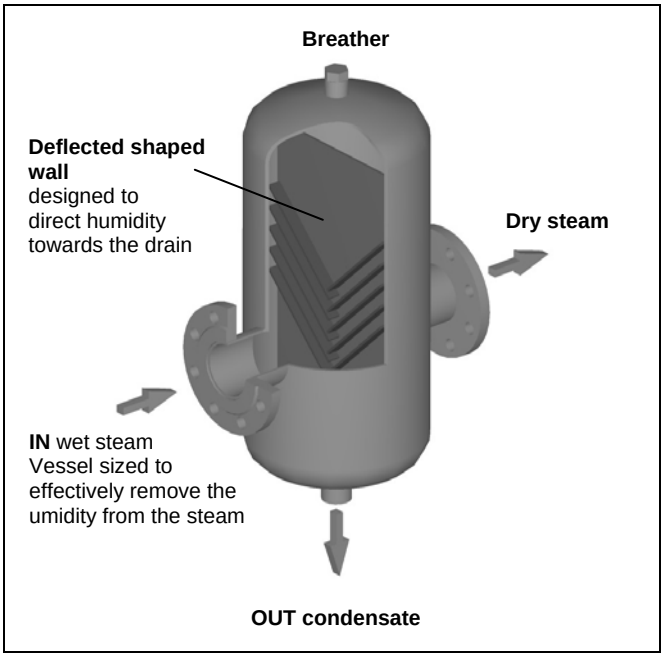
STEAM and COMPRESSED AIR SEPARATORS
PED 2014/68/UE

SCV-SCA/E	
07	2016



Type SCV... for Steam
Type SCA... for Compressed Air

DESCRIPTION

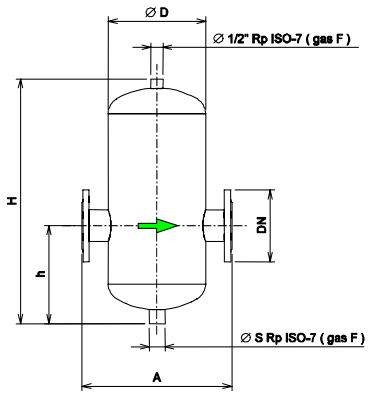
The original GREENFIELD steam and compressed air separators are designed to remove the water suspended in the steam, by means of a deflected shaped wall. They are designed with design code EN 13445 part 3 and in conformity to PED Directive 2014/68/UE.
On request can be designed according code ASME VIII div. 1 or AD2000.
The steam version is suitable for long stretches piping, before reducing stations and near the outlet of unfired steam generators and heat exchangers, while the version for compressed air on pipe lines where sudden changes in temperature produces condensate.

The in/out steam connections can be:
- screwed Rp ISO 7 (gas F) design pressure 6 bar @ 165 °C
- flanged EN 1092-1 PN16 design pressure 12 bar @ 191.7 °C
- flanged EN 1092-1 PN40 design pressure 16 bar @ 204.4 °C
- flanged EN 1092-1 PN40 design pressure 20 bar @ 215 °C

TYPE	Design pressure - Conformity PED 2014/68/UE											
	6 bar @ 165 °C			12 bar @ 191.7 °C			16 bar 204.4 °C			20 bar @ 215 °C		
	Screwed connect. Rp ISO 7 (gas F)		Cat.	Flanged connect. EN 1092-1 PN16		Cat.	Flanged connect. EN 1092-1 PN40		Cat.	Flanged connect EN 1092-1 PN40		Cat.
	Ø	Kg		DN	Kg		DN	Kg		DN	Kg	
SC 015	1/2"	5	Art.4 Par.3	15	6	Art.4 Par.3	15	6	Art.4 Par.3	125	130	IV°
SC 020	3/4"	7		20	8		20	8		150	175	
SC 025	1"	9		25	10		25	10		200	310	
SC 032	1.1/4"	14		32	15	I°	32	15	I°	250	380	
SC 040	1.1/2"	20		40	21		40	21				
SC 050	2"	22		50	24		50	24				
SC 065				65	38	II°	65	38	II°			
SC 080				80	54		80	54				
SC 100				100	75		100	75				
SC 125							125 (1)	84		(1) 10 bar @ 184.1 °C		
SC 150							150 (2)	110		(2) 6 bar @ 165 °C		
SC 200							*200 (3)*	*210*		(3) 3 bar @ 133,6 °C		
SC 250												

Materials	SCV for steam		SCA for compressed air	
	Carbon steel painted RAL 6011	Stainless Steel AISI 316	Galvanized Carbon Steel	Stainless Steel AISI 316

DIMENSIONS in mm.



DN	A – P06	A – P12 / P16 / P20	Ø D	H	h	Ø S	On request
15	201	230	133	342	149	1/2 "	DN15 PN16
20	205	240	133	344	151	3/4 "	DN 20 PN 16
25	219	240	133	364	161		
32	264	300	168	464	211		
40	264	300	168	489	211		
50	331	340	219	560	247		
65	N.A.	420	273	618	278	1"	DN 50 PN 16
80		420	273	698	278		
100		490	324	797	312		
125		590	406	982	398	1.1/2"	DN 40 PN 16
150		700	508	1060	466		
200		830	609	1460	568		
250		860	609	1628	568		

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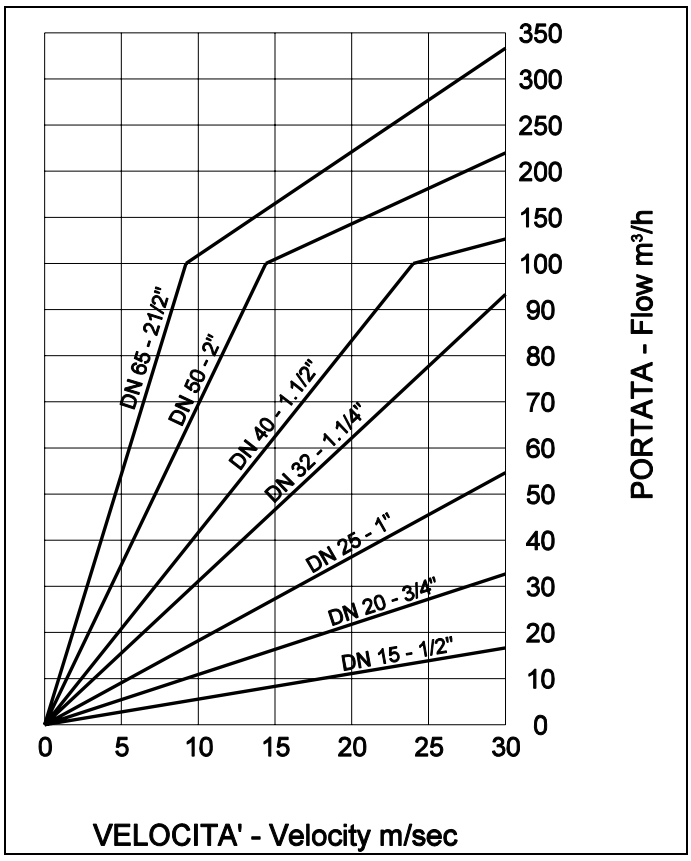
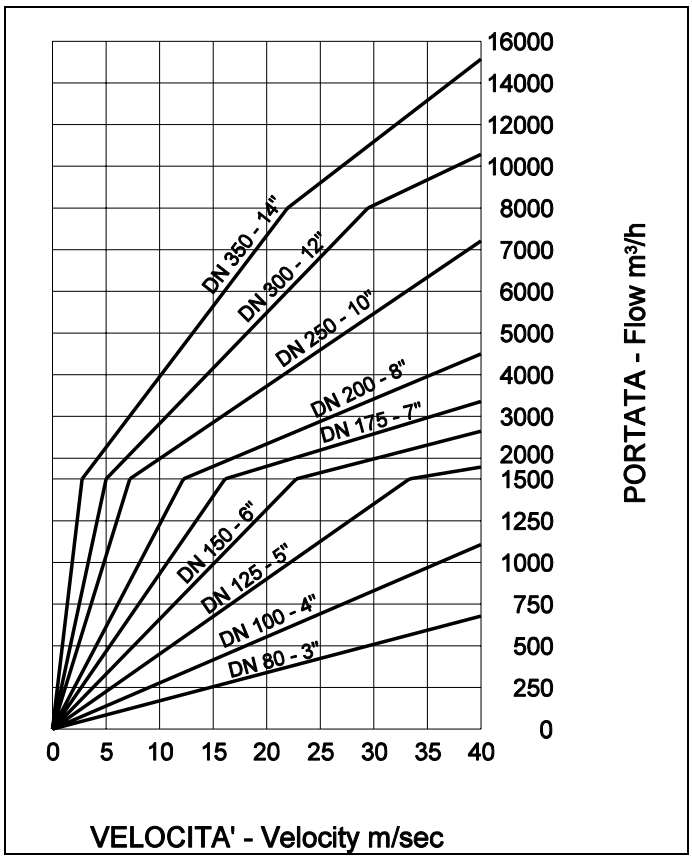
Steam Sizing

Knowing the flowrate of the steam it is easy to choose the condensate separator by means of the diagram reported here to the left, so that the vapor velocity does not exceed 30 - 35 m / sec. If the flowrate is expressed in Kg / h, it must be revert in m3 / h by multiplying by the specific volume of the vapor at the operating pressure.
In any case the diameter of the separator must never be less than the diameter of the pipe.





Compressed Air Sizing

To size a separator for compressed air (suitable example at a flow rate of 150 Nm3 / h at 7 bar), calculate first the flowrate in actual m3 / h, dividing by the absolute pressure (7 + 1 = 8 bar absolute)

150 : 8 = 18.75 m3/h

From the table below,as for the example above, did you will choose the size DN 25.

DN	15	20	25	32	40	50	65	80	100	125	150	200	250
Max Flow m3/h	10	15	25	45	65	100	150	250	400	600	900	1700	2700

Application sketch

Condensate separator must be installed in vertical position with the arrow, printed on it's body, in the same direction of the pipe fluid and the condensate exhaust in the lower part. Connect accessories at the condensate exhaust as shown in the sketch.