

## AUTOMATIC AIR AND GAS VENTS FOR LIQUID SYSTEMS

### AE39.2

(Carbon steel ; 2 1/2" x 1 1/2" and 3" x 1 1/2" – DN 65 x DN 40 and DN 80 x DN 40)

#### DESCRIPTION

The AE39.2 range of high capacity 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 high 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 carbon steel, available with various soft sealing options, 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.

High capacity.

Allow fast and easy inline maintenance.

Corrosion resistant internal parts.

No balancing pipe required.

**OPTIONS:** Various soft sealing options.

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

**AVAILABLE MODELS:** AE39.2-5, 10, 20, 28 and 32 – carbon steel.

**SIZES:** 2 1/2" x 1 1/2" and 3" x 1 1/2"; DN 65 x DN 40 and DN 80 x DN 40.

**CONNECTIONS:** Female threaded ISO 7 Rp or NPT.  
Flanged EN 1092-1 PN 40.  
Flanged ASME B16.5 Class 150 or 300.  
Socket weld (SW) ASME B16.11.

**INSTALLATION:** Inline vertical installation.  
It must be installed absolutely vertically at the points in the plant where the air tends to collect.  
See IMI – Installation and maintenance instructions.

**MAX. ΔP:**

|           |   |        |
|-----------|---|--------|
| AE39.2-5  | – | 5 bar  |
| AE39.2-10 | – | 10 bar |
| AE39.2-20 | – | 20 bar |
| AE39.2-28 | – | 28 bar |
| AE39.2-32 | – | 32 bar |



#### CE MARKING – GROUP 2 (PED – European Directive)

| PN 16     | PN 40     | Category      |
|-----------|-----------|---------------|
| All sizes | –         | 1 (CE marked) |
| –         | All sizes | 2 (CE marked) |

**BODY LIMITING CONDITIONS**

| FLANGED / PN 16    | FLANGED / PN 40 / CLASS 300 * | FLANGED / CLASS 150 ** | RELATED<br>TEMPERATURE |
|--------------------|-------------------------------|------------------------|------------------------|
| ALLOWABLE PRESSURE | ALLOWABLE PRESSURE            | ALLOWABLE PRESSURE     |                        |
| 16 bar             | 40 bar                        | 19,3 bar               | 50 °C                  |
| 14,8 bar           | 37,1 bar                      | 17,7 bar               | 100 °C                 |
| 13,3 bar           | 33,3 bar                      | 14 bar                 | 200 °C                 |
| 12,1 bar           | 30,4 bar                      | 12,1 bar               | 250 °C                 |
| 11 bar             | 27,6 bar                      | 10,2 bar               | 300 °C                 |

PMO – Maximum operating pressure: 32 bar.

TMO – Maximum operating temperature: EPDM valve sealing: 130°C; FPM / Viton valve sealing: 200°C.

Min. liquid specific weight: 0,75 kg/dm³.

\* Acc. to EN 1092-1:2018; \*\* Acc. to EN 1759-1:2004.

Body limiting conditions PN 40 or below, depending on the type of connection adopted.

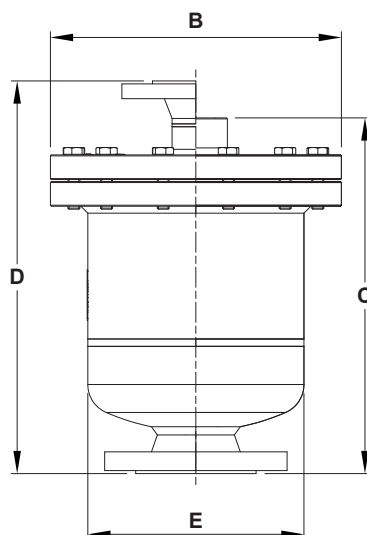
**FLOW RATE CAPACITY (NL/min)**

| MODEL     | SIZE                                                | DIFFERENTIAL PRESSURE (bar) |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|-----------------------------------------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |                                                     | 0,1                         | 0,5  | 1    | 3    | 5    | 7    | 10   | 12   | 16   | 20   | 24   | 28   | 32   |
| AE39.2-5  | 21/2"x 11/2" – DN 65 x 40<br>3"x 11/2" – DN 80 x 40 | 661                         | 1446 | 1806 | 3522 | 5277 | –    | –    | –    | –    | –    | –    | –    | –    |
| AE39.2-10 | 21/2"x 11/2" – DN 65 x 40<br>3"x 11/2" – DN 80 x 40 | 342                         | 749  | 936  | 1825 | 2735 | 3645 | 5010 | –    | –    | –    | –    | –    | –    |
| AE39.2-20 | 21/2"x 11/2" – DN 65 x 40<br>3"x 11/2" – DN 80 x 40 | 132                         | 289  | 362  | 706  | 1059 | 1410 | 1939 | 2292 | 2996 | 3700 | –    | –    | –    |
| AE39.2-28 | 21/2"x 11/2" – DN 65 x 40<br>3"x 11/2" – DN 80 x 40 | 67                          | 155  | 231  | 480  | 720  | 960  | 1319 | 1559 | 2038 | 2517 | 2247 | 2607 | –    |
| AE39.2-32 | 21/2"x 11/2" – DN 65 x 40<br>3"x 11/2" – DN 80 x 40 | 51                          | 113  | 141  | 276  | 413  | 551  | 757  | 894  | 1170 | 1445 | 1720 | 1995 | 2271 |

Values shown refer to capacities of air discharge at 15 °C, under atmospheric pressure (1013 mbar).

If the air temperature differs from 15 °C, the discharge capacity can be corrected by multiplying it by  $\frac{288}{273 + T}$ , where T is the actual temperature in °C.

It may be assumed that the temperature of the air is equal to the temperature of the water.



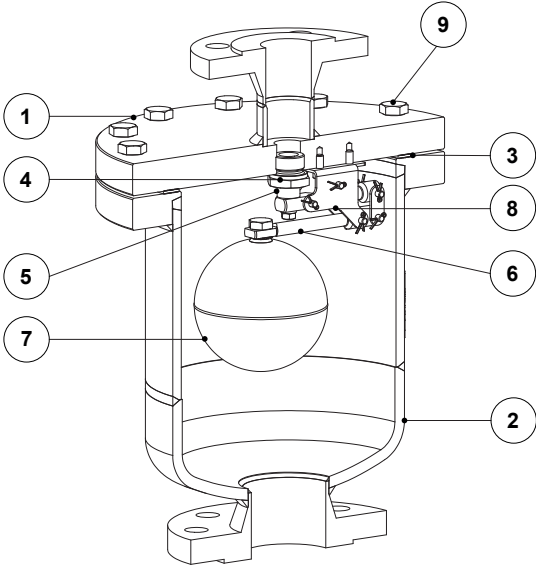
**DIMENSIONS (mm)**

| INLET *                    | PN 16    |     |     |              | PN 40    |              | PN 40 |              | PN 16 |              | PN 40 |              | CLASS 150 |              | CLASS 300 |              |
|----------------------------|----------|-----|-----|--------------|----------|--------------|-------|--------------|-------|--------------|-------|--------------|-----------|--------------|-----------|--------------|
| OUTLET *                   | THREADED |     |     |              | THREADED |              | SW    |              | PN 16 |              | PN 40 |              | CLASS 150 |              | CLASS 300 |              |
| SIZE                       | B        | C   | E   | WGT.<br>(kg) | C        | WGT.<br>(kg) | C     | WGT.<br>(kg) | D     | WGT.<br>(kg) | D     | WGT.<br>(kg) | D         | WGT.<br>(kg) | D         | WGT.<br>(kg) |
| 21/2"x 11/2"<br>DN 65 x 40 | 295      | 358 | 219 | 35,8         | 360      | 36,3         | 365   | 36,4         | 391   | 37,4         | 398   | 38           | 401       | 38,1         | 413       | 40,5         |
| 3"x 11/2"<br>DN 80 x 40    | 295      | 350 | 219 | 35,5         | 353      | 36,2         | 358   | 36,4         | 383   | 37,1         | 391   | 37,9         | 388       | 37,8         | 403       | 41,3         |

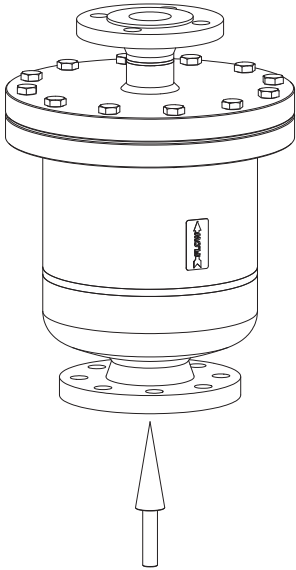
\* For other combinations certified dimensions, consult the manufacturer.

| MATERIALS |                             |                                                                                               |
|-----------|-----------------------------|-----------------------------------------------------------------------------------------------|
| POS. N°   | DESIGNATION                 | MATERIAL                                                                                      |
| 1         | Body                        | S355JR / 1.0045;<br>P250GH / 1.0460;<br>A105 / 1.0432                                         |
| 2         | Cover                       | S355JR / 1.0045;<br>P235GH / 1.0345;<br>P265GH / 1.0425;<br>P250GH / 1.0460;<br>A105 / 1.0432 |
| 3         | * Gasket                    | Stainless steel / Graphite                                                                    |
| 4         | * Seat                      | AISI 316L / 1.4404                                                                            |
| 5         | * Plug                      | FPM / Viton or EPDM                                                                           |
| 6         | * Levers                    | AISI 316 / 1.4401;<br>AISI 316L / 1.4404                                                      |
| 7         | * Float                     | AISI 304 / 1.4301                                                                             |
| 8         | * Mechanism support bracket | AISI 304 / 1.4301                                                                             |
| 9         | Bolts                       | Steel 8.8                                                                                     |

\* Available spare parts.



FLOW DIRECTION



VT - Vertical from bottom to top

| ORDERING CODES AE39.2                                                                               |       |   |   |    |    |   |    |   |    |  |   |
|-----------------------------------------------------------------------------------------------------|-------|---|---|----|----|---|----|---|----|--|---|
| Model                                                                                               | AE392 | 2 | E | XX | VT | A | 40 | L | 65 |  |   |
| AE39.2 – carbon steel                                                                               | AE392 |   |   |    |    |   |    |   |    |  |   |
| Differential pressure                                                                               |       |   |   |    |    |   |    |   |    |  |   |
| 5 bar                                                                                               |       | 2 |   |    |    |   |    |   |    |  |   |
| 10 bar                                                                                              |       | 3 |   |    |    |   |    |   |    |  |   |
| 20 bar                                                                                              |       | 5 |   |    |    |   |    |   |    |  |   |
| 28 bar                                                                                              |       | 6 |   |    |    |   |    |   |    |  |   |
| 32 bar                                                                                              |       | 7 |   |    |    |   |    |   |    |  |   |
| Valve sealing                                                                                       |       |   |   |    |    |   |    |   |    |  |   |
| EPDM                                                                                                |       |   | E |    |    |   |    |   |    |  |   |
| FPM / Viton                                                                                         |       |   | V |    |    |   |    |   |    |  |   |
| Cover connection                                                                                    |       |   |   |    |    |   |    |   |    |  |   |
| None                                                                                                |       |   |   | XX |    |   |    |   |    |  |   |
| Options                                                                                             |       |   |   |    |    |   |    |   |    |  |   |
| If any, these have specific separate ordering codes, please refer to the appropriate documentation. |       |   |   |    |    |   |    |   |    |  |   |
| Flow direction                                                                                      |       |   |   |    |    |   |    |   |    |  |   |
| Inline vertical from bottom to top                                                                  |       |   |   |    | VT |   |    |   |    |  |   |
| Outlet pipe connection                                                                              |       |   |   |    |    |   |    |   |    |  |   |
| Female threaded ISO 7 Rp                                                                            |       |   |   |    |    | A |    |   |    |  |   |
| Female threaded NPT                                                                                 |       |   |   |    |    | C |    |   |    |  |   |
| Socket weld (SW) ASME 16.11                                                                         |       |   |   |    |    | H |    |   |    |  |   |
| Flanged EN 1092-1 PN 16                                                                             |       |   |   |    |    | L |    |   |    |  |   |
| Flanged EN 1092-1 PN 40                                                                             |       |   |   |    |    | N |    |   |    |  |   |
| Flanged ASME B16.5 Class 150                                                                        |       |   |   |    |    | U |    |   |    |  |   |
| Flanged ASME B16.5 Class 300                                                                        |       |   |   |    |    | V |    |   |    |  |   |
| Outlet size                                                                                         |       |   |   |    |    |   |    |   |    |  |   |
| 11/2" or DN 40                                                                                      |       |   |   |    |    |   | 40 |   |    |  |   |
| Inlet pipe connection                                                                               |       |   |   |    |    |   |    |   |    |  |   |
| Flanged EN 1092-1 PN 16                                                                             |       |   |   |    |    |   |    | L |    |  |   |
| Flanged EN 1092-1 PN 40                                                                             |       |   |   |    |    |   |    | N |    |  |   |
| Flanged ASME B16.5 Class 150                                                                        |       |   |   |    |    |   |    | U |    |  |   |
| Flanged ASME B16.5 Class 300                                                                        |       |   |   |    |    |   |    | V |    |  |   |
| Inlet size                                                                                          |       |   |   |    |    |   |    |   |    |  |   |
| 21/2" or DN 65                                                                                      |       |   |   |    |    |   |    |   | 65 |  |   |
| 3" or DN 80                                                                                         |       |   |   |    |    |   |    |   | 80 |  |   |
| Special construction / Additional options                                                           |       |   |   |    |    |   |    |   |    |  |   |
| A full description must to be provided and validated in case of a non-standard construction.        |       |   |   |    |    |   |    |   |    |  |   |
|                                                                                                     |       |   |   |    |    |   |    |   |    |  | E |