

# DUAL ROTARY DISC VALVE (DRDV)



**DUAL**'s Rotary Disc Valve is a unique rotating gate valve designed specifically for heavy abrasive and corrosive slurries. The patented design allows the valve to cycle in heavy slurries without sticking.

## **FEATURES**

- No blocking or leakage.
- Disc can be replaced in situe.
- No sticking, (due to no guides).
- Long wear life, (due to rotating gate/disc).
- Self clearing gate action.
- Seals in both directions.
- Wedge for positive seal.
- Cut away to clean seating area.
- Fabricated valves can be repaired in line.
- Seal out of flow when in open position.
- Rising or non-rising spindle.

Material:

Back Seat to repack gland packing under pressure.

## PRODUCT SPECIFICATION

Valve Body: Fabricated Carbon Steel for valves

larger than 300mm, Cast SG Iron,

High Chrome or Stainless Steel Gate material can be carbon steel.

Abrasion Resistant AR Steel, Cast High Chrome or Stainless Steel. Thickness: Gate to have a minimum safety

factor of 2:1 based on yield strength

of material.

Shape: Gate radius to be set for minimum valve height in chest area. Gate is

round with metal, rubber or urethane

seal. seal.

seal.

Thrust Bearings: Certification Materials:

Materials:

Testing:

Pressure Rating:

Flanges:

Face-to-face: Lifting Lugs: All wetted parts have certified chemical and physical test reports. All valves are tested per SABS

specifications certified.

10 bar to 100 bar (150Psi to 1500Psi)

Flanges comply with AS, ANSI, DIN,

SABS or BS.

To suit customer specification.

Valves have lifting lugs/holes sized and located for safe hoisting of valve assembly.

Body Lining: Rubber, ÚRETHANE or Ceramic.

## **VALVE OPERATION**

As the handwheel is opened or closed, the disc rotates. This happens due to the pressure pushing against the disc, causing the disc to touch the valve body and rotate. As the valve is cycled, the disc rotates 100mm, seating in a different position each time. The valve body has a cutaway behind the disc clearing debris away and thus, ensuring the disc closes and seals.

## ASH APPLICATION (FABRICATED VALVES)



#### VALVE FLEXIBILITY

The very nature of fabricating the large valves allows a maximum of flexibility in customizing to meet specific needs, materials, pressure rating configuration. The body is made of carbon steel and can be made out of different materials to suit the customer. The bonnet houses the rotating disc and seals around the spindle.

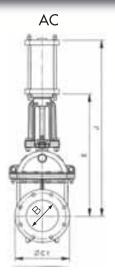
## **ACTUATORS**

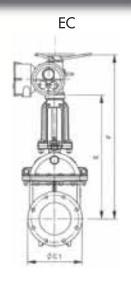
All types of actuators can be fitted, electric, gearbox, hydraulic, pneumatic and handwheel.

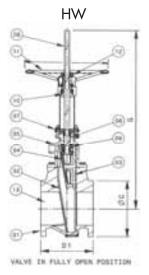
## **ACCESSORIES**

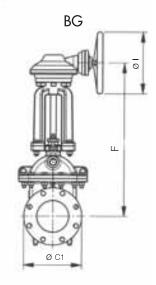
Dust covers and PVC bellows to protect spindle. Flushing ports.

## DIMENSIONS AND SPECIFICATIONS









|   | Part      | Description                                   |    | Part          | Description                  |
|---|-----------|---|----|---------------|------------------------------|
| 1 | Body      | Carbon, Cast SG Iron, Steel/Stainless Steel   | 8  | Spindle       | Stainless Steel              |
| 2 | Body Seat | Abrasion Resistant AR Steel, Urethane, Rubber | 9  | Yoke Assembly | Mild Steel/Stainless Steel   |
| 3 | Disc      | Stainless Steel or Other                      | 10 | Spindle Nut   | Bronze                       |
| 4 | Wedges    | Mild Steel/Stainless Steel, Cast SG Iron      | 11 | Handwheel     | Cast SG Iron/Stainless Steel |
| 5 | Bonnet    | Mild Steel/Stainless Steel, Cast SG Iron      | 12 | Handwheel Nut | Carbon Steel/Stainless Steel |
| 6 | Packing   | Graphite in Rope                              | 13 | Body Lining   | Rubber, Urethane or Ceramic  |
| 7 | Gland     | S.S./Carbon Steel, Cast SG Iron               |    |               |                              |

Dimensions and weights are for guidance only - detailed dimension drawings available on request. All dimensions are in millimetres, unless stated.

| A      | Valve<br>Size  |        | 50mm | 80mm | 100mm | 150mm | 200mm | 250mm | 300mm | 350mm | 400mm | 450mm | 500mm | 600mm |         |
|--------|----------------|--------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
|        | Cı             |        | 152  | 191  | 229   | 279   | 343   | 406   | 483   | 538   | 597   | 635   | 711   | 826   | ry      |
| Throat | В              | Actual | 50   | 80   | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 590   | Factory |
|        | С              |        | 137  | 191  | 220   | 279   | 343   | 406   | 483   | 583   | 597   | 635   | 711   | 826   |         |
|        | D              |        | 48   | 51   | 51    | 57    | 70    | 70    | 76    | 76    | 89    | 89    | 114   | 365   | Consult |
|        | $\mathbf{D}_1$ |        | 216  | 229  | 254   | 280   | 317   | 356   | 380   | 470   | 470   | 485   | 510   | 600   | Ou      |
|        | E              |        | 300  | 370  | 380   | 610   | 770   | 905   | 1012  | 1140  | 1280  | 1487  | 1690  | 1785  | s C     |
|        | F              |        | 370  | 440  | 470   | 661   | 845   | 1014  | 1120  | 1230  | 1355  | 1600  | 1706  | 1885  | Sizes   |
|        | G              |        | 550  | 542  | 695   | 900   | 1104  | 1360  | 1560  | 1840  | 1940  | 2180  | 2350  | 2800  | er S    |
|        | н              |        | 300  | 300  | 300   | 500   | 500   | 600   | 600   | 600   | 700   | 700   | 700   | 700   | arger   |
|        | I              |        | 300  | 300  | 300   | 500   | 500   | 600   | 600   | 600   | 700   | 700   | 700   | 700   |         |
|        | J              |        | 559  | 659  | 710   | 1003  | 1224  | 1411  | 1615  | 1745  | 2016  | 2300  | 2579  | 2751  | For     |
|        | Weight         | KG     | 30   | 30   | 45    | 89    | 125   | 157   | 200   | 350   | 450   | 520   | 650   | 900   |         |

### Applications:

- Mining and mineral processing Power generation Sand and gravel Chemical and soda ash
  - Pulp and paper
     Environmental and Effluent
     Water purification

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