# AUTOMATIC AIR AND GAS VENTS FOR LIQUID SYSTEMS
# AE50i
# (Stainless steel 1/2" x 1/2" to 1" x 1/2"; DN 15 x 1/2" to DN 25 x 1/2")

## DESCRIPTION

The AE50 range of automatic vents are designed to remove air or gases from water and other liquid systems, without requiring any external source of energy.
They are capable of handling significant loads during start-up while still being able to discharge smaller loads in continuous modulating operation with one single orifice.
These ball float type vents are manufactured in stainless steel, available with soft sealing, and can be used in combination with other air elimination and separation systems or directly applied at high points in the pipelines.

## MAIN FEATURES

Suitable for start-up and continuous operation with one single orifice.
Allow fast and easy inline maintenance.
Corrosion resistant internal parts.
No balancing pipe required.

OPTIONS: Different soft sealing options.
Metal to metal sealing.

USE: Cold, hot and superheated water or other liquids compatible with the construction.

AVAILABLE MODELS: AE50i – stainless steel.

SIZES: 1/2" x 1/2", 3/4" x 1/2" and 1" x 1/2";
DN 15 x 1/2", DN 20 x 1/2" and DN 25 x 1/2".

CONNECTIONS: Female threaded ISO 7 Rp or NPT.
Flanged EN 1092-1 PN 40.
Flanged ASME B16.5 Class 150 or 300.

INSTALLATION: Vertical installation.
It must be installed absolutely vertically at the points in the plant where the air tends to collect.
The drain should be piped to a safe location.
See IMI – Installation and maintenance instructions.

| CE MARKING – GROUP 2 (PED – European Directive) | |
|---|---|
| **PN 40** | **Category** |
| All sizes | SEP |

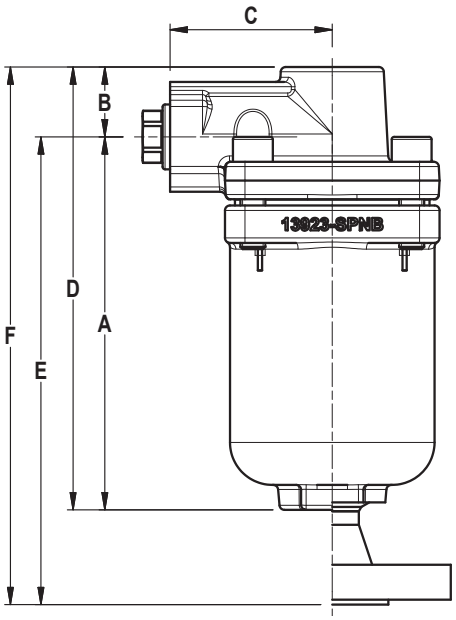
| BODY LIMITING CONDITIONS | | |
|---|---|---|
| **FLANGED PN 40 / CLASS 300** | **FLANGED CLASS 150 *** | **RELATED TEMP.** |
| **ALLOW. PRESS.** | **ALLOW. PRESS.** | |
| 30 bar | 13,3 bar | 100 ºC |
| 28,8 bar | 11,1 bar | 200 ºC |
| 26,6 bar | 10,2 bar | 250 ºC |
| 25,2 bar | 9,7 bar | 300 ºC |

PMO – Maximum operating pressure: 30 bar.
TMO – Maximum operating temperature:
Metal to metal sealing: 250 ºC;
EPDM valve sealing: 130 ºC;
FPM / Viton valve sealing: 200 ºC.
Min. liquid specific weight: 0,75 kg/dm³.
* According to EN 1759-1:2004.
Body limiting conditions PN 40 or below, depending on the type of connection adopted. Rating PN 40 for threaded versions.

We reserve the right to change the design and material of this product without notice.

| FLOW RATE CAPACITY (NL/min) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODEL | DIFFERENTIAL PRESSURE (bar) | | | | | | | | | | | | | | | | | |
| | 0,5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 15 | 18 | 20 | 22 | 25 | 30 |
| AE50i | 31 | 46 | 72 | 96 | 120 | 144 | 168 | 192 | 216 | 241 | 265 | 313 | 385 | 457 | 505 | 553 | 626 | 746 |

Values shown refer to capacities of air discharge at 15 ºC, under average atmospheric pressure (1013 mbar).
If the temperature of the air differs from 15 ºC, the discharge capacity can be corrected by multiplying it by: $\frac{288}{273 + T}$, where T is the actual temperature in ºC.
It may be assumed that the temperature of the air is equal to the temperature of the water.




| DIMENSIONS (mm) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INLET | THREADED | | | | | PN 40 | | | CLASS 150 | | | CLASS 300 | | |
| SIZE | A | B | C | D | WGT. (kg) | E | F | WGT. (kg) | E | F | WGT. (kg) | E | F | WGT. (kg) |
| 1/2" x 1/2" – DN 15 x G 1/2" | 149 | 28 | 65 | 177 | 3,6 | 187 | 215 | 4,4 | 197 | 225 | 4,1 | 202 | 230 | 4,4 |
| 3/4" x 1/2" – DN 20 x G 1/2" | 149 | 28 | 65 | 177 | 3,6 | 189 | 217 | 4,7 | 202 | 230 | 4,3 | 207 | 235 | 4,9 |
| 1" x 1/2" – DN 25 x G 1/2" | 149 | 28 | 65 | 177 | 3,6 | 189 | 217 | 4,8 | 205 | 233 | 4,6 | 211 | 239 | 5,2 |

Remarks: As standard, in versions with EN flanged or female Rp threaded inlets, the outlet is female threaded ISO 228. In versions with ASME flanged or female NPT threaded inlets, the outlet is female threaded NPT.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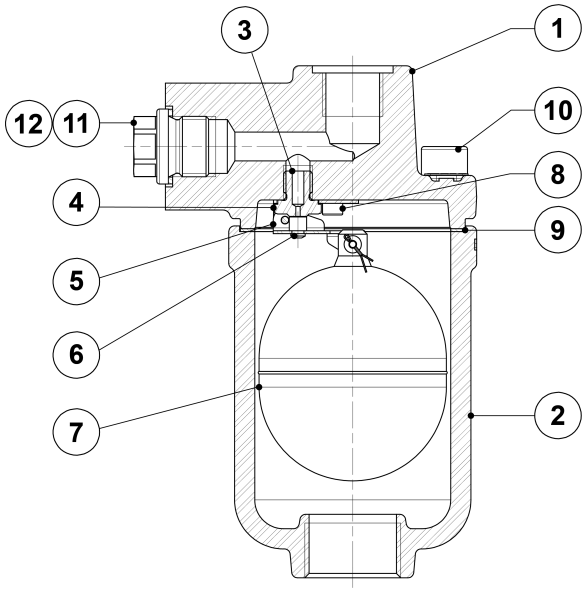
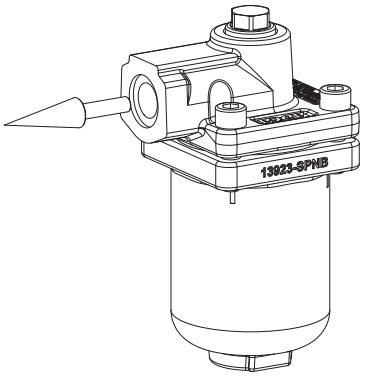
| MATERIALS | | |
|---|---|---|
| **POS. Nº** | **DESIGNATION** | **MATERIAL** |
| **1** | Body | AISI 316L / 1.4404 |
| **2** | Cover | A351 CF8M / 1.4408 |
| **3** | * Seat | AISI 316L / 1.4404 |
| **4** | Mechanism support | AISI 304 / 1.4301 |
| **5** | * Lever | AISI 304 / 1.4301 |
| **6** | * Valve | AISI 316 / 1.4401; EPDM; Viton |
| **7** | * Float | AISI 316Ti / 1.4571 |
| **8** | Bolt | Stainless steel A2-70 |
| **9** | * Gasket | Stainless steel / Graphite |
| **10** | Bolts | Stainless steel A2-70 |
| **11** | Plug | AISI 316L / 1.4404 |
| **12** | ** Washer | Copper |

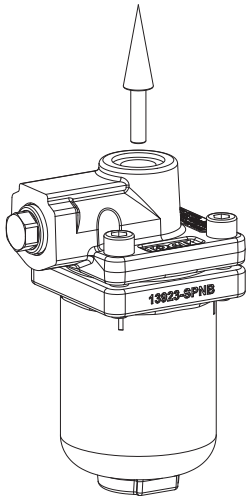
* Available spare parts; ** Not applicable in NPT version.




## FLOW DIRECTION




*VF - Vertical inlet / straight front outlet*




*VT - Vertical from bottom to top*



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| ORDERING CODES AE50i | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | **AE50i** | **6** | **M** | **XX** | **VF** | **A** | **15** | **A** | **15** | **E** |
| AE50i – stainless steel | **AE50I** | | | | | | | | | |
| **Differential pressure** | | | | | | | | | | |
| 30 bar | | **6** | | | | | | | | |
| **Valve sealing** | | | | | | | | | | |
| Metal to metal | | | **M** | | | | | | | |
| EPDM | | | **E** | | | | | | | |
| FPM / Viton | | | **V** | | | | | | | |
| **Options** | | | | | | | | | | |
| None | | | | **XX** | | | | | | |
| **Flow direction** | | | | | | | | | | |
| Vertical inlet / straight front outlet | | | | | **VF** | | | | | |
| Vertical from bottom to top | | | | | **VT** | | | | | |
| **Outlet pipe connection** | | | | | | | | | | |
| Female threaded ISO 228 | | | | | | **B** | | | | |
| Female threaded NPT | | | | | | **C** | | | | |
| **Outlet size** | | | | | | | | | | |
| 1/2” | | | | | | | **15** | | | |
| **Inlet pipe connection** | | | | | | | | | | |
| Female threaded ISO 7 Rp | | | | | | | | **A** | | |
| Female threaded NPT | | | | | | | | **C** | | |
| Flanged EN 1092-1 PN 40 | | | | | | | | **N** | | |
| Flanged ASME B16.5 Class 150 | | | | | | | | **U** | | |
| Flanged ASME B16.5 Class 300 | | | | | | | | **V** | | |
| **Inlet size** | | | | | | | | | | |
| 1/2” or DN 15 | | | | | | | | | **15** | |
| 3/4” or DN 20 | | | | | | | | | **20** | |
| 1” or DN 25 | | | | | | | | | **25** | |
| **Special valves / Extras** | | | | | | | | | | |
| Full description or additional codes have to be added in case of a non-standard combination | | | | | | | | | | **E** |



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