Series 726S Stainless Steel Vic-Ball® Valve

PRODUCT DESCRIPTION

The Series 726S is a high-pressure standard port ball valve with grooved ends. This two-piece, end-entry valve features a floating ball for lower torque requirements. Series 726S valves are NACE compliant and are capable of pressures up to 1000 psi (6900 kPa) in sizes $1^1/_2$ – 3" (40 – 80 mm); 800 psi (5515 kPa) for sizes 4 – 6" (100 – 150 mm). The internal design has been streamlined to provide excellent flow characteristics. The valve features a stainless steel ball and stem. The seat material is virgin TFE.

Series 726S features ISO standard mounting holes for easier mounting of remote actuation. The valve is offered with manual handles with integral/tamper resistant lock/seal and gear operators. A full range of power actuators can be mounted.

NOTE: Vic-Ball valves are designed for full open or shut-off service; throttling is not recommended with standard ball valves as damage to the seat can result from high velocity flow over the exposed seat.

Pressure Rating Chart

Valve Size		Max. Working Pressure psi/kPa
Nominal Diameter Inches/mm	Actual Outside Dia. Inches/mm	
$1^1/_2$ - 3 40 - 80	1.900 - 3.500 48,3 - 88,9	1000 6900
4 - 6 100 - 150	4.500 - 6.625 114,3 - 168,3	800 5515

MATERIAL SPECIFICATIONS

Body and End Cap: Stainless steel, CF8M.

Ball: 316 stainless steel.

Seats: (TFE) Tetrafluoroethylene.

Seals: Fluoroelastomer.

Operators:

- **Lever Handle:**
  - **1½ – 3" (40 – 80 mm)** Carbon steel, zinc plated. Plastic grip.
  - **4 & 6" (100 & 150 mm)** Carbon steel, enamel paint.
- **Gear Operator:** Manual with hand wheel.
  - **Optional:** 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 Device Components:** Stamped carbon steel, zinc plated.

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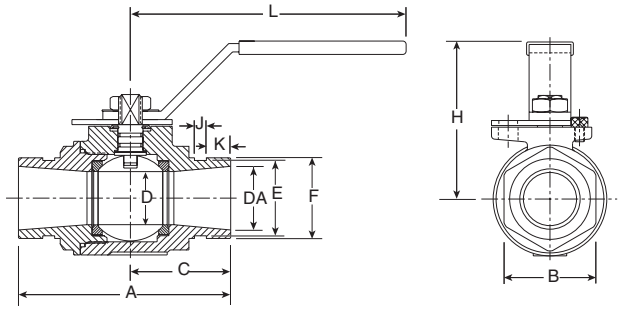
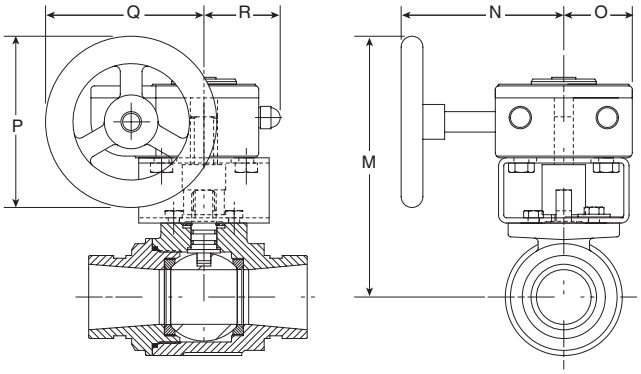
DIMENSIONS

Series 726S With Standard Handle 1 1/2 – 3" (40 – 80 mm)



Valve Size		Dimensions – Inches/millimeters											Approx. Weight Each Lbs./kg
Nominal Diameter Inches/mm	Actual Outside Diameter Inches/mm	A	B	C	D	DA	E	F	H	J	K	L	
1 1/2 40	1.900 48,3	5.12 130	2.00 51	2.36 60	1.25 32	1.50 38	1.78 45	1.90 48	3.00 76	0.28 7	0.56 14	6.97 177	4.8 2,2
2 50	2.375 60,3	5.50 140	2.64 67	2.48 63	1.50 38	2.00 51	2.25 57	2.38 60	3.31 84	0.34 9	0.56 14	6.97 177	7.5 3,4
2 1/2 65	2.875 73,0	6.25 159	3.03 77	2.80 71	1.97 50	2.50 64	2.72 69	2.88 73	4.00 102	0.34 9	0.56 14	9.84 250	11.6 5,3
3 80	3.500 88,9	6.56 167	3.50 89	3.15 80	2.50 64	3.00 76	3.34 85	3.50 89	4.53 115	0.34 9	0.56 14	9.84 250	17.2 7,8

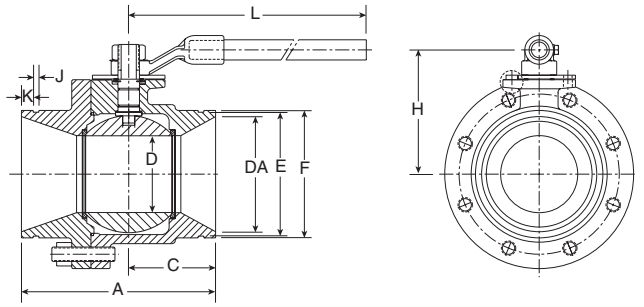
Series 726S With Gear Operator 1 1/2 – 3" (40 – 80 mm)



Valve Size		Dimensions – Inches/millimeters						Approx. Weight Each Lbs./kg
Nominal Diameter Inches/mm	Actual Outside Diameter Inches/mm	M	N	O	P	Q	R	
1 1/2 40	1.900 48,3	6.03 153	4.29 109	1.58 40	3.94 100	2.64 92	1.75 44	7.5 3,4
2 50	2.375 60,3	6.30 160	4.29 109	1.58 40	3.94 100	2.64 92	1.75 44	10.1 4,6
2 1/2 65	2.875 73,0	7.43 189	4.65 118	1.97 50	4.92 125	4.43 112	2.28 58	15.4 7,0
3 80	3.500 88,9	7.94 202	4.65 118	1.97 50	4.92 125	4.43 112	2.28 58	21.2 9,6

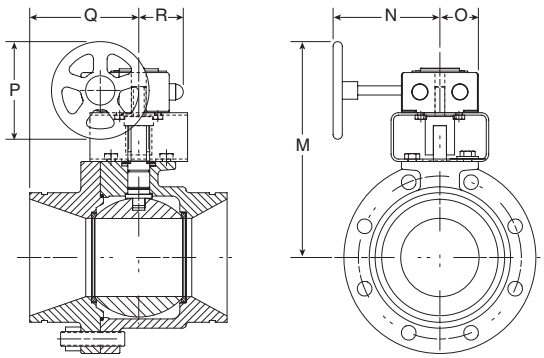
DIMENSIONS

Series 726S
With Standard Handle
4 and 6"
(100 and 150 mm)



Valve Size		Dimensions – Inches/millimeters										Approx. Weight Each Lbs./kg
Nominal Diameter Inches/mm	Actual Outside Diameter Inches/mm	A	C	D	DA	E	F	H	J	K	L	
4 100	4.500 114,3	8.25 210	3.35 85	2.99 76	4.00 102	4.33 111	4.52 115	5.48 139	0.34 9	0.61 15	15.67 398	45.0 20,5
6 150	6.625 168,3	10.10 257	4.53 115	4.00 102	6.00 152	6.46 164	6.64 169	6.48 165	0.34 9	0.61 15	18.07 459	82.0 37,3

Series 726S
With Gear Operator
4 and 6"
(100 and 150 mm)



Valve Size		Dimensions – Inches/millimeters						Approx. Weight Each Lbs./kg
Nominal Diameter Inches/mm	Actual Outside Diameter Inches/mm	M	N	O	P	Q	R	
4 100	4.500 114,3	9.95 253	4.65 118	1.97 50	4.92 125	4.43 112	2.28 58	48.2 21,9
6 150	6.625 168,3	11.02 280	4.65 118	1.97 50	4.92 125	4.43 112	2.28 58	92.5 42,0

PERFORMANCE

Flow Characteristics

Flow testing for Vic-Ball Series 726S ball valves demonstrated superior flow characteristics to all other competitive standard port valves. Smaller size valves actually have flow coefficients comparable to full port valves. Testing for Vic-Ball valve and competitive valves was performed in our own engineering laboratory facilities with systems and equipment calibrated to National Bureau of Standards.

C_V Values

C_V values for flow of water at +60°F (+16°C) with a fully open valve are shown in the table below

Formulas for C_V Values:

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

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

Where:

Q = Flow (GPM) C_V = Flow Coefficient

ΔP = Pressure Drop (psi)

Valve Size		C_V (Full Open)	Valve Size		C_V (Full Open)
Nominal Diameter Inches/mm	Actual Outside Diameter Inches/mm		Nominal Diameter Inches/mm	Actual Outside Diameter Inches/mm	
$1^1/_2$ 40	1.900 48,3	130	3 80	3.500 88,9	600
2 50	2.375 60,3	180	4 100	4.500 114,3	650
$2^1/_2$ 65	2.875 73,0	340	6 150	6.625 168,3	800

SERIES 726S TORQUE REQUIREMENTS

The following chart details required torque to operate Vic-Ball Series 726S 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.

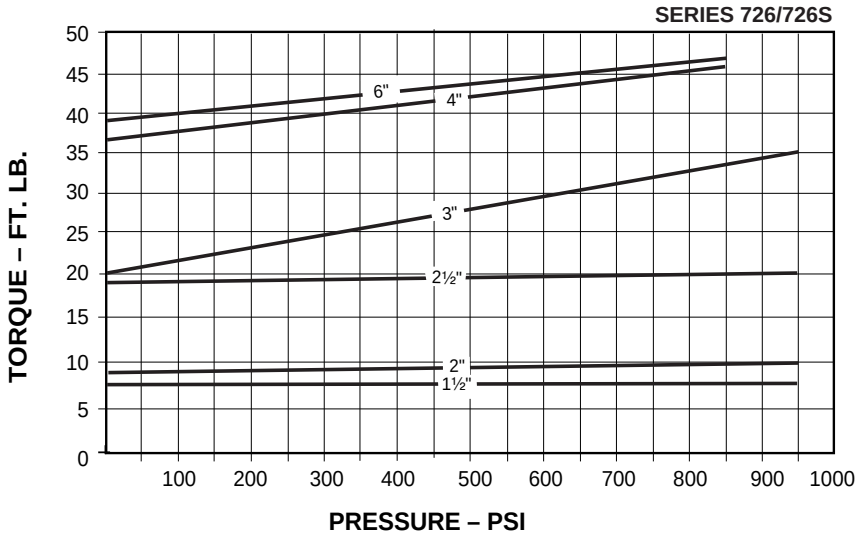
These torque values were derived from test data in water at ambient temperature. All torque values are for normal service conditions where corrosion is expected to be minor, and the media is clean and non abrasive. The torque shown on the chart should be multiplied by the appropriate factor listed below.

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 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 for Series 726S

B - 020 - 1 2 2 6 - 16

Type	Size Act. In.	Size Fig. No.	Pressure Rating	Body	Ball & Stem	Seat	Operator
B	1½"	014	1 - 1,000 psi[2]	2 - 316 Stainless Steel	2 - 316 Stainless Steel	6 - Reinforced Teflon	00 - Bare
	2"	020	8 - 800 psi[3]				16 - 2-Position Handle with Tamper-proof Locking Device
	2½"	024		9 - Special[1]	9 - Special[1]	9 - Special[1]	20 - Gear Operator
	3"	030					21 - Gear Operator with Memory
	4"	040					22 - Gear Operator with Chain Wheel
	6"	060					23 - Gear Operator with AWWA Square Nut
							29 - Non-standard Gear Operator[1]
							VV - Pneumatic[1]
							WW - Electric[1]
							YY - Hydraulic[1]

NOTES:
(1) Details required.
(2) For sizes 1½ - 3"
(3) For sizes 4 - 6"
* For ductile iron Series 726, request publication 08.23.