

BELGICAST is a company of



BAKIO Soft Sealing Gate Valves



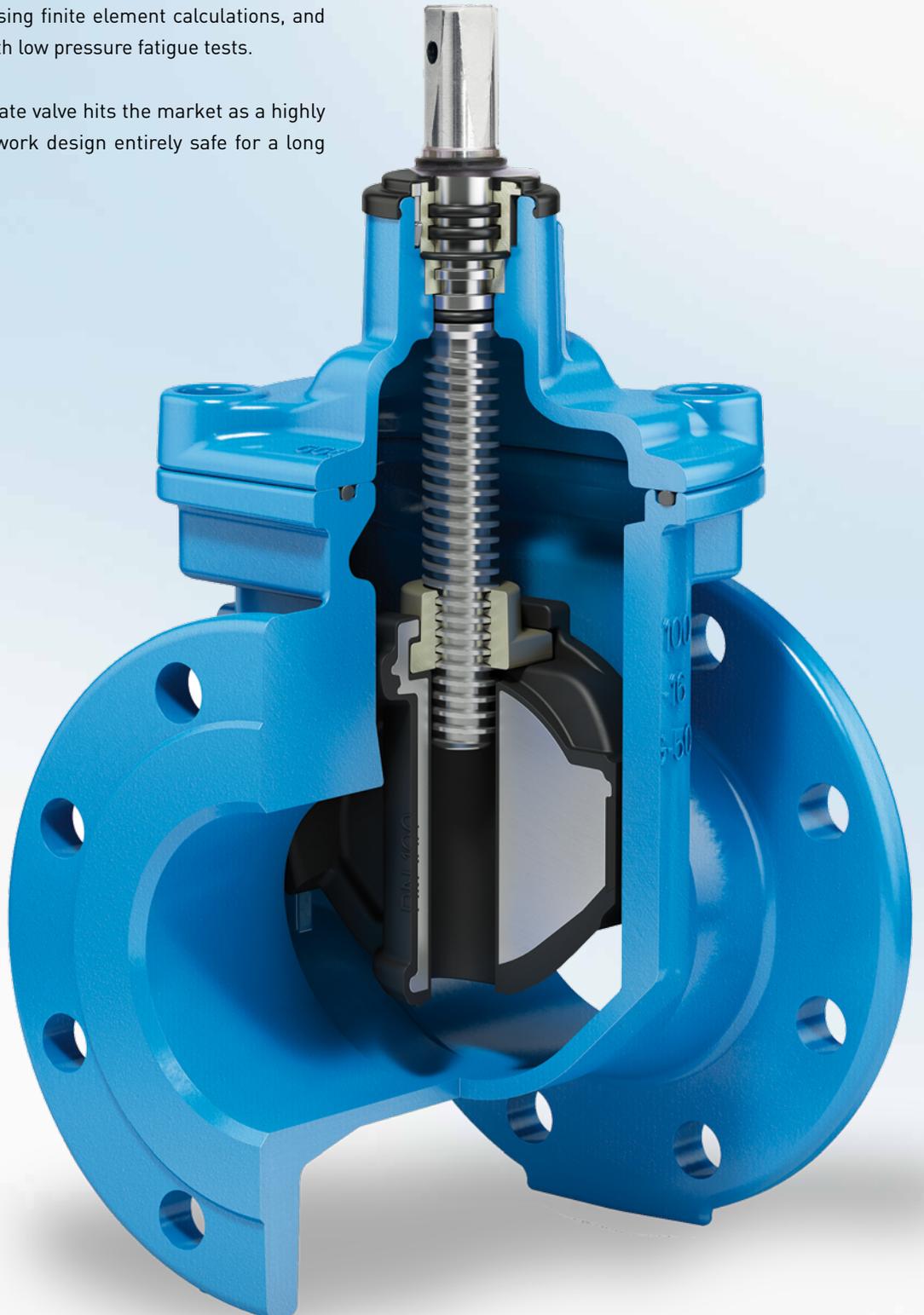
BV-05-47 BAKIO

Soft Sealing Gate Valve



BELGICAST in the process of **innovation and continuous improvement** has designed a new soft sealing gate valve named BAKIO. The process has been based on the development of the features that our customers perceive as most important, the design has evolved using finite element calculations, and confirming the results with low pressure fatigue tests.

The BAKIO soft sealing gate valve hits the market as a highly innovative and ready to work design entirely safe for a long lifetime.



Safety

BELGICAST has developed an innovative and PATENTED bayonet system consisting of a corrosion resistant nut made of C415 aluminum-bronze, which fits and locks safely in place through three locking tabs that prevent the ejection of the shaft, thus avoiding any incidents and ensuring the safety of all personnel on site.

Moreover, with this innovative replaceable packing, the bonnet of the BAKIO model has no threads enabling a continuous coating and therefore avoiding corrosion problems.

Full tightness

The wedge of the BAKIO gate valve is fully vulcanized, and the wide sealing profile guarantees full tightness even at minimal network pressure.

Furthermore, BAKIO gate valve ensures full isolation, on one hand with a triple sealing by the o-rings and the stuffing nut (bayonet), and on the other hand, by an innovative dust guard formed by three o-rings integrated in a single piece, which protects the valve from floods, salt spray and dust.

Efficiency

Thanks to the wedge guides, made of a special polymer and vulcanized along with the core wedge, BAKIO gate valve maintains optimal position for sealing, and opening and closing friction is reduced. As a result we get a smooth operation, reduced torques and longer life.

In addition, the height of the BAKIO gate valve has been reduced; this makes installation easier and even possible in places with reduced dimensions.

Moreover, BELGICAST continues to manufacture full and straight bore in this new BAKIO model.

Long service life

BELGICAST ensures the highest quality in all processes and materials used. Thus, the BAKIO model is already approved by major organizations such as DVGW in Germany, ÖVGW in Austria, NF in France, WRAS in UK.



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*BAKIO soft sealing gate valve
protected with epoxy powder*



*BAKIO soft sealing gate valve
complete enamelled*

The BAKIO soft sealing gate valve has been designed with more rounded surfaces and more ergonomic shapes that allow more uniform coating and ensure protection of the highest quality.

Corrosion protection with powder epoxy

BELGICAST valves are protected with epoxy powder both internally and externally both the bonnet and the body in a continuous manner, since the model BAKIO with patented bayonet nut has no threads and thus ensuring complete corrosion protection.

The epoxy powder used by BELGICAST is approved for use with potable water by the most prestigious institutions worldwide. Moreover, BELGICAST painting facilities are approved according to GSK standard (RAL Quality Mark). If you need your valves coated according to this process, please do not hesitate to enquire.

Permanent protection with enamel

Optionally BELGICAST can manufacture gate valves completely enamelled. The vitreous enamel is a substance highly resistant to corrosion, abrasion, sunlight and sedimentation due to its low porosity. The enamel is vitrified at 720 ° C and gets a perfect and permanent bond to the foundry.

BELGICAST's extensive experience in the manufacture of gate valves together with modern enamel equipment allows production of the highest quality.

Temperatures

Depending on the applied anticorrosive coating, BAKIO gate valve is suitable for the following continuous operating temperatures:

Epoxy powder protection: -10 °C to 50°C

Enamel protection: -10 °C to 70°C



Valve Testing according to EN 12266-1 - EN 1074

Testing pressures

Shell tightness: 1.5 times the allowable pressure at room temperature.

Seat tightness: 1.1 times the allowable pressure at room temperature.

Minimum test duration (in seconds)

Nominal diameter DN	Shell	Seat
Up to DN50 included	15	15
From DN65 up to DN200 both included	60	15
DN250 and above	180	30

Maximum allowable seat leakage

The criteria for seat leakage of BELGICAST soft sealing gate valves is Rate A: no visually detectable leakage for the duration of the test ("zero drops").

Quality Control

- 100% of BELGICAST soft sealing gate valves are tested according to EN 12266-1, DIN 3230, or as per customer requirements.
- According to EN 1074 (2,500 cycles endurance resistance).
- Valves are designed to withstand 64 bar of pressure in shell according to Vds standard.

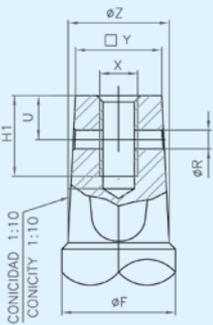


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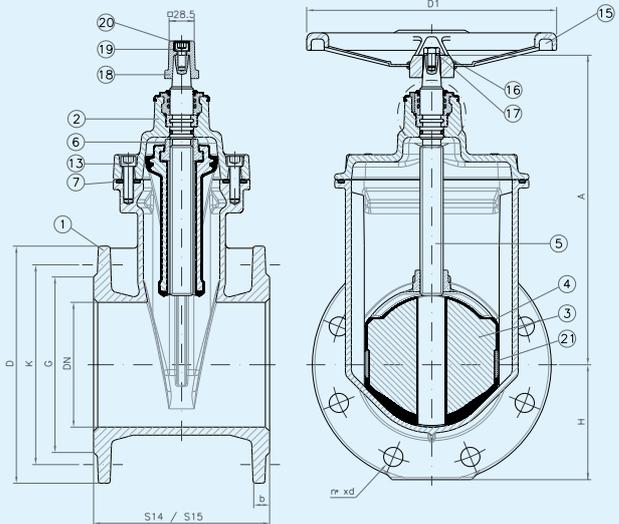
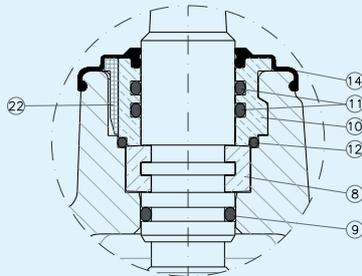
Soft Sealing Gate Valve



Item	Description	No pieces	Material	Standard
1	Body	1	EN GJS 500/7	EN 1563
2	Bonnet	1	EN GJS 500/7	EN 1563
3	Wedge	1	EN GJS 500/7	EN 1563
4	Wedge coating	1	EPDM	EN 681-1
5	Stem	1	X20 Cr13	EN 10088
6	Wedge lock nut	1	Copper alloy CW718R	EN 12165
7	Body-bonnet gasket	1	EPDM	EN 681-1
8	Fix washer	1	Copper alloy CW718R	EN 12165
9	O-ring (stem)	1	EPDM	EN 681-1
10	Stuffing nut (bayonet)	1	Al-br C-415	EN 12165
11	O-ring (stuffing nut)	2	NBR	ASTM D2000
12	O-ring (stuffing nut/bonnet)	1	NBR	ASTM D2000
13	Body bonnet bolting	acc/DN	Steel 8.8	
14	Dust guard	1	EPDM	EN 681-1
15	Handwheel	1	Stamped steel	
16	Handwheel bolting	1	X5 CrNi 18 10	EN 10008
17	Handwheel washer	1	X5 CrNi 18 10	EN 10088
18	Square cap	1	EN GJS 500/7	EN 1563
19	Square cap bolting	1	X5 CrNi 18 10	EN 10088
20	Square cap plug	1	Lupolen	
21	Wedge guide	2	PPS+40%GF	
22	Locking tabs	3	PA6+30%GF	



DN	øY	øZ	øR	U	X	H1	øF
40/50	14.3	17	5	10	M8	15	20
65/80	17.3	21	6	12	M8	15	25
100	19.3	23	6	13	M10	15	25
125/150	19.3	23	6	13	M10	15	28
200	24.3	28.5	6	16	M12	15	32
250/300	27.3	32	6	14	M12	15	36



DN	D	b	EN 1092-2 PN10			EN 1092-2 PN16			EN 558 (DIN 3202)		EN 558Ser.3	A	H	D1	n° turns for closing	Weight (kg)		
			K	G	n°xd	K	G	n°xd	S14 (F4)	S15 (F5)	BS 5163 t.A					S14 (F4)	S15 (F5)	BS5163
40	150	19	110	84	4x19	110	84	4x19	140	240	n/a	175	71	125	13	5,3	6	n/a
50	165	19	125	99	4x19	125	99	4x19	150	250	178	186	76	125	14,5	8,8	10,1	8,9
65	185	19	145	118	4x19	145	118	4x19	170	270	190	225	87	150	15	11,8	13	13,5
80	200	19	160	132	8x19	160	132	8x19	180	280	203	245	100	175	17	14	15,5	15,5
100	220	19	180	156	8x19	180	156	8x19	190	300	229	285	110	200	21,5	18,2	20,2	19,8
125	250	19	210	184	8x19	210	184	8x19	200	325	254	330	122	250	26	24,4	27,4	26
150	285	19	240	211	8x23	240	211	8x23	210	350	267	374	138	300	33	30,5	34,5	33,5
200	340	20	295	266	8x23	295	266	12x23	230	400	292	455	170	350	36	54,5	59,2	57
250	400	22	350	319	12x23	355	319	12x28	250	450	330	546	200	400	44,5	80,6	95	87,5
300	455	24,5	400	370	12x23	410	370	12x28	270	500	356	618	227,5	500	52	110	126	117

Options upon request

As standard manufacturing BELGICAST gate valves are supplied with clockwise closing. Anticlockwise available upon request.

The wedge of the BAKIO model is completely EPDM rubber vulcanized as standard, on request it can be supplied in different materials for special services.

Perfect sealing also applies between body and bonnet gasket, BELGICAST has innovated a unique gasket that extends to the outside and guarantees maximum safety and impact protection. This gasket is supplied as standard on enamelled BAKIO model and as an option for the epoxy coated version.

BELGICAST, in the process of continuous innovation, has developed a new coupling system for motorized valves. It is a system which adapts to the valve in a very efficient way.

Different connections are available on request, such as welding polyethylene ends, PVC socket, grooved ends ...

Within BELGICAST manufacturing program there are also available soft sealing gate valves for gas according to standard EN 13774.

On request BELGICAST can apply anti-corrosion epoxy powder in various colors, such as yellow for gas applications, red for fire-fighting...

With all these possibilities of rubber, coatings, connections, actuators and protections BELGICAST expects the BAKIO gate valve to be the most versatile and functional product for the customers.

BAKIO, a better product for a better solution !

BELGICAST has always maintained its commitment with the environment by a certified environmental management system ISO 14001, as well as health and safety at work in accordance with the specification OHSAS 18001:2007, being the first company in its sector to achieve this certification. BELGICAST goes a step further, and since 2012 has become a member of the **Global Compact** and expresses the support for the United Nations initiative that promotes the fulfillment of ten values based on human rights, labor, environment and anti-corruption.



Your Choice in Waterflow Control



TALIS is the undisputed Number One for water transport and water flow control. TALIS has the best solutions available in the fields of water and energy management as well as for industrial and communal applications. We have numerous products for comprehensive solutions for the whole water cycle – from hydrants, butterfly valves and knife gate valves through to needle valves. Our experience, innovative technology, global expertise and individual consultation processes form the basis for developing long-term solutions for the efficient treatment of the vitally important resource “water”.



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