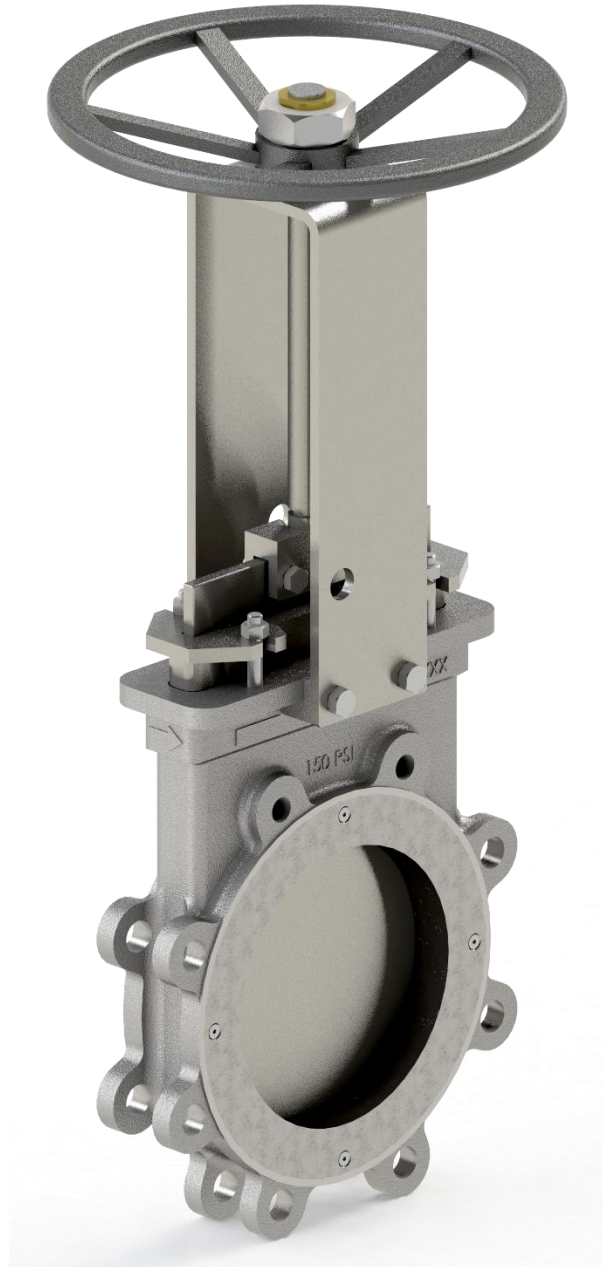




RK ENGINEERING
FLOW SOLUTION

KGS - UNI-DIRECTIONAL SOFT SEAT
KNIFE GATE VALVE



RK Engineering

Model Name: KGS

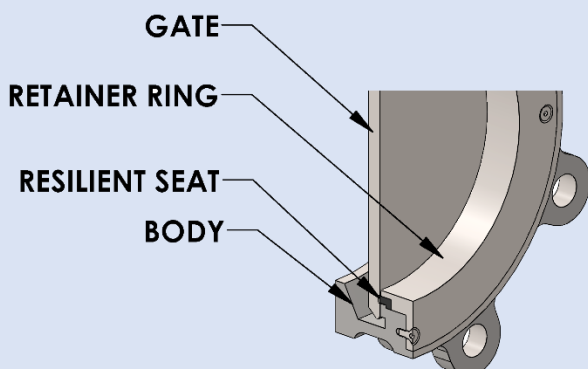
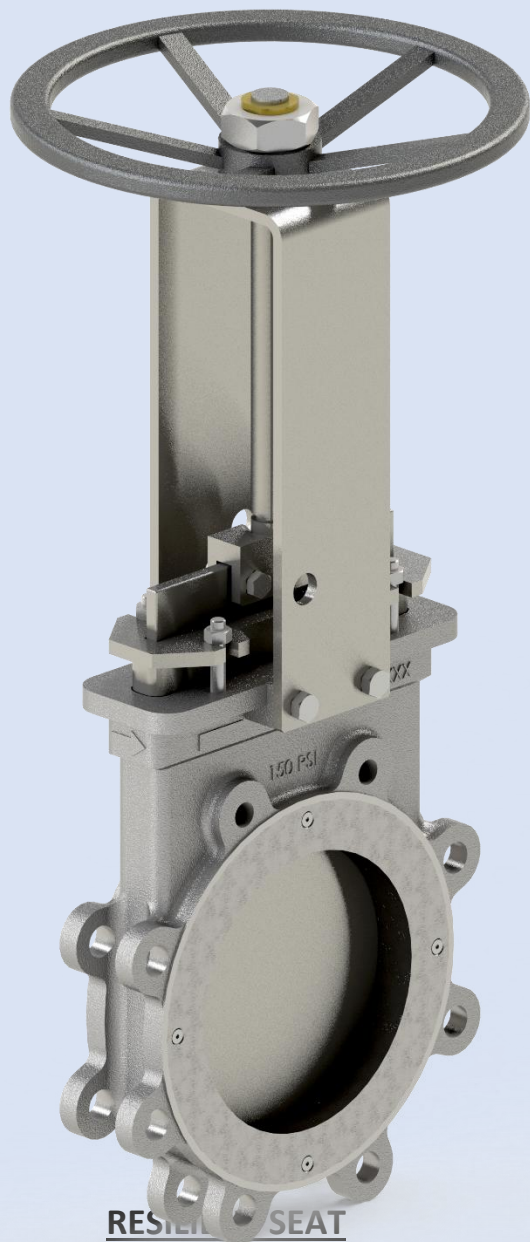
Uni-Directional Soft Seat Knife Gate valve - KGS

Size Range : 2" – 24" / DN 50 – DN 600

Pressure Rating : PN 6 & PN 10

KGS

Uni-Directional Soft Seat



Features and benefits

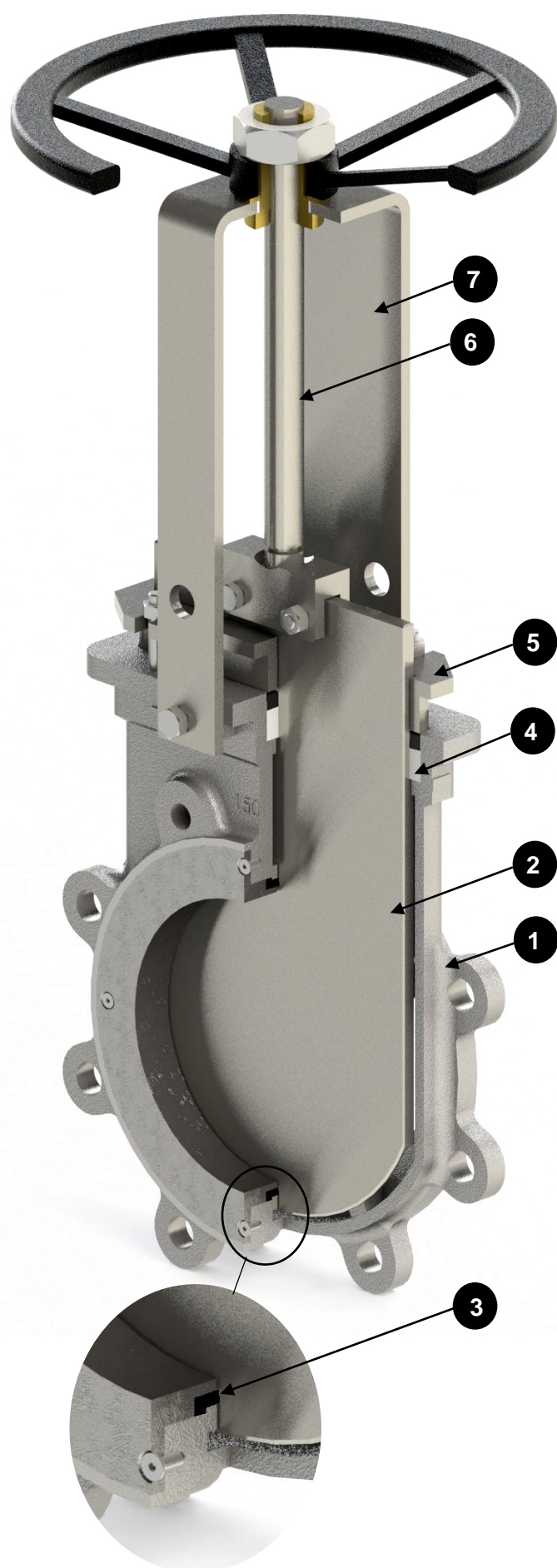
- KGS model Knife Gate Valves are a uni-directional valve designed for shut-off capability in thick media such as pulp stock and slurries, or solid media such as pellets and powders.
- This valve features a body and seat design to reduce or eliminate clogging of the gate area during shutoff.
- The body is a single casting with integral jams.
- The valve utilizes a rigid yoke which can accommodate a hand wheel, pneumatic cylinder, Gear or electric
- This model has a raised face seat for positive sealing along with cast wedges and gate guides for tight shut off in demanding applications.
- Various wiper materials available in packing to provide gate support and stabilize packing seal

Technical specification

Size	2" to 48"
Design Pressure	2" to 24" – 150 psi 26" to 36" – 100 psi 40" to 48" – 75 psi
Seat	Metal to Metal
Design standard	MSS SP-81 / MSS SP-148 / AWWA C520
Face to Face	MSS SP-81
Flange Drilling	ASME B16.5, ASME B16.47
Body Shell Test	MSS SP-151
Seat Test	MSS SP-151

Seat Temperature Chart	
Material	Max. Temp. °C
EPDM	120
Nitrile	120
Viton	200
PTFE	250

Note: For operating temperature above 120 °C - EPDM wiper ring must be removed. Please consult our technical team for more details and / or other material options



1) BODY:

One piece integrally cast stainless steel body with reinforced ribs in larger diameters for additional strength. Internal cast gate wedges and guides allows for tight shutoff. The bore and internal design of the body ensures smooth flow. Full port design for greater flow capacity and minimal pressure drop. Internal design avoids any build up of solids that would prevent valve from closing.

2) GATE:

Stainless steel gate. Gate is polished on both sides to avoid jamming and seat damage. Bottom of the gate edge is machined to a bevel to cut through solids for a tighter seal in the closed position. The thickness and/or material of the gate can be changed on request for higher pressure requirements.

3) SEAT:

This full perimeter seat design allows for a unidirectional zero leakage shutoff. The custom retainer can be removed for easy seat replacement. The standard seat material offering is Viton, with option material available upon request

4) PACKING:

Long-life packing with several layers of PTFE impregnated fibre plus an EPDM O-ring, with an easy access packing gland ensuring a tight seal. Long-life braided packing is available in a wide range of materials. Please consult technical team for more details and / or other material options.

5) PACKING GLAND:

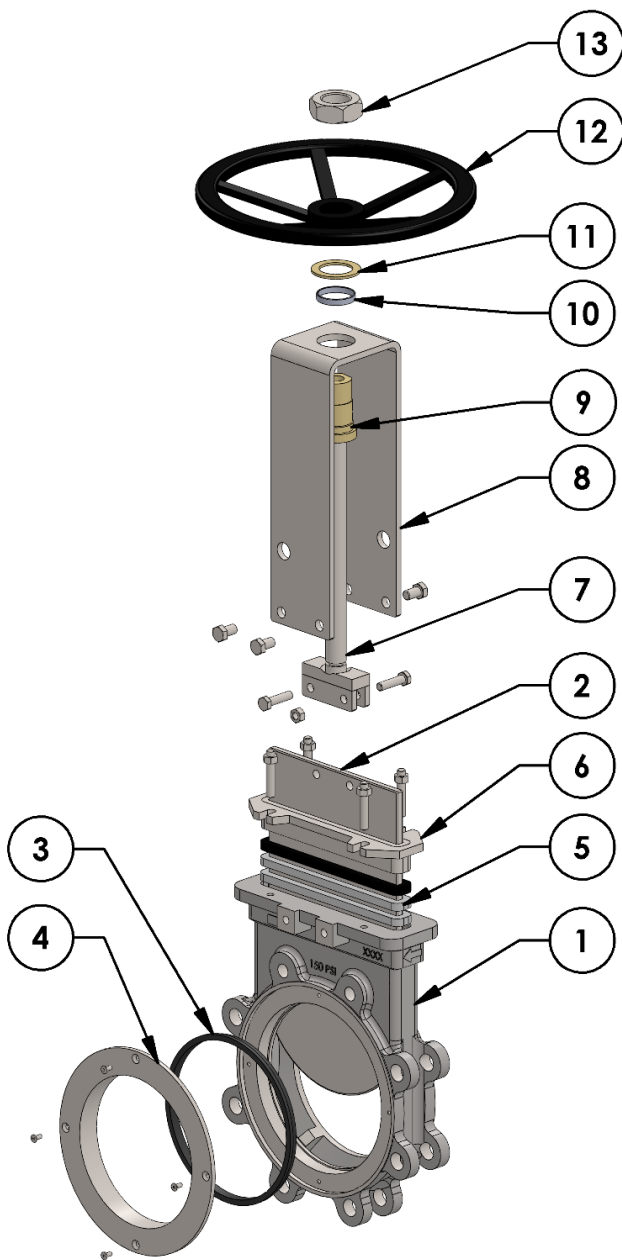
The packing gland gives the possibility to apply a uniform pressing force on the packing to ensure the tightness of the packing. As standard carbon steel body valves include steel packing gland and stainless steel body valves include CF8M stainless steel packing gland.

6) STEM:

The standard stainless steel stem offers a long corrosion resistant life. Clevis design horizontal bolting stabilizes gate ensuring proper alignment.

7) YOKE:

Made of stainless steel (EPOXY coated steel available on request). Compact design makes it extremely robust even under the most severe conditions.



ITEM	PART	MATERIAL
1	Body	CF8 / CF8M / WCB / DI / CI
2	Gate	SS 304 / SS 316 / SS 410
3*	Seat	EPDM / Viton / Nitrile
4	Retainer Ring	SS 304 / SS 316 / SS 410
5*	Packing	PTFE imp. Synth. Fiber / Graphite
	Wiper Ring	EPDM / Viton
6	Gland	CF8 / CF8M / WCB / DI / CI
7	Stem	SS 304 / SS 410
8	Yoke	SS 304 / Carbon Steel
9*	Stem Nut	Bronze / DI
10*	Collar	Nylon
11*	Trust washer	Brass
12	Handwheel	DI / Aluminum
13	Lock Nut	Steel

Note: * marked items are recommended spare parts.

OPTIONAL ACTUATORS



Bevel Gear



Electric actuator

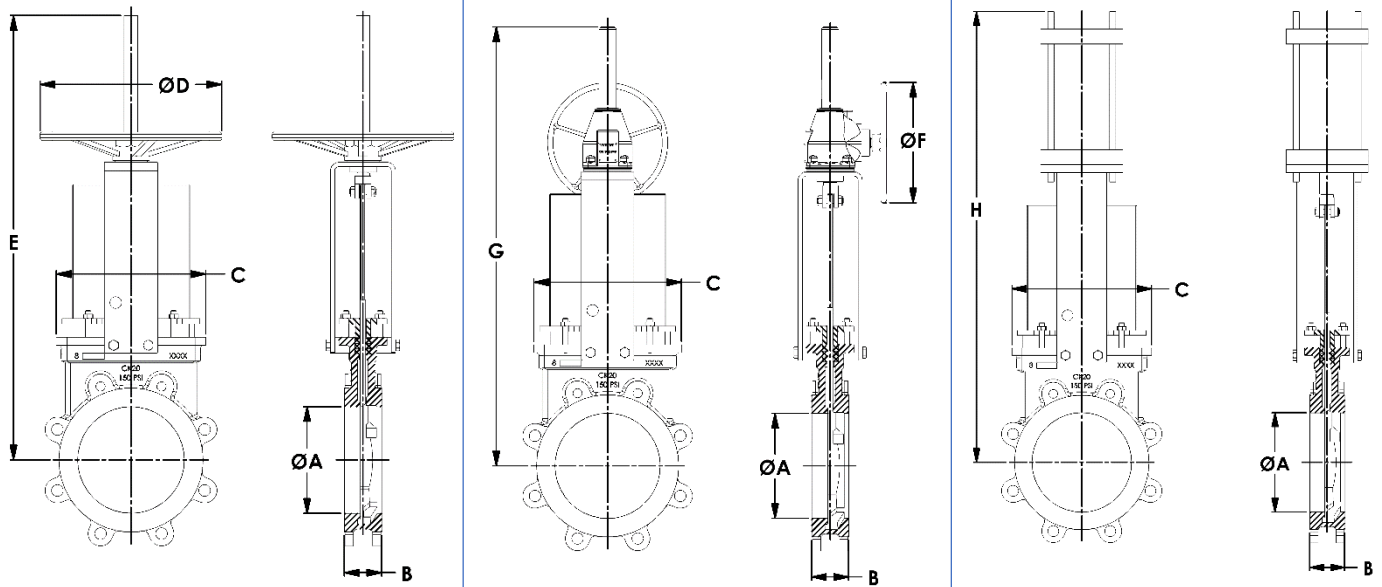


Pneumatic Single /
Double Acting Cylinder



Hydraulic Double
Acting Cylinder

DIMENSIONS TABLE FOR 2" – 24"



Common					HW		GE		CYL	Weight (lbs)		
VALVE SIZE		ØA	B	C	ØD	E	ØF	G	H	HW	GE	CYL
NPS	DN											
2	50	50	48	143	254	511	203	559	597	10	17	16
2.5	65	60	51	153	254	518	203	559	673	11	18	17
3	80	75	51	172	254	584	203	673	686	15	20	18
4	100	100	51	192	254	615	203	693	724	16	25	25
5	125	120	57	197	254	696	203	767	826	24	33	35
6	150	145	57	213	254	749	203	851	889	25	34	41
8	200	190	70	278	305	909	305	965	1118	39	50	59
10	250	240	70	330	305	1046	305	1105	1321	57	86	102
12	300	290	76	383	406	1168	406	1245	1461	79	95	145
14	350	320	76	450	406	1346	406	1435	1588	127	132	193
16	400	370	89	515	406	1473	508	1549	1740	170	170	238
18	450	415	89	528	559	1613	508	1727	1867	227	218	290
20	500	465	114	604	559	1740	508	1829	2007	340	284	374
24	600	560	114	720	559	2070	508	2172	2324	420	445	499
30	750	745	117	975	-	-	508	2921	3099	-	-	-
36	900	936	117	1135	-	-	508	3175	3607	-	-	-
40	1000	950	150	1150	-	-	813	3493	3810	-	-	-
42	1050	1000	150	1200	-	-	813	3620	4026	-	-	-
48	1200	1130	150	1390	-	-	813	3861	4318	-	-	-

Abbreviations: HW – Handwheel operator, GE – Bevel Gear Operator, CYL – Pneumatic Cylinder Operator.

Note: For other Material options, Sizes, Class & Actuation Please consult RK ENGINEERING Technical Team.