Bleeding and Venting Valves

Continuous Bleeding and Venting Valves EB 1.20

Large Sized Cast Bleeding and Venting Valve

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Technical Data

Connection DN	80/65 - 200/150
Nominal Pressure PN	16 - 40
Operating Pressure	0 - 40 bar
Flow Rate	7770 Nm^3/h
Temperature	200 °C
Medium	liquids

Description

Bleeding and venting valves remove air or gases from systems or pipelines without requiring an external energy input. When a system is drained they act as venting valves; venting may be prevented by fitting a non-return valve.

The EB 1.20 bleeding/venting valves are float-controlled robust valves made of spherical-graphite cast iron or cast steel to handle large air volumes e.g. in sand filters. The internal components are made of made of Cr/CrNiMo-steel/red brass and the float is made of CrNiMo-steel. Up to 130 °C the valve cone is fitted with a soft seal; up to 200 °C the seal is metallic.

The simple design makes it easy to specify, install, handle and service these valves in an industrial environment.

Valves for continuous bleeding must not be overdimensioned. If a larger valve size is selected, a higher working pressure range with a correspondingly lower flow volume should be chosen. In case of doubt we shall be happy to advise you.

On filter vessels the bleed connection is often located in the middle of the vessel. If the flow volume is large and the distance between distribution funnel and bleed connection small, the incoming water jet hits the bleed connection. This will impair the efficiency of the bleed valve and can result in water hammer. This problem may be avoided by installing a baffle or by placing the bleed connection away from the centre.

Options

» manual bleed valve made of stainless steel (CrNiMo steel)
» rubber or plastic coating for corrosive fluids
» non-return valve to prevent venting
» special versions on request

Operating instructions, know how and safety instructions must be observed. All the pressure has always been indicated as overpressure. We reserve the right to alter technical specifications without notice.

Pressure Ranges [bar]									
PN 16	0 - 2	0 - 4	0 - 8	0 - 13	0 - 16				
PN 25	0 - 2	0 - 4	0 - 8	0 - 13	0 - 16	0 - 22	0 - 25		
PN 40	0 - 2	0 - 4	0 - 8	0 - 13	0 - 16	0 - 22	0 - 25	0 - 32	0 - 40

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Materials			
Temperature		130 °C	200 °C
Body	PN 16	spherodial cast iron	spherodial cast iron
	PN 25/40	cast steel	cast steel
Body Seal		Nova Universal	Nova Universal
Internals		Cr / CrNiMo-steel / Rg	Cr / CrNiMo-steel / Rg
Float		CrNiMo-steel	CrNiMo-steel
Valve Seal		EPDM	metallic

Dimensions [mm]				
size	nominal diameter DN			
	80/65	100/80	125/100	200/150
A	460	455	500	715
B	445	425	465	735
C	550	525	580	875
øD	285	365	380	520
E	220	-	-	-

Weights [kg]				
nom. press.	nominal diameter DN			
PN	80/65	100/80	125/100	200/150
16	76	95	130	280

Customs Tariff Number
84818059

Special designs on request.
The pressure has always been indicated as overpressure.
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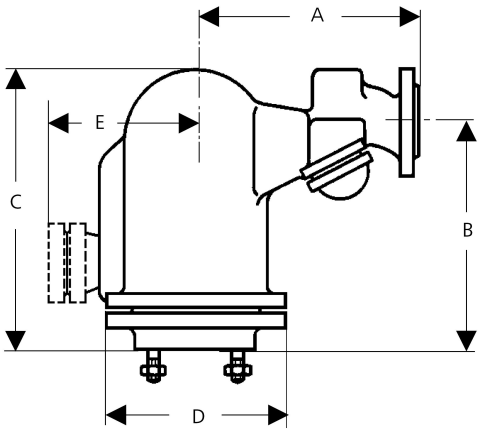
Dimensional Drawing



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Seat Diameter [mm]				
pressure range bar	nominal diameter DN			
	80/65	100/80	125/100	200/150
0 - 2	30	40	50	78
0 - 4	24	32	40	61
0 - 8	20	24	30	46
0 - 13	16	20	24	36
0 - 16	14	18	22	36
0 - 22	12	14	16	
0 - 25	10	12	14	
0 - 32	9	9		
0 - 40	8	8		

Air Flow Rate [Nm³/h] up to Δp 10 bar								
seat ø	differential pressure Δp bar							
mm	0.1	0.5	1	2	4	6	8	10
8	16	35	45	67	113	157	203	248
9	21	45	57	85	143	200	258	315
10	25	55	70	106	176	246	317	388
12	37	80	102	152	254	355	457	559
14	50	109	138	207	346	484	621	760
16	66	143	180	270	451	630	811	992
18	84	181	228	342	571	800	1028	1255
20	103	224	282	424	705	988	1270	1550
22	128	256	342	513	855	1197	1540	1880
24	148	321	406	610	1020	1420	1830	2240
28	205	417	556	834	1390	1950	2500	3060
30	233	503	635	953	1590	2220	2860	
32	264	570	721	1080	1800			
36	360	678	914	1370	2285	4000	4113	5027
40	415	895	1130	1690	2820			
46	564	1170	1490	2235	3425	5215	6705	
50	646	1392	1760	2640				
61	992	2070	2624	3956	6555			
78	1517	3400	4290	6430				

Air Flow Rate [Nm³/h] from Δp 12 bar								
seat ø	differential pressure Δp bar							
mm	12	13	16	22	25	32	35	40
8	293	315	383	518	584	743	810	923
9	372	400	486	658	742	943		
10	459	494	599	810	916			
12	661	711	864	1170	1318			
14	900	967	1175	1590	1796			
16	1170	1260	1530					
18	1485	1595	1940					
20	1833	1975						
22	2225	2395	2900					
24	2640	2845						
28	3600	3890	4315					
30								
32								
36	5940	6400	7770					

Special designs on request.
The pressure has always been indicated as overpressure.
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The quoted flow volumes apply to a fully open valve i.e. in start-up condition at 0 °C and 1013 mbar. With continuous bleeding e.g. of filter vessels, the maximum flow volume is 30 % less on average.

* Please note: Smaller seat diameter for higher pressure range.
If the selected working pressure range is too high, the flow volume may be inadequate.