Installation Manual

Viega MegaPress® G Systems

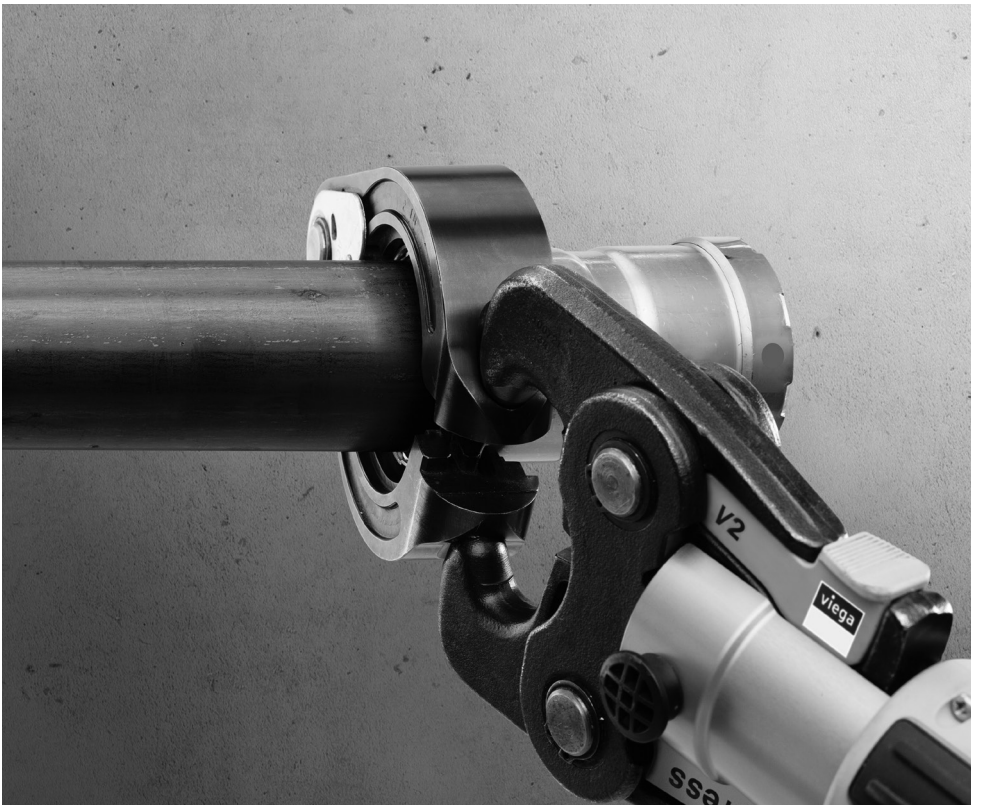

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Table of Contents

1 About this Document

1.1 Disclaimers

This document is subject to updates. For the most current Viega technical literature, please visit https://www.viega.com/en/services/Middle-East-Service.html.

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 GmbH warranty.**

1.2 Symbols Used

The following symbols may be used within this document:

DANGER!
This symbol warns of possible life-threatening injury.

WARNING!
This symbol warns of possible serious injury.

CAUTION!
This symbol warns of possible injury.

NOTICE!
This symbol warns of possible damage to property.

Notes give additional helpful tips.

1.3 Audience

The information in this manual is directed at plumbing and mechanical professionals and trained personnel. Individuals without the above-mentioned training or qualification are not permitted to mount, install and, if required, maintain this product.

1.4 About this Version

This installation manual contains important information about the choice of product or system, assembly, and commissioning as well as intended use and, if required, maintenance measures. The information about the products, their properties, and application technology are based on the current standards in the United States of America, Canada and United Arab Emirates.

Some passages in the text may refer to technical codes in the United States of America, Canada and United Arab Emirates. These should serve as recommendations in the absence of corresponding national regulations. The information herein is not binding for other countries and regions; and as mentioned above, should be understood as a recommendation.

2 Product Information

2.1 MegaPress G System

Viega MegaPress systems are state-of-the-art Iron Pipe Size (IPS) press connector systems that provides an economical and reliable installation of schedule 40 carbon steel pipes. The Viega MegaPress G connector 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. MegaPress G connectors may be used with seamless (S) steel pipes.

Viega MegaPress G connectors and valves are constructed of carbon steel with a corrosion-resistant zinc/nickel coating ranging from ½ inch to 4 inches.

MegaPress G connectors feature a yellow dot with an HNBR sealing element. All use Viega's unique Smart Connect® technology to help installers ensure that they have pressed all connections.

The Viega MegaPress G connector system requires no welding, soldering, brazing, or threading and poses no fire hazard, which is particularly important in restoration or retrofit work. The connectors are installed with electro-hydraulic press tools (battery-powered or corded press tools).

2.2 Safety

Please read and understand the instructions before beginning installation to eliminate safety concerns and reduce risks associated with use and handling of Viega products.

2.3 Areas of Use

Viega MegaPress G connectors are a safe and fast way to connect gas pipe and is a replacement for welded, threaded, and rolled-groove connection in new installations and repairs. The system is not suitable for use in potable water installations.

MegaPress G connectors are for use with natural gas and Liquified Petroleum Gas and are intended for the operating pressure 0–125 psi (0–8.6 bar).

MegaPress G:
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!
MegaPress G connectors are for use with fuel gases and are intended for operating pressures of 0–125 psi (0–8.6 bar).

It is recommended that all systems be clearly labeled with the fluid or gas being conveyed. In the absence of local requirements, systems should be identified in accordance with ANSI/ASME A13.1.

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

2.4 Standards and Regulations

2.4.1 Overview

The following standards and regulations apply to the United States of America, Canada and United Arab Emirates and are provided as a support feature.

2.4.2 Regulations: Applications

Scope / Notice	Regulations Applicable in U.S./Canada
Application for fuel gases	MegaPress G only - CSA LC-4
Application for LPG	UAE Fire Safety Code, Chapter 11 LPG Code of Practice

Table 1: Applications regulations

2.4.3 Standards: Pipes

Standard	Definition
ASTM A53	Standard specifications for steel, black and hot dipped, zinc-coated, welded, or seamless pipe
ASTM A106	Standard specification for seamless carbon steel pipe for high-temperature service
ASME B36.10	Welded and seamless wrought steel pipe

Table 2: Pipes standards

2.4.4 Standards: MegaPress G

- Fuel gas applications shall conform to ASTM A53 and A106 Grade B, Schedule 40 carbon steel pipe.
- Carbon steel pipe shall conform to ASTM A53. Pipe schedule (pipe wall thickness) shall conform to the standard referenced dimensions for Schedule 40. Adopted code versions, standards compliance, and local approvals should be considered.

MegaPress G
ANSI/CAN/UL/ULC 180 Standard for Safety for Combustible Liquid Tank Accessories: Compression Connectors for Aboveground Pipe Supply and Fill Vents. Install according to the Manufacturer‘s Instructions. For Combustible Liquid Use. Pressure rating max 125 psi (8.6 bar). Fire rating 30 minutes.

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.

2.4.5 Standards: Sealing Elements

Standard	Definition
ASTM D2000	Classification system for rubber products in automotive applications
ASTM F1476	Performance of gasketed mechanical couplings for use in piping applications

Table 3: Sealing elements standards

2.4.6 Standards: Pipe Hangers

Standard	Definition
MSS SP 58	Pipe hangers and supports materials, design, and manufacturer

Table 4: Mounting standards

2.4.7 Standards: Pressure Testing

Standard	Definition
ASME B31	Pressure piping
IAPMO/ANSI/ CAN Z1117	Press and nail connections
ASTM F3226	Standard specification for metallic press-connect connectors for piping and tubing systems
IACS	Requirements concerning pipes and pressure vessels
NFPA 58	Liquefied Petroleum Gas Code

Table 5: Pressure testing standards

2.5 Listings and Certifications

MegaPress G connectors have the following listings and certifications:

- ABS: American Bureau of Shipping Type Approval
- BV: Bureau Veritas Type Approval
- Canadian Registration Number (CRN): 23019.5 A/B/C
- DNV GL: Det Norske Veritas Germanischer Lloyd Type Approval
- LR: Lloyd's Register Type Approval

- ANSI/CAN/UL/ULC 180: Standard for Safety for Combustible Liquid Tank Accessories
- CSA: ANSI LC 4a/CSA 6.32a: Press-Connect Metallic Connectors for Use in Fuel Gas Distribution Systems
- IAPMO: ANSI LC 4a/CSA 6.32a: Press-Connect Metallic Connectors for Use in Fuel Gas Distribution Systems
- ICC-ES: ANSI LC 4a/CSA 6.32a: Press-Connect Metallic Connectors for Use in Fuel Gas Distribution Systems
- Civil Defense UAE: ANSI LC4a: Press-Connect Metallic Connectors for Use in Fuel Gas Distribution Systems

United Arab Emirates
Ministry of interior
Civil Defense G.H.Q
Fire intentional Lab & House
Of Expertise & Training Center
Approval Committee

دولة الامارات العربية المتحدة
وزارة الداخلية
القيادة العامة للدفاع المدني
لجنة اعتماد المختبرات العالمية
وبيوت الخبرة ومعاهد التدريب

Date : 2024-09-26

CERTIFICATE OF COMPLIANCE

This certificate of compliance validates the following			
TEST REPORT NUMBER 'Assessment Reports' are not acceptable	CG24-0104908-01	**CERTIFICATE NUMBER**	SN.Y000RA
DATE OF ISSUE	2024-09-24	**DATE OF ISSUE**	2024-09-26
DATE OF EXPIRY	2027-09-23	**DATE OF EXPIRY**	2027-09-25
Manufacturer details			
NAME OF FACTORY/ MANUFACTURER	VIEGA GmbH & Co. KG	**NAME OF THE BRAND**	VIEGA
FACTORY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	Viegastrasse 1 - 99518 , Grossheringen, Germany	**MODEL / NO**	Megapress G
WEBSITE	www.viega.com	**LOGO ON THE PRODUCT**	viega

Abb. 1: Extract from the certificate of Civil Defense UAE

2.6 Codes and Standards

It is the responsibility of the installer or any other parties to adhere to all applicable local rules and regulations governing the nature of the installation.

MegaPress G connectors comply with the following codes and standards:

- ASME B31: Code for Pressure Piping
- ASME B31.1: Power Piping
- ASME B31.3: Process Piping
- ASME B31.9: Building Service Piping
- IAPMO Uniform Mechanical Code (UMC)
- ICC International Mechanical Code (IMC)
- ICC International Residential Code (IRC)
- National Building Code of Canada (NBCC)
- National Plumbing Code of Canada (NPCC)

- CAN/CSA-B149.1: Natural Gas and Propane Installation Code
- IAPMO National Standard Plumbing Code (NSPC)
- IAPMO Uniform Plumbing Code (UPC)
- ICC International Fuel Gas Code (IFGC)
- NFPA 54/Z223: National Fuel Gas Code
- NFPA 58: Liquefied Petroleum Gas Codes
- UAE Fire Safety Code, Chapter 11 LPG Code of Practice

2.7 Product Description

2.7.1 Overview

The MegaPress G system consists of press connectors for heavy steel pipes and the corresponding press tools. MegaPress press jaws, actuator, and rings are available for various dimensions. Their constant compression produces a positive, nondetachable, mechanical joint. The system components are available in the following dimensions: ½ inch, ¾ inch, 1 inch, 1¼ inch, 1½ inch, 2 inch, 2½ inch, 3 inch, 4 inch.

2.7.2 Pipes

MegaPress G press connectors may be used with the following seamless steel pipes:

- Black
- Galvanized (non-potable applications)
- Industrially painted
- Powder coated

Due to local rules and regulations, the pipe types listed here may not be permitted.
The permissible use of the selected pipe type must be checked before installation work begins.

Viega MegaPress systems are compatible with ASTM A53 and A106 Grade B, Schedule 40 carbon steel pipe. Viega MegaPress G press connectors for fuel gas or fuel oil systems shall be used with ASTM A53 Schedule 40 carbon steel pipe.

If the pipe has been coated, the maximum external diameter listed in the following tables must not be exceeded.

Schedule 40 Pipe

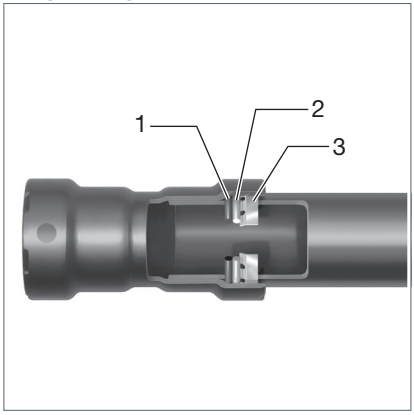
Pipe Size [inch]	Outside diameter [inch]	Outside diameter [mm]	Wall thickness [inch]	Wall thickness [mm]
½	0.84	21.3	0.109	2.77
¾	1.05	26.7	0.113	2.87
1	1.32	33.4	0.133	3.38
1¼	1.66	42.2	0.14	3.56
1½	1.9	48.3	0.145	3.68
2	2.375	60.3	0.154	3.91
2½	2.875	73.0	0.203	5.16
3	3.5	88.9	0.216	5.49
4	4.5	114.3	0.237	6.02

Table 6: Schedule 40 pipe sizing

2.7.3 Press Connectors

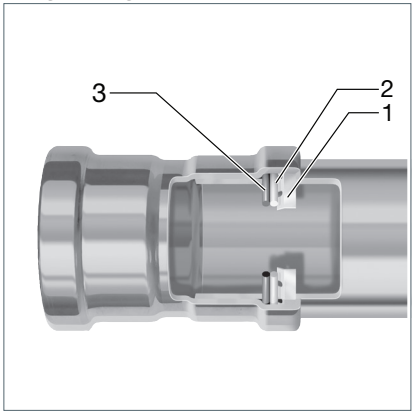
Press connectors are available in a number of configurations and sizes. An overview of the press connectors suitable for a system can be found in the catalog.

Viega MegaPress G ½ inch to 2 inch Connectors



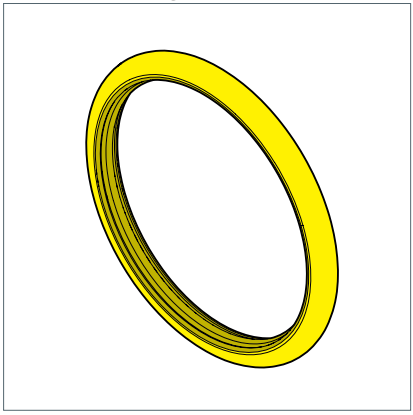
1 Each connector contains an application specific sealing element.
2 The 304 stainless steel separator ring ensures that the sealing element and grip ring perform at maximum capacity by providing a positive physical separation.
3 The grip ring is a 420 stainless steel ring with bidirectional teeth that grip the pipe and ensure that the connector is locked securely to the piping.

Viega MegaPress G 2½ inch to 4 inch Connectors



1 The 420 stainless steel grip ring's teeth cut into the pipe and lock the connector securely in place.
2 A graphite separator ring for MegaPress G connectors protects the sealing element from damage by creating a positive physical separation during installation and later during pressing.
3 The sealing element ensures tight connections.

HNBR Sealing Element

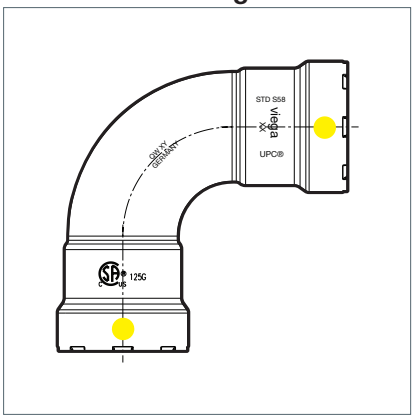


Viega MegaPress G press connectors are manufactured with a yellow HNBR (Hydrogenated Nitrile Butadiene Rubber) rofile sealing element installed at the factory. HNBR is widely known for its physical strength and retention of properties after long-term exposure to heat, oil, and chemicals.

The unique properties attributed to HNBR have resulted in wide adoption of HNBR in automotive, industrial, and assorted high-performance applications. Sealing elements are inserted into the connector using a H1 food grade lubricant registered with NSF and the USDA, and is approved for use under FDA 21 CFR.

The operating temperature of the HNBR sealing element is -40°F to 180°F (-40°C to 82°C).

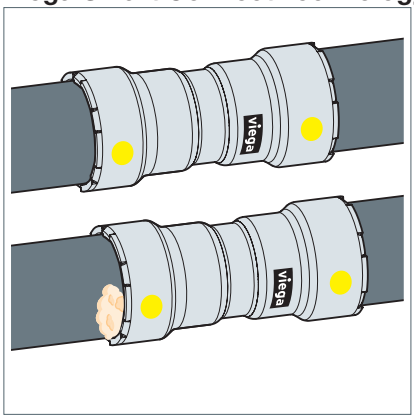
Connector Markings



Each MegaPress G press connector is marked with the following:

- Yellow dot: HNBR sealing element and Smart Connect technology
- Yellow rectangle: identifies Viega MegaPress G press connector as a certified gas or fuel oil connector. On the back, therefore not visible in the image
- Size of connector
- Manufacturer name
- Manufacturer date code
- Country of origin
- UPC®
- CSA: indicates certification to ANSI/CSA LC4
- 125G: identifies the CSA maximum pressure rating of the connector for fuel oil or gas applications

Viega Smart Connect Technology



Viega press connectors are equipped with the SC-Contur. The SC-Contur is a safety technology that is certified by the DVGW and ensures that the press connector is guaranteed to be leaky in an unpressed state. In this way, inadvertently unpressed connections are noticed during a leakage test.
Viega guarantees that unpressed connections become visible during a leakage test:

- with dry leakage test in the pressure range from 22 hPa–0.3 MPa (22 mbar–3.0 bar)

Testing for leaks using Viega Smart Connect is not a replacement for testing requirements of local codes and standards. If testing with compressed air, it is necessary to use an approved leak-detect solution.

2.8 General Installation Requirements

The Viega MegaPress G press connector system must be installed while considering the following general industry requirements.

2.8.1 Required Tools

The following tools are required for making a press connection:

- Pipe cutter or a fine-toothed hacksaw
- Deburring tool
- Marker for marking insertion depth on pipe
- Press machine with constant pressing force
- Press jaw or press ring with corresponding actuator or booster suitable for the pipe diameter and with the proper profile

Improper Tool/Material Damage
Only use press jaws and rings that are designed for use with MegaPress connectors.

Press machines	Press set	Press set XL
Pressgun 6 Plus Model 2295.3	½ Inch to 2 Inch Model 2880.71	2½ Inch with Press Booster Model 4896.2XL 3 Inch and 4 Inch Model 4896.5XL

Table 7: Possible combinations of press machines and press jaws

2.8.2 Exposure to Freezing Temperatures

The HNBR sealing element available with Viega MegaPress G connectors can be installed in ambient temperatures down to -40 °F (-40 °C).

Piping systems exposed to freezing temperatures must be protected per acceptable engineering practices, codes, and as required by the local authority.

2.8.3 Underground Installations

Installations must meet all state and local codes, including those for underground. Proper authorization must be obtained prior to installation from the local authority.

2.8.4 Concealed Spaces

The Viega MegaPress G press connector system has been approved for use in concealed spaces. Specific performance tests were conducted to evaluate the connectors for use in concealed spaces. Concealed tubing and connectors shall be protected from puncture threats. Installations must meet all state and local codes.

The Viega MegaPress G press connector system 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 connectors for use in concealed locations.

2.8.5 Electrical Bonding

When properly installed, MegaPress G connectors comply with Section 1211.15 Electrical Bonding and Grounding of the Uniform Plumbing Code.

The mechanical press provides continuous metal-to-metal contact between connector and pipe. 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 piping can conduct electricity, unintentional contact with a live wire can cause the entire system and components connected to it to become energized. Metal piping 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.

CAUTION!
Potential explosive hazard – MegaPress G
The fuel gas system shall not be used as a grounding electrode for an electrical system.

CAUTION!
Pressure and electrical grounding
The connectors are for use with fuel gases and are intended for the operating pressure 0–125 psi (0–8.6 bar).
The fuel gas system shall not be used as a grounding electrode for an electrical system.

2.8.6 Corrosion Protection

Viega MegaPress G press connectors 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, or satisfying local code requirements.

Care should be taken to select hangers of suitable material that is galvanically compatible with the piping system.

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

3 Handling Instructions

All Viega MegaPress G components and associated pipe shall be free from dirt, debris, or items that may interfere with the sealing element and the press connection. Viega MegaPress G sealing elements, separator rings, and grip rings are to be visually inspected prior to installation to ensure the seal is intact and properly located within the connector. Viega MegaPress G sealing elements, separator rings, and grip rings are not interchangeable between the different MegaPress systems.

3.1 Transport

When transporting connectors:

- Do not pull or drag the connectors or system components along other surfaces.
- Secure connectors, piping, and system components during transportation to keep them from shifting.
- Do not damage the protective cap on components or pipe ends.
- Do not remove protective caps until immediately before installing.

3.2 Storage

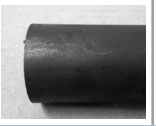
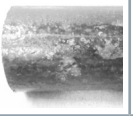
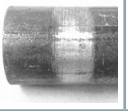
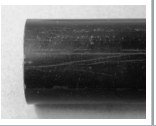
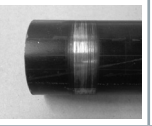
For storage, comply with the requirements specified in the applicable regulations:

- Store components in a clean and dry place.
- Do not store components directly on the floor.
- Provide at least three points of support for the storage of piping.
- Where possible, store different sizes separately.
- Store small sizes on top of larger sizes if separate storage is not possible.
- Store connectors, pipe, and system components of different materials separately to prevent contact corrosion.

In addition, observe the instructions provided by the pipe manufacturer.

3.3 Pipe Preparation

Due to local rules and regulations, the pipe types listed here may not be permitted.
The permissible use of the selected pipe type must be checked before installation work begins.

Description	Different kinds of pipe surface	Prep necessary Yes / No	Surface after prepping	Comments
Clean, bare pipe		No		If the pipe has no lacquer and there is no rust on the surface and the surface is smooth, no preparing is necessary.
Galvanized steel pipe		Yes		If the surface of the galvanized pipe is uneven, then the pipe surface must be smoothed.
Pipe with black shellac or lacquer		Yes		If the pipe is coated with black shellac or lacquer the coating has to be smoothed.
Pipe with rust		Yes		If the pipe has no lacquer and there is a rust film on the surface, the surface has to be prepped until the rust film is removed and the pipe surface is smooth.
Epoxy coating		No		The epoxy coating must be reduced to allow the pipe to be inserted into the connector. If the pipe has been coated, the maximum external diameter must not exceed the limit in the Insertion Depth table.
Cataphoretic paint (KTL)		No		If the pipe is cataphoretic painted (KTL) and the surface is smooth, it is not necessary to prep the pipe. If there are scratches on the KTL, the surface has to be smoothed.

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

Install MegaPress G connectors on plain end pipe only. Pressing connectors directly over threads or welded seams will result in an improper seal.

To avoid leak paths, engraved or stamped pipe shall not be used with the Viega MegaPress G connector system. Engraving or stamping shall not be removed through use of a grinder or other tool.

In systems where complete corrosion protection is required (e.g., cooling systems), apply suitable corrosion protection to the previously processed pipe surfaces that are still uncovered after pressing.

The Viega MegaPress G system does not require lubrication of the pipe or the connector.

4 Installation Instructions

4.1 Check System Components

System components may, in some cases, become damaged through transportation and storage.

- Check all parts.
- Replace damaged components.
- Do not repair damaged components.
- Contaminated components may not be installed.
- Do not press on embossed pipe markings.

4.2 Installing and Mounting the Pipe

Observe the general rules of hanging and mounting:

- Fixed piping should not be used as support for other piping and components.
- Do not use pipe hooks.
- Observe distance between connectors and mounting points.
- Observe the expansion direction – plan fixed and sliding mounts.

4.2.1 Pipe Hangers and Supports

Piping supports perform two functions:

- To provide support for the piping.
- To guide the pipe during thermal expansion and contraction.

Connectors must not be used as support

- System malfunction may result from additional stress and strain put on the connector.
- At no point in the system should a connector be the sole means of support. For example, when installing a tee, both the branch and the trunk must be properly supported.

Industry standard practices and guidelines shall be used for pipe layout and support. 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.

- Do not use fixed pipelines as a support for other pipelines and components.
- Do not use pipe hooks.
- Observe the expansion direction: plan fixed and gliding points.

Hangers and supports must conform to the local code requirements. Only pipe clamps with chloride-free noise insulation inlays should be used to secure the pipes.

Pipe Size [inch]	Outside diameter [mm]	Maximum Span (m)
½	21.3	2.75
¾	26.7	3.00
1	33.4	3.50
1¼	42.2	3.75
1½	48.3	4.25
2	60.3	4.75
2½	73	5.50
3	88.9	6.00
4	114.3	6.00

Table 8: Pipe hanger spacing acc. to fire safty codes

4.2.2 Transition Connectors

Threaded Connections

The Viega MegaPress systems can be joined with off-the-shelf threaded connectors. In this regard:

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

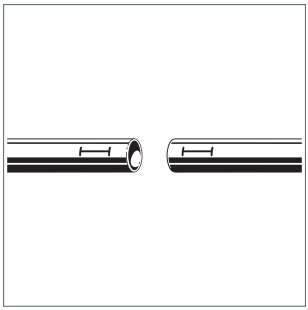
This process avoids unnecessary torsion on the press connector.

Flange Connections

When using Viega flanges, bolt the flange end in place prior to pressing the connector to the pipe.

4.2.3 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 connectors with an integrated stop that have a minimum insertion depth, nostop 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.



Pipe Diameter [inch]	Minimum Insertion Depth [inch]	Minimum Insertion Depth [mm]	Maximum Insertion Depth [inch]	Maximum Insertion Depth [mm]
½	1 1/16	27	1 5/8	41
¾	1 3/16	30	1 13/16	46
1	1 3/8	35	1 15/16	49
1¼	1 13/16	46	2½	64
1½	1 7/8	48	2¾	70
2	2	51	2¾	70
2½	1 13/16	46	3⅛	79
3	2 5/16	59	3 11/16	94
4	3⅛	80	4⅜	111

Table 9: Insertion depths for MegaPress no-stop couplings (model 6615.5/6615.5XL)

Pipe Diameter [inch]	Minimum Insertion Depth [inch]	Minimum Insertion Depth [mm]	Maximum Insertion Depth [inch]	Maximum Insertion Depth [mm]
½	1 1/16	27	2¾	70
¾	1 3/16	30	2 13/16	71
1	1 3/8	35	3	76
1¼	1 13/16	46	3½	89
1½	1 7/8	48	3 9/16	90
2	2	51	3 11/16	94

Table 10: Insertion depths for MegaPress extended no-stop couplings (model 6615.3)

4.3 Space Requirements and Intervals

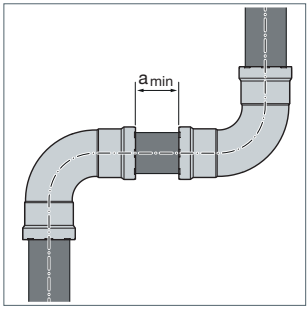
Not enough space

The connection may leak and/or ring/press gun may not fit around the connector.

- Adhere to minimum space requirements.
- Make sure that the space required for pressing tools is available if connectors will be pressed immediately upstream or downstream from wall or ceiling penetrations.
- Take the minimum required distances into consideration during the planning phase of the project whenever possible.

4.3.1 Minimum Distance Between Connectors

To ensure a correct press, a minimum distance between press connectors must be maintained. Failure to provide this distance may result in an improper seal.



D [inch]	a_{min} [mm]
½	5
¾	
1	

Table 11: Minimum distance with press jaws D½–1

D [inch]	a_{min} [mm]
½	15
¾	
1	
1¼	
1½	
2	

Table 12: Minimum distance with press rings D½–2

D [inch]	a_{min} [mm]
2½	15
3	
4	

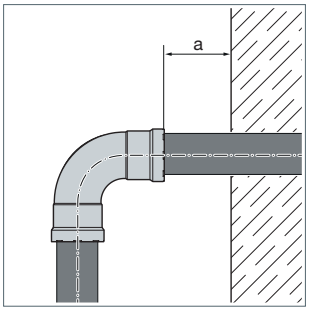
Table 13: Minimum distance with press rings D2½–4

Z dimensions

For the Z dimensions, refer to the respective product page in the online catalogue.

4.3.2 Minimum Space Requirements

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



Pipe Size [inch]	Minimum space requirement, a_{min} for press tools [mm]
	Pressgun 6 Plus
½ to 1 press jaws	50
1¼ to 2 press rings	20
2½ to 4 press rings XL	20

Table 14: MegaPress distance requirements for press jaws between pipes and walls

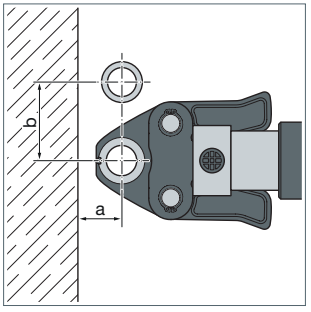
4.3.3 MegaPress Jaws Clearance Requirements

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

Pipe installed too closely together

Connection may leak

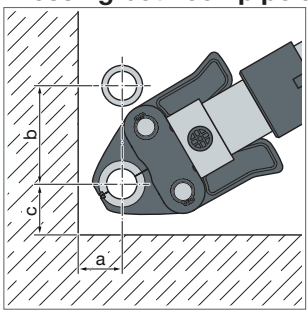
- Adhere to minimum intervals between connectors.
- Insert pipe to full insertion depth before pressing.



D [inch]	a_{min} [mm]
½	5
¾	
1	

Table 15: Minimum distance with press jaws D½–1

Pressing between pipe and wall

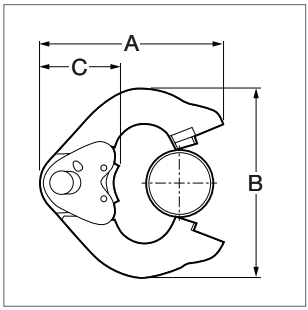


D	½	¾	1
a [mm]	35	40	50
b [mm]	80	90	105
c [mm]	50	55	65

Table 16: MegaPress standard jaws clearance requirements between pipe, wall, and floor

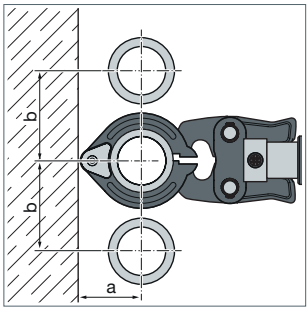
4.3.4 MegaPress Rings Clearance Requirements

Ensure that the space required for system pressing tools is available if Viega MegaPress G connectors will be installed immediately upstream or downstream from ceiling penetrations.



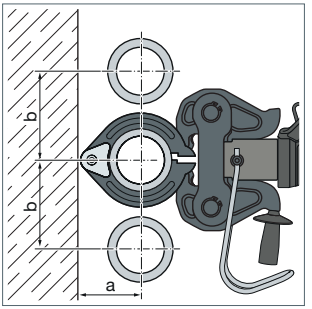
Pipe Size [inch]	A minimum [mm]	B minimum [mm]	C minimum [mm]
1¼	153	159	64
1½	153	172	67
2	153	175	64
2½	169	194	64
3	191	226	64
4	216	264	67

Table 17: MegaPress rings dimensions



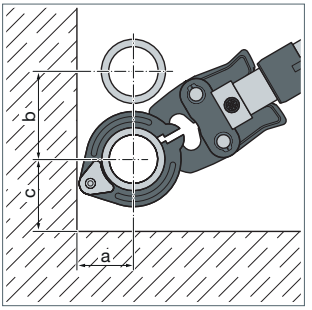
D	1¼	1½	2
a [mm]	95	105	105
b [mm]	125	135	140

Table 18: MegaPress rings



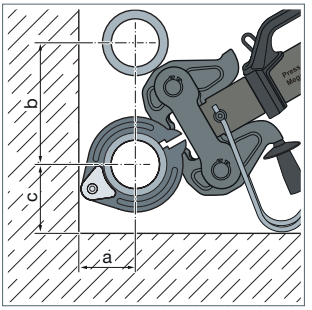
D	2½	3	4
a [mm]	115	120	135
b [mm]	150	170	210

Table 19: MegaPress rings with Booster



D	1¼	1½	2
a [mm]	95	105	105
b [mm]	125	135	140
c [mm]	80	80	80

Table 20: MegaPress rings



D	2½	3	4
a [mm]	115	120	135
b [mm]	150	170	210

Table 21: MegaPress rings with Booster

4.4 Welding

4.4.1 Welding Adjacent to a Connector

To prevent damage to the sealing element, maintain proper welding distances from the connector. If welding adjacent to the connection, weld a minimum of 4 inches away.

4.4.2 Welding In Line with a Connector

To prevent damage to the sealing element, maintain proper welding distances from the connector. If welding in line with the connection, weld a minimum of 1 meter away from the connection to protect the sealing element.

4.4.3 Welding Requirements

The installer should take precautions to keep the MegaPress G connection cool:

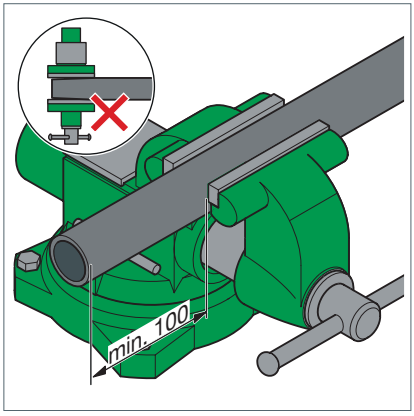
- Wrap the connection with a cold wet rag.
- Protect the connection with a weld blanket.
- Prefabricate solder connections/welded connectors prior to installing the press connector.
  (Ensure pipe has cooled before installing the press connector.)
- Apply heat sink gel or spray or spot freezing.

4.5 Cutting the Pipe

Damaged pipe and/or sealing element

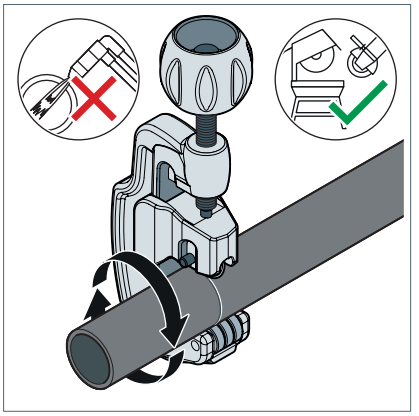
Press connectors can form improper connections as the result of damaged pipe and/or sealing elements.

- Do not use flame cutters when cutting the pipe.
- Do not use grease or oils when cutting the pipe.



Note: Cut pipe a minimum of 4 inches away from the contact area of the vise to prevent possible damage to the pipe in the press area.

Avoid cutting through grooves, manufacturer's stamps, or engravings on the pipe's surface.



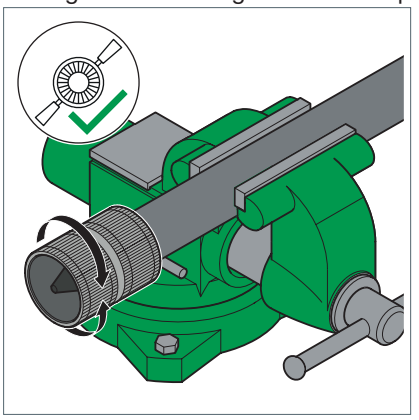
- Cut the pipe at a right angle as accurately as possible using a pipe cutter, an angle grinder or a fine-toothed hacksaw to ensure a complete and even pipe insertion depth. Do not use a flame cutter.
  Avoid grooves on the pipe surface.

4.6 Deburring the Pipe

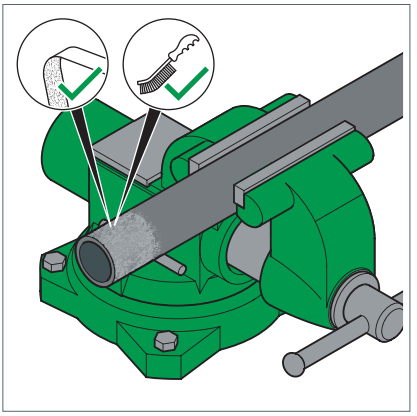
Damage resulting from the wrong deburring tool

- Connections may leak if they are damaged by improper deburring.
- Failure to deburr piping will reduce the service life of the system and can cause premature leaks.

The pipe ends must be thoroughly deburred after cutting. Damage to or twisting of the sealing element during installation is prevented by deburring.



- Deburr the inside and outside of the pipe.

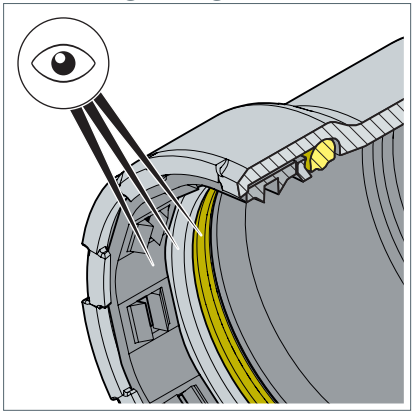


- With the help of a wire brush, cleaning fleece or sanding paper, remove loose dirt and rust particles from the pressing area.

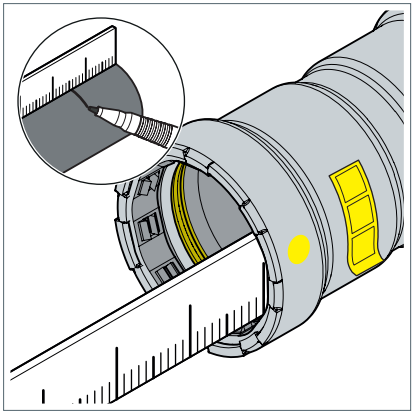
4.7 Pressing the Connector

WARNING!
Read and understand all instructions for installing Viega MegaPress G connectors. Failure to follow all instructions may result in extensive property damage, serious injury, or death.

4.7.1 Viega MegaPress G ½ inch to 2 inch Installation



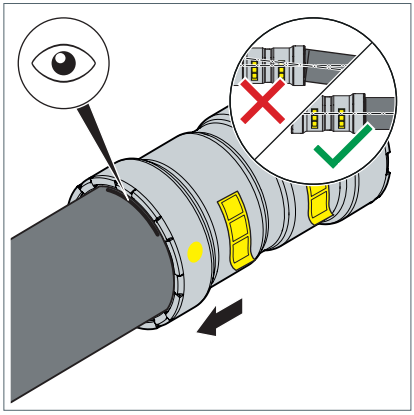
- Check the sealing element for correct fit:
  - The pipe end is not bent or damaged.
  - The pipe is deburred.
  - The correct sealing element is in the connector. HNBR = yellow
  - The sealing element is undamaged.
  - The sealing element is completely in the bead.
- Check the separator ring for correct fit.
- Check the grip ring for correct fit.



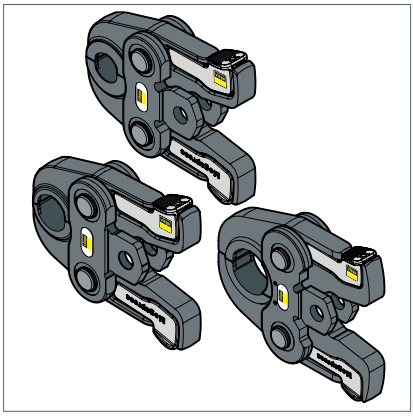
- Sealing element, separator ring and cutting ring are undamaged.
- The complete sealing element, separator ring and cutting ring are in the bead.
- Measure and mark the insertion depth.

D [inch]	Insertion Depth [mm]
½	27
¾	29
1	34
1¼	46
1½	48
2	50
2½	46
3	59
4	80

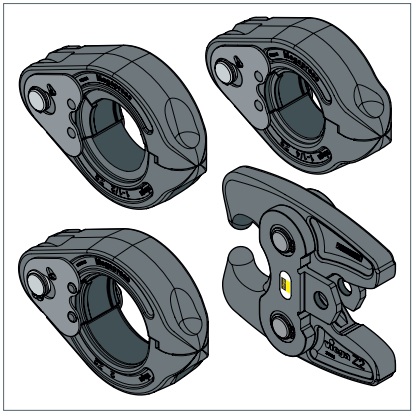
Table 22: Minimum insertion depths for MegaPress ½" to 2"



- Push the press connector up to the marked insertion depth on the pipe. Do not twist the press connector.



Viega MegaPress G ½ inch to 1 inch connector connections must be performed with MegaPress jaws. See Operator's Manual for proper tool instructions.

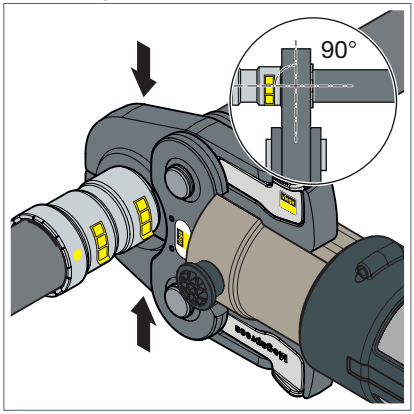


Viega MegaPress 1¼ inch to 2 inch connector connections must be performed with MegaPress rings and V2 actuator. See Operator's Manual for proper tool instructions.

Use only MegaPress jaws and rings to press MegaPress G connectors.

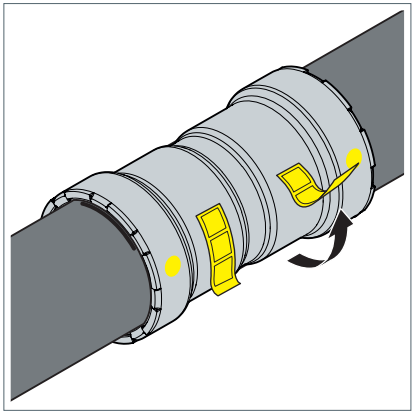
- See Operator's Manual for proper tool instructions.
- Use of incompatible jaws or rings will result in an improper connection. Do not use ProPress press jaws or rings.
- Do not mix actuators and rings from different manufacturers.

Pressing with press jaw at D ≤ 1



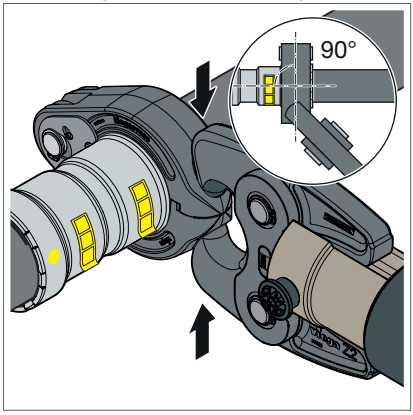
INFO! Observe the press tool instruction manual!

- Open the press jaw and place it at a right-angle onto the press connector.
- Check the insertion depth using the marking.
- Ensure that the press jaw is placed centrally on the bead of the press connector.
- Carry out the pressing process.
- Open and remove the press jaw.



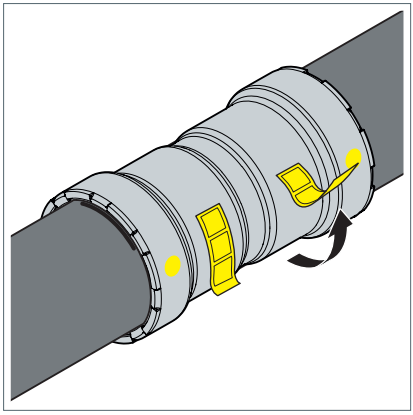
- Remove the check label.
  - The connection is marked as having been pressed.

Pressing with press rings with D½–2



INFO! Observe the press tool instruction manual!

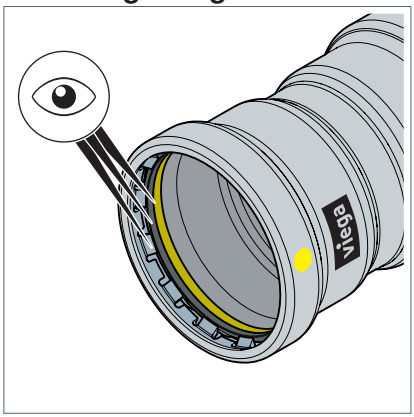
- Place the press ring onto the press connector. The press ring must completely cover the outside ring of the press connector.
- Position the hinged adapter jaw into the seat of the press ring.
- Check the insertion depth using the marking.
- Ensure that the press ring is placed centrally on the bead of the press connector.
- Carry out the pressing process.
- Open the hinged adapter jaw and remove the press ring.



- Once the press is complete, remove MegaPress jaw from connector or release V2 actuator from MegaPress ring.
- Remove MegaPress ring from the connector.

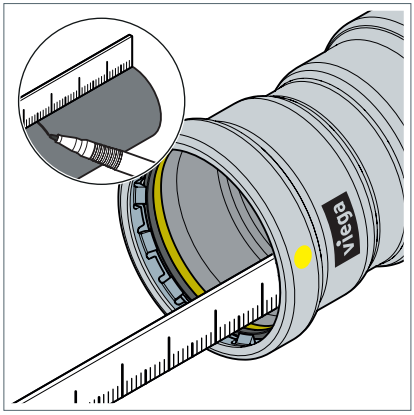
- Remove control label to indicate press has been completed.

4.7.2 Viega MegaPress 2½ inch to 4 inch Installation



Requirements:

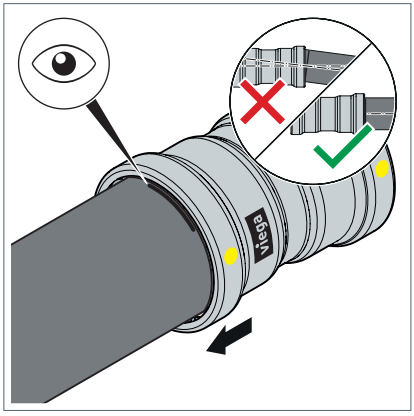
- The pipe end is not bent or damaged.
- The pipe is deburred.
- The correct sealing element is in the press connector.
  HNBR = yellow
- Sealing element, separator ring and cutting ring are undamaged.
- The complete sealing element, separator ring and cutting ring are in the bead.



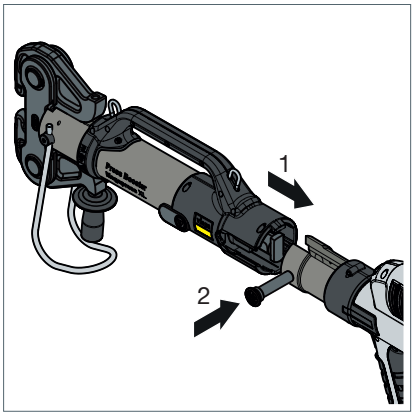
➥ Measure and mark the insertion depth.

D [inch]	Insertion depth [mm]
2½	46
3	59
4	80

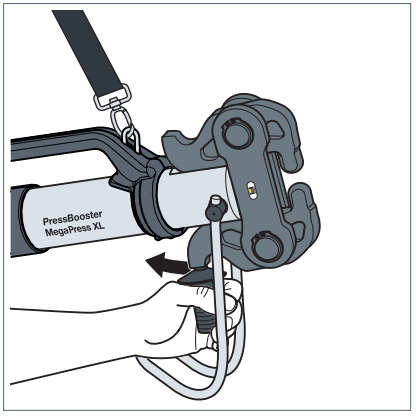
Table 23: Minimum insertion depths MegaPress 2½" to 4"



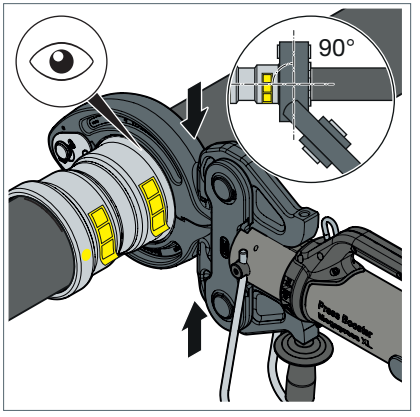
➥ Push the press connector up to the marked insertion depth on the pipe. Do not twist the press connector.



- Place the Pressgun Press Booster into the press machine and push the retaining pin in until it clicks into place.
  INFO! Observe the press tool instruction manual.



- Look at insertion depth mark on the pipe to make sure that the pipe is properly inserted into the connector.
- To open the PressBooster jaw, pull the handle at the hinged adapter jaw back.



- Place the XL press ring on the press connector. Observe the proper fit of the press ring.
- Position the hinged adapter jaw of the Pressgun Press Booster on the recesses of the press ring.
- Carry out two pressings.
- If necessary, carry out a reset stroke.
- Open the hinged adapter jaw and remove the press ring.

4.8 Pressure Testing

Viega Smart Connect technology provides a quick and easy way for installers to identify connections that need to be pressed. Unpressed connections are located by pressurizing the system with air or water.

Pressure test all installed pipe in accordance with local codes or, in the absence of local codes, in accordance with NFPA 54 or NFPA 58.

Smart Connect Testing

- Testing for unpressed connections using Smart Connect is not a replacement for pressure testing requirements of local codes and standards.
- If testing with compressed air, use an approved leak-detect solution.

Water testing with Viega Smart Connect:

- Use a range of 15 to 85 psi (1 to 6 bar).
- If an unpressed connector is found, make sure the pipe is fully inserted before completing the press.

Testing with air can be dangerous at high pressures. When air testing with Viega Smart Connect:

- Use a range of ½ psi to 45 psi (22 mbar to 3 bar).
- If an unpressed connector is found, make sure the pipe is fully inserted before completing the press.

Viega recommends air testing of gas systems at a minimum of ½ psi (22 mbar).

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, tested 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.

4.9 Disposal

Separate the product and packaging materials (e.g. paper, metal, plastic, non-ferrous metals) and dispose in accordance with all national, state, and regional requirements.

5 Limited Warranty

5.1 Limited Warranty for Viega MegaPress G

The warranty period for Viega products is governed by the applicable statutory provisions, unless otherwise contractually agreed. In principle, the warranty period is five years if the product has been used for a building in accordance with its normal use and has caused its defectiveness. If this is not the case, a warranty period of two years applies.

A warranty claim requires that the product is defective at the time of delivery. Defects resulting from improper handling of the products during storage, transport, installation and operation cannot be claimed. The current instructions for use, technical documentation and compliance with the generally accepted rules of technology rules must be observed.

Even if statutory warranty or defect liability claims can only be asserted in the supply chain and therefore not directly against Viega, you can nevertheless inform us of a claim in order to speed up clarification or settlement of the claim if necessary. However, this does not release you from the obligation to properly assert these claims in the supply chain.

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