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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



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_2 , 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

40 bar @ 300°C (screwed) 32 bar @ 300°C (EN1092-2 PN40) (vessel design)+:

Maximum Allowable Pressure: 40 barg (screwed)

32 barg (EN1092-2 PN40) e: 300°C Maximum Allowable Temperature:

Maximum Operating Pressure: 32 barg

Note: Caution should be used when Float and Thermostatic steam traps are applied in systems where freezing or excessive hydraulic

shock can occur.

Connections

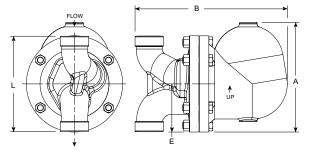
Screwed BSPT and NPT Flanged EN1092-2 PN40 or ANSI

Materials

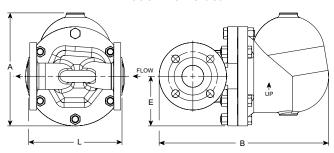
ASTM A395 Grade 60-40-18 Body & Cap EN1563 Grade EN-GJS-400-18U

Gasket Graphite

Stainless Steel 17-4PH Seat Internals Stainless Steel Valve Stainless Steel 17-4PH Thermostatic Air Vent Hastelloy Wafer ASTM A193 Gr. B7 Hex Bolt ASTM A194



Model AIC Vertical



Model AICF Horizontal

Integral vacuum breaker. Add suffix VB to model number.

Flow Direction

Right to Left (Horizontal). Top to Bottom (Vertical).

How to Order

| Model | Flow Direction | Connection Size | Connection Type | Pressure | Option |
|---------|---------------------------------|--------------------|----------------------------|---------------------------------|--|
| AIC F+T | R/L | DN50 | PN40 | 1-3/8" | VB |
| AIC F+T | VERT = Top to Bottom (Vertical) | 1-1/2" 2" | Screwed Connec- tion | 1-3/8" = 7 bar | VB = Vacuum Breaker (limited to 10 bar) |
| | R/L = Right to Left | DN40 DN50 | Flanged Connec- tion | 1" = 14 bar 3/4" = 32 bar | |

| Table 134-1. 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 EN1092-2 PN40) in mm | 410 | 417 | | | |
| «L» (Face-to-face Screwed) in mm | 270 | 300 | | | |
| «L» (Face-to-face Flanged EN1092-2 PN40) in mm | 230 | 230 | | | |
| «E» (Bottom to centerline of inlet) in mm | 122 | 122 | | | |
| Vacuum Breaker (optional) in inch | 3/8" | 3/8" | | | |
| Weight in kg screwed | 32 | 32 | | | |
| Weight in kg flanged | 34 | 34 | | | |

All are CE Marked according to the PED (2014/68/UE). + May be derated depending on flange rating and type.

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

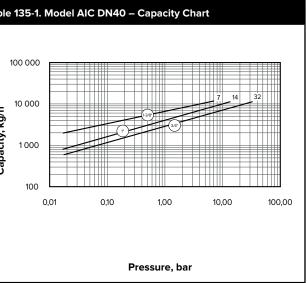
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AIC Series DN40-50 Float & Thermostatic Steam Trap





Table 135-1. Model AIC DN40 - Capacity Chart 100 000 10 000 Capacity, kg/h 1000 100 0.01 0.10 1.00 10.00 100.00 Pressure, bar



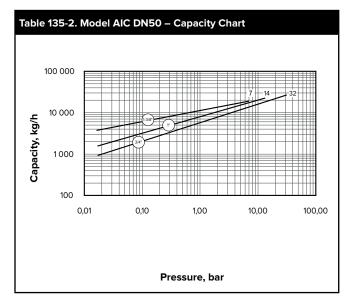
Options

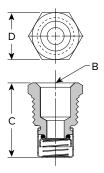
Many times, condensate will be retained ahead of steam traps because of the presence of a vacuum. To break a vacuum, air must be introduced into the system by means of a vacuum breaker.

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

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.

| Table 135-3. 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.