Isogate® WR Series

Knife Gate Valve

Technical Specifications

Minerals

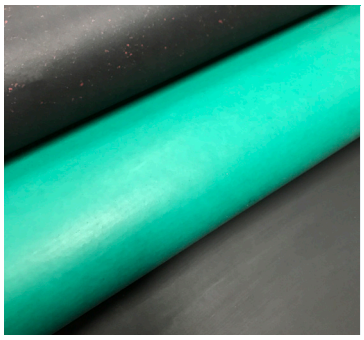
Isogate® WR series lightweight sturdy body is designed to handle the most abrasive process flow conditions, reducing total ownership cost.

Designed to reliably perform in a wide range of tough, abrasive and corrosive applications

The Isogate® WR knife gate valve is designed to ensure longer wear life and increased reliability for multiple industries.

The improved gate guide will reduce gate deflection, stress on the downstream side of the sleeve, and increase valve performance and life. The lightweight sturdy valve body is designed to allow for the easy change-out of sleeves which are made from our Linard® HD60 premium rubber. The combination of the Linard® HD60 premium rubber with a high-strength thin gate minimises discharge on cycling.

Other features include chest and body flushing options, light weight construction, and full FEA analysis to ensure maximum safety and performance.



The resilient rubber for tough applications

Linard® HD60 rubber is a silica-reinforced natural rubber product uniquely designed to provide high resilience with good cut, tear and abrasion resistance.

When developing our Linard® HD60 rubber we specifically set out to produce a rubber that retains the natural strength and nerve of latex, together with the toughness needed for handling coarse materials.

Applications

- Hydrocyclone isolation and feed
- Slurry transport
- Floatation
- Low pressure tailings
- Tailings distribution
- Ash handling
- Mineral sands

Materials

- Body: Cast ductile iron as standard
- Gate: 304 stainless steel as standard, 316 stainless steel is also available
- Other materials such as 17-4PH Hastelloy™ C-276, alloy 2205 are also available
- **Sleeves:** Linard® HD60 premium rubber
- **Yoke:** Carbon steel

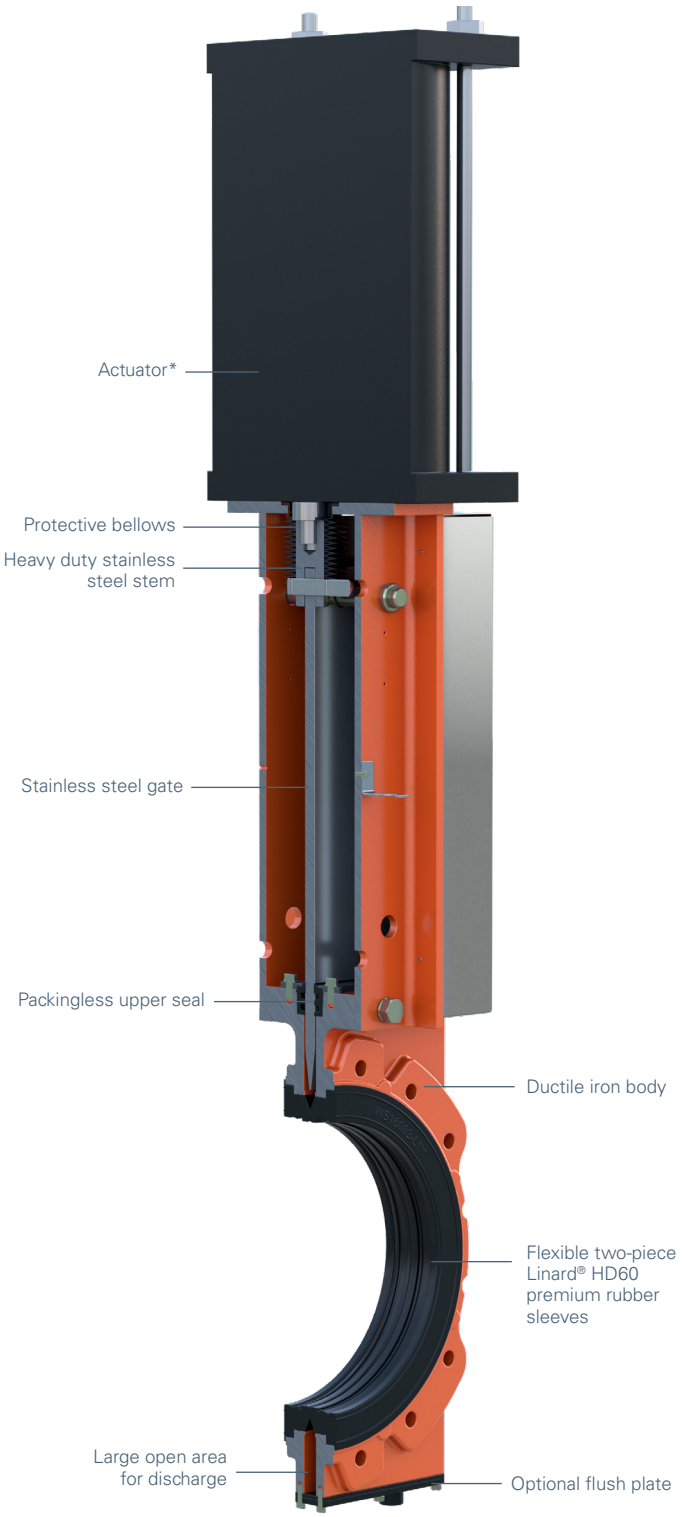
Size Range

- 50mm (2”) through 600mm (24”)

Flanges

- Ansi, AS, BS, DIN SABS

Isogate® WR knife gate valve is designed for safety, reliability and cost efficiencies in slurry applications



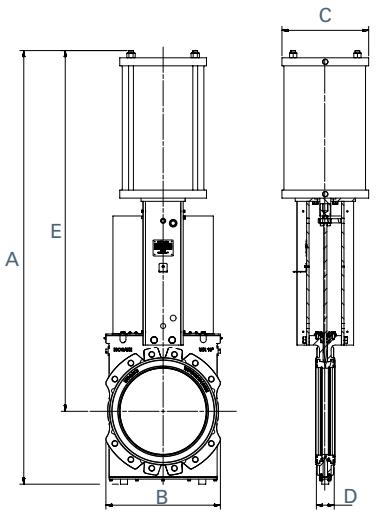
Design features

- Robust construction ensures long service life
- Two-piece Linard® HD60 premium rubber sleeve design with integral load distribution ring reduces corrosion
- Field-replaceable thick Linard® HD60 premium rubber sleeves are easily replaced without disassembling the valve
- Bi-directional, full bore design reducing turbulence and pressure drop
- Packingless design with grease labyrinth that lubricates gate on cycling and requires no adjustment
- Suitable for use in abrasive slurry services with high percentage of solids
- Low discharge sleeve design minimises discharge on cycling (optional flush plate available)
- No seat cavities where solids can collect and cause gate interference
- Yoke design allows fitting for all actuator types without modifications
- Body flushing ports offered as standard
- Proximity switch mounting holes provided as standard (no extra brackets required)
- Gate guides reduce gate movement and protect sleeves from damage

* Actuator options include: handwheel, bevel gear, pneumatic, hydraulic, electric (pneumatic model shown).

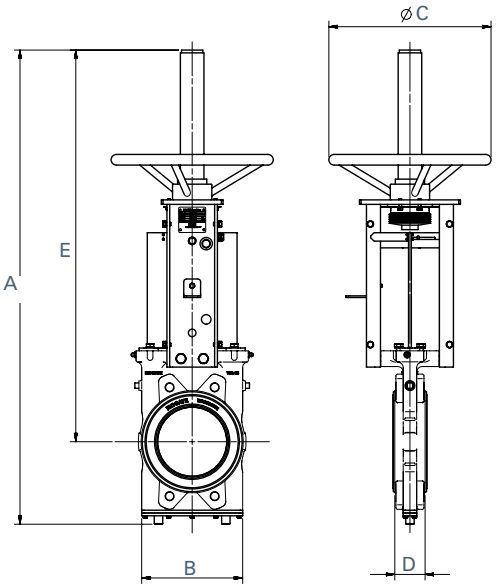
Pneumatic Cylinder Valve Dimensions

Size		A		B		C		D		MASS	
mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	609	24	128	5.1	141	5.6	44	1.8	15	34
80	3	680	26.8	147	5.8	140	5.6	51	2	22	47
100	4	762	30	175	6.9	176	6.5	51	2	28	62
125	5	838	33	216	8.5	215	8.5	54	2.2	40	88
150	6	930	36.6	205	8.1	215	8.5	67	2.6	40	88
200	8	1205	47.4	270	10.6	215	8.5	75	3.0	55	121
250	10	1385	54.5	365	14.4	270	10.6	76	3.0	92	203
300	12	1600	63.0	440	17.3	375	14.8	82	3.2	161	355
350	14	1740	68.5	465	18.3	375	14.8	82	3.2	220	485
400	16	1940	76.4	502	19.8	375	14.8	89	3.5	264	582
450	18	2150	84.6	573	22.6	432	17.0	94	3.7	320	705
500	20	2350	92.6	710	28.0	432	17.0	114	4.5	405	893
600	24	2755	108.5	760	30	535	21.1	114	4.5	632	1393



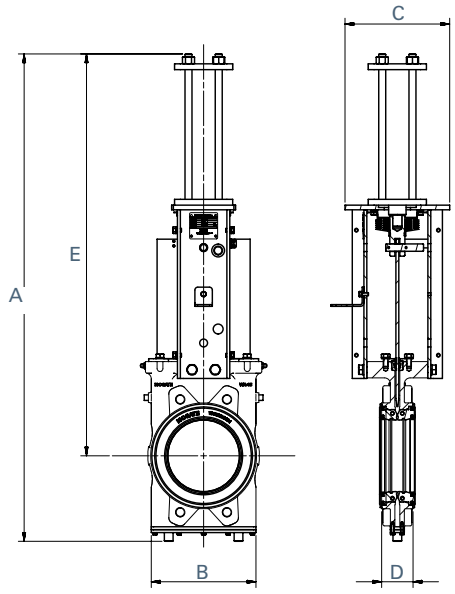
Manual Handwheel Valve Dimensions

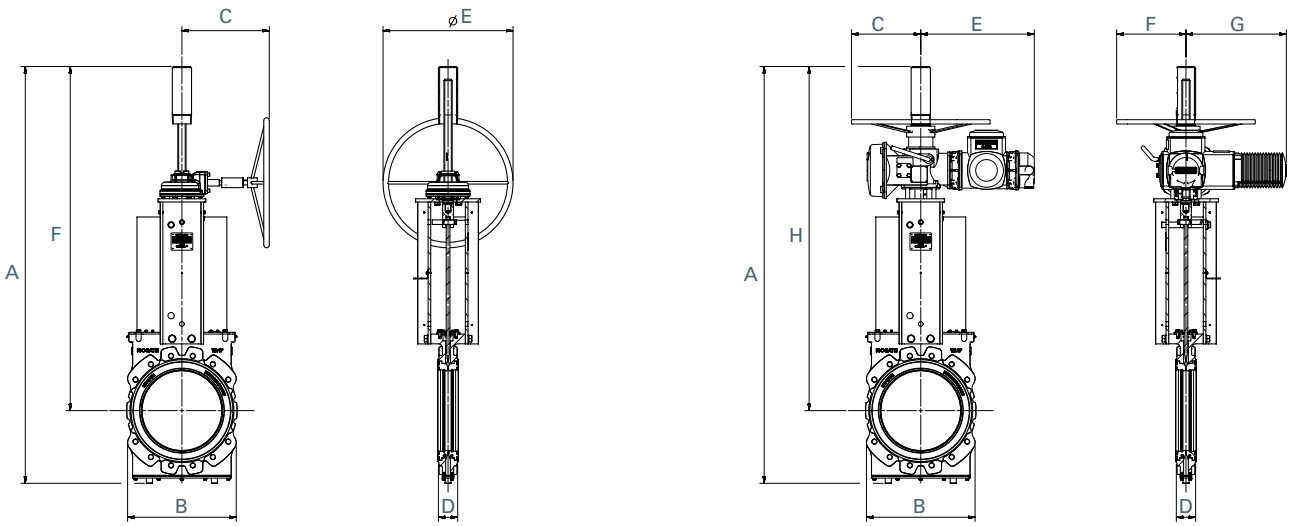
Size		A		B		C		D		MASS	
mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	537	21.2	128	5	200	7.9	44	1.8	11	25
80	3	646	25.5	147	5.8	270	10.7	51	6	15	33
100	4	502	19.8	175	6.9	270	10.7	51	2	19	43
125	5	845	33.3	216	8.5	290	11.4	54	2.2	38	84
150	6	890	35.0	205	8.1	290	11.4	67	2.6	25	55
200	8	1050	41.3	270	10.6	390	15.4	75	3.0	40	88
250	10	1305	51.4	365	14.4	470	18.5	76	3.0	58	128



Hydraulic Cylinder Valve Dimensions

Size		A		B		C		D		MASS	
mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	609	24	128	5.1	145	5.6	44	1.8	23	51
80	3	680	26.8	147	5.8	138	5.6	51	2	26	57
100	4	762	30	175	6.9	176	6.5	51	2	32	71
125	5	838	33	216	8.5	205	8.5	54	2.2	39	86
150	6	930	36.6	205	8.1	205	8.1	67	2.6	43	95
200	8	1205	47.4	270	10.6	210	8.3	75	3.0	70	154
250	10	1385	54.5	365	14.4	220	8.7	76	3.0	90	198
300	12	1600	63.0	440	17.3	275	10.8	82	3.2	152	335
350	14	1740	68.5	465	18.3	290	11.4	82	3.2	177	390
400	16	1940	76.4	502	19.8	309	12.2	89	3.5	223	491
450	18	2150	84.6	573	22.6	310	12.2	94	3.7	-	-
500	20	2350	92.6	710	28.0	330	13.0	114	4.5	-	-
600	24	2755	108.5	760	30	330	13.0	114	4.5	-	-





Gear Actuator Dimensions (top left)

Size		A		B		C		D		E		MASS	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
300	12	1600	63.0	440	17.3	228	9.0	82	3.2	500	19.7	130	287
350	14	1680	66.1	465	18.3	228	9.0	82	3.2	500	19.7	145	320
400	16	1920	75.6	502	19.8	228	9.0	89	3.5	500	19.7	190	419
450	18	2160	85.0	573	22.6	228	9.0	94	3.7	500	19.7	216	476
500	20	2553	100.5	710.0	28.0	454.0	17.9	114.0	4.5	500	19.7	352.6	777
600	24	2922	115.1	760.0	30.0	477.0	18.8	114.0	4.5	700	27.6	508.5	1121

Electric Actuator Dimensions (top right)

Size		A		B		C		D		E		F		G		MASS	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in					kg	lb
50	2	537	21.2	128	5.1	223	8.8	44	1.8	499	19.6	125	4.9	340	13.4	59.5	131.1
80	3	646	25.5	147	5.8	223	8.8	51	2	499	19.6	125	4.9	340	13.4	62	136.6
100	4	502	19.8	175	6.9	223	8.8	51	2	499	19.6	125	4.9	340	13.4	66	145.5
125	5	845	33.3	216	8.5	223	8.8	54	2.2	499	19.6	125	4.9	340	13.4	70	154.3
150	6	890.0	35.0	205.0	8.1	223.0	8.8	67.0	2.6	360.0	14.2	125.0	4.9	340.0	13.4	76.0	167.5
200	8	1050.0	41.3	270.0	10.6	223.0	8.8	75.0	3.0	360.0	14.2	125.0	4.9	340.0	13.4	96.0	211.6
250	10	1305.0	51.4	365.0	14.4	223.0	8.8	76.0	3.0	360.0	14.2	125.0	4.9	340.0	13.4	111.0	244.6
300	12	1600.0	63.0	440.0	17.3	245.0	9.6	82.0	3.2	325.0	12.8	180.0	7.1	450.0	17.7	198.0	436.4
350	14	1680.0	66.1	465.0	18.3	245.0	9.6	82.0	3.2	325.0	12.8	180.0	7.1	450.0	17.7	213.0	469.5
400	16	1920.0	75.6	502.0	19.8	320.0	12.6	89.0	3.5	325.0	12.8	320.0	12.6	450.0	17.7	286.0	630.3
450	18	2160.0	85.0	573.0	22.6	320.0	12.6	94.0	3.7	325.0	12.8	320.0	12.6	450.0	17.7	316.0	696.5
500	20	2553.0	100.5	710.0	28.0	320.0	12.6	114.0	4.5	466.0	18.3	320.0	12.6	450.0	17.7	432.0	952.1
600	24	2922.0	115.1	760.0	30.0	400.0	15.7	114.0	4.5	496.0	19.5	400.0	15.7	515.0	20.3	578.0	1273.9

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