

Barnes® Float & Thermostatic Steam Traps

Series 2000

(VAC-125 PSIG)

INC.

Features

- Variety of hook-up combinations
- Unaffected by sudden or wide pressure changes
- Responds quickly to condensate load changes
- Continuous discharge
- Condensate discharge temperature closely follows the saturated steam curve
- Function is not impaired by high back pressure
- Energy efficient
- Simple construction
- On-line repair

Description

The Barnes & Jones float and thermostatic traps, Series 2000 are designed for all types of high pressure or industrial steam distribution systems and steam process equipment. Typical applications include; unit heaters, space heaters, water heaters, pressing machines and high pressure mains and risers.

Float and thermostatic traps are specially well suited for chillers, coils, handling high start up air loads, high pressure drip traps and more.

Operation

The opening and closing of the valve is caused by changes of 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 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 gasses are freely discharged as they reach the trap through the air vent. The calibrated thermostat will close the air vent immediately when the temperature surrounding the element reaches saturated steam temperature.

Construction

Barnes & Jones float and thermostatic traps are compact, of rugged design, with easy access to all interior parts. The body is cast with two inlet and two outlet pipe connections that permit four combinations of pipe hook-ups for all types of applications.* All working parts are made of stainless steel and attached to the cover casting. The repair kit consists of a complete, factory assembled head which simply bolts on for ease of repair.* No pipe connections need to be broken.

*except the 2" model which is piped through the head.

MATERIALS

Part	Description
Head	Cast Iron, ASTM-A278 Class 30
Body	Cast Iron, ASTM-A278 Class 30
Bolting	Steel, Grade 5
Gaskets	Non-Asbestos Fiber
Float	Stainless Steel
Plug	Stainless Steel
Seat	Stainless Steel

Engineering Specifications

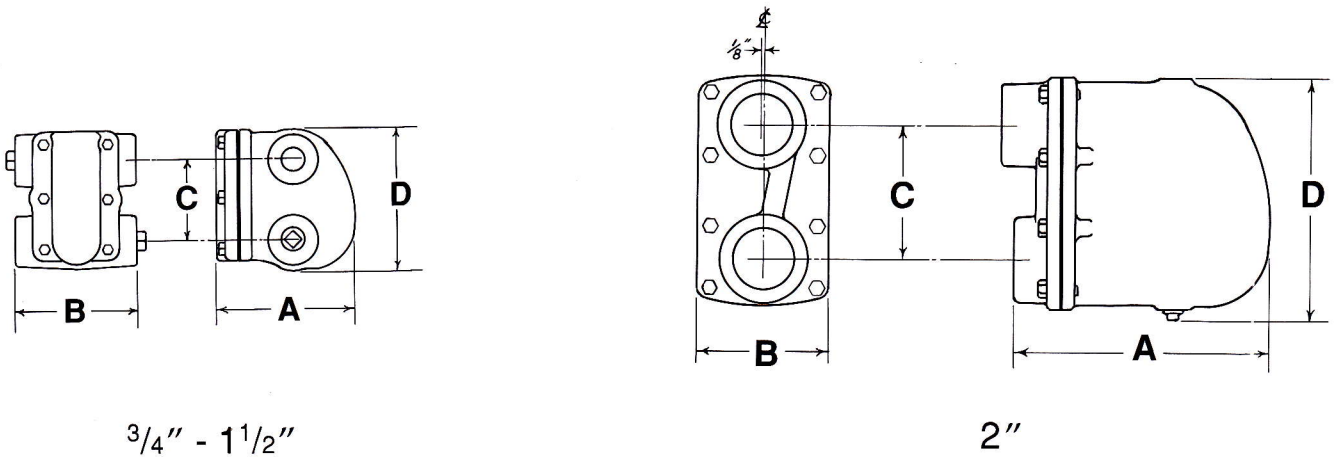
CAPACITIES (Gross)

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
3/4"	FT2075-3	168	224	294	383	546	735	835	919	977	1019	1176	1292	1523	-	-
1"	FT2075-4	168	224	294	383	546	735	835	919	977	1019	1176	1292	1523	-	-
1 1/4"	FT2075-5	410	578	667	956	1397	1943	2258	2520	2730	2940	3203	3465	3990	-	-
1 1/2"	FT2075-6	557	761	1008	1365	1995	2783	3203	3570	3885	4200	4620	4988	5670	-	-
2"	FT2075-8	893	1155	1575	2100	3255	4358	4987	5460	5775	6090	6720	7140	8085	-	-
3/4"	FT2125-3	105	142	184	242	347	436	525	593	651	698	788	872	1019	1166	1249
1"	FT2125-4	105	142	184	242	347	436	525	593	651	698	788	872	1019	1166	1249
1 1/4"	FT2125-5	294	389	504	662	956	1260	1523	1733	1864	1995	2179	2363	2783	3098	3308
1 1/2"	FT2125-6	420	546	714	935	1365	1785	2153	2415	2625	2835	3150	3360	3990	4410	4725
2"	FT2125-8	578	709	924	1286	2048	2730	3150	3413	3675	3990	4410	4850	5775	6405	6930

Note on capacity: Trap capacities are based on continuous discharge at steam temperature. 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 B & J factory. Significantly greater capacities are realized when condensate temperature is below saturated steam temperature. Appropriate safety factors should be applied to these ratings.

NOTE: FLOAT TRAPS are available for those applications where draining liquid is the only requirement of the trap. In those instances the thermostatic air vent is replaced by a solid plug. To order, use the previous model numbers with the prefix "F" instead of "FT". All pipe sizes and pressure ratings are available.



DIMENSIONS

Size	Models	A	B	C	D	WT.
3/4"	FT2075-3, FT2125-3	5 11/16	5	3 5/16	5 5/8	11 lbs.
1"	FT2075-4, FT2125-4	5 11/16	5	3 5/16	5 5/8	11 lbs.
1 1/4"	FT2075-5, FT2125-5	8 1/4	6	3	8 1/4	24 lbs.
1 1/2"	FT2075-6, FT2125-6	8 1/4	6	3	8 1/4	24 lbs.
2"	FT2075-8, FT2125-8	10	4 7/8	4 7/8	9 1/4	22 lbs.