

SQUARE PORT KNIFE GATE VALVE

The BC model knife gate is a fabricated square or rectangular port low-pressure valve for highly solid loaded fluids or solids, mainly used in bulk handling and silo outlet applications in industries such as:

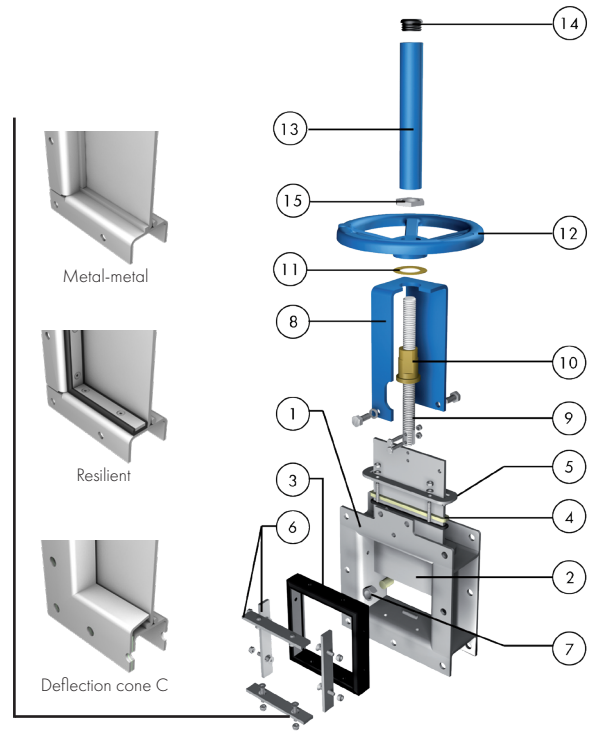
- Chemical plants
 - Power plants
 - Food and Beverage
- Wastewater treatment plants
 - Mining
 - etc

Product description

- Uni-directional fabricated type knife gate valve
- Size range of 150 x 150 - 600 x 600 (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 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
- 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

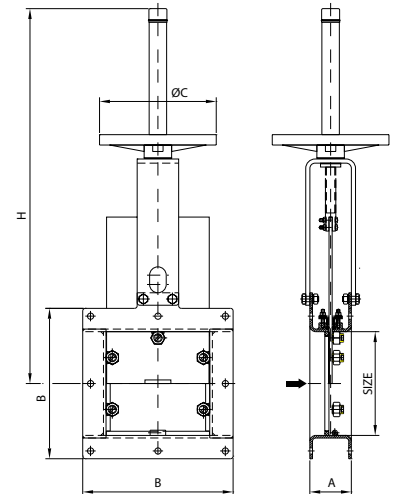
Part		Material
1	Body	Carbon Steel / AISI 316 ¹
2	Gate	AISI 304 / AISI 316 ¹
3	Seat	Metal/Metal or EPDM
4	Packing	ST
5	Gland follower	Carbon Steel / AISI 316 ¹
6	Seal retainer plate	Carbon Steel / AISI 316 ¹
7	Slider support	Carbon Steel or AISI-316 + Nylon or PTFE
8	Yoke	Epoxy-coated Carbon Steel
9	Stem	Stainless Steel
10	Stem nut	Brass
11	Friction washer	Brass
12	Handwheel	EN-GJS400
13	Stem protector	Epoxy-coated Carbon Steel
14	Cap	Plastic
15	Nut	Zinc Plated Carbon Steel

¹ Stainless steel configuration

Handwheel Rising Stem

SIZE	Pressures ¹	A	B	ØC	H	Weight (Kg)
150 x 150	1 bar	80	240	225	580	23
200 x 200	1 bar	80	290	310	740	27
250 x 250	1 bar	80	340	310	915	32
300 x 300	1 bar	80	390	310	990	38
350 x 350	1 bar	100	450	410	1165	58
400 x 400	1 bar	100	500	410	1240	66
450 x 450	1 bar	100	550	410	1390	75
500 x 500	1 bar	100	600	410	1575	85
600 x 600	1 bar	100	700	410	1725	110

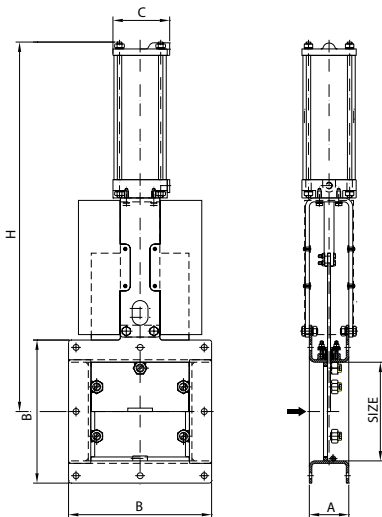
¹For specific tightness requirements, contact ORBINOX technical department



Pneumatic Cylinder

SIZE	Pressures ¹	A	B	C	H	Connect.	Weight (Kg)
150 x 150	1 bar	80	240	115	605	1/4" G	25
200 x 200	1 bar	80	290	115	750	1/4" G	30
250 x 250	1 bar	80	340	115	875	1/4" G	35
300 x 300	1 bar	80	390	115	1000	1/4" G	42
350 x 350	1 bar	100	450	140	1154	1/4" G	63
400 x 400	1 bar	100	500	140	1279	1/4" G	72
450 x 450	1 bar	100	550	140	1404	1/4" G	80
500 x 500	1 bar	100	600	175	1544	1/4" G	98
600 x 600	1 bar	100	700	175	1794	1/4" G	125

Note: for higher real working pressure (cast bodies), contact our technical department in order to properly oversize the actuator
¹For specific tightness requirements, contact ORBINOX technical department



Flange And Bolting Details

DN	A x A	n° div. to Y=Z	M	d	T	⊕ ⊕
150 x 150	240 x 240	2 div.to 105=210	M-10	12	10	7 - 1
200 x 200	290 x 290	2 div.to 130=260	M-10	12	10	7 - 1
250 x 250	340 x 340	2 div.to 155=310	M-10	12	10	7 - 1
300 x 300	390 x 390	3 div.to 120=360	M-10	12	10	10 - 2
350 x 350	450 x 450	3 div.to 140=420	M-12	14	10	10 - 2
400 x 400	500 x 500	4 div.to 117,5=470	M-12	14	10	13 - 3
450 x 450	550 x 550	4 div.to 130=520	M-12	14	10	13 - 3
500 x 500	600 x 600	4 div.to 142,5=570	M-12	14	10	13 - 3
600 x 600	700 x 700	4 div.to 167,5=670	M-12	14	10	13 - 3

150X150 - 250X250

300X300 - 350X350

400X400 - 600X600

