

DOUBLE EXCENTRIC BUTTERFLY VALVE TYPE TECWAT

TECHNICAL PASSPORT

**PN25 FLANGED DOUBLE EXCENTRIC
BUTTERFLY VALVE WITH ELECTRIC
ACTUATOR AUMA**

VP 4251-U04

APPLICATION

Tecwat type butterfly valves are intended to be used for ON/OFF operations in fluid transfer circuits.

Area of use: water networks, production plants, pumping stations, fire circuits on industrial site, etc.



Fluids: water, drinking water.



ACS

GENERAL CHARACTERISTICS

- TECWAT model:** long pattern.
 -Design according to NF EN 595.
Range: from DN100 to DN1600.
 -Bi-directional sealing with a preferred mounting direction indicated by the arrow on the body.
 -Pinned stem/disc connection.
 -Double eccentric butterfly valve prevents wear due to the stainless steel seat attached to the body.
 -Seal on disc retained by a stainless steel retaining ring.
 -Optimized maneuvering torque.
 -Low pressure drop.
 -Operating by IP65 gear box with electric actuator AUMA

STANDARDS

| | |
|---------------------|--|
| Design | Complies with standard EN 593. |
| Face to face | According to standard NF EN 558 serie 14. |
| Connection | Flange connection ISO PN25 according to standard EN1092-2. |
| Tests | Hydraulic tests carried out according to the standard EN12266-1: -Body : 37.5 bar -Seat : 27.5 bar |

PRODUCT APPROVALS



Certificat WRAS n° 1607394



Attestation of health conformity n° 19 ACC LY 582



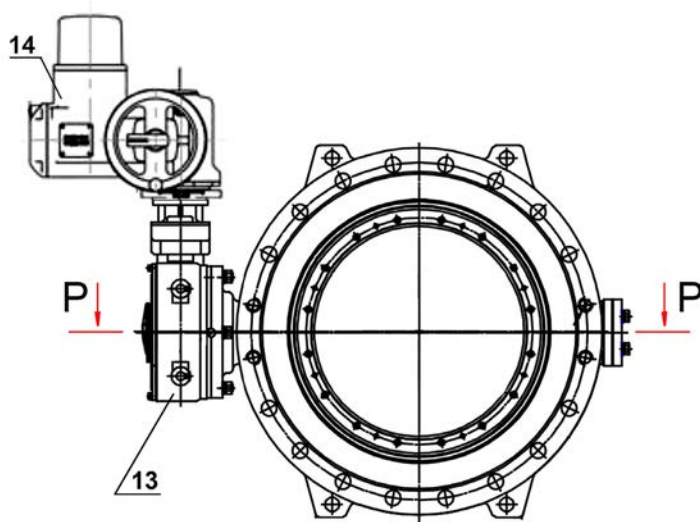
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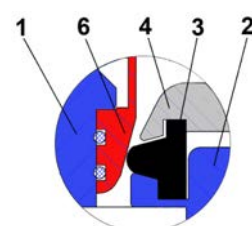


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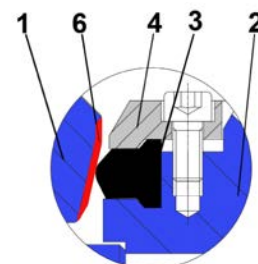
CONSTRUCTION



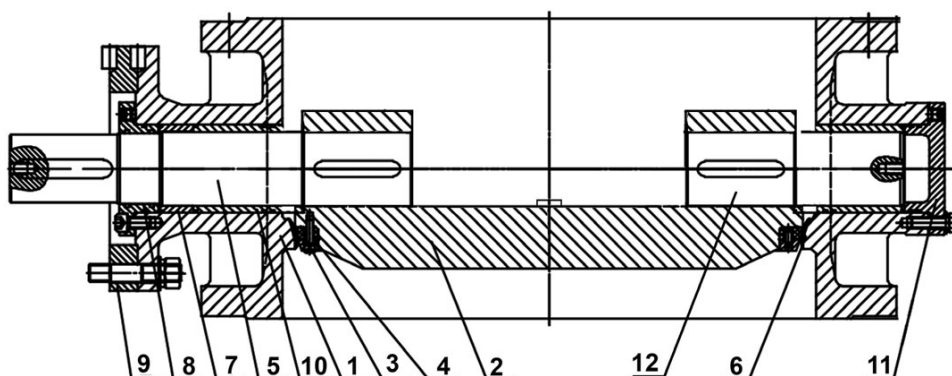
View A



DN100-150



DN200-1600



Section P-P

| Pos. | Description | Material | Equivalences | | |
|------|-------------------|------------------------------|--------------|----------------|----------------|
| | | | DIN | ASTM | BS |
| 1 | Body | Ductile iron ENGJS-500-7 | GGG 50 | ASTM 80-55-06 | BS 500/7 |
| 2 | Disc | Ductile iron ENGJS-500-7 | GGG 50 | ASTM 80-55-06 | BS 500/7 |
| 3 | Sealing gasket | EPDM | | | |
| 4 | Retaining ring | Stainless steel X5CrNi 18 10 | X5CrNi 18 10 | A 182 AISI 304 | 1449-2 304 S15 |
| 5 | Shaft bush | Stainless steel 420 | 1.4021 | AISI 420 | 420 S 37 |
| 6 | Body seal ring | Stainless steel X5CrNi 18 10 | X5CrNi 18 10 | A 182 AISI 304 | 1449-2 304 S15 |
| 7 | Bearing | Al-Bronze | G-CuAl10Fe | C95200 | ZCuAl10Fe3 |
| 8 | Packing gland | Ductile iron | GGG 50 | ASTM 80-55-06 | BS 500/7 |
| 9 | Mounting flange | Steel Q235B | EN 10025-2 | ASTM A36 | S235JR |
| 10 | Adjusting bushing | Al-Bronze | G-CuAl10Fe | C95200 | ZCuAl10Fe3 |
| 11 | Cover | Ductile iron ENGJS-500-7 | GGG 50 | ASTM 80-55-06 | BS 500/7 |
| 12 | Lower shaft | Stainless steel 420 | 1.4021 | AISI 420 | 420 S 37 |
| 13 | Gear box | Ductile iron | | | |
| 14 | Electric actuator | AUMA | | | |

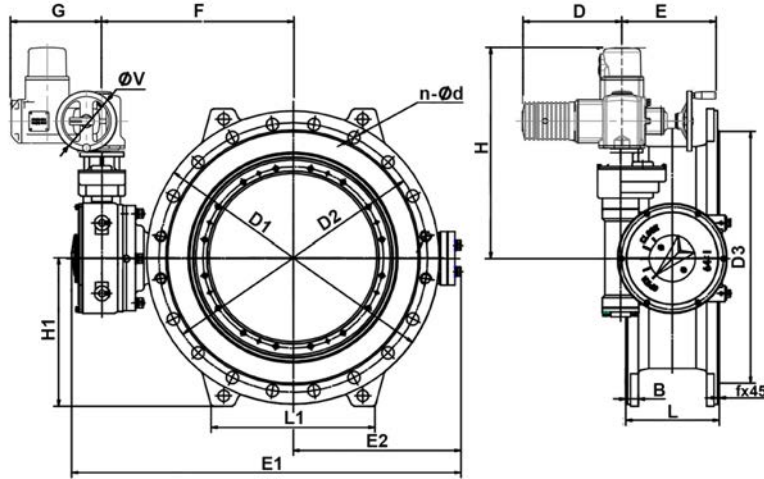
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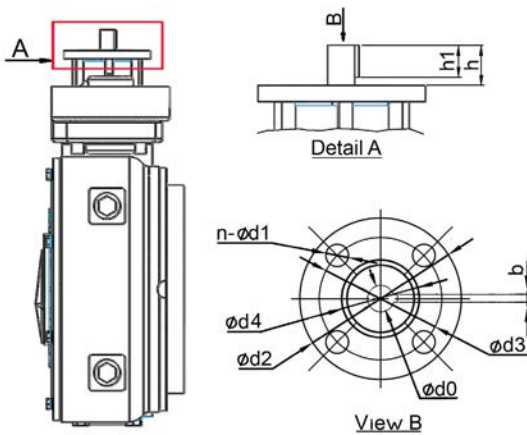
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DIMENSIONS



| DN | | ØD1 | ØD2 | ØD3 | B | f | L | n-Ød | H | H1 | D | E | E1 | E2 | F | G | L1 | Actuator reference | ØV | Weight (kg) |
|------|------|------|------|------|------|---|-----|--------------|-----|-------|-----|-----|------|------|------|-----|------|--------------------|-----|-------------|
| mm | inch | | | | | | | | | | | | | | | | | | | |
| 100 | 4" | 235 | 190 | 156 | 19 | 3 | 190 | 8-Ø23 | - | 117 | 265 | 249 | 284 | 133 | 194 | 238 | 150 | SA7.2 | 160 | 53 |
| 150 | 6" | 300 | 250 | 211 | 20 | 3 | 210 | 8-Ø28 | - | 147.5 | 265 | 249 | 315 | 164 | 225 | 238 | 180 | SA7.6 | 160 | 73 |
| 200 | 8" | 360 | 310 | 274 | 22 | 3 | 230 | 12-Ø31 | 425 | 175 | 265 | 249 | 526 | 198 | 272 | 238 | 196 | SA7.6 | 160 | 97 |
| 250 | 10" | 425 | 370 | 330 | 25 | 3 | 250 | 12-Ø31 | 468 | 202.7 | 283 | 254 | 568 | 219 | 293 | 248 | 240 | SA10.2 | 160 | 129 |
| 300 | 12" | 485 | 430 | 389 | 28 | 4 | 270 | 12-Ø31 | 468 | 227.5 | 283 | 254 | 670 | 254 | 351 | 248 | 275 | SA10.2 | 200 | 205 |
| 350 | 14" | 555 | 490 | 448 | 30 | 4 | 290 | 16-Ø34 | 482 | 257.5 | 265 | 249 | 720 | 279 | 225 | 238 | 280 | SA7.6 | 160 | 225 |
| 400 | 16" | 620 | 550 | 503 | 32 | 4 | 310 | 16-Ø37 | 480 | 287.5 | 283 | 254 | 834 | 320 | 351 | 248 | 310 | SA10.2 | 200 | 319 |
| 450 | 18" | 670 | 600 | 548 | 34.5 | 4 | 330 | 20-Ø37 | 607 | 312.5 | 283 | 254 | 903 | 359 | 462 | 248 | 340 | SA10.2 | 200 | 386 |
| 500 | 20" | 730 | 660 | 609 | 37 | 4 | 350 | 20-Ø37 | 605 | 340 | 283 | 254 | 988 | 393 | 513 | 248 | 370 | SA10.2 | 200 | 441 |
| 600 | 24" | 845 | 770 | 720 | 42 | 5 | 390 | 20-Ø41 | 605 | 395 | 283 | 254 | 1119 | 450 | 580 | 248 | 430 | SA10.2 | 200 | 643 |
| 700 | 28" | 960 | 875 | 820 | 46.5 | 5 | 430 | 24-Ø44 | 662 | 452.5 | 283 | 336 | 1217 | 530 | 598 | 286 | 480 | SA10.2 | 315 | 963 |
| 800 | 32" | 1085 | 990 | 928 | 51 | 5 | 470 | 24-Ø50 | 636 | 512.5 | 283 | 254 | 1410 | 614 | 691 | 248 | 560 | SA10.2 | 200 | 1217 |
| 900 | 36" | 1185 | 1090 | 1028 | 55.5 | 5 | 510 | 28-Ø50 | 680 | 562.5 | 283 | 254 | 1530 | 675 | 750 | 248 | 615 | SA10.2 | 200 | 1517 |
| 1000 | 40" | 1320 | 1210 | 1140 | 60 | 5 | 550 | 24-Ø57/4-M52 | 741 | 620 | 283 | 254 | 1712 | 748 | 839 | 248 | 670 | SA10.2 | 200 | 2136 |
| 1200 | 48" | 1530 | 1420 | 1350 | 69 | 5 | 630 | 32-Ø57 | 797 | 732.5 | 283 | 254 | 1971 | 865 | 981 | 248 | 800 | SA10.2 | 200 | 3071 |
| 1400 | 56" | 1755 | 1640 | 1560 | 74 | 5 | 710 | 36-Ø62 | 915 | 842.5 | 389 | 336 | 2313 | 1011 | 1263 | 286 | 920 | SA14.2 | 315 | 4833 |
| 1600 | 64" | 1975 | 1860 | 1780 | 81 | 5 | 790 | 36-Ø62/4-M56 | 915 | 962.5 | 389 | 336 | 2588 | 1161 | 1263 | 286 | 1050 | SA14.2 | 315 | 6752 |

ISO 5210 UPPER FLANGE DIMENSIONS



| DN | | ISO 5210 | | | | | | | Number of turns | Torque* (Nm) | |
|------|------|----------|-----|-------|-----|-----|-----|----|-----------------|--------------|------|
| mm | inch | ISO 5210 | Ød0 | n-Ød1 | Ød2 | Ød3 | Ød4 | h | | | bxh1 |
| 100 | 4" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 28 | 6X20 | 10 | 14 |
| 150 | 6" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 28 | 6X20 | 12 | 48 |
| 200 | 8" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 28 | 6X20 | 12 | 80 |
| 250 | 10" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X20 | 20 | 72 |
| 300 | 12" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 80 | 29 |
| 350 | 14" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 64 | 51 |
| 400 | 16" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 64 | 67 |
| 450 | 18" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 96 | 60 |
| 500 | 20" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 96 | 87 |
| 600 | 24" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 198,9 | 67 |
| 700 | 28" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 198,9 | 93 |
| 800 | 32" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 382,2 | 60 |
| 900 | 36" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 421,4 | 79 |
| 1000 | 40" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 641,25 | 65 |
| 1200 | 48" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 641,25 | 116 |
| 1400 | 56" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 559 | 193 |
| 1600 | 60" | F10 | 20 | 4-Ø10 | 125 | 102 | 70 | 30 | 6X25 | 421,4 | 107 |

* Values without safety factor

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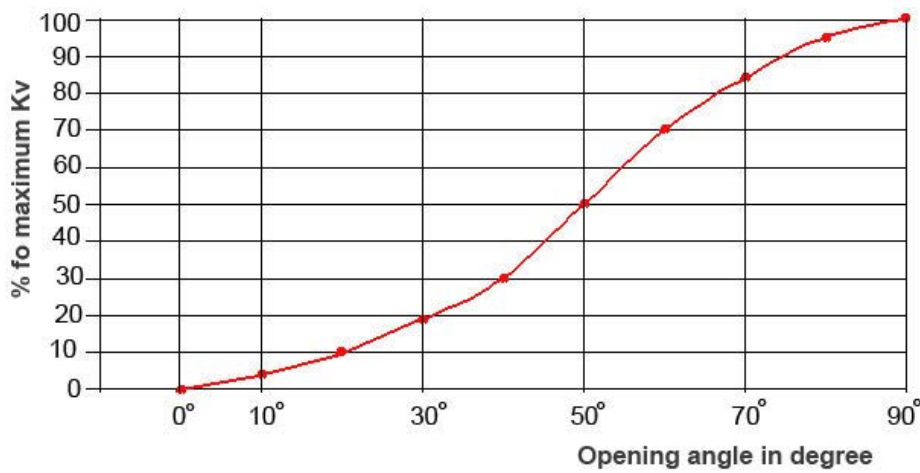


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WORKING CONDITIONS

Maximum working pressure : 25 bar.
Maximum working temperature : + 80 °C.

FLOW FACTOR - Kv



| DN | mm | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1400 | 1600 |
|-----|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| | inch | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 28" | 32" | 36" | 40" | 44" | 48" | 56" | 64" |
| Kvs | | 1880 | 3800 | 4950 | 8000 | 10900 | 14200 | 18250 | 28000 | 40500 | 55100 | 74000 | 93338 | 116213 | 142516 | 167310 | 264433 |

Values given for information

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