

# TKD SERIES 3-WAY BALL VALVES

## Sample Specification

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#### 1.0 Ball Valves – TKD

##### 1.1 Material

- The valve body, stem, ball, end connectors, and unions shall be made of PVC compound which shall meet or exceed the requirements of cell classification 12454 according to ASTM D1784.
- 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.

##### 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.

##### 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.

#### 3.0 Design Features

- All valves shall be true union at all three ports.
- All sizes shall be full port.
- Valve design shall permit positive shutoff of any of the three ports.
- Balls shall be of T-port or L-port design (specifier must select one).
- The valve shall have blocking seat supports at all three ports.
- The threaded carrier (ball seat support) shall be adjustable with the valve installed.
- The valve body, union nuts, and carrier shall have deep square style threads for increased strength.

- The ball shall be machined smooth to minimize wear on valve seats.
- All valve seats shall have o-ring backing cushions to compensate for wear and prevent seizure of the ball.
- The thickness of the valve body shall be the same at all three ports.
- The stem design shall feature a shear point above the o-ring to maintain system integrity in the unlikely event of a stem breakage.
- The valve shall include the DUAL BLOCK® union nut locking mechanism.
- The handle shall incorporate an optional feature to allow the valve position to be secured with a padlock.
- The handle shall incorporate a removable tool for adjustment of the threaded carrier.
- The top of the stem shall incorporate molded features to indicate port location and ball position.
- All valves shall have integrally molded mounting flanges for support and actuation.

#### 3.1 Pressure Rating

- All valves shall be rated at 232psi at 73°F (23°C).

#### 3.2 Markings

- All valves shall be marked to indicate size, material designation, and manufacturer's name or trade mark.

#### 3.3 Color Coding

- All PVC valves shall be color-coded dark grey.
- or All CPVC valves shall be color-coded light grey.

#### 4.0 NSF 61 Listing

- All valves shall be listed with NSF to standard 61 for potable water.

#### 5.0 All valves shall be Xirtec® PVC or Xirtec® CPVC by IPEX or approved equal.

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- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings

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