



# VB-20

## 3-Pieces Forged Ball Valve

### Working Pressures: 100 | 210 bar (1500 | 3000 PSI)

Tecval **VB-20** 3-Pieces Ball Valve is a **Forged Body** design. The forging process reduces the surface porosity and closes up internal cavities. The result is mechanical stronger and more durable product, especially suitable for working in high corrosive environment. They are manufactured in several sizes, connections and alloys, always under ASME B16.34.



### Features

- Unique design Forged Body and Flanges.
- Full bore (FB) or Reduced bore (RB).
- Three pieces to allow a full disassembling.
- Easy cleaning and maintenance.
- No ejectable stem design.
- 316 SS handle to reduce the risk of corrosion.
- 100% tested.

### Options

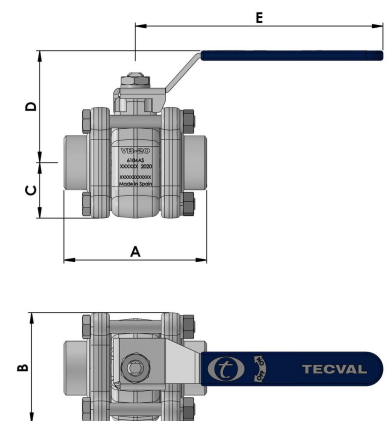
- PEEK seats for high pressures 210bar (3000PSI). **I**
- Prepared for a quick automation with actuator. **T**
- Male-Female (MxF) end connections. **C**
- Male-Male (MxM) end connections. **J**
- VIC Grooved end connections. **O**
- Handle safety lockout. **W**
- Antistatic device. **A**

### Technical data

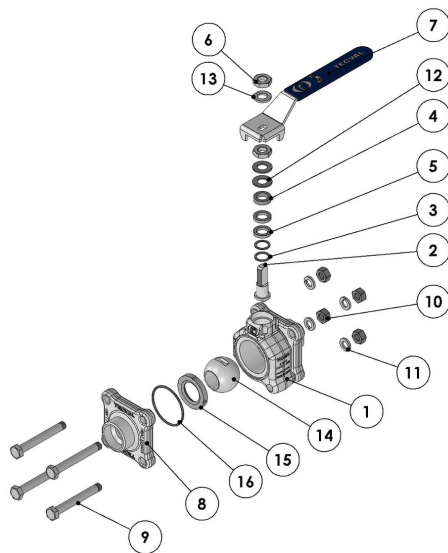
Max. Pressure	Standard TFM Seats up to 100 bar (1500 PSI) & 150 bar (2200 PSI) PEEK Seats up to 210 bar (3000 PSI) only to 1"(FB)								
Temperatures	-20°C/200°C (-4°F/392°F)								
Dimensions	1/2"(FB)	3/4"(RB)	3/4"(FB)	1"(RB)	1"(FB)	1 1/2"(RB)	1 1/2"(FB)	2"(RB)	2"(FB)
A	72	72	88	88	-	-	125	125	
B	51	51	68	68	-	-	106	106	
C	26	26	34	34	-	-	53	53	
D	68	68	69	69	-	-	111	111	
E	153	153	153	153	-	-	236	236	
Orifice Size	15	15	20	20	25	32	40	40	
Maximum Cv	30	30	50	50	90	150	250	250	

### Order codes

BSP	6061	6081	6091	6101	6111	6141	6151	6201
SW	6063	6083	6093	6103	6113	6143	6153	6203
BW	6064	6084	6094	6104	6114	6144	6154	6204
NPT	6062	6082	6092	6102	6112	6142	6152	6202



\* Dimensions in mm



## Materials

Nº Part	AISI-316L <b>A4</b>	Duplex <b>AD</b>	SuperDuplex <b>AS</b>	Special alloys
1 Body	AISI-316L (1.4404)	Duplex (1.4462)	Superduplex (1.4410/ 1.4501)	Special alloy
2 Stem	AISI-316L (1.4404)	Superduplex (1.4410/ 1.4501)	Superduplex (1.4410/ 1.4501)	Special alloy
3 Stem bearing	PEEK	PEEK	PEEK	PEEK
4 Gland	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)
5 Packing	P.T.F.E.	P.T.F.E.	P.T.F.E.	P.T.F.E.
6 Nut Handle	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)
7 Handle	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)
8 End connection	AISI-316L (1.4404)	Duplex (1.4462)	Superduplex (1.4410/ 1.4501)	Special alloy
9 Screw	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)
10 Nut	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)
11 Grower washer	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)
12 Spring washer	AISI-301 (1.4310)	AISI-301 (1.4310)	AISI-301 (1.4310)	AISI-301 (1.4310)
13 Handle Grower	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)	AISI-316 (1.4401)
14 Ball	AISI-316L (1.4404)	Duplex (1.4462)	Superduplex (1.4410/ 1.4501)	Special alloy
15 Seat	TFM	TFM	TFM	TFM
16 O-ring	EPDM	EPDM	EPDM	EPDM

## Special alloys

We can manufacture in AISI-316Ti (1.4571) **A6** , AISI-904L (1.4539) **A9** , 254-SMO (1.4547) **AV** , Alloy 400 (2.4360) **MO** , Alloy 625 (2.4856) **IN** , Alloy 825 (2.4858) **CO** , Titanium Gr.2 (3.7034) **TI** , Hastelloy C-276 (2.4819) **HA** . Please address your inquiry to our Technical Department.

## Ordering information

References are formed by three parts:

**Valve Code** Look for it in the order codes chart on the previous page.

**Option/s** If required, add the code/s from the options section on the previous page (in alphabetical order).

**Material** Look for the code on the materials chart.

Example: Ball valve VB-20 1"NPT (RB) Superduplex:

**6102 AS** The reference required to place the order is **6102AS** .

## Actuators

Upon request, ball valves VB-20 can be delivered with:

- Pneumatic actuators: either double acting (DA) or spring return (SR).
- Electrical actuators: of 24V, 115V and 230V can also be assembled.

## Tests

100% tested in accordance to API STANDARD 598, each valve is tested to check the leakage in the seats and packing. Upon request, the corresponding materials and test certificates can be delivered with the valve.

## Maintenance

Valves with long no-working period may have a harder initial operating torque. Are designed to be operated in a fully open or fully closed position.

## Elastomers & Seats

O-ring seals can be made of different materials: Nitrile **B**, FPM **VI** or Neopren **N**, considering the working conditions. Likewise the seats can be made in other materials upon request.



TECVAL S.L.  
C/Berlín, 1 Nave 4  
Pol.Can Torrella  
08233-VACARISSES  
Barcelona - SPAIN  
Tel: +34 938 280 055  
tecval@tecval.es