

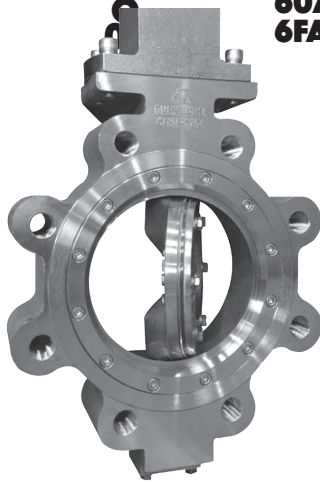
ROBVALVE

VALVE MANUFACTURER FOR INDUSTRIAL APPLICATIONS



API
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CRYOGENIC VALVES BALL AND BUTTERFLY VALVES

По вопросам продаж и поддержки обращайтесь:

ROBVALVE

Архангельск (8182)63-90-72
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Астрахань (8512)99-46-04
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Robvalve Presentation

The main goal of the company Robvalve is to offer the highest quality valves for industry.

Established in Strasbourg, it was a natural choice for the company as it is the center point of Western Europe and also the capital of European Union. Situated in between France and Germany, the company took the best of both culture: French creativity with German quality.

Throughout the years Robvalve increased its research & development department and created the Suprax®, a state of the art, Triple Offset Butterfly Valve, thanks to its experts in valve technologies within the engineering team.

Now fully operational with a brand new factory in Strasbourg, the company can offer a wide range of valves for industry markets including ball, butterfly, gate, globe, check and safety valves and strainers technologies.

Those products can stand the most difficult applications from cryogenics to very high temperature, from low to super high pressure. Featuring various materials, pressure ranges and connections types which are available depending on the service conditions of the different markets served.

Our independent R&D center and advanced manufacturing technologies strictly implement the relevant international standards. With advanced engineering design approaches, well-developed manufacturing equipment, testing verification facilities and the concept of Lean Manufacturing, we, Robvalve, ensure that each part in every product we supply is manufactured according to the highest quality and performance.

Certifications



An ISO 9001 : 2015 certified company



Products suitable for drinking water systems



Products comply with the ATEX directive 94/9/CE (explosion proof)



Products comply with the european directive of the "Pressure Equipment" (PED 2014/68/UE)



Products adapted to fire networks

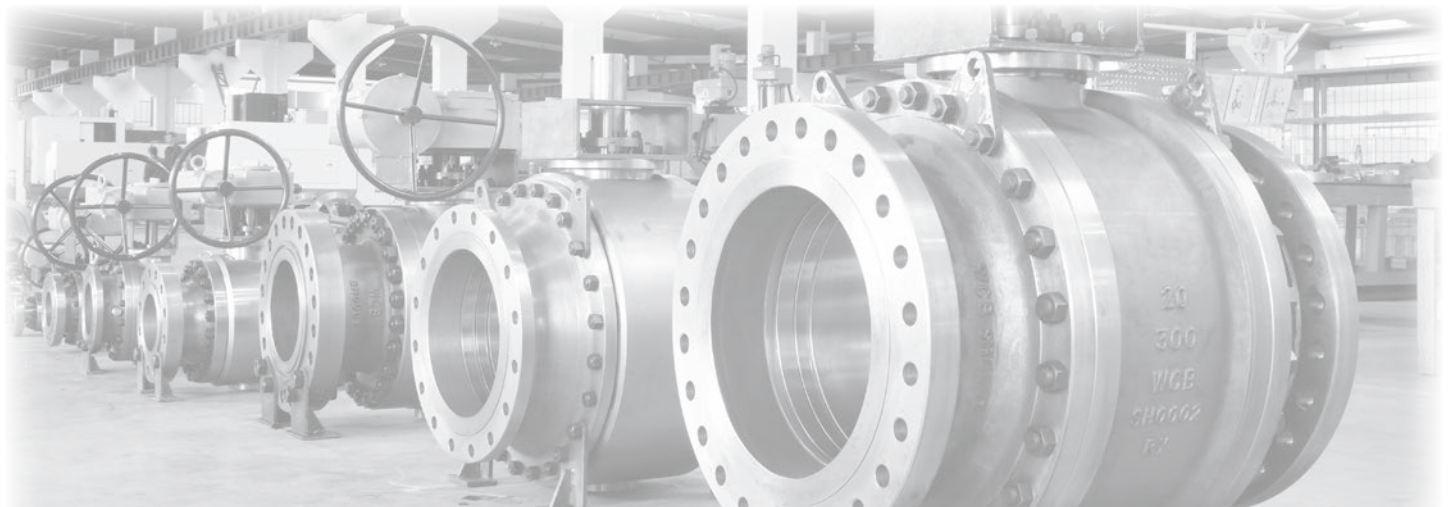


International certifications :



Alsace Company

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Features



Robvalve is the manufacturer associated with high performance quarter turn valve technologies for harsh conditions.

It is therefore a natural evolution to specialise into cryogenic valves for low temperatures.

Our range of products, spearheaded by *the SUPRAX® triple offset butterfly valve*, receive in its cryogenic version an innovative, patented, narrow metal to metal disc seal, which allow the cryogenic Suprax to be leakage Class VI.

To complete our range, we also offer cryogenic ball valves in various designs to meet all needs you may have for low temperature applications.



Cleaning standard :

All cryogenic valves are degreased with an alkaline-based solution into an oil free environment, following EN12300.

Packing

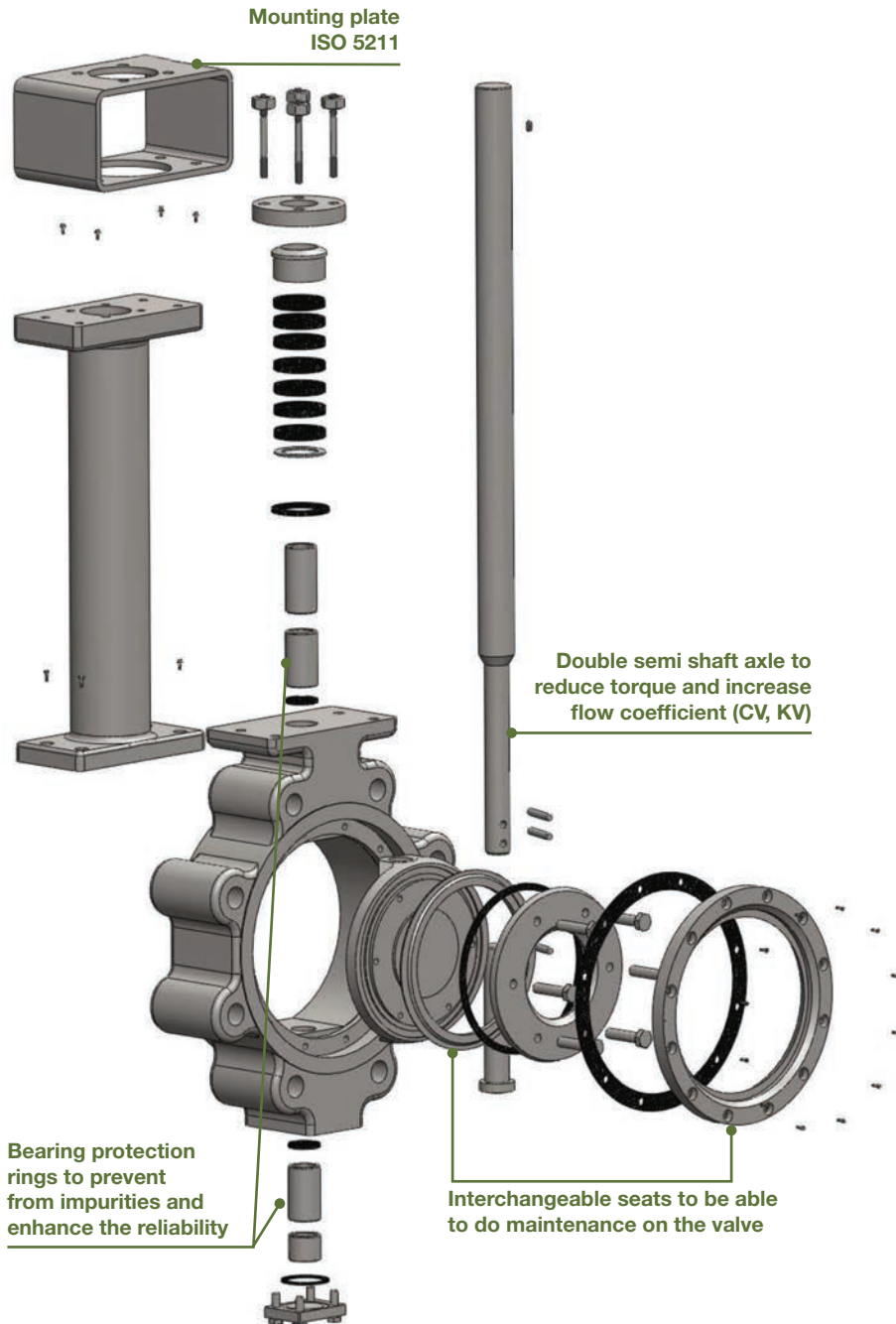
Cleaned valves are placed into a sealed plastic bag to preserve cleanliness during transit till installation at customer's site.

Upon request :

Valves can be supplied with EN-10204 test certificate type 3.1 or 3.2 witnessed by third party following customers standards.
Impact test (charpy) at -196°C following EN12567.
Cryogenic tests according to the BS6364 or EN12567



Advantages & Features

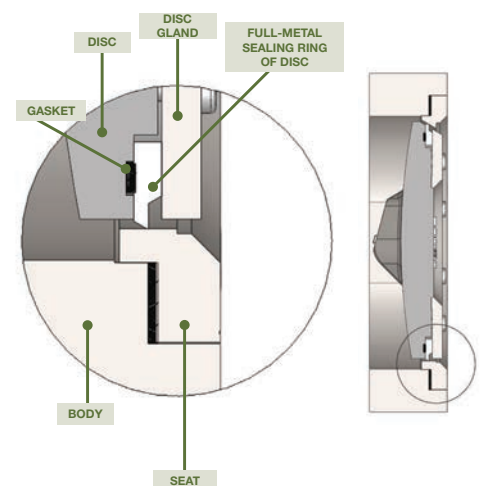


FTF SERIES 20
(EN558 - CONSTRUCTION PN25 & CLASS 150)

NO FRICTION NO WEAR LONGEVITY OF USE

- No deadlock.
- No retention area.
- No friction resistance during the opening due to the gasket/seat friction.
- Possibility of flow regulation from the first degree of opening.
- No jamming risk.
- Leakage Class VI. And API 598

KNIFE METAL SEAL



- Stainless steel seal with very narrow range (called "knife") for cryogenics. This "knife" sealing is less subject to temperature variations.

TRIPLE OFFSET - SUPRAX® BUTTERFLY VALVE



Basic Parameters

Size range : 2" ~ 160" (50mm ~ 4000mm)

(Note : including all the listed pressure class).

Bigger size up to DN 5000 is doable but should be studied case by case.

Pressure class : Class 150, Class 300, Class 600, Class 900, Class 1500; PN25, PN40, PN63, PN100, PN150, PN260

Vacuum : 0.05 bars (abs.) / 37.5 Torr (abs.)

Connection type : wafer, lug, double flanged, butt-welded

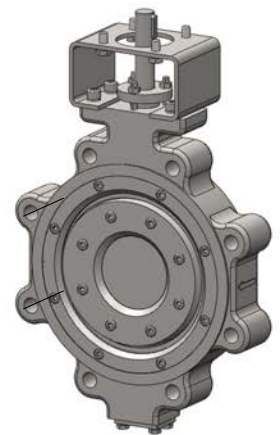
Working temperature : -196°C ~ +500°C

Actuation : gearbox, pneumatic, electric and hydraulic.

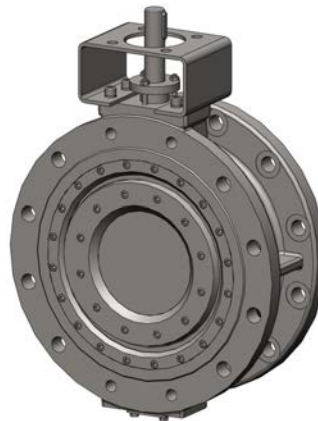
Applicable media : Cryogenics for industrial gases and LNG. The valves are tightness Class VI and fire safe by default.



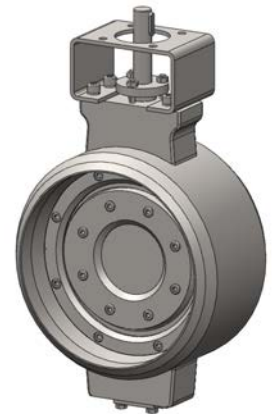
Wafer



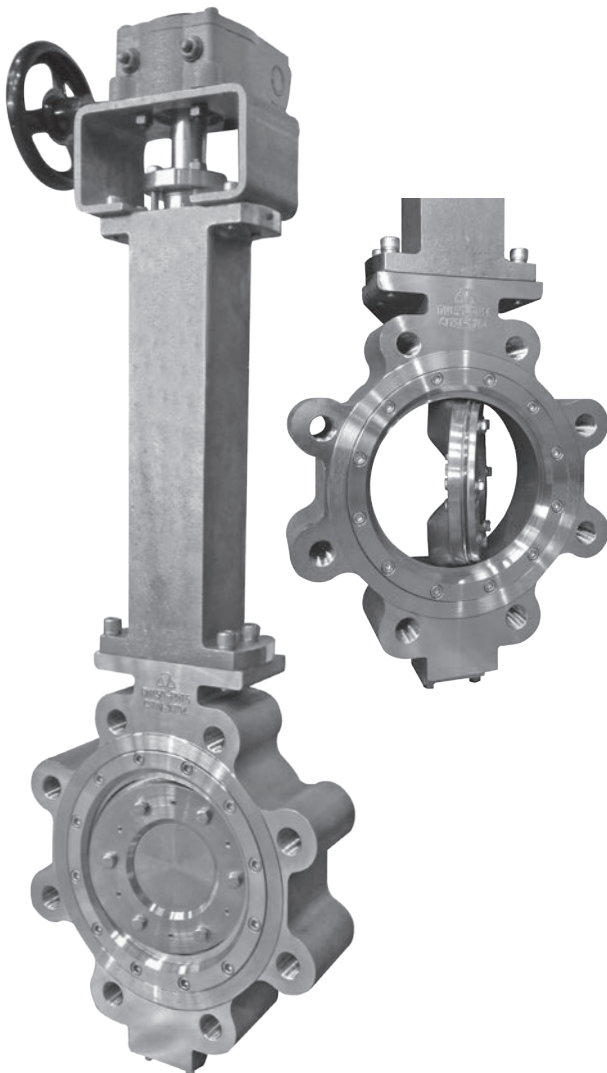
Lug



Double Flanged



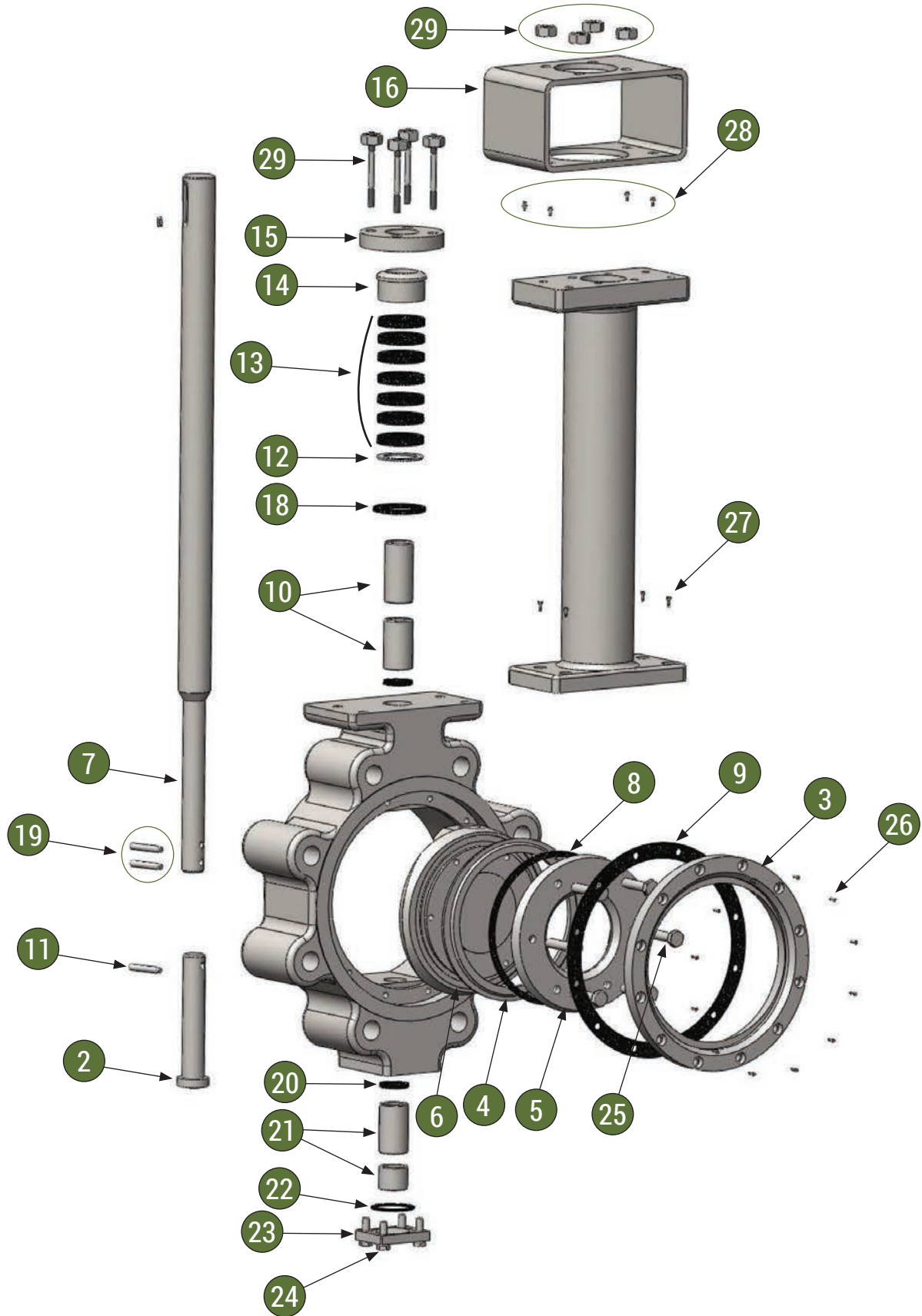
Butt-Welded



Low Temperature Features and Application Range

- Metal sealing is not affected by low temperature. Under low temperature or room temperature, the valves have the same performance and operating torque.
- The valves use extended bonnets to keep the packing away from low temperature area.
- Widely used in low temperature media, such as LNG, liquid nitrogen, liquid oxygen.
- Degreased and plastic bagged upon request

Cryogenic triple offset butterfly valve components



COMPONENTS



NO.	Name	Materials	
		EN	AISI
1	Body	1.4408	CF8M
2	Stop shaft		XM-19
3	Seat		Duplex
4	Sealing ring	1.4401	F316
5	Disc Gland	1.4401	F316
6	Disc	1.4408	CF8M
7	Drive shaft		XM-19
8	Disc sealing ring		Flexible Graphite
9	Body sealing ring		Flexible Graphite
10	Long bushing		F316-ENP
11	Pin		XM-19
12	Packing gasket	1.4401	F316
13	Packing		Flexible Graphite
14	Packing bushing	1.4401	F316
15	Packing gland	1.4401	F316
16	Yoke		SS 304
17	Cryo Stem extension	1.4401	F316
18	Sealing ring		Flexible Graphite
19	Pin		XM-19
20	Graphite Gasket		Flexible Graphite
21	Short Bushing		F316-ENP
22	Sealing gasket		Flexible Graphite
23	Bottom cover	1.4401	F316
24	Bolt		B8M (CL. 2)
25	Bolt		B8M (CL. 2)
26	Screw		B8M (CL. 2)
27	Screw		B8M (CL. 2)
28	Screw		B8M (CL. 2)
29	Nut		8M
	Stud		B8M (CL. 2)

CRYOGENIC BALL VALVE - BAV

Parameters

Nominal diameter : 3/8" ~ 24" (DN10 ~ DN600)

Pressure class : Class 150 ~ Class 900 (PN16 ~ PN150)

Working temperature : -196°C ~ +200°C

Structure : floating ball (uni-directional) / trunnion mounted (bi-directional)

Body type : two-piece / three-piece

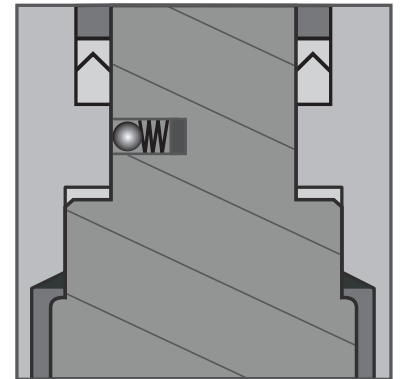
Material forming process : casted / forged

Actuation : manual, gearbox, electric, pneumatic, hydraulic

Connections : flanged, BW, SW, threaded

Stem extension : stem packing moved to the top of the extension to avoid any freezing, by creating a gas buffer into the stem.

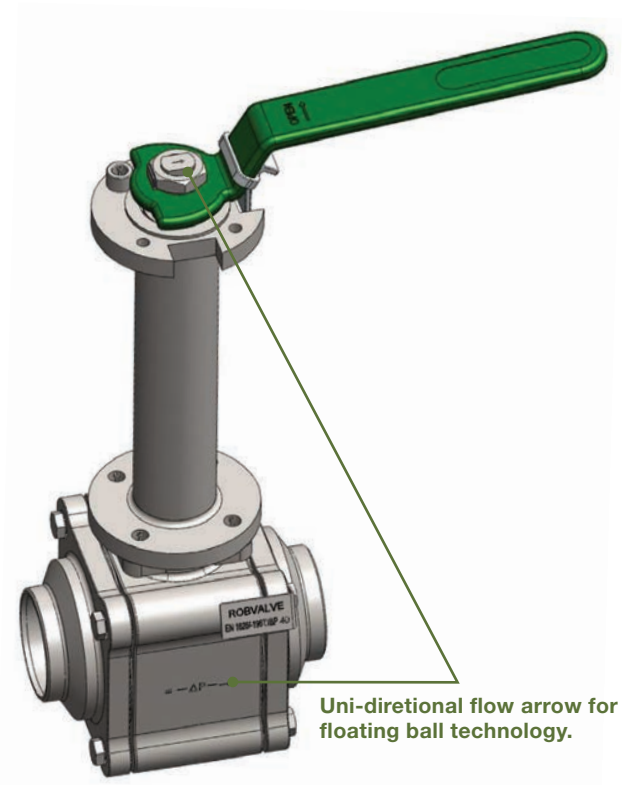
Degreasing : degreased and plastic bagged upon request for technical gases.



Antistatic device in stem and ball



Upstream vent hole for cavity relief in closed position for uni-directional valves.



Uni-directional flow arrow for floating ball technology.

CRYOGENIC BALL VALVE



CRYOGENIC BALL VALVES - 3 PIECES DESIGN

Design features

Nominal diameter : 3/8" ~ 3" (DN10 ~ DN80)

Pressure class : Class 600 (PN100)

Material : CF8M / F316 / Bronze

Working temperature : -196°C ~ +200°C

Structure : Floating ball, uni-directional

Degreased and plastic bagged for technical gases upon request.

Upstream vent hole for cavity over pressure relief in closed position.

Arrow on body and stem for visual check.

Anti-static design.

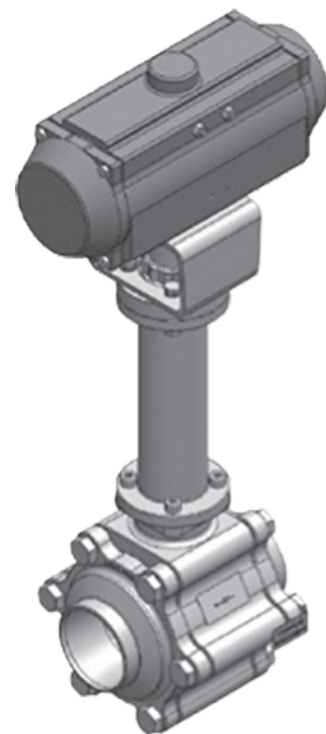
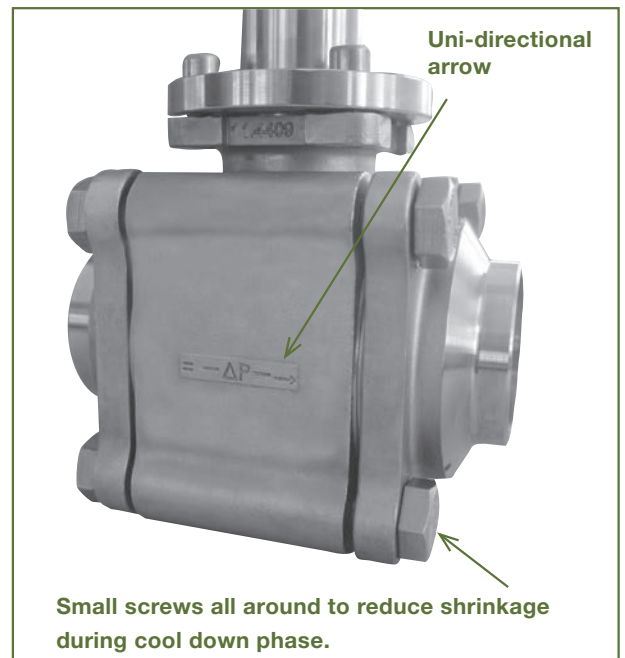
Belleville rouds for automatique reload of stem packing.

ISO top connection for easy actuation.

Fire safe upon request.

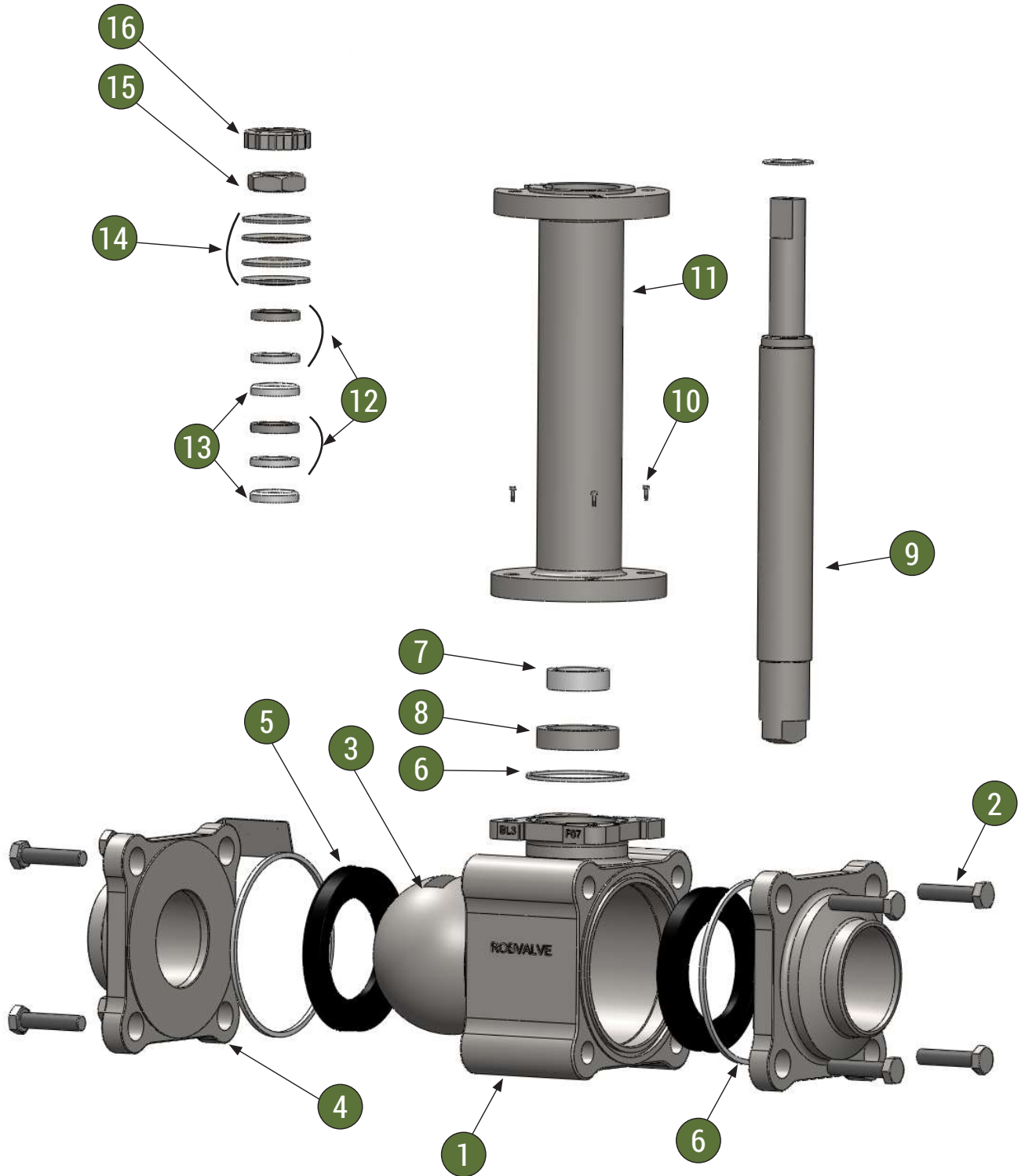


Small DN design (DN10 to DN50)
Manual version



Big DN design (DN65 to DN80)
Actuated version

Cryogenic ball valve, components - 3 pieces design



COMPONENTS

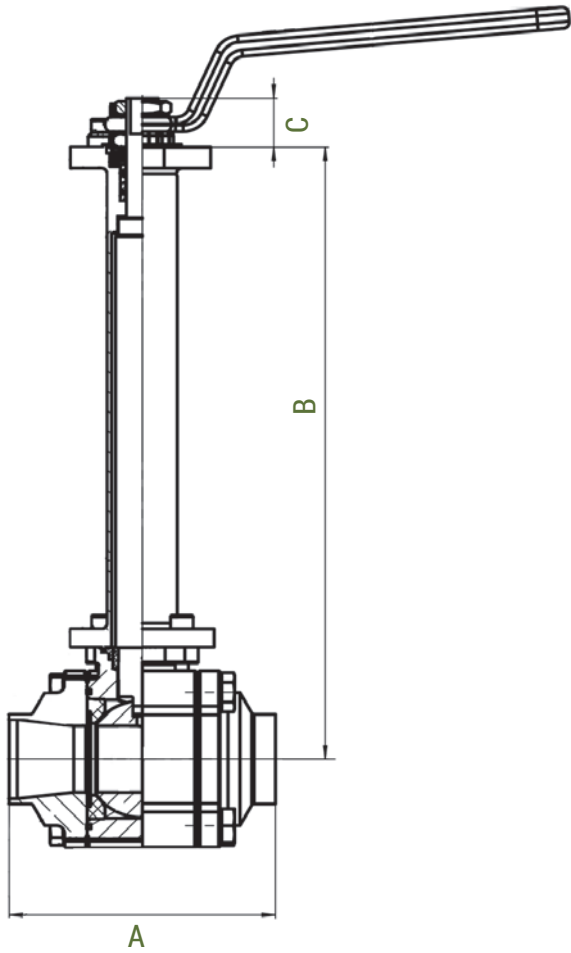


NO.	Name	Materials	
		EN	AISI
1	Body	1.4408	CF8M
2	Hexagonal Stud	SS304	
3	Ball	1.4408	CF8M
4	Connexion	1.4408	CF8M
5	Seat	PTFE+C	
6	Sealing Gasket	PTFE	
7	Split Ring	PTFE	
8	Guide Ring	SS316	
9	Stem	1.4401	F316
10	Screws	Stainless Steel	
11	Stem Extension	1.4301	F304
12	Packing	33%C + 2%Gr + PTFE	
13	Packing Ring	SS316	
14	Bellville Spring	Stainless Steel	
15	Hexagonal Thin Nuts M10	SS304	
16	Screwed Gland	SS304	

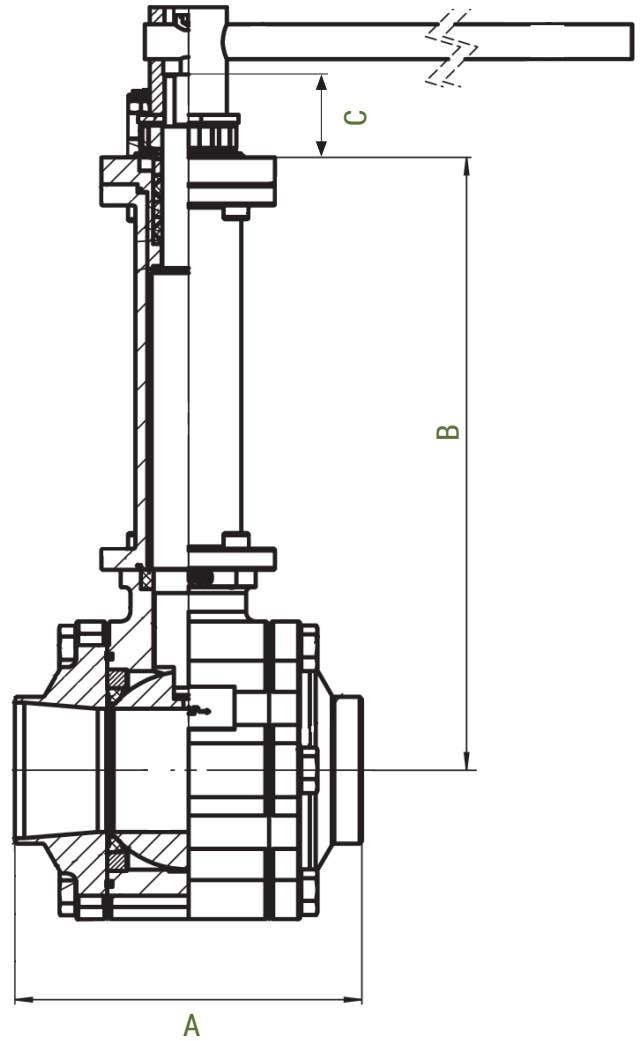
Optimal materials : CF3M/F316L ; Monel ; Bronze

For Fire Safe version : Please precise this request with your inquiry (as it is not a standard).

Material change for Fire Safe : parts Nbr. 6 are replaced by graphite.



1/2" - 2"
(DN15 - DN50)



2 1/2" - 3"
(DN65 - DN80)

DN	SIZE	PN	A	B	C	Torque at -196°C (without safety factor)
15	1/2"	100	70	188	13,3	10 N.m
20	3/4"	100	85	226	18,4	13 N.m
25	1"	70	100	230	18,4	20 N.m
32	1 1/4"	70	110	265	27	40 N.m
40	1 1/2"	50	125	211	27	66 N.m
50	2"	50	150	280	29,7	125 N.m
65	2 1/2"	40	180	310	43	130 N.m
80	3"	40	210	330	43	140 N.m

CRYOGENIC FLOATING BALL VALVES - SPLIT BODY DESIGN

Design features

Nominal diameter : 1/2" ~ 8" (DN15 ~ DN200)

Pressure class : PN16, PN40, CL150 (PN25),
CL 300 (PN40), CL 600 (PN10)

Material : CF8M / Bronze

Working temperature : -196°C ~ 200°C

Structure : Floating ball, uni-directional

Degreased and plastic bagged for technical gases upon request.

Upstream vent hole for cavity over pressure relief in closed position.

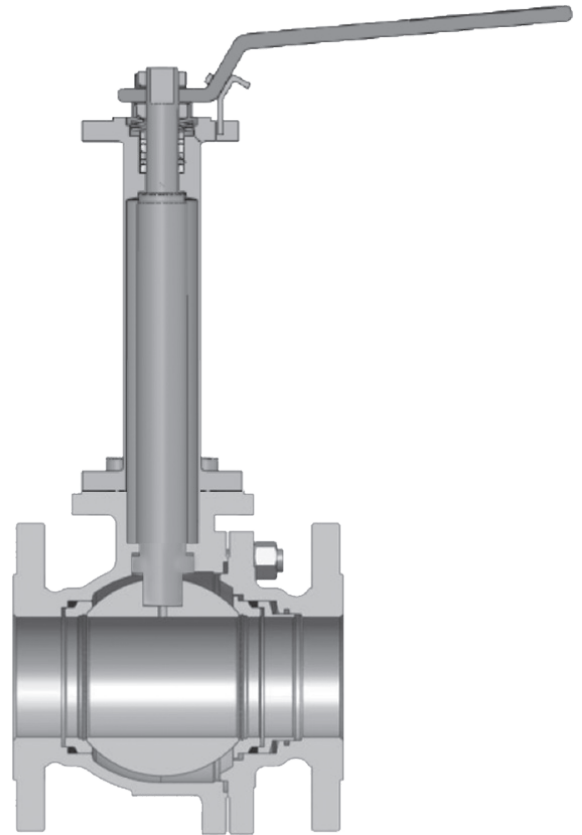
Arrow on body and stem for visual check.

Anti-static design.

Belleville rouds for automatique reload of stem packing.

ISO top connection for easy actuation.

Fire safe upon request.



CRYOGENIC BALL VALVES - TRUNNION MOUNTED DESIGN

Design features

Nominal diameter : 2" ~ 24" (DN50 ~ DN600)

Pressure class : PN16, PN40, CL150 (PN25), CL 300 (PN40), CL 600 (PN100)

Construction : 2 or 3 pieces

Material : CF8M / F 316

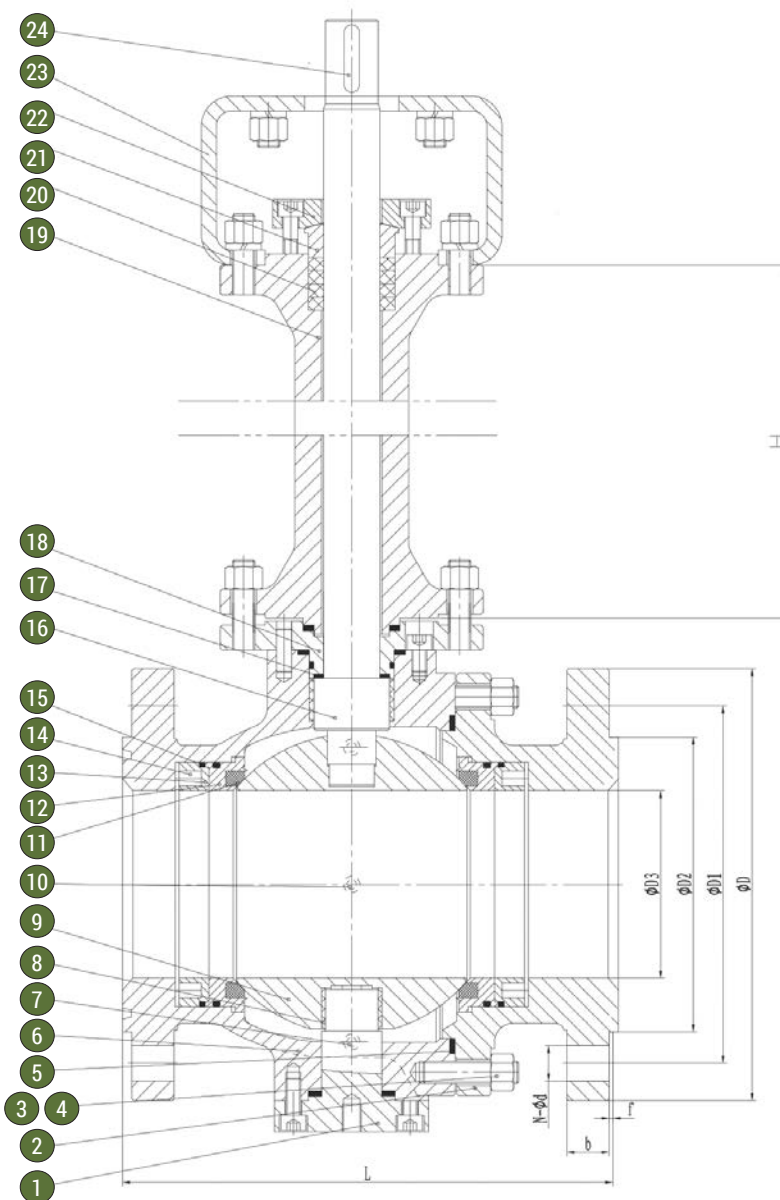
Working temperature : -196°C ~ 200°C

Structure : Trunnion ball, bi-directional

Anti-static design

ISO top connection for easy actuation

Fire safe upon request.



NO.	Name	Materials	
		EN	AISI
1	Lower shaft	1.4401	F316
2	Bonnet	1.4408	CF8M
3	Stud	B8M	
4	Nut	8M	
5	Sealing gasket	PTFE	
6	Body	1.4408	CF8M
7	Drain valve	Stainless Steel	
8	Bushing	304+PTFE	
9	Ball	SS316	
10	Grease injector	Stainless Steel	
11	Seat	RPTFE	
12	Seat gland	1.4401	F316
13	Spring gland	1.4401	F316
14	Spring	Inconel X750	
15	Graphite gland	PTFE	
16	Stem	1.4401	F316
17	Sealing gasket	304+Grafoil	
18	Gland	1.4401	F316
19	Extended stem	SS316	
20	Packing	RPTFE	
21	Packing bushing	1.4401	F316
22	Packing gland	1.4401	F316
23	Yoke	Stainless Steel	
24	Key	ASTM1045	

For fire safe version, please request during inquiry.
Most PTFE parts will be replaced by graphite.

For dimensions, please refer to our standard ball valves catalog.

CRYOGENIC BALL AND BUTTERFLY VALVES

PNEUMATIC ACTUATOR

Valves could be offered with pneumatic actuators, single or double acting.

Accessories such as **limit switches** and **solenoid valves** can be fitted as well.

Positioner can be fitted for control operation over pneumatic actuator.

Scotch Yoke and hydraulic actuation available for bigger sizes.



Rotork single or double acting actuator as standard.
Other type could be proposed on requested.

ELECTRIC ACTUATOR

Valves could be offered with electric actuators.

Wide range of voltage supply and communication input data.

Input signal can be used for valve control.

Declutcheable gearbox and control panel upon request.



Auma actuator as standard.
Other type could be proposed on requested.

Electric and pneumatic actuators, as well as accessories can be offered ATEX upon request.



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