

Float and Thermostatic Steam Traps (continued)

Series C and X BEAR TRAP®

- For large high capacity units
- Sizes available:
 - Series C:**
 - 1 1/4" (32mm) NPT
 - 1 1/2" (40mm) NPT
 - 2" (50mm) NPT
 - 2 1/2" (65mm) NPT
 - Series X:**
 - 2" (50mm) NPT
- Resistant to water hammer and corrosion
- Below condensate level seat design prevents steam leakage
- Rugged stainless steel thermostatic element eliminates air binding
- Stainless steel internal components
- Can be serviced without dismantling piping
- Maximum operating pressure 175 psig (12.1 bar)
- Maximum temperature 377°F (192°C)

Materials of Construction	
Part	Specifications
Body and cover	Cast Iron 30,000 psi tensile
Valve Pin and Seat	Stainless Steel (Hardened)
Float	Stainless Steel
Lever Assembly	Stainless Steel
Thermostatic Air Vent	Stainless Steel Cage and Thermal Element
Cover Bolts	Grade 5
Baffle	Stainless Steel {2 1/2" (65mm) units only}

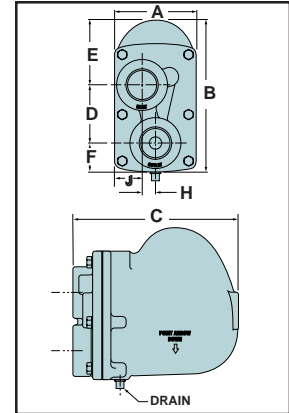
Dimensions in. (mm)

NPT Size in. (mm)	A	B	C	D	E
1 1/4 (32)	4 1/4 (108)	8 5/16 (211)	8 9/16 (217)	3 (76)	3 3/8 (86)
1 1/2 (40)	4 1/4 (108)	8 5/16 (211)	8 9/16 (217)	3 (76)	3 3/8 (86)
2-Std. (50)	7 3/16 (183)	10 1/8 (257)	10 1/2 (267)	4 15/16 (379)	2 11/16 (68)
2-X (50)	10 (254)	15 (381)	15 1/2 (394)	6 5/16 (168)	4 3/4 (121)
2 1/2 (65)	14 1/2 (368)	20 1/4 (514)	17 3/8 (441)	9 1/2 (241)	14 15/16 (379)

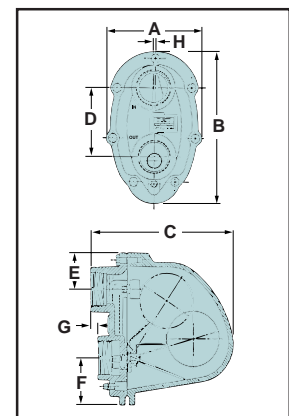
NPT Size in. (mm)	F	G	H	J	K	L
1 1/4 (32)	2 (51)	—	45/64 (17.8)	1 3/8 (35)	—	—
1 1/2 (40)	2 (51)	—	45/64 (17.8)	1 3/8 (35)	—	—
2-Std. (50)	3 1/4 (83)	1/2 (12.7)	1/8 (3.2)	—	—	—
2-X (50)	3 1/2 (89)	—	—	—	—	—
2 1/2 (65)	6 1/4 (159)	5 (127)	12 (305)	1 5/8 (41)	4 1/2 (114)	7 (178)



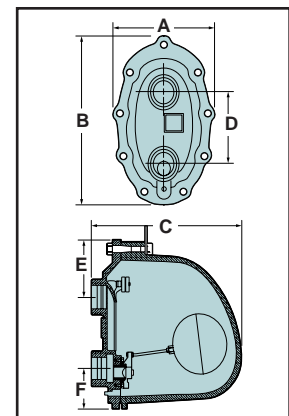
Series C
1 1/4" & 1 1/2" (32 & 40mm)



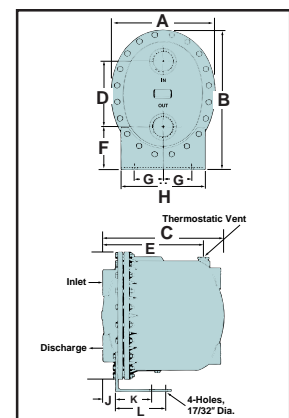
Series C
2" (50mm)



Series X
2" (50mm)



Series C
2 1/2" (65mm)



Capacities (Series C and X)

- Determine the differential pressure across the trap (inlet pressure - outlet pressure). On applications where the steam is controlled by a modulating temperature regulator, the trap differential should be 1/2 psi (0.34 bar).
- Determine the capacity based on the differential pressure and the required capacity of the trap to open against the maximum inlet steam pressure.
- Apply a Safety Factor by multiplying required capacity by 1.5.

Capacities (Gross Ratings)

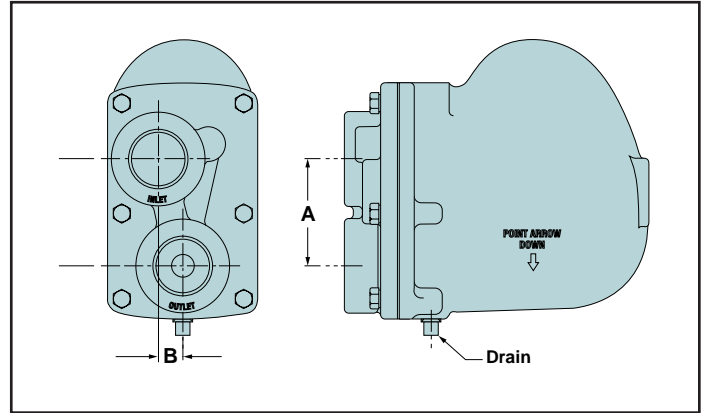
Model	NPT Size in. (mm)	Orifice Size in. (mm)	Pressure Differential in Pounds Per Square Inch (bar)																	
			1/4 (0.017)	1/2 (0.035)	1 (0.07)	2 (0.14)	5 (0.35)	10 (0.69)	15 (1.0)	20 (1.4)	25 (1.69)	30 (2.1)	40 (2.8)	50 (3.5)	60 (4.2)	75 (5.2)	100 (6.9)	125 (8.6)	150 (10.4)	175 (12.1)
			Capacities in Pounds of Condensate Per Hour (kg/hr.)																	
FT015C	1 1/2 (40)	.5 (12.7)	1100 (500)	1700 (770)	2400 (1090)	3300 (1500)	5000 (2270)	6600 (3000)	7600 (3450)											
FT015C	2 (50)	.687 (17.4)	2300 (1043)	2800 (1270)	3600 (1630)	4650 (2110)	6900 (3130)	9000 (4080)	10,900 (4948)											
FT015X	2 (50)	.970 (24.6)	6500 (2950)	8000 (3628)	9500 (4310)	10,800 (4900)	15,500 (7030)	20,900 (9480)	24,000 (10,885)											
FT015C	2 1/2 (65)	1.875 (47.6)	17,000 (7710)	20,000 (9070)	27,000 (12,250)	36,000 (16,330)	46,000 (20,865)	55,000 (24,950)	60,000 (27,210)											
FT030C	1 1/2 (40)	.390 (10)	1000 (450)	1300 (590)	1700 (770)	2300 (1040)	3400 (1540)	4600 (2085)	5500 (2495)	6000 (2720)	6600 (2995)	7000 (3178)								
FT030C	2 (50)	.563 (14)	1700 (771)	2500 (1134)	3100 (1406)	4100 (1859)	5800 (2630)	7650 (3470)	9000 (4082)	10,200 (4626)	11,100 (5034)	12,000 (5443)								
FT030X	2 (50)	.872 (22)	3400 (1543)	4600 (2088)	6400 (2905)	8400 (3813)	12,500 (5675)	16,900 (7672)	19,000 (8626)	21,500 (9761)	23,590 (10,669)	24,000 (10,896)								
FT030C	2 1/2 (65)	1.625 (41)	14,000 (6356)	17,000 (7718)	20,900 (9488)	25,500 (11,577)	33,200 (15,072)	40,500 (18,387)	45,500 (20,657)	49,400 (22,427)	52,700 (23,925)	55,600 (25,242)								
FT075C	1 1/4 (32)	.312 (8)	600 (272)	800 (363)	1040 (470)	1410 (640)	2200 (1000)	3100 (1405)	3800 (1725)	4100 (1860)	4500 (2040)	4700 (2130)	5000 (2270)	5300 (2400)	5500 (2500)	5900 (2675)				
FT075C	1 1/2 (40)	.312 (8)	600 (272)	800 (363)	1040 (470)	1410 (640)	2200 (1000)	3100 (1405)	3800 (1725)	4100 (1860)	4500 (2040)	4700 (2130)	5000 (2270)	5300 (2400)	5500 (2500)	5900 (2675)				
FT075C	2 (50)	.390 (10)	1000 (453)	1350 (612)	1700 (771)	2150 (975)	2950 (1338)	3600 (1632)	4300 (1950)	4850 (2199)	5400 (2449)	5800 (2630)	6600 (2993)	7200 (3265)	7850 (3560)	8500 (3855)				
FT075X	2 (50)	.585 (15)	2550 (1156)	3150 (1428)	4300 (1930)	5450 (2472)	7600 (3447)	10,400 (4717)	11,400 (5171)	12,500 (5670)	13,500 (6083)	14,250 (6463)	15,600 (7076)	17,150 (7779)	18,600 (8436)	20,500 (9298)				
FT075C	2 1/2 (65)	1.031 (26)	5900 (2676)	7700 (3492)	10,000 (4536)	13,000 (5896)	18,600 (8436)	24,200 (10,977)	28,300 (12,836)	31,600 (14,333)	34,400 (15,603)	36,800 (16,692)	41,100 (18,642)	44,800 (20,321)	48,040 (21,790)	52,300 (23,723)				
FT125C	1 1/4 (32)	.246 (6.2)	430 (195)	540 (245)	700 (320)	940 (425)	1400 (635)	1800 (820)	2200 (1000)	2350 (1065)	2600 (1180)	2800 (1270)	3150 (1430)	3400 (1540)	3500 (1590)	3850 (1750)	4400 (2000)	4800 (2180)		
FT125C	1 1/2 (40)	.246 (6.2)	430 (195)	540 (245)	700 (320)	940 (425)	1400 (635)	1800 (820)	2200 (1000)	2350 (1065)	2600 (1180)	2800 (1270)	3150 (1430)	3400 (1540)	3500 (1590)	3850 (1750)	4400 (2000)	4800 (2180)		
FT125C	2 (50)	.294 (7)	730 (331)	900 (408)	1180 (535)	1450 (657)	2000 (907)	2600 (1179)	3100 (1406)	3550 (1610)	3900 (1769)	4250 (1927)	4850 (2199)	5350 (2426)	5850 (2653)	6450 (2925)	7350 (3333)	8150 (3696)		
FT125X	2 (50)	.448 (11)	2300 (1043)	2800 (1270)	3450 (1564)	4200 (1905)	5450 (2472)	6600 (2993)	7450 (3379)	8050 (3651)	8600 (3900)	8950 (4059)	10,350 (4694)	11,950 (5420)	13,400 (6078)	15,600 (7076)	18,850 (8550)	21,800 (9888)		
FT125C	2 1/2 (65)	.797 (20)	4000 (1814)	5300 (2404)	6900 (3129)	9100 (4127)	13,000 (5896)	17,100 (7756)	20,000 (9072)	22,400 (10,160)	24,500 (11,113)	26,300 (11,929)	29,400 (13,335)	32,100 (14,560)	34,650 (15,717)	37,600 (17,055)	42,100 (19,096)	46,000 (20,865)		
FT175C	1 1/4 (32)	.210 (5.3)	260 (120)	350 (160)	480 (220)	640 (290)	940 (425)	1190 (540)	1450 (660)	1560 (710)	1670 (760)	1750 (790)	1910 (865)	2040 (925)	2100 (950)	2300 (1040)	2500 (1135)	2900 (1315)	3140 (1425)	3240 (1470)
FT175C	1 1/2 (40)	.210 (5.3)	260 (120)	350 (160)	480 (220)	640 (290)	940 (425)	1190 (540)	1450 (660)	1560 (710)	1670 (760)	1750 (790)	1910 (865)	2040 (925)	2100 (950)	2300 (1040)	2500 (1135)	2900 (1315)	3140 (1425)	3240 (1470)
FT175C	2 (50)	.244 (6)	520 (235)	660 (299)	820 (371)	1050 (476)	1450 (657)	1850 (839)	2250 (1020)	2600 (1179)	2900 (1315)	3100 (1406)	3600 (1632)	4050 (1837)	4400 (1995)	4800 (2177)	5600 (2540)	6250 (2835)	6800 (3084)	7500 (3402)
FT175X	2 (50)	.375 (10)	2100 (953)	2600 (1180)	3000 (1362)	3500 (1589)	4400 (1997)	4900 (2224)	5350 (2428)	5800 (2633)	6250 (2837)	6700 (3041)	7600 (3450)	8600 (3904)	9550 (4335)	11,000 (4994)	13,000 (5902)	14,750 (6696)	16,500 (7491)	18,000 (8172)
FT175C	2 1/2 (65)	.688 (17)	2460 (1116)	3350 (1520)	4600 (2088)	6200 (2814)	9400 (4267)	12,800 (5811)	15,400 (6991)	17,500 (7945)	19,300 (8762)	21,000 (9534)	23,800 (10,805)	26,300 (11,940)	28,060 (12,739)	31,600 (14,346)	35,900 (16,298)	39,700 (18,023)	43,100 (19,567)	46,200 (20,974)

Float and Thermostatic Steam Traps (continued)

Series C and X Competitive Dimensional Comparison of Distance Between Inlet and Outlet Pipes of Traps with Tappings in the Cover

Dimensions in. (mm)

Size	Manufacturer	A	B
1½" (40mm)	Hoffman FT015C	3 (76)	23/32 (18)
	Spirax FT15	3 (76)	23/32 (18)
2" (50mm)	Hoffman FT015C	4 ¹⁵ / ₁₆ (124)	1/8 (3)
	Spirax FT15	4 ¹⁵ / ₁₆ (124)	1/8 (3)
	Dunham Bush 30-8A	5 ⁷ / ₁₆ (138)	1½ (38)
2" (50mm)	Hoffman FT015X	6 ⁵ / ₈ (168)	0
	Armstrong 15-J8	6 ⁵ / ₈ (168)	0
	Spirax FTB-20	4½ (114)	½ (13)
2½" (65mm)	Hoffman FT015C	9½ (241)	0
	Armstrong 30-L10	11 ⁵ / ₁₆ (287)	0
	Spirax FTB-125	7¼ (184)	1 ⁷ / ₁₆ (36)



Ordering Information

To convert previous Hoffman Specialty F & T Trap Model numbers, see page 17.

Model Number	Part Number	NPT Size in. (mm)	Seat Differential Pressure Rating psi (bar)	Housing Pressure Rating psi (bar)	Weight lbs (kg)
FT015C	404230	1½ (40)	15 (1.0)	175 (12.1)	18 (8)
FT015C	404240	2 (50)	15 (1.0)	175 (12.1)	33 (15)
FT015X	404242	2 (50)	15 (1.0)	175 (12.1)	108 (49)
FT015C	404244	2½ (65)	15 (1.0)	175 (12.1)	175 (79)
FT030C	404232	1½ (40)	30 (2.1)	175 (12.1)	18 (8)
FT030C	401887	2 (50)	30 (2.1)	175 (12.1)	33 (15)
FT030X	401899	2 (50)	30 (2.1)	175 (12.1)	108 (49)
FT030C	401875	2½ (65)	30 (2.1)	175 (12.1)	175 (79)
FT075C	404224	1¼ (32)	75 (5.2)	175 (12.1)	18 (8)
FT075C	404234	1½ (40)	75 (5.2)	175 (12.1)	18 (8)
FT075C	401890	2 (50)	75 (5.2)	175 (12.1)	33 (15)
FT075X	401902	2 (50)	75 (5.2)	175 (12.1)	108 (49)
FT075C	401878	2½ (65)	75 (5.2)	175 (12.1)	175 (79)
FT125C	404226	1¼ (32)	125 (8.6)	175 (12.1)	18 (8)
FT125C	404236	1½ (40)	125 (8.6)	175 (12.1)	18 (8)
FT125C	401893	2 (50)	125 (8.6)	175 (12.1)	33 (15)
FT125X	401905	2 (50)	125 (8.6)	175 (12.1)	108 (49)
FT125C	401881	2½ (65)	125 (8.6)	175 (12.1)	175 (79)
FT175C	404228	1¼ (32)	175 (12.1)	175 (12.1)	18 (8)
FT175C	404238	1½ (40)	175 (12.1)	175 (12.1)	18 (8)
FT175C	401896	2 (50)	175 (12.1)	175 (12.1)	33 (15)
FT175X	401907	2 (50)	175 (12.1)	175 (12.1)	108 (49)
FT175C	401884	2½ (65)	175 (12.1)	175 (12.1)	175 (79)

Conversion of Previous Hoffman Specialty Models to New Model Numbers

Previous Style			New Style			Remarks
Model No.	Size in. (mm)	Part Number	Model No.	Size in. (mm)	Part Number	
55	³ / ₄ (20)	401617	FT015H	³ / ₄ (20)	404200	Revised design
55	1 (25)	401620	FT015H	1 (25)	404210	Revised design
55	1 ¹ / ₄ (32)	401623	FT015H	1 ¹ / ₄ (32)	404220	Revised design
55	1 ¹ / ₂ (40)	401626	FT015H	1 ¹ / ₂ (40)	401626	No design change on this unit
55	2 (50)	401629	FT015H	2 (50)	401629	No design change on this unit
None	—	—	FT015C	1 ¹ / ₂ (40)	404230	New addition to line
None	—	—	FT015C	2 (50)	404240	New addition to line
None	—	—	FT015X	2 (50)	404242	New addition to line
None	—	—	FT015C	2 ¹ / ₂ (65)	404244	New addition to line
550	1 (25)	401632	FT030H	1 (25)	404212	Revised design
550	1 ¹ / ₄ (32)	401635	FT030H	1 ¹ / ₄ (32)	404222	Revised design
550	1 ¹ / ₂ (40)	401638	FT030H	1 ¹ / ₂ (40)	401638	No design changes on this unit
550	2 (50)	401887	FT030C	2 (50)	401887	No design change on this unit
551	1 (25)	401641	FT075H	1 (25)	404214	Revised design
551	1 ¹ / ₄ (32)	401644	FT075C	1 ¹ / ₄ (32)	404224	Changed to cover inlet design
551	1 ¹ / ₂ (40)	401647	FT075C	1 ¹ / ₂ (40)	404234	Changed to cover inlet design
551	2 (50)	401890	FT075C	2 (50)	401890	No design change on this unit
552	1 (25)	401650	FT125H	1 (25)	404216	Revised design
552	1 ¹ / ₄ (32)	401653	FT125C	1 ¹ / ₄ (32)	404226	Changed to cover inlet design
552	1 ¹ / ₂ (40)	401656	FT125C	1 ¹ / ₂ (40)	404236	Changed to cover inlet design
552	2 (50)	401893	FT125C	2 (50)	401893	No design change on this unit
553	1 (25)	401659	FT175H	1 (25)	404218	Revised design
553	1 ¹ / ₄ (32)	401662	FT175C	1 ¹ / ₄ (32)	404228	Changed to cover inlet design
553	1 ¹ / ₂ (40)	401665	FT175C	1 ¹ / ₂ (40)	404238	Changed to cover inlet design
553	2 (50)	401896	FT175C	2 (50)	401896	No design change on this unit
590	³ / ₄ (20)	401668	FT030H	³ / ₄ (20)	404202	Revised design
590	1 (25)	401671	FT030H	1 (25)	404212	Revised design
590	1 ¹ / ₂ (40)	401674	FT030C	1 ¹ / ₂ (40)	404232	Changed to cover inlet design
590	2 (50)	401899	FT030X	2 (50)	401899	No design change on this unit
590	2 ¹ / ₂ (65)	401875	FT030C	2 ¹ / ₂ (65)	401875	No design change on this unit
591	³ / ₄ (20)	401677	FT075H	³ / ₄ (20)	404204	Revised design
591	1 (25)	401680	FT075H	1 (25)	404214	Revised design
591	1 ¹ / ₂ (40)	401683	FT075C	1 ¹ / ₂ (40)	404234	Changed to cover inlet design
591	2 (50)	401902	FT075X	2 (50)	401902	No design change on this unit
591	2 ¹ / ₂ (65)	401878	FT075C	2 ¹ / ₂ (65)	401878	No design change on this unit
592	³ / ₄ (20)	401686	FT125H	³ / ₄ (20)	404206	Revised design
592	1 (25)	401689	FT125H	1 (25)	404216	Revised design
592	1 ¹ / ₂ (40)	401692	FT125C	1 ¹ / ₄ (32)	404226	Changed to cover inlet design
592	2 (50)	401905	FT125X	2 (50)	401905	No design change on this unit
592	2 ¹ / ₂ (65)	401881	FT125C	2 ¹ / ₂ (65)	401881	No design change on this unit
593	³ / ₄ (20)	401695	FT175H	³ / ₄ (20)	404208	Revised design
593	1 (25)	401698	FT175H	1 (25)	404218	Revised design
593	1 ¹ / ₄ (32)	401701	FT175C	1 ¹ / ₄ (32)	404228	Changed to cover inlet design
593	2 (50)	401907	FT175X	2 (50)	401907	No design change on this unit
593	2 ¹ / ₂ (65)	401884	FT175C	2 ¹ / ₂ (65)	401884	No design change on this unit

New Model number designation code example:

Model	Seat Pressure	Series
FT	015	H