# HUMIDITY SEPARATOR AND STRAINER <br> S252/F <br> PN16 - PN40 

## DESCRIPTION

S-252/F 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:

USE:

AVAILABLE MODELS: S252/FS - carbon steel body.
S252/FSZ - zinc plated body
SIZES:
DN15 to DN300.
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.

HOW TO ORDER: Carbon steel humidity separator/strainer PN16 with inlet
(Example)

Zinc plated (compressed air) Condensate flanged connection.

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

| AVAILABLE MODELS: | S252/FS - carbon steel body. |
| :--- | :--- |
|  | S252/FSZ - zinc plated body | drop calculation please consul. DN 150 and two DN100 outlets



Model S252/FS PN16 DN 150x100x100

STEAM EQUIPMENT

| LIMITING CONDITIONS ** |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rating | Press. bar | Temp. 읃 | Rating | Press. bar | Temp. ${ }^{\circ} \mathrm{C}$ | Rating | Press. bar | Temp. 으 | Rating | Press. bar | Temp. ${ }^{\circ} \mathrm{C}$ |
| PN16 | 16 | 50 | $\begin{gathered} \text { ANSI } \\ \text { Cl. } 150 \mathrm{lbs} \end{gathered}$ | 16 | 50 | $\begin{gathered} \text { PN25 } \\ \text { ANSI } \\ \text { CL.300lbs } \end{gathered}$ | 25 | 50 | $\begin{array}{\|c\|} \text { PN40 } \\ \text { ANSI } \\ \text { CL.300Ibs } \end{array}$ | 40 | 50 |
|  | 14 | 100 |  | 14 | 100 |  | 23 | 100 |  | 37 | 100 |
|  | 13* | 195 |  | 13 * | 195 |  | 20 * | 216 |  | 31 * | 239 |
|  | 12 | 250 |  | - | - |  | 17 | 300 |  | 27 | 300 |

*PMO-Max.operating pressure for saturated steam. Minimum operating temp.: -10으. Design code: AD-Merkblatt
** Rating according to EN1092:2007.

| CE MARKING - GROUP 2 GASES CATEGORIES |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RATING | SIZE | CAT. | RATING | SIZE | CAT. | RATING | SIZE | CAT. |
| PN16 | DN15 to DN25 | SEP | PN25 | DN15 | SEP | PN40 | DN15 to DN32 | 1 |
|  | DN32 to DN50 | 1 |  | DN20 to DN40 | 1 |  | DN40 to DN80 | 2 |
|  | DN65 to DN125 | 2 |  | DN50 to DN100 | 2 |  | DN100 to DN150 | 3 |
|  | DN150 to DN200 | 3 |  | DN125 to DN150 | 3 |  | DN200 to DN300 | 4 |
|  | DN250 to DN300 | 4 |  | DN200 to DN300 | 4 |  | - |  |

## CE Marking

This product has been designed for use on water steam, air and other gases which are in Group 2 of the PEDEuropean Pressure Equipment Directive 97/23/EC and it complies with those requirements.
The product carries the CE mark when falling in category 1 and above.

| APPROXIMATE DIMENSIONS (mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLANGED EN1092-1-2 - ANSI |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} \text { SIZE } \\ D N \end{gathered}$ | A PN16 | $\begin{gathered} A \\ \text { PN25 } \end{gathered}$ | $\begin{gathered} A \\ \text { PN40 } \end{gathered}$ | A 150lbs | A 300lbs | $B$ | C | D | $E$ | $F$ | G | $\begin{gathered} \text { VOL. * } \\ \text { dm3 } \end{gathered}$ | $\begin{gathered} W G T^{* *} \\ K g \end{gathered}$ |
| 15 | 230 | 230 | 230 | 250 | 259 | 114 | 260 | 190 | 70 | 1/2" | 1/2" | 2,1 | 5,3 |
| 20 | 230 | 230 | 230 | 255 | 264 | 114 | 260 | 185 | 75 | 1/2" | 1/2" | 2,6 | 6,3 |
| 25 | 230 | 230 | 230 | 262 | 274 | 114 | 300 | 200 | 100 | 1/2" | 1/2" | 3,1 | 7,4 |
| 32 | 260 | 260 | 260 | 290 | 306 | 140 | 395 | 285 | 110 | 1/2" | 1/2" | 5,1 | 12,6 |
| 40 | 260 | 260 | 260 | 294 | 307 | 140 | 435 | 325 | 110 | 1/2" | 1/2" | 5,9 | 14,5 |
| 50 | 310 | 310 | 310 | 341 | 354 | 168 | 505 | 385 | 120 | 1/2" | 1/2" | 10,8 | 20,5 |
| 65 | 380 | 394 | 394 | 430 | 442 | 219 | 550 | 410 | 140 | 3/4" | 1/2" | 18.9 | 33,6 |
| 80 | 400 | 416 | 416 | 440 | 459 | 219 | 610 | 462 | 148 | 3/4" | 1/2" | 25,5 | 39,9 |
| 100 | 485 | 511 | 511 | 533 | 553 | 273 | 715 | 528 | 187 | 3/4" | 1/2" | 36,1 | 59,9 |
| 125 | 535 | 561 | 561 | 605 | 622 | 324 | 845 | 630 | 215 | $1 "$ | 1/2" | 51 | 85,6 |
| 150 | 565 | 605 | 605 | 643 | 662 | 356 | 962 | 692 | 270 | $1{ }^{\prime \prime}$ | 1/2" | 76,5 | 160.7 |
| 200 | 605 | 641 | 657 | 685 | 703 | 406 | 1170 | 880 | 290 | $1 "$ | 1/2" | 142,8 | 205 |
| 250 | 720 | 756 | 790 | 784 | 815 | 508 | 1540 | 1140 | 400 | 11/2" | 1/2" | 285,6 | 338 |
| 300 | 840 | 868 | 914 | 913 | 944 | 610 | 1700 | 1172 | 528 | 11/2" | 1/2" | 408 | 489 |

Dimension A1 is always half of A

* Volume correspond to the PN16 design class.Classes PN25 and above may have slightly lower volumes.
** Weight correspond to the class PN16 design.
F and G -screwed drain connections as standard. Alternatively can be supplied flanged EN1092-1 or ANSI on the same class of main dimensions. In this case an elbow might be necessary for deviation of one of them.
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 exceding the size of drain one.
This connection is always supplied closed with a threaded socket. It can be used for air vent or balancing pipe connection.

| 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 |


| FLANGE CONNECTIONS |  |  |  |
| :---: | :---: | :---: | :---: |
| Rating | Sep. SIZE | EN STD. | ANSI STD. |
| PN16 | * DN15 to DN50 | EN1092-1 PN40 | ANSI B16.5 CI.150 lbs |
| PN16 | DN65 to DN300 | EN1092-1 PN16 | ANSI B16.5 CI.150 lbs |
| PN25 | DN15 to DN150 | EN1092-1 PN40 | ANSI B16.5 Cl.300 lbs |
| PN25 | DN200 to DN300 | EN1092-1 PN25 | ANSI B16.5 Cl.300 lbs |
| PN40 | DN15 to DN300 | EN1092-1 PN40 | ANSI B16.5 Cl.300 lbs |

EN10204 3.1 certificate available if requested
with the order.
Flanges EN 1092-1 PN16 and PN40 from DN15 to DN50 has the same number and size of holes.


