FLOWROX

Proven Performance

Flowrox Rotary Disc Valve (LRD)

Flowrox Rotary Disc Valve is built with a cast body and features a heavy-duty stainless steel gate. LRD is a unique rotating disc valve designed specifically for heavy abrasive and corrosive slurries. The patented design allows the valve to cycle in heavy slurries without sticking or leaking and with minimum wear. LRD is available with pressure ratings from 150 psi to 1500 psi.

Valve Operation

The LRD Valve is designed for leak tight shut off slurries and liquids within a pipeline. The valve is designed to be operated only in the fully open or fully closed position. As the actuator is opened or closed, the disc is allowed to rotate. This happens due to the pressure pushing against the disc, causing the disc to touch the valve seat and rotate. As the valve is cycled, the disc rotates a few degrees, seating in a different position each time. The wedge gate support has a cutaway behind the disc clearing debris away and thus, ensuring the disc closes and seals every time. The very nature of the construction allows a maximum of flexibility in customizing to meet specific needs, in terms of materials pressure rating, etc. The body and bonnet are made of cast steel and can be made out of different materials to best suit the customer needs. The bonnet houses the rotating disc when open and seals around the spindle.

How the valve seals work

LRD is a rotating disc valve for slurry. The isolation and sealing is between the replaceable rotating disc and seat. The disc seals against the seat when closed with the help of a tapered wedge gate support. The seat can be supplied in elastomer urethane or ceramic. This rotating disc and seat are both replaceable on site.

Replaceable Discs

LRD Valve's design allows for on site replacement of the rotating disc.

Features

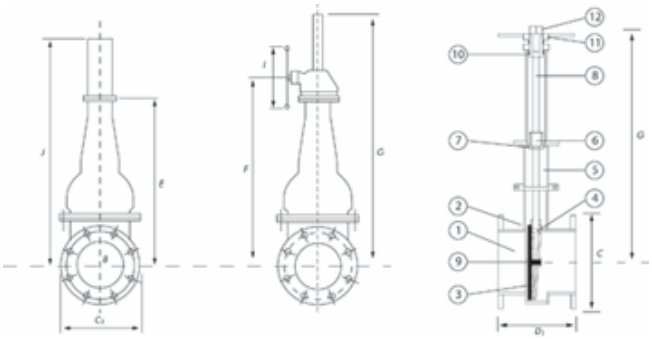
- No blocking or leakage – 100% tight
- No leakage to atmosphere
- No sticking
- Long wear life (due to rotating gate/disc)
- Self-clearing gate action
- Seals in both directions
- Repacking of gland stem seals under pressure
- Wedge for positive seal
- Cut away to clean seating area
- Seal out of flow when in open position
- Rising or non-rising spindle

Applications

- Mining and metal industries
- Mineral processing
- Power generation
- Sand and gravel
- Chemical
- Pulp and paper
- Water and wastewater treatment

Actuators

-Manual
-Manual Gear
-Pneumatic
-Hydraulic
-Electric



Structure

Part	Description	Material	Part	Description	Material
1	Body	Carbon Steel/Stainless Steel	8	Spindle	Stainless Steel
2	Body Seat	Abrasion resistant AR Steel, SS or urethane rubber	9	Yoke Assembly	Milkd Steel/Stainless Steel
3	Disc	Stain Steel or other	10	Spindle Nut	Bronze
4	Wedges	Mild Steel	11	Hand Wheel	Carbon Steel/Stainless Steel
5	Bonnet	Mild Steel/Stainless Steel	12	Hand Wheel Nut	Carbon Steel/Stainless Steel
6	Packing	Graphite	13	Body Lining	Rubber, Urethane or Ceramic
7	Gland	S.S/Carbon Steel			

Product Specification

Materials:

- Valve body : Cast Steel, Carbon Steel, Stainless Steel or High Chrome
- Gate: Stainless Steel as standard, other materials on request
- Thrust Bearings: included as standard, to reduce operating torque
- Materials: Valves are tested per SABS and recognized by the International Certification Network IQ NET
- Pressure Rating: 150 psi – 1500 psi
- Flanges: drilled to ANSI, DIN, BS, JS or SABS
- Face-to-face: as per table or specials on request
- Lifting Lugs: Valves have lifting lugs/holes sized and located for safe lifting of valve assembly
- Body Lining: Rubber, Urethane or Ceramic

Accessories:

- Dust covers
- Switches
- Bellows
- Guarding

Dimensions and Weights

Valve Size A	2 in	3 in	4 in	6 in	8 in	10 in	12 in	14 in	16 in	18 in	20 in	24 in
CI	6.08	7.64	9.16	11.16	13.72	16.24	19.32	21.52	23.88	25.4	28.44	33.04
B	2	3	4	6	8	10	12	14	16	18	20	23.6
C	5.48	7.64	8.8	11.16	13.72	16.24	19.32	23.32	23.99	25.4	28.44	33.04
D	1.92	2.04	2.04	2.28	2.8	2.8	3.04	3.04	3.56	3.56	4.56	14.6
DI	8.64	9.16	10.16	11.2	12.68	14.24	15.2	18.8	18.8	19.4	20.4	24
E	12	14.8	15.2	24.4	30.8	36.2	40.48	45.6	51.2	59.48	67.6	71.4
F	14.8	17.6	18.8	26.44	33.72	40.56	44.8	49.56	54.2	64	68.24	75.4
G	16.24	20.84	22.36	34.44	42.72	49.4	58.12	68.64	79.92	93.24	24	113.96
H	8	8	12	16	16	16	20	20	24	24	24	24
I	.8	1.2	1.6	3.4	4	4.72	7.36	8	10.28	18	20	22
J	22.36	25.56	28.4	40.12	48.96	56.44	64.6	69.8	80.64	92	103.16	110.04
Weight lb	66.13	66.13	99.20	196.21	275.57	346.12	440.92	771.61	947.98	705.47	1433	1984.15

Flowrox 808 Barkwood Court Suite N Linthicum, MD 21090 Tel. 410-636-2250 Fax 410-636-9062 info@flowrox.com www.flowrox.us