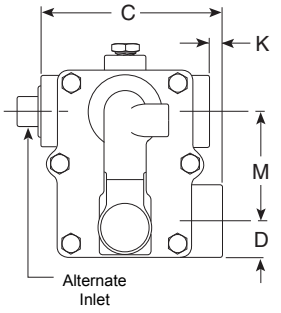
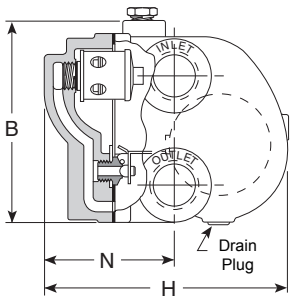
A & AI Series Float & Thermostatic Steam Traps

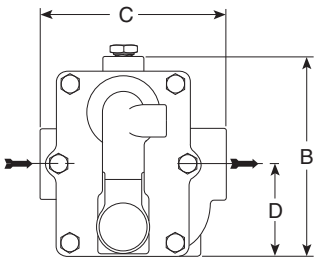
Cast Iron for Horizontal Installation, with Thermostatic Air Vent

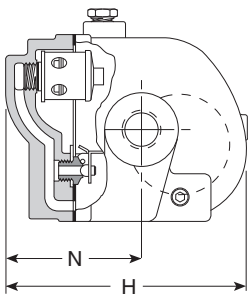
For Pressures to 12 bar...Capacities to 3 900 kg/h





Model A Traps





Model AI Traps

Description

Armstrong A & AI Series F&T traps are for industrial service from 0 to 12 bar and feature a balanced pressure phosphor-bronze type bellows caged in stainless steel. Armstrong A & AI Series F&T traps are designed for service on heat exchange equipment where there is a need to vent air and non-condensable gases quickly.

The AI Series F&T traps feature the convenience of in-line connections with the same rugged internals found in the A Series.

Maximum Operating Conditions

Maximum allowable pressure (vessel design): 12 bar @ 192°C

Maximum operating pressure:

Model 30-A, AI:	2 bar saturated steam
Model 75-A, AI:	5 bar saturated steam
Model 125-A, AI:	8,5 bar saturated steam
Model 175-A, AI:	12 bar saturated steam

Maximum back pressure: 99% of inlet pressure

Note: Cast iron traps should not be used in systems where freezing, excessive hydraulic or thermal shock are present.

Connections

Screwed BSPT and NPT

Flanged DIN or ANSI (screw on), contact factory for dimensions and weights.

Materials

Body and cap:	ASTM A48 Class 30
Internals:	All stainless steel – 304
Valve:	Stainless steel – 440
Seat:	Stainless steel – 303 (ASTM A582) Stainless steel – 440F in 1 1/2" and 2"
Thermostatic air vent:	Stainless steel and bronze with phosphor bronze bellows, caged in stainless steel

Options

Integral vacuum breaker. Add suffix VB to model number.

CAUTION: Do not use a conventional vacuum breaker open to the atmosphere in any system that incorporates a mechanical return system that carries pressure less than atmospheric pressure. This includes all return systems designated as vacuum returns, variable vacuum returns or subatmospheric returns. If a vacuum breaker must be installed in such a system, it should be of the type that is loaded to open only when the vacuum reaches a calibrated level well in excess of the design characteristics of the system.

Specification

Float and thermostatic steam trap, type ... in cast iron, with thermostatic air vent. Maximum allowable back pressure 99% of inlet pressure.

How to Order

Pressure	Model	Connection Size	Option
75	AI	2	VB
30 = 2 bar 75 = 5 bar 125 = 8,5 bar 175 = 12 bar	A = Standard Connection AI = In-line Connection	3 = mm 20 4 = mm 25 5 = mm 32 6 = mm 40 8 = mm 50 2 = mm 15 3 = mm 20 4 = mm 25	VB = Vacuum Breaker

Table ST-116-1. A Series Side Inlet, Side Outlet and AI Series In-Line Trap (dimensions in mm)

Model No.	A					AI
Pipe Connections	20	25	32	40	50	15 – 20 – 25
"B" Height	130	130	148	189	248	140
"C" Face-to-Face (screwed)	124	124	117	146	194	127
"D" Bottom to ℄	25,4	25,4	31,0	35,7	42,9	65,1
"H" Width	164	164	206	214	295	165
"K" Connection Offset	95,2	95,2	–	–	–	–
"M" ℄ to ℄	76,2	76,2	76,2	106,0	152,0	–
"N" Top to ℄	85,7	85,7	95,2	95,2	127,0	93,7
Weight in kg (screwed)	4,3	3,7	5,0	8,5	18,1	4,4

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

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Table ST-117-1. A & AI Series Capacity – 2 bar

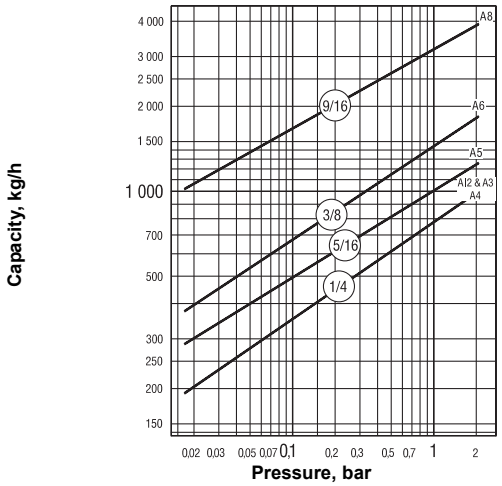


Table ST-117-2. A & AI Series Capacity – 5 bar

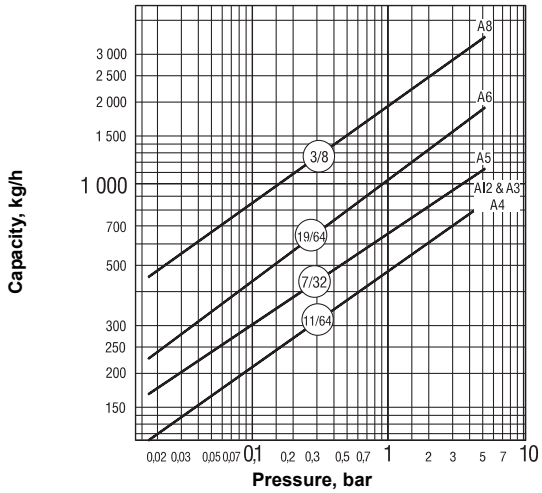


Table ST-117-3. A & AI Series Capacity – 8,5 bar

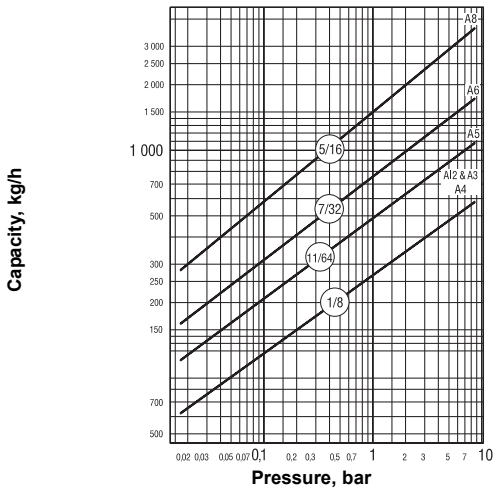
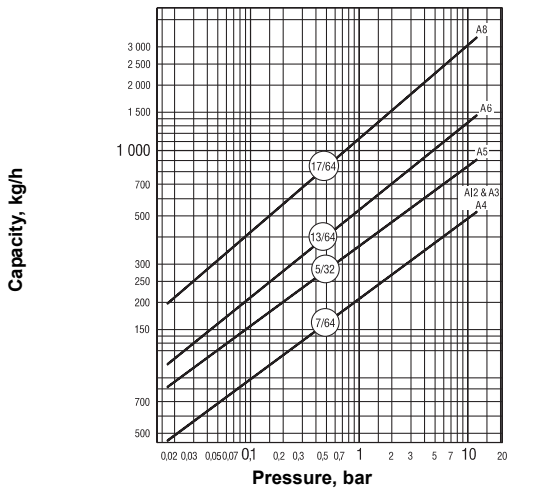


Table ST-117-4. A & AI Series Capacity – 12 bar



Options

Vacuum Breaker – 3/8" and 1/2" NPT

Many times, condensate will be retained ahead of steam traps because of the presence of a vacuum. To break a vacuum, air must be introduced into the system by means of a vacuum breaker.

For maximum protection against freezing and water hammer in condensing equipment under modulated control, vacuum breakers are recommended. Armstrong A and AI Series F&T Traps are available with integral vacuum breakers. Maximum service pressure is 10 bar.

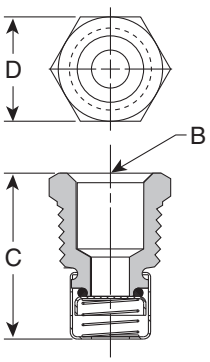


Table ST-117-5. Vacuum Breaker (dimensions in mm)

Size	1/2" NPT	3/8" NPT
"B" Pipe Connections	3/8"	1/4"
"C" Height	30	28
"D" Width	22 Hex	17 Hex

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