

KNIFE GATE VALVE STAINLESS STEEL BODY

TECHNICAL PASSPORT

KNIFE GATE VALVE - RISING STEM WITH ELECTRIC ACTUATOR AUMA STAINLESS STEEL BODY - BETWEEN FLANGES PN10

VG 6400-UX4

APPLICATION

The knife gate valve is particularly suitable for the most difficult applications.

Area of use: water treatment networks, pulp and paper industry, chemical plants, winemaking, cement works, pneumatic transport, storage.

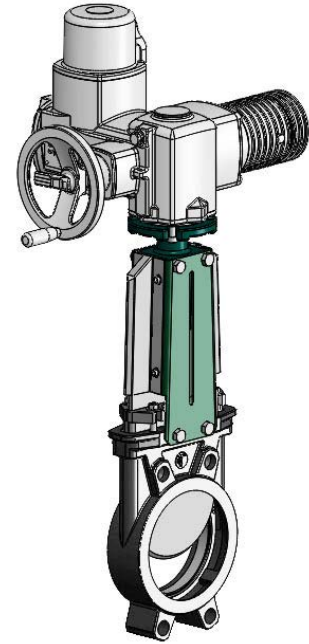


Fluids: water, sewage, pulp, pasty products, powdery, granular, fibrous, abrasive and crystallizing.

GENERAL CHARACTERISTICS

Range: DN50 to DN600.

- Knife Gate Valve on/off or regulation with rising stem.
- Molded monobloc body
- Unidirectional water tightness: Flow direction indicated on the body with an arrow.
- Installation between flanges ISO PN10.
- Small retention zone.
- Gate with a beveled cutting edge guided in the body with little backlash.
- Guaranteed closure, without risk of blockage.
- Standard polished gate, soft contact with the gaskets.
- Very resistant stainless steel packing flange avoids risks of breaks.
- Operating force reduced thanks to the elasticity of the gaskets.
- Pre-formed profiled sheet metal support plates from DN50 to DN300 for accessory or kit mounting.
- Full flow when fully opened, ensuring a high flow rate with low head loss.
- Flow regulation possible for pasty or abrasive fluids with installation of a deflector.



| References | Actuator types |
|-------------|----------------|
| VG 6400-U04 | AUMA 400V 3PH |
| VG 6400-B24 | AUMA 230V 1PH |

STANDARDS

| | | | | | | |
|---------------------|--|----------|---------|------------|----------|---------|
| Design | Manufacture according to the requirements of the European directive n° 2014/68/UE «Equipment under pressure» : modulate H. | | | | | |
| | In option: product conform to European directive ATEX «ATmosphère EXplosive» n° 2014/34/UE. | | | | | |
| Face to face | Face to face dimension according to TECOFI standard | | | | | |
| Connection | Mounting between flanges in accordance with EN1092-2 and ISO 7005-1 : ISO PN10 | | | | | |
| Tests | Pressure test according to standards EN12266-1, DIN 3230, BS 5154 and ISO 5208. | | | | | |
| | DN | Body | Seat | DN | Body | Seat |
| | DN50-250 : | 15.4 bar | 11 bar | DN300-450: | 12.6 bar | 7.7 bar |
| | DN500-600: | 7.2 bar | 4.4 bar | | | |

PRODUCT APPROVALS



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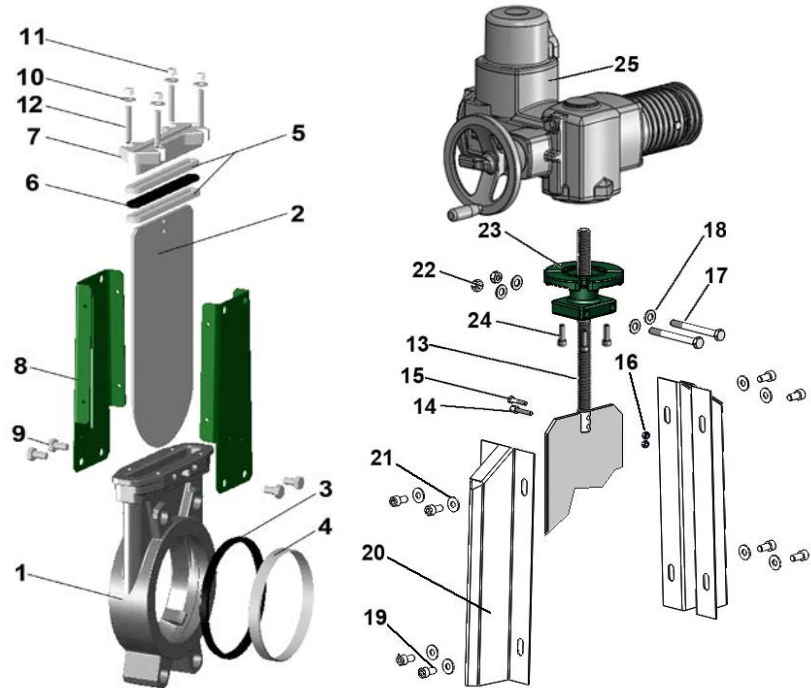
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CONSTRUCTION

Coatings applied on the valve :

| Component | Coating |
|-------------------|-------------------------------------|
| Support plate (8) | Liquid epoxy RAL 6005 70 microns |
| ISO plate (23) | |



| Pos. | Q-ty | Description | Material | Equivalence | | |
|------|------|-------------------|-----------------------------------|-----------------|------------------|----------------|
| | | | | DIN | ASTM | BS |
| 1 | 1 | Body | Stainless steel GX5CrNiMo 19-11-2 | G-X6CrNiMo18 10 | A 351 grade CF8M | 316 C16 |
| 2 | 1 | Gate | Stainless steel X2CrNi 17-12-2 | X2CrNiMo17-13-2 | A 182 AISI 316L | 1449-2 316 S11 |
| 3 | 1 | Seat gasket (1) | NBR | | | |
| 4 | 1 | Support ring (1) | Stainless steel X5CrNi 18 10 | X5CrNiMo18 10 | A 182 AISI 316 | 1449-2 316 S16 |
| 5 | 2 | Packing | PTFE | | | |
| 6 | 1 | O-Ring | NBR | | | |
| 7 | 1 | Packing gland | Stainless steel GX5CrNiMo 19-11-2 | G-X6CrNiMo18 10 | A 351 grade CF8M | 316 C16 |
| 8 | 2 | Support plate | Steel | | | |
| 9 | 4** | Screw | Stainless steel A2-70 | | | |
| 10 | 4* | Washer | Stainless steel A2-70 | | | |
| 11 | 4* | Nut | Stainless steel A2-70 | | | |
| 12 | 4* | Tie rod | Stainless steel A2-70 | | | |
| 13 | 1 | Stem | Stainless steel 13% Cr | X12CR13 | AISI 410 | |
| 14 | 1 | Detection screw | Stainless steel X5CrNi 18 10 | X5CrNi 18 10 | A 182 AISI 304 | 1449-2 304 S15 |
| 15 | 1 | Screw | Stainless steel A2-70 | | | |
| 16 | 2 | Nut | Stainless steel X5CrNi 18 10 | X5CrNi 18 10 | A 182 AISI 304 | 1449-2 304 S15 |
| 17 | 2 | Screw | Stainless steel A2-70 | | | |
| 18 | 4 | Washer | Stainless steel A2-70 | | | |
| 19 | 8 | Screw | Stainless steel A2-70 | | | |
| 20 | 2 | Protection cap | Stainless steel X5CrNi 18 10 | X5CrNi 18 10 | A 182 AISI 304 | 1449-2 304 S15 |
| 21 | 8 | Washer | Stainless steel A2-70 | | | |
| 22 | 2 | Nut | Stainless steel A2-70 | | | |
| 23 | 1 | ISO 5210 plate | Steel A45 | | | |
| 24 | 4 | Screw | Stainless steel A2-70 | | | |
| 25 | 1 | Electric actuator | AUMA model | | | |

* - 8 for DN350-400; ** - 12 for DN450-600 (1) - Parts missing on valves with metal/metal sealing

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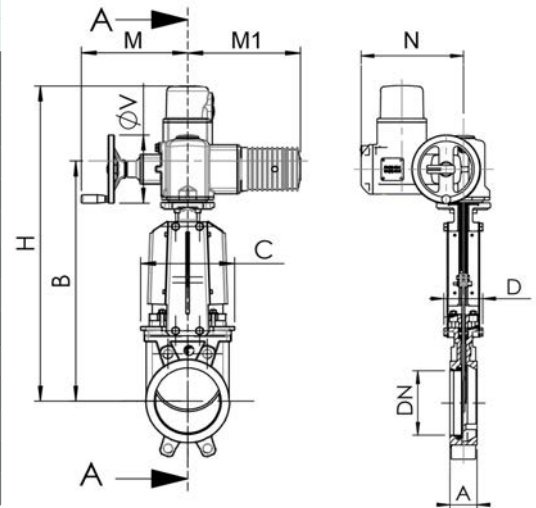
KNIFE GATE VALVE STAINLESS STEEL BODY

TECHNICAL PASSPORT

VG 6400-UX4

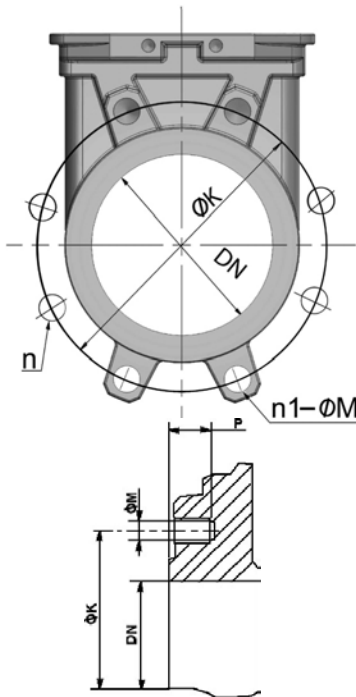
DIMENSIONS

| DN | | Type moteur | A | B | C | D | M | M1 | N | ØV | H | Weight (kg) |
|-----|--------|-------------|-----|------|-----|-----|-----|-----|-----|-----|------|-------------|
| mm | inch | | | | | | | | | | | |
| 50 | 2" | SA07.2 | 40 | 383 | 124 | 83 | 249 | 265 | 237 | 160 | 578 | 27 |
| 65 | 2 1/2" | SA07.2 | 40 | 408 | 139 | 83 | 249 | 265 | 237 | 160 | 603 | 29 |
| 80 | 3" | SA07.2 | 50 | 433 | 154 | 83 | 249 | 265 | 237 | 160 | 628 | 30 |
| 100 | 4" | SA07.2 | 50 | 478 | 174 | 83 | 249 | 265 | 237 | 160 | 673 | 31 |
| 125 | 5" | SA07.6 | 50 | 516 | 189 | 93 | 249 | 265 | 237 | 160 | 711 | 38 |
| 150 | 6" | SA07.6 | 60 | 567 | 220 | 93 | 249 | 265 | 237 | 160 | 762 | 42 |
| 200 | 8" | SA07.6 | 60 | 686 | 275 | 108 | 249 | 265 | 237 | 160 | 881 | 57 |
| 250 | 10" | SA10.2 | 70 | 778 | 326 | 108 | 254 | 283 | 237 | 160 | 973 | 75 |
| 300 | 12" | SA7.6 | 70 | 887 | 380 | 108 | 249 | 265 | 247 | 200 | 1082 | 87 |
| 350 | 14" | SA10.2 | 96 | 990 | 438 | 290 | 254 | 283 | 247 | 200 | 1185 | 137 |
| 400 | 16" | SA10.2 | 100 | 1100 | 494 | 290 | 254 | 283 | 247 | 200 | 1295 | 167 |
| 450 | 18" | SA14.2 | 106 | 1225 | 547 | 290 | 336 | 389 | 285 | 315 | 1430 | 231 |
| 500 | 20" | SA14.2 | 110 | 1335 | 613 | 290 | 336 | 389 | 285 | 315 | 1540 | 266 |
| 600 | 24" | SA14.2 | 110 | 1539 | 716 | 290 | 336 | 389 | 285 | 315 | 1744 | 310 |

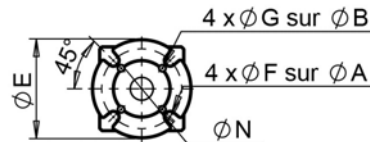


Dimension A - face to face according to TECOFI standard

MOUNTING



Body details



ISO plate

| DN | | Maximum pressure (bar) | n | n1-ØM | P | ØK | ISO plate | ØA | ØB | ØE | ØF | ØG | ØN |
|-----|--------|------------------------|----|--------|----|-----|-----------|-----|-----|-----|----|----|-----|
| mm | inch | | | | | | | | | | | | |
| 50 | 2" | 10 | 4 | 4xM16 | 8 | 125 | F07/F10 | 70 | 102 | 125 | 9 | 11 | 70 |
| 65 | 2 1/2" | 10 | 4 | 4xM16 | 8 | 145 | F07/F10 | 70 | 102 | 125 | 9 | 11 | 70 |
| 80 | 3" | 10 | 8 | 4xM16 | 9 | 160 | F07/F10 | 70 | 102 | 125 | 9 | 11 | 70 |
| 100 | 4" | 10 | 8 | 4xM16 | 9 | 180 | F07/F10 | 70 | 102 | 125 | 9 | 11 | 70 |
| 125 | 5" | 10 | 8 | 4xM16 | 9 | 210 | F07/F10 | 70 | 102 | 125 | 9 | 11 | 70 |
| 150 | 6" | 10 | 8 | 4XM20 | 10 | 240 | F07/F10 | 70 | 102 | 125 | 9 | 11 | 70 |
| 200 | 8" | 10 | 8 | 4XM20 | 12 | 295 | F10 | 102 | - | 125 | 12 | - | 70 |
| 250 | 10" | 10 | 12 | 8XM20 | 12 | 350 | F10 | 102 | - | 125 | 12 | - | 70 |
| 300 | 12" | 7 | 12 | 8XM20 | 19 | 400 | F10 | 102 | - | 125 | 12 | - | 70 |
| 350 | 14" | 7 | 16 | 10XM20 | 20 | 460 | F10/F14 | 102 | 140 | 175 | 11 | 17 | 100 |
| 400 | 16" | 7 | 16 | 10XM24 | 24 | 515 | F10/F14 | 102 | 140 | 175 | 11 | 17 | 100 |
| 450 | 18" | 7 | 20 | 14XM24 | 24 | 565 | F10/F14 | 102 | 140 | 175 | 11 | 17 | 100 |
| 500 | 20" | 4 | 20 | 14XM24 | 24 | 620 | F10/F14 | 102 | 140 | 175 | 11 | 17 | 100 |
| 600 | 24" | 4 | 20 | 14XM27 | 24 | 725 | F10/F14 | 102 | 140 | 175 | 11 | 17 | 100 |

n- Total number of holes

n1- number of threaded holes

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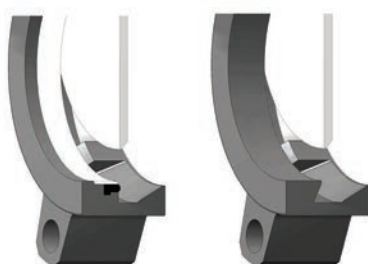
WORKING CONDITIONS

Maximum working pressure : DN50-250 : 10 bar
 DN300-450 : 7 bar
 DN500-600 : 4 bar

Maximum working temperature : -10°C / +130°C (EPDM joint in standard)

▲ The above mentioned pressures are only valid if the direction of assembly indicated by the arrow on the valves is observed.

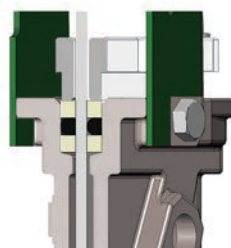
Upstream/downstream tightness



Elastomer tightness

metal/metal tightness

Packing tightness



PTFE/Elastomer

Tightness in option

| Tightness | Maximum temperature |
|---------------------|-----------------------|
| Metal/metal | Tmax : -10°C / +130°C |
| NBR | Tmax : -10°C / +80°C |
| White EPDM | Tmax : -10°C / +130°C |
| Silicone | Tmax : -10°C / +170°C |
| FPM (Type Viton®) | Tmax : -10°C / +170°C |
| PTFE | Tmax : +4°C / +170°C |
| CSM (Type Hypalon®) | Tmax : +4°C / +80°C |

▲ To ensure a satisfactory tightness, when using the PTFE gasket, the operating pressure must be at least 1 bar.

FLOWS

Flow rates of valves under different differential pressure (m³/h)

| DN | | 0.2 bar | 0.4 bar | 0.6 bar | 0.8 bar | 1.0 bar |
|-----|--------|---------|---------|---------|---------|---------|
| mm | inch | | | | | |
| 50 | 2" | 93 | 134 | 165 | 185 | 206 |
| 65 | 2 1/2" | 129 | 180 | 213 | 268 | 309 |
| 80 | 3" | 191 | 309 | 371 | 422 | 494 |
| 100 | 4" | 443 | 618 | 721 | 824 | 927 |
| 125 | 5" | 700 | 927 | 1133 | 1339 | 1545 |
| 150 | 6" | 927 | 1339 | 1545 | 1906 | 2060 |
| 200 | 8" | 1597 | 2369 | 2987 | 3399 | 4017 |
| 250 | 10" | 2472 | 3502 | 4429 | 5150 | 5665 |
| 300 | 12" | 4120 | 5665 | 6798 | 7828 | 8755 |
| 350 | 14" | 5335 | 7372 | 8730 | 9700 | 11640 |
| 400 | 16" | 6693 | 9312 | 11640 | 13580 | 15520 |
| 450 | 18" | 8342 | 12610 | 14550 | 16490 | 18430 |
| 500 | 20" | 9700 | 14550 | 17460 | 19400 | 22310 |
| 600 | 24" | 14550 | 19400 | 25220 | 29100 | 33950 |

The column of the table under 1 bar gives the values of the Kvs of the valves.

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