

Pocket Guide

# Viega ProPress® Stainless Systems



**viega**

Viega.

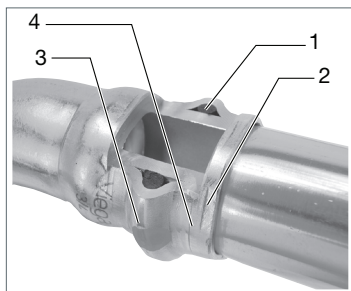
Connected in quality.

### Building on Tradition

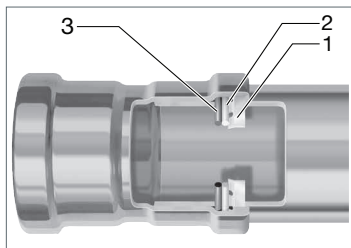
Founded 120 years ago, Viega is a privately owned, international group of companies. In the United States, Canada, Mexico, and Latin America, Viega specializes in plumbing, heating, and pipe joining technologies. The values of Viega's founder, Franz-Anselm Viegener, are just as present today as they were when he started the company in 1899. Courage, passion, and innovative spirit are still the basics of Viega's foundation.

### At Viega, safety is priority.

Safe, certain, and secure, Viega fittings are designed for peace of mind.



1. In all ProPress Stainless 1/2" to 2" fittings, each fitting contains an application specific sealing element. A green dot indicates an EPDM sealing element and a white dot indicates the presence of an FKM sealing element.
2. Viega's distinctive hexagonal pressing pattern bonds the fitting and tube and provides the mechanical strength for the connection.
3. Viega's unique Smart Connect® technology helps installers ensure that they have pressed all connections.
4. Cylindrical guides help installers ensure proper insertion of the tube and protect the sealing element.



1. In ProPress Stainless 2 1/2" to 4" fittings, the 420 stainless steel grip ring's teeth bite into the tube and lock the fitting securely in place.
2. A PBT (Polybutylene Terephthalate) separator ring protects the sealing element from damage by creating a positive physical separation during installation and later during pressing.
3. An application specific sealing element (FKM or EPDM) ensures watertight or air-tight connections.

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This document is subject to updates. For the most current Viega technical literature please [visit www.viega.us](http://www.viega.us).



Viega products are designed to be installed by licensed and trained plumbing and mechanical professionals who are familiar with Viega products and their installation. **Installation by non-professionals may void Viega LLC's warranty.**



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

## ProPress 304 FKM and 316 Systems

Viega ProPress Stainless systems are state-of-the-art press fitting systems that provide economical and reliable installations for the commercial, industrial, and residential markets.

Viega ProPress 304 FKM and ProPress 316 are stainless steel tube, fittings, and valves in copper tube size (CTS) ranging from ½ inch to 4 inches. The fittings require no brazing, threading, or welding and are installed with electro-hydraulic press tools (battery-powered or corded press tools).

Viega ProPress 304 FKM fittings feature a white dot representing Smart Connect technology with an FKM sealing element. Viega ProPress 316 fittings feature a green dot that represents Smart Connect technology with an EPDM sealing element. Viega's unique Smart Connect technology helps installers ensure that they have pressed all connections.

### Tubing

Viega stainless steel tubing is offered in ½ inch to 4 inches size in either 304 stainless steel or 316 stainless steel to complement the Viega ProPress Stainless fittings and offer a complete system solution. Viega stainless steel tubing meets the requirement of ASTM A312 or ASTM A554 for Schedule 5 304 and 316 stainless steel pipe.

Only Viega stainless tubing is approved for installation with Viega ProPress Stainless fittings. This is to ensure reliability and conformity with the stainless steel system.

Viega ProPress 304 FKM and ProPress 316 2½" to 4" fittings feature a stainless steel grip ring and PBT separator ring.



Stainless tubing is thicker than Schedule 5 inert gas welded pipes, meeting ASTM A312, A554 wall thickness requirements.

All tube diameters are delivered in nominal 20 foot lengths, with a metallic bare exterior and interior surface. The tubes are free from annealing color and corrosion-promoting substances.



Only ProPress stainless steel tubing is approved for installation with ProPress stainless fittings. This ensures reliability and conformity with the stainless steel system.

Viega ProPress for Stainless tubing is thicker than Schedule 5 inert gas welded pipes, meeting ASTM A312, A554, and DIN 1988 wall thickness requirements.

All diameters are delivered in nominal 20 foot lengths, with a metallic bare exterior and interior surface. The tubes are free from annealing color and corrosion-promoting substances.

All tubing has been tested for leaks and is subject to continuous quality monitoring as well as external monitoring by the material testing office



#### CAUTION!

It is the responsibility of designers of piping systems to verify the suitability of type 304 and 316 stainless steel pipe for use with the intended fluid media. The fluid's chemical composition, pH level, operation temperature, chloride level, oxygen level, and flow rate and their effect on AISI type 304 or 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. Contact Viega Technical Services for questions and approvals.

**Smart Connect Technology – Security Under Pressure**

Locating unpressed connections is an important step in the pressure testing process. Viega ProPress Stainless includes Smart Connect technology, providing quick and easy identification of unpressed connections during a pressure test.

Smart Connect technology is an integral part of the design of the fitting, providing



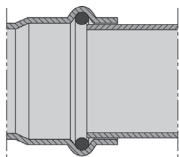
- 1 Identify an unpressed connection during pressure testing when air or water flows past the sealing element.
- 2 Upon identification, use the press tool to press the fitting, making a secure, leak-proof connection.
- 3 Viega ProPress connections are fast, flameless, and reliable.

a path for liquids and/or gases from inside the system past the sealing element of an unpressed connection. When pressed according to our Product Instructions, the fluid path is altered, creating a leak-proof, reliable connection.

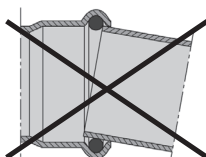
Unpressed connections are located by pressurizing the system with air or water. When testing with water the proper pressure range is 15 to 85 psi. Pressure testing with air can be dangerous at high pressures. When testing with compressed air the proper pressure range is 1/2 to 45 psi. Following a successful Smart Connect test, the system may be pressure tested up to 600 psi maximum for water and 200 psi maximum for air if required by local code requirements.

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

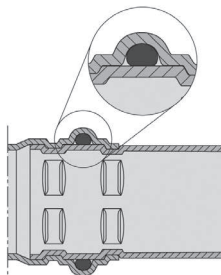
**Cylindrical Guides**



All Viega ProPress Stainless fittings are designed with cylindrical guides to keep the tube straight and protect the sealing element during assembly.



Fittings that do not have cylindrical guides risk making an unsecure connection and leave the sealing element vulnerable to damage prior to pressing.



Fittings are radially pressed around the sealing element in a single step.

## Viega ProPress 304 FKM Fitting Systems

ProPress 304 FKM is a stainless steel system designed to be used with Viega stainless steel pipe to form a complete press system that is ideal for industrial applications. ProPress 304 FKM fittings utilize a versatile FKM sealing element to provide a permanent, leak-free connection in dimensions from ½" to 4". A ProPress 304 FKM system can stand up to harsh environments while transporting process water, diesel fuel, lube oil, ammonia, low pressure steam, or any number of other essential fluids.

ProPress 304 FKM fittings are offered in configurations including: elbows, couplings, reducers, tees, reducing tees, threaded adapters, unions, caps, and flanges. ProPress 304 FKM fittings in 2½" to 4" have a 420 stainless steel grip ring and a PBT separator ring in addition to the FKM sealing element.

### Operating Parameters

- Operating Pressure: 200 psi maximum
- Test Pressure: 600 psi maximum
- Operating Temperature: 14°F to 284°F (with temp. spikes up to 356°F)

### Listings and Certificates

- ABS
- ASME B31.1, B31.3, B31.9
- ICC-ES LC1002
- NFPA 13, 13D, 13R
- UL/ANSI 213
- UL/ANSI 852

### International Listings and Certificates

- BV: Bureau Veritas
- CRN: 13492.5 A/B/C
- DNV GL: Det Norske Veritas Germanischer
- LR: Lloyd's Register
- NKK: Nippon Kaija Kyokai
- ULC/ANSI ORD-C213

### Compliant With

- ASME B31
- ASTM A312
- ASTM A554

### Approved Applications

- Hydronic heating (with glycol)
- Chilled water
- Compressed air
- Fire sprinkler (175 psi maximum)
- Low pressure steam (15 psi maximum)
- Vacuum (29.2" Hg maximum @ 68°F)
- Acetylene
- Fuel oil
- Diesel fuel (125 psi)
- Lube oil

ProPress 304 FKM systems are approved for underground use. When installed underground, ProPress 304 FKM should have proper corrosion protection in accordance with local and national codes.

For more specific information on applications for ProPress 304 FKM fittings, contact Viega Technical Services at 1-800-976-9819.

### Smart Connect Technology

ProPress 304 FKM fittings are manufactured with Viega's unique Smart Connect technology. A design of the fitting, Viega Smart Connect technology allows identification of an unpressed fitting during pressure testing.



The use of the system for applications other than those listed or outside of these parameters must be approved by the Viega Technical Services Department.

## Viega ProPress 316 Fitting Systems

ProPress 316 is a stainless steel system designed to be used with Viega 316 stainless steel tubing to form a complete press system that is ideal for process water and durable enough to handle industrial applications or environments. ProPress 316 fittings feature the same EPDM sealing element found in ProPress copper fittings and provide the same permanent leak-free connections in dimensions from ½" to 4".

ProPress 316 fittings are offered in configurations including: elbows, couplings, reducers, tees, reducing tees, threaded adapters, unions, caps, and flanges. ProPress 316 fittings in 2½" to 4" have a 420 stainless steel grip ring and a PBT separator ring in addition to the EPDM sealing element.

### Operating Parameters

- Operating Pressure: 200 psi maximum
- Test Pressure: 600 psi maximum
- Operating Temperature: 0°F to 250°F

### Listings and Certificates

- ABS
- ASME B31.1, B31.3, B31.9
- IAPMO PS-117
- ICC-ES LC1002

### International Listings and Certificates

- BV: Bureau Veritas
- DNV GL: Det Norske Veritas Germanischer
- LR: Lloyd's Register
- NKK: Nippon Kaija Kyokai

### Compliant With

- ASME B31
- ASTM A312
- ASTM A403
- ASTM A554
- IAPMO Uniform Mechanical Code (UMC)
- ICC International Mechanical Code (IMC)

### Approved Applications

- Hydronic heating (with glycol)
- Chilled water
- Low pressure steam (15 psi maximum)
- Isopropyl alcohol
- Latex Paint
- Phosphoric acid
- Compressed Air
- Non-medical gases
- Vacuum (29.2" Hg maximum @ 68°F)

ProPress 316 systems are approved for underground use. When installed underground, ProPress 316 fittings should have proper corrosion protection in accordance with local and national codes.

For more specific information on applications for ProPress 316, contact Viega Technical Services at 1-800-976-9819.

### Smart Connect Technology

ProPress 316 fittings are manufactured with Viega's unique Smart Connect technology. A design of the fitting, Viega Smart Connect technology allows identification of an unpressed fitting during pressure testing.



Contact your local Viega representative for details on local approvals.

## Viega ProPress 316 3-Piece Ball Valve

### Description

The ProPress 316 3-piece ball valve is equipped with a full port, 316 stainless steel 3-piece body. The ball valve features FKM sealing elements, PTFE stem seals, lockable metal handle and Viega's Smart Connect® technology for easy identification of unpressed connections during pressure testing.

### Approvals

- Conforms to MSS SP-110

### Features

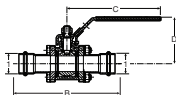
- 316 stainless steel ball
- Blowout-proof 316 stainless steel stem
- 304 stainless steel locking handle
- Adjustable packing nut
- Reinforced PTFE seats
- Smart Connect technology
- ISO 5211 mounting pad

### Ratings

- 250 CWP
- Max. operating pressure: 200 psi
- Temperature range: 14°F to 250°F

Valve Size (in)	Valve Body Bolt & Nut Size		Bolt Torque +/- 5		Valve Stem Nut Size (mm)	Stem Nut	
	ft/lbs	(Nm)	(ft/lbs)	(Nm)			
1/2	M8 x 45	M8	7.5	(10)	AF 16	7.5	10
3/4	M8 x 56	M8	7.5	(10)	AF 18	7.5	10
1	M8 x 65	M8	15	(20)	AF 21	11	15
1 1/4	M10 x 75	M10	15	(20)	AF 22	11	15
1 1/2	M10 x 90	M10	22.5	(30)	AF 24	18.5	25
2	M10 x 100	M10	22.5	(30)	AF 24	18.5	25

## Viega ProPress 316 3-Piece Ball Valve Stainless Steel P x P - Model 4370.8



Part No. S/S 316	Size (in)	B (in)	C (in)	D (in)
85132	1/2	5.41	3.99	2.28
85133	3/4	5.79	5.88	2.85
85134	1	6.00	5.88	2.93
85136	1 1/4	6.61	7.54	3.27
85137	1 1/2	7.26	7.54	3.57
85138	2	9.67	7.54	3.89



## Viega ProPress 316 2-Piece Ball Valve

### Description

The ProPress 316 two-piece ball valve can be used in a variety of commercial and industrial applications. The EPDM sealing elements make it the perfect choice for potable water systems while the durable 316 stainless steel allows it to stand up to some of the harshest environments found in power plants, refineries, utilities, and mills. The double EPDM stem seals prevent leaks without the need for constant adjustment. The 316 stainless steel ball valves are available in sizes ranging from 1/2" to 2" and are equipped with Viega's unique Smart Connect® technology for easy identification of unpressed connections during pressure testing.

### Approvals

- Conforms to MSS SP-110
- NSF-61 Annex G
- NSF-372

### Features

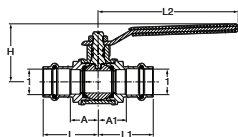
- ProPress press ends
- 316 stainless steel ball and stem
- Full port, two piece design
- Blowout-proof stainless steel stem
- Reinforced PTFE seats
- Lockable metal handle

### Ratings

- 250 CWP
- Temperature Range: 0°F to 250°F
- Max. Operating Pressure: 200 psi

Component	Material
Body	316 Stainless Steel
Ball	316 Stainless Steel
Seat	Reinforced PTFE
Stem	316 Stainless Steel
Stem Seals	EPDM
Nut	Zinc-plated Steel
Handle	Zinc-plated Steel
Handle Cover	Polyvinyl
Sealing Element	EPDM

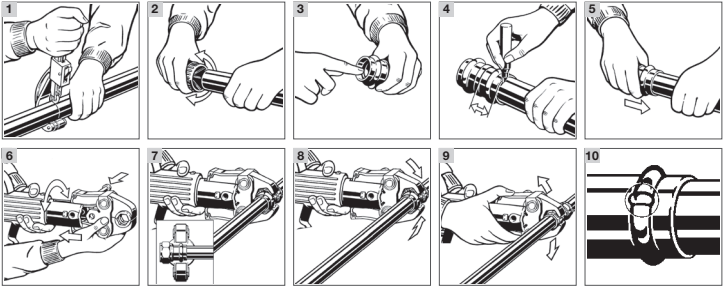
## Viega ProPress 316 Ball Valve - Model 4070



Part No.	Size (in)	A (in)	A1 (in)	A2 (in)	L (in)	L1 (in)	L2 (in)
	1						
81080	1/2	0.89	1.17	1.64	1.92	5.55	2.44
81085	3/4	1.06	1.36	1.97	2.26	5.55	2.52
81090	1	1.18	1.57	2.09	2.48	5.55	2.68
81095	1 1/4	1.45	1.72	2.48	2.75	6.10	3.09
81100	1 1/2	1.83	1.81	3.26	3.24	6.10	3.34
81105	2	1.97	2.18	3.54	3.78	6.10	3.66

## Viega ProPress Stainless 1/2" to 2" Fittings

For use only with Viega stainless steel tubing.



- 1 Cut stainless steel tubing only with an approved stainless steel pipe cutting tool. Cut the tube square using a displacement-type cutter or fine toothed saw.

**i** Cut tubing a minimum of four inches away from the contact area of the vise to prevent possible damage to the tubing in the press area.

- 2 Deburr inside and outside of the tube to the proper insertion depths to prevent cutting sealing element. Use a wire brush, Scotchbrite pad, sand cloth, or sandpaper to remove loose dirt and rust particles from the pressing area.
- 3 Check the sealing element for correct fit. Do not use oils or lubricants.

**i** For applications requiring a different sealing elements, remove the factory installed sealing element and replace with the applicable sealing element. See [Changing Sealing Elements Product Instructions](#), on page 10.

- 4 Mark the proper insertion depth as indicated by the Minimum Insertion Depth Chart. Improper insertion depth may result in an improper seal.

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

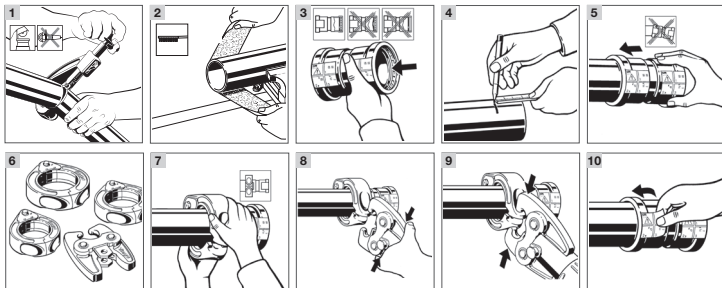
- 5 While turning slightly, slide press fitting onto tubing to the marked depth. End of tubing must contact stop.
- 6 Insert appropriate Viega ProPress jaw into the press tool and push in, holding pin until it locks in place.

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

- 7 Open the jaw and place at right angle on the fitting. Visually check insertion depth using mark on tubing.
- 8 Hold trigger on press tool until press jaws have fully engaged the fitting. Jaws will automatically release after a full press is made.
- 9 After pressing, open the jaw and remove the press tool.
- 10 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 1/2 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.

## Viega ProPress Stainless 2½" to 4" Fittings

For use only with Viega stainless steel tubing.



- 1 Cut stainless steel tubing only with an approved stainless steel pipe cutting tool. Cut the tube square using a displacement-type cutter or fine toothed saw.

**i** Cut tubing a minimum of four inches away from the contact area of the vise to prevent possible damage to the tubing in the press area.

- 2 Deburr inside and outside of the tube to the proper insertion depths to prevent cutting sealing element. Use a wire brush, Scotchbrite pad, sand cloth, or sandpaper to remove loose dirt and rust particles from the pressing area.
- 3 Check the sealing element, separator ring, and grip ring for correct fit. Do not use oils or lubricants.
- 4 Mark the proper insertion depth as indicated by the ProPress Stainless 2½" to 4" Insertion Depth Chart. Improper insertion depth may result in an improper seal.

**ProPress Stainless 2½" to 4" Insertion Depth**

Tube Size	2½"	3"	4"
Insertion Depth	1 11/16"	1 5/16"	2 3/8"

- 5 While turning slightly, slide press fitting onto tubing to the marked depth. End of tubing must contact stop.
- 6 Press Viega ProPress Stainless 2½" to 4" fittings with Viega ProPress XL-C rings and V2 actuator.

**!** Use only rings that are compatible with ProPress XL-C fittings. Do not use rings intended for 2½" to 4" Bronze fittings.

- 7 Open XL-C ring and place at right angles on the fitting. Ensure that the XL-C ring is engaged on the fitting bead.
- 8 With V2 actuator inserted into the press tool, open the V2 actuator. Connect the V2 actuator to the XL-C Ring. Look at insertion depth mark on the tube to make sure that the tube is properly inserted into the fitting.

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

- 9 Hold the trigger until the actuator has engaged the XL-C ring.
- 10 Upon completion of the press, release the V2 actuator from XL-C ring. Remove the XL-C ring from fitting. Remove product instruction label from fitting to indicate that press has been completed.

**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.

## Sealing Element Description

### EPDM Sealing Element

Viega ProPress 316 fittings are manufactured with an EPDM sealing element installed at the factory. The EPDM sealing element is used mainly for potable water, hydronic heating, fire sprinkler, and compressed air installations.

**Definition:** EPDM  
Ethylene-Propylene-Diene-Monomer, gloss black in color

**Operating Temperature:** 0°F to 250°F

The EPDM sealing element is a synthetically manufactured and peroxidically cross-linked general-purpose elastomer with a wide range of applications. It is resistant to aging, ozone, UV, weathering, environmental influences, chemicals, and most alkaline solutions.

The EPDM sealing element is recommended for drinking water applications. It is particularly resistant to hot water, making it ideal for seals and gaskets in heating systems, fittings, and household appliances (e.g., washing machines, pumps, and dishwashers). It is not resistant to hydrocarbon solvent solutions, oils, chlorinated hydrocarbons, turpentine, and gasoline.

### FKM Sealing Element

Viega ProPress 304 FKM fittings are manufactured with a high-quality, dull black FKM sealing element installed at the factory. The molded sealing lips also seal tube surfaces with slightly uneven surfaces. Sealing elements are inserted into the fitting using a H1 food grade lubricant registered with NSF and the USDA, and is approved for use under FDA 21 CFR.

FKM possesses excellent resistance to aging, ozone, UV, weathering, environmental influences, and oils and petroleum-based additives. Its superb resistance to high temperatures and petroleum based additives makes it ideal for seals and gaskets in solar, district heating, low-pressure steam, and compressed air system fittings.

**Definition:** FKM  
Fluoroelastomer, dull black in color

**Operating Temperature:** 14°F to 284°F  
*(with temperature spikes up to 356°F)*

The FKM sealing element is a special-purpose elastomer typically installed where higher temperatures are required.



ProPress 304 FKM and 316 tubing and fittings are physically and chemically compatible with one another. Care must be taken to ensure that both alloys are compatible with the fluid and that the proper sealing elements are used throughout the system.



### **DANGER!**

#### **Failure to verify suitability**

Failure to verify suitability of the system for certain applications may cause serious personal injury or even death.

- It is the responsibility of designers to verify the suitability of type 304 or 316 stainless steel tubing for use with intended fluid media.
- The fluid's chemical composition, pH level, operation temperature, chloride level, oxygen level, and flow rate and their effects on AISI type 304 stainless steel and/or type 316 stainless steel must be evaluated by the material specifier to confirm adequate system life.

## Approved Applications

Media <sup>1</sup>	System Operating Conditions			Product Line, Material, and Sealing Element <sup>2</sup>			
				ProPress Stainless			
	Comments	Max Pressure (psig)	Temperature Range (°F)	304	316		
FKM				EPDM	FKM		
<b>Water/Liquids</b>							
Hot and cold potable water	Test pressure 600 psi	200	See note <sup>3</sup>		✓		
Rainwater/Graywater				✓	✓	✓	
Chilled Water	≤50% Ethylene / Propylene glycol			✓	✓	✓	
Hydronic Heating Water	≤50% Ethylene / Propylene glycol			✓	✓	✓	
Treated Water	Fully desalinated, deionized, demineralized, distilled (open system)			32° to 250°	✓	✓	✓
Reverse Osmosis Water	<1 MΩ			✓	✓	✓	
Paraffin Wax				Max 100°	✓		✓
Methyl Ethyl Ketone				Ambient <sup>4</sup>		✓	
Isopropyl alcohol					✓	✓	✓
Nitric Acid	Concentration ≤10%				✓	✓	✓
Phosphoric Acid	Concentration ≤25%			✓	✓	✓	
Fire Sprinkler	NFPA 13, 13D, 13R	175		✓	✓	✓	
Steam	Low-pressure	15	Max 250°	✓ <sup>4</sup>		✓ <sup>4</sup>	
	Residential	5	Max 227°	✓ <sup>4</sup>	✓ <sup>4</sup>	✓ <sup>4</sup>	
<b>Fuels/Oils/Lubricants</b>							
Ethanol	Pure grain alcohol	200	Ambient <sup>5</sup>		✓		
Mineral Oil				✓		✓	
Lube Oil	Petroleum based			Max 150°	✓		✓
Biodiesel	ASTM D6751	140				✓	
Heating Fuel Oil		125	Max 100°	✓		✓	
Diesel Fuel				✓		✓	
Kerosene				Max 68°	✓		✓
<b>Gases</b>							
Compressed Air	Oil Concentration ≤25 mg/m <sup>3</sup>	200	Max 140°	✓	✓	✓	
	Oil Concentration >25 mg/m <sup>3</sup>			✓	✓	✓	
Nitrogen - N <sub>2</sub>				✓	✓	✓	
Carbon Dioxide - CO <sub>2</sub>	Dry			✓	✓	✓	
Argon - Ar				✓	✓	✓	
Ammonia	Anhydrous Ammonia environment <sup>7</sup>			Max 120°		✓	
Oxygen - O <sub>2</sub>	Non-medical. Keep free of oil and grease.	140	Max 140°		✓		
Hydrogen - H <sub>2</sub>		125		✓	✓	✓	
Acetylene	Test pressure 350 psi	20	Ambient <sup>6</sup>	✓	✓	✓	
Vacuum	Minimum absolute pressure Maximum differential pressure	750µm Hg 29.2" Hg	Max 160°	✓	✓	✓	
<b>Special Media</b>							
Methanol		200	75°		✓		
Latex Paint			32° to 250°		✓	✓	
Urea Solution	Concentration ≤40%	140	100°		✓		
Caustic Soda	Concentration ≤50%		140°		✓		
Acetone	Liquid	70	-14° to 104°		✓		

<sup>1</sup> It is recommended that all systems be clearly labeled with the media being conveyed. For further information please consult Viega Technical Services.  
<sup>2</sup> All Viega systems must be used with the manufacturer's recommended sealing element. Contact your local Viega representative or Viega Technical Services for specific application temperature, pressure, and concentration limits.

<sup>3</sup> System pressure and temperature ranges depend on sealing element. Any ranges listed above will be overruled by the sealing element limits here:

<sup>3a</sup> EPDM temperature ranges are typically 0°F to 250°F.

<sup>3b</sup> FKM temperature ranges are typically 14°F to 284°F with temperature spikes (24 hours) up to 356°F.

<sup>3c</sup> HNBR temperature ranges are typically -40°F to 180°F.

<sup>4</sup> System must contain adequate condensate drainage.

<sup>5</sup> Ambient temperatures should be taken as normal operating conditions for the applications not to exceed sealing element limitations.

<sup>7</sup> All copper or copper alloy components that are exposed in ammonia environments require lacquer or paint coating.

## General Installation Notes

### Expansion

Thermal expansion in installed systems generates stress on tubing and appliance connectors. Compensation must be allowed for expansion and contraction that may occur within the system. Expansion joints or mechanical expansion compensators may be used to alleviate these stresses. ProPress Stainless systems do not require any additional protection when compared to traditional joining methods.

The following methods are effective:

- Fixed and sliding hangers
- Expansion equalization joints (expansion bends)
- Expansion compensators

### Electrical Bonding

When properly installed, ProPress Stainless fittings comply with Section 1211.15 Electrical Bonding and Grounding of the Uniform Plumbing Code and Section 310 of the International Fuel Gas Code.

The mechanical press provides continuous metal-to-metal contact between fitting and tube. The press ensures the continuity of the bonding through this contact.



A qualified electrician is responsible for ensuring electrical bonding is tested and secured.



### **DANGER!** Electric Shock

An electric shock can cause burns, serious injury, and even death.

- Because all metallic tubing can conduct electricity, unintentional contact with a live wire can lead to the entire system and components connected to it to become energized. Metal tubing is not meant to conduct electricity.
- A properly bonded system creates a safe path for electricity to travel so that the system can't be energized.
- An unbonded or improperly bonded system can be a shock hazard.
- Always ensure bonding is in accordance with local codes.

### Exposure to Freezing Temperatures

Viega ProPress Stainless systems with EPDM sealing elements can be installed in ambient temperatures down to 0° F and with FKM sealing element down to 14° F. Tubing exposed to freezing temperatures must be protected per acceptable engineering practices, codes, and as required by local code.

### Underground Installations

Viega ProPress Stainless fitting systems are approved for underground installations. However, installations must meet all state and local codes, including those for underground. Proper authorization must be obtained prior to installation from the Authority Having Jurisdiction.

### Concealed Spaces

The Viega ProPress Stainless fitting system has been approved for use in concealed spaces. Specific performance tests were conducted to evaluate the fittings for use in concealed spaces. Concealed tubing and fittings shall be protected from puncture threats.

### Corrosion Protection

Viega ProPress Stainless fittings exposed to corrosive action, such as soil conditions or moisture, must be protected in an approved manner in accordance with NFPA 54 Section 404.8, NACE Standard RP0 169-2002 Section 5, 2009 UPC Chapter 6 Section 609.3.1, 2009 UMC Chapter 13 Section 1312.1.3, or satisfying local code requirements. In addition, systems should be properly sized to minimize the risk of erosion corrosion resulting from excessive velocities.

### Mixed Installations

- Stainless steel should not be directly connected to copper. Brass or bronze fittings are a suitable transition in most applications.
- ProPress Stainless dielectric unions should be used when connecting stainless steel to steel or galvanized steel pipe. Do not use dielectric unions intended for copper to steel transitions to connect stainless steel to copper or steel.

- Care should be taken to select hangers of suitable material that are galvanically compatible with the tubing.

Above ground tube and fittings do not normally require external corrosion protection.

**Pressure Surges**

- **!** ProPress Stainless fittings should be isolated or separated by sufficient distance from pumps, fast acting valves, and other sources of pressure transients.
- The maximum operating pressure in a ProPress Stainless system is 200 psi, which applies to general operation as well as pressure transients.
- Good engineering practices should be used to design the system in a way that minimizes sharp pressure surges.

- Pressure surges or transients from fast-acting valves, pump surges, and other sources that result in water hammer may cause damage to many system components, including press fittings.
- When fast-acting valves and/or pumps are incorporated into a system, the designer and installer should isolate press fittings from sharp pressure surges.

**Rotating a Pressed Fitting**

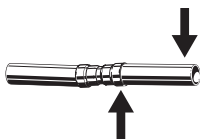
Once a ProPress Stainless fitting has been pressed, it can be rotated (not by hand), but once rotated more than five degrees, the fitting should be re-pressed to restore resistance to rotational movement. If the fitting is re-pressed, care should be taken to align the flat sides on the jaw with those on the fitting.

**Deflection**

The pressing process can cause deflection (angular misalignment) to occur. When pressing Viega ProPress Stainless fittings in a system, the deformation of the fitting is constant. This allows for a consistent leak-free joint every time and is a result of the pressing technique.

Deflection occurs in the same way for every fitting. The fitting being pressed will move in the direction of the jaw or ring opening.

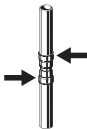
- Since the fitting will deflect toward the opening of the jaw or ring, the tube end will deflect in the opposite direction.
- By counteracting the fitting movement, one can minimize the deflection of the fitting and ultimately the tube.
- When using strut and clamps, deflection is minimized and nearly eliminated depending on clamp spacing.



**Controlling Deflection**

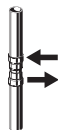
Deflection while pressing can be minimized by utilizing the following installation practices.

- **Alternate Press Directions**
  - Press one end of fitting.
  - Make second press on other end of fitting from the opposite side.

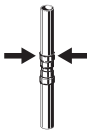


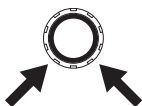
**Push-Pull Method**

- Rings = Push on press tool.
  - Jaws = Pull on press tool.
- The press tool can be feathered using the trigger as needed to apply pulling or pushing force to control deflection.



- **Re-Press**
  - Press the fitting, once on each side (that is, re-press the fitting a second time on the opposite side).
  - Pressing the same connection from the opposite side will usually straighten misalignment between the tube and fitting.





- When pressing overhead piping, it may be inconvenient to alternate sides for each press.
- The natural weight of the piping plus pressing on opposite sides at a 45-degree angle should adequately eliminate deflection.
- This technique can also be used for any horizontal piping and when working above the piping.

**i** ■ As long as the tubing is properly prepped and marked and the fitting is installed according to Viega's ProPress Stainless Product Instructions, if there is any deflection present after the installation of the fitting, the connection is still acceptable and meets Viega's manufacturing specifications for proper installation and warranty.

■ Deflection of a press connection has no effect on the integrity of the system, and it can be pressure tested in accordance with the ProPress Stainless Product Instructions.

### Transition Fittings – Threaded

The Viega ProPress systems can be joined with off-the-shelf threaded fittings made of non-ferrous metals. In this regard:

- The threaded connection is made first.
- The press connection is made second.

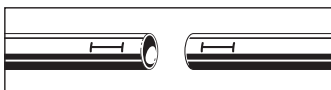
This process avoids unnecessary torsion on the press fitting.

### Transition Fittings – Flange

When using Viega flanges, bolt the flange end in place prior to pressing the fitting to the tube.

## No-Stop Couplings

No-stop couplings are often used to conduct repairs. Without a stop, these couplings can slide completely onto a tube and allow a connection to be made in tighter spaces. Unlike fittings with an integrated stop that have a minimum insertion depth, no-stop couplings have minimum and maximum allowable insertion depths. The minimum and the maximum insertion depths should be marked and a line should connect the two marks.



### ProPress Stainless No-Stop Couplings

Tube Diameter (in)	Minimum Insertion		Maximum Insertion	
	in	mm	in	mm
1/2	3/4	19	7/8	22
3/4	7/8	23	1 1/8	28
1	7/8	23	1 1/8	28
1 1/4	1	26	1 3/16	30
1 1/2	1 7/16	37	1 9/16	40
2	1 9/16	40	1 3/4	44
2 1/2	1 11/16	43	2 5/8	67
3	1 15/16	50	2 15/16	75
4	2 3/8	60	3 7/16	87



## Soldering or Brazing

### Using ProPress Stainless In Line with Existing Fittings

Maintain proper distances when installing a ProPress Stainless fitting near an existing soldered or brazed fitting.

Tube Diameter (in)	Minimum Distance from Soldered		Minimum Distance from Brazed	
	in	mm	in	mm
1/2	1/4	7	1	26
3/4	1/4	7	1 1/2	38
1	7/16	11	2	51
1 1/4	7/16	11	2 1/2	64
1 1/2	5/8	16	3	76
2	3/4	19	4	102
2 1/2	1/4	7	5	127
3	1/4	7	6	153
4	1/4	7	8	204

### Soldering or Brazing In Line with Existing ProPress Stainless Fitting

To prevent damage to the sealing element and ensure proper sealing of the soldered/brazed joint and the press connection, maintain proper soldering/brazing distances from the fitting.

Tube Diameter (in)	Soldering Minimum Distance		Brazed Minimum Distance	
	in	mm	in	mm
1/2	1 1/2	38	4 1/2	114
3/4	2 1/4	57	6 3/4	172
1	3	76	9	229
1 1/4	3 3/4	95	11 1/4	286
1 1/2	4 1/2	114	13 1/2	343
2	6	153	18	457
2 1/2	7 1/2	191	22 1/2	572
3	9	229	27	686
4	12	305	36	915



Check the fitting to make sure there is no residual solder or other foreign debris on the tube that will be inserted into the Viega ProPress Stainless fitting.

## Welding

### Welding Adjacent to a Press Fitting

To prevent damage to the sealing element, maintain proper welding distances from the fitting. If welding adjacent to the connection, weld a minimum of four inches away.

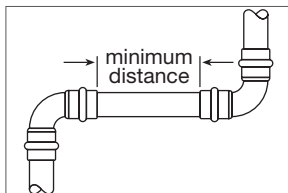
### Welding Requirements

The installer should take precautions to keep the ProPress connection cool:

- Wrap the connection with a cold wet rag.
- Protect the connection with a weld blanket.
- Prefabricate solder connections/welded fittings prior to installing the press fitting. (Ensure tube has cooled before installing the press fitting.)
- Apply heat sink gel or spray or spot freezing.

## Minimum Clearance Between Two Viega Press Connections

Tubing Diameter (in)	Viega ProPress Stainless	
	Minimum Clearance (in)	Minimum Clearance (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



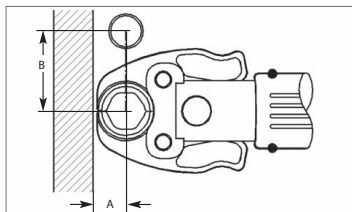
## Friction Loss in Equivalent Feet of Tube

Fitting Size	Fittings Friction Loss				
	90° elbow (long radius)	45° Elbow	Tee (straight flow)	Tee (branch outlet)	Ball Valve (full port)
1/2"	0.66	0.66	0.82	2.46	6.15
3/4"	0.99	0.99	1.24	3.72	9.30
1"	1.33	1.33	1.66	4.98	12.45
1 1/4"	1.65	1.65	2.06	6.18	15.45
1 1/2"	1.98	1.98	2.48	7.44	18.60
2"	2.66	2.66	3.32	9.96	24.90
2 1/2"	3.30	3.30	4.12	12.36	NA
3"	3.97	3.97	4.96	14.88	NA
4"	5.30	5.30	6.62	19.86	NA

## Tool Clearances

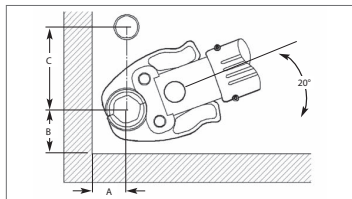
Minimum distances should be taken into consideration during planning in order to avoid space constraints during installation.

### ProPress Standard Jaws Clearance



Tube Diameter	A minimum	B minimum
1/2"	3/4"	1 5/8"
3/4"	7/8"	2 1/8"
1"	1"	2 1/2"
1 1/4"	1 1/8"	2 7/8"
1 1/2"	1 3/4"	3 1/2"
2"	2"	4 3/8"

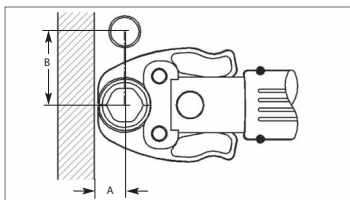
### ProPress Standard Jaws Clearance Between Tube, Wall, and Floor



Tube Diameter	A minimum	B minimum	C minimum
1/2"	7/8"	1 3/8"	2 1/2"
3/4"	1"	1 1/2"	2 1/2"
1"	1 1/8"	1 3/4"	3"
1 1/4"	1 1/4"	2 1/4"	3 1/8"
1 1/2"	1 7/8"	2 1/2"	3 3/4"
2"	2 1/8"	3 1/8"	5"

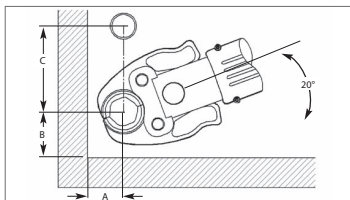
Ensure that the space required for system pressing tools is available if Viega ProPress Stainless fittings will be installed immediately upstream or downstream from wall or floor penetrations.

### ProPress Compact Jaws Clearance



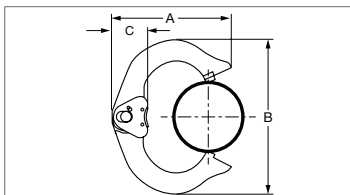
Tube Diameter	A minimum	B minimum
1/2"	3/4"	2"
3/4"	7/8"	2 3/8"
1"	7/8"	2 5/8"
1 1/4"	1 1/8"	3 1/8"

### ProPress Compact Jaws Clearance Between Tube, Wall, and Floor



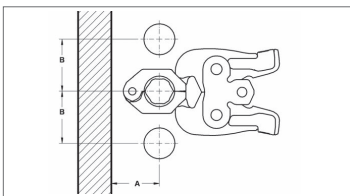
Tube Diameter	A minimum	B minimum	C minimum
1/2"	7/8"	1 3/8"	2 1/2"
3/4"	1"	1 1/2"	2 3/4"
1"	1 1/8"	1 5/8"	3"
1 1/4"	1 5/8"	2 1/8"	3 3/8"

## ProPress Rings Dimensions



Tube Diameter	A minimum	B minimum	C minimum
1/2"	2 1/4"	2 1/8"	1 1/16"
3/4"	2 11/16"	2 7/8"	1 1/8"
1"	2 5/16"	3 5/16"	1 3/16"
1 1/4"	3 5/16"	3 7/8"	1 3/16"
1 1/2"	3 11/16"	4 5/16"	1 3/16"
2"	4 7/16"	5 7/16"	1 3/16"

## ProPress Rings with V1 Actuator Clearance

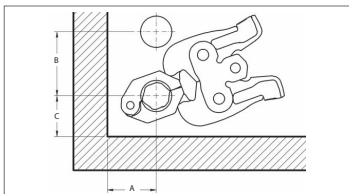


Tube Diameter	A minimum	B minimum
1/2"	1 5/8"	2 3/16"
3/4"	1 3/4"	2 3/16"
1"	2"	1 5/8"
1 1/4"	2 3/16"	2 5/16"

## ProPress Rings with V2 Actuator Clearance

Tube Diameter	A minimum	B minimum
1 1/2"	2 3/8"	3 5/16"
2"	2 9/16"	4 1/8"

## ProPress Rings with V1 Actuator Clearance Between Tube, Wall, and Floor



Tube Diameter	A minimum	B minimum	C minimum
1/2"	1 5/8"	3 9/16"	2 5/16"
3/4"	1 3/4"	3 5/8"	2 1/8"
1"	2"	3 13/16"	2 3/16"
1 1/4"	2 3/16"	3 3/4"	2 1/8"

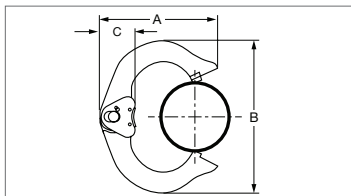
## ProPress Rings with V2 Actuator Clearance Between Tube, Wall, and Floor

Tube Diameter	A minimum	B minimum	C minimum
1 1/2"	2 3/8"	5"	2 3/16"
2"	2 9/16"	4 3/4"	3 9/16"

## ProPress Rings with C1 Actuator Clearance Between Tube, Wall, and Floor

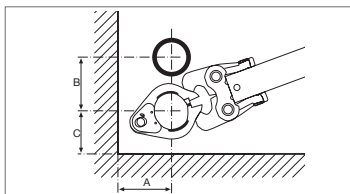
Tube Diameter	A minimum	B minimum	C minimum
1/2"	1 5/8"	3 1/4"	2"
3/4"	1 3/4"	3 1/4"	1 7/8"
1"	2"	3 1/4"	1 7/8"
1 1/4"	2 3/16"	3 3/8"	1 7/8"

**ProPress XL-C Rings Dimensions**



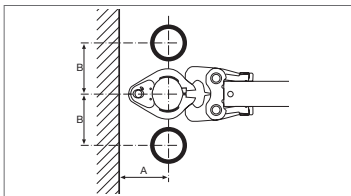
Tube Diameter	A minimum	B minimum	C minimum
2½"	6¾"	6⅝"	27/16"
3"	7⅞"	8⅜"	27/16"
4"	8⅞"	107/16"	27/16"

**ProPress XL-C Rings Clearance Between Tube, Wall, and Floor**



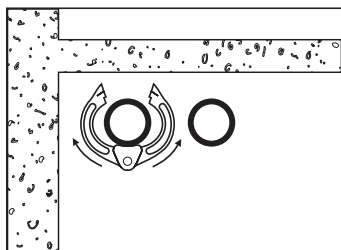
Tube Diameter	A minimum	B minimum	C minimum
2½"	4⅛"	6"	4½"
3"	4¾"	7"	4⅞"
4"	5"	8"	5¾"

**ProPress XL-C Rings Clearance**

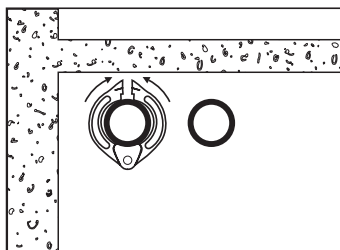


Tube Diameter	A minimum	B minimum
2½"	4⅛"	6"
3"	4¾"	7"
4"	5"	8"

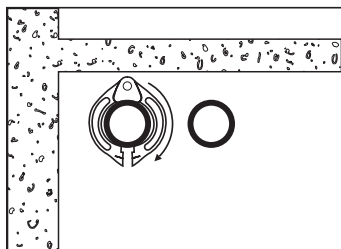
## Pressing with Ring and Actuator in Tight Quarters



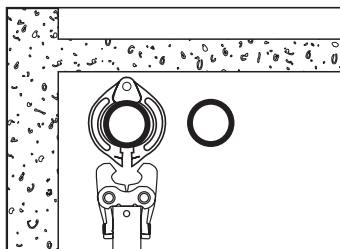
1. Wrap the actuator ring around the press fitting with the opening facing away from you.



2. Close the actuator tight around the fitting.



3. Rotate the actuator ring until the press jaw receptacle is facing toward you.

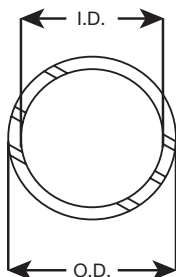


4. Properly insert press jaws and begin the press fitting procedure.

**Dimensional Documentation**  
**ProPress Stainless Fittings**

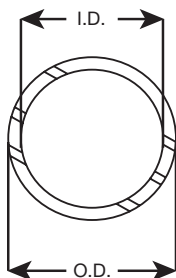


## ProPress Stainless Pipe ASTM A312 - Models 0103 / 4003



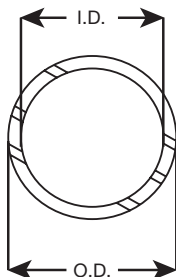
Part No.		Size	O.D.	I.D.	Wall Thickness	Length
304	316	(in)	(in)	(in)	(in)	(ft)
87000	82000	½	0.63	0.50	0.06	20
87005	82005	¾	0.88	0.75	0.06	20
87010	82010	1	1.13	1.00	0.06	20
87015	82015	1¼	1.38	1.26	0.06	20
87020	82020	1½	1.63	1.50	0.06	20
87025	82025	2	2.13	2.00	0.06	20

## ProPress Stainless Pipe ASTM A312 - Models 0107XL / 4007XL



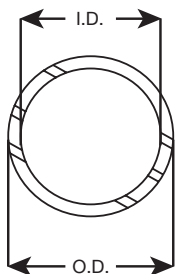
Part No.		Size	O.D.	I.D.	Wall Thickness	Length
304	316	(in)	(in)	(in)	(in)	(ft)
87095	82042	2½	2.63	2.47	0.08	20
87100	82050	3	3.13	2.97	0.08	20
87105	82055	4	4.13	3.97	0.08	20

## ProPress 304 ECO Pipe ASTM A554 - Model 0108

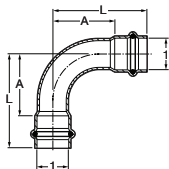


Part No.	Size	O.D.	I.D.	Wall Thickness	Length
304	(in)	(in)	(in)	(in)	(ft)
87050	½	0.63	0.55	0.04	20
87055	¾	0.88	0.78	0.05	20
87060	1	1.13	1.03	0.05	20
87065	1¼	1.38	1.26	0.06	20
87070	1½	1.63	1.51	0.06	20
87075	2	2.13	2.01	0.06	20

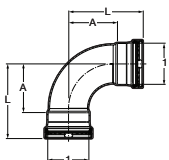


**ProPress 304 ECO Pipe ASTM A554 - Model 0108XL**


Part No.	Size (in)	O.D. (in)	I.D. (in)	Wall Thickness (in)	Length (ft)
87080	2½	2.63	2.47	0.08	20
87085	3	3.13	2.97	0.08	20
87090	4	4.13	3.97	0.08	20

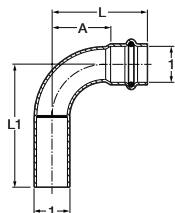
**ProPress Stainless 90° Elbow P x P - Models 6016 / 4016**


Part No.	Size (in)	A (in)	L (in)
85402	½	1.12	1.87
85407	¾	1.73	2.64
85412	1	1.87	2.78
85417	1¼	1.65	2.69
85422	1½	1.98	3.41
85427	2	2.55	4.14

**ProPress Stainless 90° Elbow P x P - Models 6016XL / 4016XL**


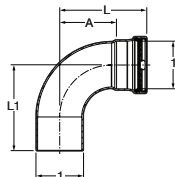
Part No.	Size (in)	A (in)	L (in)
85432	2½ x 2½	3.19	4.88
85437	3 x 3	3.76	5.73
85442	4 x 4	4.86	7.22

## ProPress Stainless 90° Elbow FTG x P - Models 6016.1 / 4016.1



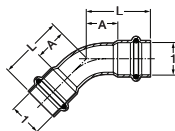
Part No.		Size (in)	A (in)	L (in)	L1 (in)
304	316	1			
85492	80490	½	1.12	1.87	1.99
85497	80495	¾	1.45	2.35	3.03
85502	80500	1	1.87	2.78	3.27
NA	80505	1¼	1.65	2.69	2.76
85512	80510	1½	1.98	3.41	3.48
85517	80515	2	2.55	4.14	4.20

## ProPress Stainless 90° Street Elbow P x FTG - Models 6016.1XL / 4016.1XL



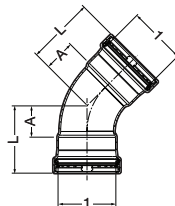
Part No.		Size (in)	A (in)	L (in)	L1 (in)
304	316	1 1			
85522	80520	2½ x 2½	3.19	4.88	4.80
85527	80525	3 x 3	3.76	5.73	5.63
85532	80530	4 x 4	4.86	7.22	7.13

## ProPress Stainless 45° Elbow P x P - Models 6026 / 4026



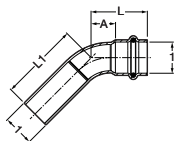
Part No.		Size (in)	A (in)	L (in)
304	316	1		
85447	80445	½	0.57	1.32
85452	80450	¾	0.87	1.77
85457	80455	1	0.89	1.79
85462	80460	1¼	0.69	1.72
85467	80465	1½	0.82	2.25
85472	80470	2	1.06	2.64

## ProPress Stainless 45° Elbow P x P - Models 6026XL / 4026XL



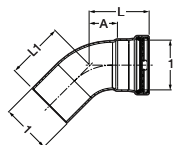
Part No.		Size (in)	A (in)	L (in)
304	316	1 1		
85477	80475	2½ x 2½	1.48	3.18
85482	80480	3 x 3	1.73	3.70
85487	80485	4 x 4	2.19	4.55

## ProPress Stainless 45° Elbow FTG x P - Models 6026.1 / 4026.1



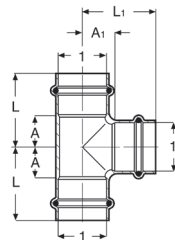
Part No.		Size (in)	A (in)	L (in)	L1 (in)
304	316	1			
85537	80535	½	0.57	1.32	1.46
85542	80540	¾	0.69	1.59	2.27
85547	80545	1	0.89	1.79	2.28
NA	80550	1¼	0.69	1.72	1.79
85557	80555	1½	0.82	2.25	2.32
85562	80560	2	1.06	2.64	2.71

## ProPress Stainless 45° Street Elbow P x FTG - Models 6026.1XL / 4026.1XL



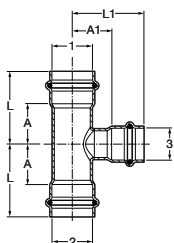
Part No.		Size (in)	A (in)	L (in)	L1 (in)
304	316	1 1			
85567	80565	2½ x 2½	1.48	3.18	3.10
85572	80570	3 x 3	1.73	3.70	3.60
85577	80575	4 x 4	2.19	4.55	4.45

## ProPress Stainless Tee P x P x P - Models 6018 / 4018



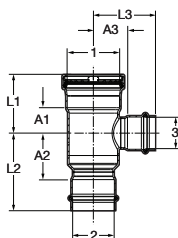
Part No.		Size (in)	A (in)	A1 (in)	L (in)	L1 (in)
304	316	1				
85582	80580	½	0.75	0.87	1.50	1.61
85587	80585	¾	0.96	0.96	1.86	1.86
85592	80590	1	1.13	1.18	2.04	2.09
85597	80595	1¼	1.04	1.05	2.08	2.07
85598	80600	1½	1.26	1.22	2.69	2.65
85607	80605	2	1.54	1.53	3.12	3.11

## ProPress Stainless Tee P x P x P - Models 6018 / 4018



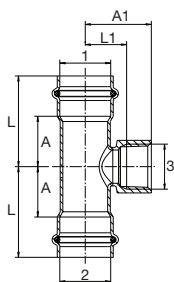
Part No.		Size (in)			A (in)	A1 (in)	L (in)	L1 (in)
304	316	1	2	3				
85632	80630	¾ x ¾ x ½			0.96	0.98	1.86	1.73
85642	80640	1 x 1 x ½			1.13	1.13	2.04	1.88
85652	80650	1 x 1 x ¾			1.13	1.10	2.04	2.01
85662	80660	1¼ x 1¼ x ½			0.75	1.28	1.78	2.03
85672	80670	1¼ x 1¼ x ¾			0.83	1.25	1.86	2.16
85682	80680	1¼ x 1¼ x 1			1.04	1.33	2.08	2.24
85692	80690	1½ x 1½ x ½			1.26	1.39	2.69	2.14
85702	80700	1½ x 1½ x ¾			1.26	1.37	2.69	2.27
85712	80710	1½ x 1½ x 1			1.26	1.44	2.69	2.35
85722	80720	2 x 2 x ½			0.71	1.65	2.30	2.40
85732	80730	2 x 2 x ¾			0.71	1.63	2.30	2.53
85742	80740	2 x 2 x 1			0.83	1.70	2.41	2.61
85752	80750	2 x 2 x 1½			1.15	1.49	2.73	2.91

## ProPress Stainless Tee P x P x P - Models 6018XL / 4018XL



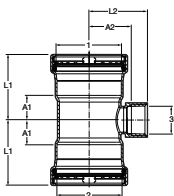
Part No.		Size (in)			A1 (in)	A2 (in)	A3 (in)	L1 (in)	L2 (in)	L3 (in)
304	316	1	2	3						
85955	80753	2½ x 2 x 1½			1.30	2.37	1.74	2.99	3.96	3.17
85954	80752	2½ x 2 x 2			1.54	2.69	1.78	3.23	4.27	3.37
85934	80751	2½ x 2½ x 1½			1.30	1.30	1.74	2.99	2.99	3.17
85904	80760	2½ x 2½ x 2			1.54	1.54	1.78	3.23	3.23	3.37
85612	80610	2½ x 2½ x 2½			1.83	1.83	1.87	3.52	3.52	3.56
85944	80782	3 x 3 x 1¼			1.24	1.24	1.96	3.21	3.21	2.99
85935	80781	3 x 3 x 1½			1.32	1.32	2.00	3.29	3.29	3.43
85905	80770	3 x 3 x 2			1.56	1.56	2.04	3.52	3.52	3.62
85914	80780	3 x 3 x 2½			1.85	1.85	2.13	3.82	3.82	3.82
85617	80615	3 x 3 x 3			2.07	2.07	2.15	4.04	4.04	4.11
85945	80791	4 x 4 x 1½			1.36	1.36	2.51	3.72	3.72	3.94
85915	80790	4 x 4 x 2			1.59	1.59	2.55	3.96	3.96	4.13
85924	80800	4 x 4 x 2½			1.89	1.89	2.64	4.25	4.25	4.33
85925	80810	4 x 4 x 3			2.11	2.11	2.66	4.47	4.47	4.63
85622	80620	4 x 4 x 4			2.60	2.60	2.66	4.96	4.96	5.02

## ProPress Stainless Reducing Tee P x P x FPT - Models 6017.2 / 4017.2



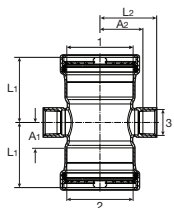
Part No.		Size (in)			A (in)	A1 (in)	L (in)	L1 (in)
304	316	1	2	3				
85822	80820	¾ x ¾ x ½	FPT		0.96	0.76	1.86	1.26
85832	80830	¾ x ¾ x ¾	FPT		0.96	0.78	1.86	1.34
85842	80840	1 x 1 x ½	FPT		1.13	0.87	2.04	1.41
85852	80850	1 x 1 x ¾	FPT		1.13	0.93	2.04	1.48
85862	80860	1¼ x 1¼ x ½	FPT		0.75	1.02	1.78	1.56
85872	80870	1¼ x 1¼ x ¾	FPT		0.83	1.08	1.86	1.63
85882	80880	1¼ x 1¼ x 1"	FPT		1.04	1.09	2.08	1.75
85892	80890	1½ x 1½ x ½	FPT		1.26	1.13	2.69	1.67
85902	80900	1½ x 1½ x ¾	FPT		1.26	1.19	2.69	1.75
85912	80910	1½ x 1½ x 1"	FPT		1.26	1.20	2.69	1.87
85922	80920	2 x 2 x ½	FPT		0.71	1.39	2.30	1.93
85932	80930	2 x 2 x ¾	FPT		0.71	1.45	2.30	2.01
85942	80940	2 x 2 x 1"	FPT		0.83	1.50	2.41	2.13

## ProPress Stainless Reducing Tee P x P x FPT - Models 6017.2XL / 4017.2XL



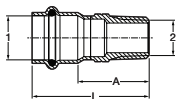
Part No.		Size (in)			A1 (in)	A2 (in)	L1 (in)	L2 (in)
304	316	1	2	3				
85952	80950	2½ x 2½ x ¾			1.02	1.73	2.72	2.28
85962	80960	2½ x 2½ x 1"			1.02	1.74	2.72	2.38
85972	80970	3 x 3 x ¾			1.04	1.98	3.01	2.54
85982	80980	3 x 3 x 1"			1.04	1.98	3.01	2.64
85992	80990	4 x 4 x ¾			1.08	2.50	3.44	3.05
86002	81000	4 x 4 x 1"			1.08	2.49	3.44	3.15

## ProPress Stainless Cross P x P x FPT x FPT - Model 4044.2XL



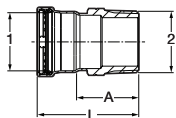
Part No.		Size (in)			A1 (in)	A2 (in)	L1 (in)	L2 (in)
316		1	2	3				
80067		2½ x 2½ x ¾			1.02	1.73	2.62	2.28
80069		3 x 3 x ¾			1.04	1.98	3.01	2.54
80068		4 x 4 x ¾			1.08	2.50	3.44	3.05

## ProPress Stainless Adapter P x MPT - Models 6011 / 4011



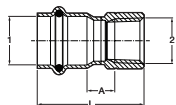
Part No.		Size (in)		A (in)	L (in)
304	316	1	2		
85012	80010	1/2 x 1/2 MPT		1.37	2.11
85017	80015	1/2 x 3/4 MPT		1.44	2.19
85022	80020	3/4 x 1/2 MPT		1.42	2.32
85027	80025	3/4 x 3/4 MPT		1.46	2.36
85032	80030	3/4 x 1 MPT		1.71	2.62
85037	80035	1 x 3/4 MPT		1.47	2.37
85042	80040	1 x 1 MPT		1.74	2.65
85047	80045	1 1/4 x 1 1/4 MPT		1.89	2.92
85052	80050	1 1/2 x 1 1/2 MPT		1.94	3.37
85054	80055	2 x 2 MPT		2.10	3.68

## ProPress Stainless Adapter P x MPT - Models 6011XL / 4011XL



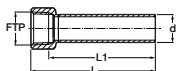
Part No.		Size (in)		A (in)	L (in)
304	316	1	2		
85062	80060	2 1/2 x 2 1/2 MPT		2.99	4.69
85067	80065	3 x 3 MPT		3.09	5.06
85072	80070	4 x 4 MPT		3.13	5.49

## ProPress Stainless Adapter P x FPT - Models 6012 / 4012



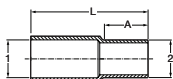
Part No.		Size (in)		A (in)	L (in)
304	316	1	2		
85082	80080	1/2 x 1/2 FPT		0.54	1.82
85087	80085	3/4 x 1/2 FPT		0.51	1.95
85096	80090	3/4 x 3/4 FPT		0.57	2.03
85094	80092	1 x 1/2 FPT		0.62	2.06
85097	80095	1 x 3/4 FPT		0.62	2.08
85128	80100	1 x 1 FPT		0.61	2.18
85107	80105	1 1/4 x 1 1/4 FPT		0.62	2.33
NA	80110	1 1/2 x 1 1/4 FPT		0.69	2.80
85117	80115	1 1/2 x 1 1/2 FPT		0.69	2.80
85077	80075	2 x 1 FPT		0.75	2.99
85122	80120	2 x 1 1/2 FPT		0.73	2.99
85127	80125	2 x 2 FPT		0.71	2.99

## ProPress 316 Instrument Adapter - Model 4012.5



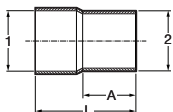
Part No.	Size (in)	L (in)	L1 (in)
316	FPT x FTG (d)		
80126	1/2 x 1/2	4.06	3.52
80127	3/4 x 3/4	3.94	3.38

## ProPress 304 Adapter BW (IPS) x FTG (CTS) - Model 0113.3



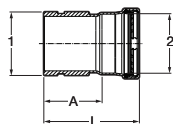
Part No.	Size (in)		A (in)	L (in)
	(1) IPS	(2) CTS		
86003	½ ID	½ OD	0.87	2.40
86008	¾ ID	¾ OD	1.02	2.74
86013	1 ID	1 OD	1.06	2.78
86023	1½ ID	1½ OD	1.57	4.12
86028	2 ID	2 OD	1.73	4.27

## ProPress Stainless Adapter BW (IPS) x FTG - Models 0113.1XL / 4013.1XL



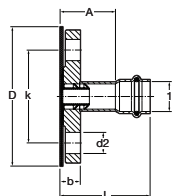
Part No.	316	Size (in)		A (in)	L (in)
		1 (IPS)	2 (CTS)		
85135	80081	2½ ID	2½ OD	2.32	4.37
85145	80082	3 ID	3 OD	2.60	4.57
85155	80083	4 ID	4 OD	2.99	5.16

## ProPress Stainless Adapter Groove x P - Model 4013.2XL



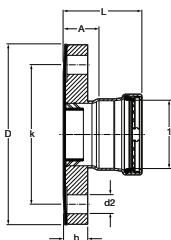
Part No.	316	Size (in)		A (in)	L (in)
		1 G (IPS)	2		
80064		2½	2½	2.64	4.33
80061		3	3	2.66	4.63
80063		4	4	2.66	5.02

## ProPress Stainless Adapter Flange P x Flange - Models 6059 / 4059



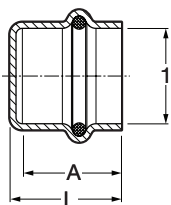
Part No.	316	Size (in)	b (in)	A (in)	L (in)	k (in)	D (in)	d2 (in)
86082	81035	½	0.46	1.72	2.46	2.36	3.54	0.63
86087	81040	¾	0.52	1.66	2.57	2.76	3.94	0.63
86092	81045	1	0.58	1.60	2.51	3.11	4.33	0.63
86097	81050	1¼	0.64	1.66	2.69	3.50	4.53	0.63
86102	81055	1½	0.70	1.41	2.83	3.86	4.92	0.63
86107	81060	2	0.77	2.30	3.86	4.76	5.91	0.75

## ProPress Stainless Adapter Flange P x Flange - Models 6059XL / 4059XL



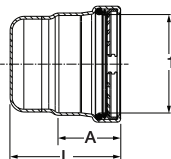
Part No.		Size (in)	b (in)	A (in)	L (in)	k (in)	D (in)	d2 (in)
304	316	1						
86067	81065	2½	0.89	1.35	3.04	5.51	7.09	0.75
86072	81070	3	0.96	1.39	3.40	5.98	7.48	0.75
86077	81075	4	0.96	1.40	3.77	7.52	9.06	0.75

## ProPress Stainless Cap P - Models 6056 / 4056



Part No.		Size (in)	A (in)	L (in)
304	316	1		
85357	80355	½	0.70	0.82
85362	80360	¾	0.93	1.04
86367	80365	1	0.94	1.06
86372	80370	1¼	1.04	1.20
86377	80375	1½	1.44	1.59
86382	80380	2	1.59	1.74

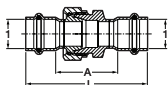
## ProPress Stainless Cap P - Models 6056.1XL / 4056.1XL



Part No.		Size (in)	A (in)	L (in)
304	316	1		
85387	80385	2½	1.69	3.01
85392	80390	3	1.97	3.33
85397	80395	4	2.36	3.72

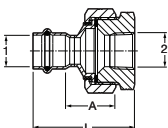


## ProPress Stainless Union P x P - Models 6060 / 4060



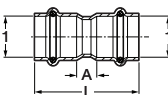
Part No.		Size (in)	A (in)	L (in)
304	316	1		
86007	81005	½	1.87	3.37
86012	81010	¾	1.89	3.70
86017	81015	1	2.25	4.06
86022	81020	1¼	2.25	4.31
86027	81025	1½	2.68	5.53
86032	81030	2	2.95	6.12

## ProPress 316 Dielectric Union P x FPT - Model 4067



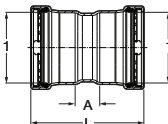
Part No.	Size (in)	A (in)	L (in)
316	1 2		
80071	½ x ½ FPT	1.28	2.57
80078	¾ x ¾ FPT	1.39	2.85
80073	1 x 1 FPT	1.25	2.81
80074	1¼ x 1¼ FPT	1.33	3.04
80076	1½ x 1½ FPT	1.54	3.64
80077	2 x 2 FPT	1.72	4.00

## ProPress Stainless Coupling with Stop P x P - Models 6015 / 4015



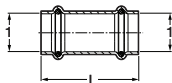
Part No.		Size (in)	A (in)	L (in)
304	316	1		
85267	80265	½	0.35	1.85
85272	80270	¾	0.43	2.24
85277	80275	1	0.39	2.20
85282	80280	1¼	0.47	2.54
85287	80285	1½	0.36	3.21
85292	80290	2	0.47	3.64

## ProPress Stainless Coupling with Stop P x P - Models 6015XL / 4015XL



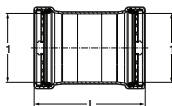
Part No.		Size (in)	A (in)	L (in)
304	316	1 1		
85297	80295	2½ x 2½	0.95	4.33
85302	80300	3 x 3	0.98	4.92
85307	80305	4 x 4	1.06	5.79

## ProPress Stainless Coupling No Stop P x P - Models 6015.5 / 4015.5



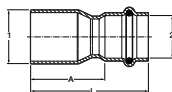
Part No.		Size (in)	L (in)
304	316	1	
85312	80310	1/2	1.87
85317	80315	3/4	2.27
85322	80320	1	2.19
85327	80325	1 1/4	2.54
85332	80330	1 1/2	3.27
85337	80335	2	3.66

## ProPress Stainless Coupling No Stop P x P - Models 6015.5XL / 4015.5XL

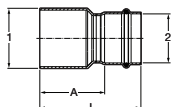


Part No.		Size (in)	L (in)
304	316	1 1	
85342	80340	2 1/2 x 2 1/2	4.33
85347	80345	3 x 3	4.92
85352	80350	4 x 4	5.79

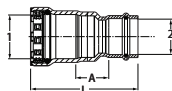
## ProPress Stainless Reducer FTG x P - Models 6015.1 / 4015.1



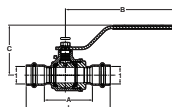
Part No.		Size (in)	A (in)	L (in)
304	316	1 2		
85162	80160	3/4 x 1/2	1.54	2.28
85167	80165	1 x 1/2	1.84	2.59
85172	80170	1 x 3/4	1.56	2.46
85173	80175	1 1/4 x 1/2	2.25	3.00
85182	80180	1 1/4 x 3/4	1.93	2.83
85187	80185	1 1/4 x 1	1.81	2.72
85192	80190	1 1/2 x 1/2	3.03	3.78
85197	80195	1 1/2 x 3/4	2.64	3.54
85202	80200	1 1/2 x 1	2.50	3.41
NA	80205	1 1/2 x 1 1/4	2.26	3.29
85212	80210	2 x 1/2	3.75	4.50
85217	80215	2 x 3/4	3.48	4.39
85222	80220	2 x 1	3.08	3.99
NA	80225	2 x 1 1/4	2.94	3.97
85232	80230	2 x 1 1/2	2.59	4.02

**ProPress Stainless Reducer FTG x P - Models 6015.1XL / 4015.1XL**


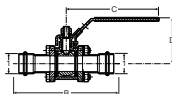
Part No.		Size (in)		A (in)	L (in)
304	316	1	2		
85237	80235	2½ x 2		2.85	4.43
85242	80240	3 x 2		3.38	4.96
85247	80245	3 x 2½		3.21	4.90
85252	80250	4 x 2		4.26	5.85
85257	80255	4 x 2½		4.09	5.79
85262	80260	4 x 3		3.88	5.85

**ProPress to MegaPress Transition Coupling, Stainless Steel, P x P - Models 4113 / 5113**


Part No.		Size (in)		A (in)	L (in)
304	316	1 (IPS)	2 (CTS)		
95465	90465	½ x ½		1.07	2.93
95470	90470	¾ x ¾		1.07	3.17
95475	90475	1 x 1		1.11	3.40
95840	90890	1¼ x 1¼		1.11	4.00
95485	90485	1½ x 1½		1.21	4.55
95490	90490	2 x 2		1.23	4.82

**ProPress 316 Ball Valve P x P - Model 4070**


Part No.	Size (in)	A (in)	L (in)	B (in)	C (in)
316	1				
81080	½	2.06	3.56	5.55	2.44
81085	¾	2.42	4.23	5.55	2.52
81090	1	2.76	4.59	5.55	2.68
81095	1¼	3.17	5.23	6.10	3.09
81100	1½	3.65	6.50	6.10	3.34
81105	2	4.15	7.32	6.10	3.66

**ProPress 316 3-Piece Ball Valve P x P - Model 4370.8**


Part No.	Size (in)	B (in)	C (in)	D (in)
316	1			
85132	½	5.41	3.99	2.28
85133	¾	5.79	5.88	2.85
85134	1	6.00	5.88	2.93
85136	1¼	6.61	7.54	3.27
85137	1½	7.26	7.54	3.57
85138	2	9.67	7.54	3.89

### **Q** What is Smart Connect technology?

**A** Smart Connect technology provides a quick and easy way to identify unpressed connections during the pressure testing process. Unpressed connections are located by pressurizing the system with air or water. When testing with air or water, the pressure range is 15 psi to 85 psi maximum. The flow path is removed during the pressing process, creating a leak-proof, reliable connection.

### **Q** Why is Smart Connect technology so valuable?

**A** Smart Connect technology provides the user with a strong peace of mind. It allows for faster testing procedures since you do not have to shut down and drain the system. Costly damages and possible insurance claims and premiums can be avoided because it identifies unpressed connections before they can become a problem. Because of the time savings, projects stay on track.

### **Q** What is the procedure for soldering near a Viega ProPress Stainless connection?

**A** When soldering near a Viega ProPress Stainless connection, you must remain at least three pipe diameters away from the connection. If three pipe diameters are not possible, the installer should take proper precautions to keep the Viega ProPress Stainless connection cool while soldering. These include: wrapping the connection with a cold wet rag; fabricating solder connections prior to installing the pressed fitting; making sure the pipe has cooled before installing the fitting; applying "spray type" spot freezing product.

### **Q** How would inspectors know they are looking at a good connection?

**A** Good connections can be proven by performing a pressure test. This is the same procedure for solder connections.

### **Q** What is the lubrication used on the sealing elements?

**A** The sealing elements are lubricated with an H1 food grade, silicone-based lubricant registered with NSF and the USDA. If it is necessary to lubricate the seals in the field, use water only. Do not use other lubricants, especially any petroleum-based lubricants.

**Q How do I fabricate a system in tight places when using Viega ProPress Stainless?**

**A** If necessary, prefabricate connections that are in tight places and then install.

**Q Can you turn a pressed fitting without damaging the integrity of the connection?**

**A** Yes. The fitting can be turned, although not by hand, and will not affect the integrity of the connection. As a general rule of thumb, if the fitting is turned more than 5° it should be re-pressed to restore the resistance to rotational movement.

**Q What are the flow rates through Viega ProPress Stainless fittings?**

**A** Flow rates and flow rate calculations are the same as those used for solder fitting installations. The friction loss allowance table can be found in the Viega ProPress Stainless Installation Manual.

**Q What should a user do if a Viega ProPress Stainless system leaks?**

**A** In general, Viega ProPress Stainless fittings only leak due to one of three reasons: the fitting was never pressed, the tubing was not properly inserted or the pressing jaws were not properly aligned. If the fitting was never pressed, confirm that the tubing is fully inserted and proceed with pressing. If the tubing was not properly inserted, cut out the fitting and reinstall properly. If the pressing jaws were not properly aligned, cut out the fitting and reinstall properly. If problems persist, be sure to contact Viega immediately.

**Q Do I need additional equipment to install Viega ProPress Stainless systems?**

**A** No. Viega designed Viega ProPress Stainless fittings to be compatible with the same jaws and press tools that are used for the Viega ProPress system.

**Q If a leak is discovered, is it necessary to drain the system prior to pressing the connection?**

**A** No. It is not necessary to drain the system when making a repair.

**Q How long will the EPDM seal last?**

**A** When properly installed, the EPDM seal and connection will last as long as the piping system.

**Q How do Viega ProPress Stainless connections hold up to freezing temperatures?**

**A** Precautions should be taken for any piping system to protect the system from below-freezing temperatures.

## Viega ProPress Fitting and Valves

Subject to the conditions and limitations in this Limited Warranty, Viega LLC (VIEGA) warrants to wholesalers and licensed plumbing and mechanical contractors in the United States and Canada that its ProPress fittings, when properly installed in non-industrial and non-marine applications and under normal conditions of use, will be free of failure from manufacturing defect for a period of fifty (50) years from date of installation and that its ProPress valves, when properly installed in non-industrial and non-marine applications and under normal conditions of use, will be free of failure from manufacturing defect for a period of two (2) years from date of installation.

Under this Limited Warranty, you only have a right to a remedy if the failure or leak resulted from a manufacturing defect in the products covered by this warranty and the failure or leak occurred during the warranty period. You do not have a remedy under this warranty and the warranty does not apply if the failure or any resulting damage is caused by (1) components other than those manufactured or sold by Viega; (2) not designing, installing, inspecting, or testing the ProPress fittings or valves in accordance with Viega's installation instructions in effect at the time of the installation; applicable code requirements; and accepted industry practice; (3) improper handling and protection of the product prior to and during installation, inadequate freeze protection, exposure to water pressures or temperatures or in applications outside acceptable operating conditions; (4) acts of nature such as, but not limited to, earthquakes, fire, flood, or lightning, or (5)

external environmental causes, such as water quality variations, aggressive water, or other external chemical or physical conditions.

In the event of a leak or other failure of the parts covered by this warranty, it is the responsibility of the property owner to obtain and pay for repairs. Only if the warranty applies will Viega be responsible for the remedy under this warranty. The part or parts which you claim failed should be kept and Viega contacted by writing to the address below or telephoning 1-800-976-9819 within thirty (30) days after the leak or other failure and identifying yourself as having a warranty claim. You should be prepared to ship, at your expense, the product which you claim failed due to a manufacturing defect and document the date of installation. Within a reasonable time after receiving the product, Viega will investigate the reasons for the failure, which includes the right to inspect the product at Viega. Viega will notify you in writing of the results of its review.

In the event that Viega determines that the failure or leak as the result of a manufacturing defect in the part covered by this warranty and that this warranty applies, the EXCLUSIVE AND ONLY REMEDY under this warranty shall be the reimbursement for repair and/or replacement of the part. VIEGA SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR OTHER DAMAGE (FOR EXAMPLE, WATER OR PROPERTY OR MOLD REMEDIATION) UNDER ANY LEGAL THEORY AND WHETHER ASSERTED BY DIRECT ACTION, FOR CONTRIBUTION OR INDEMNITY OR OTHERWISE.

THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. If a limited warranty shall be found to apply, such warranty is limited to four years. Other than this Limited Warranty, Viega does not authorize any person or firm to create for it any other obligation or liability in connection with its products.

This Limited Warranty gives you specific legal rights and you also may have other rights which may vary from state to state. This warranty shall be interpreted and applied under the law of the state in which the product is installed and is intended as a Commercial Warranty.

## Viega Metal Systems for Industrial Applications

**Industrial applications are defined as non-residential and non-commercial applications not normally accessible to the general public, including manufacturing, mining, process or fabrication environments.**

Subject to the terms and conditions of this Limited Warranty, Viega LLC (Viega) warrants to end users, installers and distribution houses that its Viega metal press products (Viega product) when properly installed in industrial applications shall be free from failure caused by manufacturing defects for a period of two (2) years from date of installation.

Under this Limited Warranty, you only have a right to a remedy if the failure or leak resulted from a manufacturing defect in the Viega product and the failure or leak occurs during the warranty period. You do not have a remedy under this warranty and the warranty remedy does not apply if the failure or any resulting damage is caused by (1) components other than those sold by Viega; (2) not designing, installing, inspecting, testing, or maintaining the Viega product in accordance with Viega's installation and product instructions in effect at the time of installation and other specifications and approvals applicable to the installation; (3) improper handling and protection of the Viega product prior to, during and after installation, inadequate freeze protection, or exposure to environmental or operating conditions not recommended for the application; or (4) acts of nature, such as, but not limited to earthquakes, fire, or weather damage. Final approval as to use compatibility to a specific process or fluid application is the responsibility of the engineer of record or responsible design/facilities personnel and this Limited Warranty only applies to manufacturing defects in the Viega Product.

In the event of a leak or other failure in the Viega product covered by this warranty, it is the responsibility of the end user to take appropriate measures to diminish any damage, to include making timely repairs. Only if the warranty applies will Viega be responsible for the remedy under this warranty. The part or parts which you claim failed should be kept and Viega contacted by writing to the address below or telephoning 1-800-976-9819 within thirty (30) calendar days after the leak or other failure and identifying yourself as having a warranty claim. You should be prepared to ship, at your expense, the product which you claim failed due to a manufacturing defect, document the date of installation, and the amount of the repair or replacement if performed by you. Within a reasonable time after receiving the product, Viega will investigate the reasons for the failure, which includes the right to inspect the product at a Viega location and reasonable access to the site of damage. Viega will notify you in writing as to the results of its review.

In the event that Viega determines that the failure or leak was the result of a manufacturing defect in the Viega Product covered by this warranty and to which this warranty applies, the EXCLUSIVE AND ONLY REMEDY under this warranty shall be the reimbursement for reasonable charges for repair or replacement of the Viega Product itself. VIEGA SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR OTHER DAMAGE (FOR EXAMPLE, ECONOMIC LOSS,



WATER OR PROPERTY OR MOLD REMEDIATION) UNDER ANY LEGAL THEORY AND WHETHER ASSERTED BY DIRECT ACTION, FOR CONTRIBUTION OR INDEMNITY OR OTHERWISE.

THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR ANY STATUTE OF LIMITATIONS RELATING TO SUCH WARRANTIES. Other than this Limited Warranty, Viega does not authorize any person or firm to create for it any other obligation or liability in connection with its products.

This Limited Warranty gives you specific legal rights and you also may have other rights which may vary from state to state. This warranty shall be interpreted and applied under the law of the state in which the product is installed and is intended as a Commercial Warranty.



## Viega Marine Applications

**Marine applications are defined as mobile structures used to navigate water or stationary structures in water.**

Subject to the terms and conditions of this Limited Warranty, Viega LLC (Viega) warrants to end users, installers and distribution houses that its Viega metal press products (Viega product) when properly installed in approved marine applications and other products sold by Viega LLC when properly installed in marine applications in accordance with our listings shall be free from failure caused by manufacturing defects for a period of two (2) years from date of installation. This warranty applies only to approved applications. Installations that are not approved shall not be covered by this warranty and shall not be the responsibility of Viega LLC.

Under this Limited Warranty, you only have a right to a remedy if the failure or leak resulted from a manufacturing defect in the Viega product and the failure or leak occurs during the warranty period. You do not have a remedy under this warranty and the warranty remedy does not apply if the failure or any resulting damage is caused by (1) components other than those sold by Viega; (2) not designing, installing, inspecting, testing, or maintaining the Viega product in accordance with Viega's installation and product instructions in effect at the time of installation and other specifications and approvals applicable to the installation; (3) improper handling and protection of the Viega product prior to, during and after installation, inadequate freeze protection, or exposure to environmental or operating

conditions not recommended for the application; or (4) acts of nature, such as, but not limited to earthquakes, fire, or weather damage. Final approval as to use compatibility to a specific process or fluid application is the responsibility of the engineer of record or responsible design/facilities personnel and this Limited Warranty only applies to manufacturing defects in the Viega Product.

In the event of a leak or other failure in the Viega product covered by this warranty, it is the responsibility of the end user to take appropriate measures to diminish any damage, to include making timely repairs. Only if the warranty applies will Viega be responsible for the remedy under this warranty. The part or parts which you claim failed should be kept and Viega contacted by writing to the address below or telephoning 1-800-976-9819 within thirty (30) calendar days after the leak or other failure and identifying yourself as having a warranty claim. You should be prepared to ship, at your expense, the product which you claim failed due to a manufacturing defect, document the date of installation, and the amount of the repair or replacement if performed by you. Within a reasonable time after receiving the product, Viega will investigate the reasons for the failure, which includes the right to inspect the product at a Viega location and reasonable access to the site of damage. Viega will notify you in writing as to the results of its review.

In the event that Viega determines that the failure or leak was the result of a manufacturing defect in the Viega Product covered by this warranty and to which this warranty applies, the EXCLUSIVE AND ONLY REMEDY under this warranty shall be the reimbursement for reasonable charges for repair or replacement of the Viega Product itself. VIEGA SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR OTHER DAMAGE (FOR EXAMPLE, ECONOMIC LOSS, WATER OR PROPERTY OR MOLD REMEDIATION) UNDER ANY LEGAL THEORY AND WHETHER ASSERTED BY DIRECT ACTION, FOR CONTRIBUTION OR INDEMNITY OR OTHERWISE.

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**Viega LLC**

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