



In-Line Float & Thermostatic Steam Traps

(VAC - 125 PSIG)
Series 42

MARSHALL ENGINEERED PRODUCTS COMPANY

Features

- Straight through piping connections
- Unaffected by sudden or wide pressure changes
- Responds quickly to condensate load changes
- Continuous discharge
- Function is not impaired by high back pressure
- Energy efficient
- Simple construction
- On-line repair
- Large air handling capacity
- Conforms to Federal Spec. WWT-696

Description

The Mepco In-Line Float & Thermostatic Traps Series 42 are designed for all types of low pressure or vacuum steam heating systems and steam process equipment. Typical applications include: unit heaters, space heaters, water heaters, pressing machines, low pressure mains and risers, and replacement of inefficient inverted bucket traps.

In-line float and thermostatic traps are especially well suited for apartments, hospitals, office buildings, and schools or wherever quiet operation is necessary.

Materials

PART	DESCRIPTION
Head	Cast Iron, ASTM-A278B Class 30
Body	Cast Iron, ASTM-A278B Class 30
Bolting	Steel, Grade 5
Gaskets	Compressed Graphite
Foat	Stainless Steel
Plug	Stainless Steel
Seat	Stainless Steel

Operation

The opening and closing of the valve is caused by changes in the condensate level within the trap shell. When the water level drops, the weight of the float closes the valve. As condensate enters the traps, the float rises and opens the valve, allowing the condensate to be discharged. The float is designed to provide sufficient buoyancy to overcome the differential pressure across the valve. The internal float and valve configuration is such that the condensate level is always above the valve, creating a continuous water seal at the seat.

Air and other gases are freely discharged as they reach the trap through the air vent. The calibrated thermostatic element will close the air vent immediately when the temperature surrounding the element reaches saturated steam temperature.

Construction

Mepco In-Line Float and Thermostatic Traps are compact, of rugged design, with easy access to all interior parts. The body is cast with in-line pipe connections for simple straight through pipe hook-ups. The air vent valve, seat, and the complete valve mechanism are manufactured from stainless steel. The repair kit consists of a complete factory assembled head which simply bolts on to the body for ease of repair. No pipe connections need to be broken.





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Capacities (Gross) lbs. condensate per hour

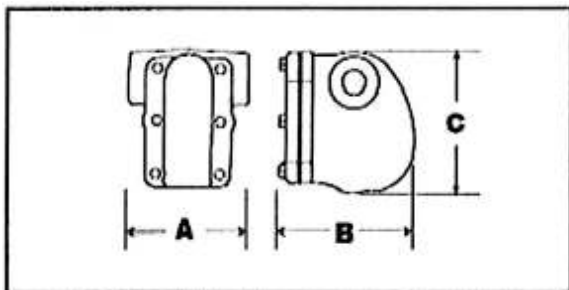
PIPE SIZE	MODEL NO.	PRESSURE DIFFERENTIAL (PSIG)														
		1/4	1/2	1	2	5	10	15	20	25	30	40	50	75	100	125
1/2"	42-115A	293	387	513	683	824	1050	1129	-	-	-	-	-	-	-	-
3/4"	42-215A	293	387	513	683	824	1050	1129	-	-	-	-	-	-	-	-
1"	42-415A	293	387	513	683	824	1050	1129	-	-	-	-	-	-	-	-
1-1/4"	42-515A	630	808	1029	1302	1722	2100	2457	-	-	-	-	-	-	-	-
1-1/2"	42-715A	1155	1785	2620	3465	5250	6930	7980	-	-	-	-	-	-	-	-
2"	42-815A	2415	2940	3780	4883	7245	9450	11445	-	-	-	-	-	-	-	-
1/2"	42-130A	293	387	513	583	824	1050	1129	1271	1375	1439	-	-	-	-	-
3/4"	42-230A	293	387	513	683	824	1050	1129	1271	1375	1439	-	-	-	-	-
1"	42-430A	293	387	513	683	824	1050	1129	1271	1375	1439	-	-	-	-	-
1-1/4"	42-530A	394	525	725	950	1280	1575	1764	1890	1995	2100	-	-	-	-	-
1-1/2"	42-730A	1050	1365	1785	2415	3570	4830	5775	6300	6930	7350	-	-	-	-	-
2"	42-830A	1365	1820	2625	3570	5460	7140	8190	9030	9765	10500	-	-	-	-	-
1/2"	42-175A	168	224	294	383	546	735	835	919	977	1019	1176	1292	1523	-	-
3/4"	42-275A	168	224	294	383	546	735	835	919	977	1019	1176	1292	1523	-	-
1"	42-475A	168	224	294	383	546	735	835	919	977	1019	1176	1292	1523	-	-
1-1/4"	42-575A	410	570	667	956	1397	1943	2258	2520	2730	2940	3203	3465	3990	-	-
1-1/2"	42-775A	557	701	1008	1365	1995	2783	3203	3570	3885	4200	4620	4988	5670	-	-
2"	42-875A	893	1155	1575	2100	3255	4358	4987	5460	5775	6090	6720	7140	8085	-	-
1/2"	42-1125A	105	142	184	242	347	436	525	593	651	698	788	872	1019	1166	1249
3/4"	42-2125A	105	142	184	242	347	436	525	593	651	698	788	872	1019	1166	1249
1"	42-4125A	105	142	184	242	347	436	525	593	651	698	788	872	1019	1166	1249
1-1/4"	42-5125A	294	389	504	662	956	1200	1523	1733	1864	1995	2179	2363	2783	3098	3308
1-1/2"	42-7125A	420	546	714	935	1365	1785	2153	2415	2625	2835	3150	3360	3990	4410	4725
2"	42-8125A	578	709	924	1286	2048	2730	3160	3413	3675	3990	4410	4850	5775	6405	6830

Note on capacity: Trap capacities are based on continuous discharge at steam temperatures. The published figures are the result of an extensive testing program conducted in accordance with ANSI/ASME PTC 39-1-1980. Condensate Removal Devices for Steam Systems, at the Mepco factory. Significantly greater applications are realized when condensate temperature is below saturated steam temperature. A safety factor between 2-4 should be applied to these ratings.

NOTE: FLOAT TRAPS are available for these applications where draining liquids is the only requirement of the trap. In those instances the thermostatic air vent is replaced by a solid plug. All pipe sizes and pressure ratings are available.

Series 42 Dimensions

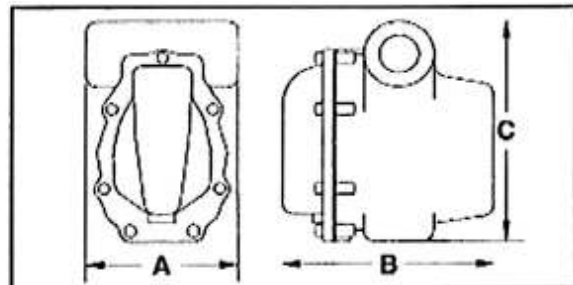
SIZE	MODELS	A	B	C	WT.
1/2" -1"	15 PSIG	5"	6.25"	6.5"	11 lb.
1/2" -1"	30 PSIG	5"	6.25"	6.5"	11 lb.
1/2" -1"	75 PSIG	5"	6.25"	6.5"	11 lb.
1/2" -1"	125 PSIG	5"	6.25"	6.5"	11 lb.
1"-1/4"	15 PSIG	5"	6.25"	6.5"	11 lb.
1"-1/4"	30 PSIG	5"	6.25"	6.5"	11 lb.



1/2", 3/4", 1", 1-1/4", (15/30 PSIG)

Series 42 Dimensions

SIZE	MODELS	A	B	C	WT.
1"-1/4"	75 PSIG	7.5"	10.5"	11.5"	48 lb.
1"-1/4"	125 PSIG	7.5"	10.5"	11.5"	48 lb.
1 1/2" -2"	15 PSIG	7.5"	10.5"	11.5"	47 lb.
1 1/2" -2"	30 PSIG	7.5"	10.5"	11.5"	47 lb.
1 1/2" -2"	75 PSIG	7.5"	10.5"	11.5"	47 lb.
1 1/2" -2"	125 PSIG	7.5"	10.5"	11.5"	47 lb.



1-1/4" (75/125 PSIG) all 1-1/2" and all 2"