

Viega MegaPress System

Installation Manual



The global leader
in plumbing, heating
and pipe joining systems

viega

Heritage of quality, vision for the future

Viega's heritage of superiority demands nothing but the best for our customers. Engineered to be efficient, Viega products perform at the highest possible level, providing confidence and peace of mind. Viega is the only manufacturer to offer press systems in multiple pipe joining materials. More than one million Viega press fittings are installed every day around the world and, with a Supply Chain that can process orders in 48 hours or less, Viega is positioned to provide customers with the best, most versatile support in the industry.

Introducing the Viega MegaPress system

In the past, carbon steel piping systems, known in standards as black steel piping systems, have been installed by threading or welding. Both methods are labor intensive and can produce inconsistent pipe connections. Threading and welding also require the use of cumbersome, expensive equipment. Now, Viega has created a new way to join carbon steel pipe without the mess and inconvenience of traditional methods. The same press technology that revolutionized copper and stainless pipe joining is now available for carbon steel systems.

The Viega MegaPress and MegaPressG systems can reduce installation time up to 60 percent with no need for messy cutting oils or heavy equipment. Manufactured with patented Viega Smart Connect technology, Viega MegaPress fittings help installers easily identify unpressed connections during pressure testing. Available in multiple configurations from 1/2" to 2", Viega MegaPress fittings are well-suited for residential, commercial and industrial applications.

Do more with Viega

Viega press technology is consistent and reliable, providing the same quality pipe connections every time. Viega press systems make secure connections in less than seven seconds, which helps keep a project on time or ahead of schedule. The Viega MegaPress system helps installers accomplish more in the same amount of time.

A true innovator since 1899, Viega is at the forefront of pipe joining technology. With personalized support, efficient delivery processes and trustworthy quality, no other manufacturer can provide the same level of service. The global leader in plumbing, heating and pipe joining systems, Viega is the name you can trust.

IMPORTANT NOTE:

A GREEN DOT ON A VIEGA MEGAPRESS FITTING INDICATES SMART CONNECT TECHNOLOGY WITH AN EPDM SEALING ELEMENT. FOR A CURRENT LIST OF APPLICATIONS, PLEASE VISIT WWW.VIEGA.US/APPLICATIONS.

A YELLOW DOT ON A VIEGA MEGAPRESSG FITTING INDICATES SMART CONNECT TECHNOLOGY WITH AN HNBR SEALING ELEMENT. FOR A CURRENT LIST OF APPLICATIONS, PLEASE VISIT WWW.VIEGA.US/APPLICATIONS.

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.*



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1 System Description

The Viega MegaPress fitting system is a state-of-the-art IPS press fitting system that provides an economical and reliable installation of schedule 5 to schedule 40 ASTM A53, A106, A135 and A795 steel pipes. Viega MegaPress fittings are available in sizes ranging from 1/2" to 2" and provide a fast, reliable, consistent joining method.

Our products are the result of decades of experience in manufacturing press fittings. The Viega MegaPress fitting system is offered in configurations that allow for the installation of the vast majority of carbon steel piping applications in the residential, commercial and industrial markets.

The Viega MegaPress fitting system requires no threading or welding and poses no fire hazard, which is particularly important in restoration or retrofit work. The press fittings are installed with a battery-powered or corded pressing tool.

The advantages of installing a Viega MegaPress fitting system include:

- Most labor savings
- Lowest overall installed cost
- Proven joining technology
- Technical field support
- Drastically reduces installation time
- No special certification required

1.1 Viega MegaPress

Viega MegaPress 1/2" to 2" fittings feature an EPDM sealing element suitable for the following applications:

- Hydronic Heating
- Chilled Water
- Compressed Air
- Low-pressure Steam
- Fire Sprinkler Systems

For more information, see Table 1.1 Approved Applications on Page 6.

1.1.1 Approvals and certifications

- IAPMO PS 117
- ICC LC1002
- TSSA
- UL 213 and ULC/SRD C213
- FM Class 1920
- Cal Fire
- Marine Approvals - ABS, LR, GL, DNV
- CRN #0A14541.5

1.1.2 Codes

- ASME B31, 31.1, 31.3, 31.9
- ICC International Plumbing Code
- ICC International Mechanical Code
- IAPMO Uniform Plumbing Code
- IAPMO Uniform Mechanical Code
- PHCC National standard plumbing code
- NFPA 13, 13D and 13R

1.2 Viega MegaPressG

Viega MegaPressG 1/2" to 2" fittings have a factory-installed HNBR sealing element suitable for the following applications:

- Natural Gas
- Liquid Propane Gas
- Diesel Fuel

For more information, see Table 1.1 Approved Applications on Page 6.

1.2.1 Approvals and certifications

Viega MegaPressG fittings have been listed for use in schedule 40 fuel gas piping systems in above- and below-ground applications by CSA.

- CSA LC-4
- ICC-ES PMG1036
- IAPMO/UPC
- Marine Approvals – ABS, LR, GL
- CRN #0A14541.5

1.2.2 Codes

The major codes and standards regulating fuel gas piping systems include:

- NFPA 54/Z223.1 National Fuel Gas Code
- ICC International Mechanical Code
- IAPMO Uniform Plumbing Code
- NFPA 58 Liquefied Petroleum Gas Code
- NFPA 30 Flammable and Combustible Liquids Code
- NFPA 30A Code for Motor Fuel Dispensing Facilities and Repair Garages
- NFPA 31 Standard for the Installation of Oil-Burning Equipment

ASTM A53 schedule 40 pipe is permitted for fuel gas piping systems in the National Fuel Gas Code (NFPA 54), the International Fuel Gas Code or the Uniform Plumbing Code.

Note: All systems must be installed per local code requirements.

1.3 Fitting description

Viega MegaPress fittings are constructed of carbon steel with a corrosion-resistant zinc/nickel coating.

Viega MegaPress fittings contain a stainless steel grip ring and 304 stainless steel separator ring as shown in Figure 1.1. The grip ring is a 420 stainless steel ring with bidirectional teeth that grip the pipe and ensure that the fitting is locked securely to the piping.

The 304 stainless steel separator ring ensures that the sealing element and grip ring perform at maximum capacity by providing a positive physical separation.

Press jaws and actuator rings are available for various dimensions. Their constant compression produces a positive, nondetachable, mechanical joint.

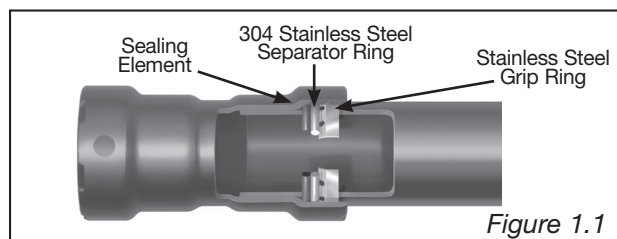


Figure 1.1

1.3.1 Viega Smart Connect technology

Viega MegaPress system sizes ½" to 2" incorporate Viega Smart Connect technology, which assures leakage of liquids and/or gases from inside the system past the sealing element of an unpressed connection. The function of this feature is to provide the installer quick and easy identification of connections that have not been pressed prior to putting the system into operation.

Press systems without Viega Smart Connect technology may not leak initially; however, they may unseat during future system operation. Viega Smart Connect technology is designed to protect from this potential risk. See Figure 1.2.

Viega Smart Connect technology is a quick and easy way for installers to identify connections that need to be pressed. Testing for leaks using Viega Smart Connect technology is not a replacement for testing to the requirements of local codes or standards.

1.3.2 Testing

All system testing shall be carried out in accordance with the local code or authority having jurisdiction. Viega recommends air testing of gas systems to be a minimum of ½ psi.

1.3.3 Sealing elements

The Viega MegaPress system is available with the following factory-installed sealing elements:

Viega MegaPress EPDM Sealing Element

Operating temperature: 0°F to 250°F (-18°C to 120°C)

This sealing element is used mainly in the applications of hydronic heating, chilled water and fire sprinkler installations. EPDM, or ethylene-propylene-diene monomer, is shiny black in color. The EPDM sealing element is a synthetically manufactured and peroxidically cross-linked general-purpose elastomer with a wide range of applications.

The EPDM sealing element possesses excellent resistance to aging, ozone, sunlight, weathering, environmental influences, alkalis and most alkaline solutions and chemicals used in a broad range of applications.

Viega MegaPressG HNBR Sealing Element

Operating temperature: -40°F to 180°F (-40°C to 82°C)

This sealing element is used mainly for fuel gas applications (not in the liquid state). HNBR, or Hydrogenated Nitrile Butadiene Rubber, is yellow in color for easy identification.

With its excellent performance for the most demanding of applications, HNBR is the ideal choice for applications that require excellent physical properties, as well as oil and/or chemical resistance.



1.3.4 Fitting markings

Markings on Viega MegaPress fittings include:

- Green Dot: EPDM sealing element and Smart Connect technology
- UL
- FM
- UMC
- Size of fitting
- Manufacturer name
- Manufacturer date code

Markings on Viega MegaPressG fittings include:

- Yellow Dot: HNBR sealing element and Smart Connect technology
- CSA: Indicates certification to ANSI/CSA LC4

- UPC
- Yellow rectangle: Identifies Viega MegaPressG fitting as a certified gas or fuel oil fitting
- 125G: Identifies the CSA maximum pressure rating of the fitting for fuel oil or gas applications
- Size of fitting
- Manufacturer name
- Manufacturer date code

1.4 Applications

Listed below are common applications approved by Viega for Viega MegaPress fitting systems. See Table 1.1.

Type of Service	System Operating Conditions			MegaPress	MegaPressG
	Comments	Pressure	Temperature	EPDM	HNBR
Fluids/Water					
Chilled Water	Ethylene Glycol Propylene Glycol	200 psi	Down to -4°F	√	
Hydronic Heating	Ethylene Glycol Propylene Glycol	200 psi	0°F - 250°F	√	
Fire Sprinkler	Compliant with UL and FM for NFPA 13, 13D and 13R	175 psi	Ambient	√	
Low-pressure Steam		Up to 15 psi	Max. 248°F	√	
Oil and Lubricant					
Heating Fuel Oil		125 psi	-40°F - 180°F		√
Diesel Fuel		125 psi			√
Engine Oil		150 psi	Ambient		√
Gear Grease		150 psi	104°F		√
Hydraulic Fluid	Mineral based	200 psi	Ambient		√
Transmission Fluid		200 psi	Ambient		√
Gases					
Natural Gas, LP Gas and Fuel Oil		125 psi max.	-40°F - 180°F		√
Compressed Air	Oil Concentrate < 25mg/m3	200 psi	Up to 140°F	√	√
	Oil Concentrate > 25mg/m3	200 psi	Up to 140°F		√
Vacuum		Max. 29.2 in Hg	Up to 140°F	√	√
Oxygen Non-medical	Keep oil and fat free / non liquid	140 psi	Up to 140°F	√	√
Nitrogen		200 psi	Up to 140°F	√	√
Argon		200 psi	Up to 140°F	√	√
Carbon Dioxide		200 psi	Up to 140°F	√	√
1. Consult the Viega Technical Support Department for information on applications not listed and applications outside the temperature and pressure ranges listed above.					
2. All systems are recommended to be clearly labeled with the fluid or gas being conveyed. For further information please see the Viega technical bulletin TB-PIPELABELING					

Table 1.1 Approved Applications

2.1 Tools

Viega recommends RIDGID press tools, Viega MegaPress jaws and ring sets and RIDGID pipe preparation tools manufactured and sold by Ridge Tool Company for use with Viega Systems.

Viega MegaPress products carry a limited warranty against defects in material and workmanship. The RIDGID lifetime warranty applies to tools, jaws and press rings from The Ridge Tool Company. For more information, contact Ridge Tool Company at 1-888-743-4333 or visit www.RIDGID.com.

2.2 Pressing tools

The following RIDGID pressing tools are available for the Viega MegaPress and Viega MegaPressG pressing system:

- RP 340-B Battery Powered Press Tool
- RP 330-B Battery Powered Press Tool
- RP 330-C Corded Press Tool
- RP 320 Battery Powered Press Tool
- CT 400 Corded Press Tool



Viega MegaPress Pipe Preparation Tool

Cat. No. 37993 ½" - 1"
Cat. No. 37988 1¼" - 2"



RP 330-B
½" - 2"



RP 330-C
½" - 2"



V2 Actuator and Viega MegaPress Jaws

Jaws ½" - 1"
Ring Set 1¼" - 2"



RP 340-B
½" - 2"

RIDGID® is a registered trademark of Ridge, Inc.

3 General Installation Instructions

3.1 Pipe selection

Viega MegaPress ½" to 2" fittings are compatible with ASTM A53, A135, A106 and A795 carbon steel pipe.

3.2 Handling instructions

Viega MegaPress components shall be free from dirt, debris or items that may interfere with the sealing element and the press connection. Pipe shall be cut using a pipe cutter or metal saw. It is not acceptable to cut the pipe with an abrasive cutting wheel or torch.

3.3 Pipe preparation

In general there are three pipe types typically used in carbon steel pipe applications:

Plain or galvanized carbon steel pipe

The surface of the pipe shall be free from ridges or grooves. Any imperfections shall be smoothed using a fine-grit sandpaper or the Viega MegaPress Pipe Prep tool.

Painted and lacquered carbon steel pipe

Due to the inconsistency of carbon steel pipe surfaces that are painted and lacquered (paint runs), it is a requirement to smooth the pipe surface using a fine-grit sandpaper or the Viega MegaPress Pipe Prep tool.

Epoxy coated carbon steel pipe

Due to the thickness of the coating applied to coated carbon steel pipe, it is necessary to reduce the coating thickness with a fine-grit sandpaper to allow the installation of the Viega MegaPress fitting.

Pipe surfaces for each type of pipe must be smooth, free of indentations, pits and deformations and must be clean and free of debris, rust, scale, oil and grease.

It is not necessary to completely remove protective coatings or to expose the bare steel material.

Pipe ends are to be square and de-burred internally and externally. The pipe end shall be prepped to the proper insertion depth. See Table 3.1.

To avoid leak paths, engraved or stamped pipe shall not be used with the Viega MegaPress fitting system.

Engraving or stamping shall not be removed through use of a grinder or other tool.

Viega MegaPress sealing elements, separator rings and grip rings are to be visually inspected prior to

Pipe Size	Insertion Depth	
	in	mm
½"	1¼"	27.2
¾"	1¾"	29.4
1"	1⅝"	34.2
1¼"	1⅞"	46.2
1½"	1⅞"	47.5
2"	2"	50

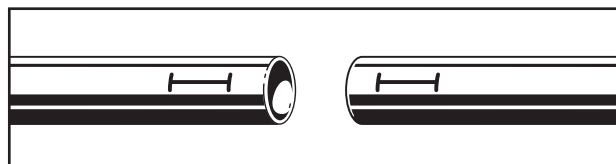
Table 3.1

installation to ensure the seal is intact and properly located within the fitting. See "1.3 Fitting description" on Page 4 for more information. Viega MegaPress sealing elements may not be removed or replaced.

The Viega MegaPress system does not require lubrication of the pipe or the fitting. Proper insertion depth must be marked on the pipe. Refer to Table 3.1. Improper insertion depth may result in an improper seal. The depth marking shall be visible on the completed assembly.

3.3.1 No-stop couplings

No-stop couplings and extended no-stop couplings are often used to conduct repairs. Without a stop, these couplings can slide completely onto a pipe 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. Both the minimum and the maximum insertion depths must be marked and a line connecting the two marks. Drawing a line between the minimum and maximum insertion marks distinguishes a good connection on a no-stop fitting from a bad connection on a fitting with a stop.



Viega MegaPress No-Stop Couplings				
Pipe Diameter	Minimum Insertion		Maximum Insertion	
	in	mm	in	mm
½"	1¼"	27.2	1⅝"	41
¾"	1¾"	29.4	1⅞"	46
1"	1⅝"	34.2	1⅞"	49
1¼"	1⅞"	46.2	2½"	63
1½"	1⅞"	47.5	2¾"	70
2"	2"	50	2¾"	70

Table 3.2

Viega MegaPress Extended No-Stop Couplings				
Pipe Diameter	Minimum Insertion		Maximum Insertion	
	in	mm	in	mm
½"	1¼"	27.2	2¾"	70
¾"	1¾"	29.4	2⅞"	72
1"	1⅝"	34.2	3"	77
1¼"	1⅞"	46.2	3½"	89
1½"	1⅞"	47.5	3⅞"	91
2"	2"	50	3⅞"	93

Table 3.3

3.4 Pressing requirements

The following requirements must be considered when pressing Viega MegaPress fittings.

3.4.1 Minimum distance between fittings

Space between fittings must be provided for the proper operation of the press jaw or press ring. (Refer to chart below.) Failure to provide this distance may result in an improper seal.

3.4.2 Pressing in tight quarters

The minimum distance between piping or the piping and the wall/ceiling construction must be taken into consideration in the planning phase for a problem-free work process. The following figures illustrate the clearance requirements for the jaws and fittings and the procedure for pressing fittings in tight quarters.

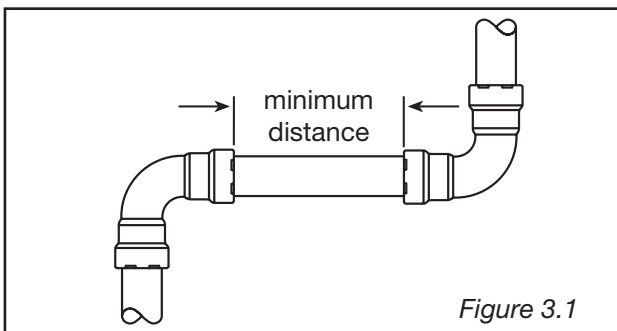


Figure 3.1

Minimum distance between two Viega MegaPress press connections 1/2" to 2"		
Pipe Diameter	Minimum Distance (in)	Minimum Distance (mm)
1/2"	3/16	5
3/4"	3/16	5
1"	3/16	5
1 1/4"	3/8	10
1 1/2"	3/8	10
2"	3/8	10

Table 3.4

Minimum distance requirements for press jaws between pipes and walls

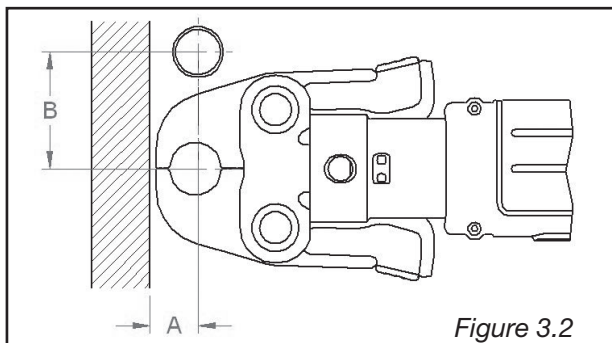


Figure 3.2

Pipe Diameter	A minimum	B minimum
	in	in
1/2"	1	2 5/8
3/4"	1 1/4	3 1/8
1"	1 3/4	3 5/8

Table 3.5

Minimum distance requirements for press jaws between pipes and wall/floor structure.

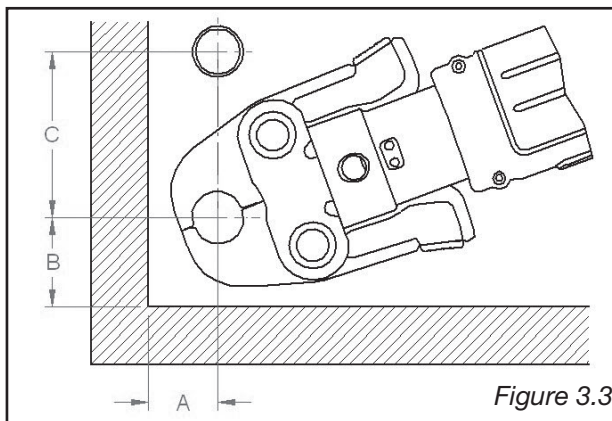


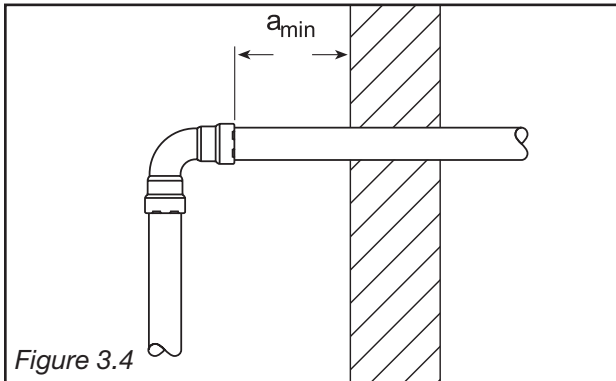
Figure 3.3

Pipe Diameter	A minimum	B minimum	C minimum
	in	in	in
1/2"	1 1/4	1 7/8	3
3/4"	1 1/2	2 1/8	3 1/2
1"	2	2 1/2	4

Table 3.6

3.4.3 Minimum space requirements for the press fitting process in front of and behind components

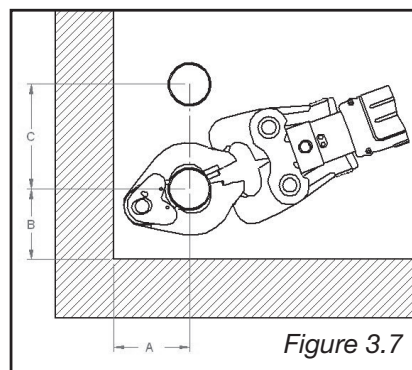
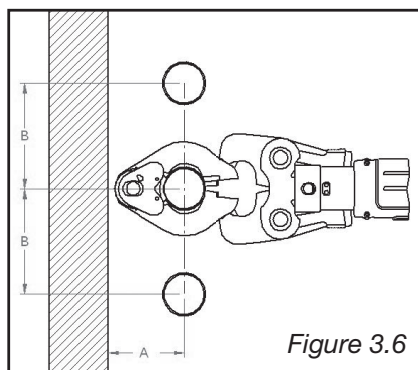
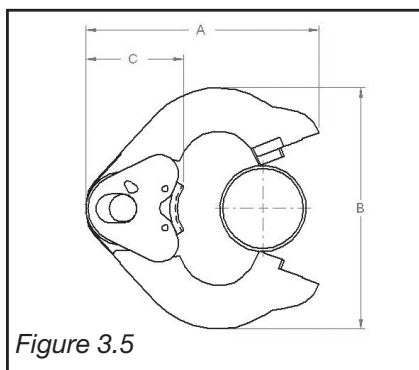
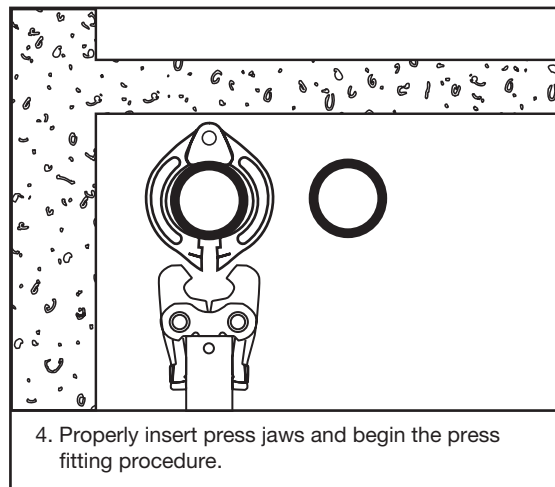
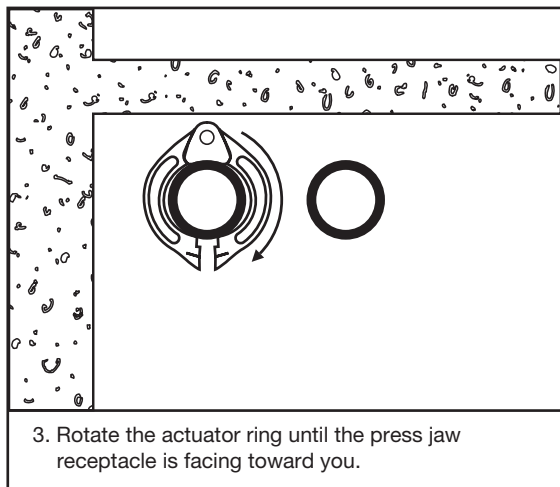
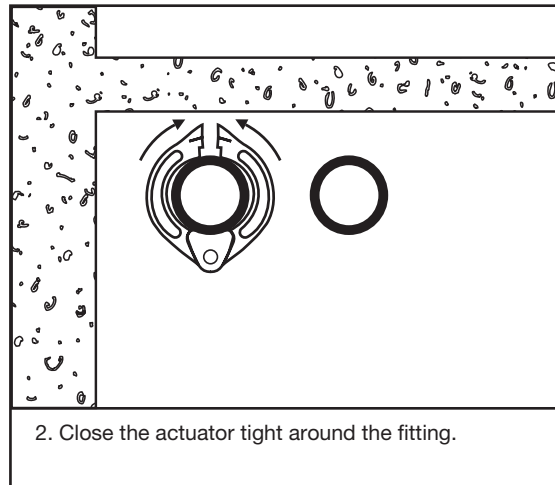
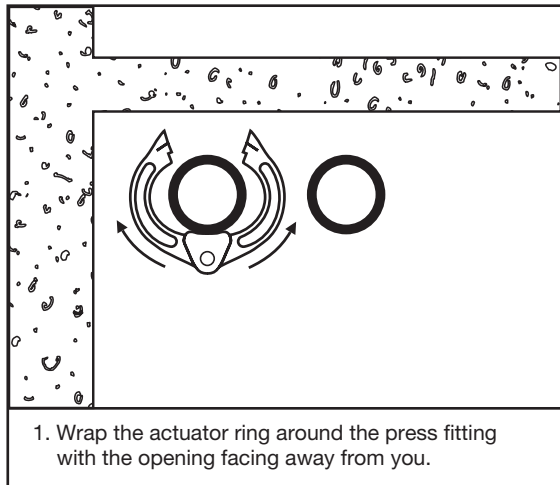
Ensure that the space required for Viega system pressing tools is available if press fittings will be executed immediately upstream and downstream from wall or ceiling penetrations.



Pipe Size	Minimum space requirement, a_{min} for press tools
	RIDGID RP 330-B, 330-C and 340-B Press Tool (in)
½" to 1"	1½"
1¼" to 2"	¾"

Table 3.7

3.4.4 Pressing with ring and actuator in tight quarters



Pipe Diameter	A in	B in	C in
1¼"	6	6¼	2½
1½"	6	6¼	2⅝
2"	6	6⅞	2½

Table 3.8

Pipe Diameter	A in	B in
1¼"	3¾	4⅞
1½"	4	5⅞
2"	4	5⅞

Table 3.9

Pipe Diameter	A in	B in	C in
1¼"	3¾	3	4⅞
1½"	4	4	5⅞
2"	4	4	5⅞

Table 3.10

3.5 Welding requirements

The following requirements must be considered when welding in the same vicinity as Viega MegaPress fittings.

3.5.1 Welding adjacent to Viega MegaPress fittings

When welding adjacent to a Viega MegaPress connection, the installer must remain 4" away from the connection to prevent damage to the sealing element. The installer should take the following precautions to keep the Viega MegaPress connection cool while welding:

- Wrapping the connection with a cold, wet rag
- Protecting the connection with a weld blanket
- Fabricating weld connections prior to installing the pressed fitting, making sure the pipe has cooled before installing the fitting
- Consistently applying "heat sink gel or spray" spot freezing

3.5.2 Welding in line with Viega MegaPress fittings

When welding in line with Viega MegaPress fittings, the installer must remain a minimum of three feet away from the Viega MegaPress connection to prevent damage to the sealing element. The installer should take the following precautions to keep the Viega MegaPress connection cool while welding:

- Wrapping the connection with a cold, wet rag
- Protecting the connection with a weld blanket
- Fabricating weld connections prior to installing the pressed fitting, making sure the pipe has cooled before installing the fitting
- Consistently applying "heat sink gel or spray" spot freezing

3.6 General installation requirements

The Viega MegaPress fitting system must be installed while considering the following general industry requirements.

3.6.1 Expansion

Thermal expansion in installed systems generates stresses in pipes and appliance connectors. Compensation must be allowed for expansion and contraction that may occur within the piping system. Expansion joints or mechanical expansion compensators may be used to alleviate these stresses.

3.6.2 Electrical bonding

When properly installed, Viega MegaPress 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 pipe. The press ensures the continuity of the bonding through this contact.

3.6.3 Piping exposed to freezing temperatures

In the Viega MegaPress system, the EPDM sealing element can be installed in ambient temperatures down to 0°F. The HNBR sealing element available with Viega MegaPressG fittings can be installed in ambient temperatures down to -40°F. Piping systems exposed to freezing temperatures must be protected per acceptable engineering practices, codes and as required by the local authority.

3.6.4 Corrosion protection

Viega MegaPress 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 RP0169-2002 section 5, 2009 UPC Chapter 6 section 609.3.1, 2009 UMC Chapter 13 section 1312.1.3 and in a manner satisfactory to the local code official.

In some cases the local authority may require the installation of pipe and fittings to be painted. Installers should use caution to prevent saturating the fittings with paint and take care to not allow excess paint to accumulate on the fitting hub. Failure to use caution could result in a premature failure.

Care should be taken to select hangers of suitable material that is galvanically compatible with the piping system. In addition, piping systems should be properly sized to minimize the risk of erosion corrosion resulting from excessive velocities.

3.6.5 Concealed spaces

Viega MegaPressG has been examined according to the construction and performance criteria in the CSA requirement LC-4 and was found acceptable. Specific performance tests were conducted to evaluate the fittings for use in concealed locations.

3.6.6 Underground installations

Viega MegaPress fitting systems and carbon steel pipe are approved for underground installations. However, any installations must meet all state and local codes, including those for underground.

Proper authorization must be obtained prior to underground installation from the local authority having jurisdiction.

3.6.7 Pressure testing

The pressure testing of installed pipe is to be completed in accordance with local codes or, in the absence of local codes, in accordance with NFPA 54 or NFPA 58.

3.6.8 Transition connections

Viega MegaPress system ½" to 2" can be joined with off-the-shelf threaded fittings.

In this regard:

1. The threaded connection is made first.
2. The press connection is made second.

This process avoids unnecessary torsion.

3.6.9 Pipe hangers

Hangers and supports must conform to the requirements of ANSI/MSS SP 58, Pipe Hangers and Supports, Materials, Design, Manufacture, Selection, Application and Installation. Supports, hangers and anchors are to be installed in a manner that does not interfere with the free expansion and contraction of the piping.

All parts of the support equipment need to be designed and installed to not disengage due to movement of the supported piping. Sliding hangers must be positioned so that they cannot unintentionally become rigid hangers when the system is in use. See Fig. 3.8. Fig. 3.9 shows a sliding piping hanger that becomes a rigid hanger with spacing in excess of 10".

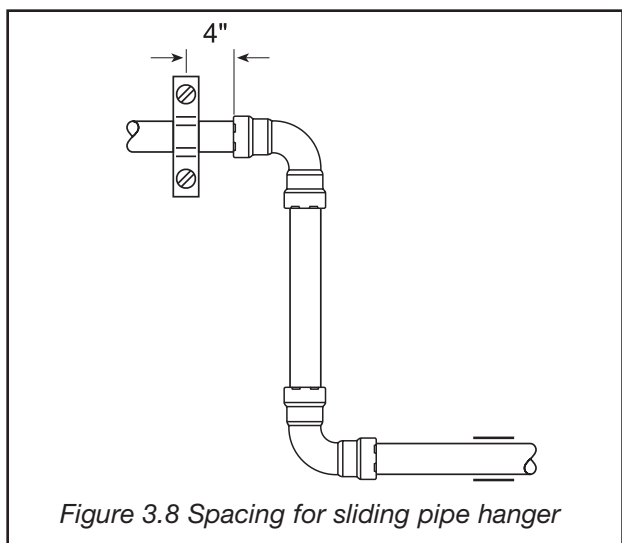


Figure 3.8 Spacing for sliding pipe hanger

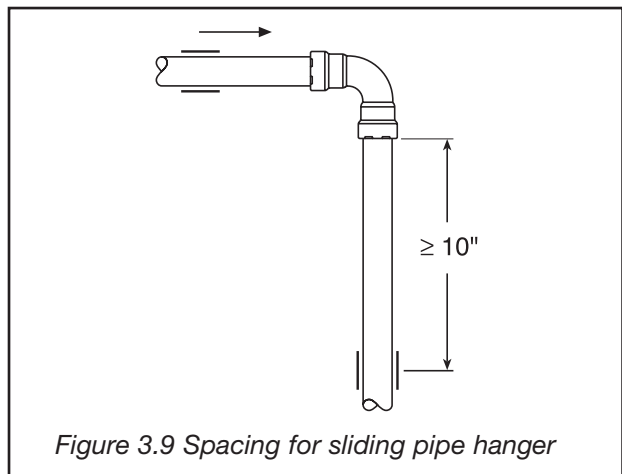


Figure 3.9 Spacing for sliding pipe hanger

Pipe Size (in)	Steel Pipe Max. Span (ft)	Min. Rod Diameter (in)
1/2 - 3/4	6	3/8
1	8	3/8
1 1/4 - 2	10	3/8

Table 3.11 Hanger Spacing

3.7 Deflection

When pressing Viega MegaPress 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.

The pressing process can cause deflection (angular misalignment) to occur. Deflection while pressing can be minimized by utilizing the installation practices below.

Alternate sides for presses

- Press one end of fitting
- Make 2nd press on other end of fitting from opposite side
- Site conditions prevail

Push-Pull Method

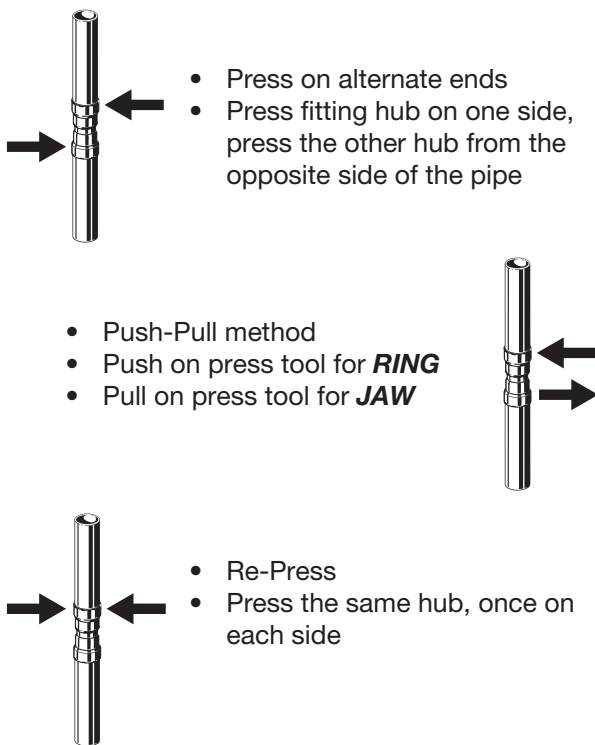
- Rings = Push on press tool
- Jaws = Pull on press tool

Re-Press

- You can re-press a fitting on the opposite side
- Most times it will kick the fitting back
- 1 shot only

Deflection occurs in the same way for every fitting. The fitting hub you are pressing will move in the direction of the jaw or ring opening.

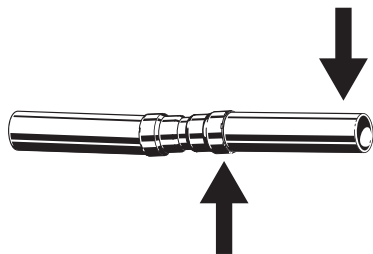
3.7.1 Controlling deflection



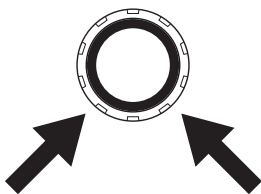
- Press on alternate ends
- Press fitting hub on one side, press the other hub from the opposite side of the pipe

- Push-Pull method
- Push on press tool for **RING**
- Pull on press tool for **JAW**

- Re-Press
- Press the same hub, once on each side



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



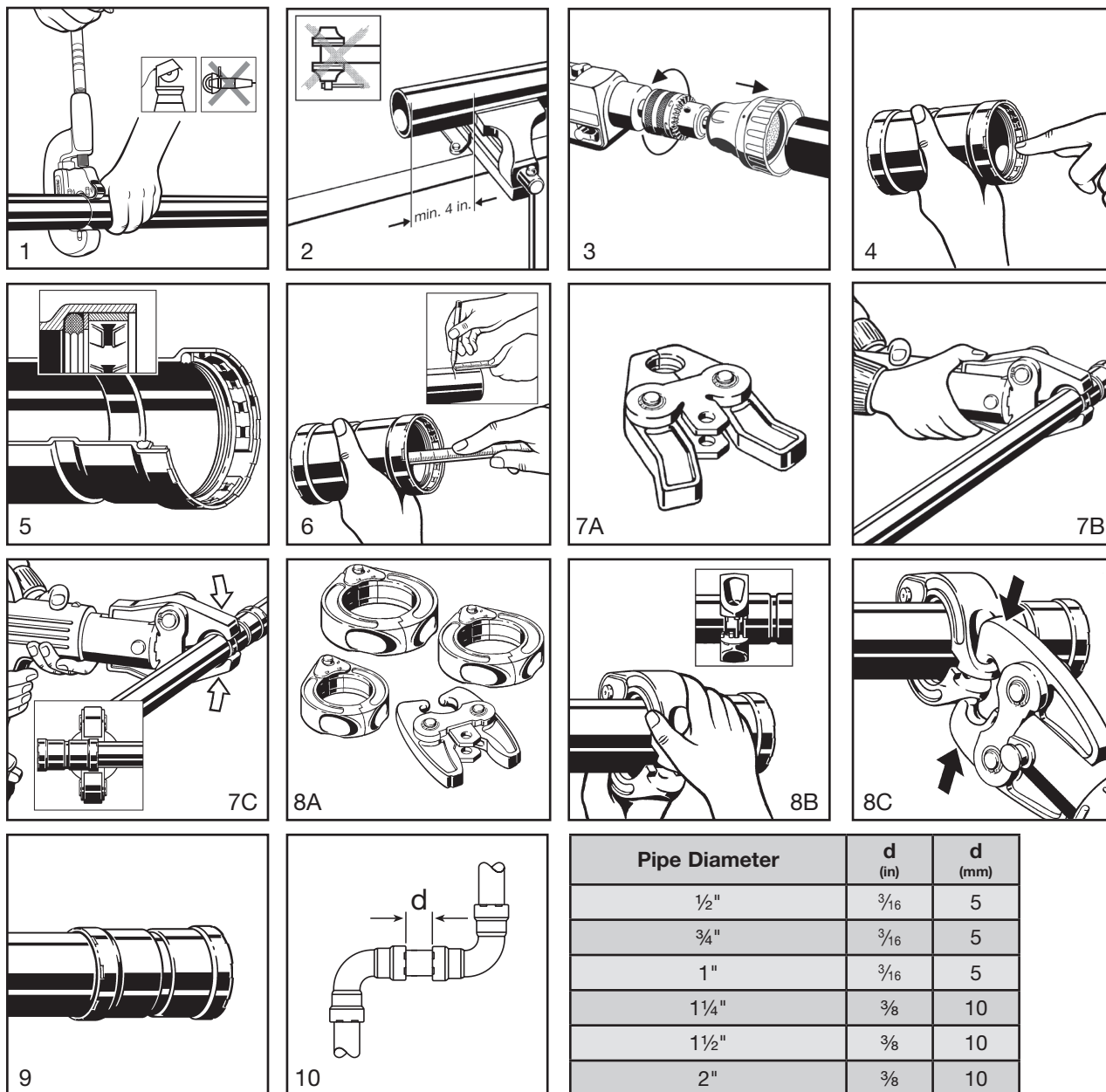
- When pressing overhead piping, it may be inconvenient to alternate sides for each press.
- The natural weight of the piping plus pressing on opposite sides at a 45 should adequately eliminate deflection.
- This technique can also be used for any horizontal piping and also when working above the piping.
- The press tool ram can be feathered by the trigger as needed to permit applying pulling or pushing force to control deflection.

As long as the pipe is properly prepped and marked and the fitting is installed per MegaPress' 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 MegaPress product instructions.

3.8 Identification

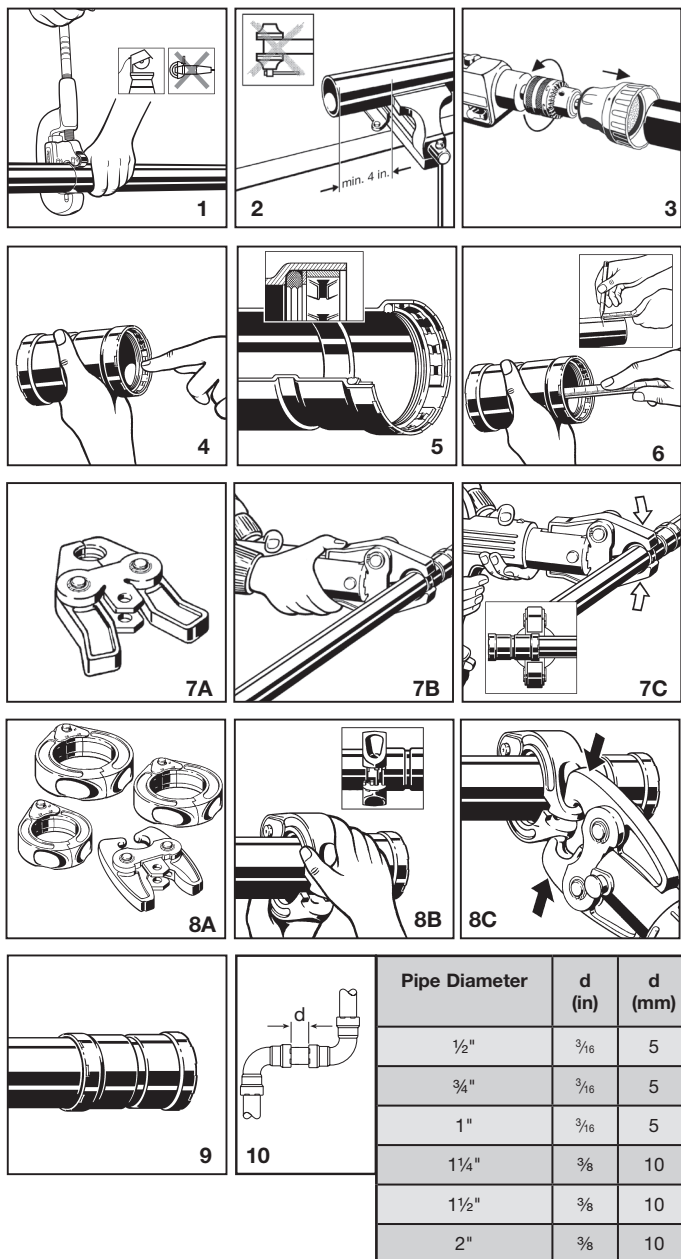
All Viega MegaPress carbon steel piping systems should be continuously marked in accordance with ANSI A13.1 or as required by the local authority having jurisdiction.

3.9 Viega MegaPress fitting system 1/2" to 2" installation



Pipe Diameter	d (in)	d (mm)
1/2"	3/16	5
3/4"	3/16	5
1"	3/16	5
1 1/4"	3/8	10
1 1/2"	3/8	10
2"	3/8	10

3.10 Viega MegaPressG fitting system 1/2" to 2" installation



1. Cut piping at right angles using displacement-type cutter.
2. Keep end of piping a minimum of 4" away from the contact area of the vise to prevent possible damage to the piping in the press area. See MegaPress Manual for minimum clearance required for prep tools.
3. Remove burr from inside and outside of piping 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.
5. Illustration demonstrates proper fit of grip ring, separation ring and sealing element.
6. Mark proper insertion depth. Improper insertion depth may result in an improper seal. The depth marking shall be visible on the completed assembly.
- 7a. Viega MegaPress 1/2" - 1" fitting connections must be performed with MegaPress Jaws. See RIDGID Operator's Manual for proper tool instructions.
- 7b. Open the MegaPress Jaw and place at right angles on the fitting. Visually check insertion depth using mark on piping.
- 7c. Start pressing process and hold the trigger until the jaw has engaged the fitting. Keep extremities and foreign objects away from MegaPress Jaw during pressing operation to prevent injury or incomplete press.
- 8a. Viega MegaPress 1/4" - 2" fitting connections must be performed with MegaPress Rings and V2 Actuator. See Operator's Manual for proper tool instructions.
- 8b. Open MegaPress Ring and place at right angles on the fitting. MegaPress Ring must be engaged on the fitting bead. Check insertion depth.
- 8c. Place V2 Actuator onto MegaPress Ring and start pressing process. Hold the trigger until the Actuator has engaged the MegaPress Ring. Keep extremities and foreign objects away from MegaPress Ring and V2 Actuator during pressing operation to prevent injury or incomplete press.
9. Remove MegaPress Jaw from fitting or release V2 Actuator from RIDGID MegaPress Ring and then remove MegaPress Ring from the fitting on completion of press. Remove control label to indicate press has been completed.

Note: The installation, inspection, testing and purging of the fuel gas system shall be in accordance with local codes or, in the absence of local codes, in accordance with the International Fuel Gas Code, NFPA 54/National Fuel Gas Code z223.1, the Uniform Plumbing Code, NFPA 58 or CSA B 149.1 as applicable.

- Caution:**
- (a) The fittings are for use with fuel gases and are intended for the operating pressure 0-125 psi.
 - (b) The fuel gas system shall not be used as a grounding electrode for an electrical system.

Pipe Diameter	d (in)	d (mm)
1/2"	3/16	5
3/4"	3/16	5
1"	3/16	5
1 1/4"	3/8	10
1 1/2"	3/8	10
2"	3/8	10

Viega Limited Warranty 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 MegaPress Limited Warranty

Subject to the conditions and limitations in this Limited Warranty, Viega LLC (Viega) warrants to end users, installers, and distribution houses that its Viega MegaPress metal press fittings (Viega Product) with application appropriate sealing element when properly installed in non-industrial and non-marine applications and under normal conditions of use shall be free from failure caused by manufacturing defects for a period of ten (10) years from date of installation in Viega MegaPress Approved Applications for fluids/water, oil and lubricant, and gases under Viega specified system operating conditions.

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 manufactured or sold by Viega, such as carbon steel pipe; (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) use of Viega Product under non recommended system operating conditions, improper handling and protection of the Viega Product prior to, during and after installation, inadequate freeze protection, or exposure to environmental conditions not recommended for the application; or (4) acts of nature, such as, but not limited to, earthquakes, fire, or weather damage. In the event of a leak or other failure of the Viega Product covered by this warranty, it is the responsibility of the end user to take appropriate measures to mitigate 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 on the back cover of this installation manual 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 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 ANY 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 OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE 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**.

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