





...the perfection has a soul.

Our expertise is the combination of knowledge, technology and passion, that brought us to project and build high-level components.

For the cryogenic service, the conditions of exercise of the valves can be at low or high temperature. The design is executed internally by our technicians who are able to value every kind of request and provide innovative solutions. For the realization of our valves to always give you the best, the most advanced technologies and current standards are followed.

Etiovalves inside the heart of your success.



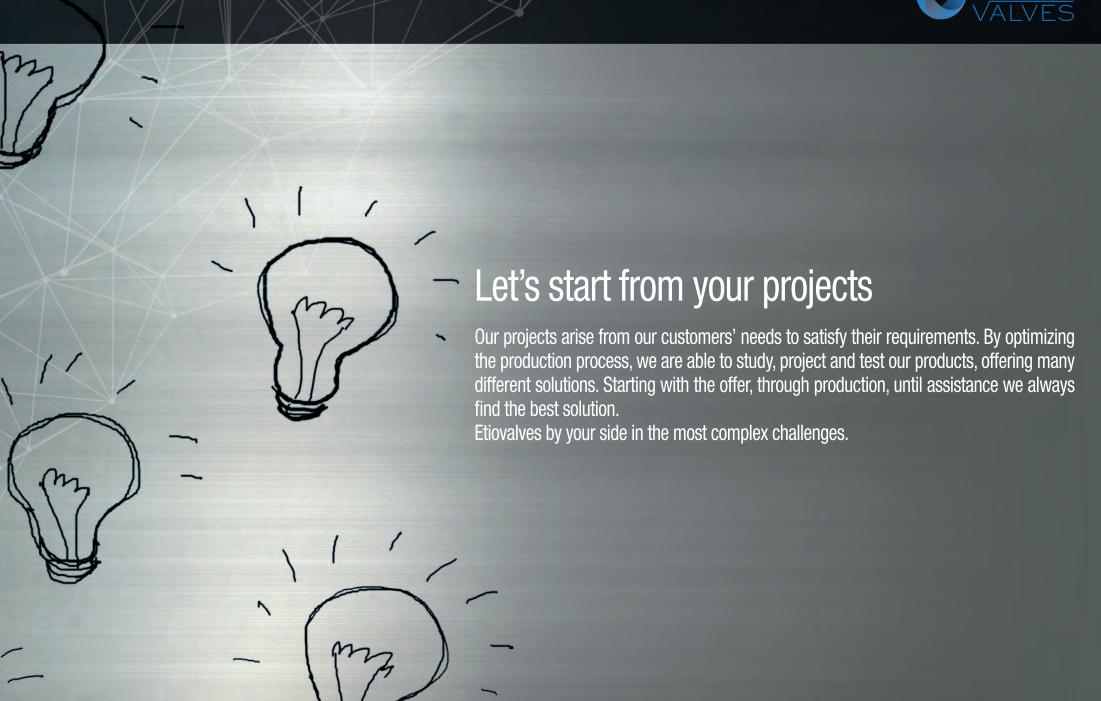
The value of excellence

Our mission is to concentrate our expertise towards continuing and increasing the technological improvement of the product. Our final goal is the guarantee of tangible solutions for our customers.

We pay particularly attention to the design in order to guarantee a unique and, in due time, reliable, productive relationship.

In making your needs, ours, we give you concrete solutions. Our collaborative relationship with our partners is distinguished by the capacity for honesty and transparency.







Design

The technical office is constantly committed to the research and development of new technological solutions in response to several uses of the valves and evolving of new technologies.

Research is the beating heart of our activities, we develop the project in 3D with Solidworks software that then is completed with the put into table of client's cartouche. Every material and component required for the production of the valve is allocated to a distinct basis that is extrapolated from the project.

Constructive reference standards are: API 6D, ASME and ASTM. At the customer's request we are also able to provide the analysis at the FEA elements complete with diagram and baseline report. This calculation system 3D allows us to identify during the design the key components at risk of greater stress and consequently to make the necessary corrections offering excellent results in productive terms.





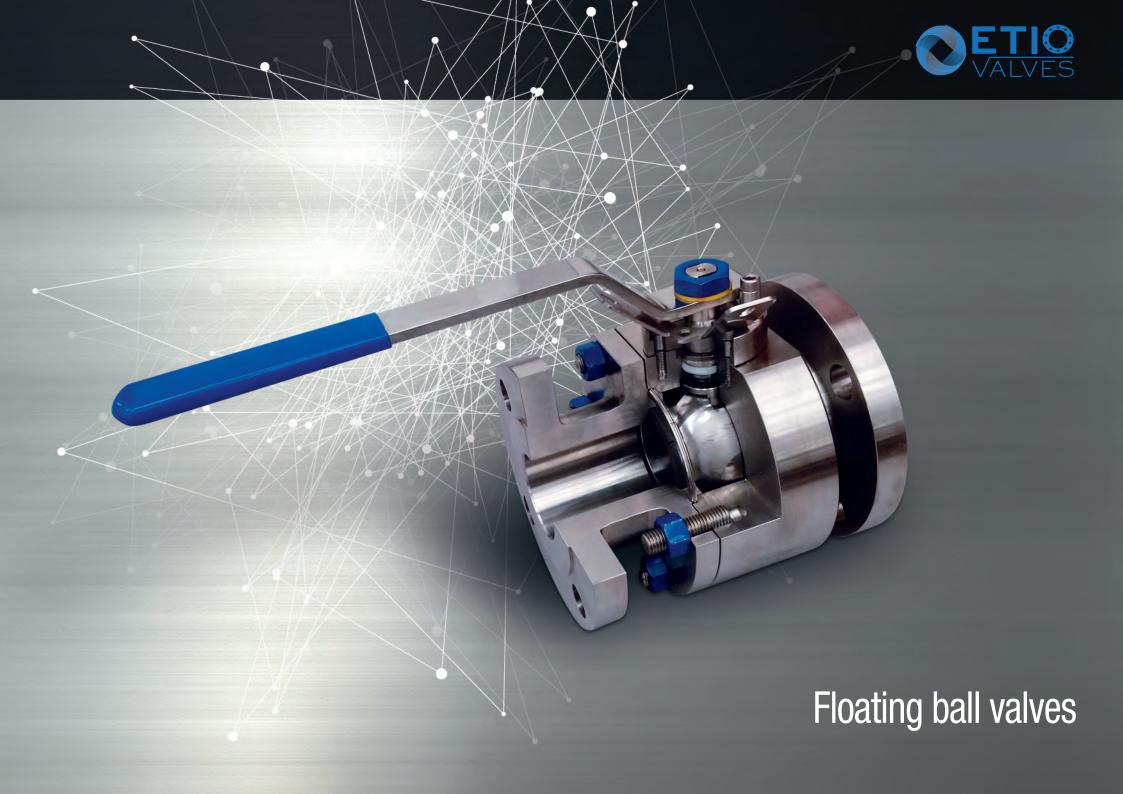
















Floating ball valves

The use of floating ball valves is particularly indicated for classes of low pressure 150-300. The operation of floating valve is always on-off with movement of 90° in opening and closing.

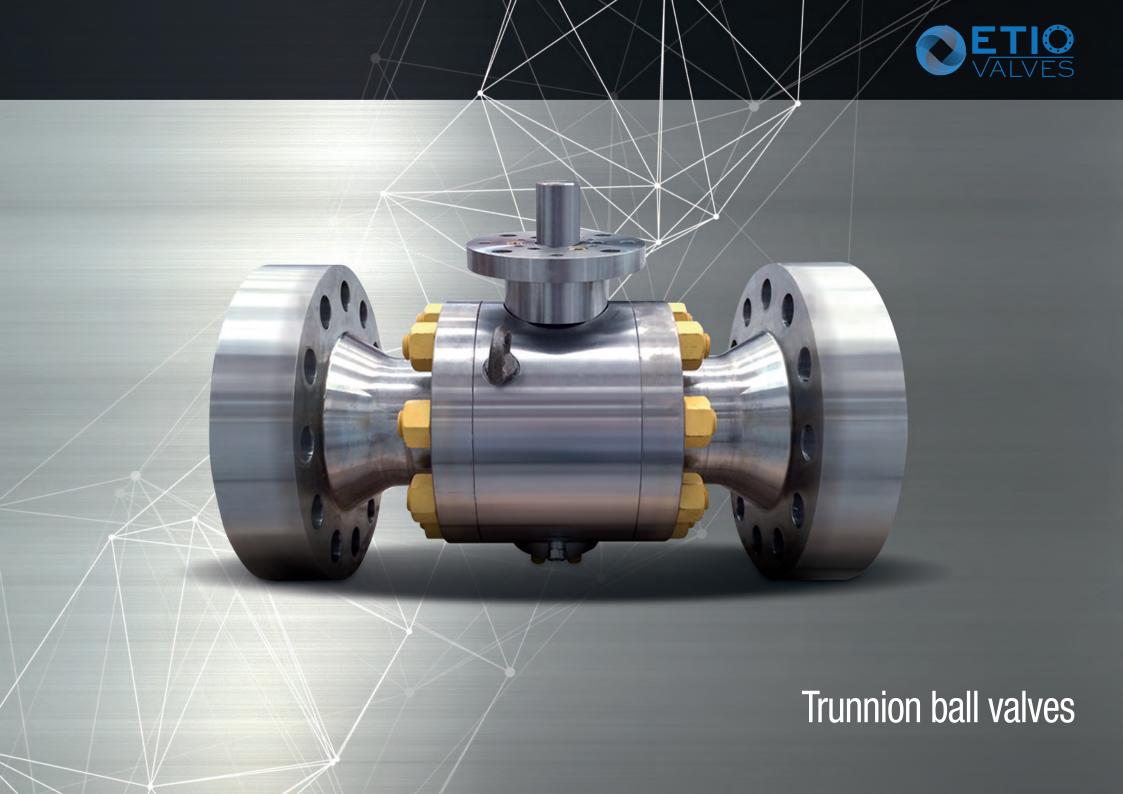
The seal is guaranteed by the floating valve, that under pressure moves towards the seat guaranteeing the seal.

- Cryogenics
- Low temperature
- High temperature



Floating ball valves

	Size	NPS 1/2"-8
	Pressure	Class 150-2500
Z	Temperature	Std29/+200°C, Low - 50/+200°C, Cryo -196/+150°C, HT -29/+400°C
	Material	A105, LF2, F304, F316, F304L, F316L, WCB,LCB,CF8, CF8M, CF3, CF3M. (Carbon Steel, Low temperature Carbon Steel, Stainless Steel, Duplex, Super Duplex, Low & High Alloy Steel, Titanium and any other special on request).
	Body type	Bolted, Threaded, Welded, One-piece, Two-pieces, Three-pieces, Reduced Bore, Full Bore
	Construction	Split Bolted Body, Top Entry, Three Way (T/L Bore), DBB, SBB
	Feature request	Soft or Metal Seated, Antistatic, Stem Extention, Limit Switch, Locking Device, Overlay, Special Bore
	Design code	ISO 17292, API 608, API 6D ASME B16.34
	Face to face Std.	ASME B16.10, API 6D
	End connection Std.	ASME B16.5, ASME B16.25, ASME B1.20.1 (SW, NPT, BW, RF, RJ, HUB, Compact Flange)
	Operator	Lever, Gear, Pneumatic, Electric
	Test Std.	API 598, ISO 5208, API 6D, BS 6755
	Fire safe	API 607, API 6FA, BS 6755







Trunnion ball valves

The use of trunnion ball valves is indicated for every class of pressure, being particularly high-performance.

The Trunnion ball and the stem driven by bearings with high resistance make it particularly indicated for the handling by actuators. The operation is always on-off with movement of 90° .

- Cryogenics
- Low temperature
- High temperature



Trunnion ball valves

Size	NPS 1/2"-8
Pressure	Class 150-2500
Temperature	Std29/+200°C, Low - 50/+200°C, Cryo -196/+150°C, HT -29/+400°C
Material	A105, LF2, F304, F316, F304L, F316L, WCB,LCB,CF8, CF8M, CF3, CF3M. (Carbon Steel, Low temperature Carbon Steel, Stainless Steel, Duplex, Super Duplex, Low & High Alloy Steel, Titanium and any other special on request).
Body type	Bolted, Threaded, Welded, One-piece, Two-pieces, Three-pieces, Reduced Bore, Full Bore
Construction	Split Bolted Body, Top Entry, Three Way (T/L Bore), DBB, SBB
Feature request	Soft or Metal Seated, Single Piston Seat, Double Piston Seat, Antistatic, Stem Extention, Limit Switch, Locking Device, Overlay, Special Bore
Design code	API 6D, ASME B16.34
Face to face Std.	API 6D
End connection Std.	ASME B16.5, ASME B16.25, ASME B1.20.1 (SW, NPT, BW, RF, RJ, HUB, Compact Flange)
Operator	Lever, Gear, Pneumatic, Electric
Test Std.	API 598, API 598, ISO 5208, BS 6755
Fire safe	API 607, API 6FA, BS 6755





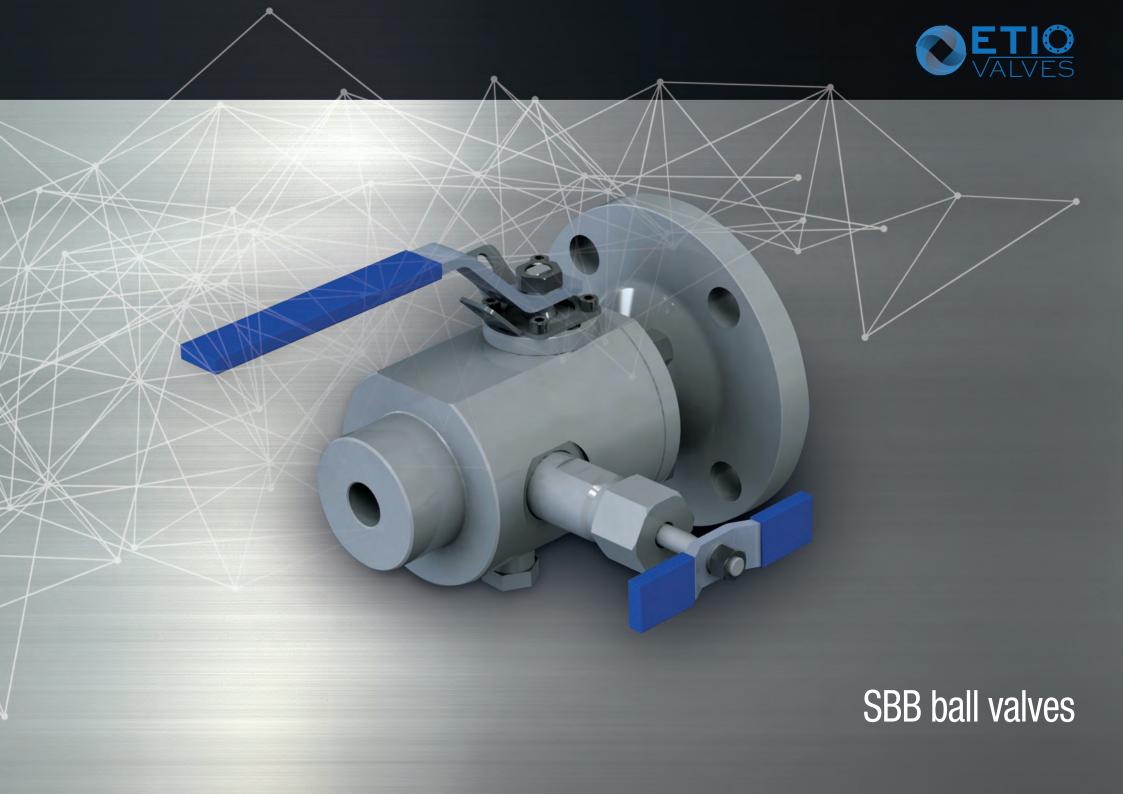




DBB ball valves

DBB (Double block & bleed) valves are mainly dedicated to the instrumentation, but they are also requested as an alternative to the installation in line of two valves and they are recommended for every class of pressure, guaranteeing durable seals and they can be provided either in Floating or Trunnion version.

- Cryogenics
- Low temperature
- High temperature







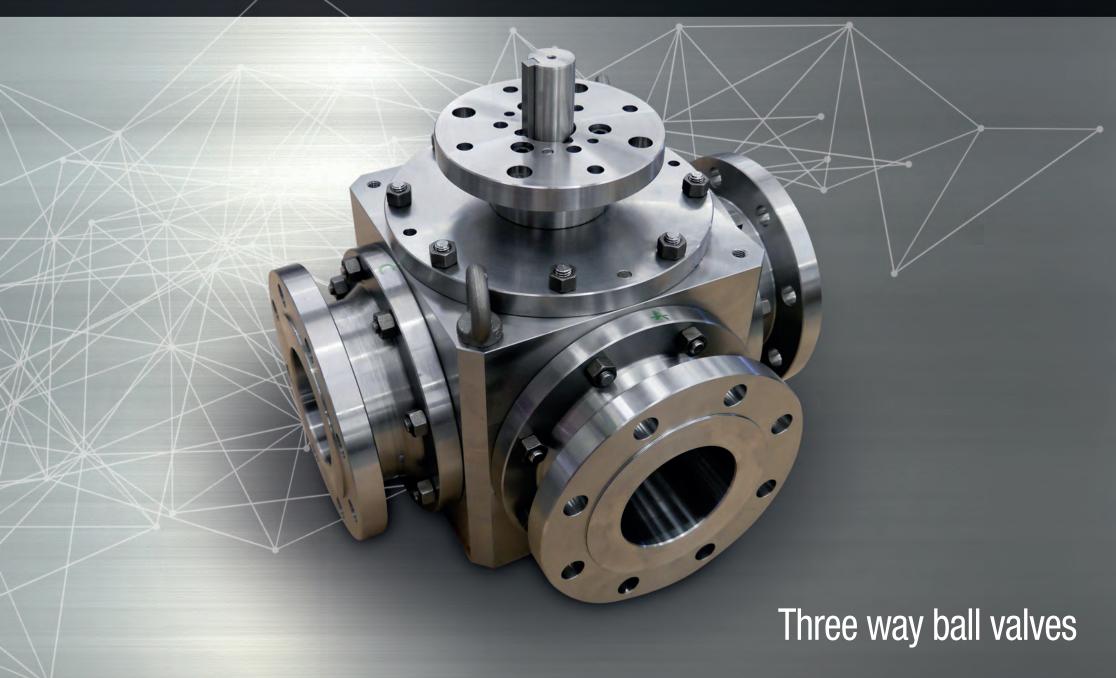
SBB ball valves

SBB (Single block & bleed) ball valves are mainly dedicated to the instrumentation, especially to monitor the keeping of the ball.

SBB are mainly required in Floating version, but they can also be provided in Trunnion version.

- Cryogenics
- Low temperature
- High temperature









Three way ball valves

Three ways ball valves are mainly dedicated to the deviation of flows. Three ways ball are recommended for every class of pressure, guaranteeing durable seals. Three ways ball are mainly used in Trunnion version, but they also can be provided in Floating version. The handing over of the ball can be at "T" or "L" and the angle of the line at 90° or 120°.

- Cryogenics
- Low temperature
- High temperature





Top entry ball valves

The use of Top Entry ball valves is recommended when maintenance in line is required because it's possible to remove all the internal components without disassembling the valve from the plant. Top Entry ball valves are recommended with every class of pressure. Top Entry are mainly required in Trunnion version, but they can also be provided in Floating version.

We can provide TOP entry valves also in DBB (Double block & bleed) version, as an alternative to the installation in line of two identical valves.

The functioning of the valve is on/off with movement of 90°.

- Cryogenics
- Low temperature
- High temperature



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