. The steam trap shall have a operating pressure of up to 125 psi. The trap body shall be manufactured out of rugged brass, the diaphragm shall be of duplex phosphor bronze type with hardened stainless steel valve, the seat shall be stainless steel. The steam trap shall be a Watts Series G, GH, MG, MGH.

Operation

The Series G, GH, MG, MGH's Balanced Pressure-Duplex Phosphor Diaphragm is a highly sensitive modulation unit thermally programmed to provide accurate steam conserving operation at all pressure temperature points within its range of operation.

A special liquid, hermetically vacuum-sealed, is employed in a unique duplex design. The volatile characteristics of this liquid, with a lower boiling point than that of water, create a higher internal pressure for a given steam temperature. This pressure/temperature relationship causes the duplex diaphragm to expand uniformly, closing the orifice opening in a replaceable stainless steel seat with a self-centering corrosion-resistant and hardened stainless steel diaphragm valve. In the presence of lower temperature condensate and/or non-condensate gases, the stainless steel valve is withdrawn by the internal condensing of the duplex diaphragm liquid, allowing full discharge of any condensate of noncondensables. The diaphragm quickly recycles closed in the presence of steam.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

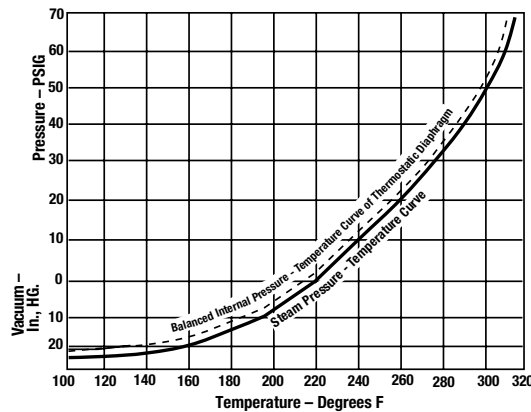
For up to 65 psi

Maximum Trap Capacities - Pounds condensate per hour, MBH, and square feet EDR

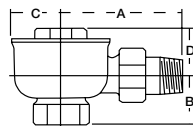
Call customer service if you need assistance with technical details.

MODEL	TAPPING (NPT)	PRESSURE DIFFERENTIAL (PSI)	PRESSURE DIFFERENTIAL (PSI)										
			¼	½	1	1½	2	5	10	15	25	50	65
1GA 1 MG	½"	Lbs. Cond. Per Hour*	21.0	29.7	40.9	49.6	58.4	92.4	133.6	162.5	212.0	309.2	357.3
3GH 3MGH	¾"	Lbs. Cond. Per Hour*	40.8	56.9	81.8	99.3	115.5	182.3	264.7	330.2	436.8	618.4	858.7
5MGH	1"	Lbs. Cond. Per Hour*	71.8	101.5	143.8	173.7	201.2	319.7	463.9	584.0	688.7	789.5	820.0

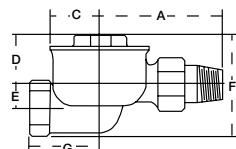
* Ratings are in accordance with the recommended standards adopted by the Steam Heating Equipment Manufacturers Association. Select trap directly from table for the lowest differential that may exist in the system. Traps may be applied directly and no safety factor need by applied.



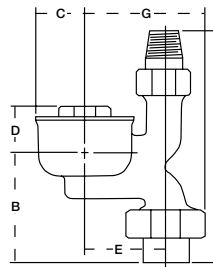
Dimensions - Weights



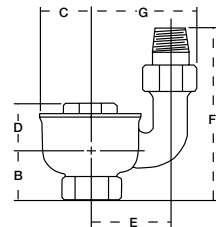
Angle Pattern
1GAP, 3GHAP, 5MGHAP



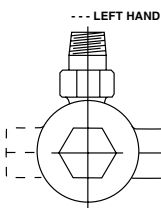
Straightway Pattern
1GHSW, 3GHSW



Vertical Pattern Double Union
1VGDU



Vertical Pattern Single Union
1VG



Corner Pattern
1GLHC, 1GRHC

MODEL	PATTERNS	TAPPING			DIMENSIONS												WEIGHT				
		Inlet	Outlet	Male Tailpiece	A		B		C		D		E		F		G		lbs.	kgs.	
		in.	in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
1GAP-1MGAP	Angle	½	½	2 7/8	73	1 1/8	29	1 3/16	35	1 3/8	35	-	-	-	-	-	-	-	-	1.2	.54
1GRHC-1GLHC	Corner	½	½	2 7/8	73	-	-	1 3/16	35	1 3/8	35	9/16	14	2 5/8	67	1 5/8	41	1.4	.64		
1GSW-1MGSW	Straightway	½	½	2 7/8	73	-	-	1 3/16	35	1 3/8	35	9/16	14	2 5/8	67	1 5/8	41	1.2	.54		
1VG	Vert. S.U.	½	½	-	-	1 1/8	29	1 3/16	35	1 3/8	35	1 7/8	48	4	102	2 5/8	67	1.4	.64		
1VGDU	Vert. D.U.	½	½	-	-	2 1/16	65	1 3/16	35	1 3/8	35	1 7/8	48	5 3/8	137	2 3/4	70	1.7	.77		
3GH-3MGH	Angle	½	¾	3 1/8	79	1 3/8	35	1 3/16	35	1 5/8	41	-	-	-	-	-	-	-	-	1.5	.68
3GH-3MGH	Straight	¾	¾	3 1/8	79	-	-	1 3/16	35	1 9/16	40	3/8	10	2 3/4	70	1 7/8	48	1.5	.68		
5MGH	Angle	1	1	3 5/8	92	1 1/2	38	1 1/2	38	1 11/16	43	-	-	-	-	-	-	-	-	2.5	1.13

For up to 125 psi

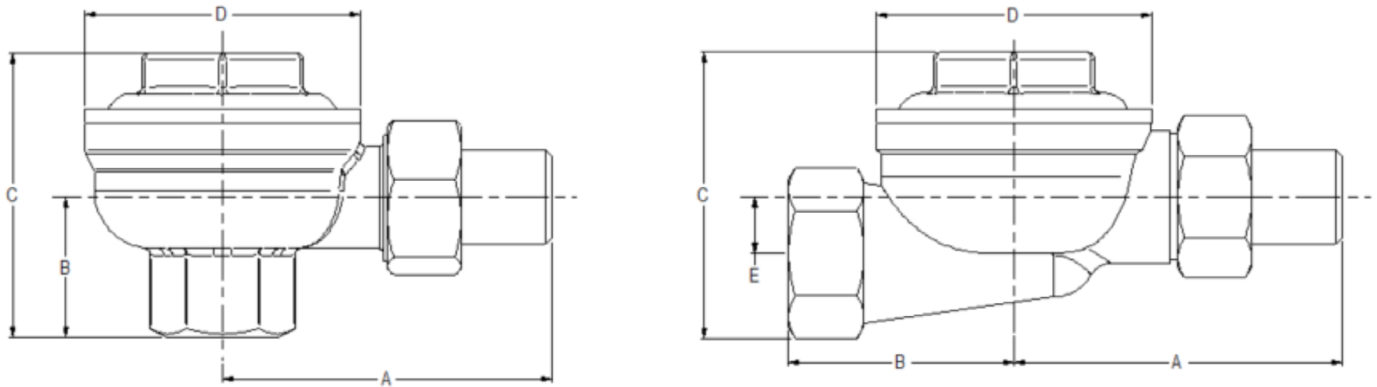
Maximum Trap Capacities - Pounds condensate per hour

MODEL	TAPPING (NPT)	PRESSURE DIFFERENTIAL (PSI)	0.25	0.5	1	1.5	2	5	10	15	25
1GA	1/2	Lbs. Cond Per Hour	23	30	42	50	57	69.5	80	122.5	152.5
3GH	3/4	Lbs. Cond Per Hour	38	52	80	100	112.5	128	177.5	260	315

MODEL	TAPPING (NPT)	PRESSURE DIFFERENTIAL (PSI)	2	3	5	10	15	20	40	50	60	65	80	100	125
1MG	1/2	Lbs. Cond Per Hour	440	550	1150	1540	1700	1910	2370	2960	3260	3430	3670	4050	4350

Capacities shown are conducted in accordance with ansi/asmc ptc 39.1-1980
 One pound of condensate equals four square feet edr or 960 btu per hour

Dimensions – Weights



DIMENSIONS																
Model	Patterns	Tapping Inlet (in)	Outlet (in)	"Male Tailpiece A"		B		C		D		E		Weight		
				in	mm	in	mm	in	mm	in	mm	in	mm	lbs.	kgs.	
1GA	Angle	1/2	1/2	3	76	1.25	32	2.5	64	2 9/16	65	-	-	1	0.45	
1GSW	Straightaway	1/2	1/2	3	76	2	51	2.5	64	2 9/16	65	1/2	13	2	0.91	
3GHAP	Angle	3/4	3/4	3 3/8	86	1.375	35	2.875	73	2 9/16	65	-	-	1	0.45	
3GHSW	Straightaway	3/4	3/4	3 3/8	86	2 1/8	54	2.875	73	2 9/16	65	5/8	16	1 7/8	0.85	
1MGAP	Angle	1/2	1/2	3	76	1.25	32	2.5	64	2 9/16	65	-	-	1	0.45	



USA: T: (978) 689-6066 • Watts.com

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