

# Vacuum breaker safety valve

Model 795



The valve acts as an automatic regulator of pressure drops and prevents the creation of a vacuum inside pressurised installations or vessels.

## Specifications

- Activated by direct action helicoid spring.
- Simplicity of construction ensuring minimum maintenance.
- Internal body designed to offer favourable flow profile.
- Soft seals giving greater tightness than that required by DIN-3230. Sheet 3, as long as the valve, in non operating conditions, is under equal or greater pressure than atmospheric pressure.
- Great discharge capacity.
- All the valves are supplied sealed at the set depressurising requested, simulating operational conditions, and are vigorously tested.
- All components are numbered, registered and checked. If requested in advance, material, casting, test and efficiency certificates will be enclosed with the valve.



## IMPORTANT

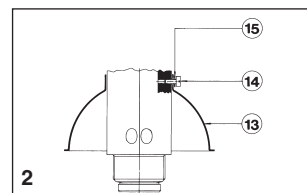
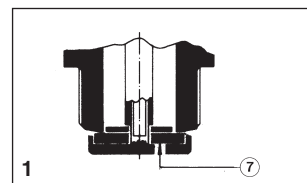
- 1.- Fluorelastomer (Vitón) seals or Silicone's rubber, achieving leakage levels less than

$$0,3 \times 10^{-3} \frac{\text{Pa cm}^3}{\text{sec.}}$$

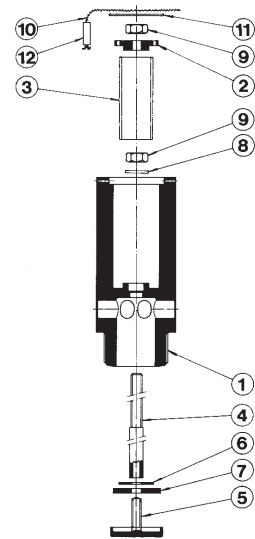
as long as the valve, in non operating conditions, is under equal or greater pressure than atmospheric pressure.

Depending on demand:

- 1.- Buna-nitrils seals, Butyl, Natural rubber, E.P.D.M., Chlorosulphonate polyethylene (Hypalon), Neoprene, ...etc.
- 2.- The intake deflector prevents the entry of foreign bodies in the valve which will affect later operation. (Specially designed for moving transport).
- 3.- Possibility of manufacture in other types of material, for use in special working conditions (high temperatures, fluids,... etc.).



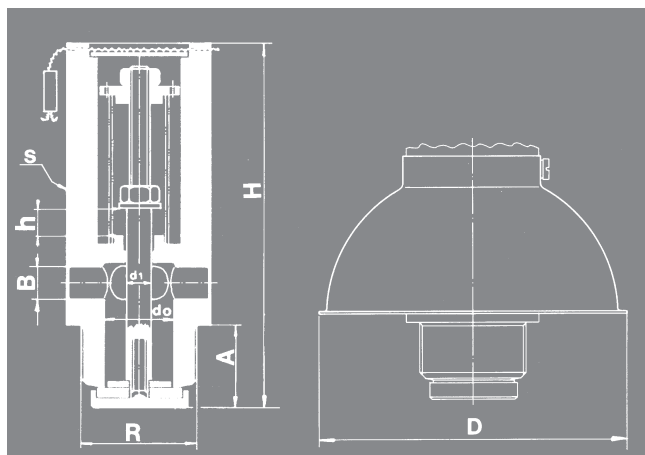
Nº. PIECE	PIECE	MATERIAL			
		BRASS		STAINLESS STEEL	
1	Body	Brass (DIN-1.7660 CuZn40Pb2)		S. steel (DIN-1.4401) (AISI-316)	
2	Spring press	Brass (DIN-1.7660 CuZn40Pb2)		S. steel (DIN-1.4305) (AISI-303)	
3	Spring	S. steel (DIN-1.4300) (AISI-302)		S. steel (DIN-1.4300) (AISI-302)	
4	Shaft	S. steel (DIN-1.4305) (AISI-303)		S. steel (DIN-1.4305) (AISI-303)	
5	Plug	Brass (DIN-1.7660 CuZn40Pb2)		S. steel (DIN-1.4401) (AISI-316)	
6, 8, 15	Washer	S. steel (DIN-1.4401) (AISI-316)		S. steel (DIN-1.4401) (AISI-316)	
7	Seal	Fluorelastomer (Vitón) (2)		Fluorelastomer (Vitón) (2)	
		Silicone's rubber (3)		Silicone's rubber (3)	
9	Nut	S. steel (DIN-1.4401) (AISI-316)		S. steel (DIN-1.4401) (AISI-316)	
10	Sealing wire	Sealing wire		Sealing wire	
11	Charactetistic plate	Aluminium		Aluminium	
12	Seal	Lead		Lead	
13	Deflector	S. steel (DIN-1.4401) (AISI-316)		S. steel (DIN-1.4401) (AISI-316)	
14	Screw	S. steel (DIN-1.4401) (AISI-316)		S. steel (DIN-1.4401) (AISI-316)	
DN		3/8" to 1"			
PN		16		16	
OPERATING CONDITIONS	PRESSURE IN bar	16	12	16	12
	MAXIMUM TEMP. IN °C (1)	120	150	120	150
	MINIMUM TEMP. IN °C	-50		-50	



(1) For temperatures upper 150°C special seal. For temperatures upper 300°C special seal and spring.  
 (2) Recommended temperature field -30°C to + 150°C. Maximum pressure of service 12 bar.  
 (3) Recommended temperature field -50°C to + 115°C. Maximum pressure of service 9 bar.

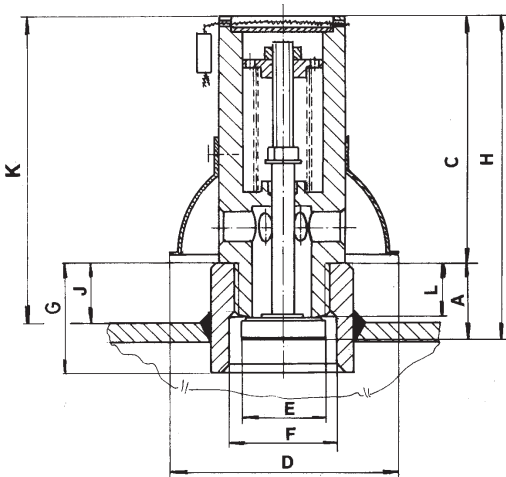
R		3/8"	1/2"	3/4"	1"
CONNECTIONS		Whitworth gas-tight cylindrical male thread ISO 228/1 1978 (DIN-259)			
d <sub>0</sub>		9,50	12,50	16,50	20,00
$A_0 = \frac{\pi}{4} (d_0^2 - d_1^2)$		51,25	89,53	180,64	275,68
H		64	81	90	105
A		13,00	16,50	21,00	24,00
B		4,25	5,50	8,00	9,50
D		40	65	65	65
S		24	32	35 (36) •	40 (41) •
WEIGHT IN Kgs.	BRASS	0,15	0,36	0,46	0,78
	STAINLESS STEEL	0,19	0,34	0,51	0,80
CODE	BRASS 2002-795.	5381	5021	5341	5101
	STAINLESS STEEL 2002-795.	5382	5022	5342	5102

• Stainless steel (DIN-1.4401) (AISI-316).



### Example of installation

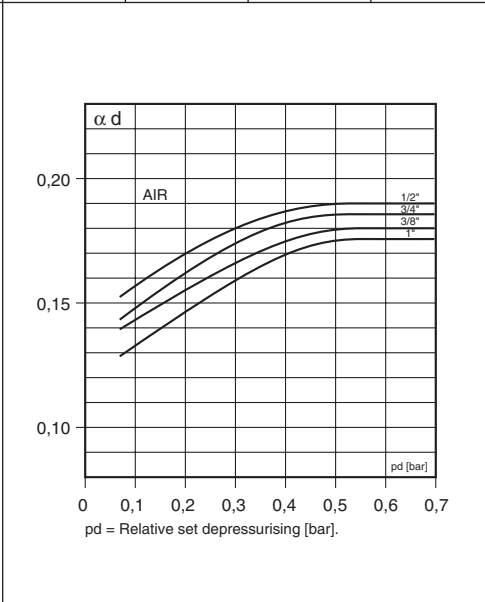
R	H	A	C	L	E	F	D	K	G	J
3/8"	64	13,00	51,00	9	13,90	20,00	40	63	24	12,00
1/2"	81	16,50	64,50	12	17,80	25,50	65	80	32	15,50
3/4"	90	21,00	69,00	15	22,00	34,00	65	95	40	20,00
1"	105	24,00	81,00	18	27,50	42,00	65	106	50	25,00



R		3/8"	1/2"	3/4"	1"	
SET DEPRESSURISING IN bar	MAXIMUM	0,40	0,40	0,40	0,40	
	MINIMUM	0,05	0,05	0,05	0,05	
SPRING REGULATING RANGE IN bar	0,05 to 0,10	CODE	56187	56191	56195	56199
	0,09 to 0,20	CODE	56188	56192	56196	56200
	0,19 to 0,30	CODE	56189	56193	56197	56201
	0,29 to 0,40	CODE	56190	56194	56198	56202
d <sub>0</sub>		9,50	12,50	16,50	20,00	
h		3,42	4,50	5,94	7,20	
h/d <sub>0</sub>		0,36	0,36	0,36	0,36	

INTAKE COEFFICIENTS

INTAKE COEFFICIENTS  $\alpha d$  FOR AIR

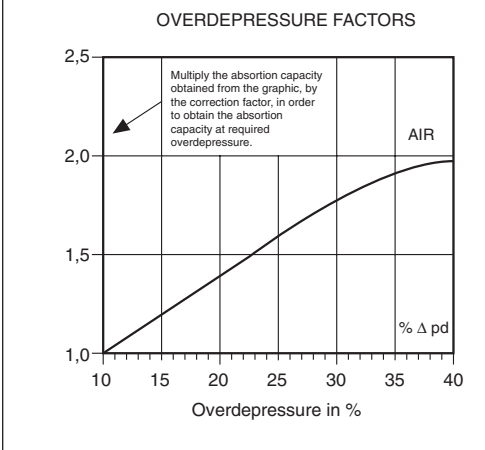
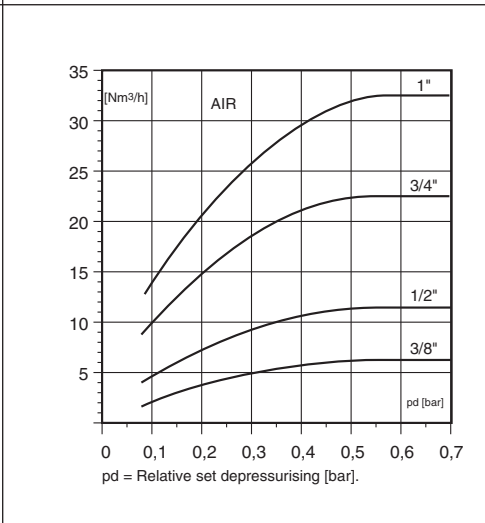


INTAKE CAPACITY

pd [bar]

Air at 0°C and 1,013 bar in [Nm<sup>3</sup>/h].

Calculus according "AD-Merkblatt A2".



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