



Only ball valves marked with NSF-61 and NSF 372 are allowed for use in potable water systems.



CAUTION!

Pipe wrench flats are not allowed on the valve body, the press ends, or any other piece. Do not clamp the ball valve in a vice.

- 13** A Vertical clearance
 B Horizontal clearance
 C Minimum clearance between 2 ball valves
 D Minimum clearance between 2 ball valves, handles facing each other

Ball Valve	a for A, B, C	a for A, B, C	a for D	a for D
2½"	13"	330 mm	23.6"	600 mm
3"	13"	330 mm	23.6"	600 mm
4"	13"	330 mm	23.6"	600 mm



Viega recommends providing pipe hangers with a distance of 6" to 8" in front of and behind the press connections or in accordance with local codes.



CAUTION!

Ball valves are to be used in only the fully closed or fully opened position.

Pressure Testing with Smart Connect

Unpressed connections are located by pressurizing the system with air or water. When testing with water the proper pressure range is 15 psi to 85 psi. When testing with compressed air the proper pressure range is ½ psi to 45 psi maximum. If testing with compressed air, use an approved leak-detect solution. Following a successful pressure test, the system may be pressure tested up to 200 psi with air or up to 600 psi with water.



Testing for unpressed connections using Smart Connect is not a replacement for pressure testing requirements of local codes and standards.



CAUTION!

The use of ProPress ball valves for applications other than those listed in the approved [Application Chart](#) must be approved by the Viega Technical Services Department.



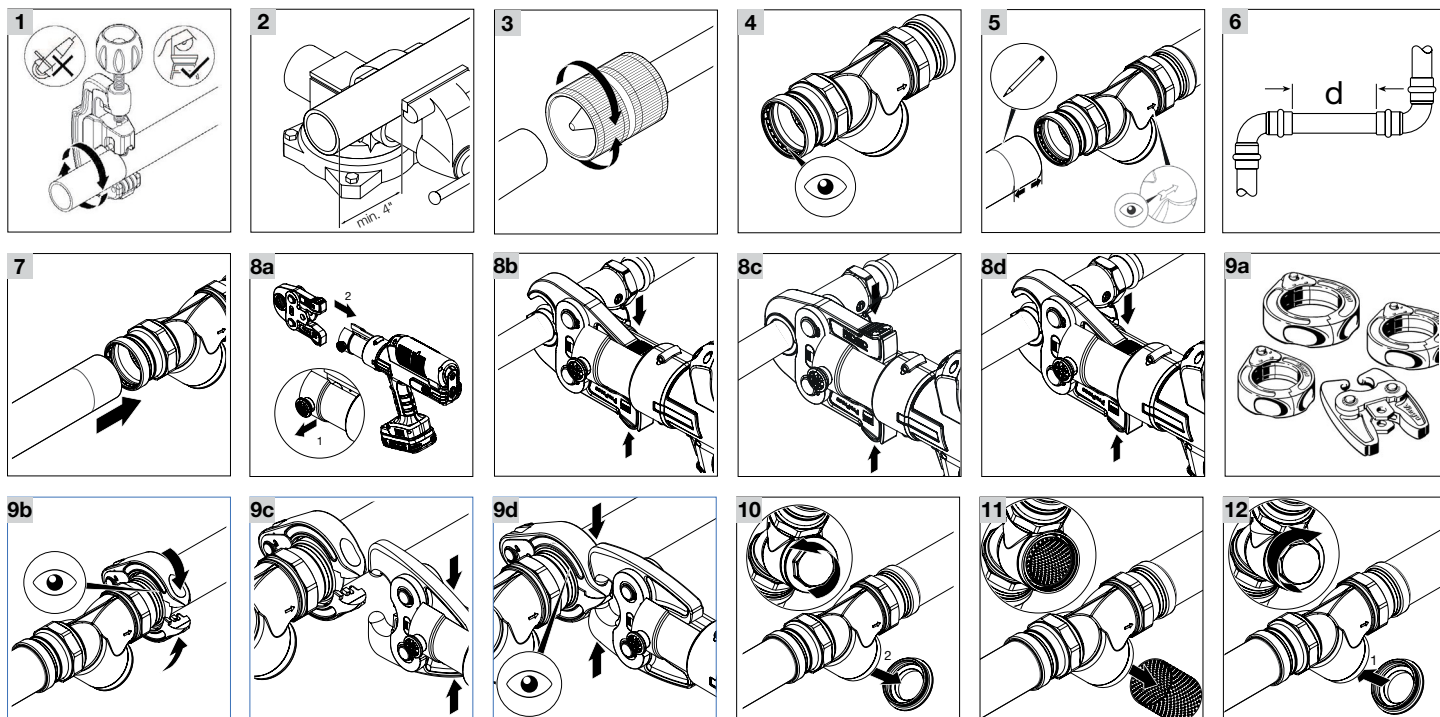
CAUTION!

Additional protection or coating may be necessary for applications that deviate from the general descriptions or for special ambient conditions. Please consult Viega Technical Service.

Product Instructions

ProPress Strainer Valve

Models 2981.1ZL and 2981.1XL



DANGER!
Read and understand all instructions for installing Viega ProPress fittings. Failure to follow all instructions may result in extensive property damage, serious injury, or death.

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depth marking be visible on the completed assembly. Make sure the flow direction indicator on the valve is facing the correct direction.

Viega ProPress Insertion Depth Chart

Tube Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Insertion Depth	3/4"	7/8"	7/8"	1"	1 1/16"	1 1/16"	1 11/16"	1 15/16"	2 3/8"

i Copper tubing must be free of surface imperfections, including metal stamped print lines, before a ProPress valve is installed.

6 Refer to the following chart for minimum distance between fittings. To ensure a correct press, a minimum distance between press fittings must be maintained. Failure to provide this distance may result in an improper seal.

Tube Diameter (in)	d (in)	d (mm)
1/2	0	0
3/4	0	0
1	0	0
1 1/4	7/16	10
1 1/2	5/8	15
2	3/4	20
2 1/2	5/8	15
3	5/8	15
4	5/8	15

7 While turning slightly, slide valve onto tubing to the marked depth. End of tubing must contact stop.

Warning!
Keep extremities and foreign objects away from press tool during pressing operation to prevent injury or incomplete press.

Pressing 1/2" to 2" Valves

8a Insert appropriate Viega ProPress jaw into the press tool and push in, holding pin (1) until it locks in place.

8b Open the jaw and place at right angle on the valve. Visually check insertion depth using mark on tubing.

8c Hold trigger on press tool until press jaws have fully engaged the valve.

8d After pressing, open the jaw and remove the press tool. Repeat steps for the other end of the valve.

Install

- 1** Cut copper tubing square using displacement-type cutter or fine-toothed saw.
- 2** Cut tubing a minimum of 4" away from the contact area of the vise to prevent possible damage to the tubing in the press area.
- 3** Remove burr from inside and outside of tubing and prep to proper insertion depth using a preparation tool or fine grit sandpaper.
- 4** Check the sealing element for correct fit. Do not use oils or lubricants.
- 5** Mark proper insertion depth as indicated by the Viega ProPress Insertion Depth Chart. Improper insertion depth may result in improper seal. It is recommended that the

Pressing 2½" to 4" Valves

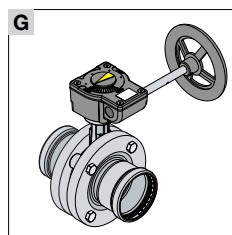
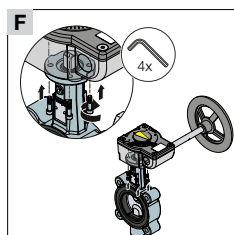
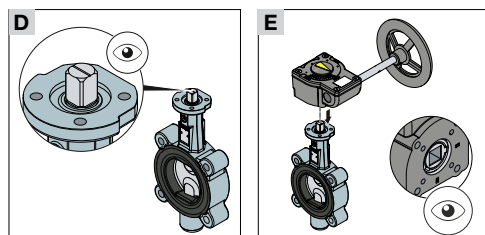
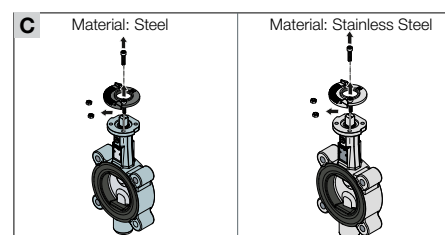
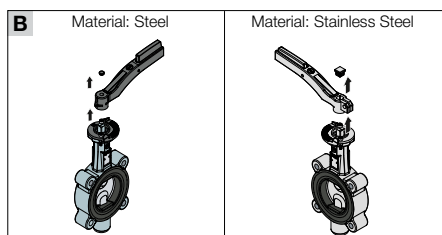
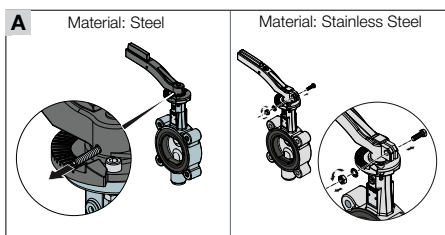
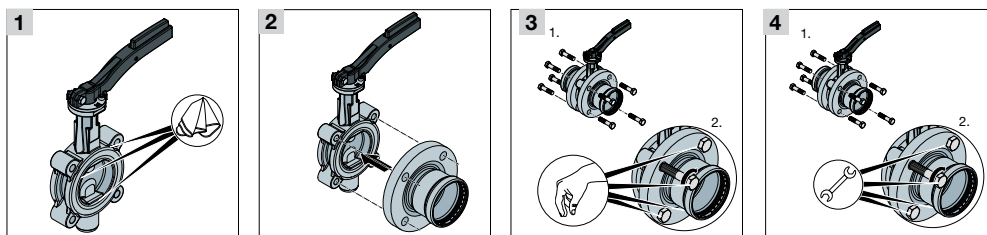
- 9a** ProPress 2½" to 4" connections must be performed with rings that are compatible. Do not mix actuators and rings from different manufacturers.
- 9b** Open XL-C ring and place at right angles on the fitting. XL-C ring must be engaged on the fitting bead. Check insertion depth.
- 9c** With V2 actuator inserted into the tool, open the V2 actuator as shown and connect V2 actuator to the XL-C ring.
- 9d** Hold the trigger until the V2 actuator has fully engaged the XL-C ring. Keep extremities and foreign objects away from XL-C ring and V2 actuator during pressing operation to prevent injury or incomplete press. Release V2 actuator from XL-C ring and then remove the XL-C ring from the fitting on completion of press.

Maintenance

- 10** To replace strainer, twist the knob counter-clockwise until lid screws off.
- 11** Remove strainer and debris and clean the strainer before reinstalling.
- 12** Double check the gasket on the cap, as well as the sealing surface on the valve. Screw lid back on in a clockwise motion either by hand or with a wrench.

Product Instructions

Viega Butterfly Valve Models 2979.8ZL, 5179.8, and 2979.88



Part no.	Size (in)	Bolt dimensions (in)	Recommended max. bolt torque (ft/lbs)
22074	2½	5/8 x 1½ - 11* (4 per flange)	75
22075	3	5/8 x 1½ - 11* (4 per flange)	
22076	4	5/8 x 1¾ - 11* (8 per flange)	

*Recommend bolt dimensions if using Viega flange adapter. Bolt dimensions for flanges according to ASME 16.5 may vary.



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Only the butterfly valve is included in the package; all other parts needed for assembly are not included.



DANGER!

Read and understand all instructions for installing Viega ProPress fittings. Failure to follow all instructions may result in extensive property damage, serious injury, or death.



The Viega Butterfly Valve is designed to be installed as an in-line or end-line valve.

Installing the Valve

To install the valve with Viega products, you will need the following products/tools:

- 1 - Viega butterfly valve (included)
- 2 - Viega flange adapters (ProPress or MegaPress)
- 3 - Seals for flange connections
- 4 - Nuts for threaded rod
- 5 - Threaded rod
- 6 - Washer for threaded rod

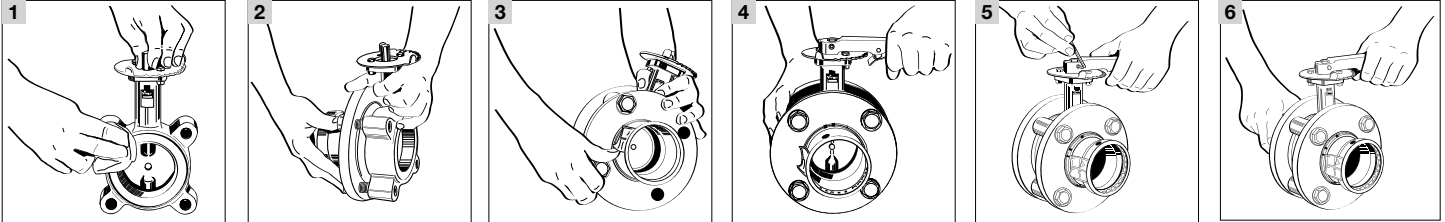
- 1 Ensure that the flange face and the butterfly valve sealing surface are clean and free of debris and that the valve is in the near closed position.
- 2 Place the butterfly valve between the flanges. Use the flange bolts to align and center the valve between the flanges.
- 3 Install flat washers on each bolt and tighten nuts to "finger tight."
- 4 Tighten the screws crosswise. If leaks are detected during the pressure test, re-tighten the screws to the maximum torque specified in the following table.

Installing the Gear Box

- A Remove the curb screw from the center of the handle shaft.
- B Remove the handle lever and the cap with a screwdriver.
- C Remove ring from top of valve by unscrewing bolts and washers connecting the ring to the valve.
- D Ensure that the top shaft of the valve is aligned in parallel with the valve and free of any debris.
- E When positioning the gear box, make sure that the sound shaft is positioned in the gear box with a positive fit.
- F Mount the gear box using the 4 screws included in the package. Hand-tighten the screws so that they do not come loose.
- G Graphic shows assembled valve with gear box.

Product Instructions

ProPress Butterfly Valve Model 2873.81



- 1 Ensure the flange face as well as the Butterfly Valve sealing surface are clean and free of debris and valve is in the near closed position.
- 2 Place the Butterfly Valve between the flanges. Use the flange bolts to align and center valve between the flanges.
- 3 Install flat washers on each bolt and tighten nuts to "finger tight".
- 4 Install Butterfly Valve handle by placing the handle over the stem and pushing the handle completely onto the stem.
- 5 Tighten handle set screw.
- 6 Open valve to full open position. Tighten to the recommended maximum bolt torque in the table below.
- 7 Position the Butterfly Valve in the required operating position by using the spring loaded locking indicator on the valve handle.

Part No.	Size (in)	Bolt Dimensions (in)	Recommended Max. Bolt Torque (ft/lbs)
22074	2½	⅝ x 1½ (4 per flange)	75
22075	3	⅝ x 1⅝ (4 per flange)	
22076	4	⅝ x 1¾ (8 per flange)	



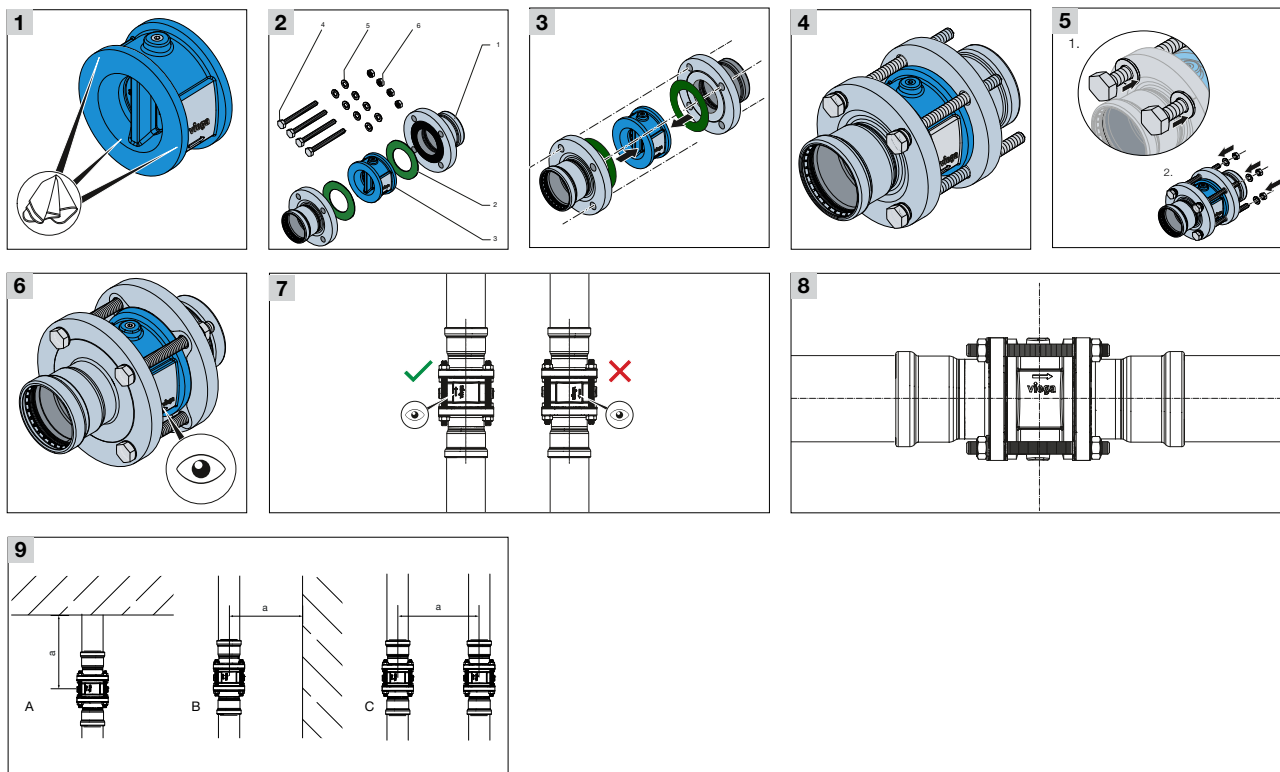
When using flanges other than Viega ProPress Adapter Flanges, bolt length requirements may vary.



The Viega ProPress Butterfly Valve is designed to be installed as an in-line or end-line valve.

Product Instructions

Wafer Check Valve Models 2974.3XL, 5174XL, and 5974XL



Only valves marked with NSF-61 and NSF-372 are allowed for use in potable water systems.



Only the wafer check valve is included in the package; all other parts needed for assembly are not included.



These instructions show how to install the valve with Viega products. They do not show any third-party products.



Cracking pressures for wafer check valves:
2½ – 0.032 psi
3 – 0.030 psi
4 – 0.026 psi



DANGER!

Read and understand all instructions for installing Viega ProPress fittings. Failure to follow all instructions may result in extensive property damage, serious injury, or death.

- 1 Take the valve out of the packaging and check the sealing surfaces. If cleaning is necessary, use a suitable tool to avoid damaging the sealing surfaces.
- 2 To install the valve with Viega products, you will need the following products/tools:
1 - Viega wafer check valve (included)
2 - Viega flange adapters (ProPress or MegaPress)
3 - Seals for flange connections
4 - Nuts for threaded rod
5 - Threaded rod
6 - Washer for threaded rod
- 3 Make sure that the flange with the seals and the valve are assembled properly. The center axes should lie on top of each other.
- 4 Insert the threaded rods through the holes provided in the flange. The threaded rods should all be shortened by one length for this purpose.
- 5 Screw the nuts with the washers onto the threaded rods as far as you can using hand-tightening or a suitable tool. Make sure that the nuts are tightened crosswise. An initial torque of 50 Nm should be assumed. If leaks do occur, the torque can be increased crosswise until there are no more leaks.

- 6 Check flow direction on valve before installing.
- 7 For vertical installation, it is essential to ensure that the flow direction is from bottom to top.
- 8 In horizontal installation positions, the hinge pin must remain in a vertical orientation.
- 9 The distances to walls and identical valves can be found in following the table:

Size (in)	Wall feed-through (in)	Wall distance (in)	Distance between valves (in)
ProPress (2974.3XL)			
2½	4.72	6.30	9.45
3	5.12	7.48	11.22
4	5.51	8.86	13.31
MegaPress (5174XL), MegaPress 316 (5974XL)			
2½	5.91	6.30	9.45
3	6.89	7.48	11.22
4	7.28	8.86	13.31



To ensure optimal performance, maintain at least 5 pipe diameters of straight, unobstructed pipe upstream of the valve and 2 pipe diameters downstream.