



## PRODUCT CATALOGUE

Your Solution Partner  
1978 - ∞



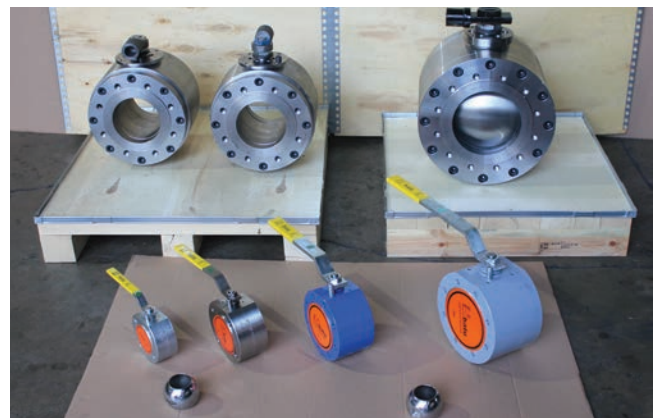
Batusan, with the trademark BatuValve started manufacturing Ball Valves in 1978. Since then, continues to serve the industry with dedication to quality, product innovation and commitment to customer service. We manufacture all our products %100 in our production facility in Turkey. We use European originated raw materials. Our trust in our products allows us to provide 2 year unlimited warranty.

Our main product line is Ball Valves. We also produce Check valves, Strainers and Flow Indicators. Being a leader manufacturer in Turkey since 1978. Apart from the Turkish industry, we export our products with pride to Germany, Bulgaria, Serbia, Poland, Croatia, Bosnia-Herzegovina, Greece, Lebanon, Saudi Arabia, Russia, Iran, Egypt, Yemen, Afghanistan, Austria, Vietnam, Equador, Colombia, Brasil, Ukraine, France, Algeria, Morocco, Tunisia, Gabon and so on. We also produce OEM products for some of the most known global brands from Italy, Germany, Austria, etc.

Our products have been installed throughout the world, handling a wide variety of applications in the Gas, Oil, Refining, Chemical, Food, Power Generation and Pipeline Transmission industries.

We have been emphasizing R&D department and always expanding our product line serving the needs of our customers. We have most of the Industrial valve manufacturing certificates, including;

ISO 9001: 2015, API 6D "0695", TSE, TS 9809, TSE EN 331, TSE 3148, TSE TS 16767, TSE TS 11494, TOV SOD CE 0036, TOV IT 18 ATEX 056 AR, TA LUFT, EN 14432, API 6FA FIRE SAFE, API 607, FIRE SAFE, ISO 10497 FIRE SAFE, EAC-1, EAC-2, ROS TEKHNADZOR, TH 02, HYGIENE, GAS, GAZMER, EGAS, BELARUS





### API 6D SPLIT BODY FLOATING/TRUNNION BALL VALVE

|                            |                                                                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | ASME B 16.10 (1/2" - 56")                                                                                                                     |
| <b>CONNECTIONS</b>         | ASME B 16.5, ASME B 16.25, ASME B 1.20.1                                                                                                      |
| <b>WORKING PRESSURE</b>    | CLASS 150 (PN 20), CLASS 300 (PN 50), CLASS 600 (PN 100), CLASS 900 (PN 150), CLASS 1500 (PN 250), CLASS 800 Lbs (PN 55), CLASS 2500 (PN 420) |
| <b>WORKING TEMPERATURE</b> | -46 °C / .+210 °C                                                                                                                             |
| <b>USAGE AREAS</b>         | Natural Gas, LPG-LNG, Fuel-Oil, Pressurized Air and Other Gases etc.                                                                          |



### API 6D PIG BALL VALVE LAUNCHER AND RECEIVER

|                            |                                                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL (2" - 24")                                                                                             |
| <b>CONNECTIONS</b>         | ASME B 16.5                                                                                                            |
| <b>WORKING PRESSURE</b>    | CLASS 150 (PN 20), CLASS 300 (PN 50), CLASS 600 (PN 100), CLASS 900 (PN 150), CLASS 1500 (PN 250), CLASS 2500 (PN 420) |
| <b>WORKING TEMPERATURE</b> | -46 °C / .+210 °C                                                                                                      |
| <b>USAGE AREAS</b>         | Natural Gas, LPG-LNG, Fuel-Oil, Pressurized Air and Other Gases etc.                                                   |



### API 6D DOUBLE BLOCK AND BLEED (DBB) BALL VALVE

|                            |                                                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | ASME B 16.10 (1/2" - 24")                                                                                              |
| <b>CONNECTIONS</b>         | ASME B 16.5                                                                                                            |
| <b>WORKING PRESSURE</b>    | CLASS 150 (PN 20), CLASS 300 (PN 50), CLASS 600 (PN 100), CLASS 900 (PN 150), CLASS 1500 (PN 250), CLASS 2500 (PN 420) |
| <b>WORKING TEMPERATURE</b> | -46 °C / .+210 °C                                                                                                      |
| <b>USAGE AREAS</b>         | Natural Gas, LPG-LNG, Fuel-Oil, Pressurized Air and Other Gases etc.                                                   |



### API 6D FULLY WELDED BALL VALVE

|                            |                                                                      |
|----------------------------|----------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | ASME B 16.10 (2" - 24")                                              |
| <b>CONNECTIONS</b>         | ASME B 16.5, ASME B 16.25, DIN EN 1092-1                             |
| <b>WORKING PRESSURE</b>    | CLASS 150 (PN 20), CLASS 300 (PN 50), CLASS 600 (PN 100)             |
| <b>WORKING TEMPERATURE</b> | -46 °C / .+210 °C                                                    |
| <b>USAGE AREAS</b>         | Natural Gas, LPG-LNG, Fuel-Oil, Pressurized Air and Other Gases etc. |



### BURAK TYPE WAFER MONO-BLOCK BALL-VALVE

|                            |                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL                                                                                  |
| <b>CONNECTIONS</b>         | EN 1092, ASME B 16.5                                                                             |
| <b>WORKING PRESSURE</b>    | PN 16 - 40, CLASS 150(PN 20), CLASS 300(PN 50)                                                   |
| <b>WORKING TEMPERATURE</b> | -46 °C / +210 °C                                                                                 |
| <b>USAGE AREAS</b>         | Natural Gas, LPG-LNG, Fuel-Oil, Pressurized Air and Other Gases, Asphalt, Good and Chemical Ind. |



### NATURAL GAS BALL VALVE

|                            |                                                                      |
|----------------------------|----------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | TS EN 331, TS 9809, EN 558                                           |
| <b>CONNECTIONS</b>         | EN 1092 - 1 / 2, EN 10226-1                                          |
| <b>WORKING PRESSURE</b>    | PN 16-40, MOP 5-20                                                   |
| <b>WORKING TEMPERATURE</b> | -29 °C / +210 °C                                                     |
| <b>USAGE AREAS</b>         | Natural Gas, LPG-LNG, Fuel-Oil, Pressurized Air and Other Gases etc. |



### EU BALL VALVE

|                            |                                                                      |
|----------------------------|----------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | EN 558, BATUSAN SPECIAL                                              |
| <b>CONNECTIONS</b>         | EN 1092-1, EN 10226-1                                                |
| <b>WORKING PRESSURE</b>    | PN 16 - 40                                                           |
| <b>WORKING TEMPERATURE</b> | -46 °C / +210 °C                                                     |
| <b>USAGE AREAS</b>         | Natural Gas, LPG-LNG, Fuel-Oil, Pressurized Air and Other Gases etc. |



### STEEL BALL VALVE

|                            |                                                                             |
|----------------------------|-----------------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL, EN 558, EN 558 / DIN 3202 F4-F5, TS EN 12982, ASME B 16.10 |
| <b>CONNECTIONS</b>         | EN 1092-1, EN 10226-1, ASME B 16.25, ASME B 16.11                           |
| <b>WORKING PRESSURE</b>    | PN 16 - 40                                                                  |
| <b>WORKING TEMPERATURE</b> | -29 °C / +210 °C                                                            |
| <b>USAGE AREAS</b>         | Water, Hot Water, Steam, Pressurized Air                                    |



### HIGH PRESSURE EUROPEAN NORM BALL VALVE

|                            |                                          |
|----------------------------|------------------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL, EN 558                  |
| <b>CONNECTIONS</b>         | EN 1092-1, EN 10226-1                    |
| <b>WORKING PRESSURE</b>    | PN 64, PN 100, PN 150                    |
| <b>WORKING TEMPERATURE</b> | -46 °C / +210 °C                         |
| <b>USAGE AREAS</b>         | Water, Hot Water, Steam, Pressurized Air |



### CAST IRON WATER BALL VALVE

|                            |                                          |
|----------------------------|------------------------------------------|
| <b>DIMENSIONS</b>          | TS 3148 / EN 558, EN 10226-1             |
| <b>CONNECTIONS</b>         | EN 1092-2                                |
| <b>WORKING PRESSURE</b>    | PN 16, PN 25                             |
| <b>WORKING TEMPERATURE</b> | -29 °C / +210 °C                         |
| <b>USAGE AREAS</b>         | Water, Hot Water, Steam, Pressurized Air |



### 3 WAY BALL VALVE

|                            |                                          |
|----------------------------|------------------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL, EN 558                  |
| <b>CONNECTIONS</b>         | EN 1092 - 1, EN 10226-1                  |
| <b>WORKING PRESSURE</b>    | PN 16 - 40                               |
| <b>WORKING TEMPERATURE</b> | -29 °C / +210 °C                         |
| <b>USAGE AREAS</b>         | Water, Hot Water, Steam, Pressurized Air |



### JACKET BALL VALVE

|                            |                                 |
|----------------------------|---------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL, EN 558         |
| <b>CONNECTIONS</b>         | EN 1092 - 1, EN 10226-1         |
| <b>WORKING PRESSURE</b>    | PN 16 - 40                      |
| <b>WORKING TEMPERATURE</b> | -29 °C / +210 °C                |
| <b>USAGE AREAS</b>         | Asphalt, Good ang Chemical Ind. |



### CHECK VALVE

|                            |                                                 |
|----------------------------|-------------------------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL, EN 558                         |
| <b>CONNECTIONS</b>         | EN 1092-1, EN 1092-2, EN 10226-1                |
| <b>WORKING PRESSURE</b>    | PN 16 - 40                                      |
| <b>WORKING TEMPERATURE</b> | -29 °C / .+300 °C                               |
| <b>USAGE AREAS</b>         | Water, Hot Water, Steam, Pressurized Air, Gases |



### STRAINER (FILTER)

|                            |                                                                                                                    |
|----------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>DIMENSIONS</b>          | TS 11494 / EN 558, ASME B 16.10                                                                                    |
| <b>CONNECTIONS</b>         | EN 1092 - 1 / 2, ASME B 16.5                                                                                       |
| <b>WORKING PRESSURE</b>    | PN 16 - 25 - 40, CLASS 300 (PN 50)                                                                                 |
| <b>WORKING TEMPERATURE</b> | -29 °C / .+400 °C                                                                                                  |
| <b>USAGE AREAS</b>         | Water, Hot Water, Steam, Non-Flammable Gases, Natural Gas, LPG-LNG, Fuel-Oil, Pressurized Air and Other Gases etc. |



### FLOW INDICATOR

|                            |                                            |
|----------------------------|--------------------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL, EN 558                    |
| <b>CONNECTIONS</b>         | EN 1092-1, EN 1092-2, EN 10226-1           |
| <b>WORKING PRESSURE</b>    | PN 16 - 40                                 |
| <b>WORKING TEMPERATURE</b> | -29 °C / .+180 °C                          |
| <b>USAGE AREAS</b>         | Water, Good, Chemical, Air and Other Gases |



### NEEDLE VALVE

|                            |                                          |
|----------------------------|------------------------------------------|
| <b>DIMENSIONS</b>          | BATUSAN SPECIAL, EN 558                  |
| <b>CONNECTIONS</b>         | EN 1092-1, EN 10226-1                    |
| <b>WORKING PRESSURE</b>    | PN 250                                   |
| <b>WORKING TEMPERATURE</b> | -46 °C / .+250 °C                        |
| <b>USAGE AREAS</b>         | Water, Hot Water, Steam, Pressurized Air |

## SPLIT BODY TRUNION BALL VALVE SPECIFICATIONS

Batu API 6D trunion ball valves are designed to include many features for you as a result of a detailed R&D study. Extra options are available upon request.

### LOW TORQUE BALL VALVES

ANTI-BLOWOUT STEM DESIGN

ANTI STATIC DEVICE

ISO 5211 MOUNTING FLANGE

LOW EMISSION VALVES

DOUBLE BLOCK & BLEED

EMERGENCY SEALANT INJECTION

\* DBB

\* DIB-1

\* DIB-2

FIRE-SAFE DESIGN

BODY DRAIN AND VENT

SEAT

TRUNNION BALL

\* Single Piston Effect (SPE)

\* Double Piston Effect (DPE)

| FEATURES            |                             |
|---------------------|-----------------------------|
| DIMENSIONS          | 1/2" - 56"                  |
| CONNECTIONS TYPES   | RF / RTJ / BW / SW          |
| WORKING PRESSURE    | ANSI 150 - 2500             |
| WORKING TEMPERATURE | -46 °C - +210 °C            |
| OPERATION           | LEVER / GEAR BOX / ACTUATOR |

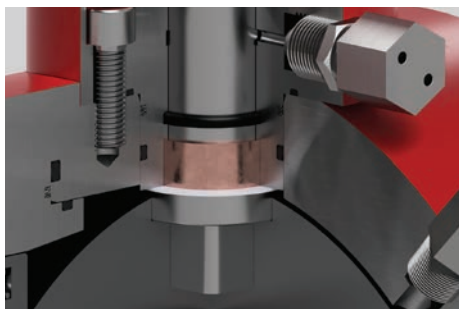
| STANDARDS   |                                     |
|-------------|-------------------------------------|
| DESIGN      | API 6D & ASME B16.34 & EN ISO 17292 |
| DIMENSIONS  | API 6D & ASME B16.10                |
| CONNECTIONS | ASME B16.5 & ASME B16.47 Series A   |
| FIRE-SAFE   | API 6FA & API 607 & ISO 10497       |
| TESTING     | API 6D & API 598                    |

## TECHNICAL SPECIFICATIONS

| FEATURE                                   |            |
|-------------------------------------------|------------|
| Trunnion Ball                             | Standard   |
| Anti-Blowout Stem Design                  | Standard   |
| Anti Statik Device                        | Standard   |
| Fire Safe Design                          | Standard   |
| ISO 5211 Mounting Flange                  | Standard   |
| ASME B16.5 & ASME B16.47 Series A         | Standard   |
| Soft Seat Design                          | Standard   |
| Primary Metal Secondary Soft Seat Design  | On Request |
| Metal to Metal Seat Design                | On Request |
| Single Piston Effect (SPE)                | Standard   |
| Double Piston Effect (DPE)                | On Request |
| Single/ Double Piston Effect Combination  | On Request |
| Double Block and Bleed Design (DBB)       | Standard   |
| Double Isolation and Bleed (DIB 1) Design | On Request |
| Double Isolation and Bleed (DIB 2) Design | On Request |
| Drain                                     | Standard   |
| Drain Valve or Check Valve                | On Request |
| Vent (on 6" and larger)                   | Standard   |
| Vent Valve                                | On Request |
| Raised Face Flange                        | Standard   |
| Ring Joint Flange                         | Standard   |
| Buttweld Flange                           | On Request |
| Socket Flange                             | On Request |
| Bennet Injection (on 6" and larger)       | Standard   |
| Seat Injection (on 6" and larger)         | Standard   |
| Lever                                     | Standard   |
| Lever Lock System                         | On Request |
| Gear Box                                  | On Request |
| Gear Box Lock System                      | On Request |
| Mapa and Support (on 6" and larger)       | Standard   |
| Valve Open/Close Indicator                | Standard   |

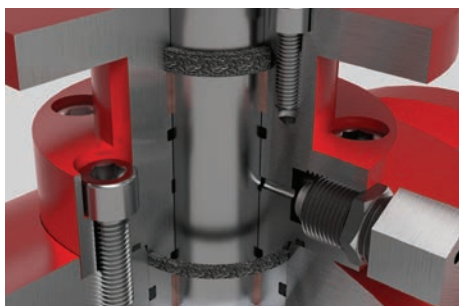
*Other specifications are possible on request.*

## ANTI-BLOWOUT STEM DESIGN



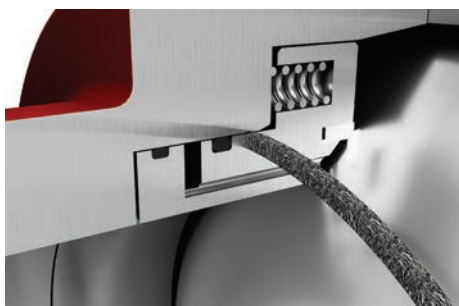
Our Ball valves are designed and manufactured in such a way that when the movement shaft holders and seals are removed, it will not be possible for the stem to go out of the valve due to the effect of pressure, as described by the standards. The stem is designed with a wide lower flange. In this way, the body cover part prevents the stem from dislodging and prevents a possible explosion. This feature allows the shaft seal to be replaced even when the valve is under pressure.

## FIRE-SAFE DESIGN

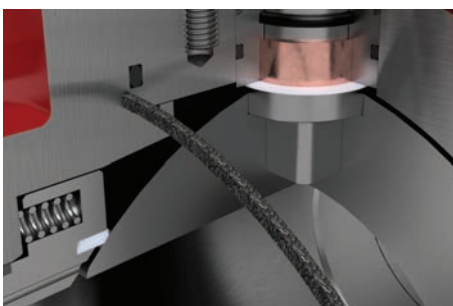


Bonnet

BatuValve ball valves have been subjected to fire tests in accordance with API 6Fa and ISO 10497 standards. Regardless of the soft seat material, they will likely be damaged when exposed to fire conditions. BatuValve offers a fire resistant design that can greatly prevent leaks from seals when valves are damaged by fire. If Teflon and O'ring materials are damaged, a metal-to-metal seal is formed between the secondary metal seat and the ball. The slot-to-body graphite seals, graphite body seals, and graphite gasket end caps are designed to withstand high temperature and will remain undamaged.



Seat

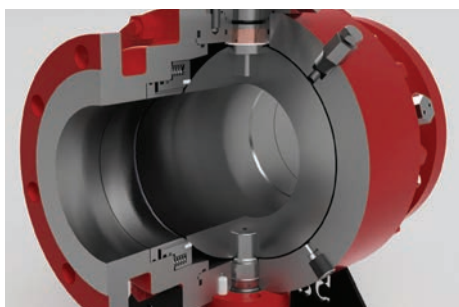


Body



Trunnion

## DRAIN & VENT DESIGN \*

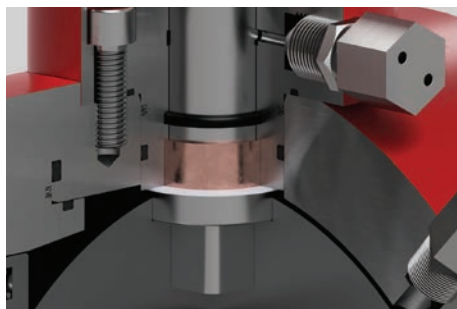


Valves are manufactured with drain and vent discharge outlets designed in accordance with the connection dimensions defined by the standards for the safe discharge of the pressurized fluid or gas remaining in the body when the valves are brought to the closed position.

\* Specify during the order.

BATUSAN reserves the right to change design, construction and material while staying within the standards.

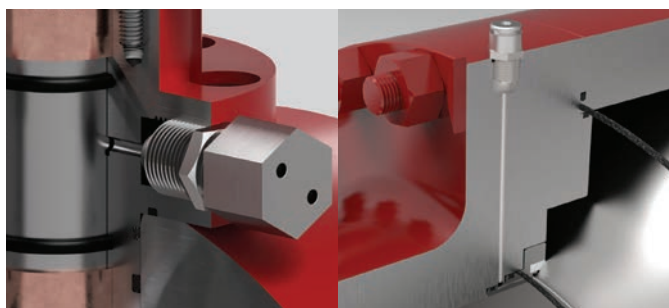
## ANTI STATIC DESIGN



Ball Valves used in flammable and combustible fluid circuits such as petrol, LPG, LNG must be protected against static electricity. The spring and ball used in the stem ensure that any static electricity that may occur is grounded to the pipeline. In this way, the electrostatic charge that may occur on the ball is prevented.

BATU Ball Valves are designed and manufactured in accordance with these requirements.

## LUBRICATION AND EMERGENCY SEALANT INJECTION \*



Bonnet

Cover

Glaciers on the bonnet and covers allow easy lubrication of the drive shaft and the hoops. Lubrication should be carried out periodically. These greasers can be used to inject sealant in emergency situations such as fire and other accidents.

## LOW TORQUE

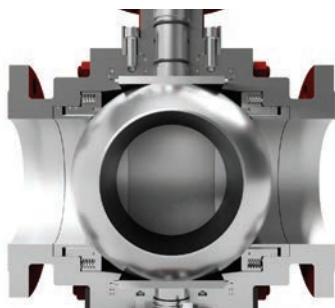


Throat

Seat

All split body trunnion ball valves have a very low torque value. Every valve produced is subjected to torque test.

## HIGH PRESSURE – LOW PRESSURE SEALING DESIGN



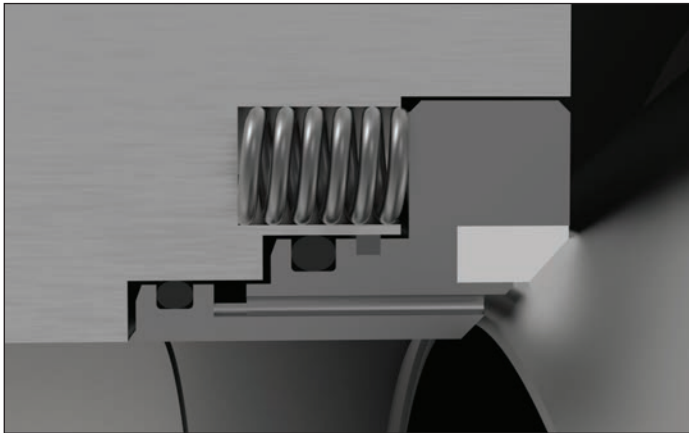
The sealing performance of the ball valves at higher pressures are more important than at low pressures. At high pressures, sealing is ensured by forming a good contact between the sealing ring and the ball surface with the effect of the fluid pressure applied from the back surface of the Sealing seat ring. When the pressure behind the ring reaches a low value, this contact force decreases. In this case, the spring force supporting the seat ring ensures enough force is applied so the contact between the sealing ring and the ball surface and the sealing function are maintained.

\* Specify during the order.

BATUSAN reserves the right to change design, construction and material while staying within the standards.

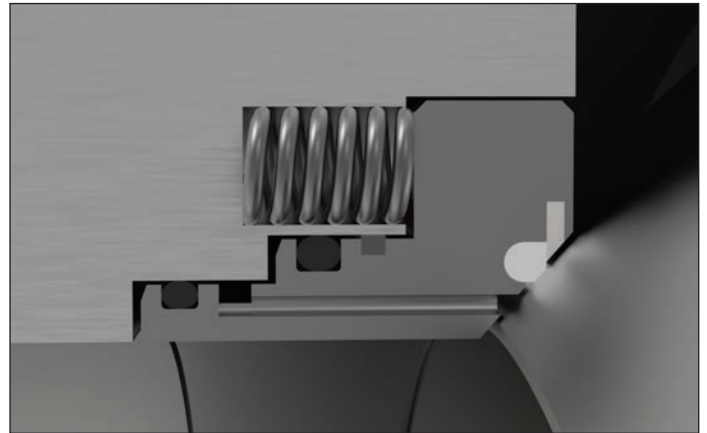
## SEAT RING DESIGN

### SOFT SEAT DESIGN



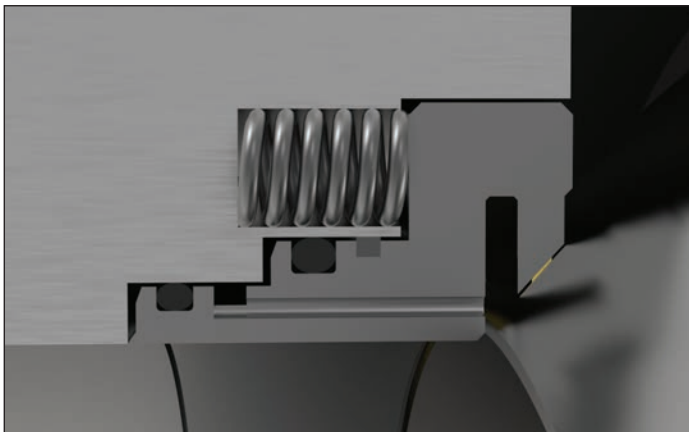
*Soft Seat Design*

In standard trunnion ball valves, a flexible teflon material is placed between the seat and the ball to provide a soft seating motion and sealing in addition to the metal-to-metal fit.



*Primary Metal Secondary Soft Seat Design \**

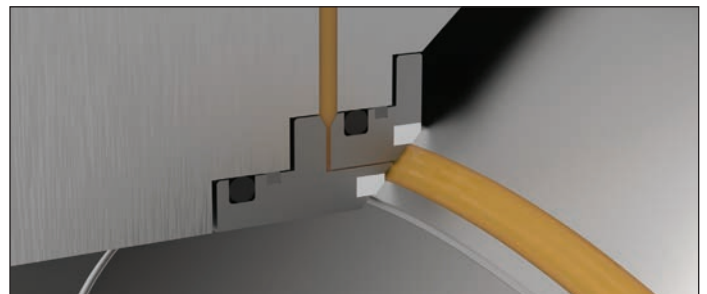
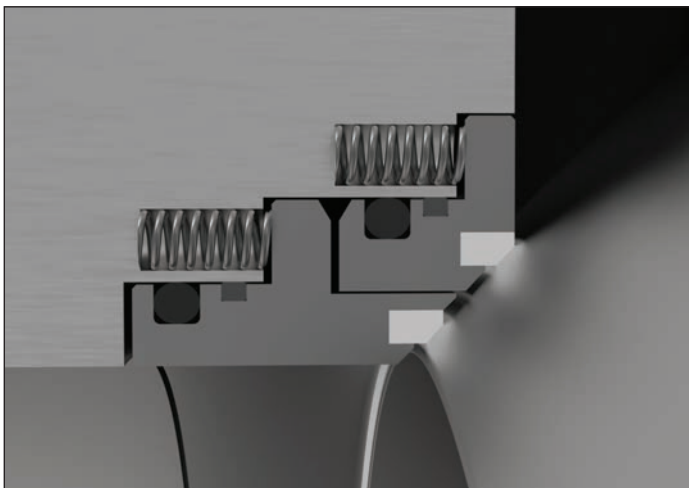
### METAL TO METAL SEAT DESIGN \*



*Figure-3 - Metal to metal hoop design\**

If there are abrasive substances in the pipeline or temperatures that prevent the use of Teflon, metal-to-metal hoop designs may be preferred. The areas where the ball and the seat touch each other have a hard surface.

### DOUBLE SEAT DESIGN \*



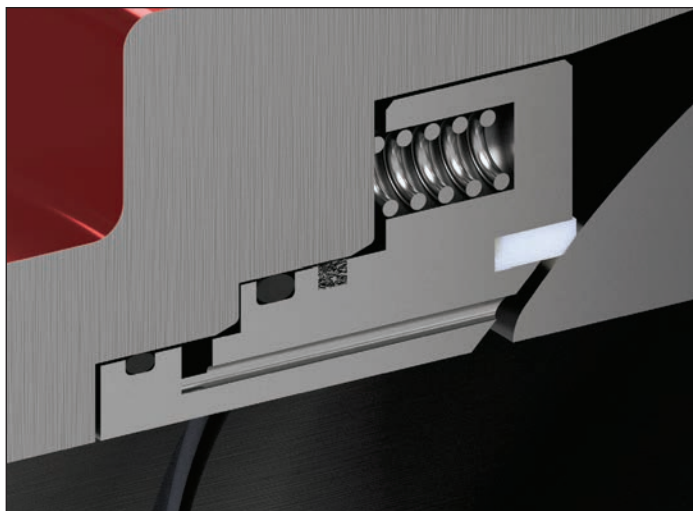
Trunnion valves use double seat and double teflon to achieve greater sealing.

*\* Specify during the order.*

*BATUSAN reserves the right to change design, construction and material while staying within the standards.*

## SEAT

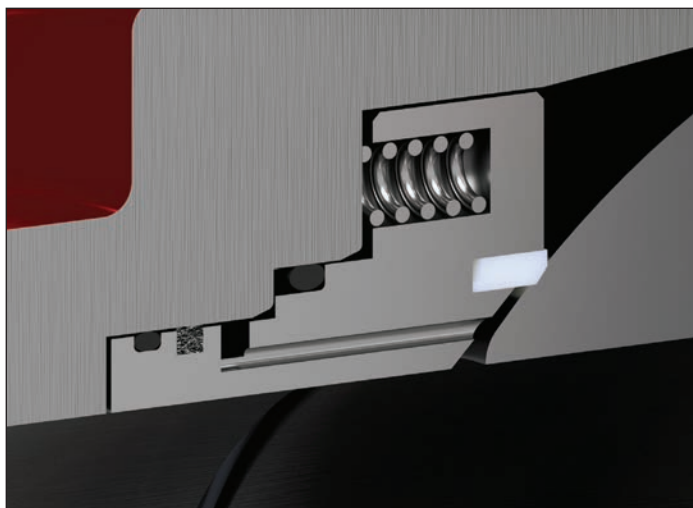
### SINGLE PISTON EFFECT (SPE)



This is the standard type of bearing. When pressure is applied from both sides, SPE bearings are pushed towards the ball by the piston effect, providing a tight closing and sealing. If the pressure in the body cavity exceeds the pressure on either side of the line while the valve is in the closed position, the bearing on that side will be pushed back and the body pressure will be discharged to the low-pressure side of the line. Due to this feature, SPE type bearings are also called “Self-pressure relieving”, which discharge high pressure on their own.

Typical Application Areas: Pipeline ball valves in liquid services where it is necessary to prevent pressure increase in the body cavity due to temperature changes.

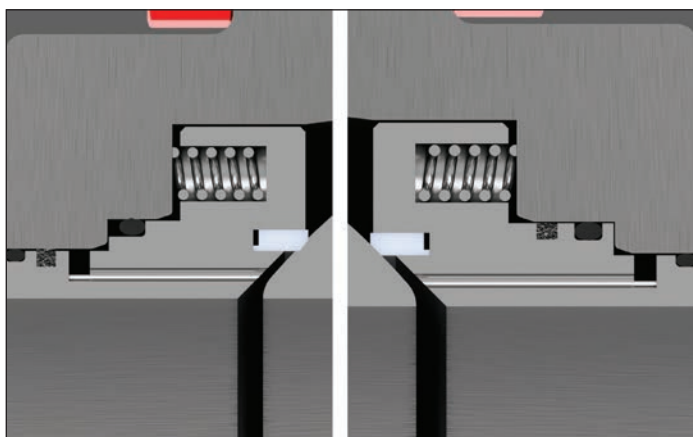
### DOUBLE PISTON EFFECT (DPE) \*



It is an optional ring-seat type. DPE seats are designed to be pushed towards the ball by the piston effect in both cases, whether the pressure comes from the valve body cavity or from the upstream or downstream side of the pipeline. DPE seated valves do not automatically release the pressure in the body cavity. Therefore, it is recommended to use a relief valve in liquid services.

Typical application areas; It is recommended in welded body valves when it is necessary to create an additional safe barrier between the upstream and downstream sides and where the maintenance of the seats is not foreseen.

### SINGLE/ DOUBLE PISTON EFFECT COMBINATION (SPE-DPE) \*



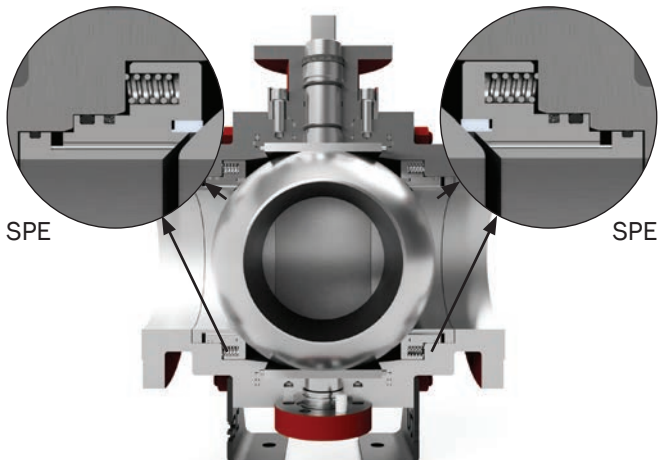
Upstream of the line, the SPE seat provides self-pressure relief. Downstream, the DPE seat provides a double barrier in case of damage to the upstream seat. This configuration includes a preferred installation orientation with the SPE seat facing upwards. With SPE-DPE configurations, the cavity discharge always occurs via the SPE seat.

Typical applications: Booster valves, Pig launchers / receivers. The DPE seat provides double insulation to the Pig trap and also allows automatic relief of the body cavity in the event of pressure build-up.

\* Specify during the order.

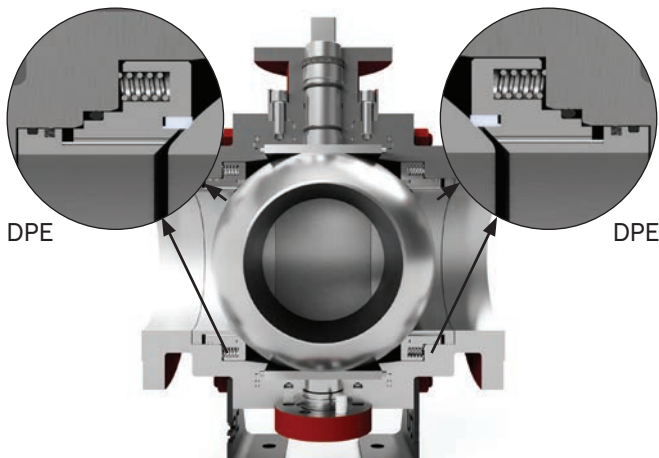
BATUSAN reserves the right to change design, construction and material while staying within the standards.

## DOUBLE BLOCK AND BLEED DESIGN (DBB)



This is the standard seat type. When pressure is applied on both sides, SPE-SPE seats are pushed towards the ball with the effect of a piston, providing a tight closing and sealing. If the pressure in the stem cavity rises above the pressure on either side of the line while the valve is in the closed position, the seat on that side will be pushed back and the in-shell pressure will be released to the low pressure side of the line. Due to this feature, SPE type seats are also called "Self pressure relieving", which releases high pressure by itself. Typical Fields of Application: Pipeline ball valves in fluid services where the pressure increase in the body cavity due to temperature changes is required.

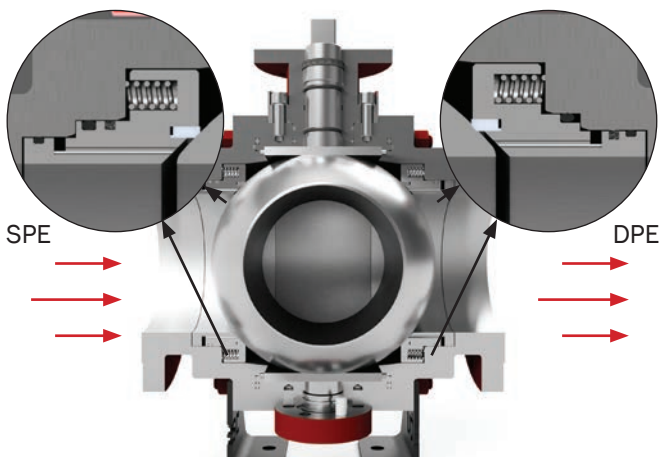
## DOUBLE ISOLATION AND BLEED (DIB 1) \*



It is an optionally available seat type. DPE seats, whether the pressure comes from the valve body cavity or from the upper or lower side of the pipeline; In both cases, it is designed to be pushed towards the sphere by the piston effect. DPE seated valves do not automatically relieve pressure in the body cavity. For this reason, the use of a drain valve is recommended in fluid services.

Typical application areas; where it is necessary to create an additional safety barrier between the upstream and downstream sides and where maintenance of the seats is not envisaged. It is also recommended for valves with welded body.

## DOUBLE ISOLATION AND BLEED (DIB 2) \*



On the upstream side of the line, the SPE seat provides self-pressure relief. On the downstream side, the DPE seat provides a double barrier in case the upstream seat is damaged. This configuration includes a preferred installation direction with the SPE seat facing up. With SPE-DPE configurations, the cavity pressure evacuation always takes place via the SPE seat side.

\* Specify during the order.

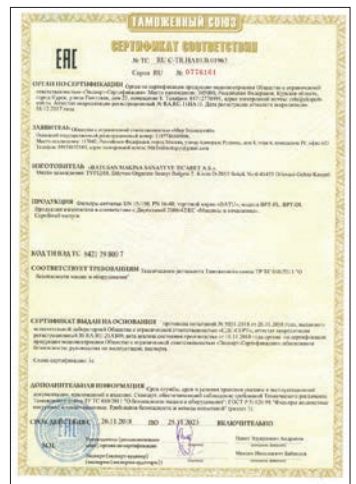
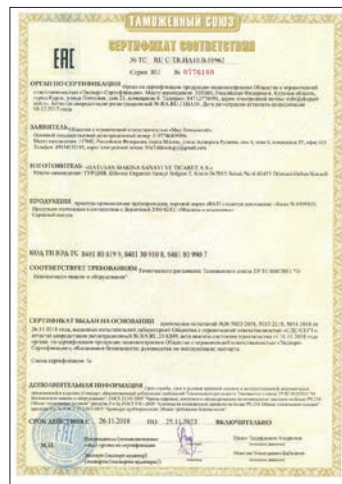
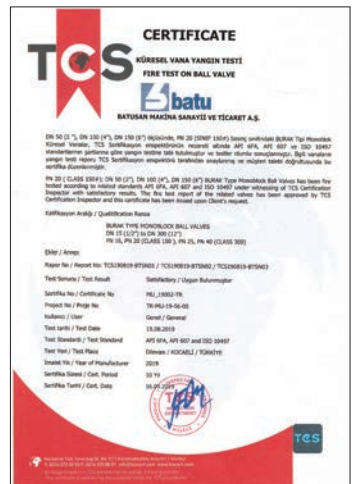
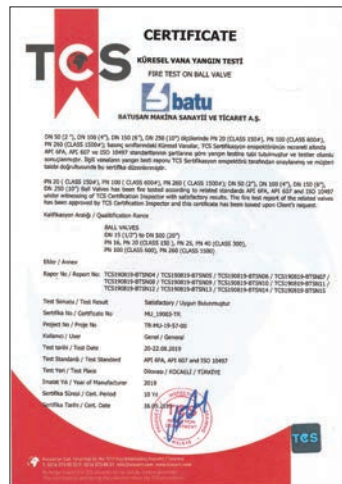
BATUSAN reserves the right to change design, construction and material while staying within the standards.

## CERTIFICATES



(\*)You can access all the certificates we have on our website [www.batuvalve.com/certificates.html](http://www.batuvalve.com/certificates.html)

# CERTIFICATES





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