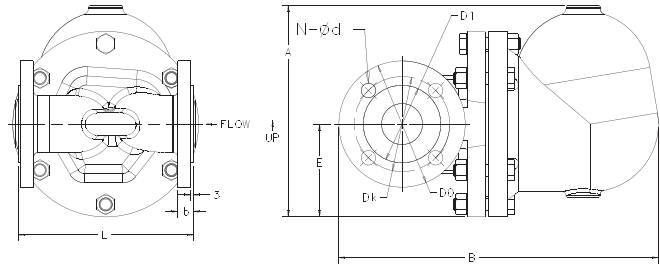




# AIC Series DN40-50 Float & Thermostatic Steam Trap

Nodular Cast Iron (GS) for Horizontal & Vertical Installation, with Thermostatic Air Vent  
For Pressures to 32 bar... Capacities to 27 250 kg/h



Steam Traps

## Description

**Armstrong AIC Series F&T traps** are designed for industrial service up to 32 bar. They feature all the benefits of Armstrong F&T traps, such as operation against back pressure, continuous drainage, high-capacity venting of air and CO<sub>2</sub>, long life and dependable service and enjoys the convenience of in-line connections.

**Armstrong AIC Series F&T traps** are the perfect solution for applications where there is a need to vent air and non-condensable gases quickly at start-up.

## Maximum Operating Conditions

Maximum allowable pressure (vessel design): 40 bar @ 300°C  
 Maximum Allowable Pressure: 40 barg  
 Maximum Allowable Temperature: 300°C  
 Maximum Operating Pressure: 32 barg

**Note:** Float & Thermostatic steam traps should not be used in systems where freezing or excessive hydraulic shocks can occur.

## Connections

Screwed BSPT and NPT  
 Flanged DIN PN40

## Materials

Body & Cap: EN-GJS-400-184 (EN1563)  
 Gasket: Graphite  
 Seat: Stainless Steel 17-4PH  
 Internals: Steel A351 CF-8H  
 Valve: Stainless Steel 17-4PH  
 Thermostatic Air Vent: Hastelloy Wafer  
 Hex Bolt: SAE Grade B2

## 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.

## How to Order

Pressure	Model	Connection Size	Option
75	AI	2	VB
100 = 7 bar 200 = 14 bar 300 = 21 bar 465HP = 32 bar	AICS = Screwed Connection  AICF = DIN Flanged Connection	Horizontal Vertical  6 = 1-1/2" 8 = 2"  6 = DN40 8 = DN50	VB = Vacuum Breaker (limited to 10 bar)

**Table ST-126-1. Table Available Connections and Face-To-Face Dimensions**

Connection	1 1/2" DN40	2" DN50
"A" Height in mm	278	278
"B" (Length Screwed) in mm	326	333
"B" (Length Flanged PN40) in mm	411	420
"L" (Face-to-face Screwed) in mm	270	300
"L" (Face-to-face Flanged PN40) in mm	230	230
"b" (Flange width) in mm	19	19
"E" (Bottom to centerline of inlet) in mm	122	122
"D1" in mm	ø 84	ø 99
"D0" in mm	ø 150	ø 165
"Dk" in mm	ø 110	ø 125
"N - ød" in mm	ø 19	ø 19
Vacuum Breaker (optional) in inch	1/4"	1/4"
Weight in kg screwed	32	32
Weight in kg flanged	34	34

All the sizes comply with the Article 3.3 of the PED (97/23/EC)

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

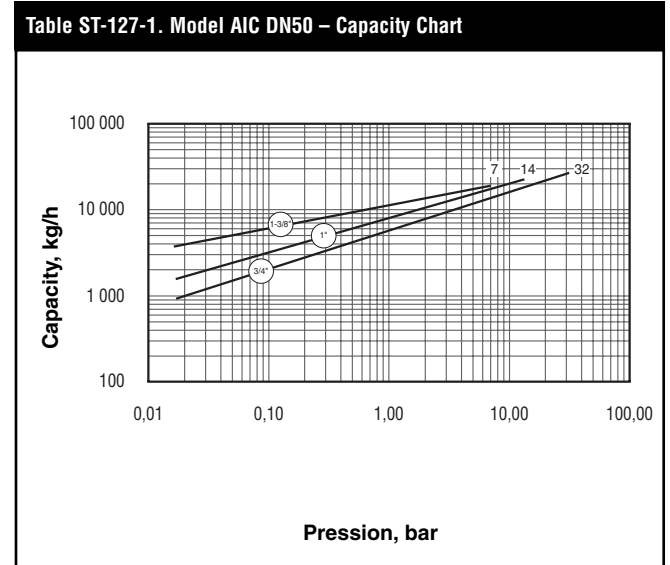
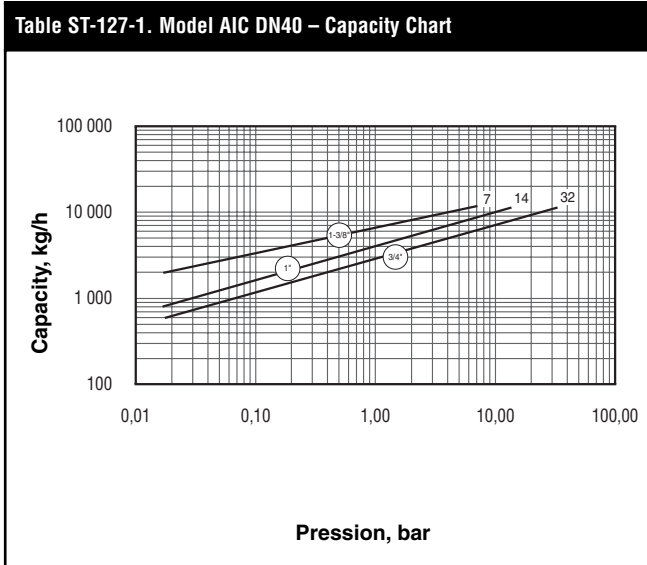
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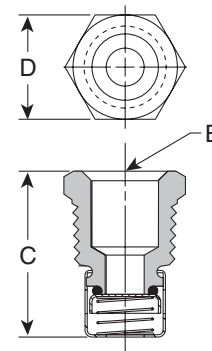


## Options

### Vacuum Breaker

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-127-5. 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

## Specification

The steam trap shall be an Armstrong model AIC (AICF) float & thermostatic type. Cap and body shall be EN-GJS-400-15 (EN1563) Nodular Iron. Pipe connections shall be in the cap and the entire mechanism attached to the cap. Float and seat shall be stainless steel with heat-treated chrome steel valve. The float shall be Heliarc welded to avoid introduction of dissimilar metals. The thermostatic Air Vent shall be a balanced pressure Hastelloy wafer with chrome steel seat. Maximum allowable back pressure should be 99% of the inlet pressure.

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

Steam Traps