

WB Series



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

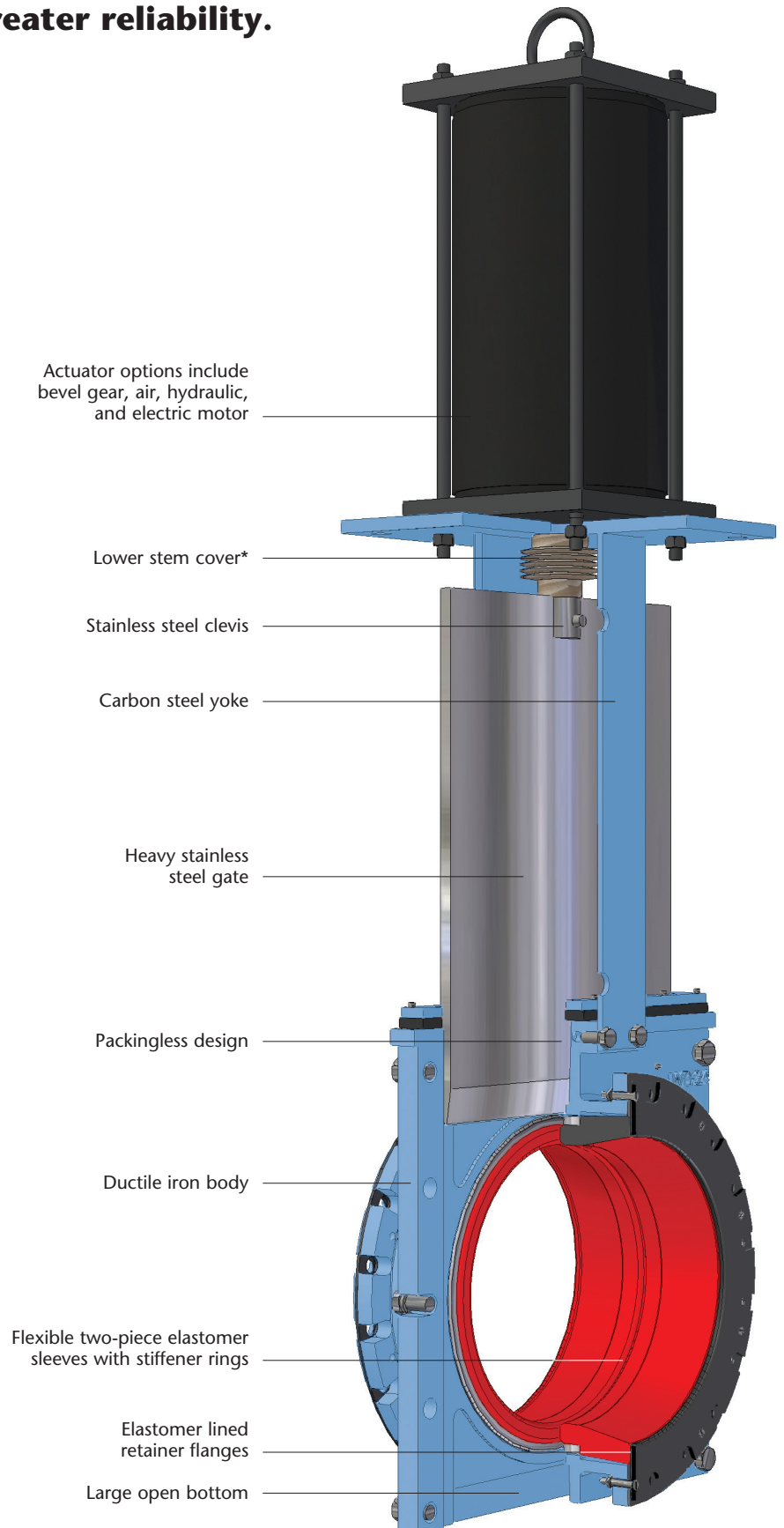
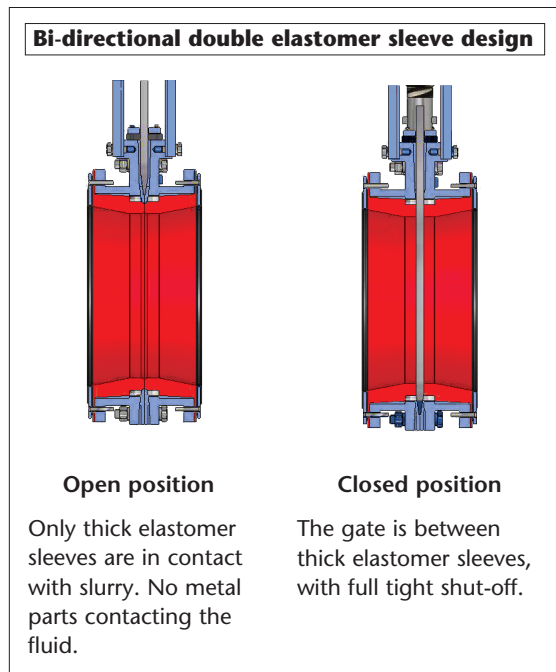
The Isogate® WB series is designed for those applications where high abrasion resistance is needed. The Isogate® WB series' robust design and rugged heavy duty construction provides greater reliability and longer life in heavy duty, highly abrasive, corrosive and coarse slurries.

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



*Lower stem cover is optional

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

Materials

Body: Cast ductile iron as standard

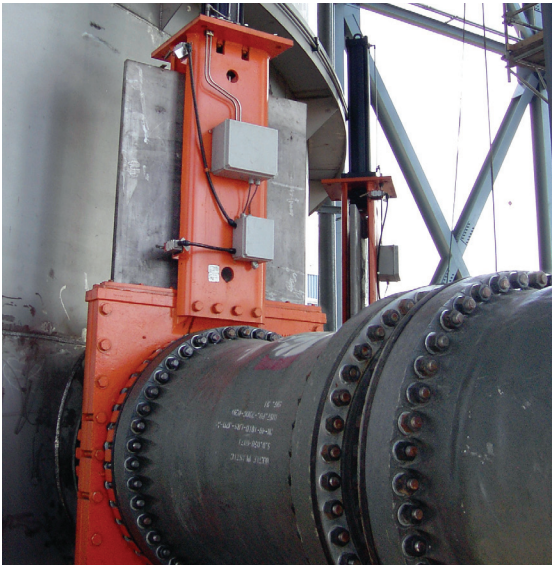
Gate: 316 stainless steel as standard. Other materials such as Hastelloy™ C-276, alloy 2205, and AL6XN are also available.

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

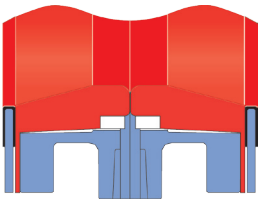
Yoke: Carbon steel fabrication

Actuators

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

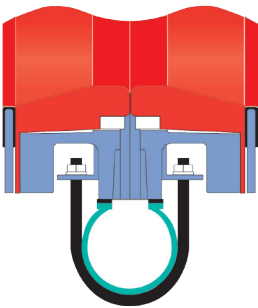


Body options



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	Intermitt 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

Hydraulic 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
10/250	9/230	9.8/250	8.9/225.6	14.4/365	8.6/218	60.3/1531	10.6/270
12/300	10.7/273	12/305	10.1/257	17/433	10.3/262.5	67.1/1704	12.7/324
14/350	12.5/318	13/334	10.1/257	17.7/449	11.3/286.5	74.8/1904	14.7/375
16/400	14/356	15/382	11/279.4	21.7/550	12.7/323	81.7/2074	14.7/375
18/457	14.8/376	16.8/426	12.12/308	26.5/672	12.8/325	81.8/2076	18.9/480
20/508	16.6/421	18.5/470	14.2/360	28.4/720	14.2/360	90.6/2302	23.6/600
24/610	21.2/538	23.0/585	14.7/372	33.9/860	16.5/420	107.2/2722	23.6/600
26/660	23.5/597	24.6/624	14.7/372	36.8/934	17.6/445	115.7/2939	19.7/500
30/762	26.7/679	29/737	15.62/397	41.5/1054	20.3/515	128.5/3263	21.6/550
36/914	31.9/810	35/890	18.4/467	48.3/1226	23.6/600	154.3/3918	21.6/550
42/1067	38.3/972	41/1042	20.8/528	56.3/1430	27.2/690	176.9/4494	27.6/700
48/1219	44.0/1117	45.5/1160	21.3/541	63/1600	30.3/770	200/5081	27.6/700
54/1372	49/1244	49.6/1244	23.6/600	67.7/1720	33/860	229/5890	31.5/800

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	2.4/62	3/76	6.9/174.8	5.9/150	4.33/110	25.7/652.5	5.5/140
4/100	3.3/85	4/102	6.9/174.8	7.2/184	5.3/126	29.6/752.5	6.5/165
6/150	5.4/137	6/152	7/177.8	9.3/235	6/152.5	36.9/938	8.5/216
8/200	6.9/175	8/203	7.3/184.2	11.4/290	7.4/187.5	45.6/1158	8.5/216
10/250	9/230	9.8/250	8.9/225.6	14.4/365	8.6/218	57/1448	10.6/270
12/300	10.7/273	12/305	10.1/257	17/433	10.3/262.5	63.7/1618	12.7/324
14/350	12.5/318	13/334	10.1/257	17.7/449	11.3/286.5	71.4/1815	14.7/375
16/400	14/356	15/382	11/279.4	21.7/550	12.7/323	78.9/2005	14.7/375
18/457	14.8/376	16.8/426	12.2/308	26.5/672	12.8/325	81.8/2076	18.9/480
20/508	16.6/421	18.5/470	14.2/360	28.4/720	14.2/360	90.6/2302	23.6/600
24/610	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	2.4/62	3/76	6.9/174.8	5.9/150	4.33/110	25/636.5	10.6/270
4/100	3.3/85	4/102	6.9/174.8	7.2/184	5.3/126	29/735.5	10.6/270
6/150	5.4/137	6/152	7/177.8	9.3/235	6/152.5	36.4/924.5	10.6/270
8/200	6.9/175	8/203	7.3/184.2	11.4/290	7.4/187.5	45.6/1158.5	14.2/390
10/250	8.6/225	9.7/246	8.9/225.6	14.4/365	8.6/218	25.4/1448	14.2/390

Bevel gear valve dimensions

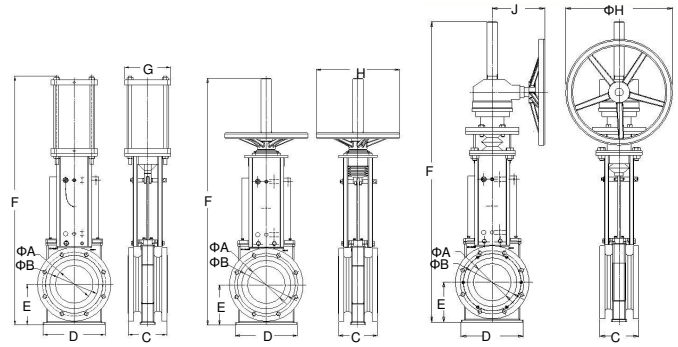
Sizes	A	B	C	D	E	F	H	J
inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm	inches/mm
10/250	8.6/225	9.7/246	8.9/225.6	14.4/365	8.6/218	56/1425	19.68/500	11.8/300
12/300	10.7/273	12/305	10.1/257	17/433	10.3/262.5	71.7/1822	19.68/500	11.8/300
14/350	12.5/318	13/334	10.1/257	17.7/449	11.3/286.5	76.8/1951	19.68/500	11.8/300
16/400	14/356	15/382	11/279.4	21.7/550	12.7/323	84.2/2138	19.68/500	11.8/300
18/457	14.8/376	16.8/426	12.2/308	26.5/672	12.8/325	85.11/2162	19.68/500	11.8/300
20/508	16.6/421	18.5/470	14.2/360	28.4/720	14.2/360	93.3/2369	19.68/500	11.8/300
24/610	21.2/538	23/585	14.7/372	33.9/860	16.5/420	110.6/2808	19.68/500	11.8/300

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

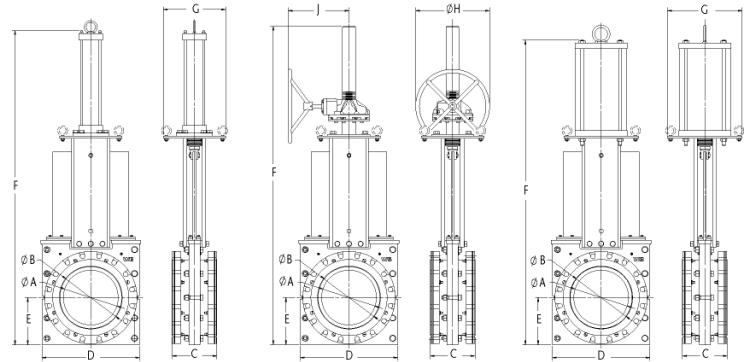
Note 2: Flanges are drilled to match ANSI B16.5 class 150# in sizes 3" through 10", slotted to match ANSI B16.5 class 150# in sizes 12" through 24" and slotted to match MSS SP44 in sizes from 26" to 54"

Other flange options are available upon request.

Dimension drawings 3" to 16"



Dimension drawings 18" to 54"



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