

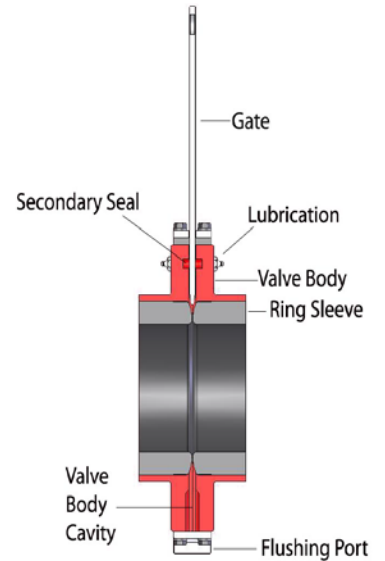
Flowrox Wafer Knife Gate Valve (LKW)



Flowrox Heavy Duty Wafer Knife Gate Valve is built with a cast body and features a heavy-duty stainless steel gate. Removable seats on either side of the blade provide a bi-directional bubble tight seal, with no metal parts in contact with the slurry. LKW is available with pressure rating up to 10 bars.

Valve Operation

In the open position the two sleeves seal against each other in the centre of the valve, providing a full bore through which the slurry can travel without being in contact with any metallic components. Closing the valve forces the gate progressively down between the two mating sleeve ends until it reaches the fully closed position, at which point the sleeves seal tight against either side of the gate, effectively sealing and completely containing the line pressure. Any material/medium discharged between the sleeves during stroking open or closed is collected within the containment area of the valve body and drained via the multiple flushing ports in the body.



Features

- Double seat design for heavy duty slurry service
- Easily replaceable ring sleeves
- Full bore
- When open, the knife-gate is fully withdrawn from the slurry flow
- No metal parts in contact with the flowing slurry
- Bubble tight shutoff
- No clogged bonnet to impede flow
- External epoxy coated
- Easily adapted to suit most actuators
- Low maintenance requirements
- Suitable for wet or dry service
- Bi-directional flow
- No packing gland to maintain
- Wide range for elastomer available
- No seat cavity where solids can collect and prevent full gate closure

Valve Body

- Heavy duty cast body
- Heavy duty yoke frame
- Lubrication ports
- Flushing ports
- Open/closed lockout brackets standard

Actuators

- Manual
- Manual gear
- Pneumatic
- Hydraulic
- Electromechanical

How the rubber ring sleeves work

Matching rubber ring sleeves are placed in the valve housing to seal against the gate when the valve is closed and seal against each other when the valve is open. This tight seal contains the high internal line pressure. Double seated design provides bi-directional flow and tight shut off.



Product Specification

Body:
Wafer pattern SG Iron as standard.
Elastomer Sleeves:
NR (Standard) Nitrile, others on request

Pressure Rating:
10 Bar, standard (150psi)

Diameter
50-600 mm

Gate Material:
316 Stainless Steel with optional wear coatings.
Various blade materials optional.

Stem protection as standard

Drilling patterns:
DN50 to DN600 drilled and Tapped DIN, ANSI.
Other in request.

Flushing port as standard

Material Certification:
Certified chemical and physical test reports can be supplied

Applications

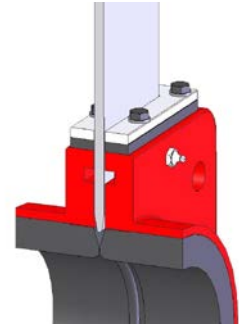
- Mining and metal industries
- Mineral processing
- Power generation
- Sand and gravel
- Chemical
- Pulp and paper
- Water and Wastewater treatment

Accessories

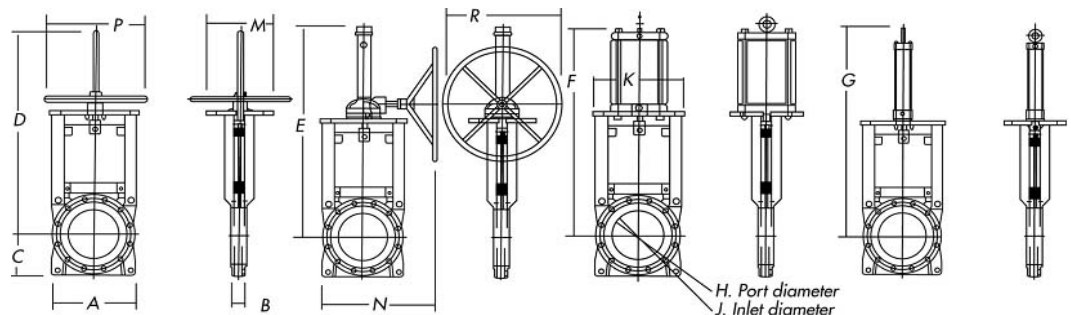
- Limit switches
- Solenoid valves
- Gate guards

Secondary Seal

The field replaceable elastomer secondary seal replaces conventional gland packing, providing both wiping and lubricating actions to the blade as it strokes - via contact between the blade surface and the silicone grease filled contours of the seal itself. Lubrication of the blade allows for easier actuation and movement. There is no need to remove the valve from the line when replacing the secondary seal.



Dimension and weights



Valve	A	B	C	D	HW	BG	AC	HYC	H	J	K	BG	HW	BG	HW	BG	AC	HYC
50	175	48	102	487	-	458	477	47	51	191	-	300	300	20	30	35	30	
80	203	51	124	568	-	545	558	71	76	222	-	300	300	25	35	40	40	
100	244	51	139	621	-	585	610	97	102	267	-	300	300	35	45	50	55	
150	279	57	146	748	783	721	743	147	152	320	504	500	500	40	50	65	60	
200	343	70	179	888	920	857	879	196	203	375	531	500	500	65	75	90	75	
250	416	70	209	1043	1070	1033	1055	247	254	444	566	500	500	90	100	150	100	
300	483	76	248	-	1234	1191	1207	287	304	518	607	-	600	170	180	230	105	
350	535	76	274	-	1350	1287	1290	329	337	573	634	-	600	200	210	300	145	
400	603	89	302	-	1480	1418	1421	381	387	622	749	-	700	240	250	340	170	
450	648	89	324	-	1722	1646	1666	432	432	669	765	-	700	260	270	390	245	
500	711	120	368	-	1823	1878	1882	483	500	712	790	-	700	330	340	530	340	
600	838	120	419	-	2162	2216	2235	589	600	889	878	-	700	480	490	580	520	

Dimensions are for guidance only - detailed dimensions drawings available on request. All dimensions are in millimeters, unless stated.

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