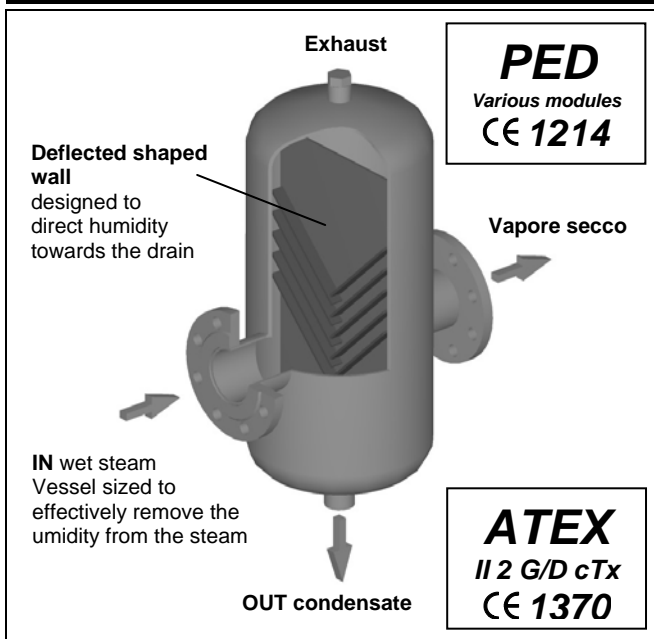


# STEAM and COMPRESSED AIR SEPARATORS

**GREEN** line

SCV-SCA/I	
11	2017



Type **SCV...** for Steam

Typo **SCA...** for Compressed Air

## DESCRIPTION

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.

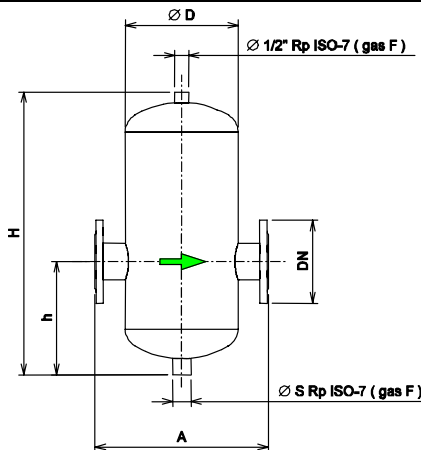
The in/out steam connections can be:

- 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 Conn. Rp ISO 7 (gas F)		Cat.	Flanged Conn. EN 1092-1 PN16		Cat.	Flanged Conn. EN 1092-1 PN40		Cat.	Flanged Conn. EN 1092-1 PN40		Cat.
	Ø	Weight Kg		DN	Weight Kg		DN	Weight Kg		DN	Weight 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		32	15		250	380	
SC 040	1.1/2"	20		40	21		40	21				
SC 050	2"	22		50	24		50	24				
SC 065				65	38	I°	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 per aria compressa	
	Carbon Steel Painted RAL 6011	Stainless Steel AISI 316	Galvanized Carbon Steel	Stainless Steel AISI 316

## DIMENSIONS in mm. - tolerances according to TEMA section 2



DN	A - P06	A - P12 / P16 / P20	Ø D	H	h	Ø S	On request
15	193	230	133	320	149	1/2"	DN15 PN16
20	197	240	133	322	140	3/4"	DN 20 PN 16
25	211	240	133	342	148		
32	256	300	168	452	205		
40	300	300	168	477	203		
50	319	340	219	568	248	1"	DN 25 PN 16
65	N.A.	420	273	609	275		
80		420	273	689	275		
100		490	324	818	328		
125		590	406	972	393		
150		700	508	1050	461	1.1/2"	DN 40 PN 16
200		830	609	1448	562		
250		860	609	1617	563		

**CONFLOW** s.p.a.

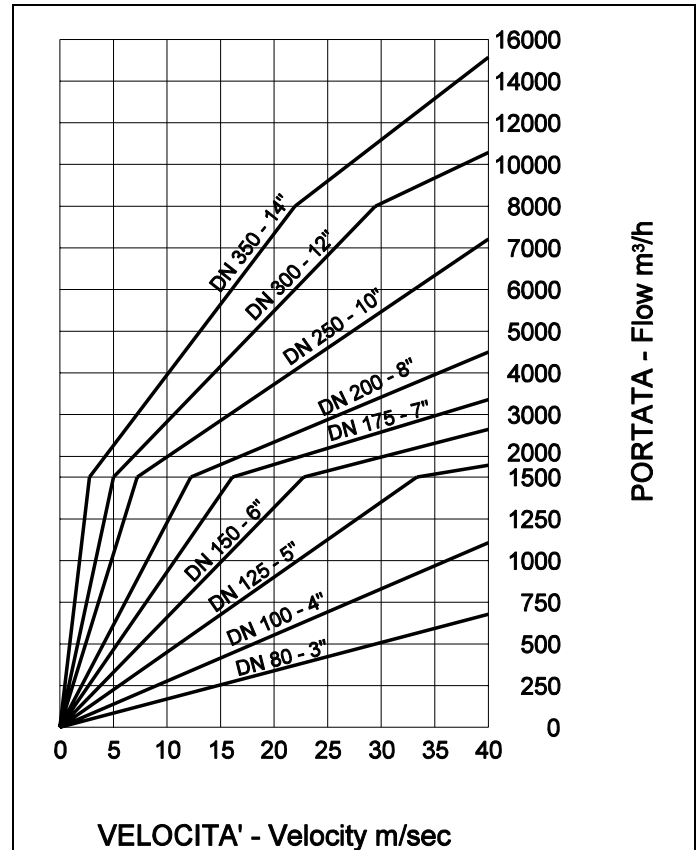
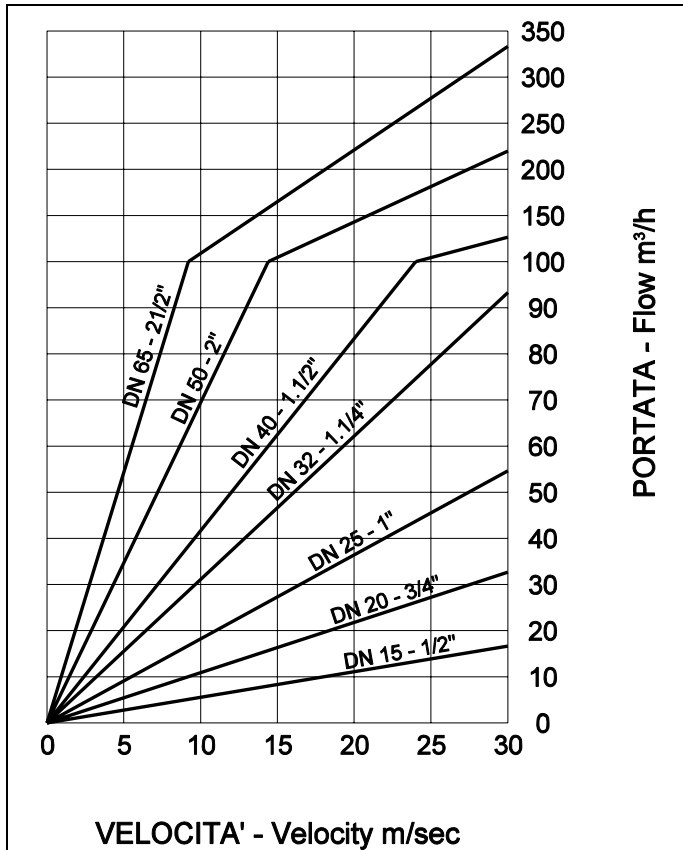
COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

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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 m<sup>3</sup> / 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 Nm<sup>3</sup> / h at 7 bar), calculate first the flowrate in actual m<sup>3</sup> / h, dividing by the absolute pressure (7 + 1 = 8 bar absolute)

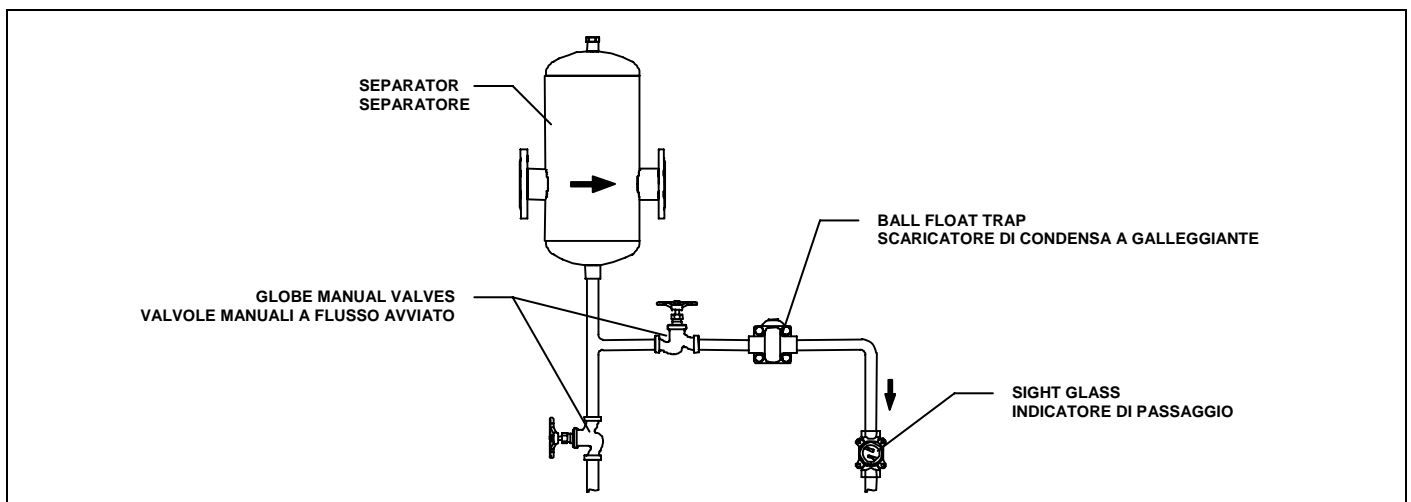
$$150 : 8 = 18.75 \text{ m}^3/\text{h}$$

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 m <sup>3</sup> /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.



I dati tecnici forniti hanno solo valore indicativo e non sono impegnativi per il costruttore che si riserva la facoltà di cambiarli in qualsiasi momento senza obbligo di preavviso. **Tutte le specifiche tecniche della CONFLOW SpA, sono disponibili nell'ultimo stato di aggiornamento sul sito [www.conflo.it](http://www.conflo.it)**

Specifications given are only indicative and not binding for the manufacturer who reserve the right to carry-out any modifications deemed necessary without prior notice. **All data sheets by CONFLOW SpA, are available last update on our internet web site [www.conflo.it](http://www.conflo.it).**