Bleeding and Venting Valves

Combined Bleeding and Venting Valves EB 1.75

Epoxy-coated Cast Valve for Water

Technical Data

Connection DN	50 - 400
Connection G	1 + 2
Nominal Pressure PN	10, 16, 25, 40
Operating Pressure	0.2 - 40 bar
Flow Rate	bleeding up to 38170 Nm³/h venting up to 35100 Nm³/h continuous bleeding up to 33 Nm³/h
Temperature	60 °C
Medium	water

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.

EB 1.75 is a combined start-up and continuous bleeding and venting valve with float control. During start-up a large quantity of air is removed at low pressure via a large cone. If the ventilator is closed and further small quantities of air occur in continuous operation, a second small cone opens and removes all the air present. The large cone does not open until the level drops and pressure decreases at the same time. In the case of underpressure the valves open immediately.

EB 1.75 bleeding and venting valves are float-controlled, compact devices for water. The housings are made of spheroidal graphite iron with a continuous epoxy coating. The valve cone is soft-sealed. The minimum pressure for the valve seal is 0.2 bar for PN 16 and 0.3 for PN 25.

The upper and lower sections of the valve unit are each connected by means of only 4 screws. This means that maintenance work can be performed rapidly and without the need for special tools.

Standard

- Pressure stage PN 16
- Designed acc. to EN-1074/4
- Flanges as per EN 1092/2
- Body made of spheroidal cast iron GJS 450-10 with epoxy coating in blue RAL 5005, thickness min. 250 µm
- Highest flow rates thanks to "Full Bore" body design
- Internal parts made of 1.4301
- Float made of polypropylene PP
- Degassing bend made of polypropylene PP (DN 50 – 150) or stainless steel (DN 200 – 250)
- Coating as per DVGW W270 and KTW recommendation of the German Ministry for Health

Options

- Non-slam closing mechanism
- Purging connection in stainless steel
- Without continuous bleeding
- Pressure surge attenuation by anti-shock system
- Outlet with protection cover
- Special designs on request

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

Air Flow Rate Nm³/h* (Degassing Bend)

	ΔP bar	nominal diameter G		nominal diameter DN			
		1	2	50	80	100	150
venting	0.05	60	250	250	450	595	1095
	0.1	90	365	365	655	870	1600
	0.3	150	595	595	1070	1425	2610
start-up bleeding	0.05	65	255	255	465	615	1130
	0.1	90	355	355	640	850	1560
	0.3	165	645	645	1165	1550	2840
continuous bleeding	2	2.5	2.5	2.5	3	3	3.5
	6	3.5	3.5	3.5	7	7	10
	8	6.5	6.5	6.5	12	12	19
	10	7	7	7	14	14	22
	16	8	8	8	21	21	33

Air Flow Rate Nm³/h* (Degassing Bend)

	ΔP bar	nominal diameter DN				
		200	250	300	350	400
venting	0.05	2490	4430	on request		
	0.1	3945	7020			
	0.3	6760	12020			
start-up bleeding	0.05	2955	5250			
	0.1	4080	7250			
	0.3	7415	13180			
continuous bleeding	2	3.5	3.5			
	6	10	10			
	8	19	19			
	10	22	22			
	16	33	33			

*0 °C, 1013 mbar

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Air Flow Rate Nm³/h* (Protection Cover)							
	ΔP bar	nominal diameter G		nominal diameter DN			
		1	2	50	80	100	150
venting	0.05	75	285	285	735	1155	2600
	0.1	110	420	420	1080	1685	3795
	0.3	180	685	685	1760	2755	6195
start-up bleeding	0.05	75	295	295	760	1190	2685
	0.1	105	410	410	1055	1645	3705
	0.3	195	745	745	1915	2995	6740
continuous bleeding	2	2.5	2.5	2.5	3	3	3.5
	6	3.5	3.5	3.5	7	7	10
	8	6.5	6.5	6.5	12	12	19
	10	7	7	7	14	14	22
	16	8	8	8	21	21	33

Air Flow Rate Nm³/h*(Protection Cover)						
	ΔP bar	nominal diameter DN				
		200	250	300	350	400
venting	0.05	4625	7225	7510	10815	14725
	0.1	6750	10550	10975	15800	21510
	0.3	11020	17220	17910	25790	35100
start-up bleeding	0.05	4775	7460	7760	11175	15215
	0.1	6590	10300	10715	15430	21000
	0.3	11980	18725	19475	28040	38170
continuous bleeding	2	3.5	3.5	3.5	3.5	3.5
	6	10	10	10	10	10
	8	19	19	14	14	14
	10	22	22	17	17	17
	16	33	33	28	28	28

Air Flow Rate Nm³/h* (Non Slam Version)							
	ΔP bar	nominal diameter G		nominal diameter DN			
		1	2	50	80	100	150
venting	0.05	75	295	295	760	1190	7440
	0.1	115	430	430	1110	1735	10865
	0.3	185	705	705	1815	2835	17735
start-up bleeding	0.05	8	20	20	50	90	245
	0.1	10	30	30	70	125	345
	0.3	15	45	45	95	170	465
continuous bleeding	2	2.5	2.5	2.5	3	3	3.5
	6	3.5	3.5	3.5	7	7	10
	8	6.5	6.5	6.5	12	12	19
	10	7	7	7	14	14	22
	16	8	8	8	21	21	33

Air Flow Rate Nm³/h* (Non Slam Version)						
	ΔP bar	nominal diameter DN				
		200	250	300	350	400
venting	0.05	4760	7440	7655	11025	15005
	0.1	6955	10865	11185	16105	21920
	0.3	11350	17735	18250	26285	35775
start-up bleeding	0.05	455	755	755	1105	1625
	0.1	640	1070	1070	1560	2300
	0.3	870	1450	1450	2175	3200
continuous bleeding	2	3.5	3.5	3.5	3.5	3.5
	6	10	10	10	10	10
	8	19	19	14	14	14
	10	22	22	17	17	17
	16	33	33	28	28	28

* 0 °C, 1013 mbar

Special designs on request.
The pressure has always been indicated as overpressure.
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Materials	
Body	spheroidal cast iron GJS 450-10 epoxy coated*
Body Seal	NBR optional EPDM, Viton or Silicone
Internal Parts	stainless steel 1.4301 optional 1.4404
Float	Polypropylen PP
Valve Seal	NBR optional EPDM, Viton or Silicone
Degassing Bend	G 1 + 2, DN 50 - 150 Polypropylen PP DN 200 - 400 stainless steel 1.4301
Drain Valve	stainless steel 1.4404

* in accordance with KTW-recommendation and DVGW W270, thickness min. 250 µm

Dimensions with Degassing Bend [mm]						
size	nominal diameter					
	1'	2'	50	80	100	150
A	105	128	128	158	192	272
B	302	385	395	432	507	648
C	-	-	165	210	235	305
D	CH45	CH75	-	-	-	-
E	1'	2'	2'	2 1/2'	3'	4'

Dimensions with Degassing Bend [mm]					
size	nominal diameter				
	200	250	300	350	400
A	359	429	414	492	578
B	828	1060	1047	1270	1480
C	375	450	485	580	660
D	-	-	-	-	-
E	6'	8'	8'	10'	12'

Weights with Degassing Bend [kg]										
nominal diameter										
1'	2'	50	80	100	150	200	250	300	350	400
4	7.5	9.5	13.8	21.7	44.5	92.5	147	140	270.5	332.5

Dimensions with Protection Cover [mm]						
size	nominal diameter					
	1'	2'	50	80	100	150
A	117	141	141	172	206	285
B	240	295	305	315	370	515
C	-	-	165	210	235	305
D	CH45	CH70	-	-	-	-

Dimensions with Protection Cover [mm]					
size	nominal diameter				
	200	250	300	350	400
A	380	440	414	492	578
B	625	785	735	850	995
C	375	450	485	580	660
D	-	-	-	-	-

Weights with Protection Cover[kg]										
nominal diamter										
1'	2'	50	80	100	150	200	250	300	350	400
4	7.5	9.5	13.8	21.7	44.5	85	134	127	250.5	304

Customs Tariff Number
84818059

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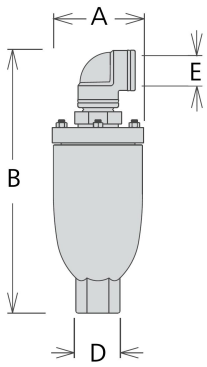
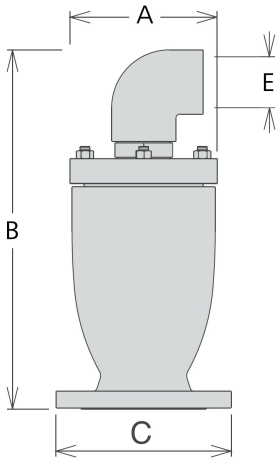
Dimensional Drawing

Degassing Bend (standard)





Protection Cover (option)