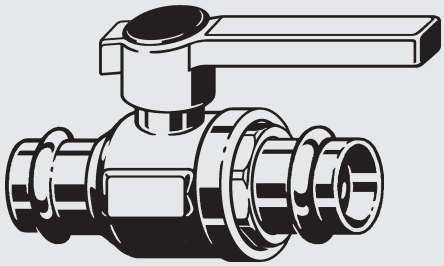
ProPress® SYSTEM w/ Smart Connect Feature™

RIDGID Viega®

Product Specification

Bronze Ball Valve

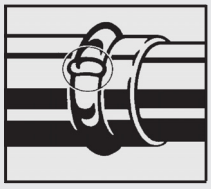
Available in sizes:
1/2", 3/4", 1", 1-1/4", 1-1/2", and 2"



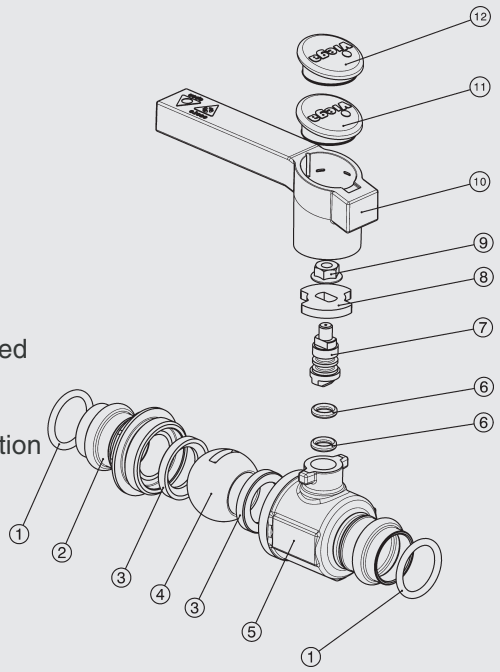
Description

- ProPress press ends
- Full port, two piece design
- Blowout-proof brass stem
- Reinforced PTFE seats
- 600 WOG
- Conforms to MSS SP-110
- NSF-61 Approved

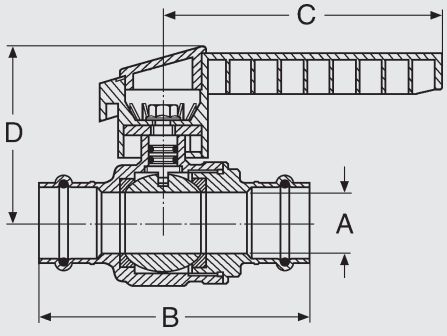
SC Feature



ProPress ½" to 2" fittings are equipped with the Smart Connect Feature™ for easy identification of unpressed connections during pressure testing.



Part	Description
1	EPDM Sealing Element
2	Bronze Valve Body End Piece
3	PTFE Seat
4	Chrome Plated Ball
5	Bronze Valve Body
6	EPDM Sealing Element
7	Brass Stem
8	Galvanized Steel Washer
9	Galvanized Steel Nut
10	Plastic POM Handle
11	Plastic POM Handle Cap Blue
12	Plastic POM Handle Cap Red



Size	Dim. A [in]	Dim. A [mm]	Dim. B [in]	Dim. B [mm]	Dim. C [in]	Dim. C [mm]	Dim. D [in]	Dim. D [mm]
1/2"	0.63	16.1	3.39	85.0	3.86	98.0	2.54	64.5
3/4"	0.89	22.5	3.82	97.0	3.86	98.0	2.62	66.5
1"	1.14	28.9	4.29	109.0	4.43	112.5	2.80	71.0
1-1/4"	1.39	35.4	4.69	119.0	4.43	112.5	3.23	82.0
1-1/2"	1.64	41.7	5.61	142.5	4.69	119.0	3.35	85.0
2"	2.14	54.4	6.76	171.6	4.69	119.0	3.66	93.0

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ProPress SYSTEM

RIDGID Viega

Engineering Specification

BRONZE BALL VALVES

PART 1: GENERAL

1.1 SUMMARY

A. General duty press end type bronze ball valve

1.2 DEFINITIONS

A. The following are standard abbreviations for valves:

1. WOG: Water, Oil, Gas
2. EPDM: Ethylene-propylene-diene terpolymer rubber
3. PTFE: Polytetrafluoroethylene plastic

1.3 REFERENCES

A. ASME B16.18 Cast Copper Alloy Solder Joint Pressure Fittings

B. ASME B16.22 Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

C. ASME B31.9 Building Services Piping

D. ASTM B75 Standard Specification for Seamless Copper Tube

E. ASTM B88 Standard Specification for Seamless Copper Water Tube

F. IAPMO Uniform Mechanical Code

G. IAPMO Uniform Plumbing Code

H. ICC International Plumbing Code

I. ICC International Mechanical Code

J. NFPA 13 Standard for the Installation of Sprinkler Systems

K. NFPA 13D Standard for the Installation of Sprinkler Systems in One and Two Family Dwellings and Mobile Homes

K. NFPA 13R Standard for the Installation of Sprinkler Systems for Residential Occupancies Up to and Including Four Stories in Height

L. NFPA 14 Standard for the Installation of Standpipe and Hose System

M. NSF 61 Drinking Water System Components – Health Effects

N. ASTM B 584 Standard Specification for Copper Alloy Sand Casting for General Applications

O. ASTM A112.4.14 Manually Operated Quarter Turn Shutoff Valves for Use in Plumbing Systems

1.4 QUALITY ASSURANCE

A. The installer shall be a qualified installer, licensed within the jurisdiction and familiar with the installation of copper tubing

B. The installation of ball valves for hot and cold water distribution systems shall conform to the requirements of the ICC International Plumbing Code or IAPMO Uniform Plumbing Code. The installation of ball valves in sprinkler or standpipe systems shall conform to NFPA 13, 13D, 13R and 14. The installation of copper tubing in hydronic systems shall conform to the requirements of the ICC International Mechanical Code or the IAPMO Uniform Mechanical Code

OR

C. ASME Compliance: ASME B31.9 for building services piping valves

D. Press end ball valves shall have the Smart Connect™ Feature (SC Feature). In ProPress 1/2" to 4" dimensions the Smart Connect Feature assures leakage of liquids and/or gases from inside the system past the sealing element of an **un**pressed connection. The function of this feature is to provide the installer quick and easy identification of connections which have not been pressed prior to putting the system into operation

1.5 DELIVERY, STORAGE AND HANDLING

A. Prepare valves for shipping as follows:

1. Protect internal parts against rust and corrosion
2. Protect press ends
3. Set ball valves open to minimize exposure of functional surfaces

B. Use the following precautions during storage:

1. Maintain valve end protection
2. Store valves indoors and maintain at higher than ambient dew-point temperature. If outdoor storage is necessary, store valves off the ground in watertight enclosures

1.6 WARRANTY

A. The manufactures shall warrant the valve to be free from defects in material or workmanship. The manufacturers shall warrant the functionality of valve for approved applications, installed according to manufacturer's installation instructions

B. The manufacturer of the tubing and fittings shall not be responsible for the improper use, handling or installation of the product

PART 2: PRODUCTS

2.1 MANUFACTURERS

A. Ball Valves: Viega NA, 3 Alfred Circle, Bedford, MA 01730, Telephone: (781) 275-3122, website: www.viega.com

2.2 MATERIAL

A. Ball Valves (Plumbing): Ball valves 2 inch or less in diameter for plumbing systems shall conform to ASME A112.4.14

B. Bronze valves shall be made with dezincification-resistant materials. Bronze valves made with copper alloy (brass) containing more than 15 percent zinc are not permitted

C. Two piece, Bronze Ball Valves: Bronze body with full port, chrome plated ball, PTFE seats, 600 WOG minimum rating and blow-out proof stem

D. Bronze Ball Valves, General: MSS SP-110 and have bronze body complying with ASTM B 584, except for Class 250 which shall comply with ASTM B 61

Engineering Specification

E. Press Fitting: Copper press fitting shall conform to the material and sizing requirements of ASME B16.18 or ASME B16.22. sealing elements for copper press fittings shall be EPDM

F. Ball valves shall be equipped with a plastic or metal handle

1. Plastic Handle shall be made of DuPont POM, polyoxymethylen

G. Ball Valve Press end will be equipped with a sealing element made of EPDM

2.3 BALL VALVES, GENERAL

A. Ball Valves shall be rated 600 WOG

B. Valve shall be the size as identified on the plans

2.4 SOURCE QUALITY CONTROL

A. All ball valves in contact with drinking water shall be listed by a third party agency to NSF 61

PART 3: EXECUTION

3.1 EXAMINATION

A. Examine piping system for compliance with requirements for installation tolerances, imperfections in pipe and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected

B. The contractor shall examine valve interior for cleanliness, freedom from foreign matter and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling

C. Operate valves in positions from fully opened to fully closed. Examine guides and seats made accessible by such operations

D. Examine threads on valve

Engineering Specification

3.2 PREPARATION

A. Press connection fitting should be inspected to assure sealing element is in place

B. Pipes shall be properly reamed and de-burred prior to insertion into press connection type valve to prevent possible damage to sealing element

3.3 VALVE INSTALLATION

A. Install valves with unions or flanges at each piece of equipment arranged to allow service, maintenance and equipment removal without system shutdown

B. Locate valves for easy access

C. Install valves in position to allow full stem movement

D. Ball valves that are remotely located shall have a metal tag indicating the section of pipe that it isolates

E. Press Connections shall be made according to manufacturer's installation instructions

F. Press Connections shall be made using tooling and equipment as specified by manufacturer

3.4 VALVE APPLICATIONS

A. Domestic Water Systems: 2" and smaller, two-piece construction, 600 WOG rating, copper alloy

B. Chilled Water Systems: 2" and smaller, two-piece construction, 600 WOG rating, copper alloy

C. Condenser Water Systems: 2" and smaller, two-piece construction, 600 WOG rating, copper alloy

D. Compressed Air Systems: 2" and smaller, two-piece construction, 600 WOG rating, copper alloy

E. Heating Water Systems: 2" and smaller,two-piece construction, 600 WOG rating, copper alloy

F. Low-Pressure Steam Systems: 2" and smaller, two-piece construction, 600 WOG rating, copper alloy

ProPress® SYSTEM w/ SC Feature™

RIDGID Viega™

Frequently Asked Questions

Ball Valves

Q: What is the benefit of a bronze body ball valve over a brass body ball valve?

A: Bronze ball valves have a superior resistance to cracking over brass body valves. In addition, bronze is dezincification resistant.

Q: Do Viega Ball Valves have a blow-out proof stem?

A: Yes. Viega valves stems are bottom loaded therefore the valve body holds the stem in place. This type of construction is considered blow-out proof.

Q: Is there any advantage to offering a double sealing element press connection?

A: No. There is absolutely no advantage for a second sealing element as the first sealing element provides the double compression, leak-proof seal without the need for a second. ProPress Ball Valves have the same connections as ProPress fittings.

Q: What is the advantage of using Viega Ball Valves?

A: Viega Ball Valves are made of the same high quality materials and exceed all testing requirements as the ProPress System. Viega can then guarantee the proper function of the entire system. Use of non-Viega components do not fall under the Viega warranty. The Viega Ridgid ProPress system is specifically designed for use with Viega press fittings and Viega components.

Q: Does Viega utilize a hollow ball or solid ball?

A: A solid ball.

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Frequently Asked Questions

Q: Why choose a plastic handle over a metal handle?

A: Plastic handles are not subject to corrosion and offer an advantage to metal handles in humid or wet environments. The plastic handle includes color-coated caps allowing for easy recognition of hot and cold lines near the valve. In addition, the plastic eliminates possible condensation from the handle.

Q: What applications are approved with Viega Ball Valves?

A: Any applications that utilize an EPDM sealing element.

Q: What are the ratings for Viega Ball Valves?

A: Viega Ball Valves are rated to 600 WOG and have an operating temperature of 250°F.

Q: What is the Smart Connect Feature?

A: Viega's patented **Smart Connect Feature** provides quick and easy identification of **un**pressed connections during the pressure testing process. Unpressed connections are located by pressurizing the system with a **maximum range of ½-85 psi for gases and 15-85 psi for** liquids. The SC Feature is a special indentation in ½"-2" dimensions located on the inside surface of the fitting near the sealing element. This indentation assures leakage of liquids and/or gases from inside the system past the sealing element of an unpressed connection. The indentation is removed during the pressing process creating a leak-proof, permanent connection.

Q: What approvals do Viega Ball Valves have?

A: Viega Ball Valves currently have NSF-61 approval and a pending IAPMO approval.

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