

RHINOTM GATE

Severe Service Knife Gate Valves

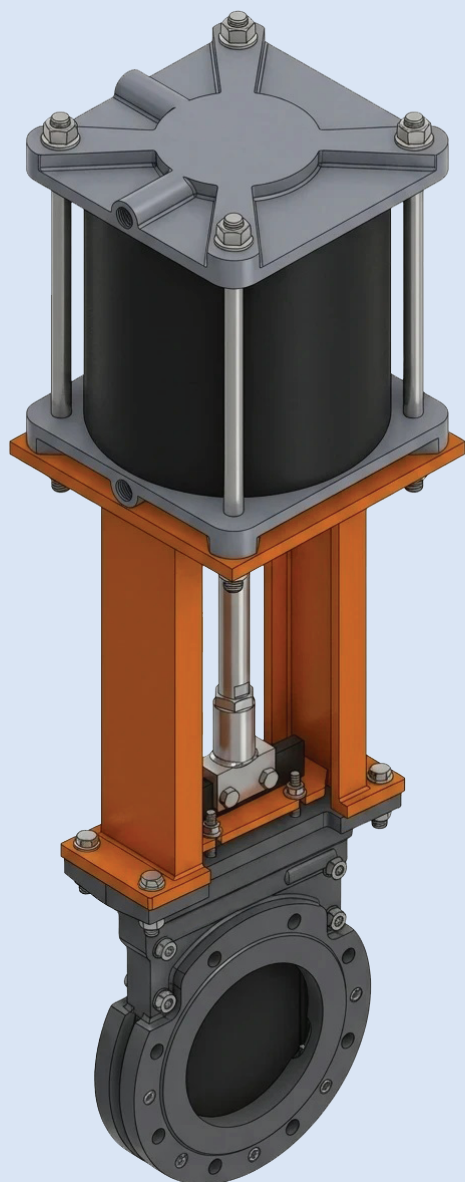


Model RSS-150 and Model RSS -300

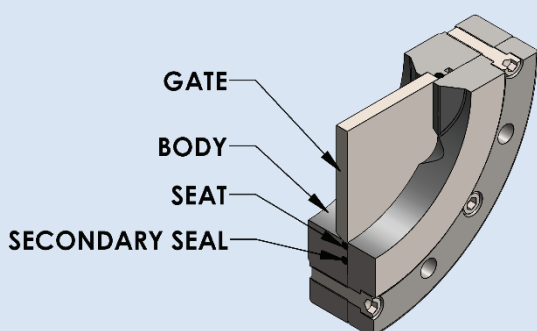
The search is over TM

RSS

Bi-Directional high performance



SOFT SEAT



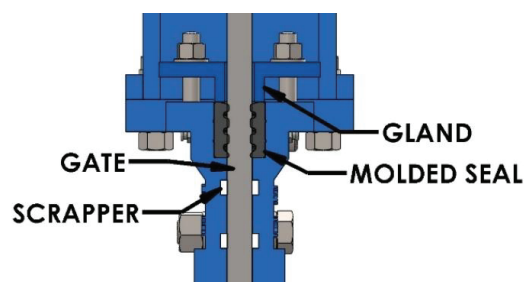
Features and benefits

- RSS Knife Gate Valves are a High Pressure Bi-directional Zero Leakage valve designed for isolation applications in corrosive slurries with scaling tendencies, high pressure natural slurries with high concentration of solids, abrasive
- Bi-directional zero leakage for repeatable isolation.
- Two piece ASME B 16.5 raised face full flanged body design.
- Fully guided gate which ensures the smooth operation
- Dynamic self-adjusting packing seal.
- Seat retained out of the flow stream to eliminate the potential damage
- Replaceable seat rings with all alloy options

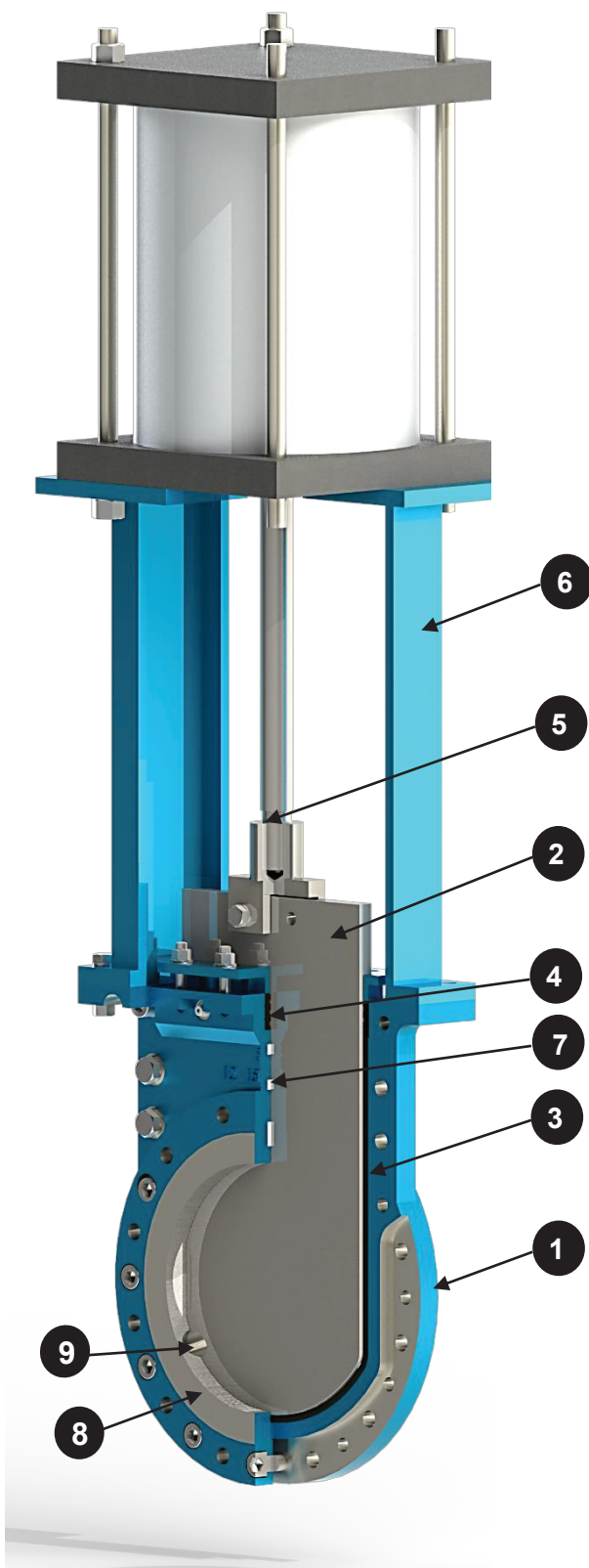
Technical specification

Size	2" to 24"
Design Pressure	Class 150 & Class 300
Working Temperature	200°C (Viton Seat)
Seat	Soft Seat
Design standard	MSS SP-135 (Short pattern)
Face to Face	MSS SP-135 (Short pattern)
Flange Drilling	ASME B16.5
Body Shell Test	MSS SP-135
Seat Test	MSS SP-135
Seat Wear Rings	Tungsten Carbide/Stellite, etc

One piece Molded packing seal



The scraper removes **debris, slurry or solid particles** from the gate (blade) surface when the valve opens or closes. This prevents material build-up on the gate. The scraper prevents solids from entering the **packing area**, which protects the packing and increases its life. Removing stuck materials reduces the risk of **gate blockage or jamming**, ensuring smooth operation.



1) BODY:

Two-piece cast body with reinforced ribs in larger diameters provides for additional strength. The full bore and dual flush port Internal design, avoids build up of solids that can prevent the valve from closing. Flush-out areas ensure product is expelled by the blade closing action.

2) GATE:

The stainless steel gate surface is machined and polished for a greater sealing between the gate and transverse seals. Bevelled edge gate to cut through tough solids. Fully guided gate eliminates gate movement during closing and eliminates gate deformation.

3) SEAT:

Mechanically retained seal prevents shifting during valve operation. Seal location and seat design ensure full bi-directional sealing and zero leakage.

4) PACKING:

The one-piece, self-adjusting, molded packing seal eliminates any leakage between the knife gate and top of the valve body in any orientation. The packing seal also prevents any outside contaminants from getting inside the valve. Other packing options available

5) STEM / PISTON ROD:

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

6) YOKE:

Fully welded steel top structure provides the strength and rigidity needed for demanding applications. Made of stainless steel (EPOXY coated steel available on request). Compact design makes it extremely robust even under the most severe conditions.

7) SCRAPER:

The scraper removes debris, slurry, fibers, or solid particles from entering the packing area, which protects the packing and increases its life.

8) Replaceable wear Rings made from all popular alloys like Tungsten Carbide/Stellite, and all other options depending on the application

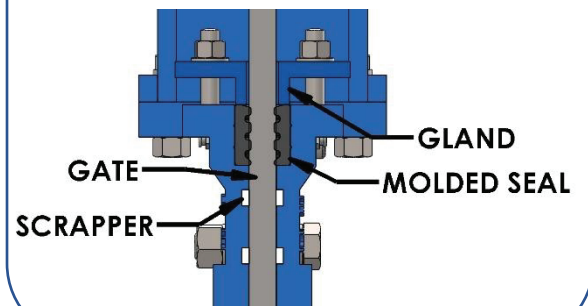
9) FLUSH PORTS

Sl.No.	Description	Material
1	Body	WCB / CF8 / CF8M / CN7M / CN3MN
2	Gate	SS 316 / SS2507 / AL-6XN / 17.4 PH
3	Seat/Seal	Viton / EPDM / NBR
4	Packing	Viton / EPDM / NBR
5	Scraper	PTFE
6	Gate Guide Buttons	PTFE
7	Clevis	SS 304 / SS 316 / SS 410
8	Gland	SS / CS
9	Yoke	SS / CS
10	Actuator	STD

4. Packing Options:

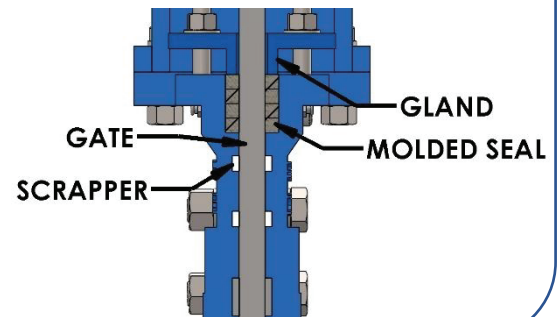
RSS Standard Model

Molded Seal Packing



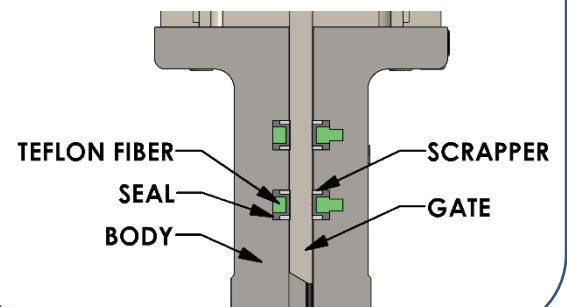
Optional Model

Braided PTFE Packing



Optional Model

Transverse Gate Seal



OPTIONAL ACTUATORS



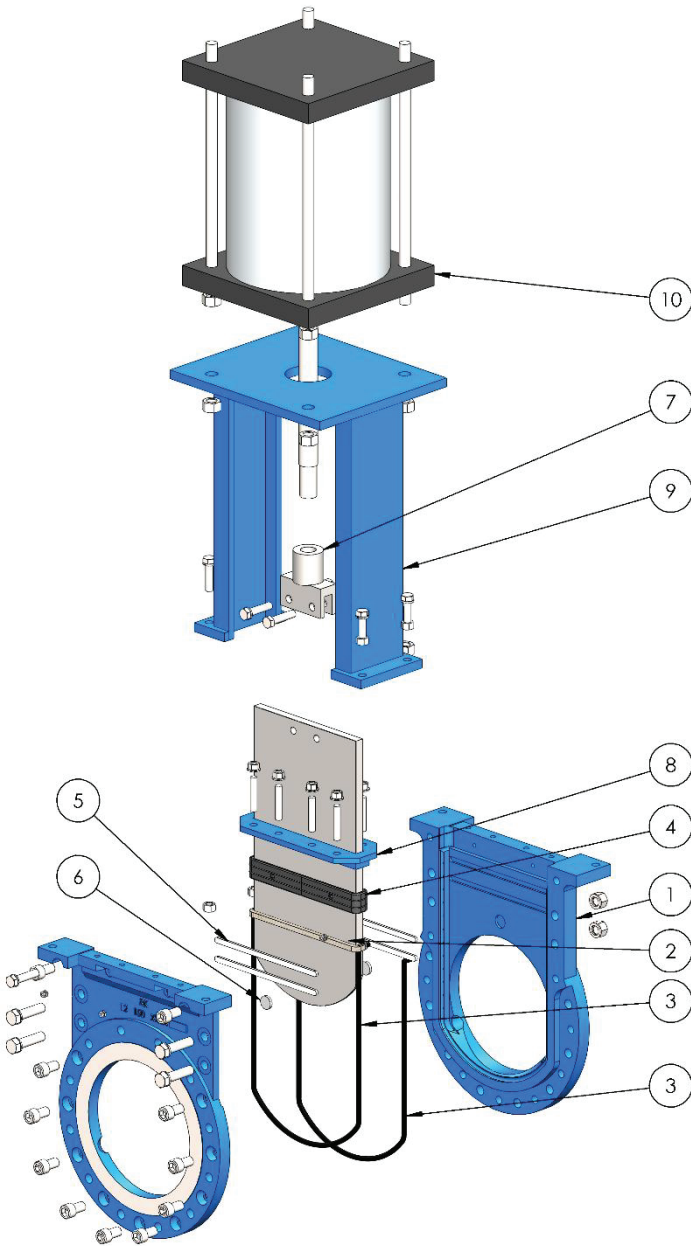
Bevel Gear



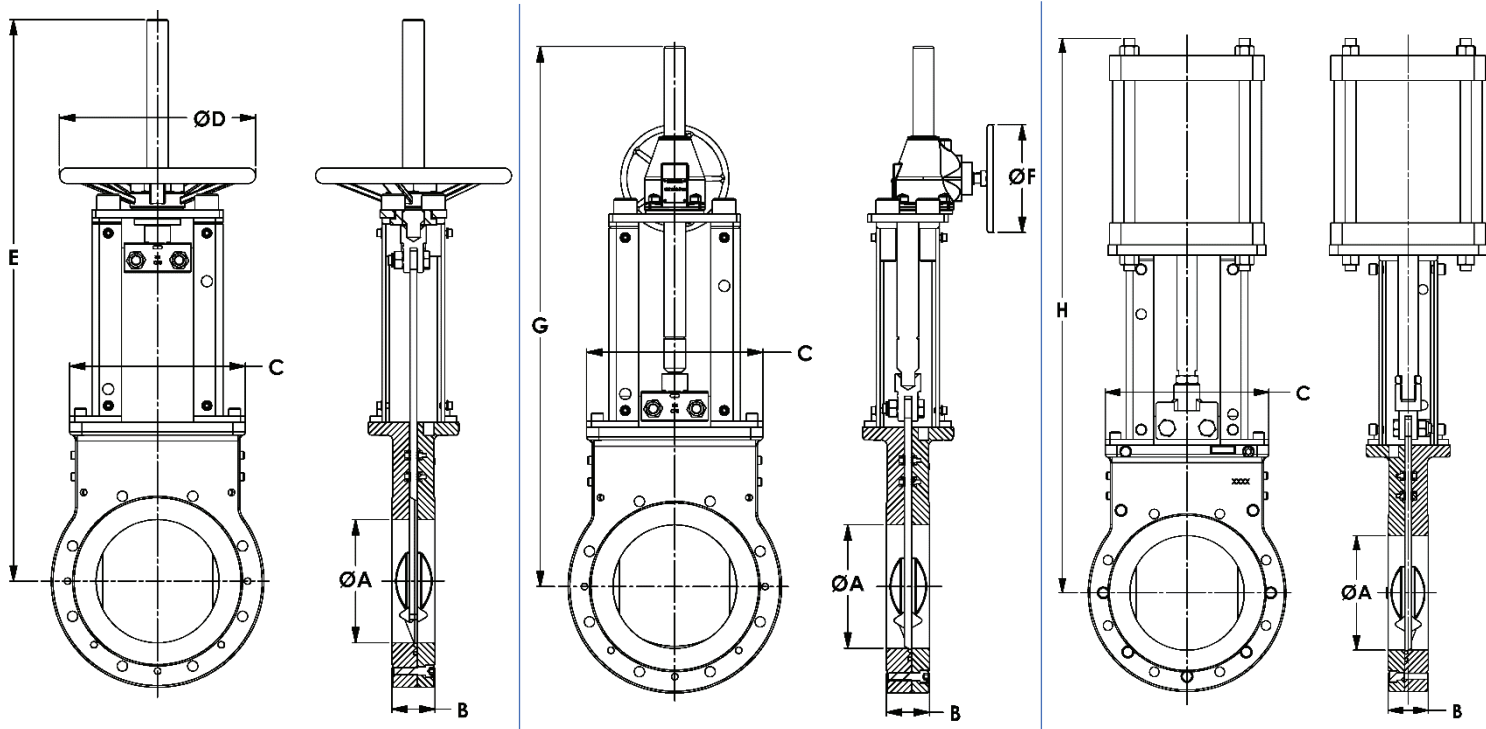
Electric Actuator



Hydraulic Double Acting Cylinder



RSS -Class 150 DIMENSIONS TABLE

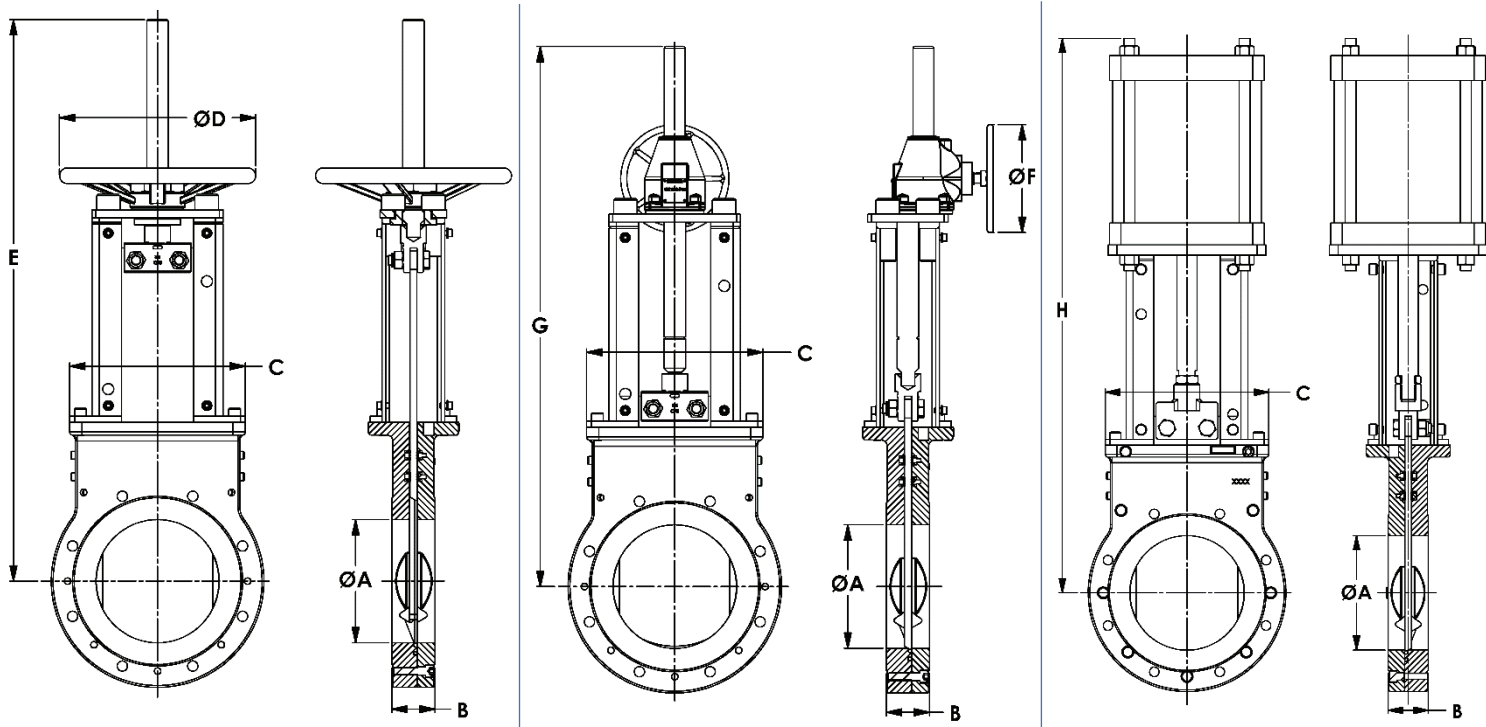


Common					HW		GE		CYL	Weight (lbs)		
VALVE SIZE		ØA	B	C	ØD	E	ØF	G	H	HW	GE	CYL
NPS	DN											
2	50	1.97	2.00	5.90	10.0	19.0	8.0	21.5	20.7	36.0	45.0	48.0
3	80	2.95	2.00	6.75	10.0	22.0	8.0	24.6	24.1	58.0	65.0	70.0
4	100	3.94	2.00	7.52	10.0	25.5	8.0	27.5	27.2	75.0	81.0	85.0
6	150	5.71	2.24	9.85	12.0	31.5	12.0	34.0	32.9	115.0	130.0	150.0
8	200	7.48	2.76	11.22	16.0	37.5	12.0	42.5	41.1	210.0	225.0	280.0
10	250	9.45	2.76	15.13	16.0	45.0	12.0	48.2	48.0	265.0	290.0	450.0
12	300	11.42	2.99	17.63	22.0	50.5	16.0	51.0	53.5	400.0	415.0	650.0
14	350	12.60	2.99	19.55	22.0	57.0	16.0	62.0	64.0	500.0	535.0	900.0
16	400	14.57	3.50	22.00	22.0	66.0	20.0	69.0	70.5	780.0	820.0	1350.0
18	450	16.34	3.50	24.1	30.0	72.0	20.0	74.5	77.5	860.0	960.0	1450.0
20	500	18.31	4.49	26.85	30.0	79.5	20.0	90.5	87.0	1350.0	1450.0	2000.0
24	600	22.05	4.49	30.58	30.0	91.0	20.0	102.5	102.0	1650.0	1750.0	2500.0

Dimensions are given in inches.

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

RSS -Class 300 DIMENSIONS TABLE



Common					HW		GE		CYL	H.CYL
VALVE SIZE		ØA	B	C	ØD	E	ØF	G	H	H
NPS	DN									
2	50	2.00	2.75	6.50	11.8	20.0	12.0	22.5	20.7	21.5
3	80	3.00	2.75	8.25	11.8	23.0	12.0	26.0	24.1	27.0
4	100	4.00	2.75	10.00	11.8	26.5	12.0	28.5	27.2	30.5
6	150	6.00	3.15	12.50	-	-	16.0	35.0	32.9	44.7
8	200	8.00	3.50	15.00	-	-	16.0	43.5	41.1	49.0
10	250	10.00	4.68	17.50	-	-	20.0	50.0	48.0	57.0
12	300	12.00	5.00	20.50	-	-	20.0	55.0	53.5	69.0
14	350	13.25	5.50	23.00	-	-	20.0	63.5	64.0	81.0
16	400	15.25	5.50	25.50	-	-	25.0	71.0	-	86.5
18	450	17.00	6.25	28.00	-	-	25.0	76.5	-	95.0
20	500	19.00	7.44	30.50	-	-	25.0	92.5	-	101.5
24	600	23.00	8.50	36.00	-	-	25.0	104.5	-	116.5

Dimensions are given in inches.

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

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