

ED.2022



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VALVOLE A GHIGLIOTTINA

# L20

## MODEL

LUCAVAL

### WAFER STYLE KNIFE GATE VALVE



The **L20** model knife gate is a uni-directional wafer valve designed for general industrial service applications. The design of the body and seat assures non-clogging shut-off on suspended solids in industries such as:

- Pulp and Paper
- Wastewater treatment plants
- Food and Beverage
- Mining
- Power plants
- Chemical plants
- Bulk handling
- etc.

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

**Working pressure:**

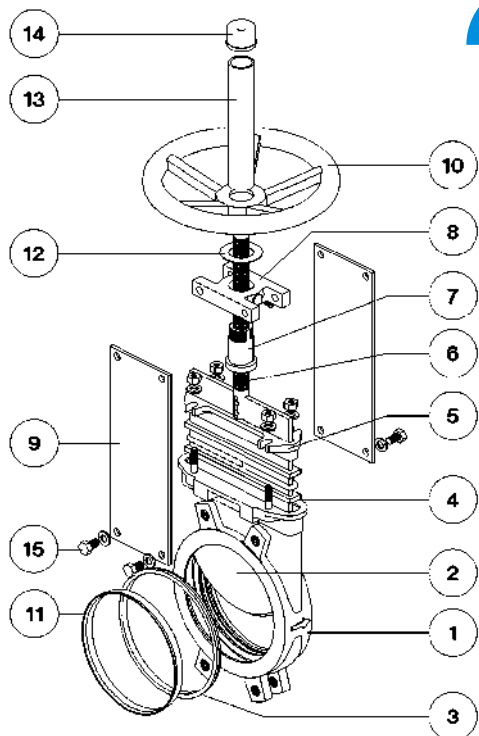
|                    |                          |
|--------------------|--------------------------|
| DN 50 to DN 250:   | 10 (kg/cm <sup>2</sup> ) |
| DN 300 to DN 400:  | 6 (kg/cm <sup>2</sup> )  |
| DN 450 :           | 5 (kg/cm <sup>2</sup> )  |
| DN 500 to DN 600:  | 4 (kg/cm <sup>2</sup> )  |
| DN 700 to DN 1000: | 2 (kg/cm <sup>2</sup> )  |

**Standard flange connection:** DIN PN 10 and ANSI B16.5 (class 150)

**Note:** other flange connections are available on request such as:

|                |           |           |
|----------------|-----------|-----------|
| DIN PN 6       | DIN PN 16 | DIN PN 25 |
| BS "D" and "E" | ANSI 125  |           |

All valves are tested prior to shipping in accordance with the standard developed by the Quality Control department at LUCAVAL



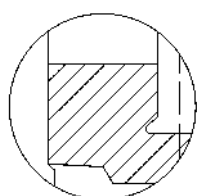
### STANDARD PARTS LIST

| Part:                  | Cast Iron:                     | Stainless Steel: |
|------------------------|--------------------------------|------------------|
| 1- Body                | GG25                           | CF8M             |
| 2- Gate                | AISI 304                       | AISI 316         |
| 3- Seat                | Metal or Resilient             |                  |
| 4- Packing             | AH                             | NT               |
| 5- Gland Follower      | Aluminum (DN 50 to DN 300)     | CF8M             |
|                        | S.G. Iron                      |                  |
|                        | (DN 350 to DN 1000)            |                  |
| 6- Stem                | AISI 303                       |                  |
| 7- Stem Nut            | Bronze                         |                  |
| 8- Yoke                | Carbon Steel (DN 50 to DN 150) |                  |
|                        | S.G. Iron (DN 200 to DN 1000)  |                  |
| 9- Support Plates      | Carbon Steel - Epoxy Coated    |                  |
| 10- Handwheel          | Steel (DN 50 to DN 300)        |                  |
|                        | CAST Iron (DN 350 to DN 1000)  |                  |
| 11- Seat Retainer Ring | AISI 304                       | AISI 316         |
| 12- Thrust Washer      | Bronze                         |                  |
| 13- Stem Protector     | Carbon Steel - Epoxy Coated    |                  |
| 14- Cap                | Plastic                        |                  |

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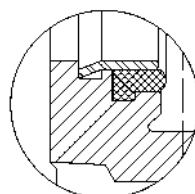
| SEAT / SEALS                                    |               |                                   | PACKING                                                                                        |                 |        |
|-------------------------------------------------|---------------|-----------------------------------|------------------------------------------------------------------------------------------------|-----------------|--------|
| Material                                        | Max.Temp.(°C) | Applications                      | Material                                                                                       | Max. Temp. (°C) | pH     |
| Metal/Metal                                     | >250          | High temp. Low tightness.         | Tallowed cotton (AH)                                                                           | 50              | 6 - 8  |
| EPDM (E)                                        | 120           | Acids and non mineral oils.       | Dry cotton (AS)                                                                                | 50              | 6 - 8  |
| Nitrile (N)                                     | 120           | Resistance to petroleum products. | PTFE impregn. natural fibre (NT)                                                               | 120             | 4 - 12 |
| Viton (V)                                       | 200           | General chemical service.         | PTFE impregn. synth. fibre (ST)                                                                | 240             | 2 - 13 |
|                                                 |               | High temperature.                 | Braided PTFE (TH)                                                                              | 260             | 0 - 14 |
| Silicone (S)                                    | 250           | Food service. / High temperature. | Graphited (AG)                                                                                 | 300             | 4 - 12 |
| PTFE (T)                                        | 250           | Corrosion resistance.             | Ceramic fibre (FC)                                                                             | 1200            | —      |
| More details and other materials under request. |               |                                   | NOTE: all types include an elastomere O-ring (same material as seal), excluding TH, AG and FC. |                 |        |

## SEAT TYPES



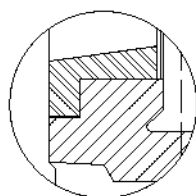
### METAL / METAL

- High temperature
- High density media application
- Positive shut off



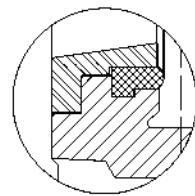
### RESILIENT, TYPE "A"

- Standard resilient seat.
- Temperature limitations according to seat material selected. Consult the above chart or our technical department for more information.
- Replaceable seat retainer ring.



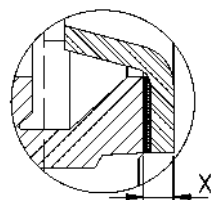
### TYPE "B" SEAT (metal / metal)

- High temperature
- High density media application
- Positive shut off
- Replaceable design without dismantling the valve



### TYPE "B" SEAT (resilient)

- Temperature limitations according to seat material selected. Consult the above chart or our technical department for more information.
- Replaceable design without dismantling the valve



### DEFLECTION CONE "C"

- Deflects the media away from any internal exposed parts of the valve such as gate guides, seat, etc....
- Different types of material available such as AISI 316 stainless, CA15, Ni-Hard, etc....

Face to face dimensions increase:

DN 50 to DN 250 = 9mm

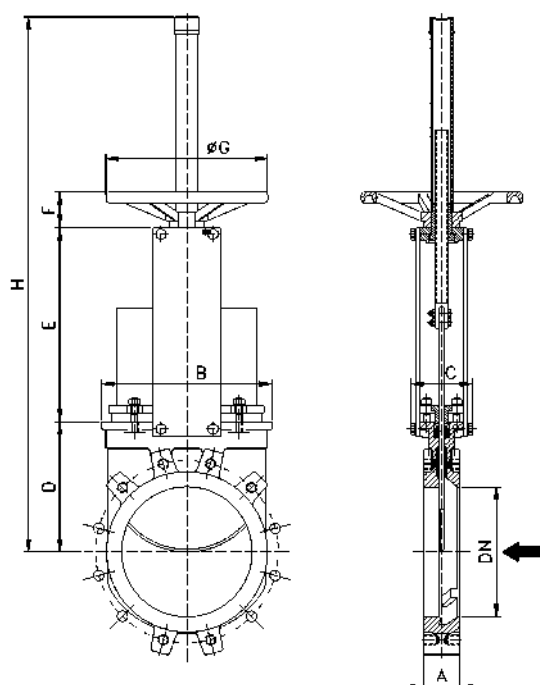
DN 300 to DN 600 = 12mm

# L20

MODEL

## HANDWHEEL (RISING STEM)

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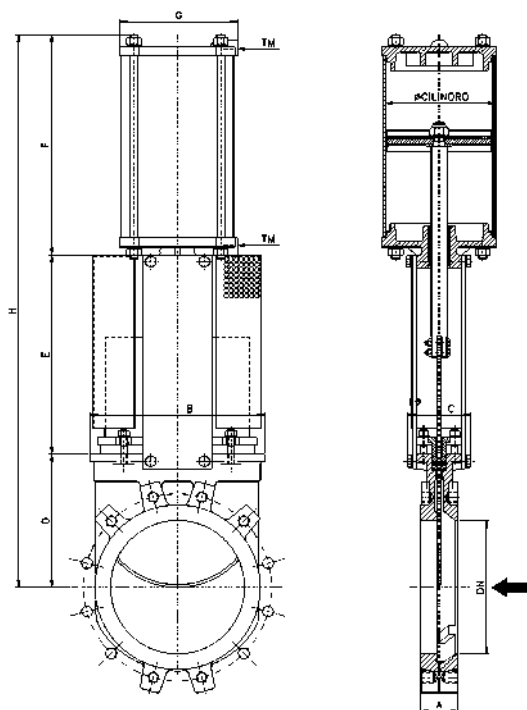


- Standard handwheel actuator.
- Consists of:
  - Handwheel: Epoxy coated Cast Iron or Steel (DN 50 to DN 300)
  - Stem
  - Stem nut
  - Stem protector
  - Grease nipple
- Available in DN 50 to DN 1000
- Options:
  - Locking Device
  - Extensions

| DN   | A   | B    | C   | D   | E    | F  | ØG  | H    | WEIGHT (KG.) |
|------|-----|------|-----|-----|------|----|-----|------|--------------|
| 50   | 40  | 124  | 90  | 105 | 135  | 48 | 200 | 429  | 7            |
| 65   | 40  | 139  | 90  | 115 | 152  | 48 | 200 | 456  | 8            |
| 80   | 50  | 154  | 90  | 124 | 168  | 48 | 200 | 481  | 9            |
| 100  | 50  | 174  | 90  | 140 | 193  | 48 | 200 | 522  | 11           |
| 125  | 50  | 192  | 104 | 150 | 217  | 52 | 250 | 606  | 15           |
| 150  | 60  | 217  | 104 | 175 | 243  | 52 | 250 | 657  | 18           |
| 200  | 60  | 270  | 118 | 205 | 318  | 63 | 300 | 830  | 30           |
| 250  | 70  | 326  | 118 | 250 | 373  | 63 | 300 | 1030 | 44           |
| 300  | 70  | 380  | 118 | 300 | 423  | 63 | 300 | 1130 | 58           |
| 350  | 96  | 438  | 193 | 338 | 503  | 68 | 410 | 1341 | 96           |
| 400  | 100 | 493  | 193 | 392 | 553  | 68 | 410 | 1445 | 124          |
| 450  | 106 | 546  | 197 | 432 | 603  | 68 | 550 | 1610 | 168          |
| 500  | 110 | 620  | 197 | 485 | 663  | 68 | 550 | 1723 | 192          |
| 600  | 110 | 714  | 197 | 590 | 763  | 68 | 550 | 2038 | 245          |
| 700  | 110 | 834  | 400 | 686 | 890  | 74 | 800 | 2370 | 405          |
| 750  | 110 | 884  | 400 | 760 | 945  | 74 | 800 | 2579 | 455          |
| 800  | 110 | 1015 | 320 | 795 | 989  | 74 | 800 | 2737 | 512          |
| 900  | 110 | 1040 | 320 | 900 | 1118 | 74 | 800 | 3051 | 680          |
| 1000 | 110 | 1150 | 320 | 980 | 1220 | 74 | 800 | 3319 | 865          |

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## PNEUMATIC CYLINDER



- The standard pneumatic actuator (double acting on-off cylinder) consists of:
  - Aluminium jacket and covers
  - Stainless (AISI 304) piston rod
  - Nitrile coated steel piston
- Available in DN 50 to DN 1000
- Supply Pressure: minimum 3.5 kg/cm<sup>2</sup> - maximum 7 kg/cm<sup>2</sup>
- For valves installed in a horizontal position, we recommend U-type support plates and/or actuator support.
- Options:
  - Hard anodised jacket and covers
  - Over / Under sized cylinder
  - Stainless jacket and covers
  - Manual override
  - Fail safe system (Page EX-14)
  - Travel stops
- Instrumentation (on request):
  - Positioners
  - Solenoid valves
  - Flow regulators
  - Air preparation units

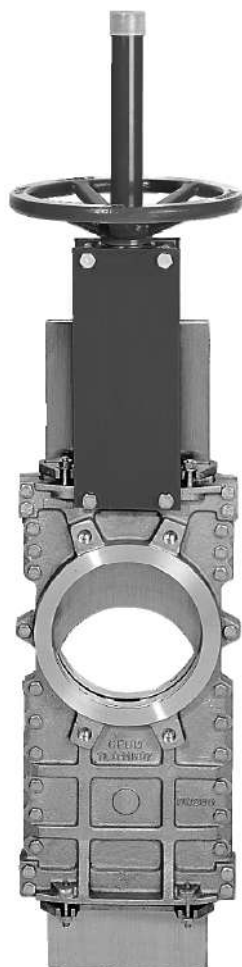
| DN   | A   | B    | C   | D   | E    | F    | G   | H    | WEIGHT (KG.) | STANDARD CYL | CONNECT. |
|------|-----|------|-----|-----|------|------|-----|------|--------------|--------------|----------|
| 50   | 40  | 124  | 90  | 105 | 135  | 170  | 95  | 410  | 9            | C80/62       | 1/4" G   |
| 65   | 40  | 139  | 90  | 115 | 152  | 186  | 95  | 453  | 10           | C80/77       | 1/4" G   |
| 80   | 50  | 154  | 90  | 124 | 168  | 204  | 95  | 496  | 11           | C80/95       | 1/4" G   |
| 100  | 50  | 174  | 90  | 140 | 193  | 225  | 115 | 558  | 14           | C100/115     | 1/4" G   |
| 125  | 50  | 192  | 104 | 150 | 217  | 268  | 140 | 635  | 20           | C125/143     | 1/4" G   |
| 150  | 60  | 217  | 104 | 175 | 243  | 292  | 140 | 710  | 25           | C125/168     | 1/4" G   |
| 200  | 60  | 270  | 118 | 205 | 318  | 355  | 175 | 878  | 44           | C160/220     | 1/4" G   |
| 250  | 70  | 326  | 118 | 250 | 373  | 413  | 220 | 1036 | 67           | C200/270     | 3/8" G   |
| 300  | 70  | 380  | 118 | 300 | 423  | 463  | 220 | 1186 | 82           | C200/320     | 3/8" G   |
| 350  | 96  | 438  | 193 | 338 | 503  | 541  | 277 | 1382 | 135          | C250/375     | 3/8" G   |
| 400  | 100 | 493  | 193 | 392 | 553  | 591  | 277 | 1536 | 165          | C250/425     | 3/8" G   |
| 450  | 106 | 546  | 197 | 432 | 603  | 669  | 382 | 1704 | 220          | C300/475     | 1/2" G   |
| 500  | 110 | 620  | 197 | 485 | 663  | 719  | 382 | 1867 | 280          | C300/525     | 1/2" G   |
| 600  | 110 | 714  | 197 | 590 | 763  | 819  | 382 | 2172 | 330          | C300/625     | 1/2" G   |
| 700  | 110 | 834  | 400 | 686 | 890  | 970  | 444 | 2546 | 520          | C350/730     | 3/4" G   |
| 750  | 110 | 884  | 400 | 760 | 945  | 1020 | 444 | 2725 | 585          | C350/780     | 3/4" G   |
| 800  | 110 | 1015 | 320 | 795 | 989  | 1070 | 444 | 2854 | 650          | C350/830     | 3/4" G   |
| 900  | 110 | 1040 | 320 | 900 | 1118 | 1185 | 515 | 3203 | 850          | C400/930     | 3/4" G   |
| 1000 | 110 | 1150 | 320 | 980 | 1220 | 1285 | 515 | 3485 | 1060         | C400/1030    | 3/4" G   |

# L50

## M O D E L

LUCAVAL

### THROUGH CONDUIT KNIFE GATE VALVE



The **L50** model knife gate is a bi-directional wafer valve designed for media with high consistency. The double seat design assures a non-clogging shut off on either normal or reverse flow. The valve is used in a wide range of demanding applications in industries such as:

- Pulp & Paper
- Wastewater Treatment Plants
- Power Plants
- Chemical plants
- etc.

**Sizes:** DN 50 to DN 600 (larger diameters on request)

**Working pressure:**

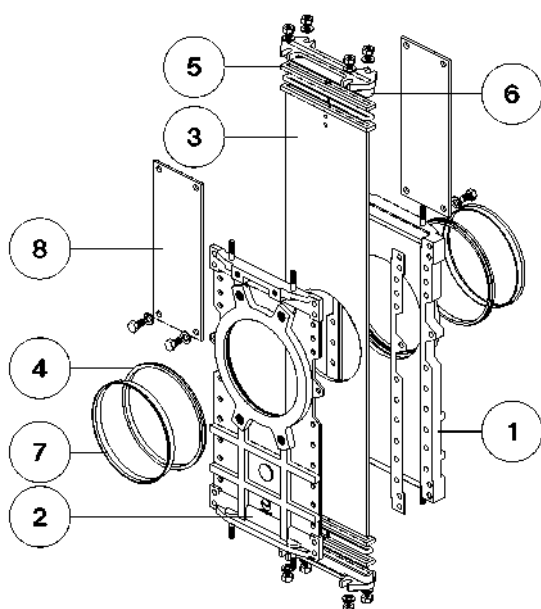
|                   |                          |
|-------------------|--------------------------|
| DN 50 to DN 250:  | 10 (kg/cm <sup>2</sup> ) |
| DN 300 to DN 400: | 6 (kg/cm <sup>2</sup> )  |
| DN 450:           | 5 (kg/cm <sup>2</sup> )  |
| DN 500 to DN 600: | 4 (kg/cm <sup>2</sup> )  |

**Standard flange connection:** DIN PN 10 and ANSI B16.5 (class 150)

**Note:** other flange connections are available on request such as:

|                |           |           |
|----------------|-----------|-----------|
| DIN PN 6       | DIN PN 16 | DIN PN 25 |
| BS "D" and "E" | ANSI 125  |           |

All valves are tested prior to shipping in accordance with the standard developed by the Quality Control department at LUCAVAL.



#### STANDARD PARTS LIST

| Part:                 | Cast Iron:                                                  | Stainless Steel: |
|-----------------------|-------------------------------------------------------------|------------------|
| 1- Body               | GG25                                                        | CF8M             |
| 2- Body               | GG25                                                        | CF8M             |
| 3- Gate               | AISI 304                                                    | AISI 316         |
| 4- Seat               | Metal or Resilient                                          |                  |
| 5- Packing            | AH                                                          | NT               |
| 6- Gland Follower     | Aluminum (DN 50 to DN 300)<br>S.G. Iron (DN 350 to DN 1000) | CF8M             |
| 7- Seat Retainer Ring | AISI 304                                                    | AISI 316         |
| 8- Support Plates     | Carbon Steel - Epoxy Coated                                 |                  |

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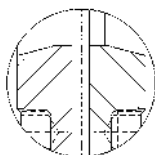
| SEAT / SEALS                                    |               |                                   | PACKING                                                                                        |                 |        |
|-------------------------------------------------|---------------|-----------------------------------|------------------------------------------------------------------------------------------------|-----------------|--------|
| Material                                        | Max.Temp.(°C) | Applications                      | Material                                                                                       | Max. Temp. (°C) | pH     |
| Metal/Metal                                     | >250          | High temp. Low tightness.         | Tallowd cotton (AH)                                                                            | 50              | 6 - 8  |
| EPDM (E)                                        | 120           | Acids and non mineral oils.       | Dry cotton (AS)                                                                                | 50              | 6 - 8  |
| Nitrile (N)                                     | 120           | Resistance to petroleum products. | PTFE impregn. natural fibre (NT)                                                               | 120             | 4 - 12 |
| Viton (V)                                       | 200           | General chemical service.         | PTFE impregn. synth. fibre (ST)                                                                | 240             | 2 - 13 |
|                                                 |               | High temperature.                 | Braided PTFE (TH)                                                                              | 260             | 0 - 14 |
| Silicone (S)                                    | 250           | Food service. / High temperature. | Graphited (AG)                                                                                 | 300             | 4 - 12 |
| PTFE (T)                                        | 250           | Corrosion resistance.             | Ceramic fibre (FC)                                                                             | 1200            | —      |
| More details and other materials under request. |               |                                   | NOTE: all types include an elastomere O-ring (same material as seal), excluding TH, AG and FC. |                 |        |

## SEAT TYPES

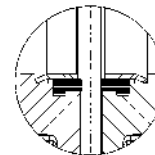
### Cast Iron

#### METAL / METAL

Used for high temperature or in applications where tight shutoff is not required. UHMW polyethylene seat sliders for smoother gate travel (stainless steel version only).

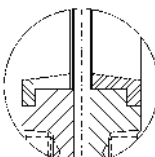


### Stainless Steel



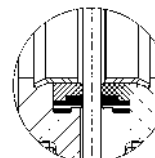
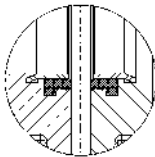
#### METAL / METAL, TYPE "B"

Two replaceable reinforced "B" type rings (available in AISI 316, Ni-hard, CA-15,...) protect the seat in abrasive services.



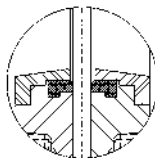
#### RESILIENT, TYPE "A"

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



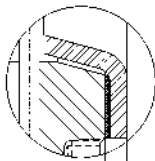
#### RESILIENT, TYPE "B"

The two replaceable reinforced seal retainer rings (available in AISI 316, Ni-hard, CA-15,...) protect the seat in abrasive services. Temperature limitations according to seat material selected. Consult the above chart or our technical department for more information.

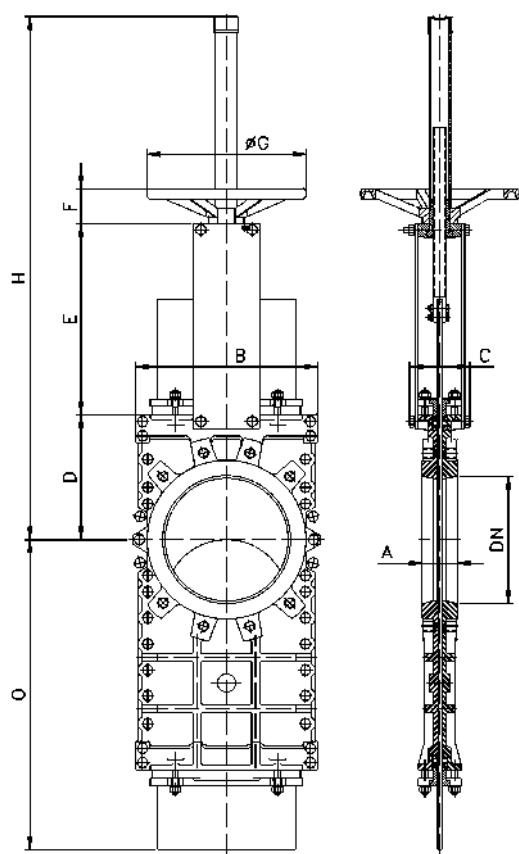


#### DEFLECTION CONE "C"

Deflects the media away from any internal exposed parts of the valve such as gate guides, seat, etc.... Different types of material available such as AISI 316 stainless, CA15, Ni-Hard, etc.... Face to face dimensions increase: DN 50 to DN 250 = 9mm  
DN 300 to DN 600 = 12mm



## HANDWHEEL (RISING STEM)



- Standard handwheel actuator.
- Consists of:
  - Handwheel: Epoxy coated Cast Iron or Steel (DN 50 to DN 300)
  - Stem
  - Stem nut
  - Stem protector
  - Grease nipple
- Available in DN 50 to DN 600
- Options (on request):
  - Locking Device
  - Extensions

| DN  | A   | B   | C   | D   | E   | F  | ØG  | H    | O MAX. | WEIGHT (KG) |
|-----|-----|-----|-----|-----|-----|----|-----|------|--------|-------------|
| 50  | 40  | 152 | 90  | 110 | 135 | 48 | 200 | 429  | 230    | 12          |
| 65  | 40  | 167 | 90  | 115 | 152 | 48 | 200 | 456  | 270    | 14          |
| 80  | 50  | 182 | 90  | 124 | 168 | 48 | 200 | 481  | 310    | 16          |
| 100 | 50  | 202 | 90  | 140 | 193 | 48 | 200 | 522  | 365    | 20          |
| 125 | 50  | 216 | 104 | 150 | 217 | 52 | 250 | 606  | 430    | 29          |
| 150 | 60  | 241 | 104 | 175 | 243 | 52 | 250 | 657  | 495    | 35          |
| 200 | 60  | 294 | 118 | 205 | 318 | 63 | 300 | 830  | 635    | 62          |
| 250 | 70  | 356 | 118 | 245 | 373 | 63 | 300 | 1025 | 775    | 89          |
| 300 | 70  | 410 | 118 | 280 | 423 | 63 | 300 | 1110 | 905    | 110         |
| 350 | 96  | 473 | 193 | 300 | 503 | 68 | 410 | 1303 | 1045   | 174         |
| 400 | 100 | 538 | 193 | 350 | 553 | 68 | 410 | 1403 | 1170   | 266         |
| 450 | 106 | 588 | 197 | 420 | 603 | 68 | 550 | 1598 | 1300   | 326         |
| 500 | 110 | 646 | 197 | 450 | 663 | 68 | 550 | 1688 | 1460   | 372         |
| 600 | 110 | 754 | 197 | 530 | 763 | 68 | 550 | 1978 | 1710   | 445         |

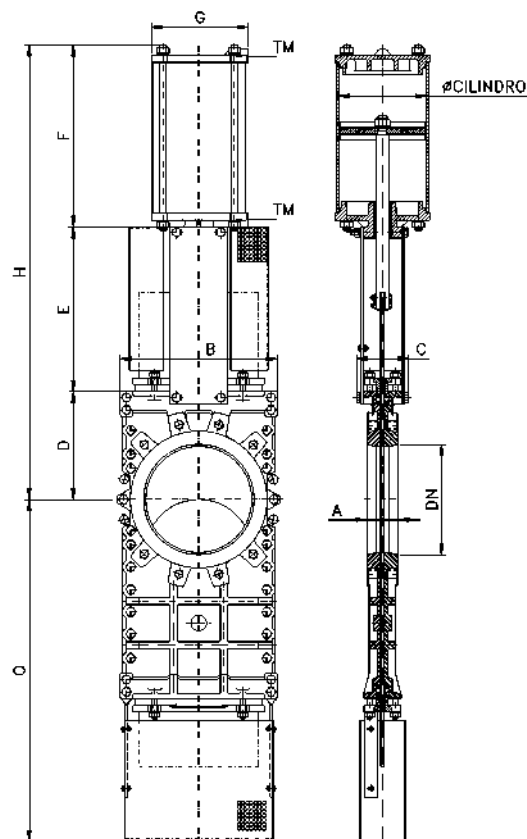


# L50

MODEL

## PNEUMATIC CYLINDER

LUCAVAL



- The standard pneumatic actuator (double acting on-off cylinder) consists of:
  - Aluminium jacket and covers
  - Stainless (AISI 304) piston rod
  - Nitrile coated steel piston
- Available in DN 50 to DN 600
- Supply Pressure: minimum 3.5 kg/cm<sup>2</sup> - maximum 7 kg/cm<sup>2</sup>
- For valves installed in a horizontal position, we recommend U-type support plates and/or actuator support.
- Options:
  - Hard anodised jacket and covers
  - Over / Under sized cylinder
  - Stainless jacket and covers
  - Manual override
  - Fail Safe System
  - Travel stops
- Instrumentation (on request):
  - Positioners
  - Solenoid valves
  - Flow regulators
  - Air preparation units

| DN  | A   | B   | C   | D   | O MAX. | E   | F   | G   | H    | WEIGHT (KG.) | STANDARD CYL. CONNECT. |
|-----|-----|-----|-----|-----|--------|-----|-----|-----|------|--------------|------------------------|
| 50  | 40  | 152 | 90  | 110 | 230    | 135 | 170 | 95  | 410  | 14           | C80/62 1/4" G          |
| 65  | 40  | 167 | 90  | 115 | 270    | 152 | 186 | 95  | 453  | 16           | C80/77 1/4" G          |
| 80  | 50  | 182 | 90  | 124 | 310    | 168 | 204 | 95  | 496  | 18           | C80/95 1/4" G          |
| 100 | 50  | 202 | 90  | 140 | 365    | 193 | 225 | 115 | 558  | 23           | C100/115 1/4" G        |
| 125 | 50  | 216 | 104 | 150 | 430    | 217 | 268 | 140 | 635  | 34           | C125/143 1/4" G        |
| 150 | 60  | 241 | 104 | 175 | 495    | 243 | 292 | 140 | 710  | 41           | C125/168 1/4" G        |
| 200 | 60  | 294 | 118 | 205 | 635    | 318 | 355 | 175 | 878  | 73           | C160/220 1/4" G        |
| 250 | 70  | 356 | 118 | 245 | 775    | 373 | 413 | 220 | 1036 | 105          | C200/270 3/8" G        |
| 300 | 70  | 410 | 118 | 280 | 905    | 423 | 463 | 220 | 1166 | 128          | C200/320 3/8" G        |
| 350 | 96  | 473 | 193 | 300 | 1045   | 503 | 541 | 277 | 1344 | 207          | C250/375 3/8" G        |
| 400 | 100 | 538 | 193 | 350 | 1170   | 553 | 591 | 277 | 1494 | 300          | C250/425 3/8" G        |
| 450 | 106 | 588 | 197 | 420 | 1300   | 603 | 669 | 382 | 1692 | 378          | C300/475 1/2" G        |
| 500 | 110 | 646 | 197 | 450 | 1460   | 663 | 719 | 382 | 1832 | 445          | C300/525 1/2" G        |
| 600 | 110 | 754 | 197 | 530 | 1710   | 763 | 819 | 382 | 2112 | 619          | C350/625 1/2" G        |

# L13

## MODEL

LUCAVAL

### BI-DIRECTIONAL KNIFE GATE VALVE



The **L13** model knife gate is a bi-directional valve designed for general industrial service applications. The design of the body and seat assures non-clogging shut off on suspended solids in industries such as:

- Wastewater treatment plant
- Food and Beverage
- Chemical plants
- etc.

**Sizes:** DN 50 to DN 1200 (larger diameters on request)

**Working pressure:**

|                    |                       |
|--------------------|-----------------------|
| DN 50 to DN 250:   | 10 kg/cm <sup>2</sup> |
| DN 300 to DN 400:  | 6 kg/cm <sup>2</sup>  |
| DN 450 :           | 5 kg/cm <sup>2</sup>  |
| DN 500 to DN 600:  | 4 kg/cm <sup>2</sup>  |
| DN 700 to DN 1200: | 2 kg/cm <sup>2</sup>  |

**Standard flange connection:** DIN PN 10

Other flange connections: on request

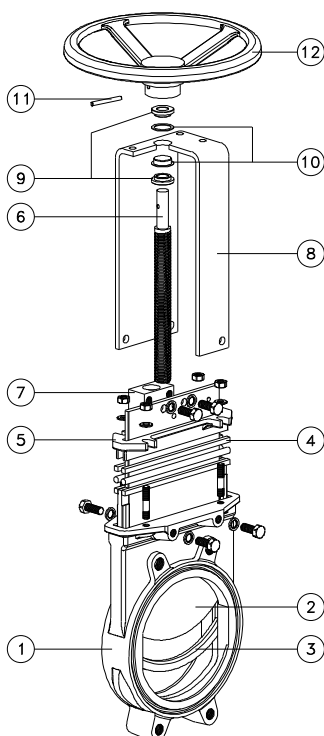
**Directives:** DIR 98/37/CE (MACHINES)

DIR 97/23/CE (PED)

DIR 94/9/CE (ATEX)

Face to face dimensions acc. to K1 DIN 3202 up to DN 300.

All valves are tested prior to shipping in accordance with the standard developed by the Quality Control Department at LUCAVAL.



### STANDARD PARTS LIST

| Part:                 | Cast Iron:                                                        |
|-----------------------|-------------------------------------------------------------------|
| 1- Body               | GJL (GG25)                                                        |
| 2- Gate               | AISI 316 Ti                                                       |
| 3- Seat               | EPDM / Nitrile                                                    |
| 4- Packing            | PTFE Impreg. Synth. Fibre (ST)                                    |
| 5- Gland Follower     | $\phi \leq 300$ : Ductile Iron / $\phi \geq 350$ : Aluminium      |
| 6- Stem               | AISI 303                                                          |
| 7- Stem Nut           | Brass                                                             |
| 8- Yoke               | Carbon Steel - Epoxy Coated                                       |
| 9- Collar             | Brass                                                             |
| 10- Collar and washer | Nylon                                                             |
| 11- Spring Pin        | Steel DIN 1481                                                    |
| 12- Handwheel         | $\phi \leq 310$ : Ductile Iron / $\phi \geq 410$ : GJL 250 (GG25) |

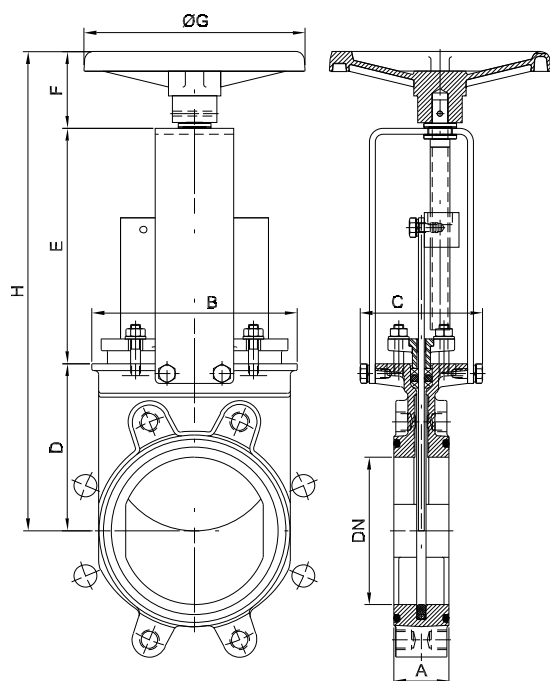
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# L13

## MODEL

### HANDWHEEL (NON-RISING STEM)

LUCAVAL



- Standard handwheel actuator.
- Consists on:
  - Handwheel: Epoxy coated Cast Iron
  - Stem
  - Yoke bushing
  - Stem nut fixed to the gate
- Available from DN 50 to DN 1000
- Options:
  - Locking Device
  - Extension
  - Square Nut Drive

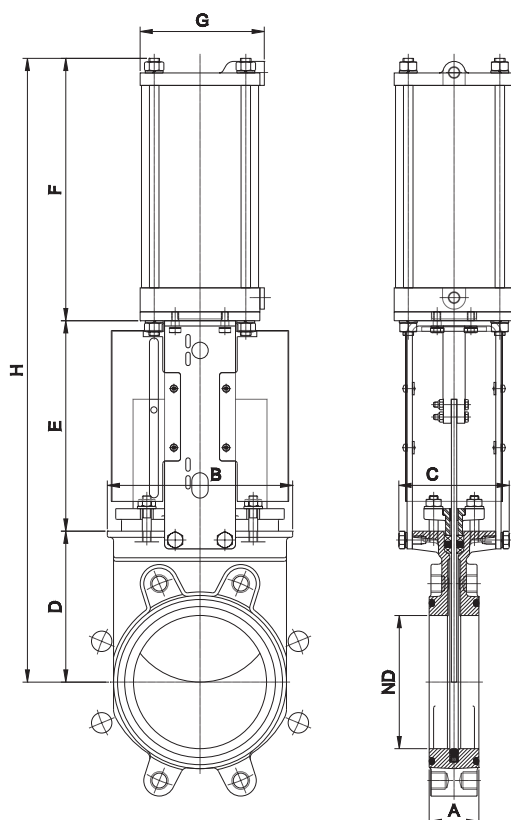
| DN   | A   | B    | C   | D   | E    | F   | G   | H    | Weight (kg) |
|------|-----|------|-----|-----|------|-----|-----|------|-------------|
| 50   | 43  | 113  | 124 | 105 | 144  | 63  | 225 | 312  | 8           |
| 65   | 46  | 128  | 124 | 115 | 161  | 63  | 225 | 339  | 9           |
| 80   | 46  | 143  | 124 | 124 | 177  | 63  | 225 | 364  | 10          |
| 100  | 52  | 162  | 124 | 140 | 202  | 63  | 225 | 405  | 12          |
| 125  | 56  | 181  | 124 | 150 | 226  | 63  | 225 | 439  | 15          |
| 150  | 56  | 209  | 124 | 170 | 252  | 63  | 225 | 485  | 17          |
| 200  | 60  | 263  | 142 | 205 | 317  | 73  | 310 | 595  | 30          |
| 250  | 68  | 315  | 142 | 250 | 372  | 73  | 310 | 695  | 42          |
| 300  | 78  | 370  | 142 | 290 | 422  | 73  | 310 | 785  | 60          |
| 350  | 78  | 420  | 197 | 325 | 509  | 98  | 410 | 932  | 90          |
| 400  | 102 | 478  | 197 | 360 | 559  | 98  | 410 | 1017 | 140         |
| 450  | 114 | 530  | 201 | 410 | 611  | 98  | 550 | 1119 | 185         |
| 500  | 127 | 584  | 201 | 450 | 671  | 98  | 550 | 1219 | 204         |
| 600  | 110 | 762  | 201 | 510 | 771  | 98  | 550 | 1379 | 230         |
| 700  | 110 | 890  | 398 | 601 | 979  | 147 | 800 | 1727 | 380         |
| 800  | 110 | 1012 | 320 | 695 | 1076 | 147 | 800 | 1918 | 550         |
| 900  | 110 | 1112 | 320 | 795 | 1115 | 147 | 800 | 2057 | 680         |
| 1000 | 110 | 1240 | 320 | 875 | 1220 | 147 | 800 | 2247 | 800         |

# L13

## MODEL

### PNEUMATIC CYLINDER

LUCAVAL



- The standard pneumatic actuator (double acting on-off cylinder) consists of:
  - Aluminium jacket and covers
  - Stainless Steel (AISI 304) piston rod
  - Nitrile coated steel piston
- Available from DN 50 to DN 800
- Supply Pressure: minimum 3.5 kg/cm<sup>2</sup> - maximum 10 kg/cm<sup>2</sup>
- For valves installed in a horizontal position, we recommend U-type support plates and/or actuator support.
- Options (on request):
  - Hard anodized jacket and covers
  - Over / Undersized cylinder
  - Stainless Steel jacket and covers
  - Manual override
  - Fail safe system
  - Travel stops
- Instrumentation (on request):
  - Positioners
  - Solenoid valves
  - Flow regulators
  - Air preparation units

| DN  | A   | B    | C   | D   | E   | F    | G   | H    | Weight (kg) | Std.Cyl. | Connect. |
|-----|-----|------|-----|-----|-----|------|-----|------|-------------|----------|----------|
| 50  | 43  | 113  | 124 | 105 | 129 | 178  | 115 | 412  | 9           | C100/62  | 1/4" G   |
| 65  | 46  | 128  | 124 | 115 | 146 | 193  | 115 | 454  | 10          | C100/77  | 1/4" G   |
| 80  | 46  | 143  | 124 | 124 | 162 | 211  | 115 | 497  | 11          | C100/95  | 1/4" G   |
| 100 | 52  | 162  | 124 | 140 | 187 | 231  | 115 | 558  | 13.5        | C100/115 | 1/4" G   |
| 125 | 56  | 181  | 124 | 150 | 211 | 271  | 140 | 632  | 19          | C125/143 | 1/4" G   |
| 150 | 56  | 209  | 124 | 170 | 237 | 296  | 140 | 703  | 22          | C125/168 | 1/4" G   |
| 200 | 60  | 263  | 142 | 205 | 309 | 358  | 175 | 872  | 47          | C160/220 | 1/4" G   |
| 250 | 68  | 315  | 142 | 250 | 364 | 428  | 220 | 1042 | 58          | C200/270 | 3/8" G   |
| 300 | 78  | 370  | 142 | 290 | 414 | 478  | 220 | 1182 | 84          | C200/320 | 3/8" G   |
| 350 | 78  | 420  | 197 | 325 | 500 | 549  | 277 | 1374 | 130         | C250/351 | 3/8" G   |
| 400 | 102 | 478  | 197 | 360 | 550 | 599  | 277 | 1509 | 181         | C250/401 | 3/8" G   |
| 450 | 114 | 530  | 201 | 410 | 598 | 680  | 382 | 1688 | 235         | C300/448 | 1/2" G   |
| 500 | 127 | 584  | 201 | 450 | 658 | 730  | 382 | 1838 | 302         | C300/498 | 1/2" G   |
| 600 | 110 | 762  | 201 | 510 | 758 | 830  | 382 | 2098 | 315         | C300/588 | 1/2" G   |
| 700 | 110 | 890  | 380 | 601 | 875 | 985  | 444 | 2461 | 480         | C350/693 | 3/4" G   |
| 800 | 110 | 1012 | 320 | 695 | 974 | 1035 | 444 | 2704 | 585         | C350/790 | 3/4" G   |

A: EN558-1 serie 20 up to DN500

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### ROUND BY SQUARE PORT KNIFE GATE VALVE

The **LO8** model knife gate is a wafer valve designed for the use in difficult applications. This valve is generally suitable for recycling applications, such as junk or sand traps of pulpers, high density cleaners (HDC) or as silo outlet with solid material. The two piece body with round inlet and square outlet (larger than the inlet) ensures non-jamming

**Sizes:** DN 100 to DN 600 (larger diameters on request)

**Working pressure:**

DN 100 a DN 400 7 kg/cm<sup>2</sup>

DN 500 a DN 600 4 kg/cm<sup>2</sup>

**Standard flange connection:**

DIN PN 10 and ANSI B16.5

(on valve inlet only)

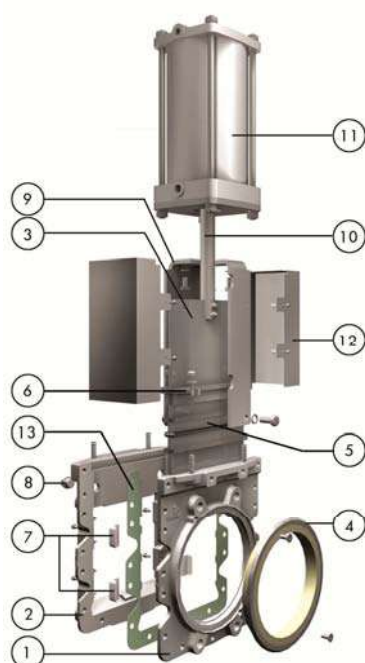
other on request

Option: For the square outlet, can also be designed a square-to-round transition

**Directives:** 2006/42/CE (MACHINES)

97/23/CE (PED) Fluid: Group I(b), II (Cat. I, mod. A)

94/9/CE (ATEX)



#### STANDARD PARTS LIST

| Part:             | Cast Iron:                                                                                | Stainless Steel:  |
|-------------------|-------------------------------------------------------------------------------------------|-------------------|
| 1- Body           | GJL 250 (0.6025)                                                                          | CF8M (1.4408)     |
| 2- Body           | GJL 250 (0.6025)                                                                          | CF8M (1.4408)     |
| 3- Gate           | 2205 (1.4462)                                                                             |                   |
| 4- Sleeve         | Polyurethane Rubber                                                                       |                   |
| 5- Packing        | Dynapack (Graphite impregnated PTFE and Aramid yarn combination with an elastomeric core) |                   |
| 6- Gland Follower | CF8M                                                                                      |                   |
| 7- Sliders        | HWMPE                                                                                     |                   |
| 8- Cap            | Galv. Steel                                                                               | AISI 316 (1.4404) |
| 9- Yoke           | Carbon Steel - Epoxy Coated                                                               |                   |
| 10- Piston Rod    | AISI 304 (1.4301)                                                                         |                   |
| 11- Cylinder      | Aluminium                                                                                 |                   |
| 12- Gate guards   | AISI 304 (1.4301)                                                                         |                   |
| 13- Gasket        | Aramid fibres                                                                             |                   |

### DESIGN FEATURES

#### BODY:

Cast two-part bolted body, internally machined and with reinforcing ribs in larger diameters for extra body strength. The internal replaceable gate guides allow for smoother gate traveling. The square outlet (reinforced with sliders) prevents the build-up of contaminants such as staples, wires, etc. For the most severe applications, the body includes standard flush ports to flush out the solids that may interfere with the gate.

#### GATE:

Duplex stainless steel gate, oversized thickness and polished on both sides, increases its wearing resistance and prevents damage to the seat. This design also allows to perfectly cut through the fluid.

#### SEAT/POLYURETHANE SLEEVE:

The seat is composed of a highly resistant, long-lasting sleeve, made of polyurethane and with a stainless steel core. This design allows for easy sleeve replacement and avoids gasket installation between the flange and the valve.

#### PACKING:

Long-life packing with several graphite impregnated PTFE and Aramid yarn combination with an elastomeric core, together with an easy adjusting and access packing gland ensuring a tight seal. Long-life braided packing is available in a wide range of materials.

#### 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. Reinforced design is standard starting from DN 250.

#### The EPOXY coating

L08 valve bodies and components is electrostatically applied making the valves to be corrosion resistant with a high quality finished surface. The L08 standard colour is RAL-5015 blue. The EPOXY coating on all LUCAVALV cast iron and carbon steel valve bodies and components is electrostatically applied making the valves to be corrosion resistant with a high quality finished surface. The LUCAVAL standard colour is RAL-5015 blue.

#### GATE SAFETY PROTECTION:

LUCAVAL 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.



## OTHER OPTIONS

### Other materials of construction:

Special stainless steels and alloys such as AISI 317, 254SMO, Hastelloys, Titanium, etc.

### Fabricated valves:

LUCAVAL designs, produces and delivers special fabricated valves for special process conditions (big sizes and/or high pressures)

## SURFACE TREATMENTS

Valve components can be protected or coated for a longer life expectancy, depending on the application and the service conditions. At LUCAVAL we can offer treatments and coatings for the valve components to improve the properties against abrasion (Stellite, Polyurethane...), corrosion (Halar, Rilsan, Galvanised...) and adherence (Polishing, PTFE...).



## TEMPERATURE CHART

### SEAT / SLEEVES

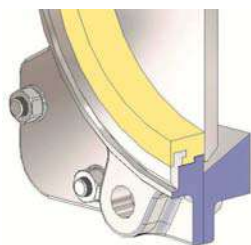
| Material          | Max.Temp.(°C) | Applications |
|-------------------|---------------|--------------|
| Polyurethane (PU) | 90            | General      |

All of them are reinforced with a stainless steel core. More details and other materials on request

### PACKING

| Material                        | Max.Temp.(°C) | pH   |
|---------------------------------|---------------|------|
| Dynapack (DP)                   | 270           | 2-14 |
| PTFE impregn. synth. fibre (ST) | 240           | 2-13 |
| Braided PTFE (TH)               | 260           | 0-14 |

## SEAT TYPE



### POLYURETHANE

The sealing of the CR valve is achieved through a high resistance elastomer, which improves the watertightness at both the flange and closing area. The sleeve has a stainless core with very good resistance to pressure and working conditions.



### DOUBLE ACTING PNEUMATIC CYLINDER

- The standard pneumatic actuator (double acting on-off cylinder) consists of:

- DN ≤ 250: Aluminum barrels
- DN ≥ 300: Composite barrels
- Aluminium covers
- Stainless Steel (AISI 304) piston rod
- Nitrile coated steel piston

- Available from DN 100 to DN 600

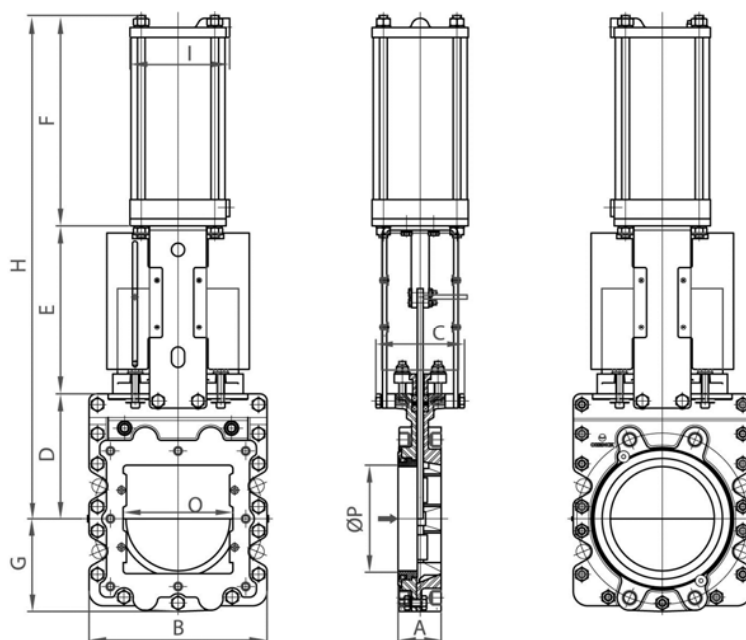
- Supply Pressure: min. 3.5 kg/cm<sup>2</sup> - max. 10 kg/cm<sup>2</sup>.  
Actuator designed with 6 kg/cm<sup>2</sup> air supply

- Reinforced design of support plates (U type) is standard starting from DN 250

- Options (on request):
  - Hard anodized barrel and covers
  - Stainless Steel barrel and covers
  - Over/Undersized cylinder
  - Manual override
  - Fail safe system
  - Limit switches

- Instrumentation (on request):

- Positioners
- Solenoid valves
- Flow regulators
- Air preparation units



| DN  | A   | B   | C   | D   | E   | F   | G   | H    | I   | O   | P   | Weight (kg) | Std.Cyl. | Connect. |
|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-------------|----------|----------|
| 100 | 52  | 206 | 100 | 140 | 198 | 231 | 110 | 569  | 115 | 95  | 97  | 35          | C100/115 | 1/4"G    |
| 150 | 60  | 252 | 108 | 175 | 237 | 296 | 130 | 708  | 140 | 145 | 146 | 78          | C125/168 | 1/4"G    |
| 200 | 60  | 315 | 123 | 205 | 309 | 358 | 168 | 872  | 175 | 194 | 194 | 89          | C160/220 | 3/8"G    |
| 250 | 69  | 388 | 185 | 250 | 376 | 428 | 194 | 1054 | 220 | 245 | 247 | 100         | C200/270 | 3/8"G    |
| 300 | 78  | 428 | 185 | 290 | 426 | 478 | 232 | 1194 | 220 | 294 | 298 | 145         | C200/320 | 3/8"G    |
| 400 | 89  | 560 | 270 | 392 | 574 | 599 | 292 | 1565 | 277 | 398 | 398 | 268         | C250/425 | 3/8"G    |
| 500 | 114 | 647 | 270 | 450 | 675 | 730 | 339 | 1855 | 382 | 499 | 479 | 370         | C300/525 | 1/2"G    |
| 600 | 114 | 747 | 270 | 510 | 775 | 830 | 397 | 2115 | 382 | 600 | 578 | 507         | C300/625 | 1/2"G    |

# L10 MODEL

LUCAVAL

## DOUBLE GATE KNIFE GATE VALVE

The **L10** model knife gate valve is a bi-directional valve widely used in the Pulp and Paper industry (paper recycling) and especially designed to handle high concentrated or contaminated media. In the open position, both gates are retracted into the body, assuring full flow. When the gates close, they push stock and contaminants as staples, wires, etc., out of the body and back into the flow. As a result of this double gate design, the stroke time of these valves is half of that of the conventional valves. All components subject to wear can be easily replaced.

### Sizes:

DN 100 to DN 600 (larger diameters on request)

### Working pressure:

|                  |                       |
|------------------|-----------------------|
| DN 100 to DN 250 | 10 kg/cm <sup>2</sup> |
| DN 300 to DN 400 | 6 kg/cm <sup>2</sup>  |
| DN 450           | 5 kg/cm <sup>2</sup>  |
| DN 500 to DN 600 | 4 kg/cm <sup>2</sup>  |

### Standard flange connection:

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

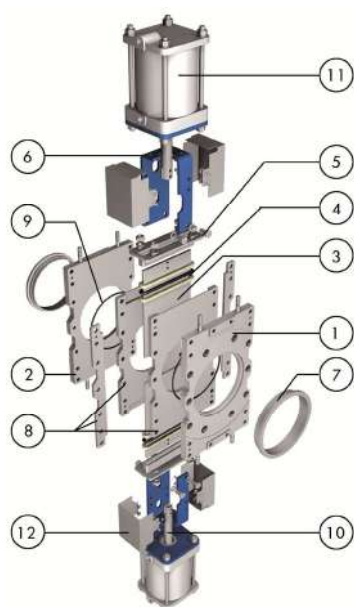
Note: other flange connections are available on request

### Directives:

2006/42/CE (MACHINES)

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

94/9/CE (ATEX)



### STANDARD PARTS LIST

| Part:             | Carbon Steel:                                        | Stainless steel: |
|-------------------|------------------------------------------------------|------------------|
| 1- Body           | Carbon steel                                         | AISI 316         |
| 2- Counterbody    | Carbon steel                                         | AISI 316         |
| 3- Gate           | AISI 304                                             | AISI 316         |
| 4- Packing        | PTFE Impreg. Synth. Fibre (both with an EPDM o-ring) |                  |
| 5- Gland Follower | Carbon Steel                                         | AISI 316         |
| 6- Yoke           | Carbon Steel-Epoxy Coated                            |                  |
| 7- Seat rings     | CF8M                                                 |                  |
| 8- Body Liner     | HMW Polyethylene                                     |                  |
| 9- O-ring         | Nitrile                                              |                  |

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## DESIGN FEATURES

### **BODY:**

Cast or fabricated two-part bolted body, internally machined, with reinforcing ribs in larger diameters for extra body strength. The body is internally lined with HMW Polyethylene that provides an optimum guiding and sliding surface for the two gates when traveling. For additional safety, the port includes two stainless steel reinforced rings. Full port design for higher flow capacity and minimal pressure drop. When the valve is in the open position, both gates are retracted into the body, assuring full flow. When the gates close, they push back into the media the fluid and contaminants that might have accumulated within the body.

### **GATE:**

Oversized stainless steel gates. Gates are polished on both sides to avoid jamming and to ensure a greater seal between the gate with both packing and seat. Special abrasion resistant materials and/or thickness can be used on request.

### **PACKING:**

Double stuffing box with several layers of braided PTFE impregnated synthetic 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.

### **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. Reinforced "U" type design is standard starting from DN 250.

### **EPOXY COATING:**

The epoxy coating on all LUCAVAL cast iron and carbon steel valve bodies and components is electrostatically applied making the valves to be corrosion resistant with a high quality finished surface. The LUCAVAL standard colour is RAL-5015 blue.

### **GATE SAFETY PROTECTIONS:**

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



## OTHER OPTIONS

### Other materials of constructions:

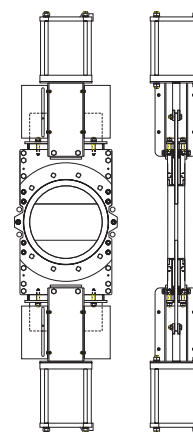
Modifications on port design are possible to suit customer's needs Special alloys such as AISI 317 (1.4449), 254SMO (1.4547), Hastelloys, Titanium, etc.

### Fabricated valves:

LUCAVAL designs, produces and delivers special fabricated valves for special process conditions (big sizes and/or high pressures)

### Square/rectangular port:

Modifications on port design are possible to suit customer's needs



## TEMPERATURE CHART

### SEAT / SLEEVES

| Material                    | Max.Temp.(°C) | Applications                    |
|-----------------------------|---------------|---------------------------------|
| Metal / Metal<br>PE liner   | 75            | General                         |
| On request:                 |               |                                 |
| Metal / Metal<br>PTFE liner | 250           | High temp./Corrosion resistance |

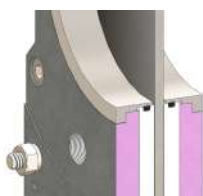
More details and other materials under request

### PACKING

| Material                        | Max.Temp.(°C) | pH   |
|---------------------------------|---------------|------|
| PTFE impregn. synth. fibre (ST) | 240           | 2-13 |
| Braided PTFE (TH)               | 600           | 0-14 |

NOTE: all types include an elastomere O-ring (same material as seal), excluding TH

## SEAT TYPE



### METAL / METAL

Used for applications with high temperature or applications where tight shutoff is not required. Two replaceable reinforced stainless steel rings protect the body. There is no elastomer seal. The four-piece liner (HMWPE as standard, PTFE or Nylon also available) of the body provides gate guiding and sliding, as well as a good valve seal

### DOUBLE ACTING PNEUMATIC CYLINDER

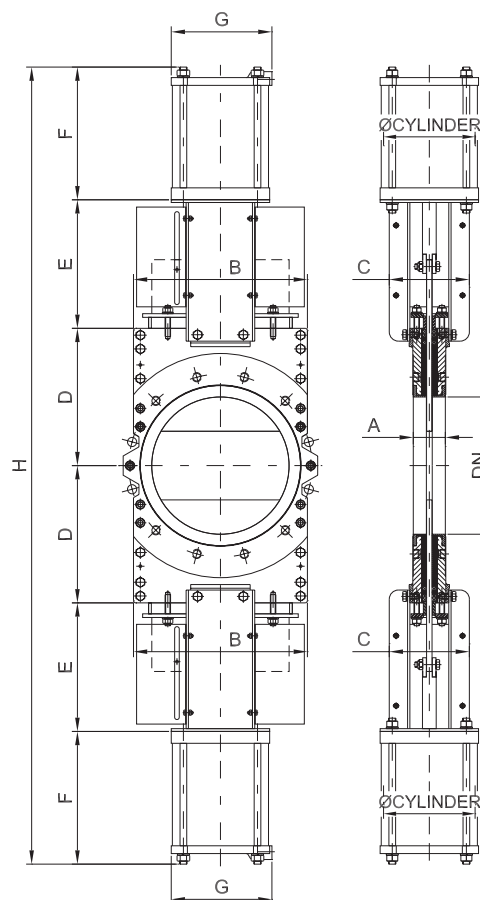
- The standard pneumatic actuator (double acting on-off cylinder) consists of:

- DN ≤ 250: Aluminium barrels
- DN ≥ 300: Composite barrels
- Aluminium covers
- Stainless Steel (AISI 304) piston rod
- Nitrile coated steel piston

- Available from DN 100 to DN 600
- Supply Pressure: min. 3,5 kg/cm<sup>2</sup> - max. 10 kg/cm<sup>2</sup>. Actuator designed with 6 kg/cm<sup>2</sup> air supply
- Reinforced design of support plates (U-type) is standard starting from DN 250

- Options (on request):
  - Hard anodized barrel and covers
  - Stainless Steel jacket and covers
  - Over / Undersized cylinder
  - Manual override
  - Fail safe system
  - Limit switches

- Instrumentation (on request):
  - Positioners
  - Solenoid valves
  - Flow regulators
  - Air preparation units



| DN  | A   | B   | C   | D   | E   | F   | G   | H    | Weight (kg) | Std.Cyl. | Connect. |
|-----|-----|-----|-----|-----|-----|-----|-----|------|-------------|----------|----------|
| 100 | 50  | 162 | 100 | 140 | 132 | 169 | 115 | 882  | 48          | C100/52  | 1/4"G    |
| 125 | 50  | 210 | 100 | 146 | 142 | 179 | 140 | 934  | 56          | C125/65  | 1/4"G    |
| 150 | 60  | 215 | 100 | 175 | 154 | 206 | 140 | 1070 | 67          | C125/78  | 1/4"G    |
| 200 | 60  | 265 | 165 | 210 | 204 | 241 | 175 | 1310 | 80          | C160/103 | 1/4"G    |
| 250 | 70  | 330 | 270 | 265 | 231 | 285 | 220 | 1562 | 90          | C200/128 | 3/8"G    |
| 300 | 70  | 380 | 270 | 300 | 256 | 310 | 220 | 1732 | 160         | C200/153 | 3/8"G    |
| 350 | 96  | 450 | 270 | 325 | 325 | 340 | 277 | 1980 | 255         | C250/180 | 3/8"G    |
| 400 | 100 | 510 | 270 | 350 | 355 | 365 | 277 | 2140 | 340         | C250/205 | 3/8"G    |
| 450 | 106 | 565 | 270 | 405 | 379 | 401 | 382 | 2370 | 405         | C300/230 | 1/2"G    |
| 500 | 110 | 610 | 270 | 450 | 420 | 445 | 382 | 2630 | 490         | C300/255 | 1/2"G    |
| 600 | 110 | 715 | 270 | 500 | 470 | 495 | 382 | 2930 | 580         | C300/305 | 1/2"G    |

# HIGH PERFORMANCES

## WAFER STYLE KNIFE GATE VALVE



This model of knife gate is an uni-directional wafer valve designed for general industrial service applications. The design of the body and seat assures non clogging shut off on suspended solids in industries such as:

- Pulp and Paper
- Food and Beverage
- Power plants
- Wastewater treatment plants
- Mining
- Chemical plants

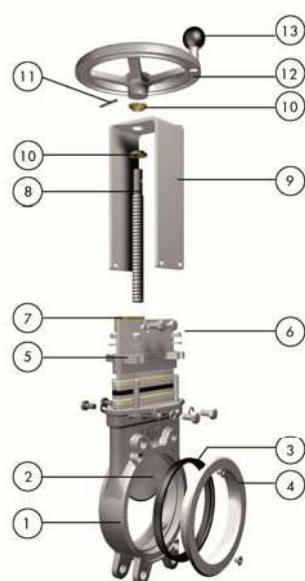
**Sizes:** DN 50 to DN 1000 (larger diameters on request)

**Working pressure:**

|                   |                       |
|-------------------|-----------------------|
| DN 50 to DN 250   | 10 kg/cm <sup>2</sup> |
| DN 300 to DN 400  | 6 kg/cm <sup>2</sup>  |
| DN 450            | 5 kg/cm <sup>2</sup>  |
| DN 500 to DN 600  | 4 kg/cm <sup>2</sup>  |
| DN 700 to DN 1000 | 2 kg/cm <sup>2</sup>  |

**Standard flange connection:**

DIN PN 10 Other flange connections available on request :



### STANDARD PARTS LIST

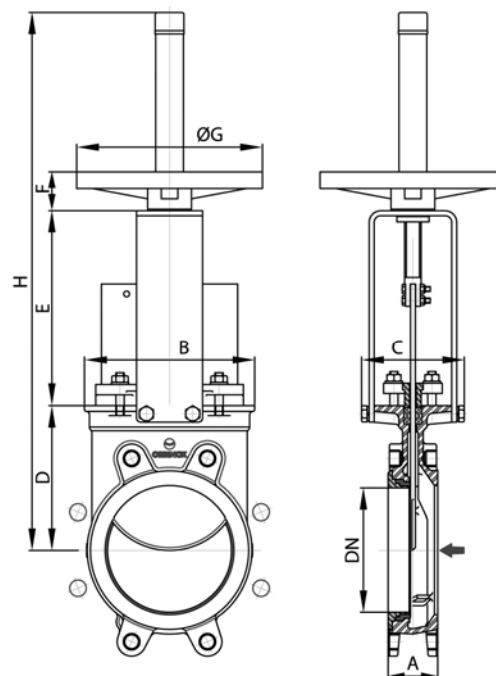
| Part:             | Stainless Steel:                                                                                         |
|-------------------|----------------------------------------------------------------------------------------------------------|
| 1- Body           | CF8M (1.4408) / GJL 250 (0.6025)*                                                                        |
| 2- Gate           | AISI 316 (1.4404) / AISI 304 (1.4301)*                                                                   |
| 3- Seat           | EPDM                                                                                                     |
| 4- "K" Ring       | AISI 316 (1.4404)                                                                                        |
| 5- Packing        | Dynapack (Graphite impregnated PTFE and Aramid yarn combination with an elastomeric core)+ (EPDM O-ring) |
| 6- Gland Follower | CF8M (1.4408)                                                                                            |
| 7- Stem nut       | Brass                                                                                                    |
| 8- Stem           | AISI 430 (1.4016)                                                                                        |
| 9- Yoke           | AISI 304 (1.4301)                                                                                        |
| 10- Bushing       | Brass                                                                                                    |
| 11- Spring Pin    | AISI 304 (1.4301) (ISO 8752)                                                                             |
| 12- Handwheel     | Ø≤310: Aluminium (AlSi12); Ø≥410 GJS400 (GGG40)                                                          |
| 13- Knob          | Black bakelite                                                                                           |

\* On request

# HIGH PERFORMANCES WAFER STYLE KNIFE GATE VALVE

## HANDWHEEL (rising stem)

- Consists of:
  - Handwheel: Epoxy coated Cast Iron
  - Stem
  - Stem nut
  - Stem protector
- Available from DN 50 to DN 1000
- Options:
  - Locking Device
  - Extensions



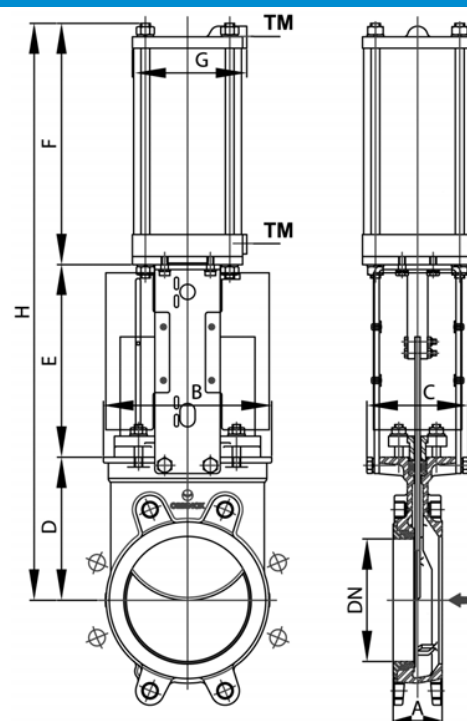
| DN   | A   | B    | C   | D   | E    | F  | G   | H    | Weight (kg) |
|------|-----|------|-----|-----|------|----|-----|------|-------------|
| 50   | 41  | 119  | 125 | 105 | 129  | 47 | 225 | 420  | 7           |
| 65   | 41  | 134  | 125 | 115 | 149  | 47 | 225 | 450  | 8           |
| 80   | 51  | 149  | 125 | 124 | 162  | 47 | 225 | 475  | 9           |
| 100  | 51  | 169  | 125 | 140 | 187  | 47 | 225 | 520  | 11          |
| 125  | 56  | 180  | 125 | 150 | 211  | 47 | 225 | 600  | 15          |
| 150  | 60  | 210  | 125 | 175 | 237  | 47 | 225 | 652  | 18          |
| 200  | 60  | 262  | 142 | 205 | 309  | 67 | 310 | 822  | 30          |
| 250  | 69  | 318  | 142 | 250 | 364  | 67 | 310 | 1022 | 44          |
| 300  | 78  | 372  | 142 | 300 | 414  | 67 | 310 | 1122 | 58          |
| 350  | 78  | 431  | 197 | 338 | 486  | 66 | 410 | 1323 | 96          |
| 400  | 89  | 486  | 197 | 392 | 536  | 66 | 410 | 1427 | 124         |
| 450  | 89  | 540  | 201 | 432 | 588  | 66 | 550 | 1594 | 168         |
| 500  | 114 | 602  | 201 | 485 | 648  | 66 | 550 | 1707 | 192         |
| 600  | 114 | 708  | 201 | 590 | 748  | 66 | 550 | 2022 | 245         |
| 700  | 118 | 834  | 380 | 686 | 890  | 74 | 800 | 2575 | 405         |
| 750  | 118 | 884  | 380 | 760 | 945  | 74 | 800 | 2704 | 455         |
| 800  | 118 | 1015 | 320 | 791 | 989  | 74 | 800 | 2970 | 512         |
| 900  | 118 | 1040 | 320 | 900 | 1118 | 74 | 800 | 3200 | 630         |
| 1000 | 118 | 1150 | 320 | 980 | 1220 | 74 | 800 | 3380 | 732         |



# HIGH PERFORMANCES WAFER STYLE KNIFE GATE VALVE

## PNEUMATIC CYLINDER

- The standard pneumatic actuator (double acting on-off cylinder) consists on:
  - DN  $\leq$  250: Aluminum barrels
  - DN  $\geq$  300: Composite barrels
  - Aluminum covers
  - Stainless steel (AISI 304) piston rod
  - Nitrile coated steel piston
- Available from DN 50 to DN 1000
- Supply Pressure: min. 3.5 kg/cm<sup>2</sup> - max. 10 kg/cm<sup>2</sup>. Actuator designed with 6 kg/cm<sup>2</sup> air supply.
- For valves installed in a horizontal position, we recommend U-type support plates and/or actuator support.



| DN   | A   | B    | C   | D   | E    | F    | G   | H    | Weight (kg) | Std.Cyl.  | Connect. |
|------|-----|------|-----|-----|------|------|-----|------|-------------|-----------|----------|
| 50   | 40  | 119  | 100 | 105 | 129  | 178  | 115 | 412  | 9           | C100/62   | 1/4" G   |
| 65   | 40  | 134  | 100 | 115 | 146  | 193  | 115 | 454  | 10          | C100/77   | 1/4" G   |
| 80   | 50  | 149  | 100 | 124 | 162  | 211  | 115 | 497  | 11          | C100/95   | 1/4" G   |
| 100  | 50  | 169  | 100 | 140 | 187  | 231  | 115 | 558  | 14          | C100/115  | 1/4" G   |
| 125  | 50  | 180  | 100 | 150 | 211  | 271  | 140 | 632  | 20          | C125/143  | 1/4" G   |
| 150  | 60  | 210  | 100 | 175 | 237  | 296  | 140 | 708  | 25          | C125/168  | 1/4" G   |
| 200  | 60  | 262  | 119 | 205 | 309  | 358  | 175 | 872  | 44          | C160/220  | 1/4" G   |
| 250  | 70  | 318  | 122 | 250 | 364  | 428  | 220 | 1042 | 67          | C200/270  | 3/8" G   |
| 300  | 70  | 372  | 122 | 300 | 414  | 478  | 220 | 1192 | 82          | C200/320  | 3/8" G   |
| 350  | 96  | 431  | 197 | 338 | 500  | 549  | 277 | 1387 | 135         | C250/375  | 3/8" G   |
| 400  | 100 | 486  | 197 | 392 | 550  | 599  | 277 | 1541 | 165         | C250/425  | 3/8" G   |
| 450  | 106 | 540  | 270 | 432 | 598  | 680  | 382 | 1710 | 220         | C300/475  | 1/2" G   |
| 500  | 110 | 602  | 270 | 485 | 658  | 730  | 382 | 1873 | 280         | C300/525  | 1/2" G   |
| 600  | 110 | 708  | 270 | 590 | 758  | 830  | 382 | 2178 | 330         | C300/625  | 1/2" G   |
| 700  | 110 | 834  | 380 | 686 | 875  | 985  | 444 | 2571 | 520         | C350/730  | 3/4" G   |
| 750  | 110 | 884  | 380 | 760 | 930  | 1035 | 444 | 2740 | 585         | C350/780  | 3/4" G   |
| 800  | 110 | 1015 | 320 | 791 | 974  | 1085 | 444 | 2844 | 650         | C350/830  | 3/4" G   |
| 900  | 110 | 1040 | 320 | 895 | 1105 | 1202 | 515 | 3220 | 850         | C400/930  | 3/4" G   |
| 1000 | 110 | 1146 | 320 | 975 | 1217 | 1296 | 515 | 3496 | 1060        | C400/1030 | 3/4" G   |

# HIGH PERFORMANCE THROUGH CONDUIT KNIFE GATE VALVE



This model of knife gate is a bi-directional wafer valve designed for media with high consistency. The double seat design assures a non-clogging shut off on either normal or reverse flow.

The valve is used in a wide range of demanding applications in industries such as:

- Pulp & Paper
- Wastewater Treatment Plants
- Chemical plants
- Power Plants
- Etc.

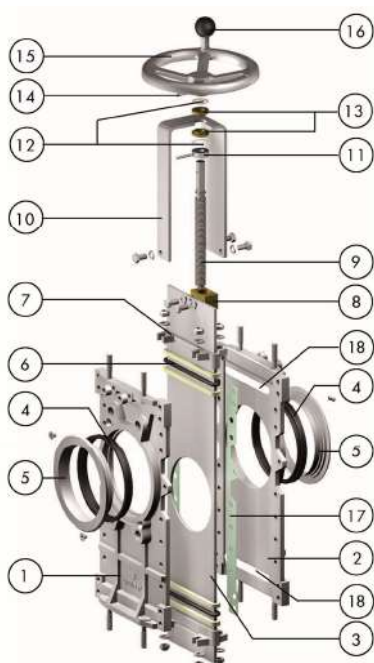
**Sizes:** DN 50 to DN 1000 (larger diameters on request)

**Working pressure:**

|                   |                       |
|-------------------|-----------------------|
| DN 50 to DN 250   | 10 kg/cm <sup>2</sup> |
| DN 300 to DN 400  | 6 kg/cm <sup>2</sup>  |
| DN 450            | 5 kg/cm <sup>2</sup>  |
| DN 500 to DN 600  | 4 kg/cm <sup>2</sup>  |
| DN 700 to DN 1000 | 2 kg/cm <sup>2</sup>  |

**Standard flange connection:**

DIN PN 10 Other flange connections available on request :



## STANDARD PARTS LIST

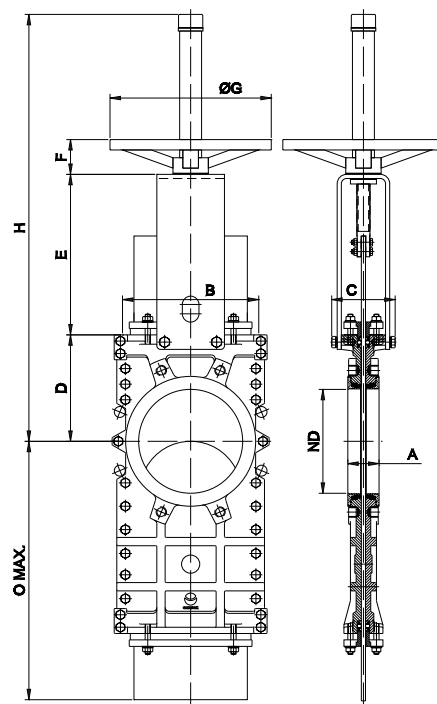
| Part:                 | Material:                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------|
| 1- Body               | CF8M (1.4408) / GJL 250 (0.6025)*                                                                        |
| 2- Body               | CF8M (1.4408) / GJL 250 (0.6025)*                                                                        |
| 3- Gate               | AISI 316 (1.4404) / AISI 304 (1.4301)*                                                                   |
| 4- Seat               | EPDM/PTFE                                                                                                |
| 5- "K" Ring           | AISI 316 (1.4404)                                                                                        |
| 6- Packing            | Dynapack (Graphite impregnated PTFE and Aramid yam combination with an elastomeric core) + (EPDM O-ring) |
| 7- Gland Follower     | CF8M (1.4408)                                                                                            |
| 8- Stem nut           | Brass                                                                                                    |
| 9- Stem               | AISI 430                                                                                                 |
| 10- Yoke              | AISI 304                                                                                                 |
| 11- Axial fixing bush | AISI 304 (1.4301)                                                                                        |
| 12- Friction washer   | PET + solid lubricant                                                                                    |
| 13- Bushing           | Bronze                                                                                                   |
| 14- Spring Pin        | AISI 304 (1.4301) (ISO 8752)                                                                             |
| 15- Handwheel         | Ø≤310: Aluminium (AlSi12) / Ø≥410 GJL250 (GG25)                                                          |
| 16- Knob              | Black bakelite                                                                                           |
| 17- Gasket            | Aramid fibres                                                                                            |
| 18- Sliders           | HWMPE                                                                                                    |

\*On request

# HIGH PERFORMANCE TROUGH CONDUIT KNIFE GATE VALVE

## HANDWHEEL (rising stem)

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



| DN  | A   | B   | C   | D   | E   | F  | G   | H    | O max. |
|-----|-----|-----|-----|-----|-----|----|-----|------|--------|
| 50  | 41  | 152 | 100 | 110 | 129 | 47 | 225 | 429  | 232    |
| 65  | 41  | 167 | 100 | 115 | 146 | 47 | 225 | 451  | 255    |
| 80  | 51  | 182 | 100 | 124 | 162 | 47 | 225 | 476  | 310    |
| 100 | 51  | 202 | 100 | 140 | 187 | 47 | 225 | 517  | 367    |
| 125 | 56  | 216 | 100 | 150 | 211 | 47 | 225 | 601  | 432    |
| 150 | 60  | 241 | 100 | 175 | 237 | 47 | 225 | 652  | 497    |
| 200 | 60  | 294 | 122 | 205 | 309 | 67 | 310 | 822  | 635    |
| 250 | 69  | 356 | 122 | 245 | 364 | 67 | 310 | 1017 | 777    |
| 300 | 78  | 410 | 122 | 280 | 414 | 67 | 310 | 1102 | 905    |
| 350 | 78  | 473 | 197 | 300 | 486 | 66 | 410 | 1286 | 1047   |
| 400 | 89  | 538 | 197 | 350 | 536 | 66 | 410 | 1386 | 1171   |
| 450 | 89  | 588 | 201 | 420 | 588 | 66 | 550 | 1583 | 1301   |
| 500 | 114 | 646 | 201 | 450 | 648 | 66 | 550 | 1673 | 1461   |
| 600 | 114 | 754 | 201 | 530 | 748 | 66 | 550 | 1963 | 1711   |

# HIGH PERFORMANCE TROUGH CONDUIT KNIFE GATE VALVE

## PNEUMATIC CYLINDER

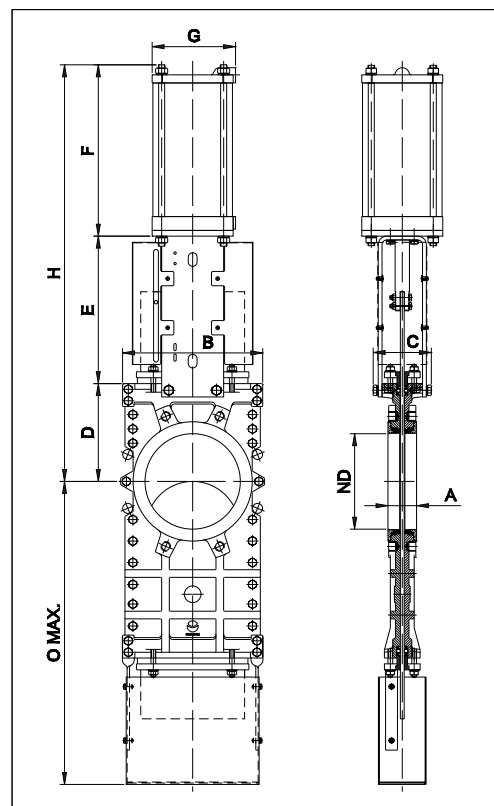
- The standard pneumatic actuator (double acting on-off cylinder) consists of:

- DN ≤ 250: Aluminum barrels
- DN ≥ 300: Composite barrels
- Aluminium covers
- Stainless Steel (AISI 304) piston rod
- Nitrile coated steel piston

- Available from DN 50 to DN 600

- Supply Pressure: min. 3.5 bar - max. 10 bar. Actuator designed with 6 bar air supply

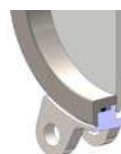
- For valves installed in a horizontal position, we recommend U-type support plates and/or actuator support



| DN  | A   | B   | C   | D   | O    | E   | F   | G   | H    | Ø max. | Std.Cyl. | Connect. |
|-----|-----|-----|-----|-----|------|-----|-----|-----|------|--------|----------|----------|
| 50  | 41  | 152 | 100 | 110 | 232  | 129 | 178 | 115 | 417  | 14     | C100/62  | 1/4" G   |
| 65  | 41  | 167 | 100 | 115 | 255  | 146 | 193 | 115 | 454  | 16     | C100/77  | 1/4" G   |
| 80  | 51  | 182 | 100 | 124 | 310  | 162 | 211 | 115 | 497  | 18     | C100/95  | 1/4" G   |
| 100 | 51  | 202 | 100 | 140 | 367  | 187 | 231 | 115 | 558  | 23     | C100/115 | 1/4" G   |
| 125 | 56  | 216 | 100 | 150 | 432  | 211 | 271 | 140 | 632  | 34     | C125/143 | 1/4" G   |
| 150 | 60  | 241 | 100 | 175 | 497  | 237 | 296 | 140 | 708  | 41     | C125/168 | 1/4" G   |
| 200 | 60  | 294 | 122 | 205 | 635  | 309 | 358 | 175 | 872  | 73     | C160/220 | 1/4" G   |
| 250 | 69  | 356 | 165 | 245 | 777  | 364 | 428 | 220 | 1037 | 105    | C200/270 | 3/8" G   |
| 300 | 78  | 410 | 165 | 280 | 905  | 414 | 478 | 220 | 1172 | 128    | C200/320 | 3/8" G   |
| 350 | 78  | 473 | 270 | 300 | 1047 | 500 | 549 | 277 | 1359 | 207    | C250/375 | 3/8" G   |
| 400 | 89  | 538 | 270 | 350 | 1171 | 560 | 599 | 277 | 1509 | 300    | C250/425 | 3/8" G   |
| 450 | 89  | 588 | 270 | 420 | 1301 | 608 | 680 | 382 | 1708 | 378    | C300/475 | 1/2" G   |
| 500 | 114 | 646 | 270 | 450 | 1461 | 668 | 730 | 382 | 1848 | 445    | C300/525 | 1/2" G   |
| 600 | 114 | 754 | 270 | 530 | 1711 | 796 | 880 | 444 | 2206 | 619    | C300/625 | 3/4" G   |

# HIGH PERFORMANCE KNIFE GATE VALVES

## SEAT TYPES



### METAL/METAL

For applications with:

- High temperature
- High density media application
- When full tightness is not required



### TYPE "K" SEAT

- Standard replaceable resilient seat
- Replaceable stainless steel ring



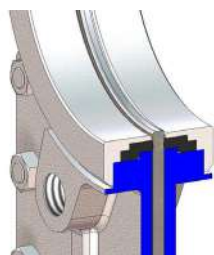
### DEFLECTION CONE "C"

- Deflects the media away from any valve internal exposed parts (gate guides, seat, ..)
- Material: AISI 316 (1.4401), CA15, Ni-Hard, ..
- Face-to-face dimension increases:  
DN 50 to DN 250 X = 9mm  
DN 300 to DN 600 X = 12mm



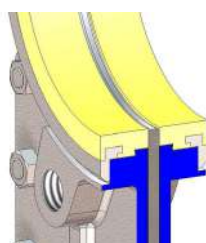
### POLYURETHANE

- Replaceable polyurethane seat ring



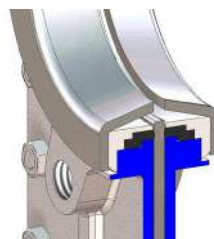
### TYPE "K" SEAT (EPDM)

- Standard replaceable resilient seats
- Replaceable stainless steel ring



### POLYURETHANE

- Replaceable polyurethane seat ring



### DEFLECTION CONE "C"

- Deflects the media away from any valve internal exposed parts (gate guides, seat,...)
- Material: AISI 316, CA15, Ni-Hard, etc.
- Face-to-face dimension increases:  
DN 50 to DN 250 X = 9mm  
DN 300 to DN 600 X = 12mm

## TEMPERATURE CHART

### SEAT / SLEEVES

| Material     | Max.Temp.(°C) | Applications                      |
|--------------|---------------|-----------------------------------|
| EPDM (E)     | 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              |
| Polyurethane | 90            | Abrasion resistance               |

### PACKING

| Material           | Max.Temp.(°C) | pH   |
|--------------------|---------------|------|
| Dynapack (DP)      | 270           | 2-14 |
| Braided PTFE (TH)  | 260           | 0-14 |
| Graphited (GR)     | 600           | 0-14 |
| Ceramic fibre (FC) | 1200          | --   |

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

# SAMPLING VALVE

The **TP** sampling valve is used to get representative samples from pipe lines or tanks where occasional sampling of 0-8% consistency fluids is required or for calibration of continuous measuring transmitters. The valve seat design avoids any possibility of build-up. The valve opens into the pipeline. The body comes in two pieces, body and flange fitting, in order to facilitate installation. The flange fitting is welded to the pipe and flanged to the valve body. Discharge end of the valve has a friendly design. It is prepared for the installation of a flexible 1 1/4" rubber pipe and includes a bucket hanger.

## Options:

- Flush port
- Pneumatic actuator

## Size:

DN 25/40 mm

## Applications:

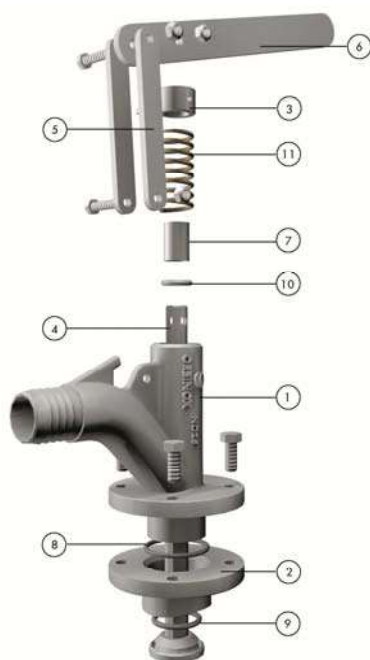
DN 25 for consistency 0-5%

DN 40 for consistency > 3% - 5% in case of high reject content or long fiber pulp (without flush connection)

DN 40 for consistency > 5% up to 8% (with flush connection)

## Working pressure:

10 bar



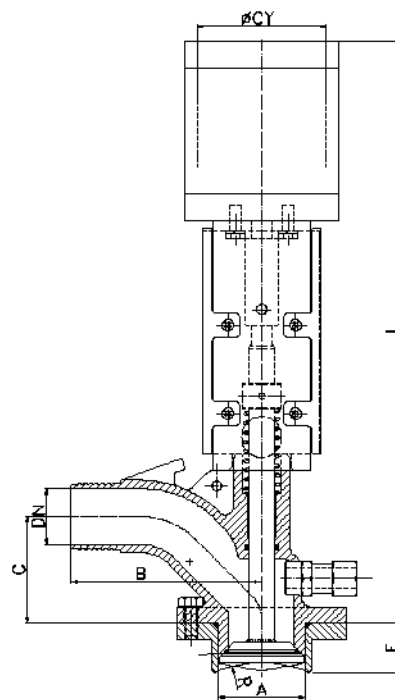
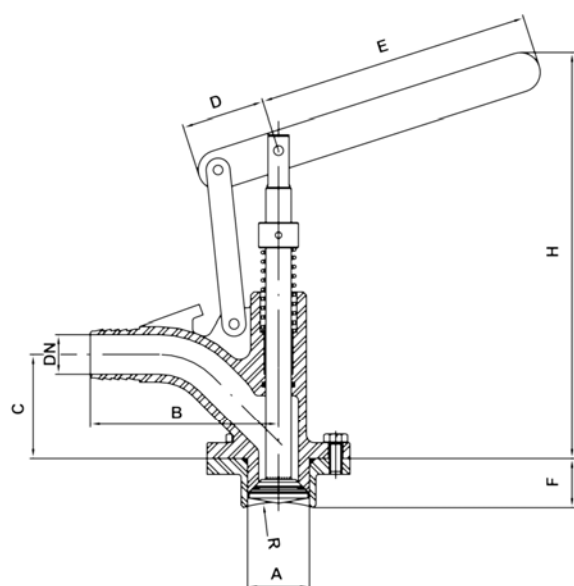
## STANDARD PARTS LIST

### Components:

### Material:

|                   |                   |
|-------------------|-------------------|
| 1. Body           | CF8M (1.4408)     |
| 2. Flange fitting | CF8M (1.4408)     |
| 3. Bush           | AISI 304 (1.4301) |
| 4. Shaft          | AISI316 (1.4404)  |
| 5. Lever          | AISI 304 (1.4301) |
| 6. Lever          | AISI 304 (1.4301) |
| 7. Bearing        | Glacier DU        |
| 8. O-Ring         | Nitrile           |
| 9. O-Ring         | Nitrile           |
| 10. O-Ring        | Nitrile           |
| 11. Spring        | AISI 302 (1.4310) |
| 12. Bolts&Nuts    | A2                |

# SAMPLING VALVE



| DN | A  | B     | C  | D    | E     | F  | H     | R  | CY * | I   |
|----|----|-------|----|------|-------|----|-------|----|------|-----|
| 25 | 39 | 118,5 | 66 | 52,5 | 172,5 | 31 | 256,5 | 75 | 63   | 357 |
| 40 | 54 | 118,5 | 66 | 52,5 | 172,5 | 31 | 257,5 | 75 | 80   | 362 |

\* Actuator designed with 6 kg/cm<sup>2</sup> air supply.



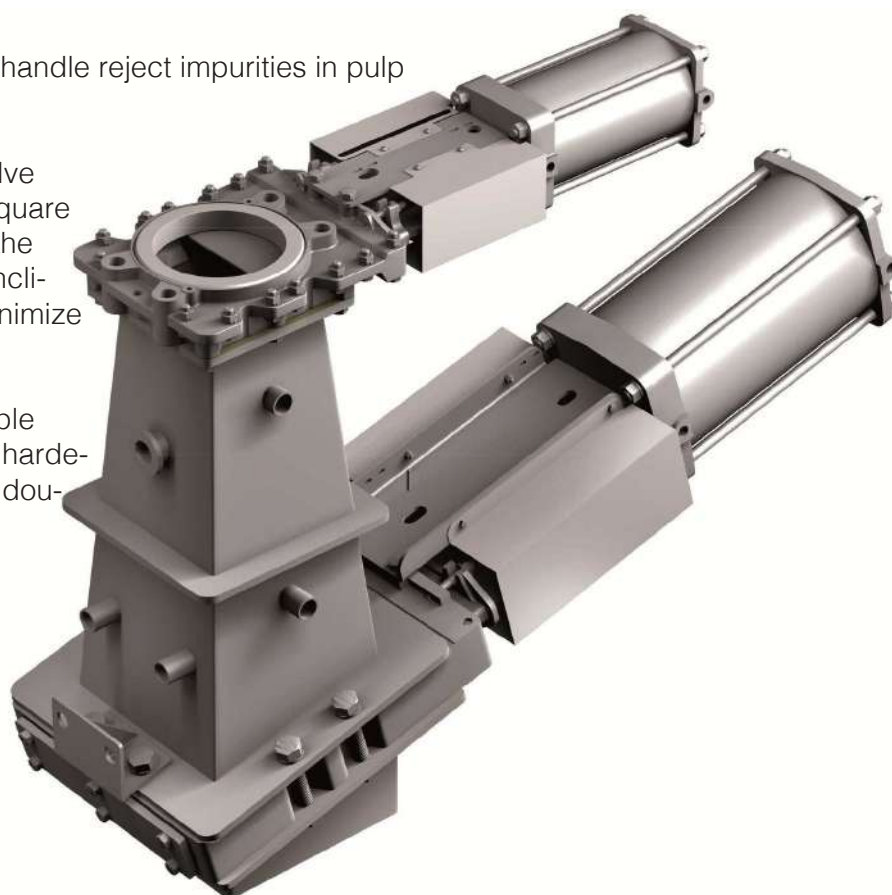
# JUNK TRAP

The **Junk trap system** is designed to handle reject impurities in pulp and paper applications.

- Preferred solution is a CR as inlet valve and a CK as discharge valve, with a square and conic shape reject tank between the valves. Both the tank design and the inclined position of the discharge valve minimize wear.

- The valves can be supplied in multiple configurations, including gate surface hardening treatments, vortex breaker seats, double gland systems, etc

- Other valve type's combination can be also used according to customer's choice and preferences (i.e. EK, ET, TL/TK as inlet and CR or TL/TK as outlet).



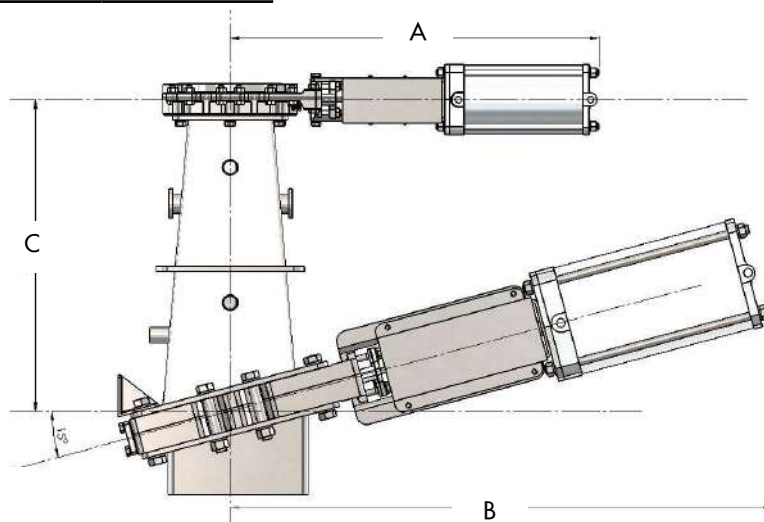
## MAIN DIMENSIONS

| DN (1)  | A (mm) | B (mm) | C (mm) | (2)<br>Volume<br>(litres) | Weight(3)<br>(kg) |
|---------|--------|--------|--------|---------------------------|-------------------|
| 100/250 | 563    | 1040   | 639    | 15                        | 150               |
| 150/250 | 708    | 1040   | 522    | 17                        | 165               |

(1) Main sizes

(2) Junk tank volume

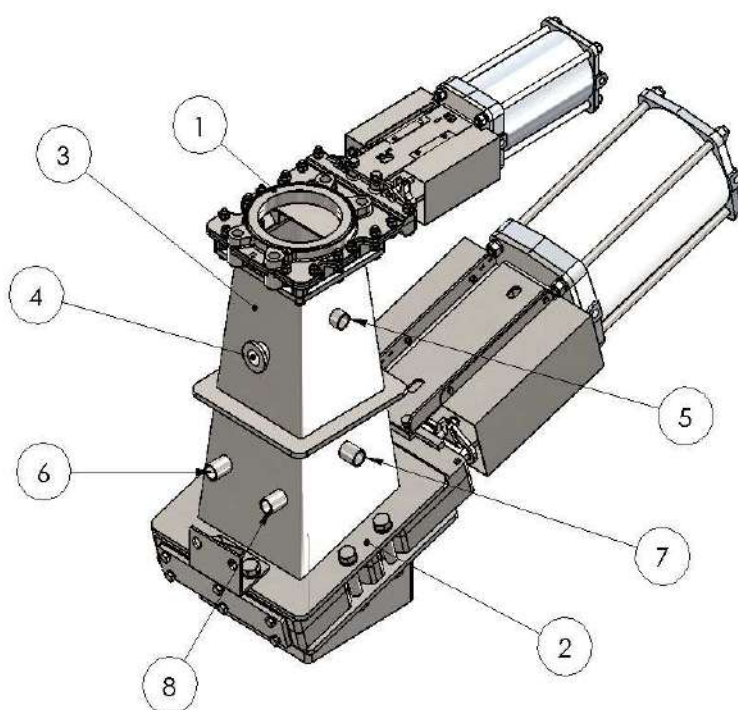
(3) Approximate weight of KGVs plus reject tank



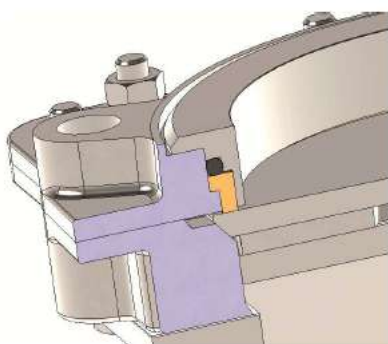
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# JUNK TRAP

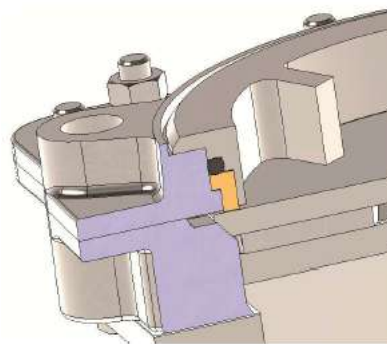
|     |                                       |
|-----|---------------------------------------|
| 1   | TOP knife gate valve                  |
| 2   | BOTTOM knife gate valve               |
| 3   | Junk tank                             |
| 4   | Sight glass                           |
| 5   | Purge air connection 1"               |
| 6-8 | Flushing/filling water connections 1" |



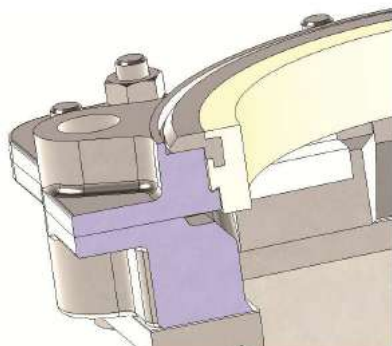
## MAIN SEATING OPTIONS



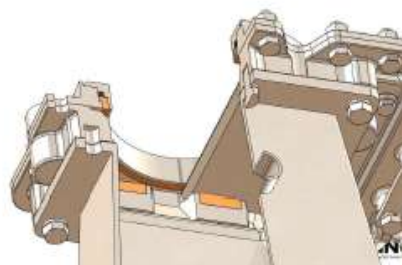
K-ring with bronze ring slider



Vortex breaker K-ring with bronze ring slider



Polyurethane ring



*Note: Guiding back sliders in the downstream half body are in bronze material but in Polyurethane ring option where back sliders are in UHMPE*

# JUNK TRAP

## Stage 1 (Junk trap full)

Lower KGV closed → Upper KGV closed; all flushing and purge connections closed

## Stage 2 (Tank cleaning)

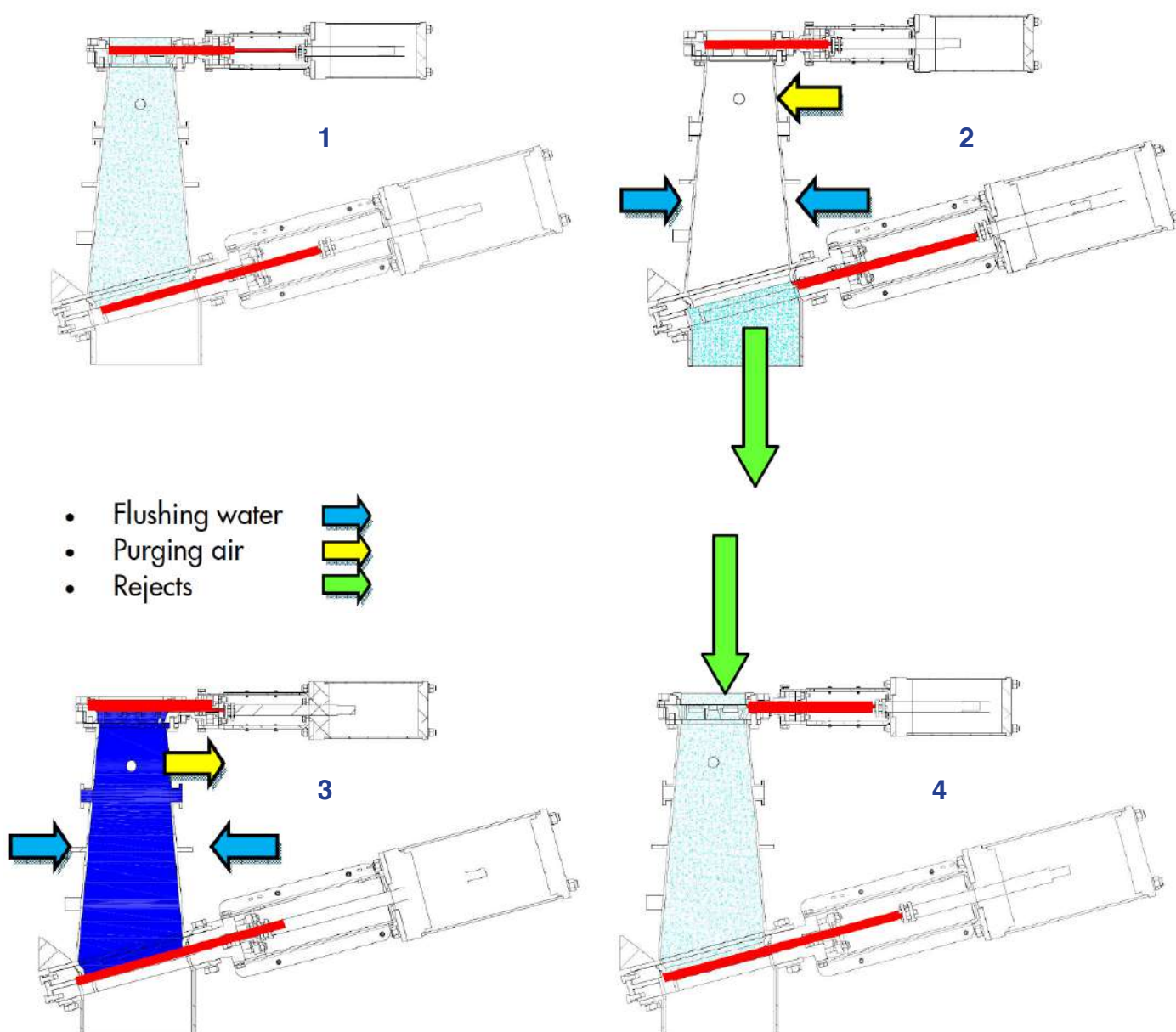
Upper KGV closed → Lower KGV open; all flushing and purge connections are opened to wash out the tank.

## Stage 3 (Tank filling)

Lower KGV closed → Upper KGV closed; All flushing and purge connections are opened to fill tank with water\_

## Stage 4 (Junk trap)

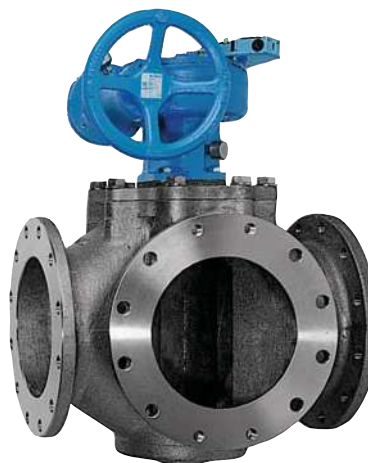
All connections closed when tank fully filled with water → Lower KGV stays closed and upper KGV opens; rejects start to fill the junk tank.



## OTHER VALVES:



**RM**  
Tilting disc valve



**3/4 V**  
3/4 way valve

## OPTIONS:

### **Options and Instrumentation (on request):**

- Gate guards for proximity switches
- Over/Undersized cylinder
- Manual override
- Fail safe system
- Limit switches
- Positioners
- Flow regulators
- Solenoid valves
- Junction box



## ACTUATOR TYPES



Standard Handwheel  
(Non Rising Stem)



Electric



Pneumatic



Chainwheel



Handwheel  
(Rising Stem)



Single-acting  
cylinder



Bevel gear



Lever



**DI MARCO spa - Via Pesciatina 278**  
**55010 Lunata (LU)**  
**Tel. +390583429400**  
**[info@dimarcospa.com](mailto:info@dimarcospa.com)**  
**[www.dimarcospa.com](http://www.dimarcospa.com)**

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