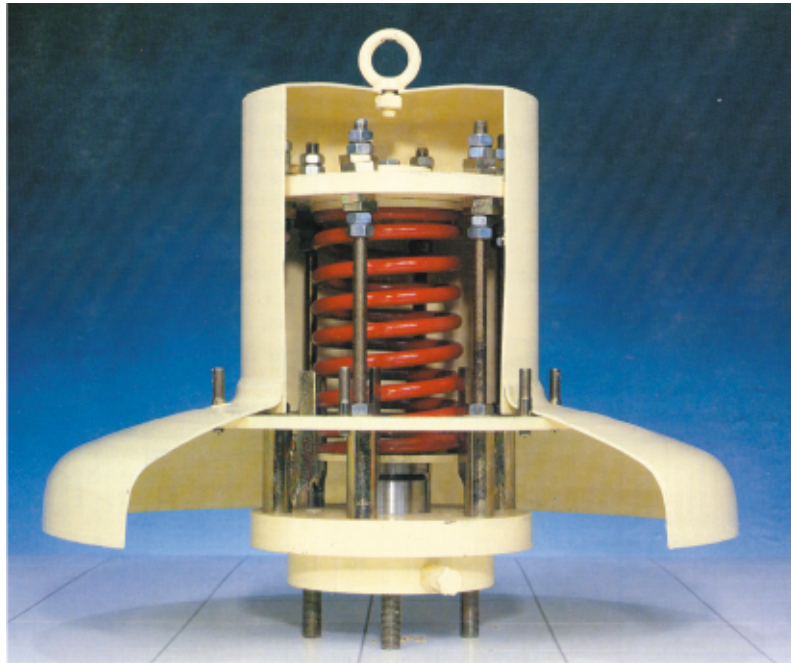


EVDOS S.A
EVDOS MECHANICAL CONSTRUCTIONS S.A

SOUPAPE DE DECHARGE



The pressure relief valve is constructed in order to protect main pipe lines from water hammer. The basic design consist of a fixed nozzle, a disc and a preloaded spring. This simple construction and the sensitivity in pressure fluctuations lead to a very satisfactory operating conditions.

SELECTING THE SUITABLE VALVE

Example :

Maximum pressure for normal operation is 113mCE. it is required to discharge 270 l/s without pressure exceeding 135mCE. Sealing pressure will be taken as : $113 + 5\% = 119\text{mCE}$.

The 125/32 valve seems to be suitable.

This valve is set for 151 mCE, it will discharge 428 l/s at a pressure of 171 mCE, 20mCE pressure rise.

If it is set for 118mCE the maximum pressure will be $118 + 20 = 138\text{mCE}$.

Discharge at this pressure will be

$$428 \sqrt{\frac{138}{171}} = 384 \text{ l/s}$$

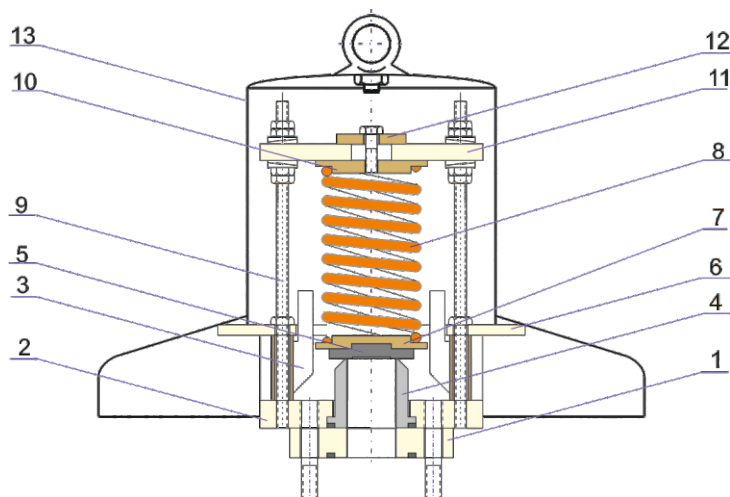
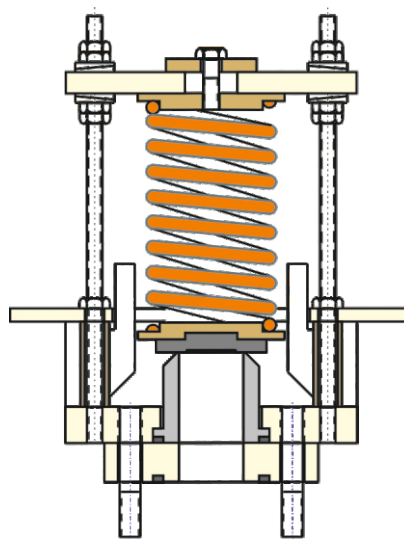
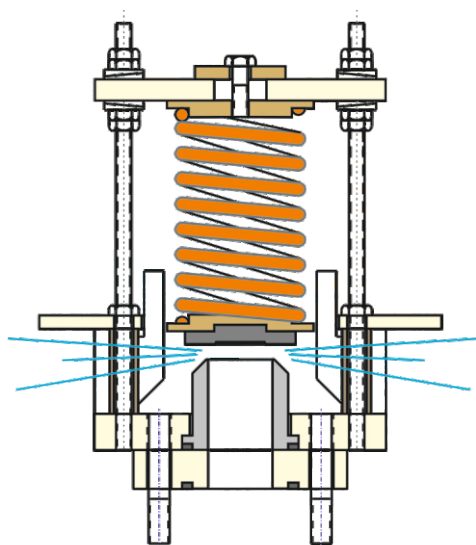
The pressure rise for a discharge of 270 l/s will be : $20 \times (270/384) = 14\text{mCE}$

The pressure rise for a discharge of 270 l/s will be : $118 + 14 = 132\text{mCE}$, that means less than 135mCE.

The 125/32 valve is therefore suitable.

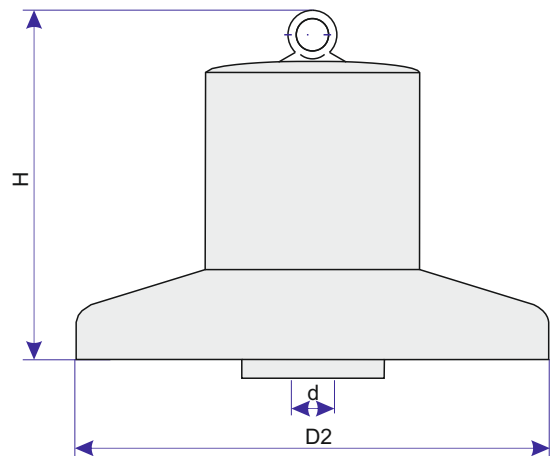
If the maximum pressure should not exceed 128mCE (pressure rise less than 10mCE) for the same discharge of 270 l/s, two 125/32 118mCE valves in parallel would be necessary, each with a discharge of 135 l/s.

The pressure rise would be then : $20 \times (135/384) = 7\text{mCE}$ and the maximum pressure : $118 + 7 = 125\text{mCE}$.



POS	DESCRIPTION	MATERIAL
1	Pipe flange	Steel
2	Lower plate	Steel
3	Defector	Steel
4	Nozzle	Stainless Steel
5	Valve disc	Stainless Steel
6	Middle plate	Steel
7	Spring lower cap	Steel
8	Spring	Steel DIN 17223
9	Bolt fixed	Steel
10	Spring upper cap	Steel
11	Fixed plate	Steel
12	Washer	Steel
13	Cover	Steel

TYPE	d	D 2	H	BOLTS	FLANGE	WEIGHT
50/6 - 50/12	50	550	440	4	165/125	42-46
80/6 - 80/12	80	550	440	4	200/160	42-46
50/14 - 50/18	50	800	600	4	165/125	92-100
80/14 - 80/18	80	800	600	4/8	200/160	92-100
125/10 - 125/18	125	800	600	8	250/210	92-100
80/20 - 80/28	80	1000	770	8	200/160	190-220
125/20 - 125/28	125	1000	770	8	250/210	190-220
200/16 - 200/28	200	1000	770	8	340/295	190-220
125/32 - 125/40	125	1500	980	8	250/210	465-535
200/32 - 200/40	200	1500	980	8	340/295	465-535


LIMITS CHARACTERISTIC TABLE

D = Spring wire diameter mm

P = Max. Sealing pressure m

Q = Max. Discharge in open valve l/sec

P1=Pressure for fully open valve m

$\Delta P = (P1 - P)$ max . Pressure rise m

TYPE A 50 mm					TYPE B 80 mm					TYPE C 125 mm					TYPE D 200 mm								
D	P	Q	P1	ΔP	D	P	Q	P1	ΔP	D	P	Q	P1	ΔP	D	P	Q	P1	ΔP				
					6	9	51	15	6	10	11	133	17	6	16	11	342	17	6				
															18	14	386	21	7				
					8	18	68	26	8	12	17	160	24	7	20	18	428	26	8				
										14	24	187	33	9	22	23	470	32	9				
6	28	32	38	10	10	31	85	41	10	16	33	214	43	10	25	31	534	41	10				
										18	40	234	51	11	28	38	583	49	11				
8	54	43	67	13	12	44	100	56	12	20	55	266	67	12	32	55	685	67	12				
					14	67	119	80	13	22	67	294	81	14	36	71	770	85	14				
10	89	53	105	16	16	89	136	105	16	25	89	334	104	15	40	89	855	105	16				
					18	108	149	126	18	28	108	364	125	17									
12	124	62	143	19	20	144	170	163	19	32	151	428	171	20									
14	183	75	205	22	22	176	187	198	22	36	194	480	216	22									
16	243	85	268	25	25	231	213	256	25	40	243	535	268	25									
18	294	93	322	28	28	277	232	304	27														

BODY A

BODY B

BODY C

BODY D

Each valve is regulated and tested in a specially test bench in the factory , under pressure which is settled by the customer. The valve is regulated at the place where is installed ,5% - 6% more than the work pressure.

DESCRIPTION

Brides

Dimensions

Pression de service

Revêtement

NORMS

EN 1092-1 / EN 10025

DN 50 - 80 - 125 - 200

PN 10-16-25-40

Poudre epoxy 250 microns DIN 30677

ASSEMBLY

