

# Bleeding and Venting Valves

## Combined Bleeding and Venting Valves EB 1.75



Epoxy-coated Cast Valve for water

### Technical Data

|                     |  |
|---------------------|--|
| Connection DN       | 50 - 200   |
| Connection G        | 1 + 2  |
| Nominal Pressure PN | 16 - 25  |
| Operating Pressure  | 0.3 - 16 bar   |
| Flow Rate           | venting up to 7600 Nm <sup>3</sup> /h<br>bleeding up to 6100 Nm <sup>3</sup> /h<br>Working venting up to 33 Nm <sup>3</sup> /h |
| Temperature         | 70 °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 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

- » body made of spheroidal graphite iron with an epoxy coating
- » float made of PP

### Options

- » purging connection in stainless steel
- » without continuous venting
- » anti-shock system
- » degassing connection designed as a plastic manifold for specific removal of exhaust air
- » with non-return valve
- » special designs 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.



Flow Rate in Nm<sup>3</sup>/h see sheet 1.75/2.1.100.2

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### Materials

|              |                                   |
|--------------|-----------------------------------|
| Body         | spheroidal cast iron epoxy coated |
| Body Seal    | NBR                               |
| Internals    | stainless steel                   |
| Float        | PP                                |
| Valve Seal   | NBR                               |
| Ablassventil | stainless steel                   |

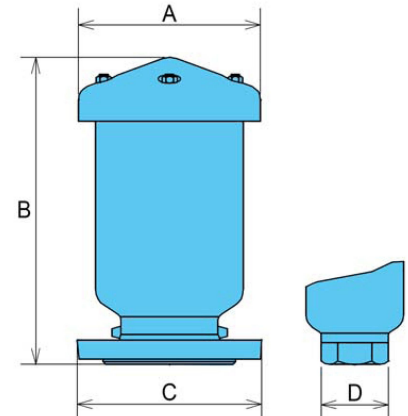
### Dimensions [mm]

| size | nominal diameter |      |     |     |     |     |     |     |     |
|------|------------------|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1"               | 2"   | 50  | 65  | 80  | 100 | 125 | 150 | 200 |
| A    | 113              | 142  | 142 | 142 | 174 | 217 | 267 | 325 | 414 |
| B    | 205              | 260  | 275 | 275 | 300 | 350 | 425 | 490 | 565 |
| C    | -                | -    | 165 | 185 | 200 | 220 | 250 | 285 | 340 |
| D    | CH45             | CH75 | -   | -   | -   | -   | -   | -   | -   |

### Weights [kg]

| nominal diameter |     |     |    |      |      |     |     |     |  |
|------------------|-----|-----|----|------|------|-----|-----|-----|--|
| 1"               | 2"  | 50  | 65 | 80   | 100  | 125 | 150 | 200 |  |
| 3.2              | 6.2 | 8.6 | 9  | 12.4 | 19.7 | 33  | 56  | 58  |  |

### Dimensional Drawing



Special designs on request.

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| Air Flow Rate Nm <sup>3</sup> /h at 0 °C, 1013 mbar for standard design |           |                    |      |
|---|-----------|--------------------|------|
|   | ΔP<br>bar | nominal diameter G |      |
|   |           | 1                  | 2    |
| bleeding  | 0,05      | 50                 | 250  |
|   | 0,1       | 100                | 500  |
|   | 0,3       | 250                | 750  |
| start-up<br>venting   | 0,05      | 50                 | 250  |
|   | 0,1       | 100                | 500  |
|   | 0,3       | 250                | 1000 |
| continuous<br>venting   | 2         | 2,5                | 2,5  |
|   | 6         | 3,5                | 3,5  |
|   | 8         | 6,5                | 6,5  |
|   | 10        | 7                  | 7    |
|   | 16        | 8                  | 8    |

The quoted flow volumes apply to a fully open valve i.e. in start-up condition at 0 °C and 1013 mbar.

| Air Flow Rate Nm <sup>3</sup> /h bei 0 °C, 1013 mbar for standard design |           |                     |      |      |      |      |      |      |
|--|-----------|---------------------|------|------|------|------|------|------|
|  | ΔP<br>bar | nominal diameter DN |      |      |      |      |      |      |
|  |           | 50                  | 65   | 80   | 100  | 125  | 150  | 200  |
| bleeding   | 0,05      | 250                 | 250  | 1000 | 1500 | 2100 | 3000 | 3000 |
|  | 0,1       | 500                 | 500  | 1500 | 2000 | 3000 | 4200 | 4200 |
|  | 0,3       | 750                 | 750  | 2000 | 2900 | 4400 | 6100 | 6100 |
| start-up<br>venting  | 0,05      | 250                 | 250  | 1000 | 1500 | 2100 | 3000 | 3000 |
|  | 0,1       | 500                 | 500  | 1500 | 2100 | 3000 | 4500 | 4500 |
|  | 0,3       | 1000                | 1000 | 2000 | 3600 | 5400 | 7600 | 7600 |
| continuous<br>venting  | 2         | 2,5                 | 2,5  | 3    | 3    | 3    | 3,5  | 3,5  |
|  | 6         | 3,5                 | 3,5  | 7    | 7    | 7    | 10   | 10   |
|  | 8         | 6,5                 | 6,5  | 12   | 12   | 12   | 19   | 19   |
|  | 10        | 7                   | 7    | 14   | 14   | 14   | 22   | 22   |
|  | 16        | 8                   | 8    | 21   | 21   | 21   | 33   | 33   |

| Air Flow Rate Nm <sup>3</sup> /h at 0 °C, 1013 mbar for anti-hammer system |           |                    |     |
|--|-----------|--------------------|-----|
|  | ΔP<br>bar | nominal diameter G |     |
|  |           | 1                  | 2   |
| bleeding   | 0,05      | 60                 | 200 |
|  | 0,1       | 100                | 270 |
|  | 0,3       | 150                | 500 |
| start-up<br>venting  | 0,05      | 4,5                | 7   |
|  | 0,1       | 6                  | 11  |
|  | 0,3       | 12                 | 20  |
| continuous<br>venting  | 2         | 2,5                | 2,5 |
|  | 6         | 3,5                | 3,5 |
|  | 8         | 6,5                | 6,5 |
|  | 10        | 7                  | 7   |
|  | 16        | 8                  | 8   |

| Air Flow Rate Nm <sup>3</sup> /h at 0 °C, 1013 mbar for anti-hammer system |           |                     |     |     |      |      |      |      |
|--|-----------|---------------------|-----|-----|------|------|------|------|
|  | ΔP<br>bar | nominal diameter DN |     |     |      |      |      |      |
|  |           | 50                  | 65  | 80  | 100  | 125  | 150  | 200  |
| bleeding   | 0,05      | 200                 | 200 | 370 | 670  | 1050 | 1600 | 1600 |
|  | 0,1       | 270                 | 270 | 550 | 950  | 1500 | 2300 | 2300 |
|  | 0,3       | 500                 | 500 | 950 | 1600 | 2600 | 4000 | 4000 |
| start-up<br>venting  | 0,05      | 7                   | 7   | 15  | 20   | 27   | 38   | 38   |
|  | 0,1       | 11                  | 11  | 20  | 30   | 39   | 50   | 50   |
|  | 0,3       | 20                  | 20  | 40  | 53   | 70   | 94   | 94   |
| continuous<br>venting  | 2         | 2,5                 | 2,5 | 3   | 3    | 3,5  | 3,5  | 3,5  |
|  | 6         | 3,5                 | 3,5 | 7   | 7    | 10   | 10   | 10   |
|  | 8         | 6,5                 | 6,5 | 12  | 12   | 19   | 19   | 19   |
|  | 10        | 7                   | 7   | 14  | 14   | 22   | 22   | 22   |
|  | 16        | 8                   | 8   | 21  | 21   | 33   | 33   | 33   |

Special designs on request.

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