

Victaulic® Ball Valve Series 727



Bare Valve

Valve with Lever Handle

1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 6"/DN50 – DN150

Pipe Material

- Carbon steel

Maximum Working Pressure

- Rated up to 1500 psi/10350 kPa/103 bar

Operating Temperature

- Reference section 3.0 for gasket performance options

Function

- High pressure enhanced port NACE compliant ball valve
- Offers up to 1/3 better flow when compared with competitive standard port ball valves
- Integral/tamper resistant lock

Pipe Preparation

- Cut or roll groove pipe in accordance with [Publication 25.01](#): Original Groove System (OGS) Groove Specifications

2.0 CERTIFICATION/LISTINGS

Product designed and manufactured under Victaulic's Quality Management System, as certified by LPCB in accordance with ISO -9001:2008.

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

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

3.0 SPECIFICATIONS – MATERIAL

Body and End Cap: Ductile iron conforming to ASTM A395/395M-99 Grade 60-40-18.

Standard: Grooved end by grooved end.

Optional: 2 – 4"/DN50 – DN100 grooved end by male threaded end and grooved end by female threaded end.

Stem: AISI 1020 Carbon Steel Electroless Nickel Plated to ASTM B733-04 to SC4 Severe Service.

Optional: UNS31600 Type 316 per ASTM A351/351M stainless steel.

Ball: ASTM A105 Carbon Steel. Electroless Nickel Plated to ASTM B733-04 to SC4 Severe Service.

Optional: UNS31600 Type 316 per ASTM A351/351M stainless steel.

Optional Ball: Uni-Directional to equalize upstream line pressure.

Seats: Lubricated Nylon Temperature range -20°F to 150°F/-29°C to + 66°C continuous.

Seals: Nitrile.

Operators:

Lever Handle: 2 – 6"/DN50 – DN150

Ductile Iron per ASTM A 536 Grade 65-45-12, enamel paint

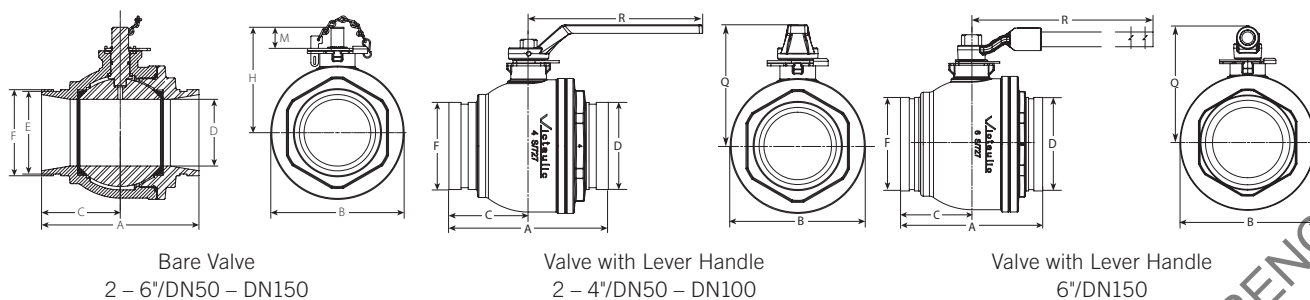
Integral Locking Drive Components:

Stamped carbon steel ASTM A1008 zinc plated ASTM B633 SCII Type 3

FOR LATEST 727 BALL VALVE OFFERING AND SPECIFICATIONS REFERENCE:
THIS DESIGN HAS BEEN SUPERSEDED
<https://www.victaulic.com/products/series-727-ball-valve/>

4.0 DIMENSIONS

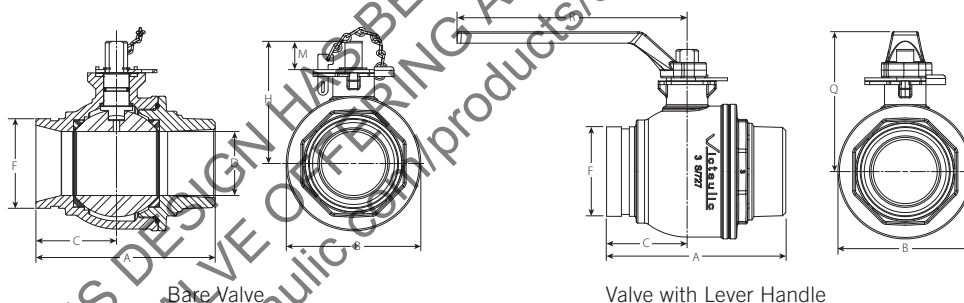
Series 727 Grooved Ball Valve



Size		Dimensions										Weight
Nominal	Actual Outside Diameter	A	B	C	D	E	F	H	M	Q	R	Approximate (Each)
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb kg
2 DN50	2.375 60.3	5.63 140	4.00 102	2.63 67	1.75 45	2.25 57	2.38 61	3.63 92	0.75 19	4.63 118	9.00 228	7.2 3.3
3 DN80	3.500 88.9	6.63 168	5.25 133	3.13 80	2.50 64	3.38 86	3.50 89	4.50 114	1.13 29	5.50 140	9.00 228	16.8 7.6
4 DN100	4.500 114.3	8.25 210	7.00 178	4.13 105	3.50 89	4.38 111	4.50 114	5.50 140	1.13 29	6.38 160	9.00 228	36.3 16.5
6 DN150	6.625 168.3	10.13 257	9.63 245	5.13 130	5.00 127	6.63 168	6.63 168	7.75 197	1.88 48	8.38 213	18.00 457	86.5 39.2

4.1 DIMENSIONS

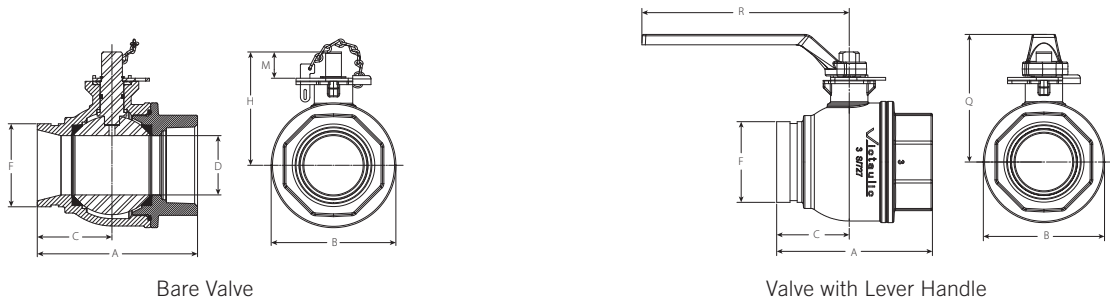
Series 727 Male Threaded Ball Valve



Size		Dimensions									Weight
Nominal	Actual Outside Diameter	A	B	C	D	F	H	M	Q	R	Approximate (Each)
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb kg
2	2.375	5.50	4.00	2.63	1.75	2.38	3.63	0.75	4.63	9.00	7.4
DN50	60.3	140	102	67	45	61	92	19	118	228	3.4
3	3.500	7.00	5.25	3.25	2.50	3.50	4.75	1.13	5.50	9.00	17.4
DN80	88.9	178	133	80	64	89	121	29	140	228	7.9
4	4.500	8.75	7.00	4.13	3.50	4.50	5.50	1.13	6.38	9.00	37.5
DN100	114.3	222	178	105	89	115	140	29	160	228	17.0

4.1 DIMENSIONS (CONTINUED)

Series 727 Female Threaded Ball Valve



Size		Dimensions									Weight
Nominal	Actual Outside Diameter	A	B	C	D	F	H	M	Q	R	Approximate (Each)
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb kg
2 DN50	2.375 60.3	5.50 140	4.00 100	2.63 67	1.75 45	2.38 61	3.63 92	0.75 19	4.63 118	9.00 228	7.5 3.5
3 DN80	3.500 88.9	6.75 171	5.25 133	3.13 80	2.50 64	3.50 89	4.75 121	1.13 29	5.50 140	9.00 228	17.8 8.0
4 DN100	4.500 114.3	8.50 214	7.00 177	4.13 104	3.50 89	4.50 114	5.50 140	1.13 29	6.38 160	9.00 228	38.8 17.6

5.0 PERFORMANCE

Flow Characteristics

C_v values for flow of water at +60°F/+16°C with a fully open valve are shown in tables 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)
ΔP = Pressure Drop (psi)
C_v = Flow Coefficient

Size		(Full Open) C _v
Nominal inches DN	Actual Outside Diameter inches mm	
2 DN50	2.375 60.3	325
3 DN80	3.500 88.9	650
4 DN100	4.500 114.3	2000
6 DN150	6.625 168.3	2500

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

V - 040 - 727 P O - A

Type	In./mm	Size Code	Series	End Configuration	Operator/ Ball Option	Trim
V	2/50	020	727	P - Grooved Ends	0 - Standard Ball w/o handle	A - Electroless nickel plated (ENP)
	2½/60	024		T - Male Thread x Groove	1 - Freeze Resistant Uni-directional Port w/o handle	Carbon Steel Trim
	3/80	030		F - Female Thread x Groove	H - Standard Ball with handle	X - CF8M/316SS
	4/100	040			2 - Freeze Resistant Uni-directional Port with handle	Stainless Steel Trim
	6/150	060				

NOTE

- End configurations dependent on sizes. See Section 4.0 for details.

[25.01: Original Groove System \(OGS\) Groove Specifications](#)
[29.01: Terms and Conditions/Warranty](#)
[I-100: Field Installation Handbook](#)

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.

Warranty

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

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