

HUMIDITY SEPARATORS S25

DESCRIPTION

The ADCA S25 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, impacts 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.

Maintenance-free design.

OPTIONS: Flanged condensate connection.

USE: Steam, compressed air and other gases.

AVAILABLE

MODELS: S25/S – carbon steel.
S25/SS – stainless steel.

SIZES: 1/2" to 12"; DN 15 to DN 300.

CONNECTIONS: Flanged EN 1092-1 PN 16, PN 40 or PN 63.
Flanged ASME B16.5 Class 150, 300 or 600.
Socket weld (SW) ASME 16.11.
Standard PN 16 DN 65 flanges are supplied with 4 holes. 8 holes, according to EN 1092, on request.

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



CE MARKING – GROUP 2 (PED – EUROPEAN DIRECTIVE)

S25/S and S25/SS				S25/S	
PN 16	CATEGORY	PN 40	CATEGORY	PN 63	CATEGORY
1/2" to 1" DN 15 to 25	SEP	1/2" to 1 1/4" DN 15 to 32	1 (CE marked)	1/2" to 1" DN 15 to 25	1 (CE marked)
1 1/4" to 2" DN 32 to 50	1 (CE marked)	1 1/2" to 3" DN 40 to 80	2 (CE marked)	1 1/4" to 2" DN 32 to 50	2 (CE marked)
2 1/2" to 5" DN 65 to 125	2 (CE marked)	4" to 6" DN 100 to 150	3 (CE marked)	2 1/2" to 5" DN 65 to 125	3 (CE marked)
6" and 8" DN 150 and 200	3 (CE marked)	8" to 12" DN 200 to 300	4 (CE marked)	6" and 8" DN 150 and 200	4 (CE marked)
10" and 12" DN 250 and 300	4 (CE marked)	–	–	–	–

BODY LIMITING CONDITIONS

S25/S							
FLANGED PN 16 *		FLANGED CLASS 150 *		FLANGED PN 40 / CLASS 300 *		FLANGED PN 63 / CLASS 600 / SW *	
ALLOWABLE PRESSURE	RELATED TEMPERATURE	ALLOWABLE PRESSURE	RELATED TEMPERATURE	ALLOWABLE PRESSURE	RELATED TEMPERATURE	ALLOWABLE PRESSURE	RELATED TEMPERATURE
16 bar	50 °C	16 bar	50 °C	40 bar	50 °C	58 bar	100 °C
14 bar	100 °C	14 bar	100 °C	37 bar	100 °C	47 bar ***	261 °C
13 bar ***	195 °C	13 bar ***	195 °C	31 bar ***	239 °C	43 bar	300 °C
12 bar	250 °C	—	—	27 bar	300 °C	—	—

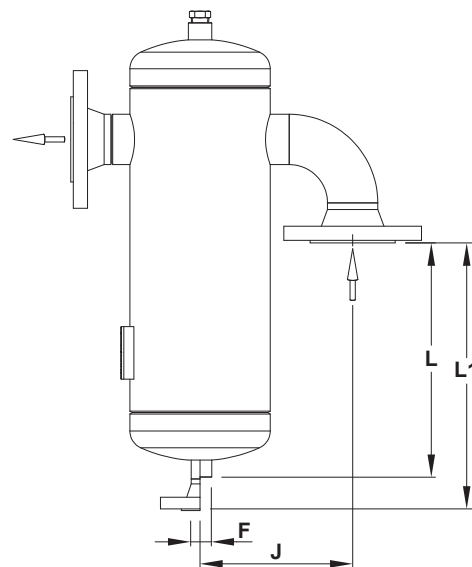
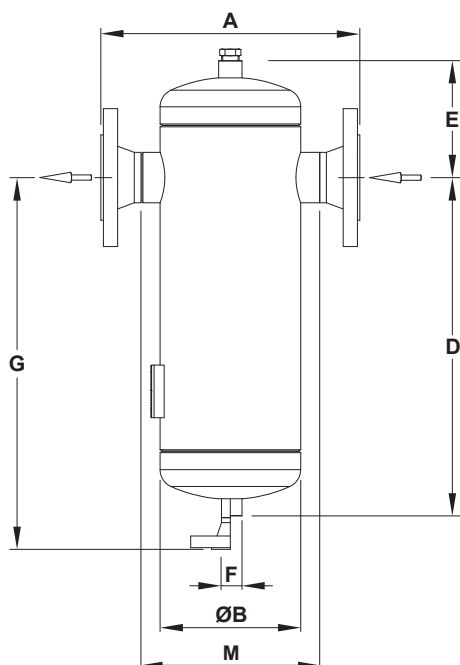
* According to EN 1092-1:2018; ** According to EN 1759-1:2004; *** PMO – Maximum operating pressure for saturated steam.
Minimum operating temperature: -10 °C; Design code: AD-Merkblatt.

BODY LIMITING CONDITIONS

S25/SS							
FLANGED PN 16 *		FLANGED CLASS 150 **		FLANGED CLASS 300 **		FLANGED PN 40 *	
ALLOWABLE PRESSURE	RELATED TEMPERATURE	ALLOWABLE PRESSURE	RELATED TEMPERATURE	ALLOWABLE PRESSURE	RELATED TEMPERATURE	ALLOWABLE PRESSURE	RELATED TEMPERATURE
16 bar	50 °C	15,3 bar	50 °C	39,9 bar	50 °C	40 bar	50 °C
15 bar	100 °C	13,3 bar	100 °C	34,4 bar	100 °C	37,9 bar	100 °C
12,7 bar	200 °C	11,1 bar ***	200 °C	26,6 bar ***	250 °C	29,9 bar ***	250 °C
12 bar ***	250 °C	—	—	25,2 bar	300 °C	27,6 bar	300 °C

* According to EN 1092-1:2018; ** According to EN 1759-1:2004; *** PMO – Maximum operating pressure for saturated steam.
Minimum operating temperature: -10 °C; Design code: AD-Merkblatt.

DIMENSIONS



EVH – Elbow vertical inlet / horizontal outlet

DIMENSIONS (mm) *

SIZE	PN 16									CLASS 150				VOL. (L)	WGT. (kg)
	A	ØB	D	E	F **	G	J	L	L1	A	G	L	L1		
1/2" – DN 15	230	114	205	95	1/2"	245	115	144	184	250	255	135	185	2	5,4
3/4" – DN 20	230	114	205	95	1/2"	245	115	136	176	255	255	123	173	2,5	5,8
1" – DN 25	230	114	220	120	1/2"	260	135	142	182	262	270	126	176	3	6,8
1 1/4" – DN 32	260	140	305	130	1/2"	345	155	194	234	290	355	200	250	5	11,4
1 1/2" – DN 40	260	140	345	130	1/2"	385	165	243	283	294	395	226	276	5,7	12,6
2" – DN 50	310	168	405	140	1/2"	445	190	281	321	341	455	265	315	10,5	18,4
2 1/2" – DN 65 ***	380	219	430	160	3/4"	470	240	275	315	430	483	250	303	18,5	29,8
3" – DN 80	400	219	482	168	3/4"	522	260	306	346	440	535	286	339	25	33,6
4" – DN 100	470	273	548	207	3/4"	588	330	326	366	520	601	302	355	35,4	49,7
5" – DN 125	535	324	652	241	1"	688	403	380	426	605	704	346	408	62	76
6" – DN 150	565	356	712	292	1"	758	457	428	474	633	774	394	456	75	104
8" – DN 200	605	406	902	312	1"	948	545	485	531	685	965	446	508	140	168,5
10" – DN 250	720	508	1165	425	1 1/2"	1210	671	714	779	784	1227	682	764	280	318
12" – DN 300	860	610	1197	553	1 1/2"	1262	800	662	727	933	1279	626	708	452	463

* For certified values, consult manufacturer. Volume and weight refer to EN flanged versions. Other versions may have slightly different values.

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

*** Standard PN 16 DN 65 flanges are supplied with 4 holes. 8 holes, according to EN 1092, on request.

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 sensing pipe connection.

DIMENSIONS (mm) *

SIZE	PN 40									CLASS 300				VOL. (L)	WGT. (kg)
	A	ØB	D	E	F **	G	J	L	L1	A	G	L	L1		
1/2" – DN 15	230	114	210	105	1/2"	250	115	144	184	259	264	130	182	2	6,6
3/4" – DN 20	230	114	210	105	1/2"	250	115	136	176	264	264	119	173	2,5	7,4
1" – DN 25	230	114	220	120	1/2"	260	135	142	182	274	274	120	174	3	8,5
1 1/4" – DN 32	260	140	305	130	1/2"	345	155	194	234	303	360	215	269	5	13
1 1/2" – DN 40	260	140	345	130	1/2"	385	165	243	283	307	399	220	274	5,7	16
2" – DN 50	310	168	395	150	1/2"	435	190	281	321	354	450	259	313	10,5	24
2 1/2" – DN 65	394	219	415	175	3/4"	455	240	268	308	442	472	244	301	18,5	39
3" – DN 80	410	219	470	180	3/4"	510	260	298	338	459	527	277	334	25	44
4" – DN 100	490	273	530	225	3/4"	570	330	313	353	530	587	293	350	35,4	75
5" – DN 125	561	324	627	262	1"	668	403	367	379	622	690	337	401	50	114
6" – DN 150	605	356	712	292	1"	754	457	408	427	652	776	385	449	75	131
8" – DN 200	650	406	852	362	1"	898	545	459	478	700	920	436	500	140	264
10" – DN 250	810	508	1165	425	1 1/2"	1235	671	679	736	815	1259	666	760	280	454
12" – DN 300	946	610	1325	580	1 1/2"	1390	800	625	695	976	1404	597	691	489	735

* For certified values, consult manufacturer. Volume and weight refer to EN flanged versions. Other versions may have slightly different values.

** As standard, in units manufactured with EN 1092-1 flanges, the drain connection is female threaded ISO 7 Rp. In models with ASME B16.5 flanges, this connection is female threaded NPT. Alternatively, EN 1092-1 or ASME B16.5 flanged drain connection can be supplied (ASME in 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 sensing pipe connection.

DIMENSIONS (mm) *

SIZE	PN 63 / CLASS 600									
	A	ØB	D	E	F ***	G	VOLUME (L)	WEIGHT (kg)	M (SW)	WEIGHT (kg)
1/2" – DN 15 **	245	114	230	125	1/2"	254	2	5,5	200	4,5
3/4" – DN 20 **	245	114	222	133	1/2"	250	2,5	6,5	190	4,6
1" – DN 25 **	265	114	254	136	1/2"	280	3	7,8	205	5,5
1 1/4" – DN 32 **	295	140	330	145	1/2"	356	5	12,8	238	8,8
1 1/2" – DN 40 **	295	140	368	147	1/2"	394	5,7	14,4	245	9,7
2" – DN 50	340	168	415	170	1/2"	450	10,5	20,6	300	15,6
2 1/2" – DN 65	410	219	433	197	3/4"	482	18,5	33	–	–
3" – DN 80	430	219	485	205	3/4"	532	25	39	–	–
4" – DN 100	500	273	533	262	3/4"	593	35,4	58,5	–	–
5" – DN 125	590	324	627	302	1"	693	50	83	–	–
6" – DN 150	625	356	727	317	1"	773	75	155	–	–
8" – DN 200	760	406	972	390	1"	1030	147	359	–	–

* For certified values, consult manufacturer.

** Supplied with PN 100 flanges.

*** As standard, in units manufactured with EN 1092-1 flanges, the drain connection is female threaded ISO 7 Rp. In models with ASME B16.5 flanges or SW connections, this connection is female threaded NPT. Alternatively, EN 1092-1 or ASME B16.5 flanged drain connections can be supplied (ASME in 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 sensing pipe connection.

MATERIALS

DESIGNATION	S25/S	S25/SS
Body	P235GH / 1.0325	ASTM A312 TP 316L
Head	P265GH / 1.0425	ASTM A403 WP 316L
Inlet / outlet pipe	P235GH / 1.0325	ASTM A312 TP 316L
EN flange	P250GH / 1.0460	ASTM A182; AISI 316/316L
ASME flange	ASTM A105 / 1.0432	ASTM A182; AISI 316/316L
Socket	ASTM A105 / 1.0432	AISI 304 / 1.4301; AISI 316 / 1.4401
Internals	S235JR / 1.0038	ASTM A479/A276; AISI 316/316L

FLANGE CONNECTIONS

RATING	SIZE	EN STANDARD	ASME STANDARD
PN 16	1/2" to 2" – DN 15 to 50 *	EN 1092-1 PN 40	ASME B16.5 Class 150
PN 16	2 1/2" to 12" – DN 65 to 300	EN 1092-1 PN 16	ASME B16.5 Class 150
PN 40	1/2" to 12" – DN 15 to 300	EN 1092-1 PN 40	ASME B16.5 Class 300
PN 63	1/2" to 11 1/2" – DN 15 to 40	EN 1092-1 PN 100	ASME B16.5 Class 600
PN 63	2" to 8" – DN 50 to 200	EN 1092-1 PN 63	ASME B16.5 Class 600

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