

## HUMIDITY SEPARATORS WITH INTEGRAL STRAINER SF251

### DESCRIPTION

The ADCA SF251 series centrifugal separators remove moisture from steam and compressed air pipelines. Steam or compressed air pass through the separator and, as a result of centrifugal forces, impact and swirling effects, the particles with a heavier specific gravity, such as water and oil droplets, moisture in suspension, dirt and scale are separated from the fluid.

The condensate collected at the bottom of the separator is automatically drained by a suitable steam or compressed air trap, which is supplied separately.

### MAIN FEATURES

Several possibilities of installation.

No moving parts.

Stainless steel strainer screen included.

**OPTIONS:** Threaded condensate connection.  
Special tailor-made designs.  
Stainless steel construction.

**USE:** Steam, compressed air and other gases.

**AVAILABLE MODELS:** SF251/S – carbon steel.

**SIZES:** 1/2" to 4"; DN 15 to DN 100.

**CONNECTIONS:** Flanged EN 1092-1 PN 16 or PN 40.  
Flanged ASME B16.5 Class 150 or 300.

**INSTALLATION:** Always with the condensate discharge pointing downwards.  
See IMI – Installation and maintenance instructions.



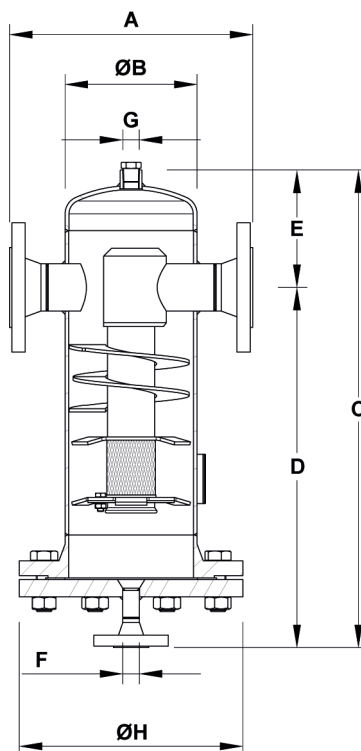
### CE MARKING – GROUP 2 (PED – EUROPEAN DIRECTIVE)

| PN 16                       | CATEGORY      | PN 40                          | CATEGORY      |
|-----------------------------|---------------|--------------------------------|---------------|
| 1/2" to 1" – DN 15 to 25    | SEP           | 1/2" to 1 1/4" – DN 15 to 32   | 1 (CE marked) |
| 1 1/4" to 2" – DN 32 to 50  | 1 (CE marked) | 1 1/2" to 2 1/2" – DN 40 to 65 | 2 (CE marked) |
| 2 1/2" to 4" – DN 65 to 100 | 2 (CE marked) | 3" to 4" – DN 80 to 100        | 3 (CE marked) |

### BODY LIMITING CONDITIONS \*

| FLANGED PN 16   |               | FLANGED CLASS 150 |               | FLANGED PN 40 / CLASS 300 |               |
|-----------------|---------------|-------------------|---------------|---------------------------|---------------|
| ALLOW. PRESSURE | RELATED TEMP. | ALLOW. PRESSURE   | RELATED TEMP. | ALLOW. PRESSURE           | RELATED TEMP. |
| 16 bar          | 50 °C         | 16 bar            | 50 °C         | 40 bar                    | 50 °C         |
| 14 bar          | 100 °C        | 14 bar            | 100 °C        | 37 bar                    | 100 °C        |
| 13 bar **       | 195 °C        | 13 bar **         | 195 °C        | 31 bar **                 | 239 °C        |
| 12 bar          | 250 °C        | –                 | –             | 27 bar                    | 300 °C        |

\* Rating according to EN 1092-1:2018; \*\* PMO – Maximum operating pressure for saturated steam.  
Minimum operating temperature: -10 °C; Design code: AD-Merkblatt.



**DIMENSIONS (mm) \***

| SIZE           | PN 16 | PN 40 | CLASS 150 | CLASS 300 | ØB  | C   | D   | E   | F **  | G ** | ØH  | VOL.<br>(L) | WGT.<br>(kg) |
|----------------|-------|-------|-----------|-----------|-----|-----|-----|-----|-------|------|-----|-------------|--------------|
|                | A     | A     | A         | A         |     |     |     |     |       |      |     |             |              |
| 1/2" – DN 15   | 230   | 230   | 250       | 259       | 114 | 405 | 285 | 120 | DN 15 | 1/2" | 235 | 2           | 21           |
| 3/4" – DN 20   | 230   | 230   | 255       | 264       | 114 | 405 | 285 | 120 | DN 15 | 1/2" | 235 | 2,6         | 22,4         |
| 1" – DN 25     | 230   | 230   | 262       | 274       | 114 | 405 | 285 | 120 | DN 15 | 1/2" | 235 | 3           | 24           |
| 1 1/4" – DN 32 | 260   | 260   | 290       | 303       | 140 | 540 | 410 | 130 | DN 15 | 1/2" | 270 | 5,3         | 36           |
| 1 1/2" – DN 40 | 260   | 260   | 294       | 307       | 140 | 540 | 410 | 130 | DN 15 | 1/2" | 270 | 6           | 38           |
| 2" – DN 50     | 310   | 310   | 341       | 354       | 168 | 610 | 460 | 150 | DN 15 | 1/2" | 300 | 11          | 52,5         |
| 2 1/2" – DN 65 | 380   | 400   | 430       | 448       | 219 | 730 | 550 | 180 | DN 20 | 3/4" | 375 | 19,3        | 94           |
| 3" – DN 80     | 400   | 410   | 440       | 453       | 219 | 730 | 550 | 180 | DN 20 | 3/4" | 375 | 26          | 102,5        |
| 4" – DN 100    | 470   | 490   | 518       | 532       | 273 | 835 | 610 | 225 | DN 20 | 3/4" | 450 | 37          | 169          |

\* For certified values, consult manufacturer. Volume and weight refer to PN 16 version. Other versions may have slightly different values.

\*\* As standard, in units manufactured with EN 1092-1 flanges, these connections are female threaded ISO 7 Rp. In models with ASME B16.5 flanges, they are female threaded NPT. Alternatively, EN 1092-1 or ASME B16.5 flanged drain connections can be supplied (ASME on the same class as main connections).

Remarks: The top of the separator is supplied with a threaded connection, which size does not exceed the size of the drain connection. This connection is always supplied with a threaded socket. It can be used for air venting or balance pipe connection.

**MATERIALS**

| DESIGNATION         | MATERIAL           |
|---------------------|--------------------|
| Body                | P235GH / 1.0325    |
| Head                | P265GH / 1.0425    |
| Inlet / outlet pipe | P235GH / 1.0325    |
| EN flange           | P250GH / 1.0460    |
| ASME flange         | ASTM A105 / 1.0432 |
| Socket              | ASTM A105 / 1.0432 |
| Internals           | S235JR / 1.0038    |
| Strainer            | AISI 304 / 1.4301  |

**FLANGE CONNECTIONS**

| RATING | SIZE                          | EN STANDARD     | ASME STANDARD        |
|--------|-------------------------------|-----------------|----------------------|
| PN 16  | 1/2" to 2"<br>DN 15 to 50 *   | EN 1092-1 PN 40 | ASME B16.5 Class 150 |
| PN 16  | 2 1/2" to 12"<br>DN 65 to 300 | EN 1092-1 PN 16 | ASME B16.5 Class 150 |
| PN 40  | 1/2" to 12"<br>DN 15 to 300   | EN 1092-1 PN 40 | ASME B16.5 Class 300 |

\* Flanges EN 1092-1 PN 16 and PN 40, from DN 15 to DN 50, have the same number and size of holes.