

Pressure vacuum valves with flame arresters



LA

DIN PN 10 - 16 — ND 50 - 300mm
ANSI 125 - 150 — 2" - 12"

LA 16, 16F, 19

Application

Pressure and vacuum relief valves with flame arrester, LV series of Asca, are indicated for installation on vent pipes of storage tanks for flammable liquids and gases, for pressure and vacuum control and reduction of product losses due to evaporation. This equipment avoid the irruption of flames inside the reservoirs in case of fire and offer total protection against propagation of flames in case of external explosion and continuous combustion.

Applicable to fluids of IIA group, according to DIN or Class D, according to NEC-USA standard.

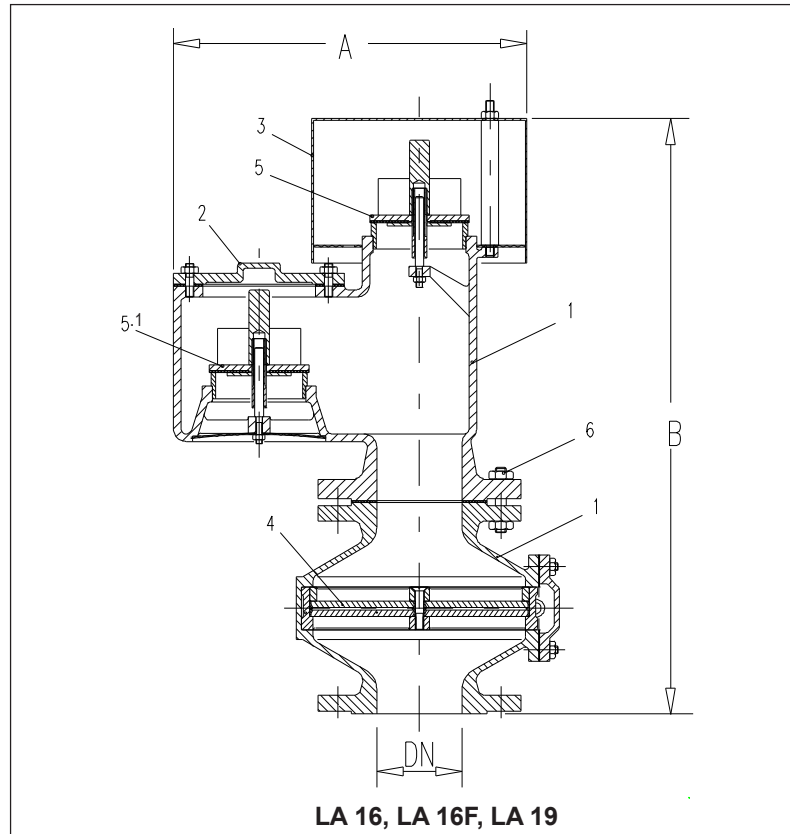
Main Characteristic

- Flame gap projected acc. to the MESG of the fluid.
- Wide calibration strips.
- Perfect sealing.

Presentation

It is a combined product, composed by a valve LO and a flame arrester LE.

Ask for our sizing software



Materials and connections

Models				LA 16F		LA 16		LA 19		
ND		mm		50	80	100	150	200	250	300
		inch		2"	3"	4"	6"	8"	10"	12"
Materials	Nº	Description	Qty.	Specification						
	1	Body	2	ASTM A 395 gray cast iron	ASTM A 395 Nodular iron	Aluminum				
	2	Cover	1	ASTM A 395 nodular iron	ASTM A 395	Aluminum				
	3	Head	1	Stainless Steel						
	4	Flame arrester element	2	Stainless Steel						
	5	Pressure switch	1	Aluminum from + 2.2 to 8 mbar						
	5.1	Vacuum switch	1	Stainless steel from 8.1 to 100 mbar						
	6	Bolts and nuts	12	Qual. 8.8 / Qual. 8						
	7	Enclosure cage	1	ASTM A 126 B Gray cast iron	ASTM A 395 Nodular iron	Carbon steel				
8	Sealing	1	Teflon*							
Connections				Flanges according to DIN PN 10 - 16, ANSI B 16.1 class 125 FF and B 16.5 class 150 RF						

*Other materials according to special request

Installation

The valves are supplied blocked avoid damages of the sealing in the trans-

port. They should be installed in the vertical position in the extremity of the respirations of the tanks.

The restraints should be removed before the installation of the valve.

Important

It is indispensable that it is guaranteed that the only communication of the tank with the atmosphere feels, always and only, through the respiration protected with the valve.

Operation

When the pressure reaches the set point the valve starts to open fill full capacity. Then it is possible to keep pressure and vacuum within the limits.

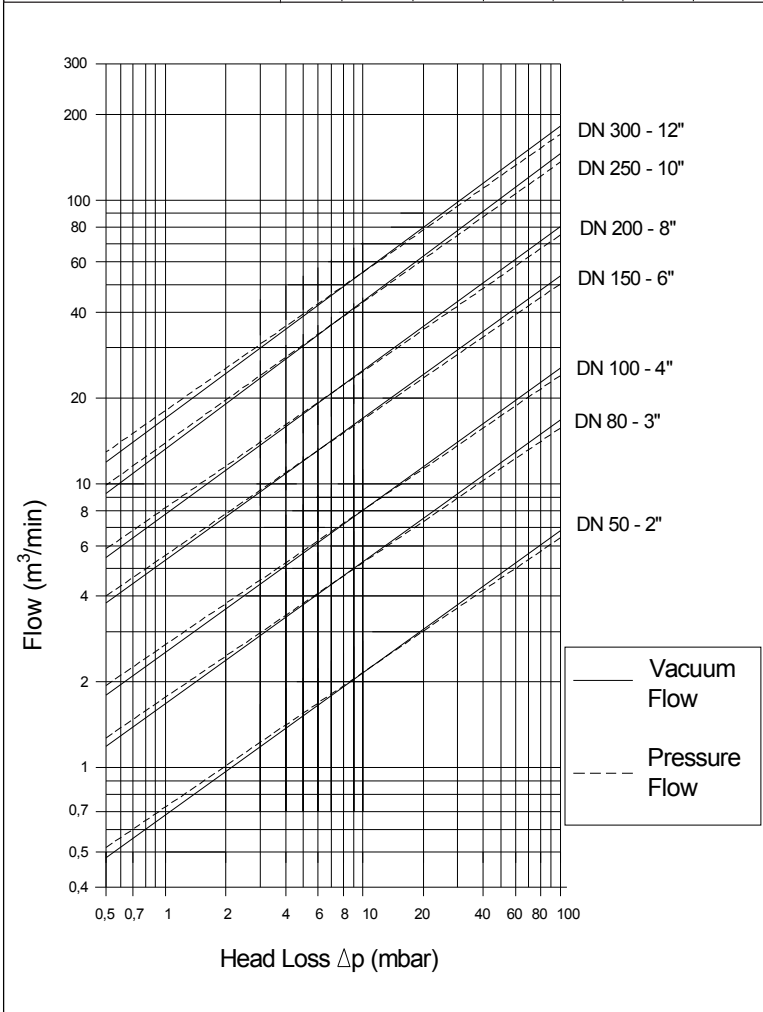
In the case of an external explosion, the flame arrester cuts the flame off.

Attention

The valve must be unblocked before in use. Otherwise serious risks of damage to the tank can occur.

Dimensions and Weights

Model		LA 16			LA 16F		LA 19	
ND	mm	50	80	100	150	200	250	300
	inch	2"	3"	4"	6"	8"	10"	12"
dimensions	mm							
	A	270	330	385	485	620	725	1010
	B	490	585	630	725	800	850	1130
Approx. weight	kg							
aluminum		25	32	46	65	90	130	150



Flow Diagram

The diagram is valid for fluids with density = 1,3 kg/m³.

For the conversion use the formula:

$$Q_1 = Q \sqrt{\frac{y}{y_1}}$$

Q = Equivalent flow in m³/min with 1,3 kg/m³ density

y = 1,3 kg/m³

Q₁ = Real flow in m³/min

y₁ = Real density in kg/m³

Sizing data

ASCA will gladly provide the sizing calculation. For this, please provide:

- Nominal diameter of the tank (m)
- Cylindrical height of the tank (m)
- Maximum allowable vacuum and pressure in the tank (mbar)
- Initial opening pressure (mbar)
- Flow of loading and unloading pumps (m³/h)
- Desired connection standard
- ND of the existing vent pipes in case of tanks already in operation
- Stored product

Standard Specification

Pressure and vacuum relief valves, combined type with flame arrester

Model LA of ASCA

According to catalog: PR-12.51.11-I

Opening pressure mbar

Opening vacuum mbar

Data sheet

Flanged connection

According to standard

Nominal Diameter

ASCA EQUIPAMENTOS INDUSTRIAIS LTDA.

R. Fernandes da Cunha, 202- Vigário Geral - Rio de Janeiro - RJ - Brazil

CEP 21241-300 - Tel.: (21) 2472-6900 - Fax (21) 3014-7622

e-mail: office@asca.com.br - homepage: http://www.asca.com.br

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Ask for certified print for exact dimensions