
SIMTECH Guide Specification

VB Series: True Union Ball Valve - PVC

1.0 VB Series – True Union Ball Valve

1.1 Design

SIMTECH VB series PVC true union ball valves 1/2" through 4" shall be either solvent cement socket or NPT threaded pipe connections. VB series ball valves shall have blow-out proof stems designed with a break point in the event of excessive torque. SIMTECH VB series PVC true union ball valves will hold down stream pressure when the necessity of disassembling the downstream end connector arises. The PVC ball shall be machined and tumbled after injection molding to insure smooth operation and extended seat life. The T-type handle is designed as a key for removal of the threaded seat carrier. Socket end connection dimensions shall conform to ASTM D-2467. Threaded pipe connections shall be in accordance with ASTM D-2464 which references ANSI B 1.20.1 for tapered pipe threads. Optional flanged version shall be in accordance with ANSI B16.5, class 150 flanges

1.2 Seats

Seats shall be PTFE (Teflon®) with elastomer backing rings creating self-adjusting seals and constant operating torque and sealing characteristics.

1.3 Seals

O-rings and seals shall be EPDM, FPM*or Kal-Rez.

2.0 Material

2.1 Material of Construction

PVC compound used in the manufacturing of the SIMTECH VB series true union ball valves shall be Type I, Grade 1 PVC 1120 (cell classification 12454-B) as identified in ASTM D 1784. The compound shall contain the amounts of pigment, stabilizers and other additives as outlined by NSF for the conveyance of potable water.

3.0 Testing

3.1 Pressure Testing

All valves are pressure tested in both the open and closed position by the manufacturer.

3.2 Pressure Rating

SIMTECH VB Series PVC true union ball valves 1/2" - 2" shall be pressure rated at 232 psi/16 bar, 2 1/2"- 4" shall be pressure rated at 150 psi/10 bar at 68°F/20°C

3.0 Manufacturer

SIMTECH
Phone: 877-777-2467
www.SimtechUSA.com

SIMTECH Guide Specification

VB Series: True Union Ball Valve – CPVC(CORZAN®)

1.0 VB Series – True Union Ball Valve

1.1 Design

SIMTECH VB series CPVC (CORZAN®) true union ball valves 1/2" through 4" shall be either solvent cement socket or NPT threaded pipe connections. VB series ball valves shall have blow-out proof stems designed with a break point in the event of excessive torque. SIMTECH VB series CPVC (CORZAN®) true union ball valves will hold down stream pressure when the necessity of disassembling the downstream end connector arises. The CPVC (CORZAN®) ball shall be machined and tumbled after injection molding to insure smooth operation and extended seat life. The T-type handle is designed as a key for removal of the threaded seat carrier. Socket end connection dimensions shall conform to ASTM D-2467. Threaded pipe connections shall be in accordance with ASTM D-2464 which references ANSI B 1.20.1 (was B2.1) for tapered pipe threads. Optional flanged version shall be in accordance with ANSI B16.5, class 150 flanges

1.2 Seats

Seats shall be PTFE (Teflon®) with elastomer backing rings creating self-adjusting seals and constant operating torque and sealing characteristics.

1.3 Seals

O-rings and seals shall be EPDM, FPM*or Kal-Rez

2.0 Material

2.1 Material of Construction

CPVC (CORZAN®) compound used in the manufacturing of the SIMTECH VB series true union ball valves shall be Type IV, Grade 1 CPVC 4120 (cell classification 23447) as identified in ASTM D 1784. The compound shall contain the amounts of pigment, stabilizers and other additives as outlined by NSF for the conveyance of potable water.

3.0 Testing

3.1 Pressure Testing

All valves are pressure tested in both the open and closed position by the manufacturer.

3.2 Pressure Rating

SIMTECH VB Series CPVC (CORZAN®) true union ball valves 1/2" -2" shall be pressure rated at 232 psi/16 bar, 2 1/2"- 4" shall be pressure rated at 150 psi/10 bar at 68°F/20°C

3.0 Manufacturer

SIMTECH
Phone: 877-777-2467
www.SimtechUSA.com

SIMTECH Guide Specification

VB Series: True Union Ball Valve - PP

1.0 VB Series – True Union Ball Valve

1.1 Design

SIMTECH VB series PP true union ball valves 1/2" through 4" shall be either metric socket fusion, spigot butt fusion or IPS threaded connections. VB series ball valves shall have blow-out proof stems designed with a break point in the event of excessive torque. SIMTECH VB series PP true union ball valves will hold down stream pressure when the necessity of disassembling the downstream end connector arises. The PP ball shall be machined and tumbled after injection molding to insure smooth operation and extended seat life. The T-type handle is designed as a key for removal of the threaded seat carrier. End connections shall be as outlined in ASTM D 2657 for fusion socket joining, and shall be compatible with metric pipe and fittings as manufactured by SIMTECH. Threaded end connections shall be in accordance with ASTM D 2464 which references ANSI B 1.20 for tapered pipe threads. Optional flanged version shall be in accordance with ANSI B 16.5 class 150 flanges. Socket end connection dimensions shall conform to ASTM D-2467.

1.2 Seats

Seats shall be PTFE (Teflon®) with elastomer backing rings creating self-adjusting seals and constant operating torque and sealing characteristics.

1.3 Seals

O-rings and seals shall be EPDM, FPM*or Kal-Rez

2.0 Material

2.1 Material of Construction

Valve body, stem and unions shall be made from Group 1, Class 2, polypropylene homopolymer resin in accordance with ASTM D-4101. Polypropylene resin shall achieve a minimum tensile strength of 300 bar when tested at 23°C according to ASTM D 638. Material shall allow continuous operating temperatures to 95°C. PP resin shall comply with relevant food substance regulation, US FDA guidelines as specified in Code of Federal Regulators (CFR), Title 21, Chapter 1: Section 177.1520 and Section 178.3297 suitable for contact with foodstuff, pharmaceutical use and potable water. The compound shall contain the amounts of pigments, stabilizers and other additives as outlined by NSF for the conveyance of potable water

3.0 Testing

3.1 Pressure Testing

All valves are pressure tested in both the open and closed position by the manufacturer.

3.2 Pressure Rating

SIMTECH VB Series PP true union ball valves 1/2" - 4" shall be pressure rated at 150 psi/10 bar.

3.0 Manufacturer

SIMTECH
Phone: 877-777-2467
www.SimtechUSA.com

SIMTECH Guide Specification

VB Series: True Union Ball Valve – PVDF (KYNAR)

1.0 VB Series – True Union Ball Valve

1.1 Design

SIMTECH VB series PVDF (KYNAR®) true union ball valves 1/2" through 4" shall be either metric socket fusion, spigot butt fusion or IPS threaded connections. VB series ball valves shall have blow-out proof stems designed with a break point in the event of excessive torque. SIMTECH VB series PP true union ball valves will hold down stream pressure when the necessity of disassembling the downstream end connector arises. The PVDF (KYNAR®) ball shall be machined and tumbled after injection molding to insure smooth operation and extended seat life. The T-type handle is designed as a key for removal of the threaded seat carrier. End connections shall be as outlined in ASTM D 2657 for fusion socket joining, and shall be compatible with metric pipe and fittings as manufactured by SIMTECH. Threaded end connections shall be in accordance with ASTM D 2464 which references ANSI B 1.20 for tapered pipe threads. Optional flanged version shall be in accordance with ANSI B 16.5 class 150 flanges. Socket end connection dimensions shall conform to ASTM D-2467..

1.2 Seats

Seats shall be PTFE (Teflon®) with elastomer backing rings creating self-adjusting seals and constant operating torque and sealing characteristics.

1.3 Seals

O-rings and seals shall be EPDM, FPM*or Kal-Rez

2.0 Material

2.1 Material of Construction

Valve body, stem and unions shall be made from virgin, pure, unpigmented homopolymer KYNAR® resin, as manufactured by ARCHEMA Chemicals, Inc. Material shall meet or exceed requirements of Table 1, Type 1, Grade II of ASTM D-3222-99. Manufacturing shall not employ any stabilizers, antioxidants, fillers, pigmentation or additives of any kind. The resin shall be approved by NSF for the conveyance of potable water.

3.0 Testing

3.1 Pressure Testing

All valves are pressure tested in both the open and closed position by the manufacturer.

3.2 Pressure Rating

SIMTECH VB Series PVDF (KYNAR®) true union ball valves 1/2" - 2" shall be pressure rated at 232 psi/16 bar, 2 1/2" - 4" shall be pressure rated at 150 psi/10 bar at 68°F/20°C

3.0 Manufacturer

SIMTECH
Phone: 877-777-2467
www.SimtechUSA.com