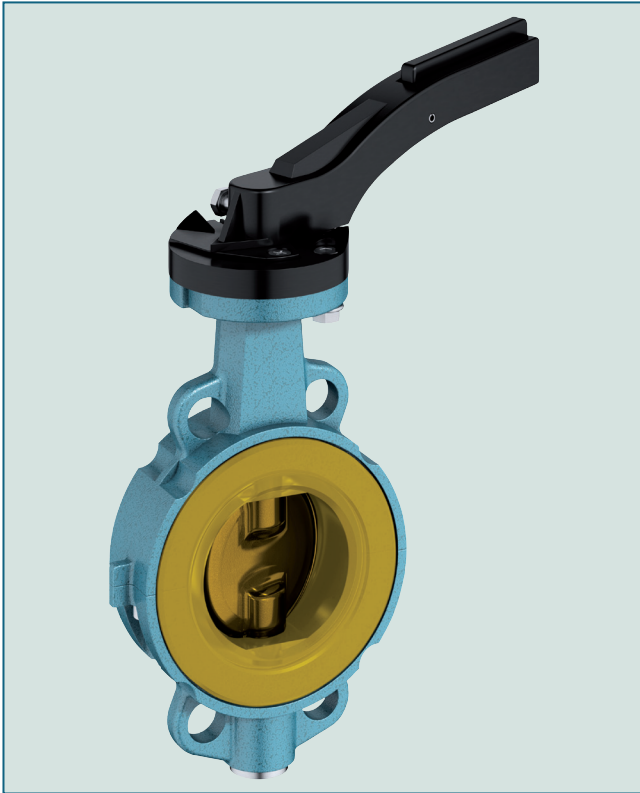


# WAFER TYPE BUTTERFLY VALVE Z 011-GMX



Wafer type butterfly valve with special lining and disc for abrasive media.

## TECHNICAL DATA

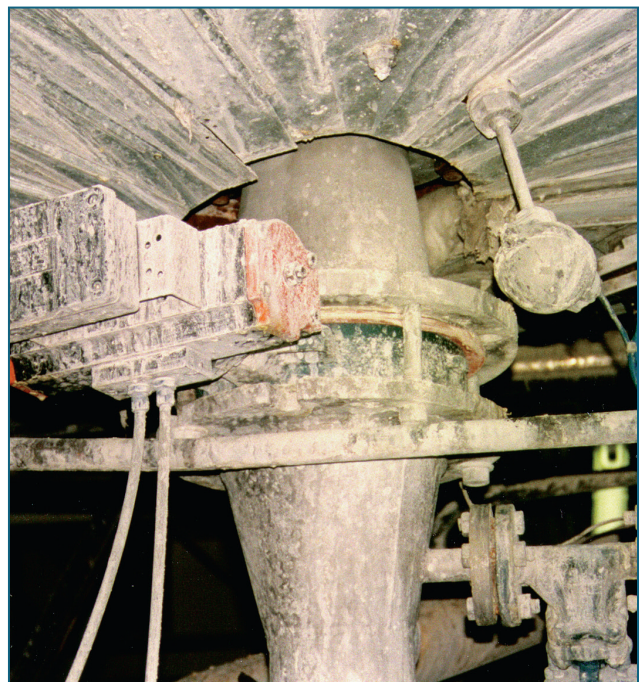
|                        |  |
|------------------------|--|
| Nominal diameter:      | DN 50 - DN 300   |
| Face-to-face:          | EN 558 Series 20<br>ISO 5752 Series 20<br>API 609 Table 1      |
| Flange accommodation:  | EN 1092 PN 10<br>ASME Class 150                                |
| Flange Surface Design: | EN 1092 Form A/B<br>ASME RF, FF                                |
| Marking:               | EN 19  |
| Tightness check:       | EN 12266 (Leckrate A)<br>ISO 5208, Category 3                  |
| Temperature range:     | -10°C to +90°C (depending on<br>pressure, medium and material) |
| Operating pressure:    | max. 6 bar   |

## FEATURES

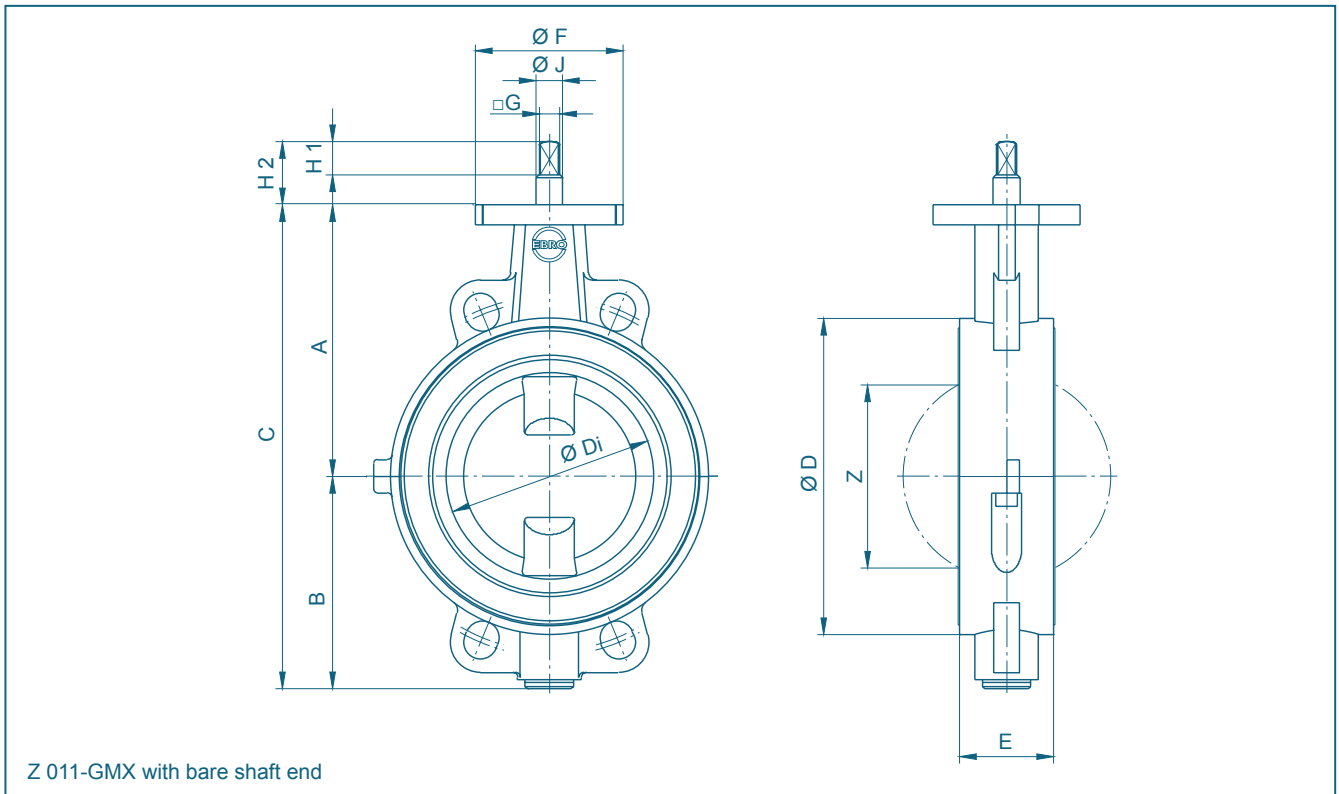
- Shut-off and controlling of strong abrasive media, e.g. sand, cement, flue ash
- High abrasion strength of valve disc and seal
- Two-part body
- Triple shaft bearings prevent shaft deflection and guarantee optimum guidance even after many years of operational service
- Absolutely tight sealing with flow in either direction
- Can be installed in any desired position
- Maintenance-free
- Can be disassembled, material specific recycling possible

## GENERAL APPLICATIONS

- Bulk handling technology
- Weighting technology
- Pneumatic conveying systems



# WAFER TYPE BUTTERFLY VALVE Z 011-GMX

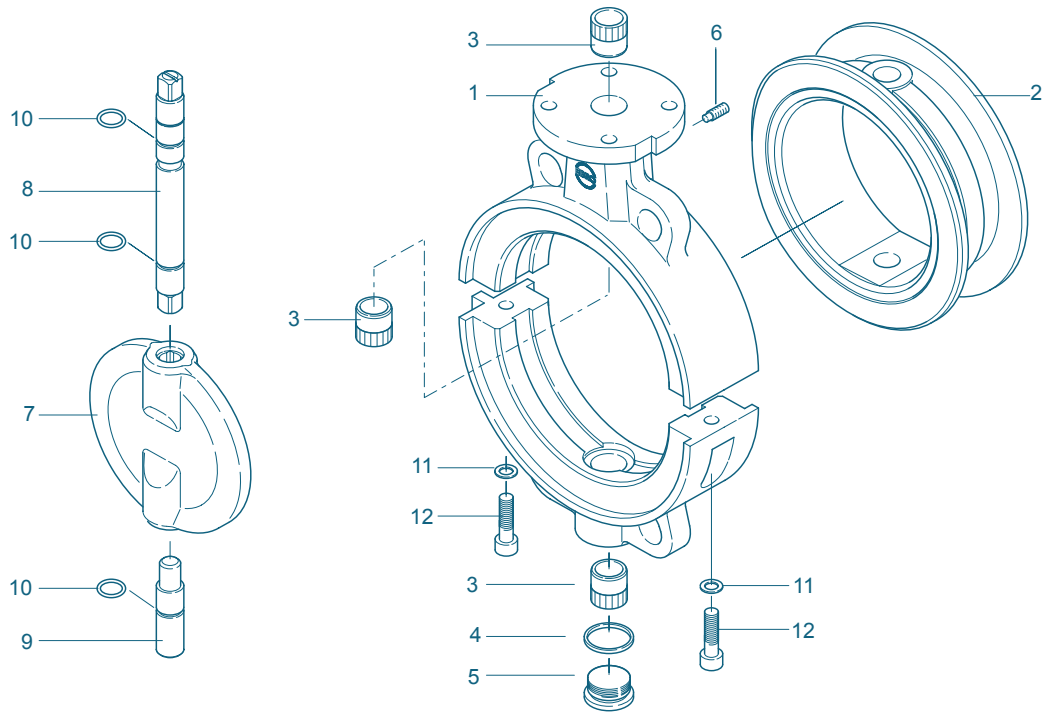


| DN<br>[mm] | Size<br>[in] | Dimensions [mm] |     |     |     |       |    |     |        |    |    |    |    |     | Weight<br>[kg] |
|------------|--------------|-----------------|-----|-----|-----|-------|----|-----|--------|----|----|----|----|-----|----------------|
|            |              | A               | B   | C   | D   | Di    | E  | F   | Flange | G  | H1 | H2 | J  | Z   |                |
| 50         | 2            | 126             | 84  | 210 | 105 | 49    | 43 | 90  | F07    | 12 | 20 | 38 | 16 | 24  | 1,6            |
| 65         | 2½           | 134             | 93  | 227 | 125 | 64,3  | 46 | 90  | F07    | 12 | 20 | 38 | 16 | 45  | 1,9            |
| 80         | 3            | 140             | 104 | 244 | 140 | 78,2  | 46 | 90  | F07    | 12 | 20 | 38 | 16 | 64  | 2,2            |
| 100        | 4            | 150             | 115 | 265 | 160 | 98,6  | 52 | 90  | F07    | 12 | 20 | 38 | 16 | 84  | 2,8            |
| 125        | 5            | 163             | 127 | 290 | 190 | 123,6 | 56 | 90  | F07    | 12 | 20 | 38 | 16 | 111 | 3,5            |
| 150        | 6            | 193             | 150 | 343 | 217 | 148,5 | 56 | 90  | F07    | 16 | 20 | 38 | 20 | 138 | 4,6            |
| 200        | 8            | 218             | 176 | 394 | 272 | 198,2 | 60 | 90  | F07    | 16 | 20 | 38 | 20 | 190 | 6,8            |
| 250        | 10           | 266             | 212 | 478 | 327 | 250   | 68 | 125 | F10    | 24 | 20 | 38 | 30 | 240 | 12,3           |
| 300        | 12           | 293             | 237 | 530 | 377 | 297   | 78 | 125 | F10    | 24 | 20 | 38 | 30 | 289 | 17,0           |

Subject to change without notice

# WAFER TYPE BUTTERFLY VALVE Z 011-GMX

## MATERIAL SPECIFICATION AND PARTS LIST



| Pt. | Description               | Material        | Material-No. | ASTM   | Pt. | Description                  | Material                      | Material-No. | ASTM  |
|-----|---------------------------|-----------------|--------------|--------|-----|------------------------------|-------------------------------|--------------|-------|
| 1   | <b>Body</b>               |                 |              |        | 7   | <b>Disc</b>                  |                               |              |       |
|     | Aluminiumalloy            | G-AISI10Mg      | 3.2381       | 361.1  |     | Stainless Steel              | G-X6CrNiMo18-10               | 1.4401       | CF8M  |
| 2   | <b>Seat</b>               |                 |              |        |     | Coating                      | GMX Polyurethane              |              |       |
|     | GMX                       | Polyurethane    |              |        | 8/9 | <b>Shaft</b>                 |                               |              |       |
| 3   | <b>Bearing sleeve</b>     |                 |              |        |     | Stainless Steel              | X14CrMoS17                    | 1.4104       | 430 F |
|     | Brass                     | MS 58           | 2.0401       | B 45   |     |                              | X5CrNiMo17-12-2               | 1.4401       | 316   |
| 4   | <b>Seal DIN 7603</b>      |                 |              |        | 10  | <b>O-ring</b>                |                               |              |       |
|     | Copper                    | Cu              |              | Copper |     | NBR                          | Acrylnitrile butadiene rubber |              |       |
| 5   | <b>Plug screw DIN 908</b> |                 |              |        | 11  | <b>Washer</b>                |                               |              |       |
|     | Stainless Steel           | G-X6CrNiMo18-10 |              | CF8M   |     | Stainless Steel              | X5CrNiM17-12-2                | 1.4401       | 316   |
| 6   | <b>Set screw DIN 915</b>  |                 |              |        | 12  | <b>Screw</b>                 |                               |              |       |
|     | Steel                     | 45 H galvanized | 1.4408       |        |     | Stainless Steel              | A2-70                         |              | B 8   |
|     | Stainless Steel           | A4-70           |              | B8M    |     |                              | A4-70                         |              | B8M   |
|     |                           |                 |              |        |     | Other materials upon request |                               |              |       |

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# WAFER TYPE BUTTERFLY VALVE Z 011-GMX

## TORQUE

- The torque values specified (Md) are based on liquid and lubricant media
- Powdery (non-lubricant) media Md x 1,3
- Dry gases/high viscous media Md x 1,2
- The values specified are based on the initial breakaway torque
- Dynamic torque specification available upon request

Regarding the dimensioning of actuators, please contact our engineers.

| DN [mm] | Size [in] | Operating pressure |  |
|---------|-----------|--------------------|--|
|         |           | 6 [bar]            |  |
| 50      | 2         | 16                 |  |
| 65      | 2½        | 21                 |  |
| 80      | 3         | 25                 |  |
| 100     | 4         | 43                 |  |
| 125     | 5         | 73                 |  |
| 150     | 6         | 145                |  |
| 200     | 8         | 260                |  |
| 250     | 10        | 367                |  |
| 300     | 12        | 667                |  |

All values in Nm

## K<sub>V</sub>-VALUES

- The K<sub>V</sub>-value [m³ per hour] is the flow of water at a temperature of 5°C to 30°C (41°F to 86°F) at Δp of 1 bar
- The K<sub>V</sub>-values specified are based on tests carried out by the Delfter Hydraulics Laboratories, the Netherlands
- Permissible velocity of flow  
V<sub>max</sub> 4,5 m/s for liquids,  
V<sub>max</sub> 70 m/s for gases
- The throttle function is linear at an angle 30° to 70°
- Avoid cavitation

For further values, please contact our engineers.

| DN [mm] | Size [in] | Opening angle α° |     |      |      |      |      |      |      |
|---------|-----------|------------------|-----|------|------|------|------|------|------|
|         |           | 20°              | 30° | 40°  | 50°  | 60°  | 70°  | 80°  | 90°  |
| 50      | 2         | 1,2              | 8   | 13   | 22   | 38   | 50   | 65   | 85   |
| 65      | 2½        | 2                | 9   | 22   | 42   | 77   | 115  | 170  | 215  |
| 80      | 3         | 8                | 24  | 50   | 95   | 150  | 240  | 330  | 420  |
| 100     | 4         | 13               | 28  | 65   | 130  | 180  | 340  | 550  | 800  |
| 125     | 5         | 26               | 65  | 130  | 230  | 350  | 530  | 870  | 1010 |
| 150     | 6         | 35               | 90  | 200  | 360  | 640  | 900  | 1350 | 2100 |
| 200     | 8         | 43               | 180 | 350  | 580  | 1000 | 1600 | 3000 | 4000 |
| 250     | 10        | 125              | 360 | 660  | 1100 | 1800 | 3100 | 5300 | 6400 |
| 300     | 12        | 200              | 550 | 1000 | 1600 | 2600 | 5000 | 7500 | 8500 |

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