



THERMODYNE STEAM TRAP

MODEL A3N

THERMODYNAMIC DISC TRAP WITH THERMOSTATIC AIR VENTING

Features

Steam jacketed disc trap for long life on mains, tracers, and coils.

1. Inline replaceable valve module.
2. Steam jacketing reduces no-load cycling.
3. Quick thermostatic air venting with bimetal ring for fast start-up.
4. Lapped disc provides steam-tight seal without air binding.
5. Built-in screen for trouble-free service.
6. High grade reusable gaskets.
7. Hardened working surfaces for long life.



Specifications

| Model | A3N | AF3N |
|--|------------------------|---------|
| Connection | Screwed | Flanged |
| Size (mm) | 15, 20, 25, 32, 40, 50 | |
| Maximum Operating Pressure (MPaG) PMO | 1.57 | |
| Minimum Operating Pressure (MPaG) | 0.03 | |
| Maximum Operating Temperature (°C) TMO | 220 | |
| Maximum Back Pressure | 80% of Inlet Pressure | |

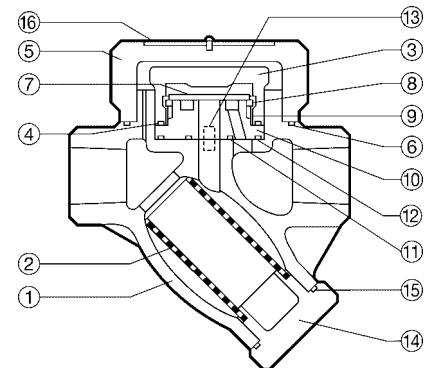
PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 1.57 1 MPa = 10.197 kg/cm²
Maximum Allowable Temperature (°C) TMA: 220



CAUTION

To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

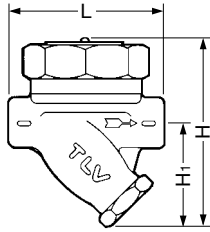
| No. | Description | Material | JIS | ASTM/AISI* |
|-----------------|------------------------------|---------------------|----------|--------------|
| ① | Body (A3N 15-25) | Malleable Cast Iron | FCMB270 | A47 Gr.32510 |
| | Body (A3N 32-50, AF3N) | Cast Iron | FC250 | A126 Cl.B |
| ② ^R | Screen | Stainless Steel | SUS430 | AISI430 |
| ③ ^R | Inner Cover (15-25) | Stainless Steel | SUS410F2 | AISI410 |
| | Inner Cover (32-50) | Stainless Steel | SUS416 | AISI416 |
| ④ ^R | Inner Cover Gasket | Fluorine Resin | PTFE | PTFE |
| ⑤ | Outer Cover (15-25) | Malleable Cast Iron | FCMB270 | A47 Gr.32510 |
| | Outer Cover (32-50) | Cast Iron | FC250 | A126 Cl.B |
| ⑥ ^{MR} | Outer Cover Gasket | Fluorine Resin | PTFE | PTFE |
| ⑦ ^R | Disc (15-25) | Stainless Steel | SUS420J2 | AISI420 |
| | Disc (32-50) | Stainless Steel | SUS420F | AISI420F |
| ⑧ ^R | Disc Holder Ring | Stainless Steel | SUS420J2 | AISI420 |
| ⑨ ^R | Air Vent Ring | Bimetal | — | — |
| ⑩ ^R | Module Valve Seat | Stainless Steel | SUS420F | AISI420F |
| ⑪ ^R | Inner Module Gasket | Fluorine Resin | PTFE | PTFE |
| ⑫ ^R | Outer Module Gasket | Fluorine Resin | PTFE | PTFE |
| ⑬ ^R | Module Pin | Steel | SUJ2 | A485 |
| ⑭ | Screen Holder (15-25) | Malleable Cast Iron | FCMB270 | A47 Gr.32510 |
| | Screen Holder (32-50) | Cast Iron | FC250 | A126 Cl.B |
| ⑮ ^{MR} | Screen Holder Gasket (15-25) | Fluorine Resin | PTFE | PTFE |
| | Screen Holder Gasket (32-50) | Copper Alloy | CuP | B152 |
| ⑯ | Cover Bolt (32-50)** | Carbon Steel | SS400 | A6 |
| ⑰ | Nameplate | Stainless Steel | SUS304 | AISI304 |



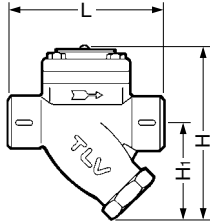
* Equivalent ** Shown overleaf
Replacement kits available: (M) maintenance parts, (R) repair parts

Dimensions

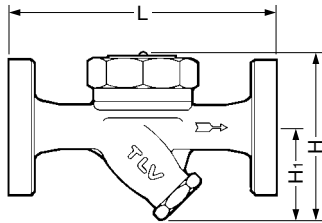
● **A3N Screwed**
Size 15-25



Size 32-50



● **AF3N Flanged**



Configuration of sizes 32 - 50 flanged is same as sizes 32 - 50 screwed.

A3N Screwed* (mm)

| Size | L | H | H ₁ | Weight (kg) |
|------|-----|-----|----------------|-------------|
| 15 | 98 | 122 | 68 | 1.5 |
| 20 | 104 | 125 | 69 | 1.6 |
| 25 | 112 | 133 | 73 | 1.8 |
| 32 | 175 | 194 | 104 | 7.2 |
| 40 | 180 | 193 | 105 | 7.4 |
| 50 | 195 | 208 | 109 | 8.8 |

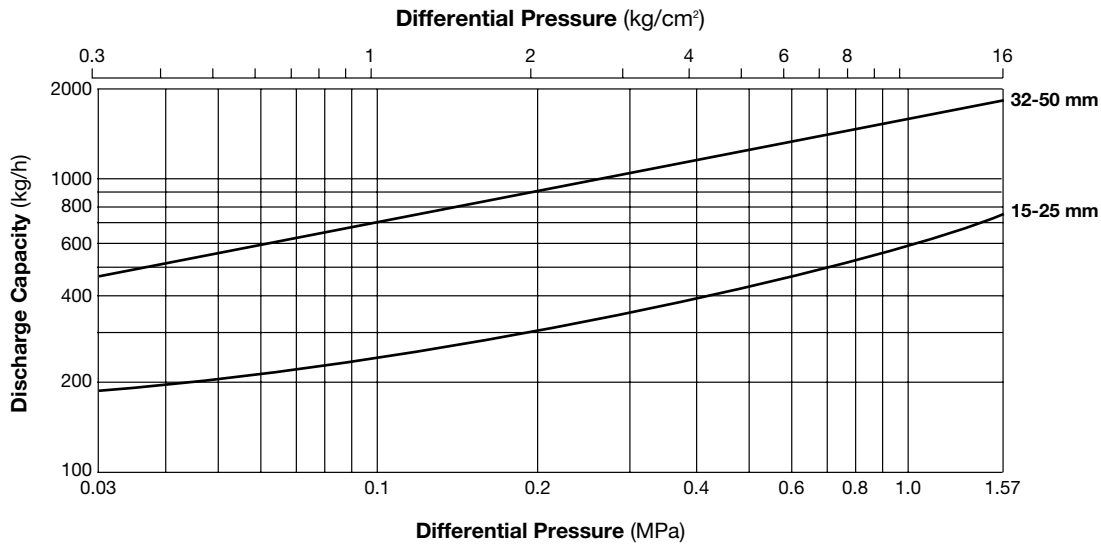
* Rc (PT), other standards available

AF3N Flanged (mm)

| Size | L | | | | H | H ₁ | Weight* (kg) |
|------|------------|---------|-------|---------|-----|----------------|--------------|
| | ASME Class | | | | | | |
| | 125FF | (150RF) | 250RF | (300RF) | | | |
| (15) | — | 175 | — | 175 | 120 | 67 | [3.4] |
| (20) | — | 195 | — | 195 | 125 | 71 | [5.0] |
| 25 | 203 | 215 | 215 | 219 | 131 | 73 | 6.0 |
| 32 | 231 | 245 | 243 | 245 | 194 | 104 | 11 |
| 40 | 250 | 260 | 262 | 264 | 198 | 106 | 13 |
| 50 | 257 | 265 | 269 | 269 | 208 | 109 | 14 |

() No ASME standard exists for cast iron; machined to fit steel flanges
 Class 125FF can connect to 150RF, 250RF can connect to 300RF
 Other standards available, but length and weight may vary
 * Weight is for Class 250RF [300RF]

Discharge Capacity



1. Differential Pressure is the difference between the inlet and outlet pressure of the trap.
2. Recommended safety factor: at least 2.

Manufacturer

ISO 9001/ISO 14001

TLV® CO., LTD.
Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

