# VKD SERIES BALL VALVES

# Sample Specification

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#### 1.1 Material

- The valve body, stem, ball and unions shall be made of PVC compound which shall meet or exceed the requirements of cell classification 12454 according to ASTM D1784.
- or The valve body, stem, ball and unions shall be made of Corzan® CPVC compound which shall meet or exceed the requirements of 23447 according to ASTM D1784.
- or The valve body, stem, ball and unions shall be made of stabilized PP homopolymer compound, also containing a RAL 7032 pigment, which shall meet or exceed the requirements of Type I Polypropylene according to ASTM D4101.

#### 1.2 Seats

• The ball seats shall be made of Teflon® (PTFE).

#### 1.3 Seals

- · The o-ring seals shall be made of EPDM.
- or The o-ring seals shall be made of FPM.

#### 2.0 Connections

#### 2.1 Socket style

- The IPS socket PVC end connectors shall conform to the dimensional standards ASTM D2466 and ASTM D2467.
- or The IPS socket CPVC end connectors shall conform to the dimensional standard ASTM F439.
- or The Metric socket PP end connectors shall conform to the dimensional standard ISO 11922-1.

#### 2.2 Threaded style

- The female NPT threaded PVC end connectors shall conform to the dimensional standards ASTM D2464, ASTM F1498, and ANSI B1.20.1.
- or The female NPT threaded CPVC end connectors shall conform to the dimensional standards ASTM F437, ASTM F1498, and ANSI B1.20.1.
- or The female NPT threaded PP end connectors shall conform to the dimensional standards ASTM F1498, and ANSI B1.20.1.

#### 3.0 Design Features

- The valve shall be double blocking with union ends.
- All valves shall be full port.
- · All valves shall allow for bi-directional flow.

- The valve body shall be single end entry with a threaded carrier (ball seat support).
- The threaded carrier shall be adjustable with the valve installed.
- The valve body shall have an expansion and contraction compensating groove on the molded end.
- The valve body, union nuts, and carrier shall have deep square style threads for increased strength.
- The ball and stem shall be machined smooth to minimize wear on valve seats and seals.
- All valve seats shall have o-ring backing cushions to compensate for wear and prevent seizure of the ball.
- The stem design shall feature double o-ring seals as well as a safety shear point above the o-rings.
- All valves shall have integrally molded mounting features for actuation.
- All valves shall have integrally molded support bracketing for anchoring.
- 2-1/2" to 4" valves handle shall incorporate a transparent PVC plug and tag holder for valve identification.

#### 3.1 Pressure Tested

 All valves shall have been pressure tested in both the open and closed positions by the manufacturer.

### 3.2 Pressure Rating

- All PVC and CPVC valves shall be rated at 232 PSI at 73°F.
- All PP valves shall be rated at 150 PSI at 73°F.

### 3.3 Markings

 All valves shall be marked to indicate size, material designation, and manufacturers name or trade mark.

#### 3.4 Color Coding

- All PVC valves shall be color-coded dark gray.
- or All CPVC valves shall be color-coded light gray.
- or All PP valves shall be color-coded beige gray.

#### 4.0 NSF Listings

- All PVC and CPVC valves shall be listed with NSF to Standard 61 for potable water.
- All PVC and CPVC valves shall be listed with NSF to Standard 372 for lead content requirements.
- **5.0** All valves shall be Xirtec® PVC, Xirtec® CPVC or PP by IPEX or approved equal.

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# **About IPEX**

### **About IPEX by Aliaxis**

As leading suppliers of thermoplastic piping systems, IPEX by Aliaxis provides our customers with some of the world's largest and most comprehensive product lines. All IPEX by Aliaxis products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have established a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX by Aliaxis products are:

- Electrical systems
- · Telecommunications and utility piping systems
- · Industrial process piping systems
- Municipal pressure and gravity piping systems
- · Plumbing and mechanical piping systems
- · Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- · Irrigation systems
- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings

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