

# BT (SER.22) KNIFE GATE VALVE



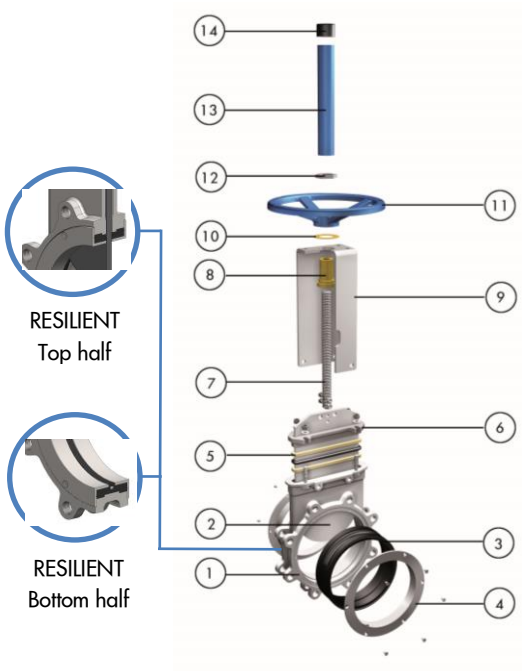
The BT (SER.22) model knife gate is a bi-directional lug type valve designed according to MSS-SP-81 and TAPPI TIS 405-8 for general industrial service applications. The innovative design of the body and seat assures non-clogging shut off on suspended solids in industries such as Pulp and Paper, Wastewater Treatment Plants, Food and Beverage, Power Plants, Mining, Chemical Plants, etc.

## Product description:

- Bi-directional lug type knife gate valve
- Size range of DN 2"/50mm - 36"/900mm (larger sizes upon request). See Dimension Charts for pressure rating
- Rising stem as standard. Non-rising stem also available
- Standard flange connection: B16.5 (class 150). Others available 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

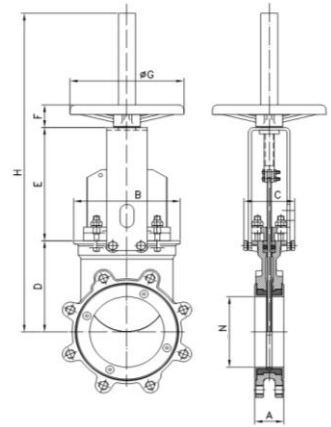
Part:	Stainless steel:
1 Body	CF8M / CF8
2 Gate	AISI 316 / AISI 304
3 Sleeve	EPDM
4 Seat Ring	CF8M / CF8
5 Packing	PTFE impreg. synth. fibre + EPDM O-Ring
6 Gland Follower	CF8M / CF8
7 Stem	Stainless Steel
8 Stem Nut	Brass
9 Yoke	AISI 304 / Carbon steel - Epoxy coated
10 Thrust Washer	Brass
11 Handwheel	Ductile iron
12 Nut	Zinc plated carbon steel
13 Stem Protector	Carbon steel - Epoxy coated
14 Cap	Plastic

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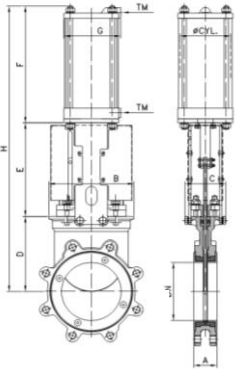


## DIMENSIONS (inch/mm) Handwheel Rising Stem

DN "/th> <th>N</th> <th>Pressures</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>ØG</th> <th>H</th>	N	Pressures	A	B	C	D	E	F	ØG	H
2"/50	2/50	10 bar	1,88/47,8	4,92/125	4,13/105	4,13/105	5,07/129	1,85/47	8,86/225	16,92/430
3"/80	2,9/75	10 bar	2/50,8	6,06/154	4,13/105	4,68/119	6,37/162	1,85/47	8,86/225	18,70/475
4"/100	3,8/97	10 bar	2/50,8	6,88/175	4,13/105	5,59/142	7,36/187	1,85/47	8,86/225	20,66/525
5"/125	4,76/121	10 bar	2,25/57,2	7,08/180	4,13/105	6,49/165	8,30/211	1,85/47	8,86/225	24,40/620
6"/150	5,78/147	10 bar	2,25/57,2	8,46/215	4,13/105	7,48/190	9,33/237	1,85/47	8,86/225	26,37/670
8"/200	7,63/194	10 bar	2,74/69,8	10,23/260	4,80/122	9,44/240	12,16/309	2,63/67	12,20/310	40,51/1029
10"/250	9,4/239	10 bar	2,74/69,8	13,33/338	4,80/122	11,41/290	13,54/344	2,63/67	12,20/310	43,81/1113
12"/300	11,18/284	10 bar	3/76,2	14,40/366	4,80/122	14,17/360	15,43/392	2,60/66	16,14/410	48,62/1235
14"/350	12,67/322	10 bar	3/76,2	16/400	7,75/197	12,60/320	17,52/445	2,60/66	16,14/410	50,78/1290
16"/400	14,40/366	10 bar	3,50/89	18,03/458	7,75/197	14,49/368	19,80/503	2,60/66	16,14/410	54,92/1395
18"/450	15,74/400	10 bar	3,50/89	19,25/489	7,75/197	16,34/415	21,14/537	2,63/67	21,65/550	62,20/1580
20"/500	18,11/460	10 bar	4,50/114,2	21,73/552	7,75/197	18,11/460	23,82/605	2,63/67	21,65/550	66,53/1690
24"/600	20,86/530	10 bar	4,50/114,2	25,07/637	7,75/197	20,12/511	26,10/663	2,63/67	21,65/550	75,39/1915



## DIMENSIONS (inch/mm) Pneumatic Actuator (D/A)



DN "/th> <th>N</th> <th>Pressures</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> <th>Standard Cyl.</th> <th>TM</th>	N	Pressures	A	B	C	D	E	F	G	H	Standard Cyl.	TM
2"/50	2/50	10 bar	1,88/47,8	4,92/125	4,13/105	4,13/105	5,07/129	7,00/178	4,52/115	16,22/412	C4"-2,44"/(100-62)	¼" G
3"/80	2,9/75	10 bar	2/50,8	6,06/154	4,13/105	4,68/119	6,37/162	8,31/211	4,52/115	19,37/492	C4"-3,74"/(100-95)	¼" G
4"/100	3,8/97	10 bar	2/50,8	6,88/175	4,13/105	5,59/142	7,36/187	9,09/231	4,52/115	22,04/560	C4"-4,52"/(100-115)	¼" G
5"/125	4,76/121	10 bar	2,25/57,2	7,08/180	4,13/105	6,49/165	8,30/211	10,67/271	5,51/140	25,47/647	C5"-5,63"/(125-143)	¼" G
6"/150	5,78/147	10 bar	2,25/57,2	8,46/215	4,13/105	7,48/190	9,33/237	11,65/296	5,51/140	28,46/723	C5"-6,61"/(125-168)	¼" G
8"/200	7,63/194	10 bar	2,74/69,8	10,23/260	4,80/122	9,44/240	12,16/309	14,09/358	6,88/175	35,70/907	C6.30"-8,66"/(160-220)	¼" G
10"/250	9,4/239	10 bar	2,74/69,8	13,33/338	4,80/122	11,41/290	13,58/345	16,93/430	8,66/220	41,92/1065	C8"-10,63"/(200-270)	3/8" G
12"/300	11,18/284	10 bar	3/76,2	14,40/366	4,80/122	14,17/360	15,47/393	18,89/480	8,66/220	48,54/1233	C8"-12,60"/(200-320)	3/8" G
14"/350	12,67/322	10 bar	3/76,2	16/400	7,75/197	12,60/320	18,07/459	21,61/549	10,90/277	52,28/1328	C10"-14,76"/(250-375)	3/8" G
16"/400	14,40/366	10 bar	3,50/89	18,03/458	7,75/197	14,49/368	20,31/516	21,61/549	10,90/277	56,42/1433	C10"-16,73"/(250-425)	3/8" G
18"/450	15,74/400	10 bar	3,50/89	19,25/489	10,62/270	16,34/415	21,61/549	26,77/680	15,04/382	64,72/1644	C12"-18,70"/(300-475)	½" G
20"/500	18,11/460	10 bar	4,50/114,2	21,73/552	10,62/270	18,11/460	24,21/615	26,77/680	15,04/382	69,09/1755	C12"-20,67"/(300-525)	½" G
24"/600	20,86/530	10 bar	4,50/114,2	25,07/637	10,62/270	20,12/511	27,04/687	32,67/830	15,04/382	79,84/2028	C12"-24,60"/(300-625)	½" G
30"/750	26,37/670	7 bar	4,6/117	33,14/842	12,59/320	26,37/670	37/940	38,77/985	17,48/444	102,16/2595	C14"-30,71"/(350-780)	¾" G
36"/900	31,88/810	7 bar	4,6/117	38,18/970	12,59/320	31,49/800	43,3/1100	47,32/1202	20,27/515	122,12/3102	C16"-36,61"/(400-930)	¾" G

## DIMENSIONS (inch/mm) Electric Actuator Rising Stem

DN "/th> <th>N</th> <th>Pressures</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>ØG</th> <th>H</th> <th>I</th> <th>J</th> <th>L</th> <th>M</th> <th>Stem Ø x pitch</th> <th>Torque (ft.LBS/Nm)</th>	N	Pressures	A	B	C	D	E	F	ØG	H	I	J	L	M	Stem Ø x pitch	Torque (ft.LBS/Nm)
2"/50	2"/50	10 bar	1,88/47,8	4,92/125	4,13/105	4,13/105	5,07/129	14,84/377	6,30/160	17,87/454	10,43/265	9,80/249	2,44/62	9,33/237	0.79 x 0.16/20 x 4	7.4/10
3"/80	2,9"/75	10 bar	2/50,8	6,06/154	4,13/105	4,68/119	6,37/162	16,70/424	6,30/160	19,72/501	10,43/265	9,80/249	2,44/62	9,33/237	0.79 x 0.16/20 x 4	7.4/10
4"/100	3,8"/97	10 bar	2/50,8	6,88/175	4,13/105	5,59/142	7,36/187	18,58/472	6,30/160	21,61/549	10,43/265	9,80/249	2,44/62	9,33/237	0.79 x 0.16/20 x 4	7.4/10
5"/125	4,76"/121	10 bar	2,25/57,2	7,08/180	4,13/105	6,49/165	8,30/211	20,43/519	6,30/160	23,46/596	10,43/265	9,80/249	2,44/62	9,33/237	0.79 x 0.16/20 x 4	11.1/15
6"/150	5,78"/147	10 bar	2,25/57,2	8,46/215	4,13/105	7,48/190	9,33/237	22,44/570	6,30/160	45,15/1147	10,43/265	9,80/249	2,44/62	9,33/237	0.79 x 0.16/20 x 4	14.8/20
8"/200	7,63"/194	10 bar	2,74/69,8	10,23/260	4,80/122	9,44/240	12,16/309	27,71/704	6,30/160	50,86/1292	10,43/265	9,80/249	2,44/62	9,33/237	0.98 x 0.2/25 x 5	22.2/30
10"/250	9,4"/239	10 bar	2,74/69,8	13,33/338	4,80/122	11,41/290	13,58/345	31,10/790	6,30/160	54,25/1378	10,43/265	9,80/249	2,44/62	9,33/237	0.98 x 0.2/25 x 5	33.3/45
12"/300	11,18"/284	10 bar	3/76,2	14,40/366	4,80/122	14,17/360	15,47/393	34,76/883	7,87/200	57,91/1471	11,10/282	10,08/256	2,55/65	9,72/247	0.98 x 0.2/25 x 5	51.8/70
14"/350	12,67"/322	10 bar	3/76,2	16/400	7,75/197	12,60/320	18,07/459	35,79/909	7,87/200	58,94/1497	11,14/283	10/254	2,55/65	9,76/248	1.38 x 0.24/35 x 6	81.4/110
16"/400	14,40"/366	10 bar	3,50/89	18,03/458	7,75/197	14,49/368	20,31/516	42,32/1075	12,40/315	70,98/1803	15,31/389	13,22/336	3,58/91	11,25/286	1.38 x 0.24/35 x 6	118.4/160
18"/450	15,74"/400	10 bar	3,50/89	19,25/489	10,62/270	16,34/415	21,61/549	44,84/1139	12,40/315	73,50/1867	15,31/389	13,22/336	3,58/91	11,25/286	1.38 x 0.24/35 x 6	140.6/190
20"/500	18,11"/460	10 bar	4,50/114,2	21,73/552	10,62/270	18,11/460	24,21/615	52/1321	15,74/400	80,67/2049	15,31/389	13,34/339	3,58/91	11,25/286	1.38 x 0.24/35 x 6	199.8/270
24"/600	20,86"/530	10 bar	4,50/114,2	25,07/637	10,62/270	20,12/511	27,04/687	56,85/1444	15,74/400	85,51/2172	15,31/389	13,34/339	3,58/91	11,25/286	1.57 x 0.27/40 x 7	333/450
30"/750	26,37"/670	7 bar	4,6/117	33,14/842	12,59/320	26,37/670	37/940	71,65/1820	19,68/500	115,55/2935	16,92/430	14,37/365	4,6/117	11,92/303	1.96 x 0.31/50 x 8	407/550
36"/900	31,88/810	7 bar	4,6/117	38,18/970	12,59/320	31,49/800	43,3/1100	74,8/1900	19,68/500	126,96/3225	16,92/430	14,37/365	4,6/117	11,92/303	2,36 x 0.35/60 x 9	629/850

