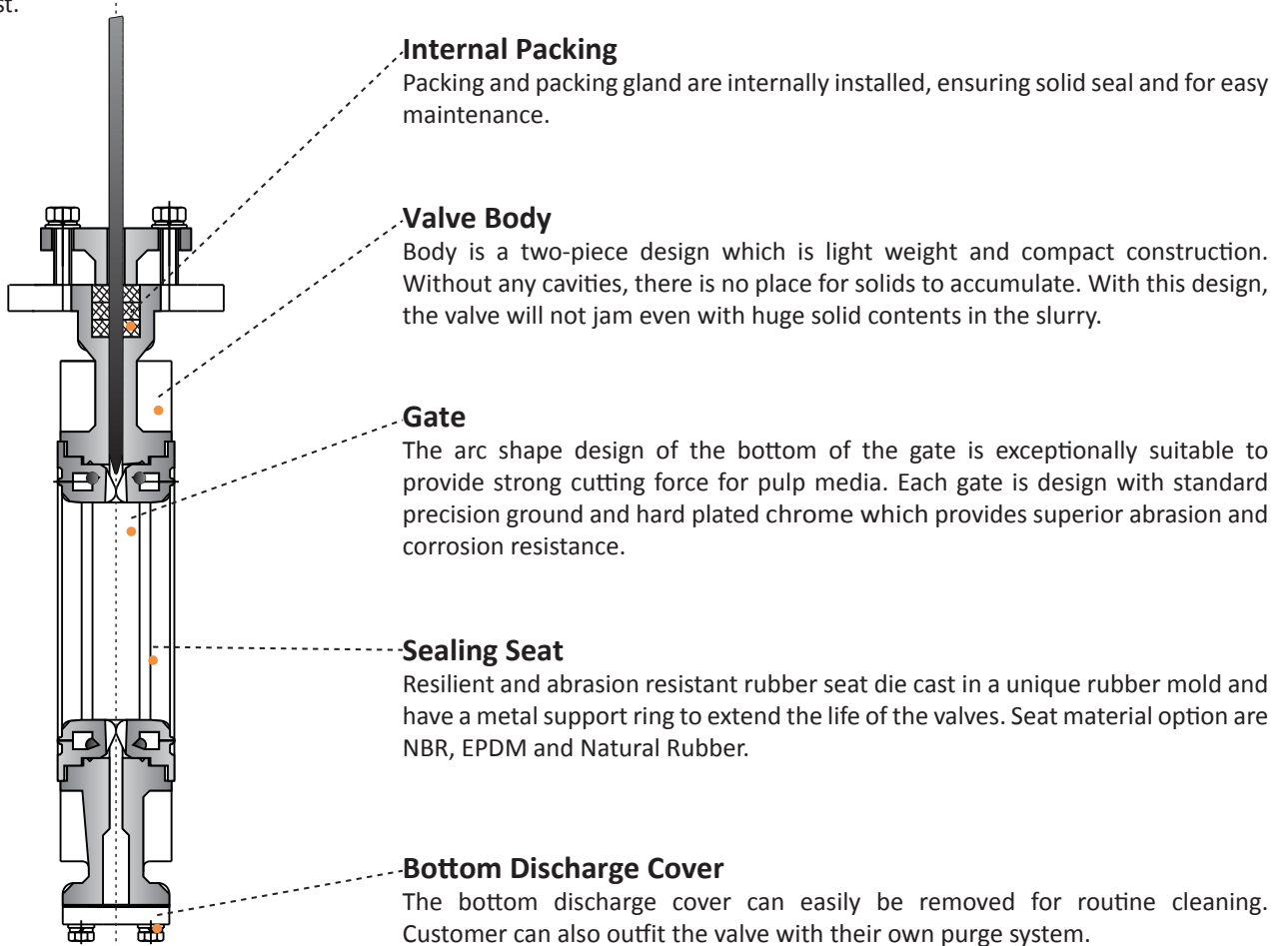


DK Series - Slurry Type

Vahn-Tech DK Series knife gate valves are soft sealing shut off valves that are light weight with compact construction, and convenient to install and use. Valves are in full port design and with small flow resistance. When the gate is open, direct current flows between valve and pipeline. Valves can be operated manually with handwheel, or with automatic actuator for remote operation. The cone-shape design of the gates provides strong cutting force. The die-casting rubber seats are with bi-directional sealing. The main advantage of the valves is that when fully open, the medium will not flow into the valve chest, which prevents the pulp from settling in the valve chest and thus reducing the maintenance cost.



Technical Specification

Specifications		
Size Range	2" - 48" / DN50 - DN1200	
Design Standard	MSS SP-81	
Flange Connection	ANSI B16.5 Class 150	
Connection Type	Lug Type	
Temperature Range	NBR Seat	-20°C to 110°C
	Natural Rubber Seat	-20°C to 70°C
	EPDM Seat	-20°C to 120°C
	Viton Seat	-20°C to 200°C
Applicable Medium	Pulp, Slurry, Trailing	
Nominal Pressure	10.3 bar (150 psi) for sizes up to 24" / 6.9 var (100 psi) for sizes 28" and above	
Hydraulic Test	100% testing according to MSS SP-81 (respectively AWWA C520)	
	Shell	1.5*PN
	Packing	1.1*PN
	Seat	2.8 bar and maximum allowable differential pressure
DK Slurry Gate Valves are fully bi-directional at working and design pressure.		

DK Series - Slurry Type

Cv Value & Torque

Size		Cv Values
NPS	DN	
2"	50	156
3"	80	340
4"	100	612
5"	125	970
6"	150	1430
8"	200	2620
10"	250	4200
12"	300	5395
14"	350	6730
16"	400	8735
18"	450	10870
20"	500	14095
24"	600	20655

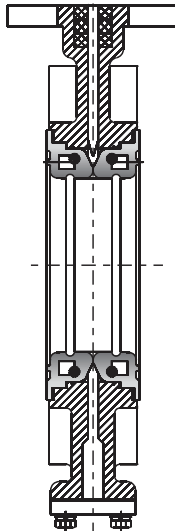
Size		Torque* (N.m)
NPS	DN	
2"	50	73
3"	80	88
4"	100	98
5"	125	146
6"	150	176
8"	200	189
10"	250	280
12"	300	396
14"	350	540
16"	400	592
18"	450	786
20"	500	890
24"	600	1183

* Including 30% safety factor.

Fully Open and Close Status

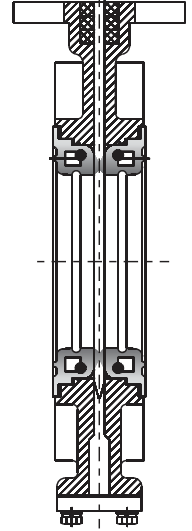
Full Open Status

Low flow resistance at full open position as both seats will be in tight contact to form full bore flow path which is ensured by good seat strength with internal metal support ring as well as pipeline pressure. It offers perfect sealing performance to prevent the clogging inside body cavity by medium during the operation, extending service life and reducing maintenance cost.

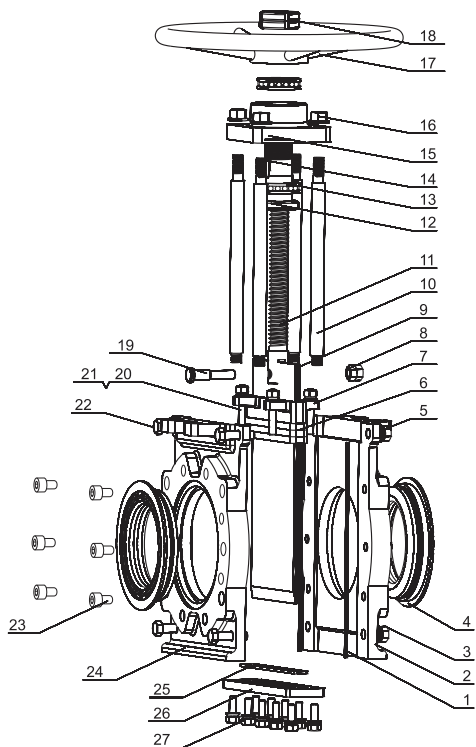


Full Close Status

Both seats will be in tight contact with gate by good seat strength with internal metal support ring as well as pipeline pressure to ensure absolute bi-directional bubble tightness.



DK Series - Slurry Type



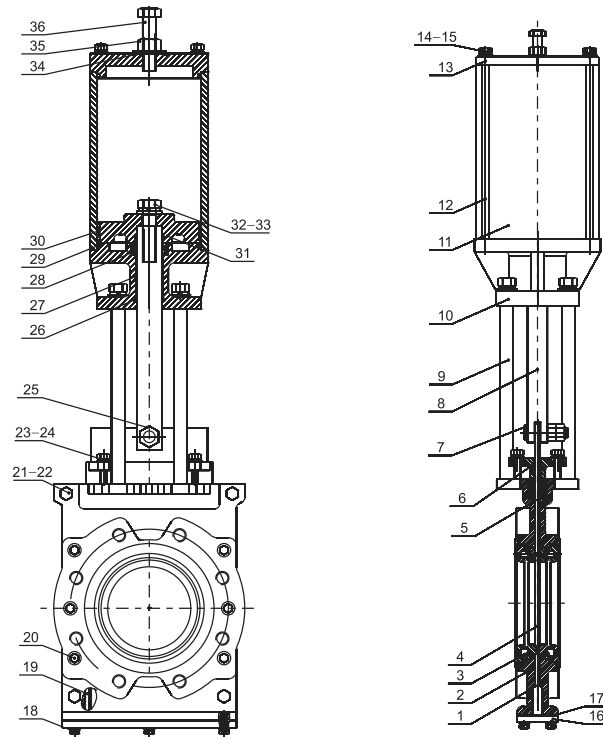
DK Series with Handwheel

Parts List

No.	Parts Name	Materials	Qty.
1	Gasket	NBR	1
2	Upper Body	CF8M / CF8 / WCB	1
3	Hexagon Nut	SS304	-
4	Seat	EPDM / NBR / NB	2
5	Hexagon Nut	SS304	-
6	Packing	PTFE	-
7	Gland	CF8M / CF8 / WCB	1
8	Hexagon Nut	SS304	2
9	Gate	SS304 / SS316 / SS410 + HCr	1
10	Pillar	SS304 / 45# + HCr	4
11	Stem	SS304	1
12	Nut	H59	1
13	Plane Bearing	Gcr6	2
14	Flat Key	45#	1

No.	Parts Name	Materials	Qty.
15	Square Plate	WCB / SS304	1
16	Nut	SS304	4
17	Handwheel	Ductile Iron	1
18	Nut	45# Nickel Plating	1
19	Driving Nut	SS304	1
20	Nut	SS304	-
21	Connection Bolt	SS304	-
22	Hexagon Bolt	SS304	-
23	Screws	SS304	-
24	Lower Body	CF8M / CF8 / WCB	1
25	Gasket	NBR	1
26	Cap	CF8M / CF8 / WCB	1
27	Hexagon Bolt	SS304	-

DK Series - Slurry Type



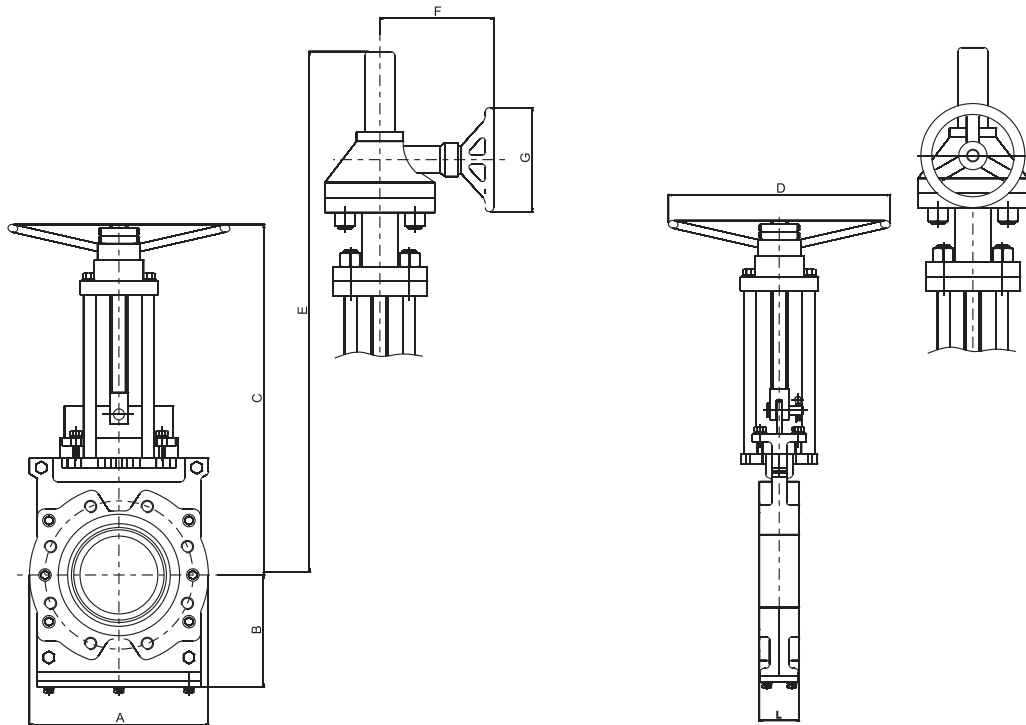
DK Series with Pneumatic Cylinder

Parts List

No.	Parts Name	Materials	Qty.
1	Upper Body	WCB / CF8 / CF8M	1
2	Lower Body	WCB / CF8 / CF8M	1
3	Seat	EPDM / NBR	3
4	Gate	SS410 / SS304 / SS316 + HCr	1
5	Packing	PTFE	1
6	Gland Packing	WCB / CF8 / CF8M	1
7	Connection Pin	SS304	1
8	Piston Rod	45# + Cr	1
9	Pillar	SS304 / 45# + Cr	4
10	Lower Cylinder Cover	Carbon Steel / SS304	1
11	Cylinder	Aluminum Alloy / Q235	1
12	Connection Rod	Carbon Steel + Zn	-
13	Upper Cylinder Cover	Carbon Steel / SS304	1
14	Hexagon Nut	SS304	-
15	Spring Gasket	65Mn	-
16	Cap	WCB / CF8 / CF8M	1
17	Gasket	NBR	1
18	Hexagon Bolt	SS304	-

No.	Parts Name	Materials	Qty.
19	Sealing Rope	NBR	1
20	Socket Head Screw	SS304	-
21	Hexagon Bolt	SS304	-
22	Hexagon Nut	SS304	-
23	Connection Bolt	SS304	-
24	Hexagon Nut	SS304	-
25	Hexagon Nut	SS304	2
26	O-Ring	NBR	2
27	Bushing	Composite Material	1
28	Y-Ring	Polyurethane	1
29	O-Ring	NBR	4
30	Guiding Ring	PTFE	1
31	Piston	SS304 / Q235	1
32	Hexagon Bolt	45#	1
33	Spring Gasket	65Mn	1
34	Gasket	PTFE	1
35	Hexagon Nut	SS304	1
36	Adjusting Bolt	SS304	1

DK Series - Slurry Type

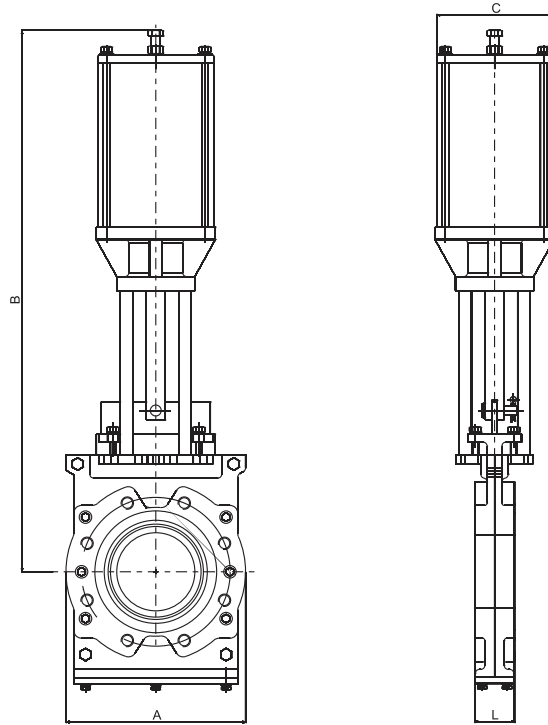


DK Series (Manual)

Dimensions

Size		Main Dimension (mm)									
NPS	DN	A	B	L	C		E		D	F	G
					(Open)	(Closed)	(Open)	(Closed)			
2"	50	165	120	48	445	360	-	-	Ø220	-	-
2 1/2"	65	190	130	48	475	390	-	-	Ø220	-	-
3"	80	200	145	51	535	415	-	-	Ø220	-	-
4"	100	230	150	51	600	450	-	-	Ø250	-	-
5"	125	230	180	57	690	510	-	-	Ø250	-	-
6"	150	285	200	57	740	550	-	-	Ø280	-	-
8"	200	345	220	70	885	660	-	-	Ø355	-	-
10"	250	405	275	70	1061	780	-	-	Ø355	-	-
12"	300	485	330	76	-	-	1400	1050	-	260	Ø310
14"	350	535	350	76	-	-	1570	1160	-	260	Ø310
16"	400	600	380	89	-	-	1670	1220	-	260	Ø310
18"	450	635	400	89	-	-	1800	1230	-	340	Ø460
20"	500	705	450	114	-	-	1950	1790	-	340	Ø460
24"	600	820	510	114	-	-	2490	1890	-	340	Ø460

DK Series - Slurry Type



DK Series (Pneumatic Cylinder)

Dimensions

Size		Main Dimension (mm)			
NPS	DN	L	A	B	C
2"	50	48	165	550	120
2 1/2"	65	48	190	600	120
3"	80	51	200	640	120
4"	100	51	230	700	145
5"	125	57	230	840	190
6"	150	57	285	910	180
8"	200	70	345	1100	225
10"	250	70	405	1280	225
12"	300	76	485	1440	280
14"	350	76	535	170	260
16"	400	89	600	1855	410