



VB-12

2-Way Ball Valve (FxF)

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

With a smooth and safe movement, TECVAL VB-12 ball valve is designed to work with liquids or gases under either high pressure or moderate vacuum service. To be used in numerous applications, they are manufactured in several sizes, connections and alloys.

Features

- Full bore (FB) or Reduced bore (RB).
- Temperature range -20°C/200°C (-4°F/392°F)
- Standard reinforced PTFE seats 105 bar (1500PSI)
- Smooth operating.
- No ejectable stem design.
- No maintenance required.
- Anti-leak stem with double o-ring seal.
- 316 SS handle to reduce the risk of corrosion.
- 100% tested.

Options

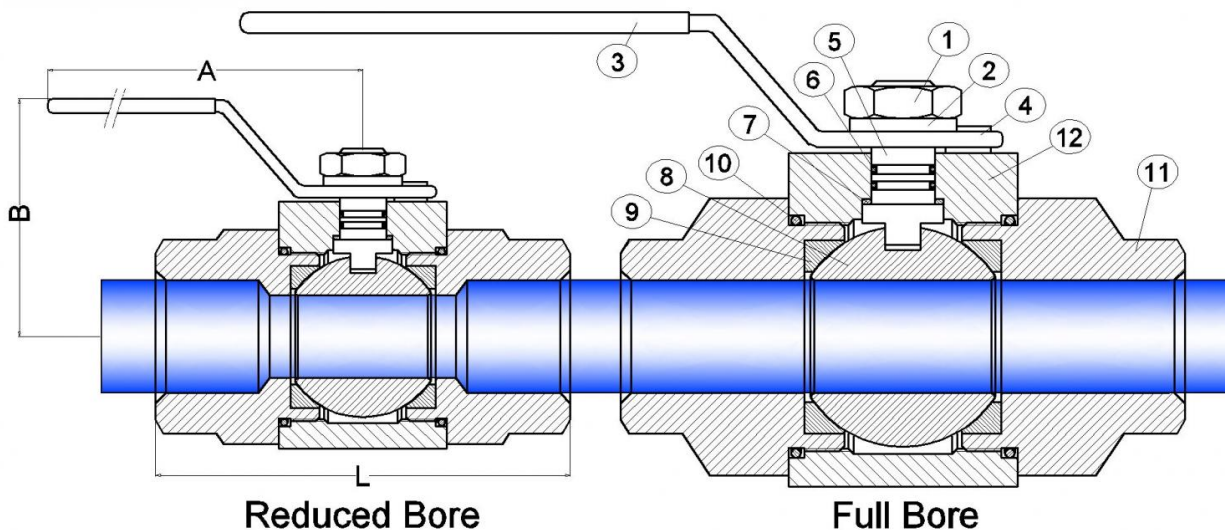
- PEEK seats for high pressures 210bar (3000PSI). **I**
- Degreased for oxygen service. **D**
- Automation through electrical actuator. **A**
- Automation through pneumatic actuator. **H**
- Prepared for a quick automation (ISO 5211). **T**
- Male-Female (MxF) end connections. **C**
- Male-Male (MxM) end connections. **I**
- VIC Grooved end connections. **O**
- Handle safety lockout. **W**
- O-ring seals available in several materials.



Technical data

Size	Bore	Cv	BSP Code	NPT Code	SW Code	BW Code	A	B	L
1/4"	8	9	3800	3801	3850	3851	120	55	63
3/8"	8	9	3802	3803	3852	3853	120	55	63
3/8"	12	11	3404	3405	3406	3407	120	55	63
1/2"	12	11	3804	3805	3854	3855	120	55	63
1/2"	15	30	3408	3409	3410	3411	120	57	80
3/4"	15	30	3806	3807	3856	3857	120	57	80
3/4"	20	50	3412	3413	3414	3415	120	60	90
1"	20	50	3808	3809	3858	3859	120	60	90

Size	Bore	Cv	BSP Code	NPT Code	SW Code	BW Code	A	B	L
1"	25	90	3416	3417	3418	3419	170	70	100
1 1/4"	25	90	3814	3815	3864	3865	170	70	100
1 1/4"	32	150	3420	3421	3422	3423	170	75	115
1 1/2"	32	150	3810	3811	3860	3861	170	75	115
1 1/2"	40	250	3424	3425	3426	3427	220	90	125
2"	40	250	3812	3813	3862	3863	220	90	125
2"	50	450	3428	3429	3430	3431	220	100	145
2 1/2"	50	450	3816	3817	3866	3867	220	100	145



Materials

Nº Part	AISI-316L A4	Duplex AD	SuperDuplex AS	Special alloys
1 Handle screw	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)
2 Handle washer	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)
3 Handle	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)	AISI-316L (1.4404)
4 Stop Pin	AISI-304 (1.4301)	AISI-304 (1.4301)	AISI-304 (1.4301)	AISI-304 (1.4301)
5 Stem	AISI-316L (1.4404)	Duplex (1.4462)	Superduplex (1.4410/ 1.4501)	Special alloy
6 Stem o-ring	FPM	FPM	FPM	FPM
7 Stem bearing	Delrin	Delrin	Delrin	Delrin
8 Ball	AISI-316L (1.4404)	Duplex (1.4462)	Superduplex (1.4410/ 1.4501)	Special alloy
9 Seat	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE
10 O-ring	FPM	FPM	FPM	FPM
11 End connection	AISI-316L (1.4404)	Duplex (1.4462)	Superduplex (1.4410/ 1.4501)	Special alloy
12 Body	AISI-316L (1.4404)	Duplex (1.4462)	Superduplex (1.4410/ 1.4501)	Special alloy

Special alloys

Among the wide range of alloys existing, TECVAL has selected those considered by our customers as most suitable, which we stock to ensure a quick and effective supply. Whether you do not find the required alloy or need further information about our special alloys valves and fittings, please address your inquiry to our Technical Department.

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**.

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.

An example of valve with two options:

Ball valve VB-12 1/2"NPT Duplex bore 12mm with PEEK seats and pneumatic actuator:

3805 HI AD The reference required to place the order is **3805HIAD**.

Actuators

Upon request, ball valves VB-12 can be delivered with pneumatic actuators, either double acting or spring return. The actuators can be worked by standardised or bottled air. 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. Designed to be operated in a fully open or fully closed position.

Elastomers

O-ring seals can be made of different materials: Nitrile **B**, EPDM **E** or Neopren **N**, considering the working conditions and fluid of the valve.



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