

## For Steam Main Drip and Process Applications

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

# Series G, MG

## Float & Thermostatic Steam Traps

Sizes: 3/4" – 2" (20 – 50mm)

For operating pressures up to 50psi (3.5 bars)

Series G, MG Float & Thermostatic Steam Traps are designed for use on modulating process equipment and as main distribution line drip traps. Series G, MG Float & Thermostatic steam traps feature a straight through design for fast simple installation. Stainless steel valve head and seats provide long service life.

G, MG series steam traps have excellent air venting capability and discharge condensate at near to steam temperature so the steam space remains free of condensate providing improved steam system efficiency.

### Features

- Fail safe — In case of float failure, trap will discharge condensate and air; no unit freeze-up
- Air vent parts — accessible without disturbing piping
- Inlet baffle — breaks up water hammer; prevents damage to parts
- Snap action valve — no wire-drawing or valve chatter
- Two moving parts — no levers, hinges or pins to corrode or jam
- Straight-through connections — saves installation time, labor, space, headroom
- Stainless steel valve head and seats
- Seamless copper float — no seams to develop leaks
- Uniform operations — not affected by changes in load or pressures
- Condensate valve rotates — ensures even wear, longer valve and seat life

### Applications

- Steam coils
- Unit heaters
- Drip points
- Heat exchangers
- Water heaters
- Absorption machines
- Unit ventilators
- Air handlers
- Make-up air coils
- Re-heat coils
- Jacketed kettles



3/4" 6G

### Specifications

The float & thermostatic steam trap shall be installed as indicated on the plans. The trap body and cover shall be manufactured out of cast iron, the diaphragm cover shall be forged brass, the diaphragm shall be duplex phosphor bronze type with stainless valve cone, the condensate valve and seats shall be hardened stainless steel and the float shall be manufactured out of seamless copper. The trap shall have straight through pipe connections, the air vent shall be serviced without breaking pipe connections and should be an open float design. The steam trap shall be a Watts Regulator Company Series G, MG, float and thermostatic type.

### Models

Model G-15 — 25" Hg to 15psi (1.05 bars)

Model MG-30 — 25" Hg to 30psi (2.1 bars)

Model MG-50 — 25" Hg to 50psi (3.5 bars)

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## Materials:

Body and Cover: Cast iron (Class 125)

Diaphragm Cover: Forged brass

Diaphragm: Duplex phosphor bronze type with stainless steel valve cone

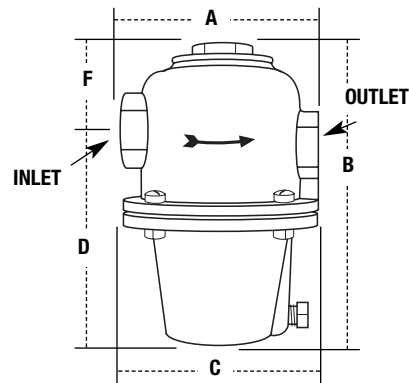
Condensate Valve: Hardened stainless steel

Seats: Hardened stainless steel

Float: Seamless copper

Finish: Rust preventive enamel

## Dimensions — Weights



MODEL	TAPPING (NPT)		DIMENSIONS										WEIGHT	
	in.	mm	A		B		C		D		F		lbs.	kgs.
6G-15	3/4	20	4 1/2	114	6 1/2	165	4 1/2	114	4 15/16	125	1 7/8	48	6	152
7G-15	1	25	5 1/2	140	7 1/2	191	5 1/2	140	5 5/8	143	2 1/16	52	9	229
8G-15	1 1/4	32	5 1/2	140	8	203	6	152	5 1/2	140	2	51	12	305
91G-15	1 1/2	40	7 5/8	194	11 3/4	298	8 9/16	217	9 1/16	230	2 3/16	71	39	991
101G-15	2	50	9 5/16	237	13 13/16	351	10 3/8	263	10 15/16	278	2 3/8	60	59	1499
111G-15	2	50	10 3/8	264	15 1/4	387	11 5/8	295	11 7/8	302	2 3/4	70	85	2159
7MG-30	1	25	5 1/2	140	7 1/2	191	5 1/2	140	5 5/8	143	2 1/16	52	9	229
8MG-30	1 1/4	32	5 1/2	140	8	203	6	152	5 1/2	140	2	51	12	305
91MG-30	1 1/2	40	7 5/8	194	11 3/4	298	8 9/16	217	9 1/16	230	2 3/16	71	39	991
101MG-30	2	50	9 5/16	237	13 13/16	351	10 3/8	263	10 15/16	278	2 3/8	60	59	1499
111MG-30	2	50	10 3/8	264	15 1/4	387	11 5/8	295	11 7/8	302	2 3/4	70	85	2159
6MG-50	3/4	20	4 1/2	114	6 1/2	165	4 1/2	114	4 15/16	125	1 7/8	48	6	152
7MG-50	1	25	5 1/2	140	7 1/2	191	5 1/2	140	5 5/8	143	2 1/16	52	9	229
8MG-50	1 1/4	32	5 1/2	140	8	203	6	152	5 1/2	140	2	51	12	305
91MG-50	1 1/2	40	7 5/8	194	11 3/4	298	8 9/16	217	9 1/16	230	2 3/16	71	39	991
101MG-50	2	50	9 5/16	237	13 13/16	351	10 3/8	263	10 15/16	278	2 3/8	60	59	1499
111MG-50	2	50	10 3/8	264	15 1/4	387	11 5/8	295	11 7/8	302	2 3/4	70	85	2159

# Maximum Trap Capacities

Pounds Condensate Per Hour, MBH, and Square Feet EDR

Size	Model	Valve Seat Orifice	Pressure Differential	¼	½	1	2	5	10	15	20	30	50		
		Diameter	Lat. Ht. Value	969.8	969.3	968	966	961	952	945	939	929	912		
¾	6G-15	**Capacities According to Recommended Shema Standards	Lbs. Cond./Hr.	70	100	140	200	210	220	230	<p>The basic capacity ratings are expressed in pounds condensate per hour at various pressure differentials.</p> <p>For ease of trap selection the tables also give the heating value in MBH of the steam condensed. This is arrived at by multiplying the condensate rating by the appropriate Latent Heat Value and dividing by 1,000 to determine MBH.</p> <p>Capacities are also expressed in square feet Equivalent Direct Radiation. This is determined by dividing the heating capacity in BTU/Hr. (MBH x 1,000) by 240 BTU/Hr./Square Foot Equivalent Direct Radiation.</p> <p><b>Example:</b> Select a trap for a Unit Heater with a heating capacity of 170 MBH operating on a 5 psi line. A 2 to 1 capacity factor is desired. MBH rating for selection purposes = 2 x 170 = 340 MBH. Read down 5 psi column and select the smallest trap whose MBH rating exceeds 340 MBH. The 1" 7G has a capacity of 505 MBH, or 525 pounds of condensate per hour on 2,104 square feet Equivalent Direct Radiation. 1" 7G is the correct trap for this application.</p>				
			MBH	68	97	136	193	202	209	217					
			EDR	282	404	566	804	841	870	904					
1	7G-15		Lbs. Cond./Hr.	175	250	350	500	525	550	575					
			MBH	170	242	339	483	505	524	543					
			EDR	708	1008	1413	2012	2104	2183	2263					
1¼	8G-15		Lbs. Cond./Hr.	425	600	850	1200	1260	1320	1280					
			MBH	412	582	823	1159	1211	1257	1304					
			EDR	1717	2423	3428	4830	5045	5236	5434					
1½	91G-15		Lbs. Cond./Hr.	850	1200	1700	2400	2520	2640	2760					
			MBH	824	1163	1646	2318	2422	2513	2608					
			EDR	3435	4847	6857	9660	10091	10472	10868					
2	101G-15	Lbs. Cond./Hr.	1775	2500	3550	5000	5250	5500	5750						
		MBH	1721	2423	3436	4830	5045	5236	5434						
		EDR	7172	10096	14318	20125	21021	21817	22641						
2	111MG-15	2½/32	Lbs. Cond./Hr.	2200	2900	3920	5200	7600	10100	12000					
			MBH	2133	2811	3795	5023	7304	9615	11340					
1	7MG-30	¼	Lbs. Cond./Hr.	95	127	170	228	335	445	530	600	700			
			MBH	92	123	165	220	322	424	501	563	650			
1¼	8MG-30	5/32	Lbs. Cond./Hr.	156	210	280	375	550	740	870	980	1160			
			MBH	151	204	271	362	529	704	822	920	1078			
1½	91MG-30	9/64	Lbs. Cond./Hr.	525	700	940	1250	1850	2450	2930	3300	3900			
			MBH	509	679	910	1208	1778	2332	2769	3099	3623			
2	101MG-30	11/32	Lbs. Cond./Hr.	670	890	1180	1580	2340	3120	3700	4150	4900			
			MBH	650	863	1142	1526	2249	2970	3497	3897	4552			
2	111MG-30	15/32	Lbs. Cond./Hr.	1300	1750	2340	3120	4600	6100	7200	8200	9700			
			MBH	1261	1696	2265	3014	4421	5807	6804	7700	9011			
¾	6MG-50	3/32	Lbs. Cond./Hr.	52	69	92	122	180	240	285	320	380	470		
			MBH	50	67	89	118	173	228	269	300	353	429		
1	7MG-50	7/64	Lbs. Cond./Hr.	81	108	143	190	280	375	440	500	590	730		
			MBH	79	105	138	184	269	357	416	470	548	666		
1¼	8MG-50	¼	Lbs. Cond./Hr.	102	138	182	245	355	475	565	630	750	920		
			MBH	99	134	176	237	341	452	534	591	697	839		
1½	91MG-50	15/64	Lbs. Cond./Hr.	360	480	640	860	1260	1680	2000	2250	2670	3300		
			MBH	349	465	620	831	1211	1599	1890	2113	2480	3010		
2	101MG-50	9/32	Lbs. Cond./Hr.	460	610	820	1100	1600	2140	2520	2841	3350	4150		
			MBH	446	591	794	1063	1538	2037	2381	2667	3112	3785		
2	111MG-50	21/64	Lbs. Cond./Hr.	630	850	1140	1520	2220	2950	3500	3950	4700	5800		
			MBH	611	824	1104	1468	2133	2808	3308	3709	4366	5290		

**Note:** The condensate capacities for GF or MGF traps are the same as shown for G or MG float and thermostatic traps and selection should be made in the same manner.

\*\*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 be applied.

For additional information, visit our web site at: [www.watts.com](http://www.watts.com)



**Water Safety & Flow Control Products**

ES-G/MG 0434



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