

## STEAM TRAPS

## FTT Series

## Float &amp; Thermostatic Steam Trap

Watson McDaniel reserves the right to change the designs and/or materials of its products without notice.  
©2010 Watson McDaniel Company

Model	<b>FTT</b>
Sizes	<b>1/2", 3/4", 1", 1 1/2", 2"</b>
Connections	<b>NPT</b>
Body Material	<b>Ductile Iron</b>
PMO Max. Operating Pressure	<b>300 PSIG</b>
TMO Max. Operating Temperature	<b>Saturated Steam Temperature</b>
PMA Max. Allowable Pressure	<b>300 PSIG up to 450°F</b>
TMA Max. Allowable Temperature	<b>450°F @ 300 PSIG</b>



## TYPICAL APPLICATIONS

**DRIP, PROCESS:** The **FTT Series** float and thermostatic steam traps are used in drip and process applications, industrial and HVAC process equipment. The excellent air handling capabilities of float and thermostatic traps make them a better choice than bucket traps for applications requiring quick system start-up. These traps have in-line pipe connections. Used on unit heaters, textile machines, heat exchangers, and other medium sized process equipment.

## HOW IT WORKS

Float and thermostatic steam traps have a float and thermostatic element that work together to remove both condensate and air from the steam system. The float, which is attached to a valve, rises and opens the valve when condensate enters the trap. Air is discharged through the thermostatic air vent to the outlet side of the trap. The thermostatic air vent closes when steam enters the trap.

## SAMPLE SPECIFICATION

The trap shall be of float and thermostatic design with ductile iron body and in-line piping configuration. Thermostatic air vent to be welded stainless steel. All internals must be stainless steel with hardened seat area. Trap must be in-line repairable.

## INSTALLATION

The trap must be level and upright for the float mechanism to operate. Trap must be sized and located properly in the steam system.

## MAINTENANCE

All internal components can be replaced with the trap body remaining in-line. Repair kits include thermostatic air vent, float, valve seat and disc, and gaskets. For full maintenance details see Installation and Maintenance Manual.

## OPTIONS

Live orifice air vent for superheated steam applications.

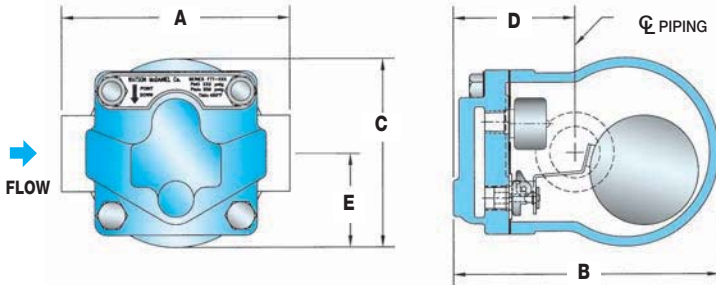
## FEATURES

- **Ductile Iron has a higher pressure and temperature rating and is more resistant to shock loads than cast Iron**
- **All stainless steel internals with hardened seat and wear parts**
- **In-line repairability is simplified by having all internals attached to the cover**
- **Welded stainless steel thermostatic air vent resists shock from water hammer. Live orifice air vent is available for superheated applications**
- **Excellent air handling capability allowing air to be discharged rapidly and steam to enter the system quickly during start-up.**
- **F & T traps discharge condensate immediately as it is formed (No condensate will back-up into the system)**

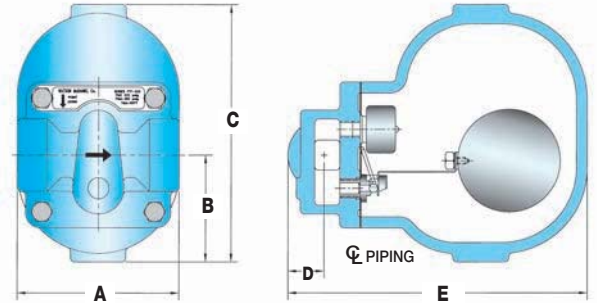
## FTT Series

Float & Thermostatic Steam Trap

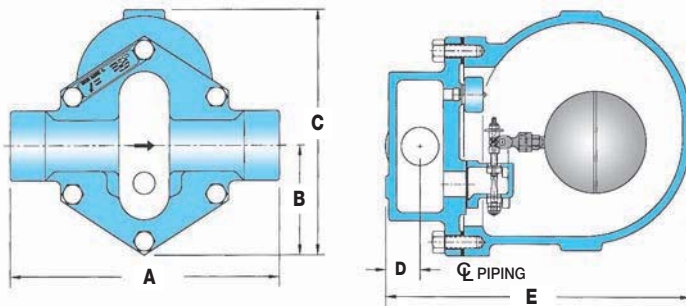
**FTT 1/2" & 3/4"**



**FTT 1"**



**FTT 1 1/2" & 2"**



### DIMENSIONS & WEIGHTS – inches/pounds

Size	A	B	C	D	E	Weight
1/2", 3/4"	4.8	1.9	3.9	2.5	5.5	6
1"	4.8	3.1	7.5	1.1	8.8	16
1 1/2"	10.6	4.3	9.6	1.4	12.0	40
2"	11.9	4.3	9.6	1.4	12.0	40

### HOW TO SIZE/ORDER

From the capacity chart, select the model that can handle the working pressure of the system (PMO). Select the trap that will meet the capacity requirements at the differential pressure. Example:

Application: 2740 lbs/hr at 100 PSIG working pressure and 5 PSI differential pressure

Size/Model: 1 1/2" **FTT-145** (145 PSIG max), NPT connections

### MATERIALS

Body & Cover	Ductile Iron
Gasket	Grafoil
Cover Screws	Steel, GR5
Float	Stainless Steel, AISI 304
Internals	Stainless Steel
Thermostat	Stainless Steel
Valve Seat	Stainless Steel, 17-4 PH
Valve Disc	Stainless Steel, AISI 420F

### CAPACITIES – Condensate (lbs/hr)

Model	PMO (PSIG)	Pipe Size	Differential Pressure (PSI)																				
			1/4	1/2	1	2	5	10	15	20	30	40	50	65	75	100	125	145	200	225	250	300	
FTT-65	65	1/2", 3/4"	115	155	205	270	390	520	610	685	810	910	995	1110									
FTT-65	65	1"	340	500	775	1100	1700	2400	2800	3250	3925	4200	5000	5825									
FTT-65	65	1 1/2"	1150	1650	2500	3450	5300	7500	8180	10600	13100	15000	16800	18900									
FTT-65	65	2"	3470	4820	8500	11950	18700	25200	26900	36000	43000	49600	55500	61300									
FTT-145	145	1/2", 3/4"	55	75	100	135	200	270	320	365	435	490	540	600	640	725	795	850					
FTT-145	145	1"	190	275	405	550	840	1200	1380	1600	1850	2200	2450	2750	2920	3400	3700	3900					
FTT-145	145	1 1/2"	685	970	1275	1750	2740	3750	4490	5100	6250	7200	8000	8900	9600	11250	12000	13300					
FTT-145	145	2"	1860	2680	3125	4400	6900	9250	13790	14600	16900	19400	21900	25000	26800	31000	34000	37000					
FTT-225	225	1/2", 3/4"	40	50	70	95	135	185	220	245	290	330	360	405	430	485	530	565	645	680			
FTT-225	225	1"	150	200	300	405	600	820	975	1130	1375	1510	1620	1875	2000	2350	2600	2750	3100	3250			
FTT-250	250	1 1/2"	530	710	825	1130	1760	2500	2950	3375	4125	4740	5250	6000	6400	7300	8000	8650	10200	10800	11300		
FTT-250	250	2"	695	985	1560	2185	3490	4800	5800	6750	8250	9500	10650	12400	13300	15000	16600	18120	21200	22300	23200		
FTT-300	300	1"	100	155	220	300	460	630	750	860	1060	1240	1360	1450	1600	1820	2000	2130	2500	2650	2800	3000	