

**PRODUCT / DESIGN DATA**

|                       |                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------|
| General Description   | BUTTERFLY VALVE                                                                        |
| Design Code           | EN 593 & API 609                                                                       |
| Type                  | Concentric                                                                             |
| End Connection        | Flangeless wafer - semi lug type and long neck for insulating                          |
| Size Range            | DN 40 - 300, NPS 1,5" - 12"                                                            |
| End connection        | EN 1092 PN 6, 10 and 16<br>ASME B16.5 cl. 150 / B16.47 cl. 150<br>MSS SP 44 cl. 150    |
| Body Material         | See Parts List                                                                         |
| Body Seat             | Non replaceable rubber lining, vulcanized, bonded to the body                          |
| Trim Material         | See Parts List                                                                         |
| Design pressure PS    | 10/16 bar - optional 20 bar                                                            |
| Design temperature TS | Min. -20 °C (-4 °F) to max. +200 °C (392 °F), depending on materials selected          |
| Face to Face          | EN 558 Table 2 - Series 20<br>ISO 5752 Table 1 - Series 20<br>API 609 Table 2 - Cat. A |
| Shaft Seal Design     | O-ring                                                                                 |
| Driving Shaft         | With indication for position of the disc                                               |

**OPTIONS**

|                    |                                     |
|--------------------|-------------------------------------|
| Anti-Static Design | Compliant with EN 736/3 and API 609 |
|--------------------|-------------------------------------|

**TESTING PROCEDURES**

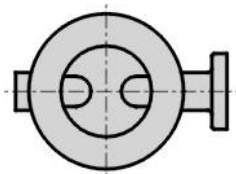
|                      |                                                        |
|----------------------|--------------------------------------------------------|
| Shell strength test  | EN 12266-1, P10<br>ISO 5208<br>API 598                 |
| Shell tightness test | EN 12266-1, P11<br>ISO 5208<br>API 598                 |
| Seat tightness test  | EN 12266-1, P12, Rate A<br>ISO 5208, Rate A<br>API 598 |
| Operability test     | EN 12266-2, F20<br>ISO 5208<br>API 598                 |

**FUNCTIONAL CHARACTERISTICS**

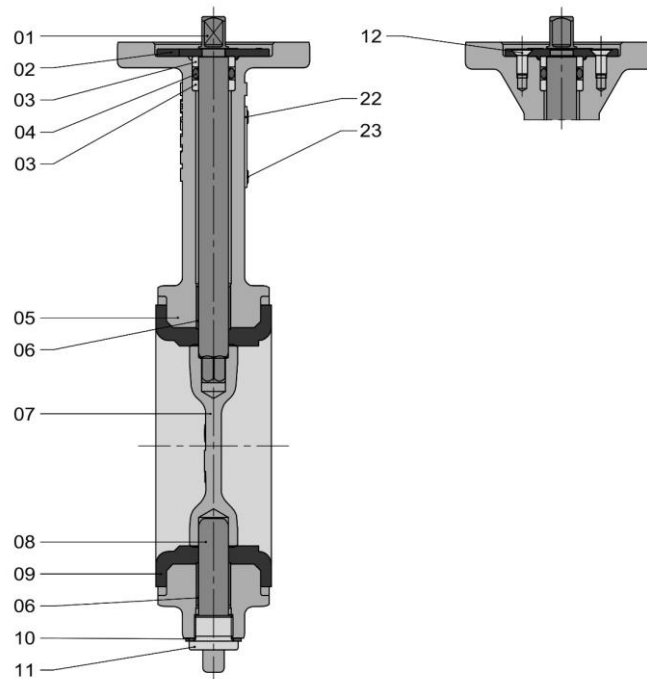
|                     |                                               |
|---------------------|-----------------------------------------------|
| Application         | Isolating, regulating, control valve          |
| Flow velocity       | Max. 5 m/s for liquids, max. 50 m/s for gases |
| Seat tightness rate | ISO 5208 rate A - Bi-directional bubble tight |

**MARKING & CERTIFICATION**

|               |                          |
|---------------|--------------------------|
| Marking       | EN 19, MSS SP 25         |
| Certification | EN 10204 - 2.2, 3.1, 3.2 |

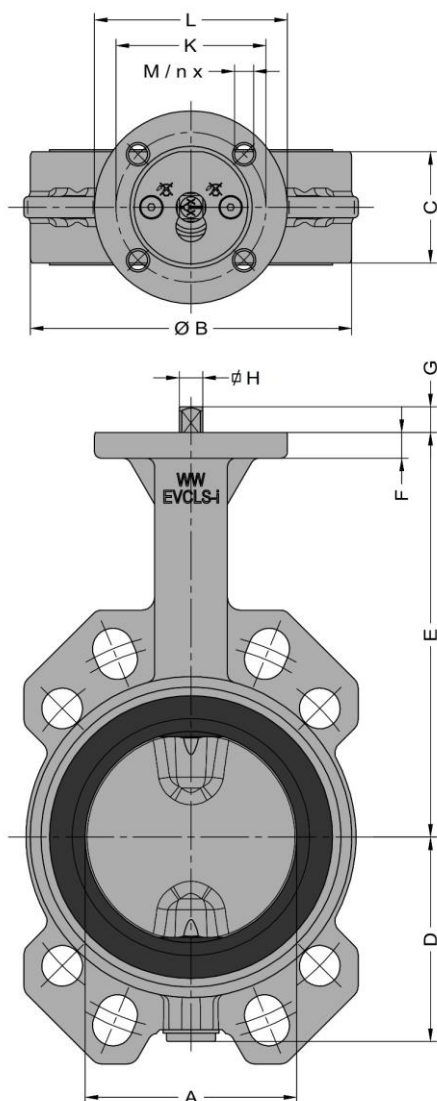
**PREFERRED POSITION WHEN INSTALLED IN HORIZONTAL PIPELINE**

## PARTS LIST - EVCLS-i 40-300 (1,5"-12")

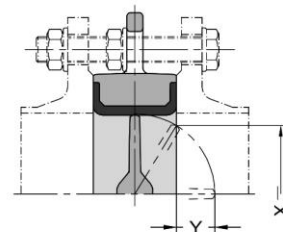


| Item | Description          | Material <sup>(1)</sup>                                                                                                                                                               | Standard                                                                                                                                                                                                                               | Comparable ASME                                                                                                                                                            |
|------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01   | Shaft                | Duplex SS<br>Super Duplex SS<br>Martensitic SS<br>Aluminium Bronze<br>Monel K500 <sup>*</sup>                                                                                         | 1.4462, EN 10088<br>1.4501, EN 10272<br>1.4021, EN 10088<br>CuAl10Ni5Fe4, EN 12163<br>NA 18, BS 3076                                                                                                                                   | SA 182, Grade F51<br>SA 479, UNS 32760<br>SA 276, Grade 420<br>SB 150, C63000<br>-                                                                                         |
| 02   | Anti-blow-out cover  | POM<br>Steel - zinc plated                                                                                                                                                            | Polyoxymethylene, ISO 29988-1                                                                                                                                                                                                          |                                                                                                                                                                            |
| 03   | Radial bearing       | POM<br>Bronze                                                                                                                                                                         | Polyoxymethylene, ISO 29988-1<br>CC493K, EN 1982                                                                                                                                                                                       |                                                                                                                                                                            |
| 04   | O-ring               | EPDM<br>NBR<br>FPM                                                                                                                                                                    |                                                                                                                                                                                                                                        |                                                                                                                                                                            |
| 05   | Body                 | Ductile Iron                                                                                                                                                                          | 5.3106, EN 1563 (JS1030)                                                                                                                                                                                                               | SA 395, 60-40-18                                                                                                                                                           |
| 06   | Bearing              | St. / PTFE Lining<br>Bronze / PTFE Lining                                                                                                                                             |                                                                                                                                                                                                                                        |                                                                                                                                                                            |
| 07   | Disc                 | Martensitic SS<br>Martensitic SS<br>Austenitic SS<br>Duplex SS<br>Duplex SS<br>Super Duplex SS<br>Ductile Iron / Rilsan coated <sup>(2)</sup><br>Aluminium Bronze<br>Bronze<br>Bronze | -<br>1.4405, EN 10213<br>1.4408, EN 10213<br>1.4517, EN 10213<br>1.4470, EN 10213<br>1.4469, EN 10213<br>5.3106, EN 1563 (JS1030)<br>CC333G, EN 1982<br>2.1096.01, DIN 1705 (CC491K, EN 1982)<br>2.1086.01, DIN 1705 (CC482K, EN 1982) | SA 352, CA6NM<br>-<br>SA 351, CF8M<br>SA 351, CD-4MCu<br>SA 351, Grade 4A<br>SA 995, Grade 5A/6A<br>SA 395, 60-40-18<br>SB 148, C95800<br>SB 584, C83600<br>SB 584, C90500 |
| 08   | Shaft                | See Item 01                                                                                                                                                                           | See Item 01                                                                                                                                                                                                                            | See Item 01                                                                                                                                                                |
| 09   | Lining               | EPDM<br>NBR                                                                                                                                                                           |                                                                                                                                                                                                                                        |                                                                                                                                                                            |
| 10   | Seal ring            | SS/NBR                                                                                                                                                                                |                                                                                                                                                                                                                                        |                                                                                                                                                                            |
| 11   | Plug                 | Steel - zinc plated                                                                                                                                                                   |                                                                                                                                                                                                                                        |                                                                                                                                                                            |
| 12   | Hex sch screw        | Steel - zinc plated                                                                                                                                                                   |                                                                                                                                                                                                                                        |                                                                                                                                                                            |
| 22   | Identification plate | SS                                                                                                                                                                                    |                                                                                                                                                                                                                                        |                                                                                                                                                                            |
| 23   | Blind rivet          | SS                                                                                                                                                                                    |                                                                                                                                                                                                                                        |                                                                                                                                                                            |

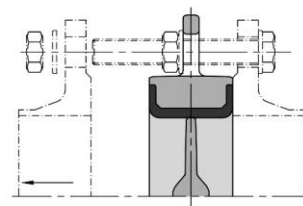
<sup>(1)</sup> Other materials on request.<sup>(2)</sup> Other coating on request.

**DIMENSIONS - EVCLS-i 40-300 (1,5"-12")**


IN LINE INSTALLATION



DEAD END SERVICE



| DN  | NPS  | PS<br>max<br>[bar] | A   | B   | C  | D   | E   | F  | G  | H  | ISO<br>5211 | K   | L   | M  | n | X   | Y   | MASS<br>±kg |
|-----|------|--------------------|-----|-----|----|-----|-----|----|----|----|-------------|-----|-----|----|---|-----|-----|-------------|
| 40  | 1,5" | 16                 | 40  | 86  | 33 | 58  | 147 | 12 | 15 | 9  | F07         | 70  | 90  | 9  | 4 | 24  | 4   | 2           |
| 50  | 2"   | 16                 | 50  | 100 | 43 | 63  | 152 | 12 | 15 | 9  | F07         | 70  | 90  | 9  | 4 | 27  | 4   | 3           |
| 65  | 2,5" | 16                 | 65  | 115 | 46 | 71  | 160 | 12 | 15 | 9  | F07         | 70  | 90  | 9  | 4 | 47  | 10  | 4           |
| 80  | 3"   | 16                 | 80  | 130 | 46 | 78  | 168 | 12 | 15 | 9  | F07         | 70  | 90  | 9  | 4 | 67  | 18  | 4           |
| 100 | 4"   | 16                 | 100 | 150 | 52 | 98  | 189 | 12 | 15 | 11 | F07         | 70  | 90  | 9  | 4 | 87  | 25  | 5           |
| 125 | 5"   | 16                 | 125 | 182 | 56 | 109 | 202 | 12 | 16 | 14 | F07         | 70  | 90  | 9  | 4 | 113 | 35  | 8           |
| 150 | 6"   | 16                 | 150 | 210 | 56 | 133 | 224 | 14 | 16 | 14 | F07         | 70  | 90  | 9  | 4 | 140 | 48  | 9           |
| 200 | 8"   | 16                 | 200 | 262 | 60 | 158 | 248 | 14 | 19 | 17 | F07         | 70  | 90  | 9  | 4 | 191 | 70  | 14          |
| 250 | 10"  | 16                 | 250 | 315 | 68 | 194 | 280 | 15 | 24 | 22 | F10         | 102 | 125 | 11 | 4 | 242 | 92  | 23          |
| 300 | 12"  | 16                 | 300 | 371 | 78 | 219 | 305 | 15 | 24 | 22 | F10         | 102 | 125 | 11 | 4 | 289 | 111 | 35          |