

MVA GmbH D-82166 Gräfelfing

Layout example CB 1,0 S without N2

1		
2		
3		
4		
5	Projekt: Layout example	
6		
7	Pos. Nr.1	
8		KOND. I
9	INPUT DATA Medium:	
10	Medium	./.
11	density at + 20 °C	kg/dm ³ 0,89
12	expansion coefficient	/ ° K 0,00158
13	emclosed volume	dm ³
14	temperature min.	° C
15	temperature max.	° C
16	density min.	kg/dm ³ 0,89
17	density max.	kg/dm ³ 0,8584
18	mass at + 20 °C	kg 0
19	volume max.	dm ³ 0
20	volume min.	dm ³ 0
21	volume to be	
22	compensated	dm ³ 1,00
23	Number of required	
24	volume compensators	./. 1
25	required volume	dm ³ 1
26	surface of the bellow	cm ² 140
27	spring rate of the bellow	N/mm 80
28	initial pressure p1	bar 5,6
29	closing pressure p2	bar 11,1
30	space for disc spring support	mm 327,00
31	at p1	
32	gas cushion	bar 0
33		
34	OUTPUT DATA:	
35	required range for	
36	the bellow	mm 71,43
37	initial force of the	
38	disc spring at p1	N 10548,18
39	closing force of the	
40	disc spring at p2	N 12387,60
41	space for disc spring support	
42	at p2	mm 255,57
43		
44	disc spring: De 100mm, Di 32,65mm; t 3,0mm, lo 7,0 mm, Art.-Nr. CB05000826	
45	ho per spring	mm 4,00
46	lo per spring	mm 7,00
47	number of disc springs	./. 66,00
48	disc spring support: Lo	mm 462,00
49	L1 at p1	mm 327,00
50	s/ho per spring bei L1	% 51,14
51	L2 at p2	mm 255,57
52	s/ho per spring at L2	% 78,19
53		
54	Load alternations max. 2000 at a volume compensation of approx. 1,0 l = 71,5 mm travel !!	