

## Vic<sup>®</sup>-Ball Valves

### SERIES 721

Vic-Ball valve is a standard port, end-entry valve designed for 800psi/5515kPa WOG service. Valve body and end cap are ductile iron. Micro-finished steel ball and stem, TFE seat. Streamlined design provides excellent flow characteristics. Vic-Ball is available with standard manual handles. Pinned handle extensions are available; contact Victaulic for details.



#### MATERIAL SPECIFICATIONS

**Body:** Ductile iron conforming to ASTM A-536, painted black enamel coated.

**End Cap:** Ductile iron conforming to ASTM A-536, painted.

**Ball and Stem:** Nickel-plated carbon steel

**Stem Nuts & Washers:** Steel, electrogalvanized.

**Seals:** (TFE) Reinforced Tetrafluoroethylene, rated to +450°F/+232°C. NOTE: Actual fluid temperatures and services may be governed by available gaskets for the Victaulic couplings used for installation. (Refer to Victaulic Gasket Selection Data.)

**Handle:** Ductile iron ASTM A-536.

**Handle Extensions:** Steel pipe, electrogalvanized

#### JOB OWNER

System No. \_\_\_\_\_

Location \_\_\_\_\_

#### CONTRACTOR

Submitted By \_\_\_\_\_

Date \_\_\_\_\_

#### ENGINEER

Spec Sect \_\_\_\_\_ Para \_\_\_\_\_

Approved \_\_\_\_\_

Date \_\_\_\_\_

[www.victaulic.com](http://www.victaulic.com)

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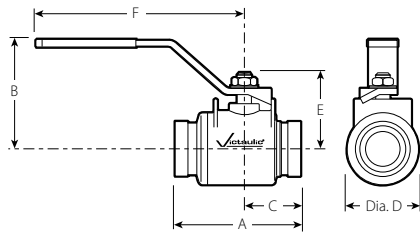


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### DIMENSIONS



| Size                            |                                            | Dimensions – Inches/mm |             |      |               |      |       | Approx. Wgt.<br>Each |
|---------------------------------|--------------------------------------------|------------------------|-------------|------|---------------|------|-------|----------------------|
| Nominal<br>Size<br>Inches<br>mm | Actual<br>Outside<br>Diameter<br>inches/mm | End to End<br>A        | Height<br>B | C    | Diameter<br>D | E    | F     |                      |
| 4*                              | 4.500                                      | 8.25                   | 6.92        | 4.50 | 6.00          | 5.21 | 16.13 | 32.4                 |
| 114.3                           | 114.3                                      | 210                    | 176         | 114  | 152           | 132  | 410   | 14.7                 |
| 6                               | 6.625                                      | 10.10                  | 9.14        | 5.30 | 8.00          | 7.26 | 28.13 | 75.0                 |
| 168.3                           | 168.3                                      | 257                    | 232         | 135  | 203           | 184  | 715   | 34.0                 |

\*Stainless steel body also available. See section 17.02 or contact Victaulic for details.

### PERFORMANCE

C<sub>v</sub> values for flow of water at +60°F/+16°C with a fully open valve for 1 psi/6.9 kPa pressure drop in Gallons per Minute/Liters per Minute.

Formulas for C<sub>v</sub> Values:

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

**Where:**

Q = Flow (GPM)

ΔP = Pressure Drop (psi)

C<sub>v</sub> = Flow Coefficient

| Size                   |                                  | C <sub>v</sub>         |
|------------------------|----------------------------------|------------------------|
| Nom.<br>Size<br>In./mm | Actual<br>Outside Dia.<br>In./mm | (Full Open)<br>GPM/LPM |
| 4<br>100               | 4.500<br>114.3                   | 815<br>3085            |
| 6<br>150               | 6.625<br>168.3                   | 1500<br>5678           |

### FLOW CHARACTERISTICS

Flow testing for Vic-Ball Series 721 ball valves demonstrated superior flow characteristics. Testing for Vic-Ball valve was performed in our own engineering laboratory facilities with systems and equipment calibrated to National Bureau of Standards.

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#### TORQUE REQUIREMENTS

The following chart details typical torque to operate Vic-Ball Series 721 Ball valves under varied working pressure conditions.

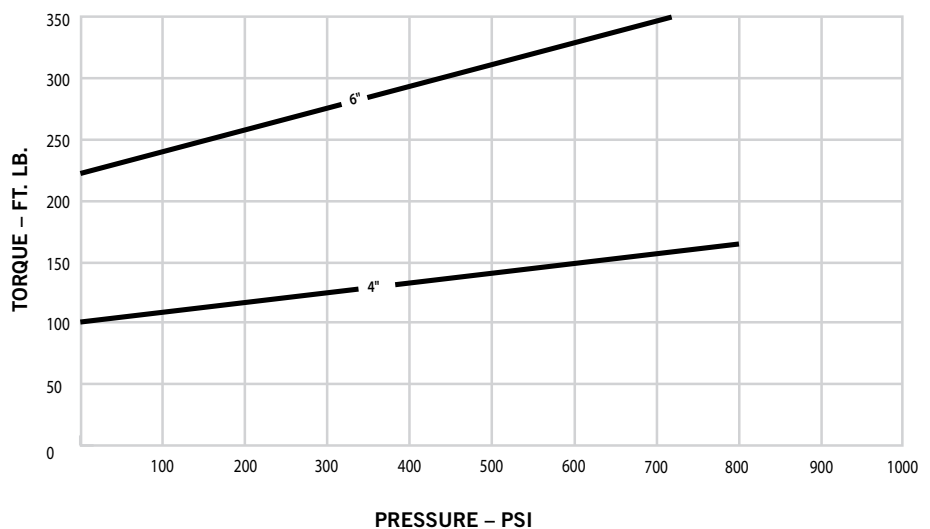
These torque values were derived from test data in water at ambient temperature. All torque values are for normal service conditions where corrosion is expected to be minor, and the media is clean and nonabrasive. The torque shown on the chart should be multiplied by the appropriate factor listed below.

**Breakaway Factor:** Ball valves will require additional breakaway torque if they are not continuously operated. A breakaway factor of between 2:1 and 3:1 should be applied to break the ball loose after being in a static condition for more than a few hours.

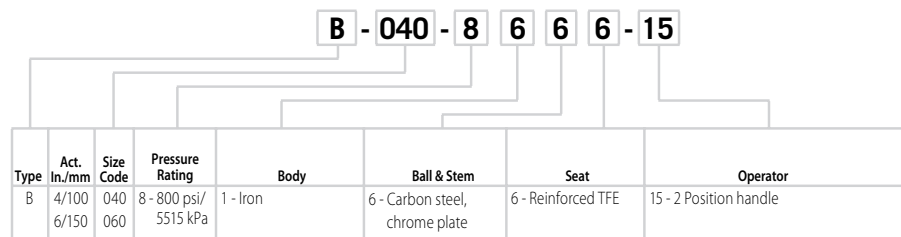
**Typical service factors commonly used in the industry are:**

- Water and other liquids – 1.0
- Dry gasses – 1.5 – 2.0

**Actuation Factor:** A minimum factor of 1.2 is recommended for directly actuated valves and 1.5 for 3-way assemblies. Apply the actuation factor to the higher of the breakaway or service factor.



#### BALL VALVE NUMBERING SYSTEM



#### WARRANTY

Refer to the Warranty section of the current Price List or contact Victaulic for details.

#### NOTE

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.