



**The Isogate® WB series wide body heavy duty slurry knife gate valve is specifically designed for highly abrasive and corrosive applications.**

**A heavy duty knife gate valve designed for highly abrasive slurry applications**

The Isogate® WB series is designed for those applications where high abrasion resistance is needed. The Isogate® WB series' robust design and rugged heavy duty construction provides greater reliability and longer life in heavy duty, highly abrasive, corrosive and coarse slurries.

Using materials proven by Weir Minerals Linatex's experience in abrasion and corrosion resistance, the Isogate® WB series heavy duty slurry knife gate valve combines a low maintenance design with a wide range of available materials making the valve suitable for a variety of applications.

# A heavy duty wide body slurry knife gate valve with robust design and rugged construction ensures long valve life and greater reliability.

## Design benefits

- Field replaceable thick elastomer sleeves are easily replaced without disassembling the valve
- Sleeves are available in a variety of materials to handle abrasive and corrosive applications
- Full port flow reduces pressure drop and turbulence, thus minimizing wear
- Bi-directional shut off
- 100% bubble-tight shut off
- Packingless design; no gate or stem packing
- Open bottom allows for the purging of large solids, and solids in high concentration
- Yoke design allows fitting for all designed actuators
- No seat cavities where solids can collect and cause gate interference
- May be used in wet or dry application
- Flush control option allows for periodic cleaning of the lower discharge vent and allows flushing as needed

### Bi-directional double elastomer sleeve design



**Open position**

Only thick elastomer sleeves are in contact with slurry. No metal parts contacting the fluid.



**Closed position**

The gate is between thick elastomer sleeves, with full tight shut-off.

Actuator options include bevel gear, air, hydraulic, and electric motor

Lower stem cover

Stainless steel clevis

Carbon steel yoke

Heavy stainless steel gate

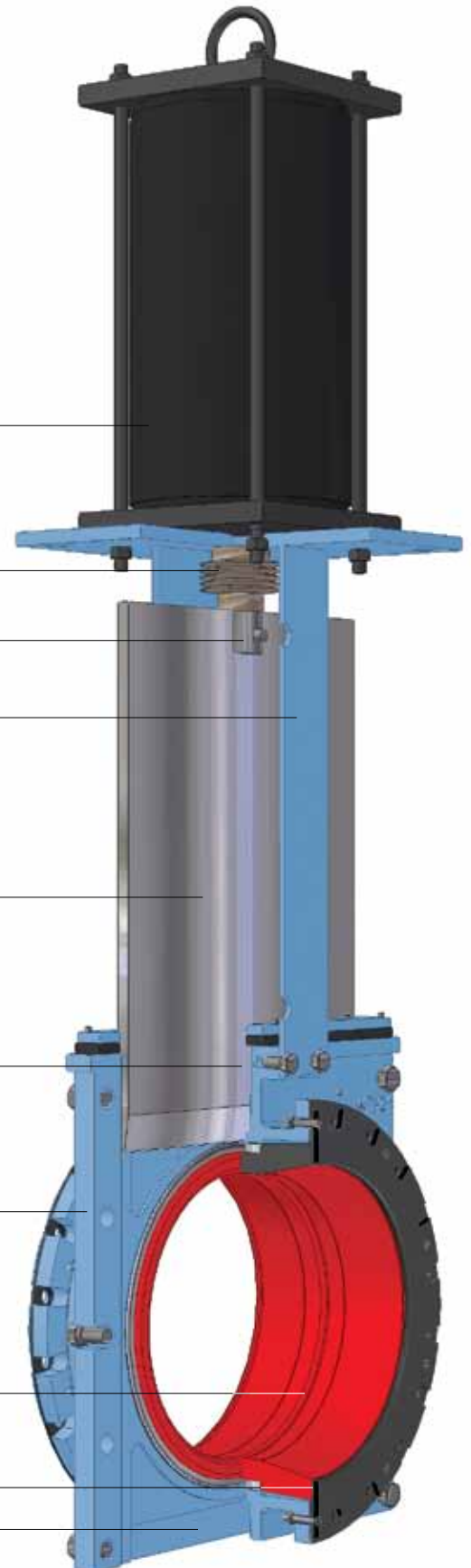
Packingless design

Ductile iron body

Flexible two-piece elastomer sleeves with stiffener rings

Elastomer lined retainer flanges

Large open bottom



The Isogate® WB series wide body knife gate valve is suitable for a wide range of abrasive slurry applications.

Applications

- Mining
- Power utilities
- Pulp and paper
- General industrial
- General chemical
- Cement
- Sand and gravel
- Coal
- Phosphate
- Soda ash
- Alumina
- Mineral sands

Size range

Available in sizes 3" through 54"

Maximum working pressure

Sizes 3" through 16": 150 psi

Sizes 18" through 24": 100 psi

Sizes 26" through 54": 75 psi

Contact a Weir Minerals representative for higher working pressures

Flanges

Sizes 3" through 10": Drilled to match ANSI B16.5 class 150#

Sizes 12" through 24": Slotted to match ANSI B16.5 class 150#

Sizes 26" through 54": Slotted to match MSS SP44

Actuators

- Bevel gear
- Air cylinders
- Hydraulic cylinders
- Electric motor

Materials

Body: Cast ductile iron as standard

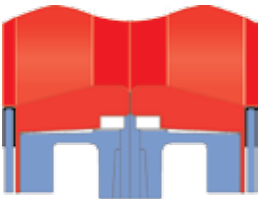
Gate: 316 stainless steel as standard. Other materials such as Hastelloy™ C-276, alloy 2205, and AL6XN are also available.

Sleeves: Natural rubber as standard. EPDM and other materials are also available.

Yoke: Carbon steel fabrication

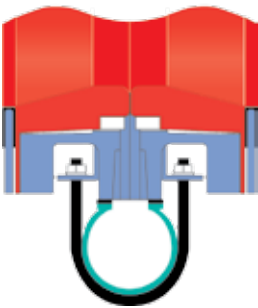


Body options



Open bottom

Open bottom allows for the purging of large solids, and solids in higher concentration. The purging of solids stops when the gate is in the full open or closed position.



Flush control

Flush control option protects against fluids discharging from valve during opening and closing cycles and serves as a collection point that can be periodically cleaned, flushed or continuously drained.

Elastomer selection table

Sleeve Materials	General Service	Continuous Min	Temperature Range Continuous Max	Intermittent Max
Natural rubber	General abrasive applications, FGD, water	-50°C/-60°F	+71°C/+160°F	+82°C/+180°F
EPDM	Pulp and paper, FGD	-50°C/-60°F	+135°C/+275°F	+148°C/+300°F

### Bevel gear valve dimensions

Sizes	A	B	C	D	E	H	J
inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm
12/300	11.8/299	19/483	3.4/86	17/433	10.8/275	18/457	16.5/420
14/350	12.9/328	21/533	3.5/89	17.7/449	11.8/300	18/457	16.5/420
16/400	14.7/374	23.5/597	4/102	21.7/550	13.2/337	18/457	16.5/420
18/450	14.8/376	16.8/426	12.2/308	26.5/672	12.8/325	20/508	16.5/420
20/500	16.6/421	18.5/470	14.2/360	28.4/720	14.2/360	22/559	16.5/420
24/600	21.2/538	23/585	14.7/372	33.9/860	16.5/420	24/610	23.6/600

### Air cylinder valve dimensions

Sizes	A	B	C	D	E	F	G
inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm
3/75	2.9/74	7.5/190	2.3/58	5.9/150	4.6/118	27.7/703	5.6/143
4/100	3.9/100	9/228	2.3/58	7.2/184	5.3/136	31.3/795	5.6/143
6/150	5.9/150	11/279	2.7/67	9.3/236	6.4/162	40.5/1028	8.9/226
8/200	8/203	13.5/343	3.2/80	11.4/290	7.9/202	48.5/1231	8.9/226
10/250	9.8/249	16/406	3.2/80	14.4/365	9.1/230	61.4/1560	11/280
12/300	11.8/299	19/483	3.4/86	17/433	10.8/275	67.9/1724	13/330
14/350	12.9/328	21/533	3.5/89	17.7/449	11.8/300	72.7/1848	15/381
16/400	14.7/374	23.5/597	4/102	21.7/550	13.2/337	81.2/2061	15/381
18/450	14.8/376	16.8/426	12.2/308	26.5/672	12.8/325	81.8/2076	18.9/480
20/500	16.6/421	18.5/470	14.2/360	28.4/720	14.2/360	90.6/2302	23.6/600
24/600	21.2/538	23/585	14.7/372	33.9/860	16.5/420	107.2/2722	23.6/600

### Handwheel valve dimensions

Sizes	A	B	C	D	E	F	H
inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm
3/75	2.9/74	7.5/190	2.3/58	5.9/150	4.6/118	26.4/671	10.6/270
4/100	3.9/100	9/228	2.3/58	7.2/184	5.3/136	29.3/745	10.6/270
6/150	5.9/150	11/279	2.7/67	9.3/236	6.4/162	36.6/930	10.6/270
8/200	8/203	13.5/343	3.2/80	11.4/290	7.9/202	47.4/1203	14.2/360
10/250	9.8/249	16/406	3.2/80	14.4/365	9.1/230	59.8/1520	15.4/390
12/300	11.8/299	19/483	3.4/86	17/433	10.8/275	64.8/1645	19.7/500
14/350	12.9/328	21/533	3.5/89	17.7/449	11.8/300	75.5/1918	23.6/600
16/400	14.7/374	23.5/597	4/102	21.7/550	13.2/337	82.9/2105	23.6/600

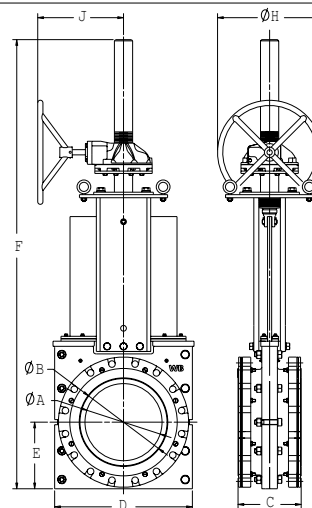
### Hydraulic cylinder valve dimensions

Sizes	A	B	C	D	E	F	H
inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm
18/450	14.8/376	16.8/426	12.2/308	26.5/672	12.8/325	85.2/2162	18.9/480
20/500	16.6/421	18.5/470	14.2/360	28.4/720	14.2/360	93.3/2369	23.6/600
24/600	21.2/538	23.0/585	14.7/372	33.9/860	16.5/420	110.6/2808	23.6/600
26/650	23.5/597	24.6/624	14.7/372	36.8/934	17.6/445	115.7/2939	19.7/500
30/750	26.7/679	29.0/737	15.7/397	41.5/1054	20.3/515	128.5/3263	17.7/450
36/900	31.9/810	35.0/890	18.4/467	48.3/1226	23.6/600	154.3/3918	21.7/550
42/1050	38.3/972	41.1/1044	21.0/534	56.5/1435	27.2/690	180.6/4588	27.6/700
48/1200	44.0/1117	46.7/1160	21.3/540	63.0/1600	30.3/770	200.0/5081	27.6/700
54/1350	49.0/1244	51.0/1320	26.8/680	67.4/1710	33.9/860	217.1/5515	27.6/700

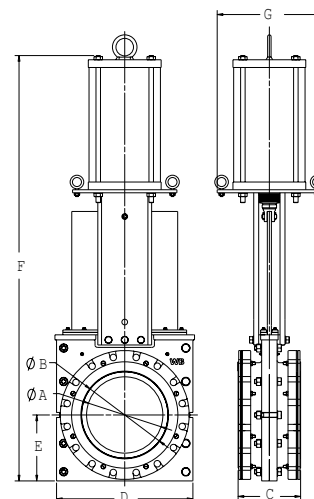
Note 1: Dimensions provided are indicative only. Certified drawings are recommended prior to construction.

Note 2: Flanges are slotted to match ANSI B16.5 class 150# in sizes up to 24", and MSS SP44 in sizes from 26" up to 54".

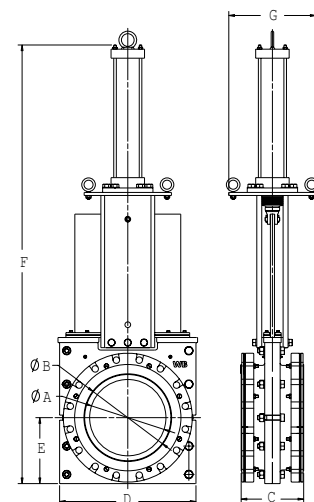
Other flange options are available upon request.



Bevel gear valve dimensions



Air cylinder valve dimensions



Hydraulic cylinder valve dimensions

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