

# Victaulic® Ball Valve

## Series 726



Lever Operator



Gear Operator

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### 1.0 PRODUCT DESCRIPTION

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#### Available Sizes:

- 1 ½ – 6"/DN40 – DN150

#### Maximum Working Pressure:

- Accommodates pressures up to 1000 psi/6894 kPa/69 bar

#### Application:

- Two-piece, end-entry valve featuring a floating ball design
- Intended for use in full open or shut-off service; throttling is not recommended with standard ball valves

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### 2.0 CERTIFICATION/LISTINGS

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Conforms to ASME A17.1-2007/CSA B44-07 and is NACE compliant.



ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

### 3.0 SPECIFICATIONS - MATERIAL

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**Body and End Cap:** Ductile iron conforming to ASTM A395.

**Ball: (specify choice)**

Standard: Carbon steel, chrome plated.

Optional: 316 stainless steel.

**Stem:** Same material as specified for the Ball (see above).

**Seats:** Glass-reinforced polytetrafluoroethylene (PTFE)

**Seals:** Fluoroelastomer (Blue stripe color code). Temperature range +20°F to +250°F/ -7°C to +121°C. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

**Operators:**

**Lever Handle: (specify choice)**

1 ½ – 3"/DN40 – DN80: Carbon steel, zinc-plated, plastic grip.

4 & 6"/DN100 & DN150: Carbon steel, enamel paint.

Optional trim: Stainless steel.

**Gear Operator: (specify choice)**

Standard: Manual with hand wheel.

Optional trim: Stainless steel.

**Operator Bracket:** Hot rolled steel, black enamel-coated.

**Bracket Bolts/Washers:** Cold rolled steel, zinc-plated.

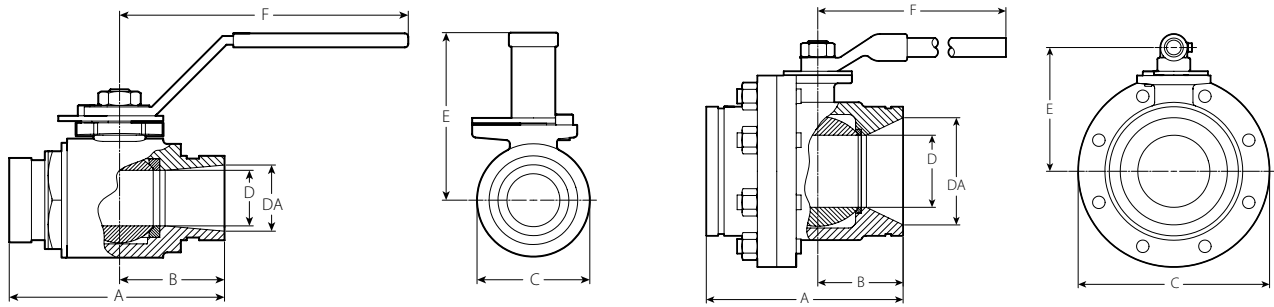
**Power Actuators:** Electric, pneumatic, hydraulic.

**Integral Locking Drive Components:** Stamped carbon steel, zinc-plated.

## 4.0 DIMENSIONS

### Series 726 Ball Valve

With Standard Handle



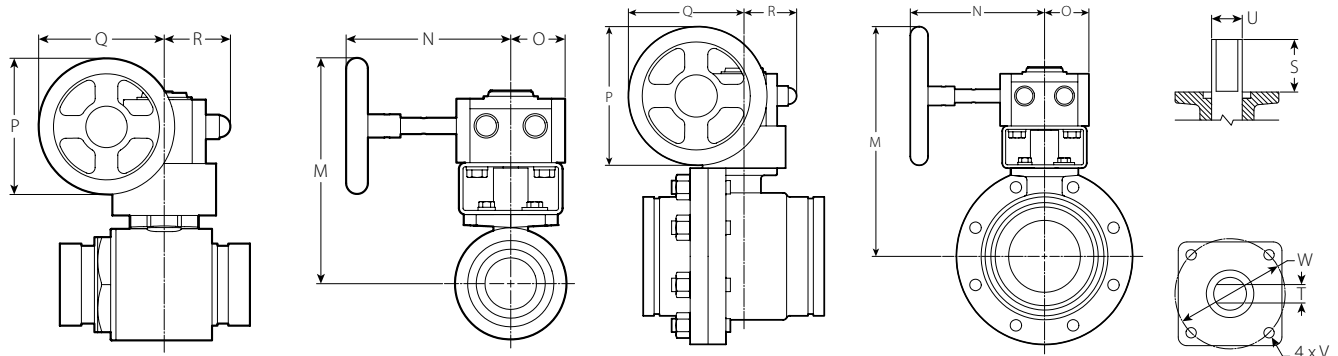
1 1/2 – 3"/DN40 – DN80

4 – 6"/DN100 – DN150

Size		Dimensions							Weight
Nominal	Actual Outside Diameter	A	B	C	D	DA	E	F	Approx. (Each)
inches	inches	inches	inches	inches	inches	inches	inches	inches	lb
DN	mm	mm	mm	mm	mm	mm	mm	mm	kg
1 1/2	1.900	5.13	2.36	2.75	1.25	1.50	3.00	7.00	4.4
DN40	48.3	130	60	70	32	38	76	178	2.0
2	2.375	5.50	2.48	3.25	1.50	2.00	3.38	7.00	6.5
DN50	60.3	140	63	83	38	51	86	178	2.9
2 1/2	2.875	6.30	2.80	4.00	2.00	2.50	4.00	9.88	10.4
	73.0	160	71	102	51	64	102	251	4.7
DN65	3.000	6.30	2.80	4.00	2.00	2.50	4.00	9.88	10.4
	76.1	160	71	102	51	64	102	251	4.7
3	3.500	6.60	3.15	4.88	2.50	3.00	4.63	10.00	14.9
DN80	88.9	168	80	124	64	76	118	254	6.8
4	4.500	8.30	3.35	7.75	3.00	4.00	5.50	15.75	41.5
DN100	114.3	211	85	197	76	102	140	400	18.8
	6.500	10.10	4.53	9.88	4.00	6.00	6.88	18.13	78.5
	165.1	257	115	251	102	152	175	461	35.6
6	6.625	10.10	4.53	9.88	4.00	6.00	6.88	18.13	78.5
DN150	168.3	257	115	251	102	152	175	461	35.6

## 4.1 DIMENSIONS

### Series 726 Ball Valve With Gear Operator



1 ½ – 3"/DN40 – DN80

4 – 6"/DN100 – DN150

Size		Dimensions											Weight
Nominal	Actual Outside Diameter	M	N	O	P	Q	R	S	T	U	V	W	Approx. (Each)
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	metric	inches mm	lb kg
1 ½	1.900	6.38	4.88	1.63	3.94	3.75	2.00	0.81	0.35	0.56	M6 x 1.00	1.97	7.1
DN40	48.3	162	124	41	100	95	51	21	9	14		50	3.2
2	2.375	6.63	4.88	1.63	3.94	3.75	2.00	0.81	0.35	0.56	M6 x 1.00	1.97	9.1
DN50	60.3	168	124	41	100	95	51	21	9	14		50	4.1
2 ½	2.875	6.88	4.88	1.63	3.94	3.75	2.00	1.00	0.47	0.75	M8 x 1.25	2.76	12.9
	73.0	175	124	41	100	95	51	25	12	19		70	5.9
DN65	3.000	6.88	4.88	1.63	3.94	3.75	2.00	1.00	0.47	0.75	M8 x 1.25	2.76	12.9
	76.1	175	124	41	100	95	51	25	12	19		70	5.9
3	3.500	8.00	7.38	2.00	5.00	4.50	2.25	1.03	0.47	0.75	M8 x 1.25	2.76	20.0
DN80	88.9	203	187	51	125	114	57	26	12	19		70	9.1
4	4.500	10.00	7.38	2.00	5.00	4.50	2.25	1.64	0.55	0.75	M10 x 1.50	4.02	44.7
DN100	114.3	254	187	51	125	114	57	42	14	19		102	20.3
	6.500	13.00	9.00	2.88	8.00	6.38	3.13	1.98	0.67	1.02	M10 x 1.50	4.02	89.0
	165.1	330	229	73	200	162	80	50	17	26		102	40.4
6	6.625	13.00	9.00	2.88	8.00	6.38	3.13	1.98	0.67	1.02	M10 x 1.50	4.02	89.0
DN150	168.3	330	229	73	200	162	80	50	17	26		102	40.4

## 5.0 PERFORMANCE

### Maximum Working Pressure

Valve Size		Maximum Working Pressure psi kPa
Nominal inches DN	Actual Outside Diameter inches mm	
1 ½ – 3 DN40 – DN80	1.900 – 3.5000 48.3 – 88.9	1000 6895
4 – 6 DN100 – DN150	4.500 – 6.625 114.3 – 168.3	800 5516

## 5.1 PERFORMANCE

### Flow Characteristics

C<sub>v</sub> values for flow of water at +60°F/+16°C are shown in the tables below.

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

Valve Size		Flow Coefficient
Nominal	Actual Outside Diameter	Full Open
inches DN	inches mm	C <sub>v</sub> K <sub>v</sub>
1 ½ DN40	1.900 48.3	130 112
2 DN50	2.375 60.3	180 156
2 ½	2.875 73.0	340 294
DN65	3.000 76.1	340 294
3 DN80	3.500 88.9	600 519
4 DN100	4.500 114.3	650 562
	6.500 165.1	800 692
6 DN150	6.625 168.3	800 692

## 5.2 PERFORMANCE

### Torque Requirements

The following chart details required torque to operate Victaulic Series 726 Ball Valves under varied working pressure conditions. This chart may be used to determine optional gear operator or remote electric or pneumatic actuator requirement. Contact Victaulic for specific operator/actuator recommendations.

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 non abrasive. The torque shown on the chart should be multiplied by the appropriate factor listed below.

### Breakaway Factor:

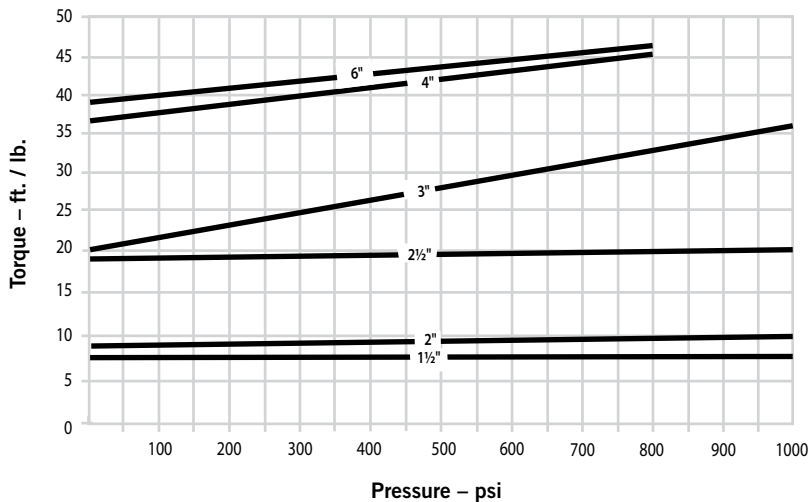
Ball valves will require additional breakaway torque if they are not continuously operated. A breakaway factor of between 2:1 and 3:1 should be applied to break the ball loose after being in a static condition for more than a few hours.

### Typical fluid torque 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.



### 5.3 PERFORMANCE

#### Series 726 Valve Numbering System

**B - 020 - 1 1 6 6 - 16**

Type	Actual OD in/mm	Size Code	Pressure Rating	Body	Ball & Stem	Seat	Operator
B	1.900/48.3	014	1 - 1,000 psi	1 - Iron <sup>2</sup>	2 - 316 Stainless Steel	6 - Reinforced PTFE	00 - Bare
	2.375/60.3	020	8 - 800 psi <sup>3</sup>		6 - Chrome Plated Carbon Steel		16 - 2-Position Handle with Tamper-proof Locking Device
	2.875/73.0	024		9 - Special <sup>1</sup>		9 - Special <sup>1</sup>	19 - Locking Device - Without Handle
	3.000/76.1	761					20 - Gear Operator
	3.500/88.9	030			9 - Special <sup>1</sup>		21 - Gear Operator with Memory
	4.500/114.3	040					22 - Gear Operator with Chain Wheel
	6.500/165.1	060					23 - Gear Operator with AWWA Square Nut
	6.625/168.3	165					29 - Non-standard Gear Operator <sup>1</sup>

NOTES:  
 (1) Details required.  
 (2) All Iron Body valves are NACE compliant.  
 (3) Pressure rating applicable to 4 and 6" sizes only.

### 6.0 NOTIFICATIONS

**WARNING**

- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection.

**Failure to follow these instructions could result in death or serious personal injury and property damage.**

### 7.0 REFERENCE MATERIALS

- [17.22: Stainless Steel Ball Valve Series 726S](#)
- [26.01: Victaulic Design Data](#)
- [29.01: Victaulic Terms and Conditions of Sale](#)
- [I-100: Victaulic Field Installation Handbook](#)
- [I-ENDCAP: Victaulic End Cap Installation Instructions](#)

#### User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, and the applicable building codes and related regulations as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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#### 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.

#### Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at [www.victaulic.com](http://www.victaulic.com).

#### Warranty

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

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