

## HUMIDITY SEPARATOR AND STRAINER SF251/S PN16 – PN40

### DESCRIPTION

The SF251/S series centrifugal separators remove moisture from steam and compressed air pipelines. Steam and 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 must be automatically drained by a suitable steam or compressed air trap.

### 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:** DN 15 to DN 100.

**PIPE CONNECTIONS:** Flanged EN1092-1 PN16 / PN40.  
Flanged ANSI Class 150 lb / 300 lb.  
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 with the same size as the pipeline. Pressure drop is normally negligible. For approximate pressure drop calculation please consult factory.

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

Rating	Size	Category	Rating	Size	Category
PN16	DN 15 to DN 25	SEP	PN40	DN 15 to DN 32	1 (CE marked)
	DN 32 to DN 50	1 (CE marked)		DN 40 to DN 80	2 (CE marked)
	DN 65 to DN 100	2 (CE marked)		DN 100	3 (CE marked)

**LIMITING CONDITIONS \*\***

Rating	Pressure (bar)	Temperature (°C)	Rating	Pressure (bar)	Temperature (°C)	Rating	Pressure (bar)	Temperature (°C)
PN16	16	50	ANSI 150 lb	16	50	PN40 / ANSI 300 lb	40	50
	14	100		14	100		37	100
	13 *	195		13 *	195		31 *	239
	12	250		–	–		27	300

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

**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	EN 10025-2 / S235JR / 1.0038
Strainer screen	AISI 304 / 1.4301

**FLANGE CONNECTIONS**

Rating	Size	EN Standard	ANSI Standard
PN16	* DN 15 to DN 50	EN 1092-1 PN40	ANSI B16.5 Cl. 150 lb
PN16	DN 65 to DN 100	EN 1092-1 PN16	ANSI B16.5 Cl. 150 lb
PN40	DN 15 to DN 100	EN 1092-1 PN40	ANSI B16.5 Cl. 300 lb

\* Flanges EN 1092-1 PN16 and PN40, from DN 15 to DN 50, have the same number and size of holes.

EN 10204 3.1 certificate available if requested with the order.

**APPROXIMATE DIMENSIONS (mm) \***

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

\* For certified values, consult factory. Weight and volume refer to PN16 design. Other ratings may have slightly different values.

\*\* G and F connections can be supplied threaded or flanged.

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.

