

Bleeding and Venting Valves

Continuous Bleeding and Venting Valves EB 1.12



Compact Standard Bleeding Valve

Technical Data

| | |
|---------------------|------------------------|
| Connection DN | 25 - 100 |
| Connection G | 1/2 - 2 |
| Nominal Pressure PN | 16 |
| Operating Pressure | 0 - 16 |
| Flow Rate | 248 Nm ³ /h |
| Temperature | 130 °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.

The EB 1.12 bleeding/venting valves are compact and lightweight float-controlled valves for water treatment (incl. ozone), pipelines, petrol tanks etc. They are manufactured from deep-drawn stainless steel featuring excellent corrosion resistance. The valve cone can be fitted with a soft or metallic seal.

Top and bottom sections of the valve body are connected by a clamp ring and two bolts. Servicing/maintenance is easy and does not call for special tooling.

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.

Standard

- » all stainless steel construction
- » quick-release body clamp ring

Options

- » ozone-resistant design
- » various seal materials suitable for your medium
- » plastic coating for corrosive fluids
- » special materials such as Duplex, Superduplex, Hastelloy® or titanium
- » special connections: Aseptic, ANSI or JIS flanges, welding spigots; other connections on request
- » special versions on request

Please state working pressure range when enquiring or ordering.

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]

nominal diameter G 1/2 - 3/4

| | | | |
|------------------|-------|-------|--------|
| press. range bar | 0 - 2 | 0 - 6 | 0 - 16 |
|------------------|-------|-------|--------|

Pressure Ranges [bar]

nominal diameter G 1 - 2, DN 25 - 100

| | | | | |
|------------------|-------|-------|--------|--------|
| press. range bar | 0 - 2 | 0 - 6 | 0 - 10 | 0 - 16 |
|------------------|-------|-------|--------|--------|

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| Materials | | |
|---------------|-----------------------|--------------|
| Design | standard | |
| Type | G 1/2 - 2, DN 25 - 50 | DN 65 - 100 |
| Temperature | 130 °C | 130 °C |
| Body | CrNiMo-steel | CrNiMo-steel |
| Body Seal | EPDM | EPDM |
| Internals | CrNiMo-steel | CrNiMo-steel |
| Float | CrNiMo-steel | CrNiMo-steel |
| Valve Seal | FPM | CrNiMo-steel |
| Profile Clamp | CrNiMo-steel | CrNiMo-steel |

| Dimensions [mm] G 1/2 - 3/4 | | |
|-----------------------------|--------------------|-----|
| size | inlet female G | |
| | 1/2 | 3/4 |
| | outlet male G 1/2A | |
| A* | 109 | 109 |
| B | 57 | 57 |
| C | 127 | 127 |
| D | 140 | 140 |

| Dimensions [mm] G 1 - 2 | | | | |
|-------------------------|--------------------|-------|-------|-----|
| size | inlet female G | | | |
| | 1 | 1 1/4 | 1 1/2 | 2 |
| | outlet male G 3/4A | | | |
| A* | 146 | 149 | 149 | 145 |
| B | 140 | 140 | 140 | 140 |
| C | 185 | 190 | 190 | 185 |
| D | 200 | 200 | 200 | 200 |

| Dimensions [mm] DN 25 - 100 | | | | | | | |
|-----------------------------|--------------------|-----|-----|-----|-----|-----|-----|
| size | inlet flange DN | | | | | | |
| | 25 | 32 | 40 | 50 | 65 | 80 | 100 |
| | outlet male G 3/4A | | | | | | |
| A | 161 | 163 | 165 | 164 | 250 | 255 | 257 |
| B | 140 | 140 | 140 | 140 | 113 | 113 | 113 |
| C | 200 | 200 | 205 | 205 | 295 | 300 | 305 |
| D | 200 | 200 | 200 | 200 | 265 | 265 | 265 |

*size A tolerance ± 4 mm

| Weights [kg] G 1/2 - 2 | | | | | |
|------------------------|-----|-----|-------|-------|-----|
| inlet female G | | | | | |
| 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 |
| 0.8 | 0.8 | 2.6 | 2.6 | 2.7 | 3.1 |

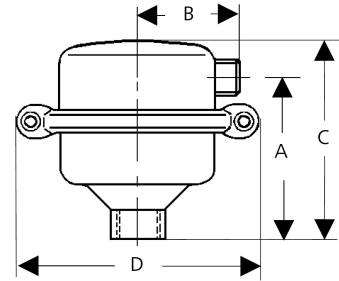
| Weights [kg] DN 25 - 100 | | | | | | |
|--------------------------|-----|-----|----|----|----|-----|
| inlet flange DN | | | | | | |
| 25 | 32 | 40 | 50 | 65 | 80 | 100 |
| 3.5 | 4.2 | 4.2 | 5 | 11 | 11 | 12 |

| Customs Tariff Number |
|-----------------------|
| 84818059 |

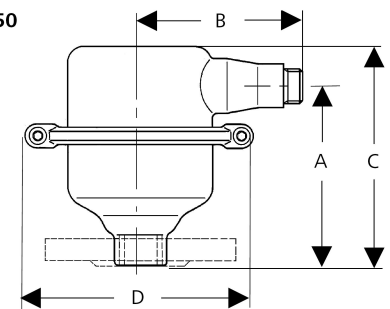
Special designs on request.
The pressure has always been indicated as overpressure.
Mankenberg reserves the right to alter or improve the designs or specifications of the products described herein without notice.

Dimensional Drawing

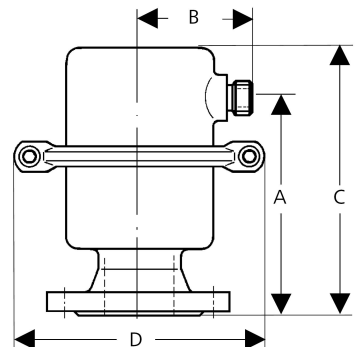
EB 1.12 3/4 x 1/2



EB 1.12 G 1 - 2, DN 25 - 50



EB 1.12 DN 65 - 100



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Flow Rate [Nm³/h] G 1/2 - 3/4

| Δp bar | pressure range bar * | | |
|--------|----------------------|-------|--------|
| | 0 - 2 | 0 - 6 | 0 - 16 |
| 0.1 | 3.1 | 1 | 0.3 |
| 0.2 | 4.4 | 1.4 | 0.4 |
| 0.5 | 6.8 | 2.2 | 0.6 |
| 1 | 8.6 | 2.8 | 0.7 |
| 2 | 12 | 4.2 | 1 |
| 4 | | 7 | 1.7 |
| 6 | | 9.8 | 2.4 |
| 8 | | | 3.1 |
| 10 | | | 3.8 |
| 12 | | | 4.5 |
| 16 | | | 5.9 |

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.

Flow Rate [Nm³/h] G 1 - 2, DN 25 - 50

| Δp bar | pressure range bar * | | | |
|--------|----------------------|-------|--------|--------|
| | 0 - 2 | 0 - 6 | 0 - 10 | 0 - 16 |
| 0.1 | 14 | 6.4 | 4.1 | 3.1 |
| 0.2 | 20 | 9 | 5.7 | 4.4 |
| 0.5 | 31 | 13 | 8.9 | 6.8 |
| 1 | 39 | 17 | 11 | 8.6 |
| 2 | 59 | 26 | 16 | 12 |
| 4 | | 44 | 28 | 21 |
| 6 | | 61 | 39 | 30 |
| 8 | | | 50 | 38 |
| 10 | | | 62 | 47 |
| 12 | | | | 53 |
| 16 | | | | 73 |

Flow Rate [Nm³/h] DN 65 - 100

| Δp bar | pressure range bar * | | | |
|--------|----------------------|-------|--------|--------|
| | 0 - 2 | 0 - 6 | 0 - 10 | 0 - 16 |
| 0.1 | 25 | 25 | 16 | 8 |
| 0.2 | 36 | 36 | 23 | 11 |
| 0.5 | 55 | 55 | 35 | 16 |
| 1 | 70 | 70 | 45 | 21 |
| 2 | 106 | 106 | 67 | 32 |
| 4 | | 176 | 113 | 53 |
| 6 | | 246 | 157 | 75 |
| 8 | | | 203 | 96 |
| 10 | | | 248 | 118 |
| 12 | | | | 139 |
| 16 | | | | 182 |

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