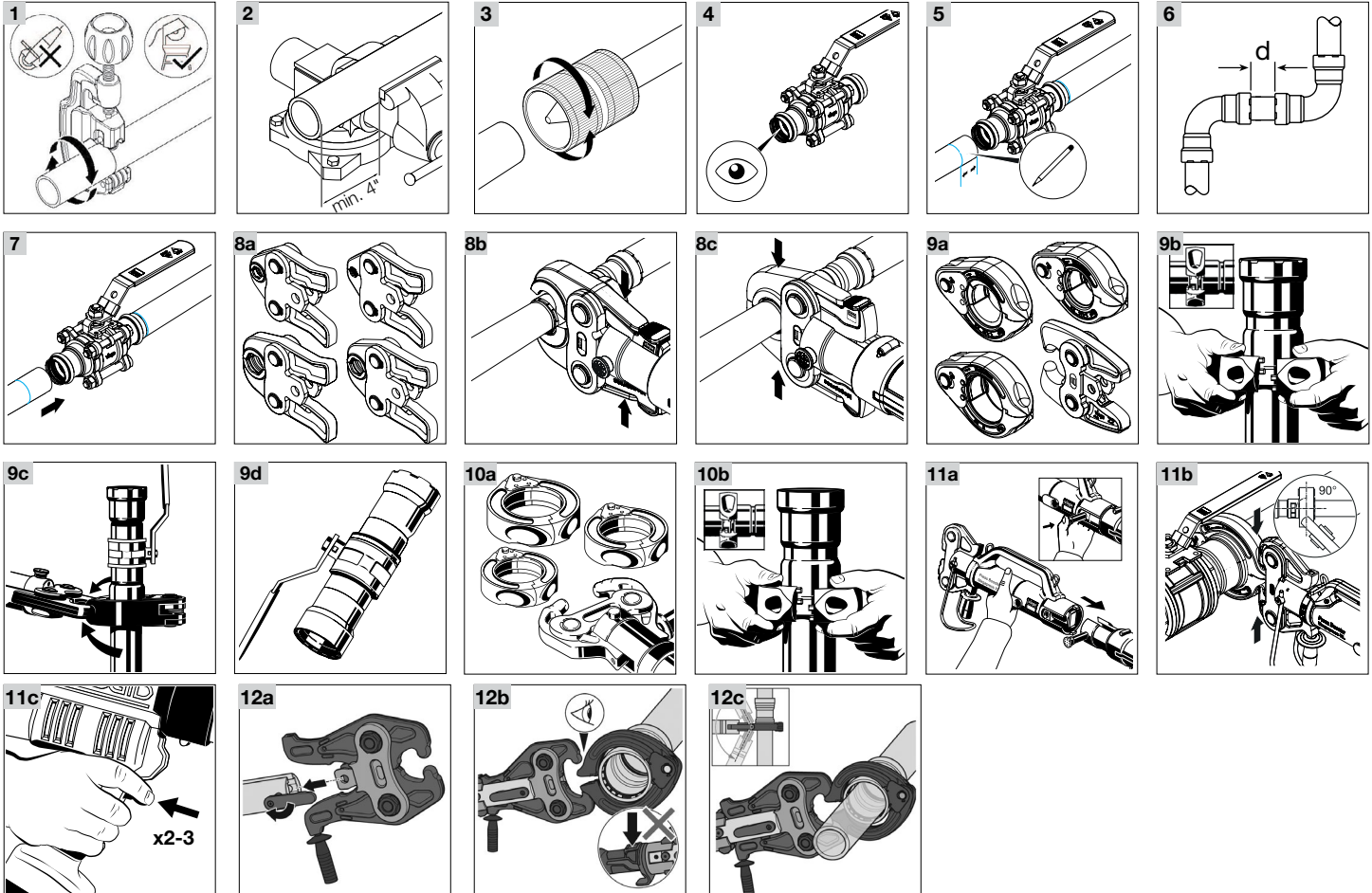


Product Instructions

MegaPress 3-Piece Ball Valves



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

- 1 Cut pipe square using displacement-type cutter or fine-toothed saw.
- 2 Keep end of pipe a minimum of 4" away from the contact area of the vise to prevent possible damage to the pipe in the press area.
- 3 Remove burr from inside and outside of the pipe and prep to proper insertion depth using a preparation tool or fine-grit sandpaper.
- 4 Check seal, separator ring, and grip ring for correct fit. Do not use oils or lubricants.
- 5 Mark proper insertion depth. Improper insertion depth may result in an improper seal. The depth marking shall be visible on the completed assembly.

Pipe Size (in)	Insertion Depth (in)
1/2	1 1/16
3/4	1 3/16
1	1 3/8
1 1/4	1 7/8
1 1/2	1 7/8
2	2
2 1/2	1 13/16
3	2 5/16
4	3 1/8

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

Pipe Diameter (in)	d (in)	d (mm)
1/2	1/4	6
3/4	1/4	6
1	1/4	6
1 1/4	1/2	13
1 1/2	1/2	13
2	1/2	13
2 1/2	1/2	13
3	1/2	13
4	1/2	13

- 7 While turning slightly, slide valve onto the pipe to the marked depth. End of pipe 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 1" Valves

- 8a Viega MegaPress 1/2" to 1" valves must be performed with MegaPress jaws.
- 8b Open the MegaPress jaw and place at right angles on the valve. Visually check insertion depth using mark on pipe.
- 8c Start pressing process and hold the trigger until the jaw has engaged the valve. Jaws will automatically release after a full press is made. Remove the MegaPress jaw from the valve.

Pressing 1½" to 2" Valves

- 9a** Viega MegaPress 1½" to 2" valves must be performed with MegaPress rings and V2 actuator.
- 9b** Open the MegaPress ring and place at right angles on the valve. The MegaPress ring must be engaged on the valve. Check insertion depth.
- 9c** Place V2 actuator onto the MegaPress ring and start pressing process. Hold the trigger until the actuator has engaged the MegaPress ring.
- 9d** Once the press is complete, release the V2 actuator from the MegaPress ring and then remove the MegaPress ring from the valve.

Pressing 2½" to 4" Valves

- 10a** Viega MegaPress 2½" to 4" valves must be made using MegaPress XL rings and either the MegaPress XL PressBooster or the MegaPress Z3 actuator.
- 10b** Open MegaPress XL ring and place at right angles on the valve. The MegaPress XL ring must be engaged on the fitting bead. Check insertion depth.

Pressing with MegaPress XL PressBooster

- 11a** Remove the retaining bolt of the press machine. Slide the PressBooster in via the press jaw fixture. Slide the retaining bolt of the press machine in as far as it will go.
- 11b** To open the PressBooster jaw, pull back the handle at the hinged adapter jaw. Place PressBooster onto the MegaPress XL ring by inserting the ball heads of the hinged adapter jaw into the contact points of the XL ring. Push the handle forward to close the hinged adapter jaw.
- 11c** Hold the trigger until the PressBooster has engaged the MegaPress XL ring. The PressBooster requires two presses of the trigger to execute a complete press. A third press may be needed to initiate a release cycle to reset the rollers back to the original position. Once the press is complete, release the PressBooster from the MegaPress XL ring and then remove the MegaPress XL ring from the valve.

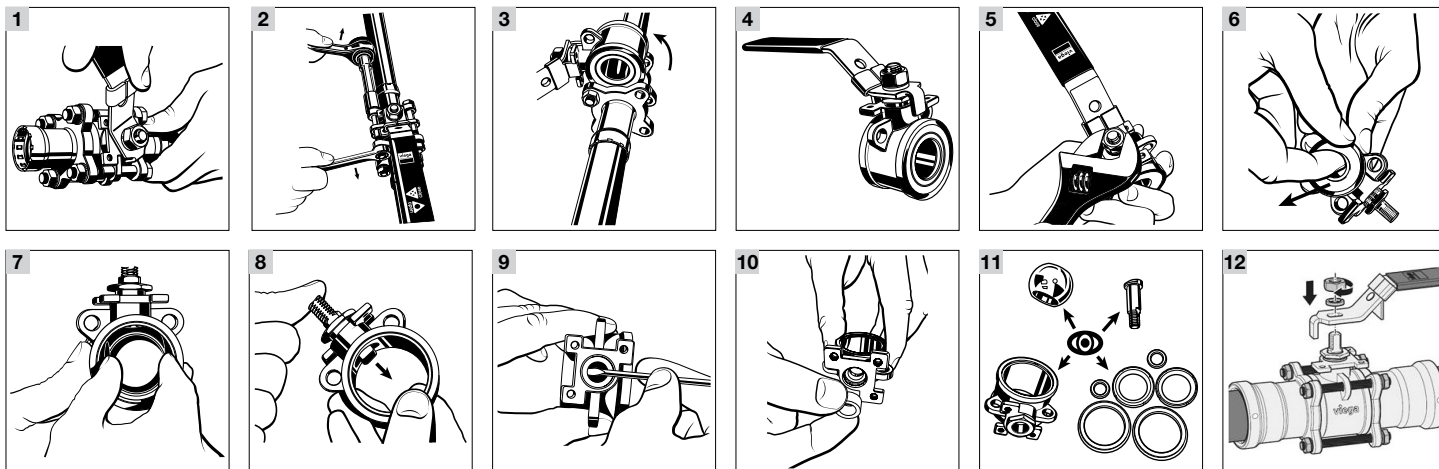
Pressing with MegaPress Z3 Actuator

- 12a** On the press tool, rotate the retaining pin handle 180 degrees and pull it out to open the slot for the actuator. Insert the Viega Z3 actuator into the slot on the press tool. On the press tool, push the retaining pin back in and rotate it 180 degrees.
- 12b** Open the Viega Z3 actuator by pulling the handle back. Place the open Viega Z3 actuator onto the MegaPress XL ring by inserting the ball heads of the actuator into the contact points of the XL ring. Close the Z3 actuator.
- 12c** Start the pressing process by holding the press tool trigger until the actuator has engaged the XL ring. When the press cycle is complete, the actuator will stop and release. Once the Z3 actuator releases, remove it from the MegaPress XL ring and then remove the MegaPress XL ring from the valve.

Product Instructions

MegaPress 3-Piece Ball Valve Maintenance

For MegaPress, MegaPress FKM, MegaPress 304 FKM, and MegaPress 316



- 1 Shut off the supply line. Open the ball valve.
- 2 Release the flange connections. Remove the bolts.
- 3 Remove the middle section of the ball valve laterally.
- 4 See illustration for example of separated middle section.
- 5 Remove the handle.
- 6 Remove the PTFE gaskets.
- 7 Remove the ball from the valve body.
- 8 Unscrew the stem nut and press out the stem from top to bottom.



Caution!

Check the interior components for dirt and damage before mounting. Clean the components if needed.

- 9 Swap the stem seal. Remove the gasket with a suitable tool.
- 10 Replace with new gasket.



Reassemble in the reverse order of the disassembly steps. Refer to the torque table below for body and stem nut torque requirements

- 11 Check to see that all components have been installed after reassembly.
- 12 Check to see that all components have been assembled in the correct order.

Operating Conditions

- Valves are not to be used in safety functions such as safety loops or separating incompatible fluids.
- Service must be compatible with the materials of construction. Valve selection is the responsibility of the designer/engineer/user to determine if the valve is appropriate for the intended service application.
- Dependent upon the application and the possibility of material deterioration in service, need for periodic inspections are the sole responsibility of the user.
- Supports must not be welded directly to any part of the valve.

- It is the responsibility of the system designer to implement adequate protection to minimize reaction forces and moments.
- It is the responsibility of the designer/installer to adhere to all applicable codes and standards.
- Valves are not to be used as flow control devices, use is for on-off service only (not to be used for throttling).
- Operating valves while exceeding the temperature and pressure limits may result in valve failures where chemical attack or corrosion generally occurs gradually.

Packing Nut Maintenance

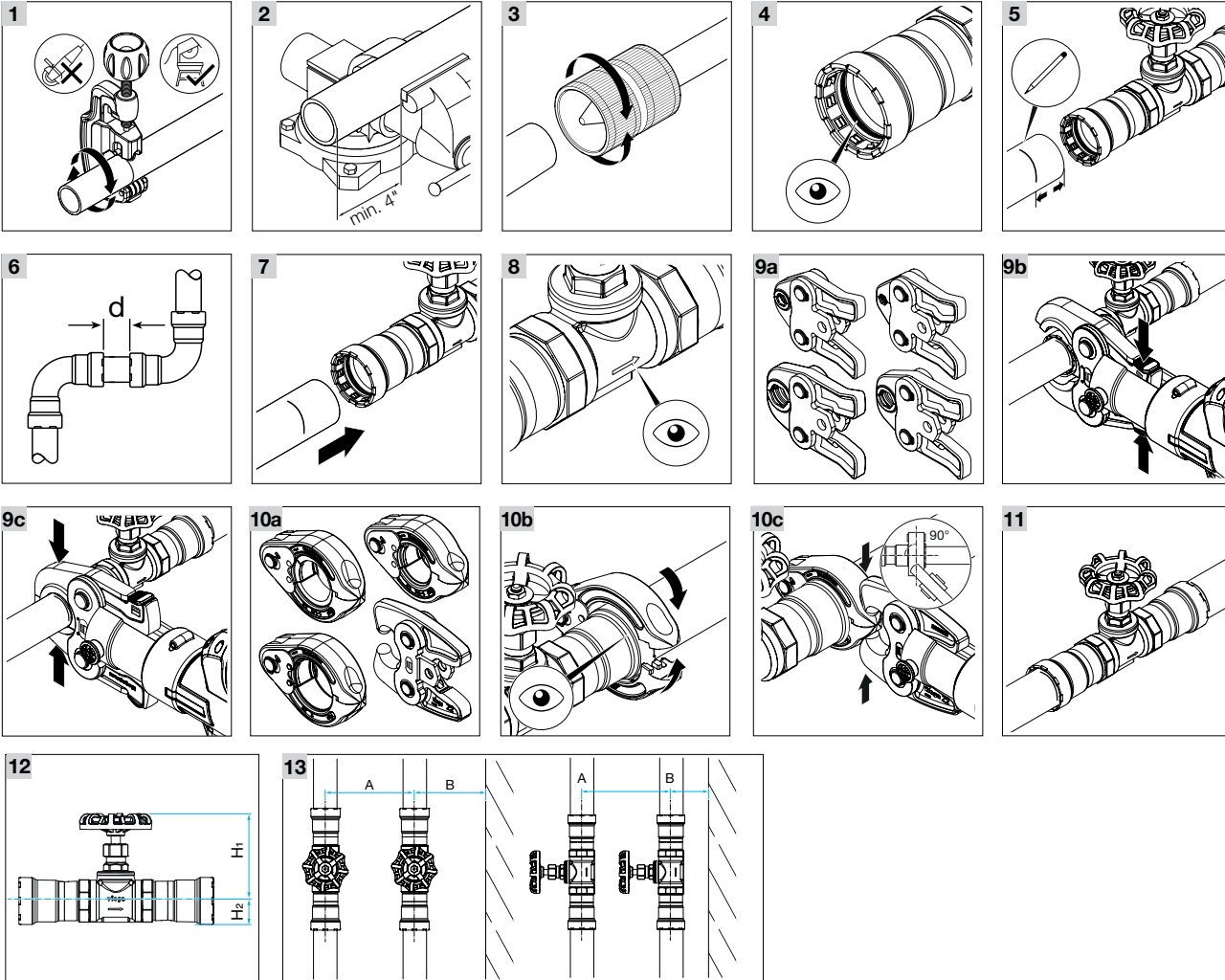
- The packing nut requires periodic adjustments. This involves tightening the packing nut at ¼ turn intervals. If a leak does develop, turn the packing nut clockwise ¼ turn at a time and then recheck, so as to not overtighten. In extreme or high use systems, check the packing nut regularly.
- Tightening must be carried out when the valve is depressurized.

VALVE SIZE*	Valve Body Bolt & Nut Size		Bolt Torque +/- 5		Valve Stem Nut Size	Handle Nut	
			ft/lbs	(Nm)		ft/lbs	(Nm)
½	M8 x 55	M8	7.5	(10)	AF 16	7.5	10
¾	M8 x 65	M8	15	(20)	AF 18	11	15
1	M10 x 75	M10	15	(20)	AF 21	11	15
1¼	M10 x 90	M10	22.5	(30)	AF 22	18.5	25
1½	M10 x 100	M10	22.5	(30)	AF 24	18.5	25
2	M10 x 100	M10	22.5	(30)	AF 24	18.5	25
2½	M12 x 140	M14	45	(60)	AF 30	26	(35)
3	M12 x 140	M14	45	(60)	AF 30	26	(35)
4	M12 x 140	M14	45	(60)	AF 30	26	(35)

*Sizes up to 3" have 4 bolt flanges; 4" has 6 bolt flanges.

Product Instructions

MegaPress Globe Valve Models 5185.1 and 5985.1



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.



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

- 1 Cut pipe square using displacement-type cutter or fine-toothed saw.
- 2 Keep end of pipe a minimum of 4" away from the contact area of the vise to prevent possible damage to the pipe in the press area.

- 3 Remove burr from inside and outside of the pipe and prep to proper insertion depth using a preparation tool or fine-grit sandpaper.
- 4 Check seal and grip ring for correct fit. Do not use oils or lubricants.

Viega MegaPress Insertion Depth Chart (in)

Pipe Size	1/2	3/4	1	1 1/4	1 1/2	2
Insertion Depth	1 1/16	1 1/16	1 3/8	1 13/16	1 7/8	2

- 5 Mark proper insertion depth as indicated by the Viega MegaPress Insertion Depth Chart. Improper insertion depth may result in improper seal. It is recommended that the depth marking be visible on the completed assembly.

- 6 Refer to the chart below 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.



Warning!

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

- 7 While turning slightly, slide valve onto the pipe to the marked depth. End of pipe must contact stop.
- 8 Make sure the flow direction indicator on the valve is facing the correct direction

- 9a** Viega MegaPress ½" to 1" fitting connections must be performed using MegaPress jaws. See the press tool's Operator's Manual for proper tool instructions.
- 9b** Open the MegaPress jaw and place at right angles on the fitting. Visually check insertion depth using mark on the pipe.
- 9c** Start pressing process and hold the trigger until the jaw has engaged the fitting. Jaws will automatically release after a full press is made.
- 10a** Viega MegaPress 1¼" to 2" connections must be performed with MegaPress rings and V2 actuator. See the tool's Operator's Manual for proper tool instructions.
- 10b** Open the MegaPress ring and place at right angles on the valve. The MegaPress ring must be engaged on the fitting bead. Check insertion depth.
- 10c** Place V2 actuator onto the MegaPress ring and start the pressing process. Hold the trigger until the actuator has engaged the MegaPress ring.
- 11** Remove MegaPress jaw from valve or release V2 actuator from the MegaPress ring and then remove the MegaPress ring from the valve on completion of press. Repeat steps for the other end of the valve.
- 12** Dimensions for each size:
- 13** The values in the below table reflect a combination of valve dimensions and MegaPress jaw clearance requirements. Reference the [Viega MegaPress Systems Installation Manual](#) for more details.

Size (in)	H1 Dimension (in)	H2 Dimension (in)
½	3.23	0.63
¾	3.23	0.75
1	3.74	0.89
1¼	4.21	1.10
1½	4.96	1.22
2	5.63	1.46

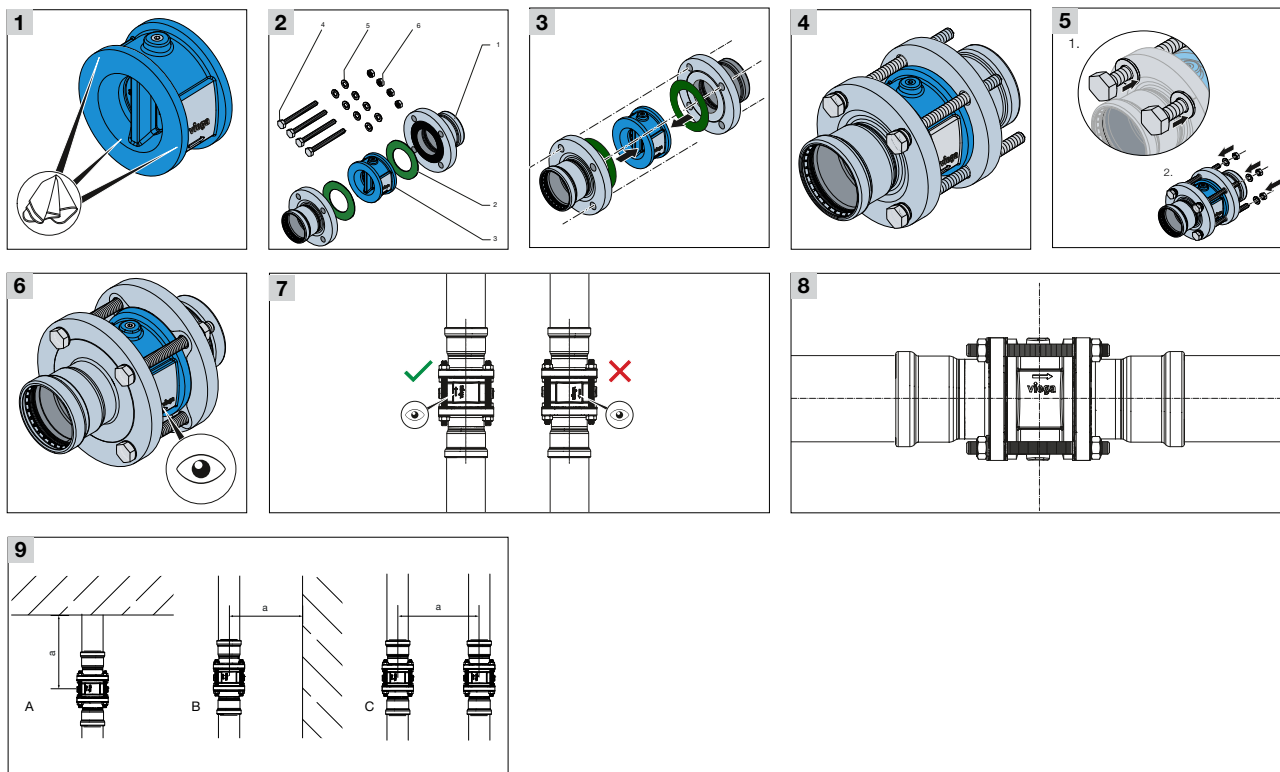


In case of leaks, the packing box can be re-tightened with 8-10 Nm.

Valve Position	A	B
Back-to-Back		
½	5.86	1.00
¾	6.36	1.25
1	7.37	1.75
1¼	9.08	3.75
1½	10.09	4.00
2	11.01	4.00
Side-by-Side		
½	2.63	1.00
¾	3.13	1.25
1	3.63	1.75
1¼	4.88	3.75
1½	5.13	4.00
2	5.38	4.00

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