

SERIE 02  
02396

# Through conduit knife gate valve

Nominal diameter options (DN) 50-1000

Nominal pressure options (PN) 6-25

Maximum working pressure 2-10 bar

### Applications:

Pulp and Paper

Wastewater treatment plants

Power plants

Chemical plants

Etc.

Sizes: DN 50 to DN 1000 (larger diameters on request)

### Working pressure:

DN 50 to DN 125 10 bar

DN 150 to DN 250 8 bar

DN 300 to DN 400 6 bar

DN 450 5 bar

DN 500 to DN 600 4 bar

DN 700 to DN 1000 2 bar

### Standard flange connection:

DIN PN 10 and ANSI B16.5 (class 150)

- Other flange connections available on request

DIN PN 6      DIN PN 16      DIN PN 25

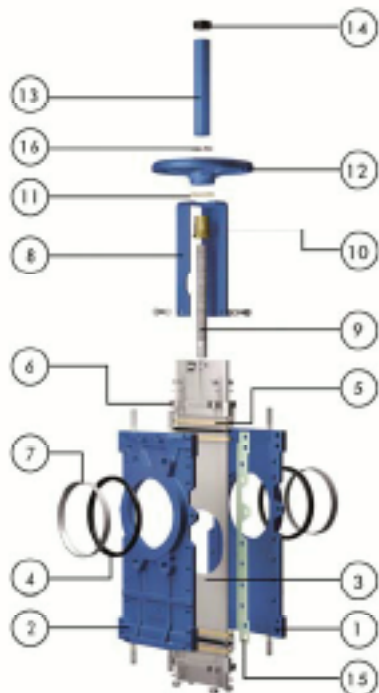
BS "D" and "E"      ANSI 125

### Directives:

2006/42/EC (MACHINES)

97/23/EC (PED) Fluid: Group 1(b), 2 (Cat mod. A)

94/9/EC (ATEX)



| Part                  | Cast iron   | Stainless steel |
|-----------------------|---|-----------------|
| 1. + 2. Body          | GJL250(GG25)                                      | CF8M            |
| 3. Gate               | AISI 304  | AISI 316        |
| 4. Seat               | Metal or EPDM                                     |                 |
| 5. Packing            | PTFE Impreg. Synth. Fibre (ST)+O-ring             |                 |
| 6. Gland follower     | Aluminium (DN50-300)<br>Ductile Iron (DN350-1000) | CF8M            |
| 7. Seat retainer ring | AISI 304  | -               |
| 8. Yoke               | Carbon Steel - Epoxy Coated                       |                 |
| 9. Stem               | AISI 304  |                 |
| 10. Stem nut          | Brass   |                 |
| 11. Friction washer   | Brass   |                 |
| 12. Handwheel         | GJS400 (GGG40)                                    |                 |
| 13. Stem protector    | Epoxy-coated Carbon Steel                         |                 |
| 14. Cap               | Plastic   |                 |
| 15. Gasket            | Aramid fibres                                     |                 |
| 16. Nut               | Zinc plated Carbon Steel                          |                 |

## FEATURES:

### BODY:

Wafer style cast two-part bolted body, both internally machined, with reinforcing ribs in larger diameters for ex body strength. The stainless steel version valves include internal high density polyethylene sliders (HMWPE) that ensure smoother gate traveling. Full port design to allow a greater flow capacity and to guarantee a minimal pressure drop.

### SELFCLEANING GATE:

Stainless steel as standard. One piece through-going gate with o-port design. When closing, the gate cuts and moves a disc of material downwards, which is again returned to the flow when opening. Gate is polished on both sides to avoid jamming and to ensure a greater seal between the gate with both packing and seat. The thickness and/or the material of the gate can be changed on request for higher pressure requirement.

### SEAT: (resilient)

Unique design that mechanically locks the seal in the interior of the valve body with a stainless steel retainer ring. Standard EPDM also available in different materials such as Viton, PTFE, etc.

### PACKING:

Double stuffing box with several layers of braided fibre plus an EPDM o-ring, with an easy access and adjusting packing gland ensuring a tight seal. Long-life braided packing is available in a wide range of materials.

### STEM:

The standard stainless steel stem offers a long corrosion resistant life. For rising stem handwheel actuators only, a stem protector is provided for additional protection against dust while the valve is in the open position.

### ACTUATORS:

All actuators supplied are interchangeable, and supplied with an standard mounting kit for installation purposes on site.

### YOKE or ACTUATOR SUPPORT:

Made of EPOXY coated steel (stainless steel available on request). Compact design makes it extremely robust even under the most severe conditions.

### EPOXY COATING:

The epoxy coating on valve bodies and components is electrostatically applied making the valves to be corrosion resistant with a high quality finished surface.

### GATE SAFETY PROTECTION:

Automated valves are provided with gate guards in accordance with EU Safety Standards. The design feature prevents any objects from being caught accidentally while the gate is moving.



**WORKING TEMPERATURES:**

| SEAT / SEALS |             |                                  |
|--------------|-------------|----------------------------------|
| Material     | Max. T (°C) | Applications                     |
| Metal/Metal  | >250        | High temp. / low tightness       |
| EPDM         | 120         | Acids and non-mineral oils       |
| Nitril (N)   | 120         | Resistance to petroleum products |
| Viton (V)    | 200         | Chemical service / High temp.    |
| Silicon (S)  | 250         | Food service / High temp.        |
| PTFE (T)     | 250         | Corrosion resistance             |

| PACKING                         |             |      |
|---------------------------------|-------------|------|
| Material                        | Max. T (°C) | pH   |
| Dry cotton (AS)                 | 50          | 6-8  |
| PTFE impregn. synth. fibre (ST) | 240         | 2-13 |
| Braided PTFE (TH)               | 260         | 0-14 |
| Graphited (GR)                  | 600         | 0-14 |
| Ceramic fibre (FC)              | 1200        | ---  |

More details and materials under request.

Note: all types include an elastomere O-ring (same material as seal), excl. TH, GR, FC.

**SEAT TYPES:**

Cast iron



METAL / METAL

Used for applications with high temperature or applications where tight shutoff is not required. The stainless steel version includes HMW polyethylene seat sliders that ensure a smoother gate traveling

METAL / METAL, TYPE "B"



Two replaceable reinforced "B" type rings (available in AISI 316, Ni-hard, CA15,...) protect the seat in abrasive services. HMW polyethylene seat sliders for smoother gate traveling (stainless steel version only)

RESILIENT, TYPE "A"



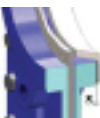
The standard resilient seat design consists of an elastomer seal fixed to the valve body with a replaceable stainless steel retainer ring. Temperature limitations according to seat material selected. Verify the above chart or contact our technical department for more information. HMW polyethylene seat sliders for smoother gate traveling (stainless steel version only)

RESILIENT, TYPE "B"



Resilient seat design with an elastomer seal fixed to the valve body with two replaceable reinforced seal retainer rings (available in AISI 316, Ni-hard, CA15,...) that protect the seat in abrasive services. Temperature limitations according to seat material selected. Verify the above chart or contact our technical department for more information. HMW polyethylene seat sliders for smoother gate traveling (stainless steel version only)

DEFLECTION CONE "C"



Deflects the media away from any valve internal exposed parts such as gate guides, seats, etc. Different types of material available such as AISI 316, CA15, Ni-Hard, etc. Installed at flow inlet, deflection cones protect the seat. They slightly reduce the inlet bore and the face-to-face dimensions also increase:  
 DN 50 to DN 250 X = 9mm

Stainless steel



DN50-150 DN200-600



DN50-150 DN200-600

See option TK valve

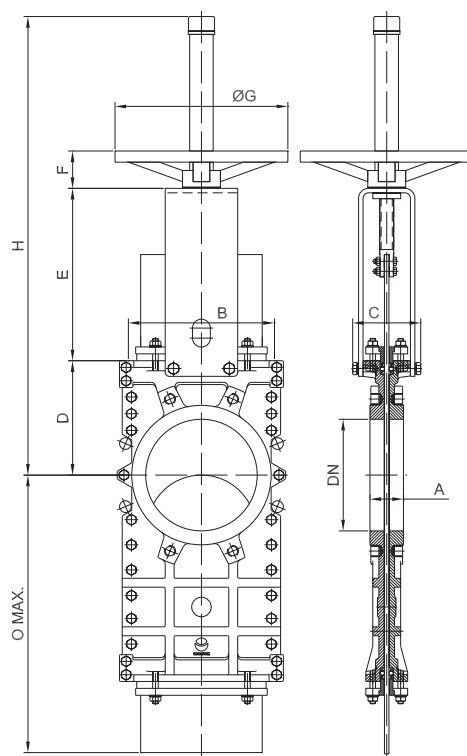


DN50-150 DN200-600



**HANDWHEEL (rising stem)**

- Standard manual actuator
- Consists of:
  - Handwheel: Epoxy coated Cast Iron
  - Floor stand
  - Stem
  - Stem nut
  - Stem protector
- Available from DN 50 to DN 600
- Options (on request):
  - Locking Device
  - Extensions



| PN 40 |     |     |     |     |     |    |     |      |        |             |
|-------|-----|-----|-----|-----|-----|----|-----|------|--------|-------------|
| DN    | A   | B   | C   | D   | E   | F  | øG  | H    | O max. | Weight (kg) |
| 50    | 40  | 152 | 100 | 110 | 129 | 47 | 225 | 429  | 232    | 12          |
| 65    | 40  | 167 | 100 | 115 | 146 | 47 | 225 | 451  | 255    | 14          |
| 80    | 50  | 182 | 100 | 124 | 162 | 47 | 225 | 476  | 310    | 16          |
| 100   | 50  | 202 | 100 | 140 | 187 | 47 | 225 | 517  | 367    | 20          |
| 125   | 50  | 216 | 100 | 150 | 211 | 47 | 225 | 601  | 432    | 29          |
| 150   | 60  | 241 | 100 | 175 | 237 | 47 | 225 | 652  | 497    | 35          |
| 200   | 60  | 294 | 122 | 205 | 309 | 67 | 310 | 822  | 635    | 62          |
| 250   | 70  | 356 | 122 | 245 | 364 | 67 | 310 | 1017 | 777    | 89          |
| 300   | 70  | 410 | 122 | 280 | 414 | 67 | 310 | 1102 | 905    | 110         |
| 350   | 96  | 473 | 197 | 300 | 486 | 66 | 410 | 1286 | 1047   | 174         |
| 400   | 100 | 538 | 197 | 350 | 536 | 66 | 410 | 1386 | 1171   | 266         |
| 450   | 106 | 588 | 201 | 420 | 588 | 66 | 550 | 1583 | 1301   | 326         |
| 500   | 110 | 646 | 201 | 450 | 648 | 66 | 550 | 1673 | 1461   | 372         |
| 600   | 110 | 754 | 201 | 530 | 748 | 66 | 550 | 1963 | 1711   | 445         |