# FT600 Series

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### Float & Thermostatic Steam Trap

FT600 / FT601
3/4", 1", 11/2", 2", 3", 4"
NPT, SW, Flanged
Carbon Steel / 316SS
Live Orifice Air Vent
450 PSIG
750°F
*990 PSIG @ 100°F
*750°F @ 670 PSIG

FT601 Body Material is 316 SS \* 3/4"- 2" only.

#### TYPICAL APPLICATIONS

PROCESS The FT600 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, opens 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 repairable 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, good for 670 PSIG @ 750°F.



FT600 1<sup>1</sup>/<sub>2</sub>" & 2"

FT600 3/4" & 1"





#### **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

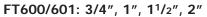
#### **HOW TO ORDER**

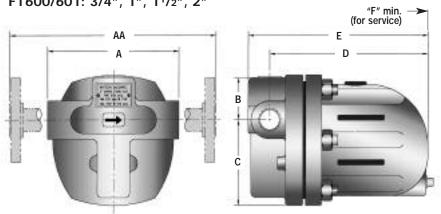
Refer to the capacity chart to determine which model is required to satisfy the condensate load.

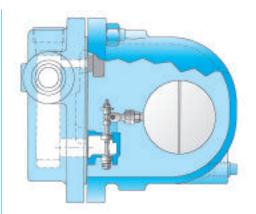


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DIMI	ENSI	ONS	& W	EIGH	ITS -	– inch	ies/poi	unds		
			Weight	(lbs)						
Model	Size	Α	AA	В	С	D	E	F	NPT/SW	FLG
FT600	3/4"	6.1	10.1	2.07	3.93	7.38	8.41	5.75	25	31
FT600	1"	6.5	10.4	2.5	5.5	8.44	9.5	6.25	31	36
FT600	1 <sup>1</sup> /2"	9.8	14	3.26	6.85	10.4	11.94	7.75	82	91
FT600	2"	11.8	16	3.6	7.4	11.59	13.27	8.0	93	107

CAPACIT	IES	– С	ondei	nsate	(lbs/	hr)															
									Dif	ferentia	I Press	sure (P	SI)								
Model / PMO	Sizes	1	2	3	4	5	6	8	10	20	30	40	50	65	80	100	145	200	300	400	450
FT600- <u>65</u> -13	3/4"	225	300	363	413	463	500	575	635	960	1060	1180	1320	1460							
FT600- <u>65</u> -14	1″	775	1094	1340	1520	1690	1865	2125	2370	3260	3990	4500	5000	5500							
FT600- <u>65</u> -16	11/2"	2500	3450	4130	4750	5300	5875	6750	7500	10625	13125	15000	16800	18850							
FT600- <u>65</u> -17	2″	8500	11950	14670	16800	18700	20100	23650	25250	35900	43000	49600	55500	61250							
FT600- <u>145</u> -13	3/4"	137	180	218	250	275	297	340	380	520	625	725	863	895	995	1120	1315				
FT600- <u>145</u> -14	1″	400	555	660	755	850	925	1060	1237	1593	1925	2240	2490	2750	3000	3430	3935				
FT600- <u>145</u> -16	1 <sup>1</sup> /2"	1275	1750	2125	2430	2740	2930	3370	3750	5100	6250	7200	7995	8875	9900	11250	13300				
FT600- <u>145</u> -17	2″	3125	4400	5375	6250	6900	7100	8700	9250	14625	16875	19375	21875	25000	27500	31000	37000				
FT600- <u>200</u> -13	3/4"	93	137	160	187	205	227	260	287	400	487	560	610	710	775	875	1060	1250			
FT600- <u>200</u> -14	1″	300	410	487	560	610	660	750	925	1140	1375	1520	1687	1875	2060	2312	2750	3100			
FT600- <u>300</u> -13	3/4"	50	68	83	95	106	118	137	155	197	240	275	300	340	375	413	490	570	710		
FT600- <u>300</u> -14	1″	225	300	363	413	463	500	575	635	960	1060	1180	1320	1468	1640	1815	2130	2550	3000		
FT600- <u>450</u> -13	3/4"	32	42	49	56	62	67	76	84	119	145	163	175	192	210	186	275	312	375	425	450
FT600- <u>450</u> -14	1″	137	180	218	250	275	297	340	380	520	625	725	863	895	995	1120	1315	1500	1870	2125	2250
FT600- <u>450</u> -16	11/2"	825	1130	1400	1570	1760	1937	2190	2500	3375	4125	4740	5250	6000	6600	7300	8650	10200	12600	14375	15200
FT600- <u>450</u> -17	2″	1560	2187	2800	3100	3490	3750	4300	4800	6750	8250	9500	10625	12400	13700	15000	18120	21200	26250	28700	31250

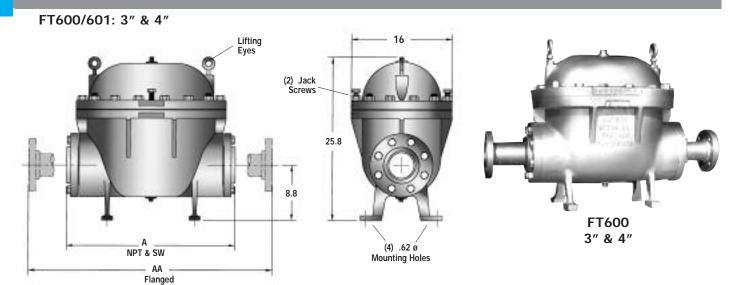
Note: 300° PSIG and above, the Thermostatic Air Vent is replaced with a live Orifice.



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DIMENSIONS & WEIGHTS - inches/pounds													
				Weight	(lbs)								
Model	Size	Α	AA	NPT/SW	FLG								
FT600	3"	27	39	587	626								
FT600	4"	N/A	39	N/A	654								

CAPA	CIT	IES	- C	onde	ensate	(100	00 lbs	/hr)													
Differential Pressure (PSI)																					
Temp	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

<sup>\*</sup> Cold Water capacities are to be used when the trap is used as a liquid drain trap. For liquid drain trap applications, please specify liquid drain trap when ordering.

CAPACITY	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



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