

# BC SERIES 90 KNIFE GATE VALVE



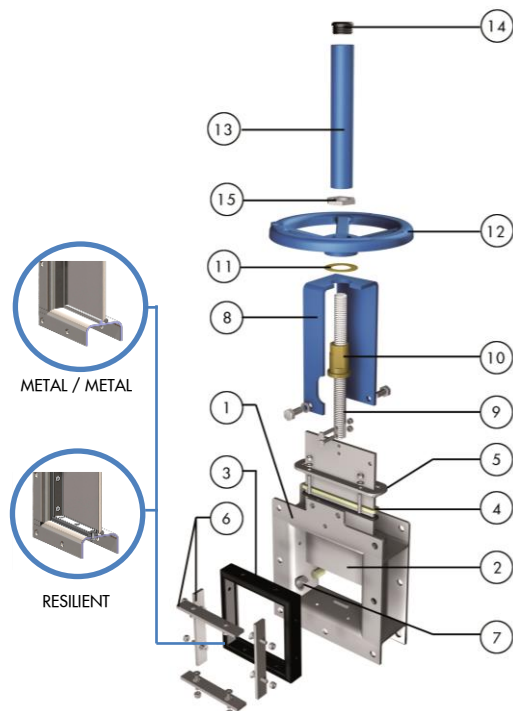
The SERIES 90 (BC) model knife gate valve is a fabricated square or rectangular port low-pressure valve for fluids with high solids concentration or solids, mainly used in bulk handling and silo outlet applications in industries such as Chemical Plants, Power Plants, Food and Beverage, Wastewater Treatment Plants, Mining , Etc.

## Product description:

- Uni-directional fabricated type knife gate valve
- Size range of 6"x6" - 24"x24" (larger sizes upon request). See Dimension Charts for pressure rating
- Rising & non-rising stem configurations available
- See Flange and Bolting details for standard flange connection  
Others available upon request
- Manual (handwheel and bevel gear), pneumatic (single and double-acting) and electric actuation options available
- For EU Directives and other Certificates, please see the document:  
Directives and Certificates Compliance - Knife Gate Valves - Catalogues and Datasheets

## Features:

- Fabricated design with internal gate wedges and guides for tighter shut off
- Square or rectangular port design for higher flow capacity and minimal pressure drop
- Stainless steel gate polished both sides to avoid jamming and seat damage
- 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. Only in EU
- Other options: flush ports, special materials, cast bodies, special 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	Material
1 Body	Carbon Steel / AISI 316
2 Gate	AISI 304 / AISI 316
3 Seat	Metal-to-Metal or EPDM
4 Packing	PTFE imprg.synth. fibre with EPDM o-ring
5 Gland Follower	Carbon steel / AISI 316
6 Seal Retainer Plate	Carbon steel / AISI 316
7 Slider Support	Carbon steel or AISI-316 + Nylon or PTFE
8 Yoke	Carbon steel - Epoxy coated
9 Stem	Stainless Steel
10 Stem Nut	Brass
11 Friction Washer	Brass
12 Handwheel	GJS400 (GGG40)
13 Stem Protector	Epoxy-coated carbon steel
14 Cap	Plastic
15 Nut	Zinc plated carbon steel

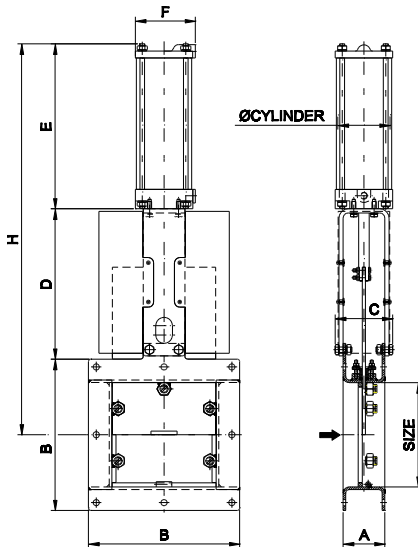
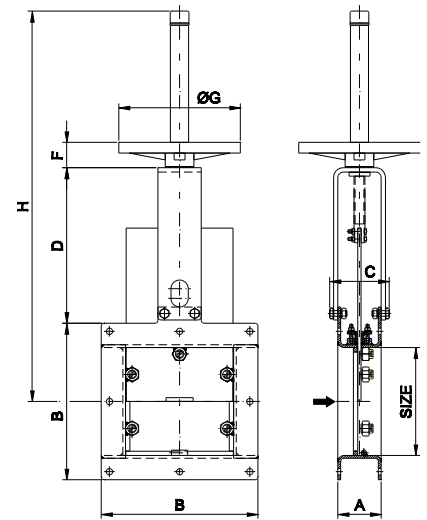
\* Refer to full catalogue for complete details

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## DIMENSIONS Handwheel Rising Stem

DN	Working pressure*	A	B	C	D	F	ØG	H	Weight (lbs.)
6" x 6"	15 psi	3.14	9.44	4.33	8.62	1.85	8.86	22.83	51
8" x 8"	15 psi	3.14	11.42	4.52	11.33	2.64	12.20	29.13	60
10" x 10"	15 psi	3.14	13.38	4.52	13.31	2.64	12.20	36.02	71
12" x 12"	15 psi	3.14	15.35	4.52	15.27	2.64	12.20	38.97	84
14" x 14"	15 psi	4	17.72	5.39	17.48	2.67	16.14	45.87	128
16" x 16"	15 psi	4	19.68	5.39	19.44	2.67	16.14	48.82	146
18" x 18"	15 psi	4	21.65	5.39	21.42	2.67	16.14	54.72	166
20" x 20"	15 psi	4	23.62	5.39	23.38	2.67	16.14	62.00	188
24" x 24"	15 psi	4	27.55	5.39	27.32	2.67	16.14	67.91	243



## DIMENSIONS Pneumatic Actuator (D/A)

DN	Working pressure*	A	B	C	D	E	F	H	Weight (lbs.)	Standard Cyl.	Connect.
6" x 6"	15 psi	3.14	9.44	4.33	8.62	10.47	4.52	23.81	55	C4"-6"	1/4" G
8" x 8"	15 psi	3.14	11.42	4.52	11.33	12.48	4.52	29.52	66	C4"-8"	1/4" G
10" x 10"	15 psi	3.14	13.38	4.52	13.31	14.44	4.52	34.44	77	C4"-10"	1/4" G
12" x 12"	15 psi	3.14	15.35	4.52	15.27	16.41	4.52	39.37	92	C4"-12"	1/4" G
14" x 14"	15 psi	4	17.72	5.39	17.48	19.09	5.51	45.43	138	C5"-14"	1/4" G
16" x 16"	15 psi	4	19.68	5.39	19.44	21.06	5.51	50.35	158	C5"-16"	1/4" G
18" x 18"	15 psi	4	21.65	5.39	21.42	23.03	5.51	55.27	176	C5"-18"	1/4" G
20" x 20"	15 psi	4	23.62	5.39	23.38	25.59	6.89	60.78	216	C6.5"-20"	1/4" G
24" x 24"	15 psi	4	27.55	5.39	27.32	29.52	6.89	70.62	275	C6.5"-24"	1/4" G

Note: for higher real working pressure (cast bodies), contact our technical department in order to properly oversize the actuator

(\*) For specific tightness requirements, contact ORBINOX technical department

## FLANGE AND BOLTING DETAILS

DN	A x A	n° divis. to Y	d	T	⊕ ⊖
6" x 6"	9.5" x 9.5"	2 div.to 4.15"=8.30"	0,48"	0,39"	7 - 1
8" x 8"	11.5" x 11.5"	2 div.to 5.15"=10.25"	0,48"	0,39"	7 - 1
10" x 10"	13.5" x 13.5"	2 div.to 6.10"=12.20"	0,48"	0,39"	7 - 1
12" x 12"	15.5" x 15.5"	3 div.to 4.80"=14.20"	0,48"	0,39"	10 - 2
14" x 14"	18" x 18"	3 div.to 5.52"=16.55"	0,55"	0,39"	10 - 2
16" x 16"	20" x 20"	4 div.to 4.65"=18.50"	0,55"	0,39"	13 - 3
18" x 18"	22" x 22"	4 div.to 5.12"=20.50"	0,55"	0,39"	13 - 3
20" x 20"	24" x 24"	4 div.to 5.62"=22.50"	0,55"	0,39"	13 - 3
24" x 24"	28" x 28"	4 div.to 6.60"=26.38"	0,55"	0,39"	13 - 3

