



**API 6D
Fully
Welded Ball
Valve**

Your Solution Partner
1978 - ∞



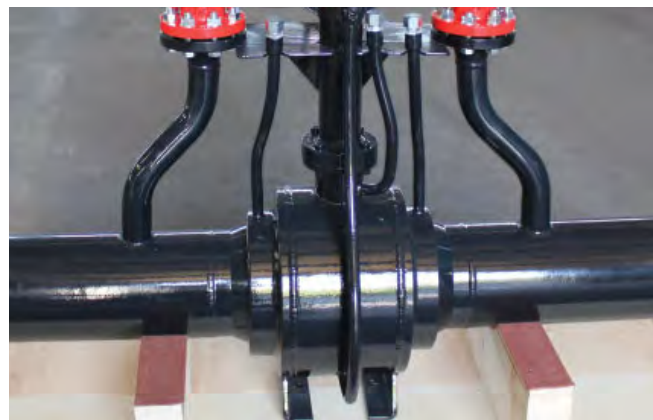
Batusan, with the trademark BatuValve started manufacturing Ball Valves in 1978. Since then, continues to serve the industry with dedication to quality, product innovation and commitment to customer service. We manufacture all our products %100 in our production facility in Turkey. We use European originated 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 for 43 years. 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, TRNC, 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;

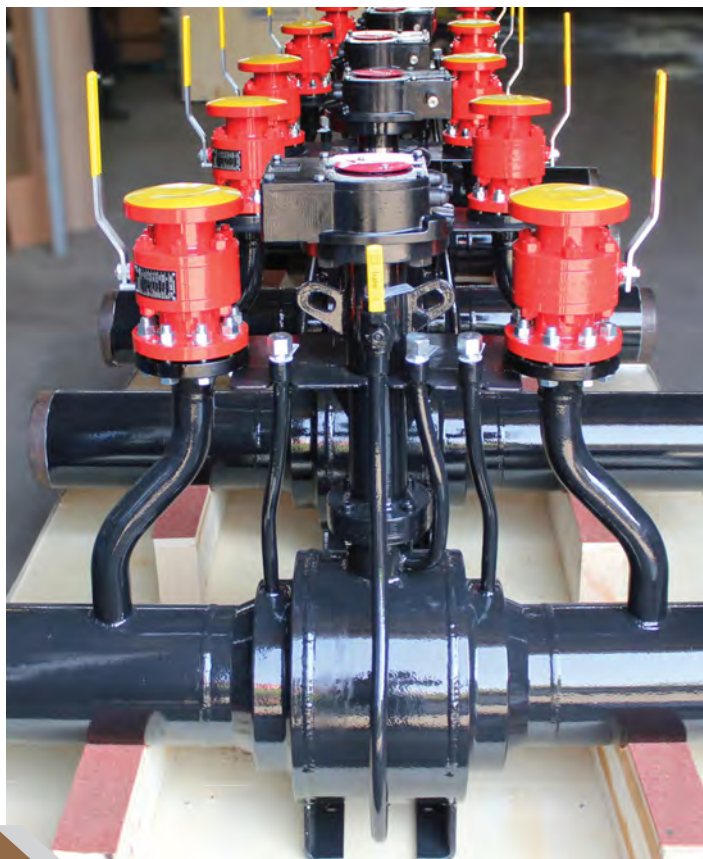
ISO 9001: 2015, API 6D "0695", TSE, TS 9809, TSE EN 331, TSE 3148, TSE TS 16767, TSE TS 11494, TOV SOD CE 0036, TOV it 18 ATEX 056 AR, TA LUFT, EN 14432, API 6FA FIRE SAFE, API 607, FIRE SAFE, ISO 10497 FIRE SAFE, EAC-1, EAC-2, ROS TEKHNAZDOR, TH 02, HYGIENE, GAS, GAZMER, EGAS, BELARUS



Thanks to their low-weight, high Endurance, space saver features, Batu fully welded ball valves are used in transmission and distribution pipelines.

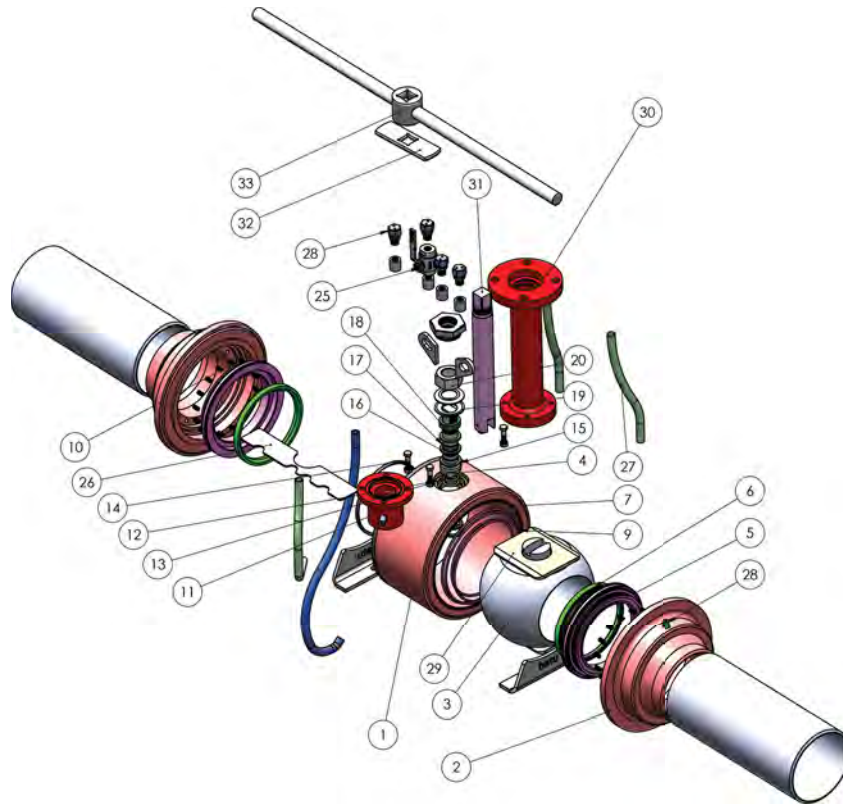
Depending on intended-purpose, they are preferable in underground and aboveground applications.

- Trunnion Blocks Mounted Ball
- Independent Ball And Stem
- Anti-Static Design
- Fire Safe
- Soft And Metal Seat Options
- Maximum Strength At Minimum Weight
- Compact Design
- Flanged Or Welded Ends



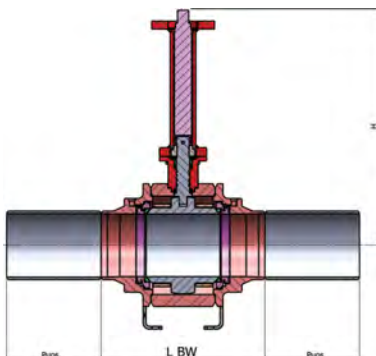
FEATURES	
DIMENSIONS	2" - 24" (DN 50 - DN 600)
CONNECTIONS TYPES	BW / RF / RTJ / SW
WORKING PRESSURE	CLASS 150 / 300 / 600 (PN 20/50/100)
WORKING TEMPERATURE	29 °C - +180 °C
OPERATION	LEVER / GEAR BOX / ACTUATOR

STANDARDS	
VALVES DESIGN	API 6D / ISO 17292 / ISO 14313 / ASME B 16.34
DIMENSIONS	ASME B 16.10
CONNECTIONS	ASME B 16.25 / ASME B 16.5 / DIN EN 1092-1
FIRE-SAFE	API 6FA / API 607 / ISO 10497
TESTING	API 6D / API 598 / ISO 14313
ISOLATION TYPE	DBB / DBB-1 / DBB-2



ITEM NO	ITEM DESCRIPTION	MATERIAL	
1	BODY	A 105	
2	COVER	A 105	
3	BALL	A 105 ENP	
4	ACTION SPINDLE	SS 420	
5	SEAT RING	A 105	
6	BALL TIGHTNESS ELEMENT	PTFE-Teflon	
7	BODY O-RING	VITON	
8	COVER O-RING	VITON	
9	SEAT RING O-RING	VITON	
10	SPRING	1.4301.	
11	NECK	A 216 WCB / A 105	1.4301. - 1.4401.
12	NECK TIGHTNESS ELEMENT	PTFE-Teflon	
13	NECK O-RING	VITON	
14	NECK BOLT	ST 42 Gal.	1.4301. - 1.4401.
15	NECK TIGHTNESS ELEMENT	PTFE-Teflon	

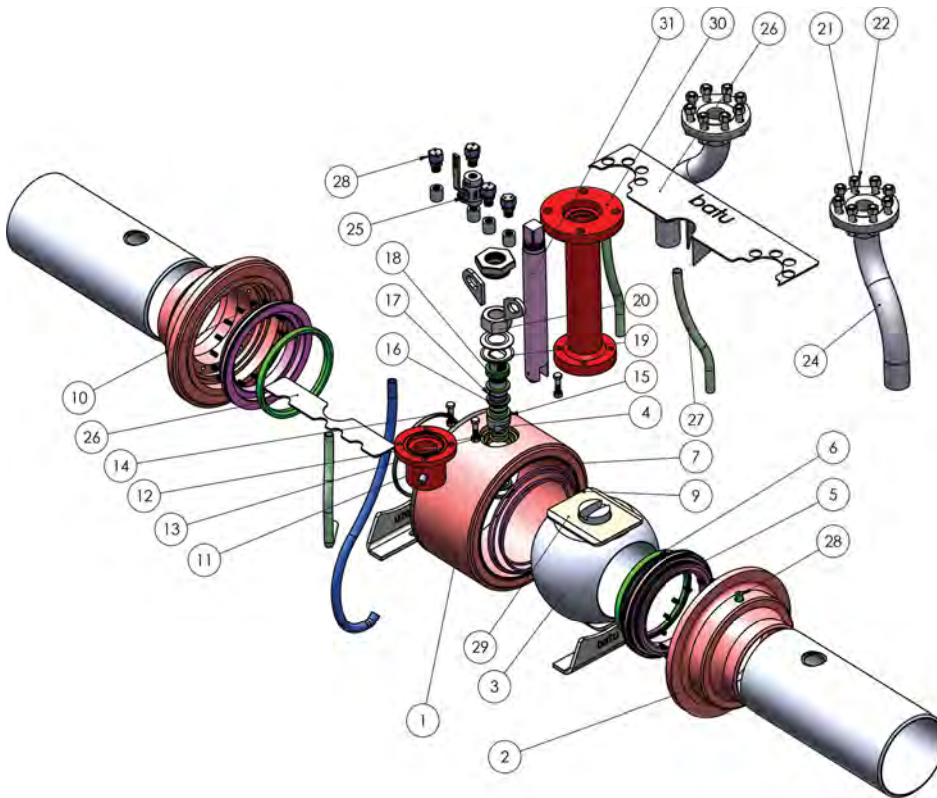
ITEM NO	ITEM DESCRIPTION	MATERIAL	
16	BURGMAN GRAPHITE O-RING	EN 1514-1	
17	SPINDLE O-RING	VITON	
18	PRESSURE RING	st 37	1.4301. - 1.4401.
19	BOWL WASHER	50 Cr V 4	1.4301.
20	COUNTER NUT	5,6 Gal.	1.4301.
21	STUD	4140 - 5140	1.4301.
25	VALVE		
26	PIPE SHEET	ST 37-2	
27	PIPES	ST 37-2	
28	GREASE INJECTOR	VITON	
29	BALL SUPPORT	ST 37-2	
30	GEAR BOX ADAPTOR	ST 37-2	
31	GEAR BOX ADAPTOR SPINDLE	4140 - 5140	
32	STOPING PART		
33	T-LEVEL		



ANSI 150	D	L BW	H	Pups
2"	50	216	800-1200	300
3"	80	283	800-1200	300
4"	100	305	800-1200	300
6"	150	394	800-1200	300

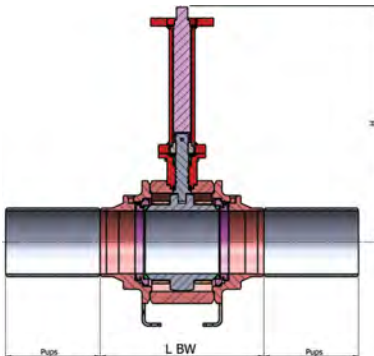
ANSI 300	D	L BW	H	Pups
2"	50	216	800-1200	300
3"	80	283	800-1200	300
4"	100	305	800-1200	300
6"	150	403	800-1200	300

ANSI 600	D	L BW	H	Pups
2"	50	292	800-1200	300
3"	80	356	800-1200	300
4"	100	432	800-1200	300
6"	150	559	800-1200	300



ITEM NO	ITEM DESCRIPTION	MATERIAL	
1	BODY	A 105	
2	COVER	A 105	
3	BALL	A 105 ENP	
4	ACTION SPINDLE	SS 420	
5	SEAT RING	A 105	
6	BALL TIGHTNESS ELEMENT	PTFE-Teflon	
7	BODY O-RING	VITON	
8	COVER O-RING	VITON	
9	SEAT RING O-RING	VITON	
10	SPRING	1.4301.	
11	NECK	A 216 WCB / A 105	1.4301. - 1.4401.
12	NECK TIGHTNESS ELEMENT	PTFE-Teflon	
13	NECK O-RING	VITON	
14	NECK BOLT	ST 42 Gal.	1.4301. - 1.4401.
15	NECK TIGHTNESS ELEMENT	PTFE-Teflon	
16	BURGMAN GRAPHITE O-RING	EN 1514-1	

ITEM NO	ITEM DESCRIPTION	MATERIAL	
17	SPINDLE O-RING	VITON	
18	PRESSURE RING	st 37	1.4301.- 1.4401.
19	BOWL WASHER	50 Cr V 4	1.4301.
20	COUNTER NUT	5,6 Gal.	1.4301.
21	STUD	4140 - 5140	1.4301.
22	NUT	5.6.	1.4301.
23	BLOW DOWN VALVE		
24	BLOW DOWN PIPE	ST 37-2	
25	VALVE		
26	PIPE SHEET	ST 37-2	
27	PIPES	ST 37-2	
28	GREASE INJECTOR	VITON	
29	BALL SUPPORT	ST 37-2	
30	GEAR BOX ADAPTOR	ST 37-2	
31	GEAR BOX ADAPTOR SPINDLE	4140 - 5140	
33A/B	GEAR BOX OPTION		

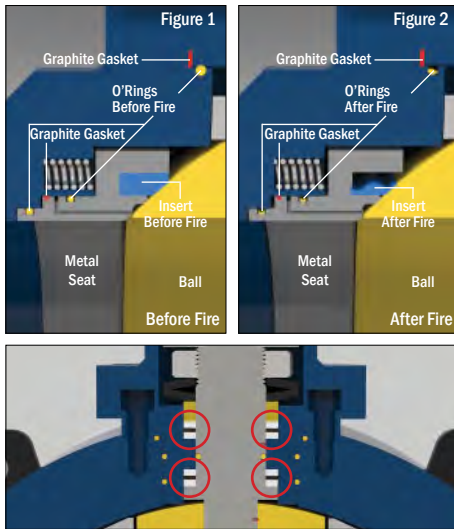


ANSI 150	D	L BW	H	Pups
6"	150	394	800-1200	300-500
8"	200	521	800-1200	300-500
10"	250	559	800-1200	300-500
12"	300	635	800-1200	300-500
14"	350	762	800-1200	300-500
16"	400	838	800-1200	300-500
18"	450	914	800-1200	300-500
20"	500	991	800-1200	300-500
22"	550	1092	800-1200	300-500
24"	600	1143	800-1200	300-500

ANSI 300	D	L BW	H	Pups
6"	150	403	800-1200	300-500
8"	200	521	800-1200	300-500
10"	250	559	800-1200	300-500
12"	300	635	800-1200	300-500
14"	350	762	800-1200	300-500
16"	400	838	800-1200	300-500
18"	450	914	800-1200	300-500
20"	500	991	800-1200	300-500
22"	550	1092	800-1200	300-500
24"	600	1143	800-1200	300-500

ANSI 600	D	L BW	H	Pups
6"	150	559	800-1200	300-500
8"	200	660	800-1200	300-500
10"	250	787	800-1200	300-500
12"	300	838	800-1200	300-500
14"	350	889	800-1200	300-500
16"	400	991	800-1200	300-500
18"	450	1092	800-1200	300-500
20"	500	1194	800-1200	300-500
22"	550	1295	800-1200	300-500
24"	600	1397	800-1200	300-500

FIRE- SAFE DESIGN *



FIRE SAFE DESIGN WITH SECONDARY METAL SEAT

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. Batu offers a fire resistant design that can greatly prevent leaks from seals when valves are damaged by fire. The functions of the bearings before and after the fire test are as shown. 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. (Figures 1 and 2)

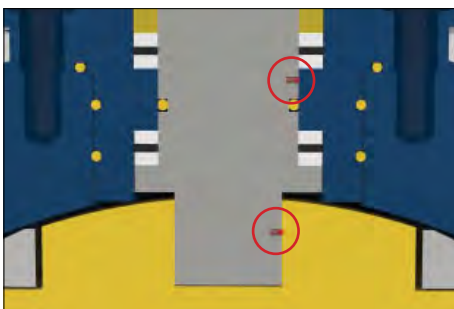
Burgman gaskets used in the stem, on the other hand, serve as a sealing function during fire, ensuring that the stem parts of our valves are fire resistant and complement the Fire Safe feature.

ANTI-BLOWOUT 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.

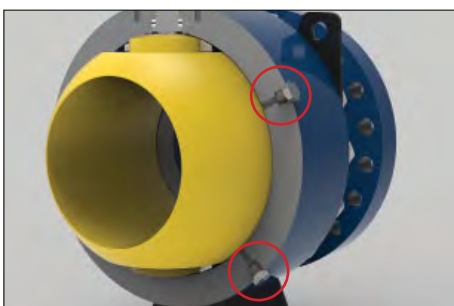
ANTI-STATIC DESIGN



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.

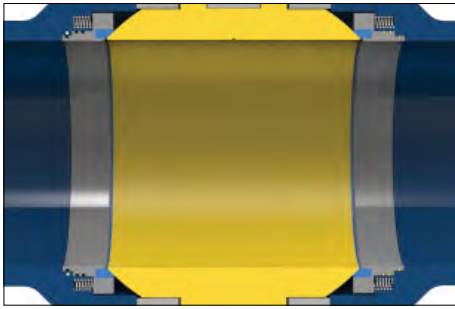
DRAIN & VENT DESIGN *



BatuValve ball valves are produced with drain and vent discharge outlets designed in accordance with the connection sizes described by the standards. When the valves are brought to the closed position, drain and vent outlets can be used to safely discharge the pressurized fluid or gas remaining in the body.

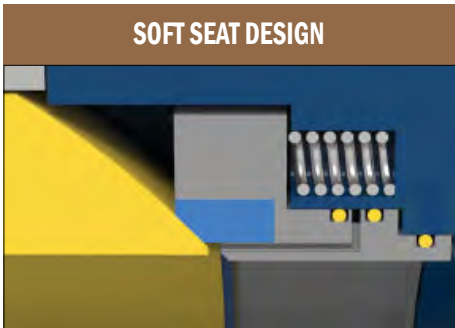
(*) Specify when ordering.

HIGH PRESSURE – LOW PRESSURE SEALING DESIGN *

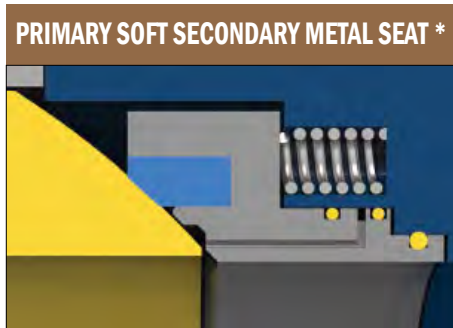


The sealing performance of the ball valves at higher pressures are more important than at low pressures. At high pressures, sealing is ensured by forming a good contact between the sealing ring and the ball surface with the effect of the fluid pressure applied from the back surface of the Sealing seat 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.

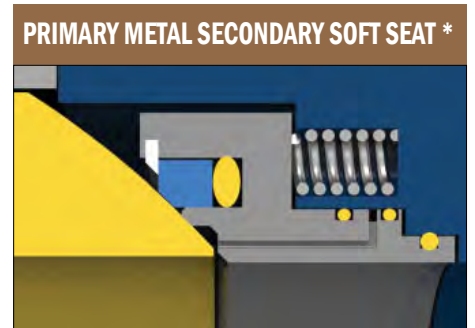
SEAT RING DESIGN *



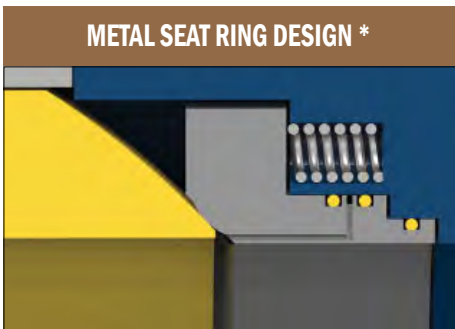
SEAT RING BALL
SEAT MATERIAL



SEAT RING BALL
SEAT MATERIAL



SEAT RING BALL
SEAT MATERIAL



SEAT RING BALL
SEAT MATERIAL

TCC coated

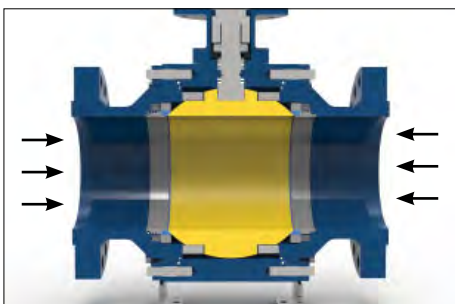
SEAT MATERIAL TYPES

- PTFE STANDARD SEAT
- RPTFE GLASS REINFORCED SEAT
- PPTFE GRAPHITE SEAT
- PEEK
- DEVLON

SEAT RING TYPES

- STANDARD SEAT RING
- METAL TO METAL SEAT RING

DOUBLE BLOCK AND BLEED DESIGN (DBB)

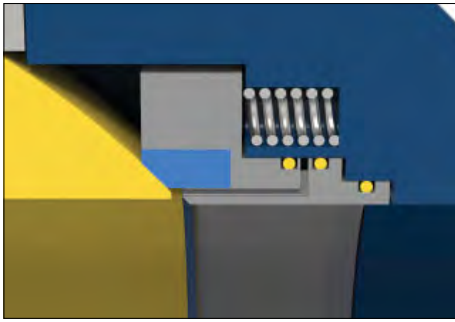


The Double Block and Bleed (DBB) feature is offered in both seat ring configurations (SPE and DPE). When the valve is in the closed position, the pressure is blocked in the body cavity by the pressure activated seat rings on both sides. Body cavity pressure can then be relieved by drain or vent.

Double Block and Bleed Design Description: A single valve with two seat ring surfaces has the feature of sealing on both sides of the valve when in closed position. It enables to release the pressure in the body cavity with vent and or drain.

(*) Specify when ordering.

PISTON EFFECT (SPE,DPE)



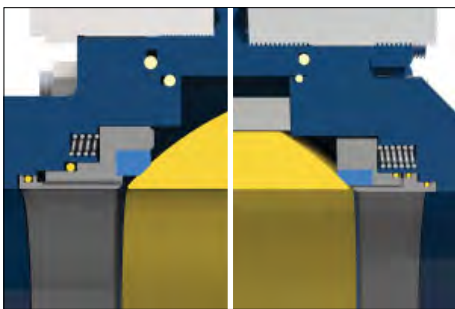
SINGLE PISTON EFFECT (SPE)

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 PISTON EFFECT (DPE) *

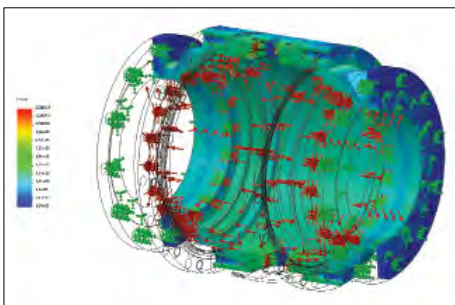
It is an optionally available seat type. DPE seats, whether the pressure comes from the valve body cavity or from the upper or lower side of the pipeline; In both cases, it is designed to be pushed towards the sphere by the piston effect. DPE seated valves do not automatically relieve pressure in the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



SINGLE PISTON - DOUBLE PISTON EFFECT (SPE-DPE) *

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. Typical application areas: Riser valves, Pig launchers / receivers. The DPE seat provides double insulation to the Pig trap and also allows the body cavity to be automatically relieved if pressure builds up.

COMPUTER AIDED DESIGN



Batu Valve designs its products using sophisticated computer-aided design application software. It uses finite element analysis methods to analyze the structural integrity of its designs under real life application conditions. This allows product designs to be optimized and guarantees high strength. As every valve produced passes physical tests, it enables us to offer quality, faultless, leak free, competitive products to the customer and to create more customer satisfaction in general.

CONNECTION TYPES *

MANUAL CONNECTION TYPES

LEVER

T LEVER

GEAR BOX

MANUAL CONNECTION TYPES

PNEUMATIC ACTUATOR

HYDRAULIC ACTUATOR

ELECTRIC ACTUATOR

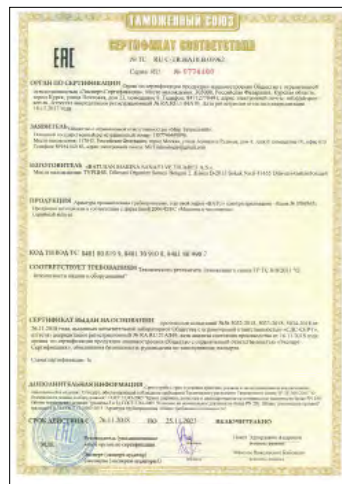
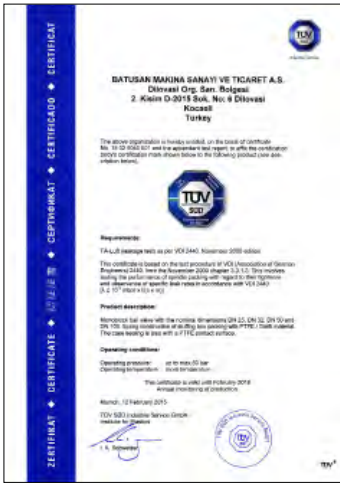
(*) Specify when ordering.

CERTIFICATES *



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

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FACTORY & HEAD OFFICE

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