# 3-Piece Ball Valve for Type 316 Stainless Steel Vic-Press<sup>™</sup> Series P569

**ictaulic** 18.14



### 1.0 PRODUCT DESCRIPTION

#### **Available Sizes**

• <sup>1</sup>/<sub>2</sub> - 2"/ DN15 - DN50

#### Pressure Class

• Up to 400 psi/2758 kPa

### Application

• Joins ASTM A312 Schedule 10S stainless steel pipe

### **Pipe Materials**

• Stainless steel Type 316

#### **Codes and Requirements**

- Support hanger spacing correspond to ASME B31.1 Power Piping Code and ASME B31.9 Building Services Piping Code
- Meets ASME requirements for ANSI Class 150 systems for water, oil, gases and general chemical services

#### NOTE

• To maintain integrity of lubrication, components should remain in factory sealed bag until ready for use.

### 2.0 CERTIFICATION/LISTINGS



#### NOTES

- Download <u>publication 10.01</u> for Fire Protection Certifications/Listings Reference Guide.
- Product designed and manufactured under the Victaulic Quality Management System as certified by LPCB in accordance with ISO-9001:2008.

### 3.0 SPECIFICATIONS - MATERIAL

Body: Stainless steel, CF8M, ASTM A351
Ball: Stainless steel, CF8M, ASTM A351
Stem: Stainless steel, Type 316
Seats: (PTFE) Polytetrafluoroethylene
Locking Handle: Stainless steel, Type 304
Stem Nut: Stainless steel, Type 304
Stem Washer: Stainless steel, Type 304

Stem Packing and Thrust Washer: (PTFE) Polytetrafluoroethylene

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



## 3.0 SPECIFICATIONS – MATERIAL (CONTINUED)

**Bolt/Nut/Washer:** Stainless steel, Type 316 **Cap:** Stainless steel, CF8M, ASTM A351

Extended Ends: Schedule 10S stainless steel, Type 316

### Specify End Style:

- Vic-Press<sup>™</sup> Schedule 10S x Vic-Press<sup>™</sup> Schedule 10S (P x P)
- Grooved End (G x G)
- Vic-Press<sup>™</sup> Schedule 10S x Grooved End (P x G)

#### Press Seals:

| Grade | Temp. Range <sup>1</sup>          | Compound  | Color Code               | General Service Recommendations   |  |  |
|-------|-----------------------------------|---|--------------------------|---|--|--|
| н     | –20°F to +210°F<br>–29°C to +98°C | Hydrogenated<br>Nitrile Butadiene<br>Rubber<br>(HNBR) | Two<br>Orange<br>Stripes | May be specified for hot petroleum/water mixtures, hyrdocarbons, air<br>with oil vapors, vegetable and mineral oils, engine oil, transmission oil.<br>UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C<br>and hot +180°F/+82°C potable water service and ANSI/NSF 372.       |  |  |
|       | Stand                             | ard Seal - Vic-Press™                                 | products will ship       | with Grade "H" seal unless otherwise specified on your order  |  |  |
| E     | –30°F to +250°F<br>–34℃ to +121℃  | EPDM<br>Ethylene<br>Propylene Diene<br>Monomer        | Green<br>Stripe          | May be specified for hot water service, dilute acids, oil-free air,<br>chemical services. UL Classified in accordance with ANSI/NSF 61 for<br>cold +73°F/+23°C and hot +180°F/+82°C potable water service and<br>ANSI/NSF 372.<br>NOT COMPATIBLE FOR USE WITH PETROLEUM OR<br>STEAM SERVICES. |  |  |
| 0     | +20°F to +300°F<br>–7°C to +149°C | Fluoroelastomer                                       | Blue<br>Stripe           | May be specified for oxidizing acids, petroleum oils, halogenated<br>hydrocarbons, lubricants, hydraulic fluids, organic liquids, and air<br>with hydrocarbons.<br>NOT COMPATIBLE FOR USE WITH HOT WATER OR STEAM SERVICES.   |  |  |

<sup>1</sup> For specific chemical and temperature compatibility, refer to the <u>Gasket Chemical Services Guide Long Report</u> (GSG-100) located on victaulic.com. The information shown defines general ranges for all compatible fluids.

#### NOTE

• Vic-Press<sup>™</sup> seals are pre-lubricated. No additional lubrication is required for installation.

## 4.0 DIMENSIONS

### Series P569

Working Pressure: 400 psi/2758 kPa

Vic-Press<sup>™</sup> for Schedule 10S x Vic-Press<sup>™</sup> Schedule 10S (P x P)



| Size    |                               |                 | Weight |        |        |                       |
|---------|-------------------------------|-----------------|--------|--------|--------|-----------------------|
| Nominal | Actual<br>Outside<br>Diameter | A<br>End to End | В      | С      | E      | Approximate<br>(Each) |
| inches  | inches                        | inches          | inches | inches | inches | lb                    |
| DN      | mm                            | mm              | mm     | mm     | mm     | kg                    |
| 1/2     | 0.840                         | 8.44            | 2.24   | 1.06   | 4.02   | 1.5                   |
| DN15    | 21.3                          | 214.3           | 56.9   | 26.9   | 102.1  | 0.7                   |
| 3⁄4     | 1.050                         | 8.63            | 2.64   | 1.06   | 4.96   | 2.4                   |
| DN20    | 26.7                          | 219.2           | 67.0   | 26.9   | 126.0  | 1.1                   |
| 1       | 1.315                         | 9.23            | 2.76   | 1.19   | 5.00   | 3.6                   |
| DN25    | 33.4                          | 234.4           | 70.1   | 30.2   | 127.0  | 1.6                   |
| 1 1/2   | 1.900                         | 10.11           | 3.74   | 1.38   | 6.14   | 6.9                   |
| DN40    | 48.3                          | 256.8           | 95.0   | 35.1   | 156.0  | 3.1                   |
| 2       | 2.375                         | 10.46           | 4.02   | 1.63   | 7.52   | 9.5                   |
| DN50    | 60.3                          | 265.7           | 102.1  | 41.4   | 191.0  | 4.3                   |

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### 4.0 DIMENSIONS (CONTINUED)

## Series P569

Working Pressure: 400 psi/2758 kPa

Groove x Groove (G  $\times$  G)



| Size    |                               |                 | Weight |        |                       |
|---------|-------------------------------|-----------------|--------|--------|-----------------------|
| Nominal | Actual<br>Outside<br>Diameter | A<br>End to End | В      | E      | Approximate<br>(Each) |
| inches  | inches                        | inches          | inches | inches | lb                    |
| DN      | mm                            | mm              | mm     | mm     | kg                    |
| 3⁄4     | 1.050                         | 8.81            | 2.64   | 4.96   | 2.4                   |
| DN20    | 26.7                          | 223.8           | 67.0   | 126.0  | 1.1                   |
| 1       | 1.315                         | 9.21            | 2.76   | 5.00   | 3.6                   |
| DN25    | 33.4                          | 234.0           | 70.1   | 127.0  | 1.6                   |
| 1 1⁄2   | 1.900                         | 11.25           | 3.74   | 6.14   | 6.9                   |
| DN40    | 48.3                          | 285.8           | 95.0   | 156.0  | 3.1                   |
| 2       | 2.375                         | 12.74           | 4.02   | 7.52   | 9.5                   |
| DN50    | 60.3                          | 323.6           | 102.1  | 191.0  | 4.3                   |

#### NOTE

For dimensions and weights with gear operator contact Victaulic.

### Vic-Press<sup>™</sup> Schedule 10S x Groove (P x G)



| Size    |                               |                 | Weight |      |        |                       |
|---------|-------------------------------|-----------------|--------|------|--------|-----------------------|
| Nominal | Actual<br>Outside<br>Diameter | A<br>End to End | В      | С    | E      | Approximate<br>(Each) |
| inches  | inches                        | inches          | inches | Lbs. | inches | lb                    |
| DN      | mm                            | mm              | mm     | kg   | mm     | kg                    |
| 3⁄4     | 1.050                         | 8.72            | 2.64   | 1.06 | 4.96   | 2.4                   |
| DN20    | 26.7                          | 221.5           | 67.0   | 26.9 | 126.0  | 1.1                   |
| 1       | 1.315                         | 9.21            | 2.76   | 1.19 | 5.00   | 3.6                   |
| DN25    | 33.4                          | 234.0           | 70.1   | 30.2 | 127.0  | 1.6                   |
| 1 1⁄2   | 1.900                         | 10.68           | 3.74   | 1.38 | 6.14   | 6.9                   |
| DN40    | 48.3                          | 271.3           | 95.0   | 35.1 | 156.0  | 3.1                   |
| 2       | 2.375                         | 11.60           | 4.02   | 1.63 | 7.52   | 9.5                   |
| DN50    | 60.3                          | 294.6           | 102.1  | 41.4 | 191.0  | 4.3                   |

#### NOTE

• For dimensions and weights with gear operator contact Victaulic.





### 5.0 PERFORMANCE

### Flow Characteristics

Flow testing for the Vic-Press<sup>™</sup> Series P569 three-piece Ball Valve demonstrated superior flow characteristics.

Testing was performed in our own engineering laboratory facilities with systems and equipment calibrated to National Bureau of Standards.

 $C_v/K_v$  values for flow of water at +60°F/+16°C with a fully open valve are shown in tables below.

### Formulas for Cv values

|   | 00.000            | Flow Coe                      | fficient         | Cv               | Kv    |  |
|---|-------------------|-------------------------------|------------------|------------------|-------|--|
| $\Delta P = Q^2 / Cv^2 \qquad \Delta F$ | $= Q^2/Kv^2$      | Q (Flow)                      |                  | GPM              | m³/hr |  |
| $Q = CV \times \sqrt{\Delta P}$ Q =     | = Kv × γΔΡ        | ΔP (Pressure Drop)            |                  | psi              | bar   |  |
| Va                                      | Full Open         |                               |                  |                  |       |  |
| Nominal                                 | Ac<br>Out<br>Diar | Actual<br>Outside<br>Diameter |                  | Flow Coefficient |       |  |
| inches                                  | inches incl       |                               |                  | Cv               |       |  |
| DN                                      |                   | ım                            | ו K <sub>⊻</sub> |                  |       |  |
| 1/2                                     | 0.8               | 0.840                         |                  | 10               |       |  |
| DN15                                    | 2                 | 21.3                          |                  | 9                |       |  |
| 3⁄4                                     | 1.0               | 1.050                         |                  | 17               |       |  |
| DN20                                    | 2                 | 6.7                           |                  | 14               |       |  |
| 1                                       | 1.3               | 1.315 45                      |                  | 45               |       |  |
| DN25                                    | 3                 | 33.4                          |                  | 39               |       |  |
| 1 1/2                                   | 1.9               | 1.900                         |                  | 125              |       |  |
| DN40                                    | 4                 | 48.3                          |                  | 107              |       |  |
| 2                                       | 2.3               | 2.375                         |                  | 365              |       |  |
| DN50                                    | 6                 | 0.3                           | 314              |                  |       |  |

### Series P569 Repair Kits

Kits and replacement parts are available for the Series P569 valve.

The Repair Kit consists of one CF8M stainless steel ball, two seats, two gaskets, one stem seal and one thrust washer, all made of PTFE.

For replacement stem information, contact Victaulic.

| S                                   | Repair Kit                    |               |  |
|-------------------------------------|-------------------------------|---------------|--|
| Nominal                             | Actual<br>Outside<br>Diameter |               |  |
| inches                              | inches                        |               |  |
| DN                                  | mm                            | Part No.      |  |
| ½<br>DN15                           | 0.840                         | K-004-569-0P2 |  |
| <sup>3</sup> / <sub>4</sub><br>DN20 | 1.050 26.7                    | K-006-569-0P2 |  |
| 1<br>DN25                           | 1.315<br>33.4                 | K-010-569-0P2 |  |
| 1 ½<br>DN40                         | 1.900<br>48.3                 | K-014-569-0P2 |  |
| 2<br>DN50                           | 2.375                         | K-020-569-0P2 |  |



### 6.0 NOTIFICATIONS

## 

 Vic-Press<sup>™</sup> for Schedule 10S products for Type 316 stainless steel must only be used on services compatible with seal and fitting materials.

Incompatible services may result in leakage. Always reference the latest Victaulic Gasket Selection Guide (05.01) for specific seal service recommendations and for a listing of services which are not recommended.

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It is the responsibility of designers of piping systems to verify the suitability of ASTM A312 Schedule 10S Type 316 stainless steel pipe for use with the intended fluid media. The fluid's chemical composition, pH level, operating temperature, chloride level, oxygen level and flow rate and their effect on ASTM A312 Type 316 stainless steel must be evaluated by the material specifier to confirm system life will be adequate for the intended service.

Failure to do so may cause serious personal injury or property damage.

#### 7.0 REFERENCE MATERIALS

02.06: Approvals for Potable Water Products

05.01: Victaulic Seal Selection Guide

10.01: Victaulic Fire Protections Certifications/Listings Guide

18.11: Vic-Press™ for Schedule 10S Type 316 Stainless Steel

18.12: Vic-Press™ for Schedule 10S Type 304 Stainless Steel

18.13: Vic-Press<sup>™</sup> for Schedule 10S Qualification Test Data

18.16: Vic-Press™ for Schedule 10S ASME B31.1 Compliance

18.17: Vic-Press™ for Schedule 10S ASME B31.3 Compliance

18.18: Vic-Press<sup>™</sup> for Schedule 10S ASME B31.9 Compliance

I-P500: Victaulic Field Installation Handbook Vic-Press™ Schedule 10S System Products

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, 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.

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