

## STEAM TRAPS

**FT Series**

## Float &amp; Thermostatic Steam Trap

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Model	<b>FT</b>
Sizes	<b>3/4", 1", 1 1/4", 1 1/2", 2"</b>
Connections	<b>NPT</b>
Body Material	<b>Cast Iron</b>
PMO Max. Operating Pressure	<b>75 PSIG</b>
TMO Max. Operating Temperature	<b>Saturated Steam Temperature</b>
PMA Max. Allowable Pressure	<b>75 PSIG up to 450°F</b>
TMA Max. Allowable Temperature	<b>450°F @ 75 PSIG</b>



## TYPICAL APPLICATIONS

**DRIP, PROCESS:** The **FT Series** float and thermostatic steam traps are used for HVAC and light industrial process applications, and can be applied to unit heaters, water heaters, pressing machines, heat exchangers, and coils. These traps have excellent air removal capability making them an excellent choice for HVAC and process applications requiring quick start-up.

## 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.

## FEATURES

- **H-pattern design allows piping from either side of the steam trap (there are two inlet ports at top and two outlet ports at bottom)**
- **Float & Thermostatic traps have excellent air handling capability allowing air to be discharged rapidly and steam to enter the system quickly during start up**
- **Welded stainless steel thermostatic air vent resists shock from water hammer**
- **In-line repairable (all internals are attached to cover)**

## SAMPLE SPECIFICATION

The trap shall be of float and thermostatic design with cast iron body. Thermostatic element to be welded stainless steel. Float and seating material to be stainless steel. Trap must be in-line repairable.

## INSTALLATION

Isolation valves should be installed with trap. The trap must be level and upright for the float mechanism to operate.

## MAINTENANCE

All internal components can be replaced with the trap body in-line. Repair kit includes thermostatic element, valve seat and disc, float and sealing gasket. For full maintenance details see Installation and Maintenance Manual.



## STEAM TRAPS

**FT600 & FT601 Series**

## Float &amp; Thermostatic Steam Trap

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Model	<b>FT600 &amp; FT601*</b>
Sizes	<b>3/4", 1", 1 1/2", 2", 3", 4"</b>
Connections	<b>NPT, SW, FLG</b>
Body Material	<b>Carbon Steel or 316SS</b>
Options	<b>Live Orifice Air Vent</b>
PMO Max. Operating Pressure	<b>450 PSIG</b>
TMO Max. Operating Temperature	<b>750°F</b>
PMA Max. Allowable Pressure	<b>990 PSIG @ 100°F</b>
TMA Max. Allowable Temperature	<b>750°F @ 670 PSIG</b>

\* **FT601 Body Material is 316 SS**  
**FT600 Body Material is Carbon Steel**

**TYPICAL APPLICATIONS**

**PROCESS** The **FT600 & FT601 Series** high-pressure float and thermostatic steam traps are primarily used on industrial process applications. 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 in chemical plants and petrochemical refineries on reboilers, heat exchangers, and other critical process applications. Model FT601 is identical to FT600 except body material is 316 SS.

**HOW IT WORKS**

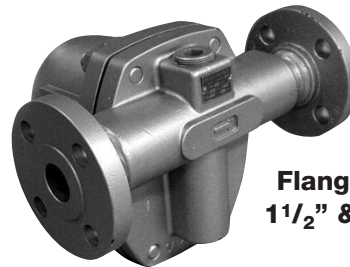
Float and thermostatic steam traps have a float and thermostatic element that work together to remove both condensate and air from the steam system. The float, which is attached to a valve, rises and opens the valve when condensate enters the trap. Air is discharged through the thermostatic air vent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

**FEATURES**

- **Investment cast steel body and cover with class 400 shell rating (670 PSIG @ 750°F)**
- **Hardened stainless steel seat and disc for extended service life even at extreme temperatures and pressures**
- **In-line repairability is simplified by having all internals attached to the cover. Studded cover allows for easier removal of body.**
- **Welded stainless steel air vent resists shock from water hammer. Live orifice air vent is available for superheated applications**
- **F & T traps discharge condensate immediately as it is formed (No condensate will back up into the system)**

**SAMPLE SPECIFICATION**

The steam trap shall be of the mechanical float type having cast steel bodies, horizontal in-line connections in NPT, SW, or flanged, and all stainless steel internals. Incorporated into the trap body shall be an all stainless steel welded thermal element air vent which is water hammer resistant. The air vent is to be located at the high point of trap body to assure proper venting of non-condensables. The trap body will be in-line renewable. All bodies and covers shall be class 400 shell design, suitable for 670 PSIG @ 750°F.

**1 1/2" & 2"****3/4" & 1"****Flanged  
1 1/2" & 2"****INSTALLATION**

Installation should include a strainer and isolation valves for maintenance purposes.

**MAINTENANCE**

Trap is in-line repairable. Studs are permanently installed into the cover simplifying the replacement of internal components.

**OPTIONS**

Live orifice air vent for superheated applications.

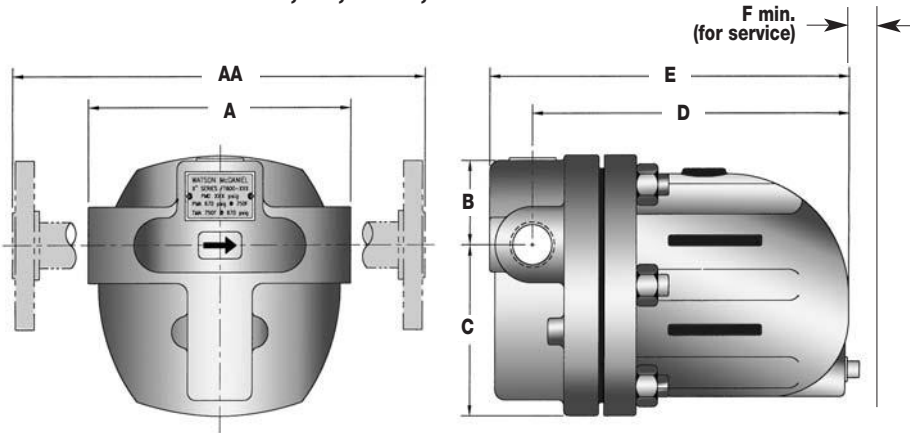
**MATERIALS**

FT 600: Body & Cover	Cast Steel, ASTM A-216
FT 601: Body & Cover	316 SS
Cover Studs	Steel, AS 193, GR B7
Cover Nuts	Steel, SA 194, GR 2H
Cover Gasket	Stainless Steel Reinforced Grafoil
Valve Assembly	Stainless Steel, AISI 431
Gasket, Valve Assembly	Stainless Steel Reinforced Grafoil
Pivot Assembly	Stainless Steel, 17-4 PH
Mounting Screws	Stainless Steel Hex Head, 18-8
Float	Stainless Steel, ASTM -240, 304
Air Vent Assembly	Thermostatic element 304 SS Optional: Live orifice

# FT600 & FT601 Series

Float & Thermostatic Steam Trap

FT600 & FT601: 3/4", 1", 1 1/2", 2"



DIMENSIONS & WEIGHTS – inches/pounds										Weight (lbs)	
Model*	Size	A	AA	B	C	D	E	F	NPT/SW		FLG
									FT600	3/4"	6.10
FT600	1"	6.50	10.40	2.50	5.50	8.44	9.50	6.25	31	36	
FT600	1 1/2"	9.80	14.00	3.26	6.85	10.40	11.94	7.75	82	91	
FT600	2"	11.80	16.00	3.60	7.40	11.59	13.27	8.00	93	107	

\* Chart is applicable for both Models FT600 & FT601

### 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: 1690 lbs/hr at 30 PSIG working pressure and 5 PSI differential pressure  
 Size/Model: 1" FT600-65-14 (65 PSIG max), Specify connections (NPT, SW, FLG)

CAPACITIES – Condensate (lbs/hr)																							
Model*/ (PSIG)	PMO Sizes	Differential Pressure (PSI)																					
		1	2	3	4	5	6	8	10	20	30	40	50	65	80	100	145	200	300	400	450		
FT600-65-13	3/4"	225	300	363	413	463	500	575	635	960	1060	1180	1320	1460									
FT600-65-14	1"	775	1094	1340	1520	1690	1865	2125	2370	3260	3990	4500	5000	5500									
FT600-65-16	1 1/2"	2500	3450	4130	4750	5300	5875	6750	7500	10625	13125	15000	16800	18850									
FT600-65-17	2"	8500	11950	14670	16800	18700	20100	23650	25250	35900	43000	49600	55500	61250									
FT600-145-13	3/4"	137	180	218	250	275	297	340	380	520	625	725	863	895	995	1120	1315						
FT600-145-14	1"	400	555	660	755	850	925	1060	1237	1593	1925	2240	2490	2750	3000	3430	3935						
FT600-145-16	1 1/2"	1275	1750	2125	2430	2740	2930	3370	3750	5100	6250	7200	7995	8875	9900	11250	13300						
FT600-145-17	2"	3125	4400	5375	6250	6900	7100	8700	9250	14625	16875	19375	21875	25000	27500	31000	37000						
FT600-200-13	3/4"	93	137	160	187	205	227	260	287	400	487	560	610	710	775	875	1060	1250					
FT600-200-14	1"	300	410	487	560	610	660	750	925	1140	1375	1520	1687	1875	2060	2312	2750	3100					
FT600-300-13	3/4"	50	68	83	95	106	118	137	155	197	240	275	300	340	375	413	490	570	710				
FT600-300-14	1"	225	300	363	413	463	500	575	635	960	1060	1180	1320	1468	1640	1815	2130	2550	3000				
FT600-450-13	3/4"	32	42	49	56	62	67	76	84	119	145	163	175	192	210	186	275	312	375	425	450		
FT600-450-14	1"	137	180	218	250	275	297	340	380	520	625	725	863	895	995	1120	1315	1500	1870	2125	2250		
FT600-450-16	1 1/2"	825	1130	1400	1570	1760	1937	2190	2500	3375	4125	4740	5250	6000	6600	7300	8650	10200	12600	14375	15200		
FT600-450-17	2"	1560	2187	2800	3100	3490	3750	4300	4800	6750	8250	9500	10625	12400	13700	15000	18120	21200	26250	28700	31250		

Note: For 450 Model, the Thermostatic Air Vent is replaced with a live Orifice.

\* Chart is applicable for both Models FT600 & FT601

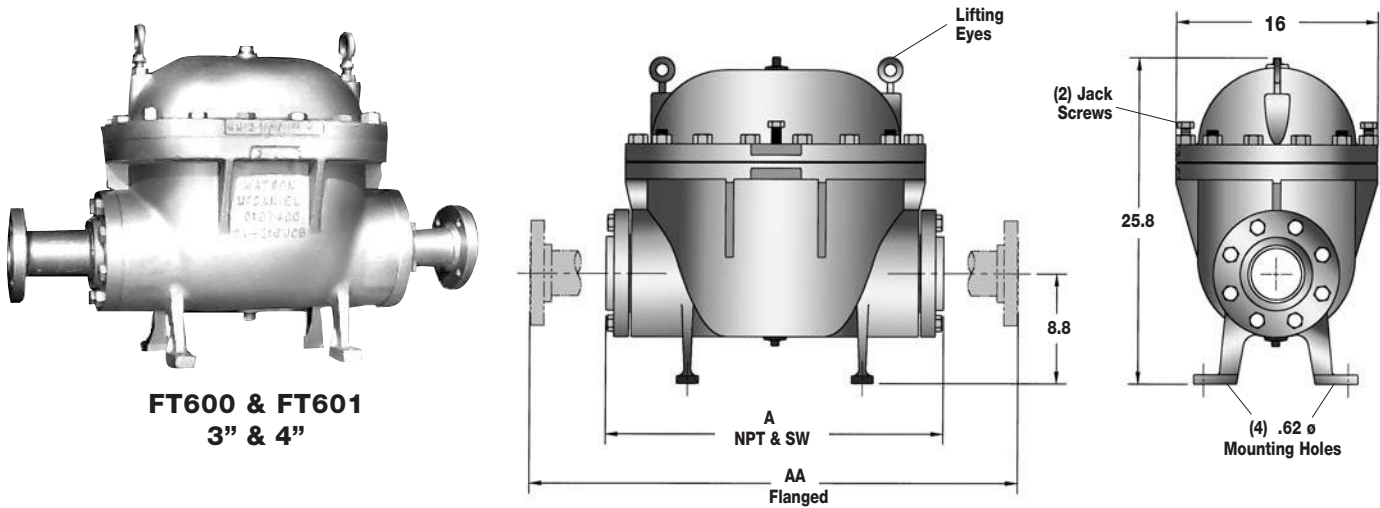
# STEAM TRAPS

## FT600 & FT601 Series

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### Float & Thermostatic Steam Trap

#### FT600 & FT601: 3" & 4"



**FT600 & FT601**  
**3" & 4"**

#### DIMENSIONS & WEIGHTS – inches/pounds

Model*	Size	A	AA	Weight (lbs)	
				NPT/SW	FLG
FT600	3"	27	39	587	626
FT600	4"	N/A	39	N/A	654

\* Chart is applicable for both Models FT600 & FT601

#### CAPACITIES – Condensate (1000 lbs/hr)

Temp	Differential Pressure (PSI)																				
	1/2	1	2	5	10	15	20	30	40	50	75	100	125	150	175	200	250	300	350	400	450
COLD*	44	59	81	122	170	205	230	280	317	350	425	480	540	580	625	670	740	800	860	910	960
HOT	44	53	64	83	100	112	121	138	149	159	177	190	201	212	222	230	247	260	270	280	290

\* Cold Water capacities are to be used when the trap is used as a liquid drain trap.  
Note: For liquid drain trap applications, please specify "liquid drain trap" when ordering.

#### CAPACITY CORRECTION FACTORS

To obtain capacity with a liquid other than water, multiply water capacity by correction factor.

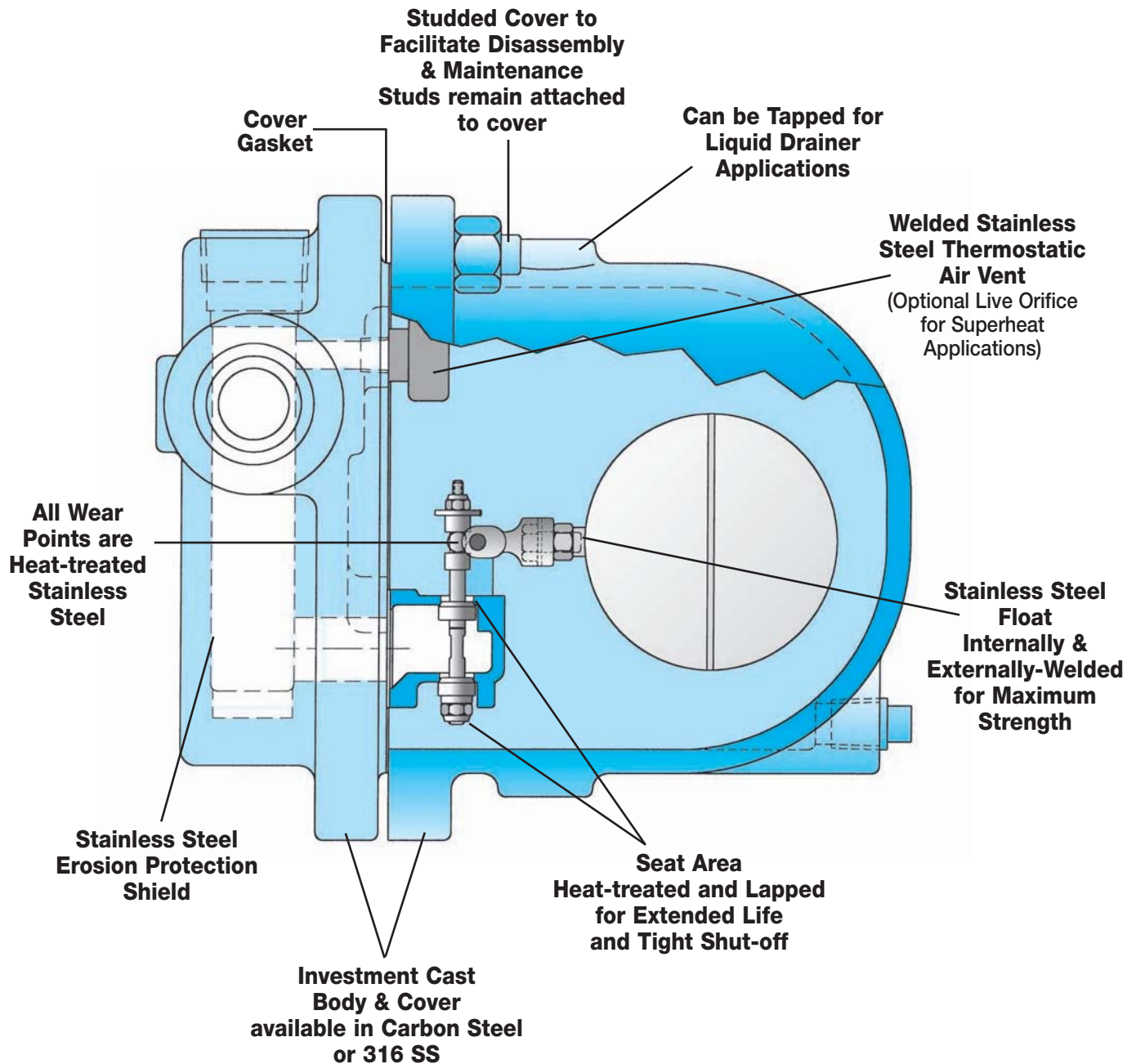
Spec. Gravity	1	.98	.96	.94	.92	.90	.88	.86	.84	.82	.80	.75	.70	.65	.60	.55	.50
Corr. Factor	1	.990	.980	.970	.959	.949	.938	.927	.917	.906	.894	.866	.837	.806	.775	.742	.707

#### PRESSURE-TEMPERATURE RATING - 3" & 4" Models

**PMA** 650 PSIG up to 450°F  
**TMA** 750°F @ 375 PSIG

# FT600 & FT601 Series

Float & Thermostatic Steam Trap



## STEAM TRAPS

**FTE & FTES Series**

## Float &amp; Thermostatic Steam Trap

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Model	FTE	FTES
Sizes	1 1/2", 2", 2 1/2"	2 1/2"
Connections	NPT	NPT, SW, FLG
Body Material	Ductile Iron	Cast Steel
PMO Max. Operating Pressure	200 PSIG	300 PSIG
TMO Max. Operating Temperature	450°F	450°F
PMA Max. Allowable Pressure	300 PSIG up to 450°F	300 PSIG up to 750°F
TMA Max. Allowable Temperature	450°F @ 300 PSIG	750°F @ 300 PSIG



## TYPICAL APPLICATIONS

**PROCESS:** The **FTE & FTES Series** float and thermostatic steam traps are used in HVAC and on industrial process equipment with very high load requirements. These high capacity steam traps are typically used on reboilers, absorption chillers, large air handling coils, large heat exchangers, and other large 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.

## FEATURES

- Ductile Iron has a higher pressure and temperature rating and is more resistant to shock loads than Cast Iron.
- Cast Steel Body will allow operating pressures and temperatures up to 300 PSIG and 450°F.
- High Capacity steam trap for draining large process equipment (over 100,000 lbs/hr)
- All stainless steel internals with hardened seat and wear parts
- In-line repairable 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)

## SAMPLE SPECIFICATION

The trap shall be of float and thermostatic design with ductile iron or cast steel body. The trap must incorporate all stainless steel internals with hardened seat and welded stainless steel thermostatic air vent. Trap must be in-line repairable.

## INSTALLATION

Isolation valves should be installed with trap to facilitate maintenance. The trap must be level and upright for the float mechanism to operate. Larger traps should not be supported by the piping system alone. Trap must be sized and located properly in the steam system.

## MAINTENANCE

All working 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.

Parallel-pipe inlet/outlet connections are standard as shown. An optional In-line inlet/outlet connection is available;





## STEAM TRAPS

## FTT Series

## Float &amp; Thermostatic Steam Trap

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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.

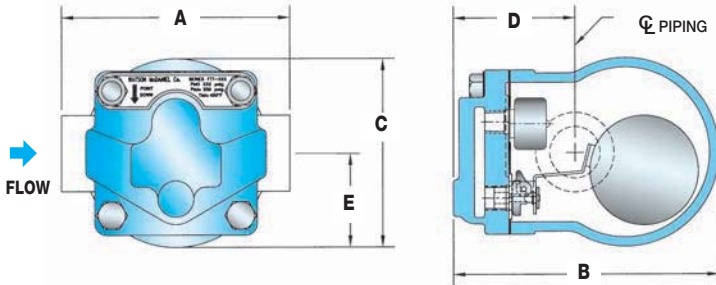
## FEATURES

- **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)**

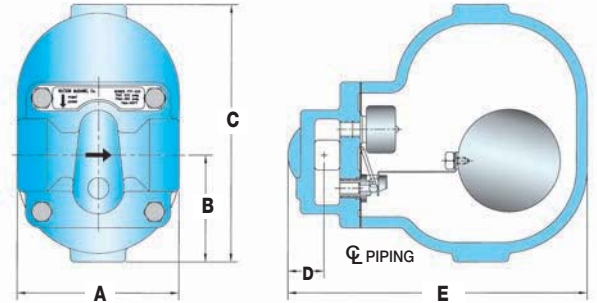
## FTT Series

Float & Thermostatic Steam Trap

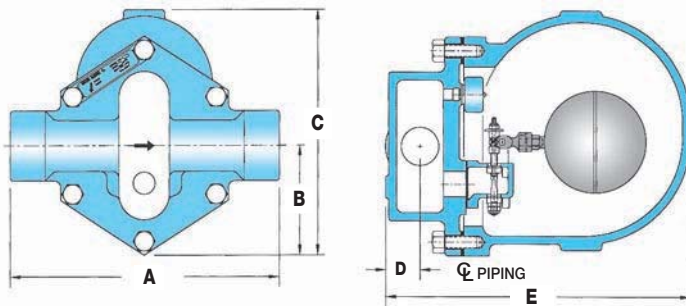
**FTT 1/2" & 3/4"**



**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		

## STEAM TRAPS

**WFT Series**

## Float &amp; Thermostatic Steam Trap

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Model	<b>WFT</b>
Sizes	<b>3/4", 1", 1 1/4", 1 1/2", 2"</b>
Connections	<b>NPT</b>
Body Material	<b>Cast Iron</b>
PMO Max. Operating Pressure	<b>250 PSIG</b>
TMO Max. Operating Temperature	<b>Saturated Steam Temperature</b>
PMA Max. Allowable Pressure	<b>250 PSIG up to 450°F</b>
TMA Max. Allowable Temperature	<b>450°F @ 250 PSIG</b>



**WFT**  
**3/4" & 1"**



**WFT**  
**2"**



**WFT**  
**1 1/4" & 1 1/2"**

**TYPICAL APPLICATIONS**

**PROCESS:** The **WFT Series** float and thermostatic steam traps are used for HVAC and industrial process applications. The excellent air handling capabilities of these traps make them a better choice than bucket traps for applications requiring quick start-up. Used on unit heaters, textile machines, heat exchangers, and other 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 valve, which is attached to a float, 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.

**FEATURES**

- 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)

**SAMPLE SPECIFICATION**

The trap shall be of float and thermostatic design with cast 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**

Isolation valves should be installed with trap to facilitate maintenance. 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**

Close isolation valves prior to performing any 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.

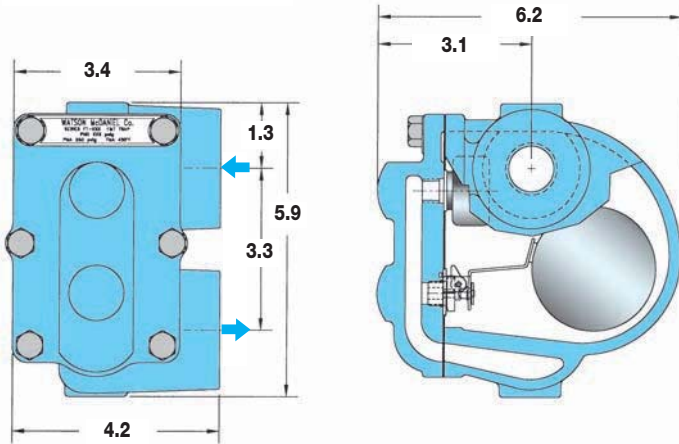
**OPTIONS**

Live orifice air vent for superheated steam applications.

## WFT Series

Float & Thermostatic Steam Trap

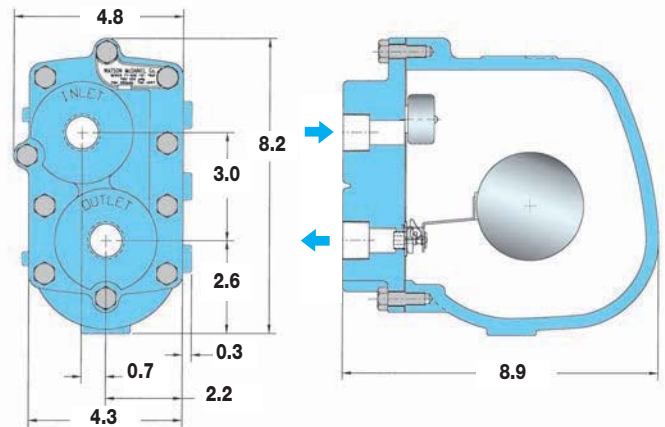
Dimensions: inches



### SPECIFICATIONS

Model	Sizes	Connection	PMO (PSIG)	PMA (PSIG)	Weight (lbs)
WFT-15	3/4", 1", 1 1/4"	NPT	15	125	9
WFT-30	3/4", 1", 1 1/4"	NPT	30	125	9
WFT-75	3/4", 1"	NPT	75	125	9
WFT-125	3/4", 1"	NPT	125	125	9

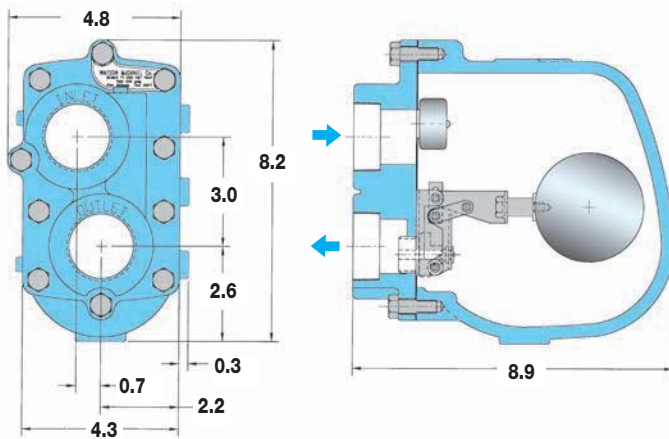
Dimensions: inches



### SPECIFICATIONS

Model	Sizes	Connection	PMO (PSIG)	PMA (PSIG)	Weight (lbs)
WFT-175	3/4", 1", 1 1/4"	NPT	175	250	20
WFT-250	3/4", 1", 1 1/4"	NPT	250	250	20

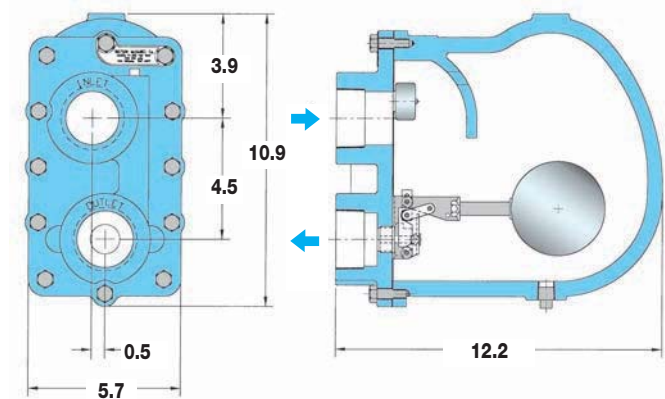
Dimensions: inches



### SPECIFICATIONS

Model	Sizes	Connection	PMO (PSIG)	PMA (PSIG)	Weight (lbs)
WFT-15	1 1/2"	NPT	15	250	21
WFT-30	1 1/2"	NPT	30	250	21
WFT-75	1 1/4", 1 1/2"	NPT	75	250	21
WFT-125	1 1/4", 1 1/2"	NPT	125	250	21
WFT-175	1 1/4", 1 1/2"	NPT	175	250	21
WFT-250	1 1/4", 1 1/2"	NPT	250	250	21

Dimensions: inches



### SPECIFICATIONS

Model	Sizes	Connection	PMO (PSIG)	PMA (PSIG)	Weight (lbs)
WFT-15	2"	NPT	15	250	53
WFT-30	2"	NPT	30	250	53
WFT-75	2"	NPT	75	250	53
WFT-125	2"	NPT	125	250	53
WFT-175	2"	NPT	175	250	53
WFT-250	2"	NPT	250	250	53

