

HEAVY DUTY KNIFE GATE VALVE

The Series 22 (BT) model knife gate is a bi-directional lug type valve designed according to MSS-SP-81 and TAPPI TIS 405-8 for industrial service applications. The completely new design of the body and seat (patented) assures non-clogging shut off on suspended solids in industries such as:

- Pulp and Paper
- Wastewater
- Food and Beverage
- Power plants
- Mining
- Chemical plants
- etc

Product description

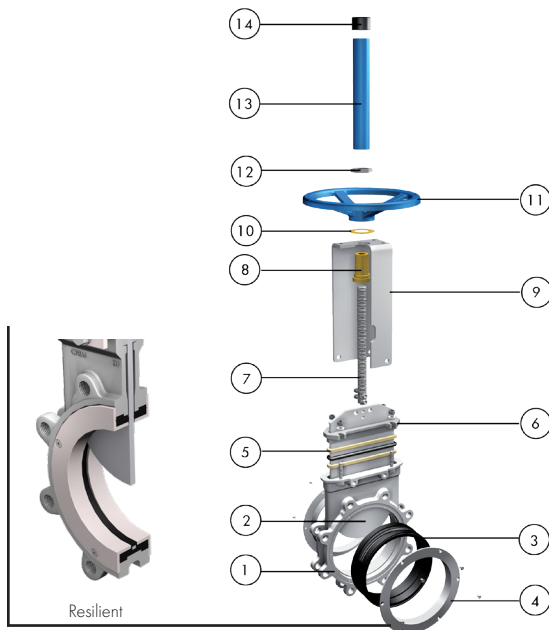
- Bi-directional lug type knife gate valve
- Size range of DN 2in/50mm - 36in/900mm (larger upon request). See Dimension Charts for pressure rating
- Rising stem as standard. Non-rising stem also available
- Standard flange connection: ASME B16.5 (class 150). Others upon request
- Manual (handwheel, chainwheel, lever and bevel gear), pneumatic (single and double-acting), electric and hydraulic actuation options available
- For EU Directives and other Certificates, please see the document: Directives and Certificates Compliance - Knife Gate Valves - Catalogues and Datasheets

Features

- Lug type one piece cast stainless steel body
- Port design as per MSS SP-81 and TAPPI TIS 405-8 standards
- Stainless steel gate polished both sides to avoid jamming and seat damage
- Resilient seat (patented) with a new design sleeve. Two stainless steel seat rings keep the sleeve in position and also serve to guide the gate
- Long life PTFE impregnated synthetic fibre plus EPDM o-ring packing with easy access and adjustable gland follower. Wide range of packing materials available
- RAL-5015 blue epoxy-coating on all cast iron/carbon steel components
- Automated valves provided with gate guards in accordance with EU Safety Standards
- Other options: bonnets, V-ports, special materials, fabricated valves, etc.
- Actuation accessories: limit & proximity switches, mechanical stops, positioners, solenoid valves, manual overrides, locking devices, fail safe systems, stem extensions and floor stands



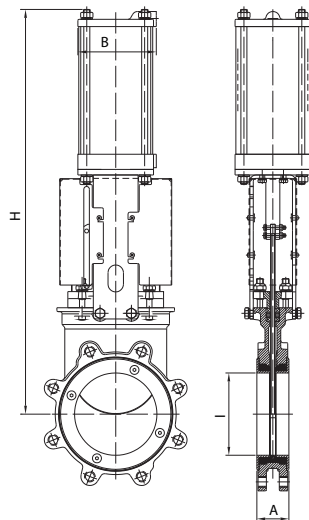
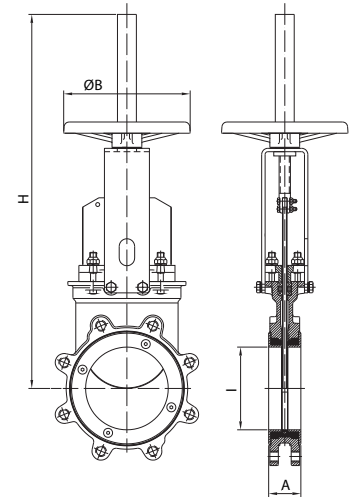
STANDARD PARTS LIST



Part	Description
1 Body	CF8M /CF8
2 Gate	AISI 316 / AISI 304
3 Sleeve	EPDM
4 Seat ring	CF8M /CF8
5 Packing	PTFE Impreg. Synth. Fibre + EPDM O-Ring
6 Gland follower	CF8M /CF8
7 Stem	Stainless Steel
8 Stem nut	Brass
9 Yoke	AISI 304 / Epoxy-coated Carbon Steel
10 Thrust washer	Brass
11 Handwheel	Ductile iron
12 Nut	Zinc Plated Carbon Steel
13 Stem protector	Epoxy-coated Carbon Steel
14 Cap	Plastic

Handwheel Rising Stem

DN (in)	W. pressure	I (in)	A (in)	ØB (in)	H (in)
2	150 psi	2.00	1.88	8.86	16.92
3	150 psi	2.90	2.00	8.86	18.70
4	150 psi	3.80	2.00	8.86	20.66
5	150 psi	4.76	2.25	8.86	24.40
6	150 psi	5.78	2.25	8.86	26.37
8	150 psi	7.63	2.74	12.20	40.51
10	150 psi	9.40	2.74	12.20	43.81
12	150 psi	11.18	3.00	16.14	48.62
14	150 psi	12.67	3.00	16.14	50.78
16	150 psi	14.40	3.50	16.14	54.92
18	150 psi	15.74	3.50	21.65	62.20
20	150 psi	18.11	4.50	21.65	66.53
24	150 psi	20.86	4.50	21.65	75.39



Pneumatic Cylinder

DN (in)	W. pressure	I (in)	A (in)	B (in)	H (in)	Connect.
2	150 psi	2.00	1.88	4.52	16.22	1/4" G
3	150 psi	2.90	2.00	4.52	19.37	1/4" G
4	150 psi	3.80	2.00	4.52	22.04	1/4" G
5	150 psi	4.76	2.25	5.51	25.47	1/4" G
6	150 psi	5.78	2.25	5.51	28.46	1/4" G
8	150 psi	7.63	2.75	6.88	35.70	1/4" G
10	150 psi	9.4	2.75	8.66	41.92	3/8" G
12	150 psi	11.18	3.00	8.66	48.54	3/8" G
14	150 psi	12.67	3.00	10.90	52.28	3/8" G
16	150 psi	14.40	3.50	10.90	56.42	3/8" G
18	150 psi	15.74	3.50	15.04	64.72	1/2" G
20	150 psi	18.11	4.50	15.04	69.09	1/2" G
24	150 psi	20.86	4.50	15.04	79.84	1/2" G
30	100 psi	26.37	4.62	17.48	102.16	3/4" G
36	100 psi	31.88	4.62	20.27	122.12	3/4" G

Note: pneumatic cylinder sizing for sizes DN 12in and above are based on Series 10 (EX) pressure ratings

Electric Actuator Non Rising Stem

DN (in)	W. pressure	I (in)	A (in)	C (in)	ØB (in)	H (in)	D (in)	E (in)	F (in)	G (in)	Torque (ft.LBS)
2	150 psi	2.00	1.88	14.84	6.30	21.33	10.43	9.80	2.44	9.33	7.4
3	150 psi	2.90	2.00	16.70	6.30	23.17	10.43	9.80	2.44	9.33	7.4
4	150 psi	3.80	2.00	18.58	6.30	25.27	10.43	9.80	2.44	9.33	7.4
5	150 psi	4.76	2.25	20.43	6.30	27.16	10.43	9.80	2.44	9.33	11.1
6	150 psi	5.78	2.25	22.44	6.30	29.13	10.43	9.80	2.44	9.33	14.8
8	150 psi	7.63	2.74	27.71	6.30	34.44	10.43	9.80	2.44	9.33	22.2
10	150 psi	9.40	2.74	31.10	6.30	37.79	10.43	9.80	2.44	9.33	33.3
12	150 psi	11.18	3.00	34.76	7.87	41.45	11.10	10.08	2.55	9.72	30
14	150 psi	12.67	3.00	35.79	7.87	42.48	11.14	10.00	2.55	9.76	52
16	150 psi	14.40	3.50	42.32	12.40	49.01	15.31	13.22	3.58	11.25	67
18	150 psi	15.74	3.50	44.84	12.40	51.53	15.31	13.22	3.58	11.25	82
20	150 psi	18.11	4.50	52.00	15.74	58.70	15.31	13.34	3.58	11.25	70
24	150 psi	20.86	4.50	56.85	15.74	63.54	15.31	13.34	3.58	11.25	104
30	100 psi	26.37	4.60	71.65	19.68	78.43	16.92	14.37	4.60	11.92	104
36	100 psi	31.88	4.60	74.80	19.68	80.35	16.92	14.37	4.60	11.92	167

Note: torque values for sizes DN 12in and above are calculated based on Series 10 (EX) pressure ratings. For full differential pressure, check with ORBINOX representative

