

HUMIDITY SEPARATOR AND STRAINER SF251/S PN16 – PN40

DESCRIPTION

SF-251/S series centrifugal separators remove moisture from steam and compressed air pipelines. Steam and compressed air passing through the separator and as a result of centrifugal forces, impact and swirling effects, separate the particles with a heavier specific gravity, such as water and oil droplets, moisture in suspension, dirt and scale.

The condensate collected at the bottom of the separator, must be automatically drained by a suitable steam or compressed air trap.

Connections are flanged.

MAIN FEATURES

Several possibilities of installation.

No moving parts.

Stainless steel strainer screen included

OPTIONS: Condensate threaded connection.
Special tailor made designs

USE: Steam, compressed air and other gases
(Group 2).

AVAILABLE MODELS: SF251/S - carbon steel body.

SIZES: DN15 to DN100.

PIPE CONNECTIONS: Flanged EN1092-1 PN16 and PN40
ANSI Class 150 lbs and Class 300 lbs
Female screwed BSP or NPT on request.

INSTALLATION: Always with the condensate discharge pointing downwards.
See IMI, installation and maintenance instructions.

HOW TO SELECT: Generally, in an existing plant it is advisable to fit a separator of the same size of the pipe line. Pressure drop is normally negligible. For approximate pressure drop calculation please consult.





| CE MARKING - PED (European Directive) | | | | | |
|---------------------------------------|---------------|------|--------|--------------|------|
| RATING | SIZE | CAT. | RATING | SIZE | CAT. |
| PN16 | DN15 to DN25 | SEP | PN40 | DN15 to DN32 | 1 |
| | DN32 to DN50 | 1 | | DN40 to DN80 | 2 |
| | DN65 to DN100 | 2 | | DN100 | 3 |

| LIMITING CONDITIONS ** | | | | | | | | |
|------------------------|------------|----------|--------------------|------------|----------|---------------------------|------------|----------|
| Rating | Press. bar | Temp. °C | Rating | Press. bar | Temp. °C | Rating | Press. bar | Temp. °C |
| PN16 | 16 | 50 | ANSI Cl.150 lbs | 16 | 50 | PN40 ANSI CL.300lbs | 40 | 50 |
| | 14 | 100 | | 14 | 100 | | 37 | 100 |
| | 13 * | 195 | | 13 * | 195 | | 31 * | 239 |
| | 12 | 250 | | - | - | | 27 | 300 |

*PMO-Max.operating pressure for saturated steam.

Minimum operating temp.: -10°C. Design code: AD-Merkblatt

** Rating according to EN1092:2007.

| MATERIALS | |
|----------------------|-----------------------------|
| DESIGNATION | MATERIAL |
| Body | EN10216-2 / P235GH / 1.0325 |
| Heads | EN10028-2 / P265GH / 1.0425 |
| Inlet / Outlet pipes | EN10216-2 / P235GH / 1.0325 |
| EN flanges | EN10222-2 / P250GH / 1.0460 |
| ANSI flanges | ASTM A105 / 1.0432 |
| Sockets | ASTM A105 / 1.0432 |
| Internals | EN10025-2 / S235JR / 1.0038 |
| Strainer screen | AISI 304 / 1.4301 |

EN10204 3.1 certificate available if requested with the order.

| FLANGE CONNECTIONS | | | |
|--------------------|----------------|---------------|-----------------------|
| Rating | SIZE | EN STD. | ANSI STD. |
| PN16 | * DN15 to DN50 | EN1092-1 PN40 | ANSI B16.5 Cl.150 lbs |
| PN16 | DN65 to DN100 | EN1092-1 PN16 | ANSI B16.5 Cl.150 lbs |
| PN40 | DN15 to DN100 | EN1092-1 PN40 | ANSI B16.5 Cl.300 lbs |

* Flanges EN 1092-1 PN16 and PN40 from DN15 to DN50 has the same number and size of holes.

| APPROXIMATE DIMENSIONS (mm) | | | | | | | | | | | | | |
|-----------------------------|--------|--------|----------|----------|-----|-----|-----|-----|------|------|-----|------------|-----------|
| FLANGED EN1092-1-2 - ANSI | | | | | | | | | | | | | |
| SIZE DN | A PN16 | A PN40 | A 150lbs | A 300lbs | B | C | D | E | F | G | H | VOL. * dm3 | WGT ** Kg |
| 15 | 230 | 230 | 250 | 259 | 114 | 385 | 285 | 100 | DN15 | 1/2" | 235 | 2 | 21 |
| 20 | 230 | 230 | 255 | 264 | 114 | 385 | 285 | 100 | DN15 | 1/2" | 235 | 2,6 | 22,4 |
| 25 | 230 | 230 | 262 | 274 | 114 | 385 | 285 | 100 | DN15 | 1/2" | 235 | 3 | 24 |
| 32 | 260 | 260 | 290 | 303 | 140 | 520 | 410 | 110 | DN15 | 1/2" | 270 | 5,3 | 36 |
| 40 | 260 | 260 | 294 | 307 | 140 | 520 | 410 | 110 | DN15 | 1/2" | 270 | 6 | 38 |
| 50 | 310 | 310 | 341 | 354 | 168 | 590 | 460 | 130 | DN15 | 1/2" | 300 | 11 | 52,5 |
| 65 | 380 | 400 | 430 | 448 | 219 | 710 | 550 | 160 | DN20 | 3/4" | 375 | 19,3 | 94 |
| 80 | 400 | 410 | 440 | 453 | 219 | 710 | 550 | 160 | DN20 | 3/4" | 375 | 26 | 102,5 |
| 100 | 470 | 490 | 518 | 532 | 273 | 815 | 610 | 205 | DN20 | 3/4" | 450 | 37 | 169 |

* Volume correspond to the PN16 design class. Classe PN40 may have slightly lower volumes.

** Weight correspond to the class PN16 design.

F and G -connections can be supplied with alternative threads or flanges.

Consult factory for certified dimensions. Dimensions subject to change without notice.

Note: the top of the separator is supplied with a threaded connection with a size not exceeding the size of drain.

This connection is always supplied closed with a threaded socket. It can be used for air vent or balancing pipe connection.

