

Installation Manual

Viega MegaPress® Stainless Systems



Table of Contents

1	About this Document	6
1.1	Disclaimer	6
1.2	Symbols Used	6
1.3	Audience	7
1.4	About this Version	7
2	Product Information	8
2.1	MegaPress Stainless Systems	8
2.2	Safety	8
2.3	Areas of Use	8
2.3.1	MegaPress Stainless	9
2.3.2	Fire Protection Systems	10
2.3.3	Design Services	10
2.4	Standards and Regulations	11
2.4.1	Overview	11
2.4.2	Regulations: Applications	11
2.4.3	Standards: Pipes	11
2.4.4	Standards: Sealing Elements	11
2.4.5	Standards: Pipe Hangers	11
2.4.6	Standards: Pressure Testing	12
2.5	Listings and Certifications	12
2.5.1	MegaPress 304 FKM	12
2.5.2	MegaPress 316	13
2.5.3	MegaPress 316 FKM	13
2.6	Codes and Standards	14
2.6.1	MegaPress 304 FKM	14
2.6.2	MegaPress 316	14
2.6.3	MegaPress 316 FKM	14
2.7	Product Description	15
2.7.1	Overview	15
2.7.2	Pipes	15
2.7.2.1	Schedule 5 Pipe	15
2.7.2.2	Schedule 10 Pipe	16
2.7.2.3	Schedule 40 Pipe	16
2.7.3	Viega MegaPress Stainless Pipe Marking Guide	17
2.7.4	Press Fittings	18
2.7.4.1	Viega MegaPress Stainless ½" to 2" Fittings	18
2.7.4.2	Viega MegaPress Stainless 2½" to 4" Fittings	18
2.7.4.3	FKM Sealing Element	18
2.7.4.4	EPDM Sealing Element	19
2.7.4.5	Fitting Markings	19
2.7.4.6	Viega Smart Connect Technology	20

2.8	General Installation Requirements	20
2.8.1	Required Tools	20
2.8.2	Expansion	21
2.8.3	Exposure to Freezing Temperatures	21
2.8.4	Underground Installations	21
2.8.5	Concealed Spaces	21
2.8.6	Electrical Bonding	22
2.8.7	Corrosion Protection	22
2.8.8	Deflection	23
2.8.8.1	Controlling Deflection	23
3	Handling Instructions	25
3.1	Transport	25
3.2	Storage	25
3.3	Pipe Preparation	25
4	Installation Instructions	26
4.1	Check System Components	26
4.2	Installing and Mounting the Pipe	26
4.2.1	Pipe Hangers and Supports	26
4.2.2	Transition Fittings	27
4.2.2.1	Threaded Connections	27
4.2.2.2	Flange Connections	27
4.2.3	No-Stop Couplings	28
4.3	Space Requirements and Intervals	28
4.3.1	Minimum Distance Between Fittings	29
4.3.2	Minimum Space Requirements	29
4.3.3	MegaPress Jaws Clearance Requirements	30
4.3.4	MegaPress Rings Clearance Requirements	31
4.3.5	Pressing with Ring and Actuator in Tight Quarters	32
4.4	Welding	33
4.4.1	Welding Adjacent to a Fitting	33
4.4.2	Welding In Line with a Fitting	33
4.4.3	Welding Requirements	33
4.5	Cutting the Pipe	33
4.6	Deburring the Pipe	34
4.7	Pressing the Fitting	34
4.7.1	Viega MegaPress Stainless ½" to 2" Installation	35
4.7.2	Viega MegaPress Stainless 2½" to 4" Installation	38
4.8	Pressure Testing	41
4.9	Disposal	41
5	Limited Warranty	42
5.1	Limited Warranty for Viega Metal Systems for Industrial Applications	42

List of Tables

Table 1	Applications approved for use with MegaPress stainless systems _____	9
Table 2	Applications regulations _____	11
Table 3	Pipes standards _____	11
Table 4	Sealing elements standards _____	11
Table 5	Mounting standards _____	11
Table 6	Pressure testing standards _____	12
Table 7	Schedule 5 pipe sizing _____	15
Table 8	Schedule 10 pipe sizing _____	16
Table 9	Schedule 40 pipe sizing _____	16
Table 10	Guide to the ASNI A13.1 standard for the identification of pipes _____	17
Table 11	Pipe markers _____	17
Table 12	Press tools _____	20
Table 13	Pipe hanger spacing _____	27
Table 14	Insertion depths for MegaPress no-stop couplings _____	28
Table 15	Minimum distance between press fittings _____	29
Table 16	MegaPress distance requirements for press jaws between pipes and walls _____	29
Table 17	MegaPress standard jaws clearance requirements _____	30
Table 18	MegaPress compact jaws clearance requirements _____	30
Table 19	MegaPress standard jaws clearance requirements between pipe, wall, and floor _____	30
Table 20	MegaPress compact jaws clearance requirements between pipe, wall, and floor _____	30
Table 21	MegaPress rings dimensions _____	31
Table 22	MegaPress rings with V2/V3 actuator clearance requirements _____	31
Table 23	MegaPress rings with V2/V3 actuator clearance requirements between pipe, wall, and floor _____	31
Table 24	Minimum insertion depths MegaPress Stainless ½" to 2" _____	35
Table 25	Minimum insertion depths MegaPress Stainless 2½" to 4" _____	39

1 About this Document

1.1 Disclaimer



This document is subject to updates. For the most current Viega technical literature please visit 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.**

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 and Canada.

Some passages in the text may refer to technical codes in the United States and Canada. 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 Stainless Systems

The Viega MegaPress stainless steel fittings are available in both 304 and 316 alloys and are for use with IPS schedule 5 to schedule 40 stainless steel pipe in ½" to 2" and schedule 10 to schedule 40 stainless steel pipe in 2½" to 4" sizes. These stainless steel fittings are suitable for a broad range of industrial uses, including fuel oils, acids, complex chemicals and inert gases.

Viega MegaPress 304 FKM fittings and valve ends are constructed of 304 stainless steel while MegaPress 316 and 316 FKM fittings and valve ends are constructed of 316L stainless steel. Both range from ½ inch to 4 inches.

MegaPress 304 FKM fittings feature a white dot with an FKM sealing element, MegaPress 316 fittings have a green dot with an EPDM sealing element, and MegaPress 316 FKM fittings have a white dot with an FKM sealing element. All use Viega's unique Smart Connect® technology to help installers ensure that they have pressed all connections.

The Viega MegaPress Stainless fitting system requires no welding, soldering, brazing, or threading and poses no fire hazard, which is particularly important in restoration or retrofit work. The fittings 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

The system is intended for use in both commercial and industrial applications and is a replacement for welded, threaded, and rolled-groove connection in new installations and repairs. Only MegaPress 316 with an EPDM sealing element is approved for potable water. MegaPress Stainless fittings are not approved for use in fuel gas installations.

2.3.1 MegaPress Stainless

Media ¹	System Operating Conditions			Material/Sealing Element ²			
				MegaPress Stainless			
	Comments	Max Pressure (psig)	Temperature Range (°F)	304	316		
FKM				EPDM	FKM		
Water/Liquids							
Hot and Cold Potable Water	Test pressure 600 psi	200	See note ³		✓		
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					✓		
Isopropyl Alcohol			Ambient ⁵	✓	✓	✓	
Nitric Acid	Concentration ≤10%			✓	✓	✓	
Phosphoric Acid	Concentration ≤25%			✓	✓	✓	
Fire Sprinkler	NFPA 13, 13D, 13R			175	✓	✓	✓
Steam	Low-pressure Residential		15	Max 250°	✓ ⁴		✓ ⁴
			5	Max 227°	✓ ⁴	✓ ⁴	✓ ⁴
Fuels/Oils/Lubricants							
Ethanol	Pure grain alcohol	200	Ambient ⁵		✓		
Mineral Oil				✓		✓	
Lube Oil	Petroleum based	140	Max 150°	✓		✓	
Biodiesel	ASTM D6751			✓		✓	
Heating Fuel Oil		Max 100°	✓		✓		
Diesel Fuel			✓		✓		
Kerosene			Max 68°	✓		✓	
Gases							
Compressed Air	Oil Concentration ≤25 mg/m ³ Oil Concentration >25 mg/m ³	200	Max 140°	✓	✓	✓	
Nitrogen - N ₂				✓	✓	✓	
Carbon Dioxide - CO ₂	Dry			✓	✓	✓	
Argon - Ar				✓	✓	✓	
Ammonia	Anhydrous	140	Max 120°		✓		
Oxygen - O ₂	Non-medical				✓		
Hydrogen - H ₂	Keep free of oil and grease	125	Max 140°	✓	✓	✓	
Acetylene	Test pressure 350 psi	20		Ambient ⁵	✓	✓	✓
Vacuum	Minimum absolute pressure Maximum differential pressure	750µm Hg 29.2" Hg	Max 160°	✓	✓	✓	
Special Media							
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°		✓		

¹ It is recommended that all systems be clearly labeled with the media being conveyed. For further information please consult Viega Technical Services.

² 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.

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

^{3a} EPDM temperature ranges are typically 0°F to 250°F.

^{3b} FKM temperature ranges are typically -14°F to 284°F with temperature spikes (24hr) up to 356°F.

^{3c} HNBR temperature ranges are typically -40°F to 180°F.

⁴ System must contain adequate condensate drainage.

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

⁶ Compliant with CSA 6.32 / ANSI LC-4.

Table 1: Applications approved for use with MegaPress stainless systems

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 the Viega Technical Services Department.

2.3.2 Fire Protection Systems

MegaPress Stainless system components may be installed in NFPA 13, 13R, and 13D fire sprinkler systems. MegaPress 304 FKM and MegaPress 316 ½" to 2" fittings are certified for use in "wet" and "dry" fire protection systems in accordance with FM certifications. MegaPress 304 FKM and MegaPress 316 ½" to 3" fittings are certified for use in "wet" and "dry" fire protection systems in accordance with UL certifications.

- UL/ANSI 213: Standard for Rubber Gasketed Fittings for Fire-Protection Services.
- ANSI/CAN/UL 213: 2019: Standard for Rubber Gasketed Fittings for Fire-Protection Service
- FM Class 1920: Pipe Couplings and Fittings for Aboveground Fire Protection Systems.

MegaPress Stainless 4" fittings are not certified by UL or FM for use in fire protection systems.

Permitted pressure: 175psi

Pipe wall thickness: Schedule 5 to Schedule 40

Area of use (pipeline network):

Wet sprinkler units:

- Piping network downstream of the alarm valve station

Dry sprinkler units:

- Piping network downstream of the alarm valve station

Firefighting water additive: Generally not permitted; exceptions only with the manufacturer's permission and prior agreement of Viega Technical Support.

2.3.3 Design Services

Consult Viega's Technical Services Department for information on applications not listed or applications outside listed temperature and pressure ranges.

- Viega Technical Services Department: Techsupport@viega.us
- Design Service: For more information on fire protection system design, radiant system design, and plumbing design services: Design@viega.us

2.4 Standards and Regulations

2.4.1 Overview

The following standards and regulations apply to the United States and Canada and are provided as a support feature.

2.4.2 Regulations: Applications

Scope / Notice	Regulations Applicable in U.S./Canada
No application for fuel gases	Not allowed
Application in fire extinguishing systems	NFPA 13, 13D, and 13R
Heating water for pump hot water heating systems	ICC LC1002

Table 2: Applications regulations

2.4.3 Standards: Pipes

Standard	Definition
ASTM A312	Standard specifications for steel, black and hot dipped, zinc-coated, welded, or seamless pipe
ASTM A554	Standard specification for welded stainless steel mechanical tubing
ASTM A778	Standard specification for welded, unannealed austenitic stainless steel tubular products
ASME B36.10	Welded and seamless wrought steel pipe

Table 3: Pipes standards

2.4.4 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 4: Sealing elements standards

2.4.5 Standards: Pipe Hangers

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

Table 5: Mounting standards

2.4.6 Standards: Pressure Testing

Standard	Definition
ASME B31	Pressure piping
IAPMO PS 117	Press and nail connections
ASTM F3226	Standard specification for metallic press-connect fittings for piping and tubing systems
IACS	Requirements concerning pipes and pressure vessels

Table 6: Pressure testing standards

2.5 Listings and Certifications

2.5.1 MegaPress 304 FKM

MegaPress 304 FKM fittings have the following listings and certifications:

- ABS: American Bureau of Shipping Type Approval
- ASME B31.1: Power Piping
- ASME B31.3: Process Piping
- ASME B31.9: Building Service Piping
- BV: Bureau Veritas Type Approval
- Canadian Registration Number (CRN): 23076.5 A/B/C
- DNV GL: Det Norske Veritas Germanischer Lloyd Type Approval
- LR: Lloyd's Register Type Approval
- NKK: Nippon Kaija Kyokai Type Approval
- FM Class 1920: Pipe Couplings and Fittings for Aboveground Fire Protection Systems (½" to 2" fittings only)
- IAPMO PS-117: Press and Nail Connections
- ICC-ES LC1002: Press-Connection Fittings for Potable Water Tube and Radian Heating Systems
- NFPA 13: Standard for the Installation of Sprinkler Systems
- NFPA 13D: Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes
- NFPA 13R: Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies
- UL/ANSI 213: Standard for Rubber Gasketed Fittings for Fire-Protection Service (½" to 3" fittings only)
- ANSI/CAN/UL 213: 2019: Standard for Rubber Gasketed Fittings for Fire-Protection Service (½" to 3" fittings only)

2.5.2 MegaPress 316

MegaPress 316 fittings have the following listings and certifications:

- ABS: American Bureau of Shipping Type Approval
- ASME B31.1: Power Piping
- ASME B31.3: Process Piping
- ASME B31.9: Building Service Piping
- BV: Bureau Veritas Type Approval
- Canadian Registration Number (CRN):23076.5 A/B/C
- DNV GL: Det Norske Veritas Germanischer Lloyd Type Approval
- LR: Lloyd's Register Type Approval
- NKK: Nippon Kaija Kyokai Type Approval
- FM Class 1920: Pipe Couplings and Fittings for Aboveground Fire Protection Systems (½" to 2" fittings only)
- IAPMO PS-117: Press and Nail Connections
- ICC-ES LC1002: Press-Connection Fittings for Potable Water Tube and Radian Heating Systems
- NFPA 13: Standard for the Installation of Sprinkler Systems
- NFPA 13D: Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes
- NFPA 13R: Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies
- UL/ANSI 213: Standard for Rubber Gasketed Fittings for Fire-Protection Service (½" to 3" fittings only)
- ANSI/CAN/UL 213: 2019: Standard for Rubber Gasketed Fittings for Fire-Protection Service (½" to 3" fittings only)
- NSF/ANSI 61: Drinking Water System Components – Health Effects
- NSF/ANSI 372: Drinking Water System Components – Lead Content

2.5.3 MegaPress 316 FKM

MegaPress 316 FKM fittings have the following listings and certifications:

- ABS: American Bureau of Shipping Type Approval
- ASME B31.1: Power Piping
- ASME B31.3: Process Piping
- ASME B31.9: Building Service Piping
- Canadian Registration Number (CRN): 23076.5 A/B/C
- IAPMO PS-117: Press and Nail Connections
- ICC-ES LC1002: Press-Connection Fittings for Potable Water Tube and Radian Heating Systems

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.

2.6.1 MegaPress 304 FKM

MegaPress 304 FKM fittings comply with the following codes and standards:

- ASME B31: Code for Pressure 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)
- ASTM A312: Standard Specification for Seamless, Welded and Heavily Cold Worked Austenitic Stainless Steel Pipes
- ASTM A554: Standard Specification for Welded Stainless Steel Mechanical Tubing

2.5.4 MegaPress 316

MegaPress 316 fittings comply with the following codes and standards:

- ASME B31: Code for Pressure 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)
- ASTM A312: Standard Specification for Seamless, Welded and Heavily Cold Worked Austenitic Stainless Steel Pipes
- ASTM A554: Standard Specification for Welded Stainless Steel Mechanical Tubing
- IAPMO California Plumbing Code (CPC)
- IAPMO National Standard Plumbing Code (NSPC)
- IAPMO Uniform Plumbing Code (UPC)
- ICC International Plumbing Code (IPC)

2.6.2 MegaPress 316 FKM

MegaPress 316 FKM fittings comply with the following codes and standards:

- ASME B31: Code for Pressure 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)
- ASTM A312: Standard Specification for Seamless, Welded and Heavily Cold Worked Austenitic Stainless Steel Pipes
- ASTM A554: Standard Specification for Welded Stainless Steel Mechanical Tubing

2.7 Product Description

2.7.1 Overview

The MegaPress Stainless system consists of press connectors for stainless 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", ¾", 1", 1¼", 1½", 2", 2½", 3", 4".

2.7.2 Pipes

Viega MegaPress Stainless ½" to 4" fittings are compatible with ASTM A312 stainless steel pipe, schedule 5 to schedule 40 for ½" to 2" fittings and schedule 10 to schedule 40 stainless steel pipe for 2½" to 4" fittings. Fittings are for use with both annealed and unannealed pipe.



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

2.6.2.1 Schedule 5 Pipe

Pipe Size (inches)	Outside diameter (inches)	Outside diameter (mm)	Wall thickness (inches)	Wall thickness (mm)
½	0.84	21.3	0.065	1.65
¾	1.05	26.7	0.065	1.65
1	1.32	33.4	0.065	1.65
1¼	1.66	42.2	0.065	1.65
1½	1.9	48.3	0.065	1.65
2	2.375	60.3	0.083	2.11
2½	2.875	73.0	0.083	2.11
3	3.5	88.9	0.083	2.11
4	4.5	114.3	0.083	2.11

Table 7: Schedule 5 pipe sizing

2.7.2.1 Schedule 10 Pipe

Pipe Size (inches)	Outside diameter (inches)	Outside diameter (mm)	Wall thickness (inches)	Wall thickness (mm)
½	0.84	21.3	0.083	2.11
¾	1.05	26.7	0.083	2.11
1	1.32	33.4	0.109	2.77
1¼	1.66	42.2	0.109	2.77
1½	1.9	48.3	0.109	2.77
2	2.375	60.3	0.109	2.77
2½	2.875	73.0	0.12	3.05
3	3.5	88.9	0.12	3.05
4	4.5	114.3	0.12	3.05

Table 8: Schedule 10 pipe sizing

2.7.2.2 Schedule 40 Pipe

Pipe Size (inches)	Outside diameter (inches)	Outside diameter (mm)	Wall thickness (inches)	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 9: Schedule 40 pipe sizing

2.7.3 Viega MegaPress Stainless Pipe Marking Guide

Usage	Material Properties	Type of Application (typical)	Color Scheme
Hazardous Materials	<ul style="list-style-type: none"> ■ Flammable or Explosive ■ Chemically Active or Toxic ■ Radioactive ■ Extreme Temperature / Pressure 	<ul style="list-style-type: none"> ■ Process Piping ■ High-Pressure Steam ■ Acids/Corrosives 	YELLOW ON BLACK
Low Hazard Materials (Liquid)	<ul style="list-style-type: none"> ■ Liquid ■ Liquid Admixture 	<ul style="list-style-type: none"> ■ Cooling Water ■ Grey Water ■ Chilled Water 	WHITE ON GREEN
Low Hazard Materials (Gas)	<ul style="list-style-type: none"> ■ Gas ■ Gas Admixture 	<ul style="list-style-type: none"> ■ Compression Air ■ Nitrogen (N2) ■ Argon (Ar) 	WHITE ON BLUE
Fire Suppression	<ul style="list-style-type: none"> ■ Liquid ■ Gas ■ Foam 	<ul style="list-style-type: none"> ■ Sprinklers (Wet/Dry) ■ CO2 ■ Foam (AFFF) 	WHITE ON RED

Table 10: Guide to the ANSI A13.1 standard for the identification of pipes

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

Pipe O.D. Including Covering	Minimum Length of Label Field	Color	Minimum Height of Letters
¾" to 1¼"	19 mm to 32 mm	8"	203 mm
1½" to 2"	38 mm to 51 mm	8"	203 mm
2½" to 4"	64 mm to 108 mm	12"	305 mm

Table 11: Pipe markers

Marker Placement

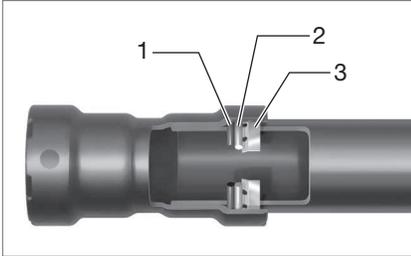
- At all changes in direction
- At both sides of any penetrations (valves, flanges, tees, etc.)
- At frequent intervals on straight run (50 feet is typical)
- Locate pipe markers so they are readily visible
- Provide arrows indicating direction of flow

Note: This guide is for general information purposes only. Pipe markings shall be in accordance with local code requirements.

2.7.4 Press Fittings

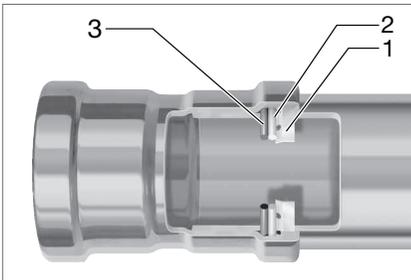
Press fittings are available in a number of configurations and sizes. An overview of the press fittings suitable for a system can be found in the catalog.

2.7.4.1 Viega MegaPress Stainless ½" to 2" Fittings



- 1 Each fitting 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 fitting is locked securely to the piping.

2.7.4.2 Viega MegaPress Stainless 2½" to 4" Fittings



- 1 The 420 stainless steel grip ring's teeth cut into the pipe 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 The sealing element ensures water-tight or air-tight connections.

MegaPress Stainless 2½" to 4" fittings are designed to be pressed with MegaPress XL press rings and Z3 actuator to produce a non-detachable, secure connection.

2.7.4.3 FKM Sealing Element



Viega MegaPress 304 FKM and 316 FKM fittings are manufactured with a high-quality, dull black FKM (Fluoroelastomer) sealing element installed at the factory. The molded sealing lips also seal pipe 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, sunlight, 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.

The operating temperature of the FKM sealing element is 14° to 284°F (-10° to 140°C). It can withstand heat spikes up to 356°F.

2.7.4.4 EPDM Sealing Element

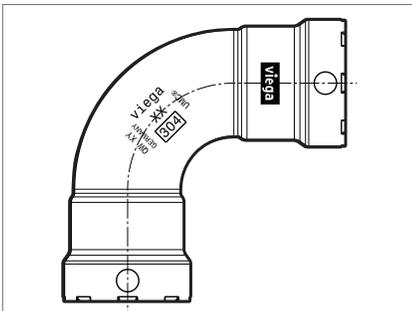


Viega MegaPress 316 fittings are manufactured with a high-quality, shiny black EPDM (Ethylene Propylene Diene Monomer) sealing element installed at the factory. The molded sealing lips also seal pipe surfaces with slightly uneven surfaces. Sealing elements are inserted into the fitting using a H1 food grade lubricant registered with NSF and the USDA, and is approved for use under FDA 21 CFR.

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

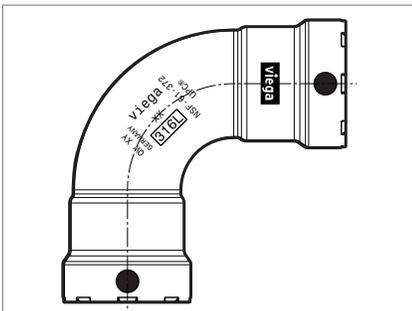
The operating temperature of the EPDM sealing element is 0° to 250°F (-18° to 120°C).

2.7.4.5 Fitting Markings



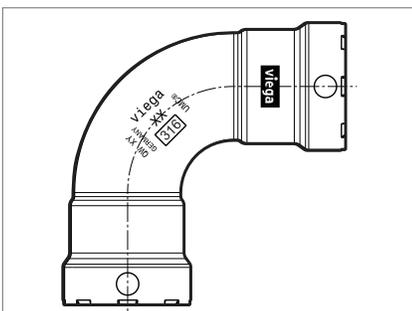
Each MegaPress 304 FKM fitting is marked with the following:

- White dot: FKM sealing element and Smart Connect technology
- Size of fitting
- Manufacturer name
- Manufacturer date code
- Country of origin
- Batch code
- UMC®



Each MegaPress 316 fitting is marked with the following:

- Green dot: EPDM sealing element and Smart Connect technology
- Size of fitting
- Manufacturer name
- Manufacturer date code
- Country of origin
- Batch code
- NSF®-61-372
- UPC®



Each MegaPress 316 FKM fitting is marked with the following:

- White dot: FKM sealing element and Smart Connect technology
- Size of fitting
- Manufacturer name
- Manufacturer date code
- Country of origin
- Batch code
- UMC®

2.7.4.6 Viega Smart Connect Technology



1 Identify an unpressed connection during pressure testing when 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 MegaPress connections are fast, flameless, and reliable.

Viega Smart Connect technology provides the installer quick and easy identification of an unpressed fitting during a leak test. When the fitting is pressed, a secure, non-detachable, mechanical connection is created. Smart Connect technology provides the installer with an easy way to see connections that have not been pressed before putting the system into operation.



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 Stainless fitting 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 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 fittings.

Press Tool Models	Press Jaw Models	Press Ring Models
Standard		
RIDGID RP330	37958 - 1/2" MegaPress jaw	21878 - V2 Press ring actuator
RIDGID RP340	37963 - 3/4" MegaPress jaw	37973 - 1 1/4" MegaPress ring
Milwaukee M18	37968 - 1" MegaPress jaw	37978 - 1 1/2" MegaPress ring
		37983 - 2" MegaPress ring
Compact		
RIDGID RP240	48433 - 1/2" Compact MegaPress jaw	
RIDGID RP241	48438 - 3/4" Compact MegaPress jaw	
XL		
Use standard tools	60658 - MegaPress XL PressBooster	60643 - 2 1/2" MegaPress ring
		60648 - 3" MegaPress ring
		60653 - 4" MegaPress ring

Table 12: Press tools

2.8.2 Expansion

Pipelines expand with heat. Heat expansion is dependent on the material. Thermal expansion in installed systems generates stress on 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.

The following methods are effective:

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

2.8.3 Exposure to Freezing Temperatures

Viega MegaPress 316 systems with EPDM sealing elements can be installed in ambient temperatures down to 0° F. Viega MegaPress 304 FKM and 316 FKM systems with FKM sealing elements can be installed in ambient temperatures down to 14°F.

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

2.8.4 Underground Installations

Viega MegaPress Stainless fitting systems are all 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 local authority.

2.8.5 Concealed Spaces

The Viega MegaPress 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.

2.8.6 Electrical Bonding

When properly installed, MegaPress Stainless fittings comply with Section 1211.15 Electrical Bonding and Grounding of the Uniform Plumbing 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.



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 lead to 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.

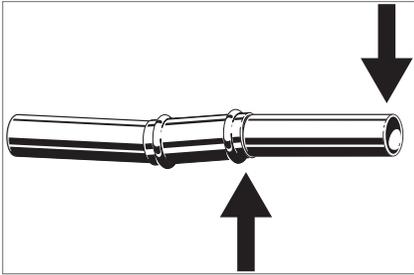
2.8.7 Corrosion Protection

Viega MegaPress 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 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 addition, systems should be properly sized to minimize the risk of erosion corrosion resulting from excessive velocities.

In some cases the local authority may require 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.

2.8.8 Deflection



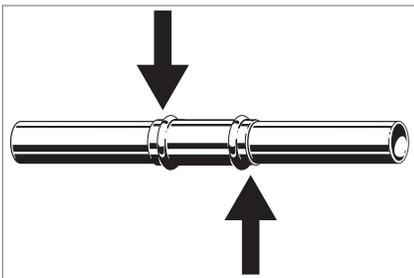
The pressing process can cause deflection (angular misalignment) to occur. When pressing Viega MegaPress Stainless fittings in a system, the deformation of the fitting is constant. This allows for a consistent leak-free joint every time and is a result of the pressing technique.

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

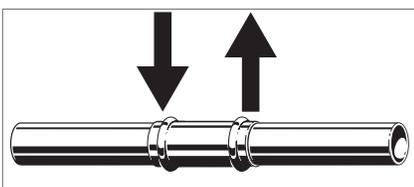
2.8.8.1 Controlling Deflection

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



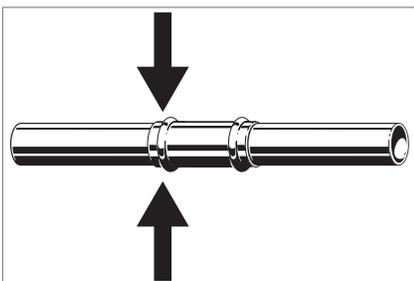
Alternate Press Directions

- Press one end of fitting.
- Make second press on other end of fitting from the opposite side. Site conditions permitting.



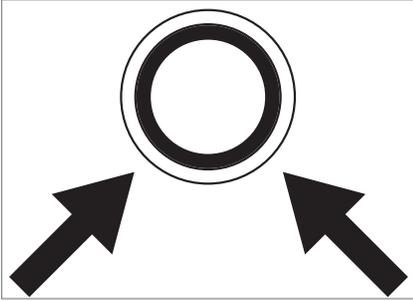
Push-Pull Method

- 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 pipe 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 also when working above the piping.



- As long as the pipe is properly prepped and marked and the fitting is installed according to Viega's 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 the MegaPress Product Instructions.

3 Handling Instructions

All Viega MegaPress Stainless 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 Stainless 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 fitting.

3.1 Transport

When transporting fittings:

- Do not pull or drag the fittings or system components along other surfaces.
- Secure fittings, 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

When storing materials:

- Store fittings, pipe, and system 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 fittings, pipe, and system components of different materials separately to prevent contact corrosion.

3.3 Pipe Preparation

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

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.

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 Stainless system does not require lubrication of the pipe or the fitting.

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.

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 fittings 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.



Fittings must not be used as support

- System malfunction may result from additional stress and strain put on the fitting.
- At no point in the system should a fitting 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. In the absence of local code requirements, hangers and supports should conform to ANSI/MSS SP 58 Pipe Hangers and Supports - Materials, Design, Manufacture, Selection, Application and Installation. Only pipe clamps with chloride-free noise insulation inlays should be used to secure the pipes.

Pipe Size (inches)	Maximum Span (feet)	Minimum Rod Diameter (inches)
1/2	7	3/8
3/4		
1		
1 1/4		
1 1/2	9	3/8
2	10	3/8
2 1/2	11	1/2
3	12	1/2
4	14	1/2

Table 13: Pipe hanger spacing

4.2.2 Transition Fittings

4.2.2.1 Threaded Connections

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

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

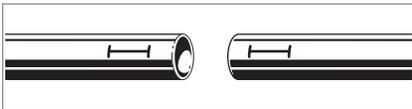
This process avoids unnecessary torsion on the press fitting.

4.2.2.2 Flange Connections

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



Pipe Diameter (inches)	Minimum Insertion Depth (inches)	Minimum Insertion Depth (mm)	Maximum Insertion Depth (inches)	Maximum Insertion Depth (mm)
1/2	1 1/16	27	1 5/8	41
3/4	1 3/16	29	1 13/16	46
1	1 3/8	34	1 15/16	49
1 1/4	1 13/16	46	2 1/2	63
1 1/2	1 7/8	48	2 3/4	70
2	2	50	2 3/4	70
2 1/2	1 13/16	46	3 1/8	79
3	2 5/16	59	3 11/16	93
4	3 1/8	80	4 3/8	120

Table 14: Insertion depths for MegaPress no-stop couplings

4.3 Space Requirements and Intervals

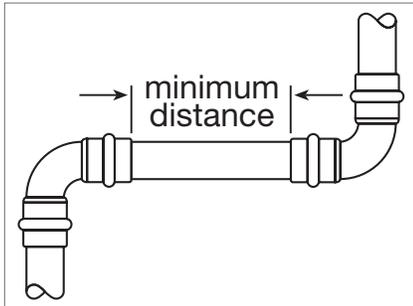


Not enough space

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

- Adhere to minimum space requirements.
- Make sure that the space required for pressing tools is available if fittings 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 Fittings

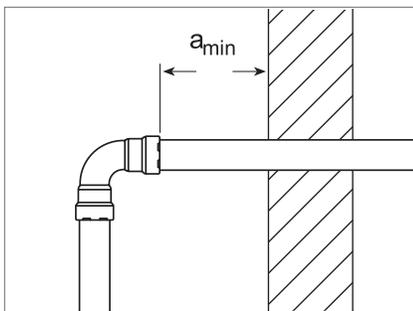


To ensure a correct press, a minimum distance between press fittings must be maintained. Failure to provide this distance may result in an improper seal.

Pipe Diameter (inches)	A minimum (inches)	A minimum (mm)
1/2	1/4	5
3/4		
1		
1 1/4		
1 1/2	1/2	10
2		
2 1/2		
3		
4		

Table 15: Minimum distance between press fittings

4.3.2 Minimum Space Requirements



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 (inches)	Minimum space requirement, a_{min} for press tools (inches)
	RIDGID RP241, RP320, RP330, RP340, and CT400 Press Tools Milwaukee M18 Press Tools
1/2 to 1	1 1/2
1 1/4 to 2	3/8
2 1/2 to 4	3/8

Table 16: MegaPress distance requirements for press jaws between pipes and walls

4.3.3 MegaPress Jaws Clearance Requirements

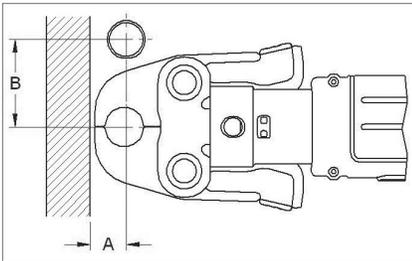
The minimum distance between pipe, or the pipe and the wall/ceiling construction, must be taken into consideration in the planning phase for a problem free work process. The following illustrate the clearance requirements for the jaws and fittings and the procedure for pressing fittings in tight quarters.



Pipe installed too closely together

Connection may leak

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

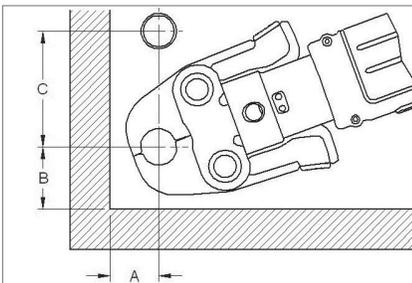


Pipe Diameter (inches)	A minimum (inches)	A minimum (mm)	B minimum (inches)	B minimum (mm)
1/2	1	26	2 5/8	67
3/4	1 1/4	32	3 1/8	79
1	1 3/4	45	3 5/8	92

Table 17: MegaPress standard jaws clearance requirements

Pipe Diameter (inches)	A minimum (inches)	A minimum (mm)	B minimum (inches)	B minimum (mm)
1/2	1 1/4	32	2 7/8	73
3/4	1 1/8	29	3	76

Table 18: MegaPress compact jaws clearance requirements



Pipe Diameter (inches)	A minimum (inches)	A minimum (mm)	B minimum (inches)	B minimum (mm)	C minimum (inches)	C minimum (mm)
1/2	1 1/4	32	1 7/8	48	3	76
3/4	1 1/2	38	2 1/8	54	3 1/2	89
1	2	51	2 1/2	64	4	101

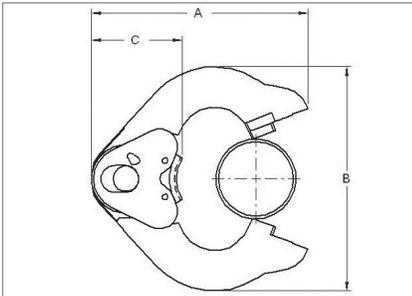
Table 19: MegaPress standard jaws clearance requirements between pipe, wall, and floor

Pipe Diameter (inches)	A minimum (inches)	A minimum (mm)	B minimum (inches)	B minimum (mm)	C minimum (inches)	C minimum (mm)
1/2	1 1/2	38	2 1/8	54	3 1/8	79
3/4	1 3/8	35	2 1/8	54	3 3/8	86

Table 20: MegaPress compact jaws clearance requirements between pipe, wall, and floor

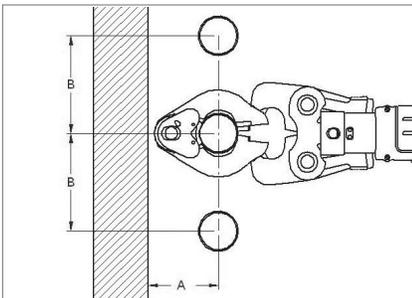
4.3.4 MegaPress Rings Clearance Requirements

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



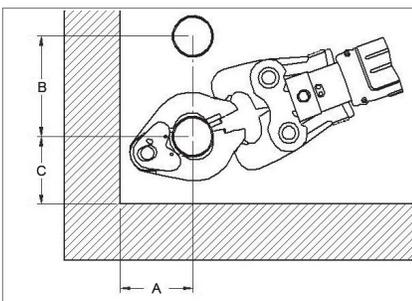
Pipe Diameter (inches)	A minimum (inches)	A minimum (mm)	B minimum (inches)	B minimum (mm)	C minimum (inches)	C minimum (mm)
1¼	6	152	6¼	159	2½	64
1½	6	152	6¾	171	2⅝	67
2	6	152	6⅞	175	2½	64
2½	5⅝	168	7⅝	194	2½	64
3	7½	190	8⅞	225	2½	64
4	8½	214	10⅞	270	2⅝	67

Table 21: MegaPress rings dimensions



Pipe Diameter (inches)	A minimum (inches)	A minimum (mm)	B minimum (inches)	B minimum (mm)
1¼	3¾	95	4⅞	124
1½	4	102	5⅞	130
2	4	102	5⅞	137
2½	4½	115	5⅞	150
3	4¾	120	6¾	170
4	5⅞	135	8¼	210

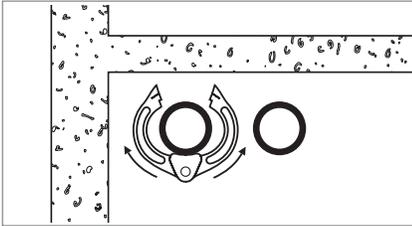
Table 22: MegaPress rings with V2/V3 actuator clearance requirements



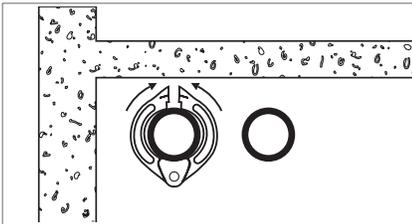
Pipe Diameter (inches)	A minimum (inches)	A minimum (mm)	B minimum (inches)	B minimum (mm)	C minimum (inches)	C minimum (mm)
1¼	3¾	95	3¾	95	4⅞	124
1½	4	102	4	102	5⅞	130
2	4	102	4	102	5⅞	137
2½	4½	115	5⅞	150	4	100
3	4¾	120	6¾	170	4¾	120
4	5⅞	135	8¼	210	5½	140

Table 23: MegaPress rings with V2/V3 actuator clearance requirements between pipe, wall, and floor

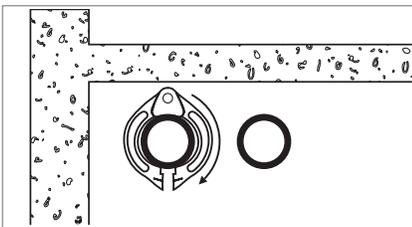
4.3.5 Pressing with Ring and Actuator in Tight Quarters



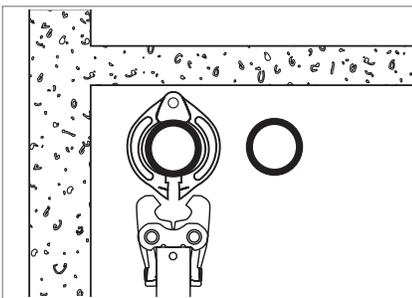
- Wrap the actuator ring around the press fitting with the opening facing away from you.



- Close the actuator ring tight around the fitting.



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



- Properly insert the press jaw and begin the press fitting procedure.

4.4 Welding

4.4.1 Welding Adjacent to a 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.

4.4.2 Welding In Line with a Fitting

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

4.4.3 Welding Requirements

The installer should take precautions to keep the MegaPress 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 pipe has cooled before installing the press fitting.)
- Apply heat sink gel or spray or spot freezing.

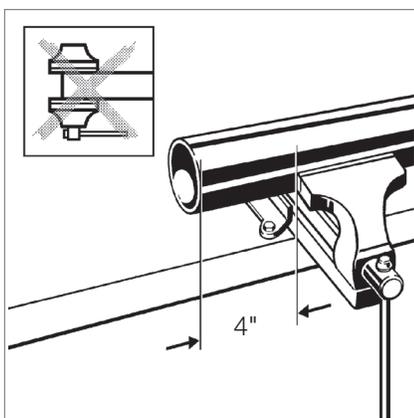
4.5 Cutting the Pipe



Damaged pipe and/or sealing element

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

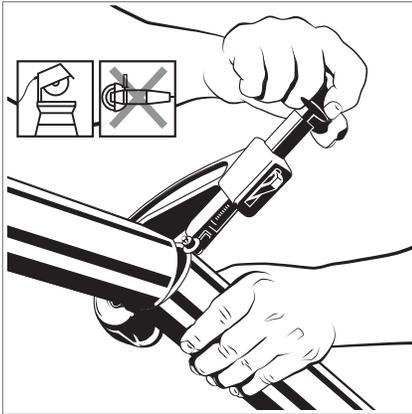
- Do not use flame cutters when cutting the pipe.
- Do not use grease or oils when cutting the pipe.



Note: Cut pipe a minimum of four 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 square using a displacement-type cutter or fine toothed saw.

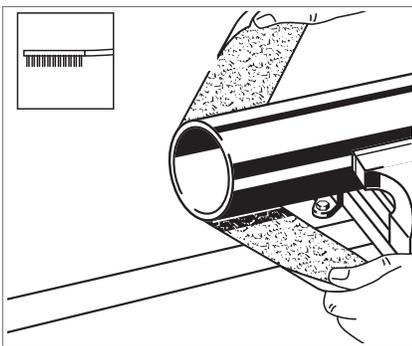
4.6 Deburring the Pipe



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.



- Remove burr from inside and outside of piping and prep to proper insertion depth using a preparation tool or fine grit sandpaper.

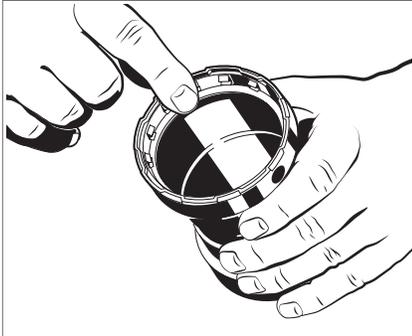
4.7 Pressing the Fitting



WARNING!

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

4.7.1 Viega MegaPress Stainless 1/2" to 2" 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 fitting.
 - The sealing element is undamaged.
 - The complete sealing element is in the bead.

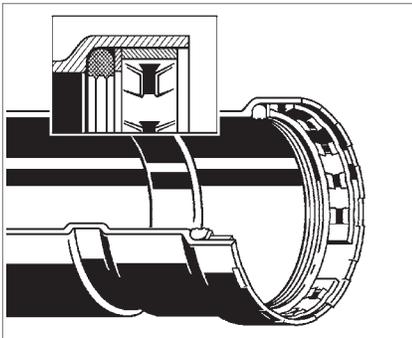
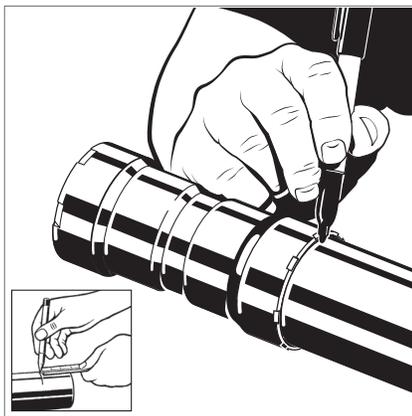


Illustration demonstrates proper fit of grip ring, separation ring, and sealing element.



- Measure insertion depth (see table below).
- Mark the proper insertion depth on the outside of the pipe.



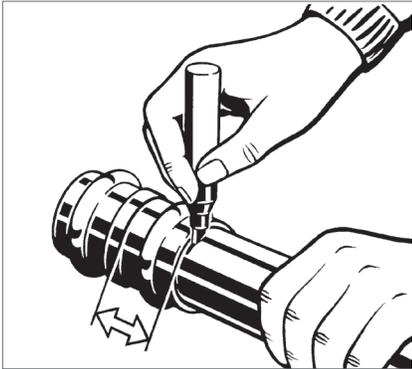
Improper insertion depth

Improper insertion depth may result in an improper seal.

- Be sure to mark the correct insertion depth on the pipe before pressing the fitting.

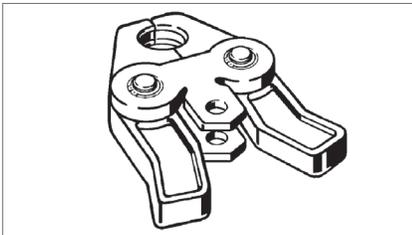
Pipe Diameter (inches)	Insertion Depth (inches)	Insertion Depth (mm)
1/2	1 1/16	27
3/4	1 3/16	29
1	1 3/8	34
1 1/4	1 13/16	46
1 1/2	1 7/8	48
2	2	50

Table 24: Minimum insertion depths MegaPress Stainless 1/2" to 2"



- While turning slightly, slide press fitting onto the pipe to the marked insertion depth.

Note: End of pipe must contact stop.



Viega MegaPress 1/2" to 1" fitting connections must be performed with MegaPress jaws. See RIDGID Operator's Manual for proper tool instructions.

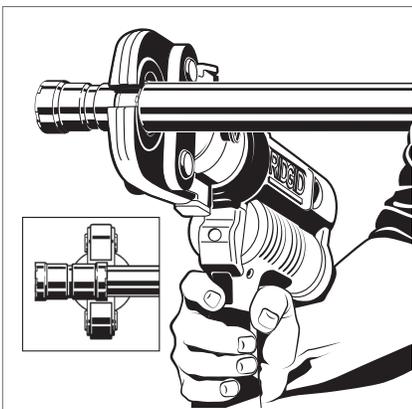


Viega MegaPress 1 1/4" to 2" fitting connections must be performed with MegaPress rings and V2 actuator. See RIDGID Operator's Manual for proper tool instructions.

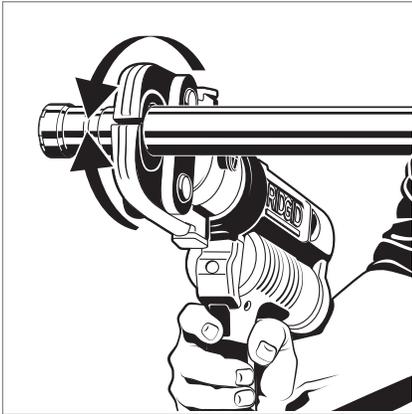


Use only MegaPress jaws and rings to press MegaPress Stainless fittings.

- 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.



- For 1/2" to 1" fitting connections, open the MegaPress jaw and place at right angles on the fitting.
- Visually check insertion depth using mark on piping.

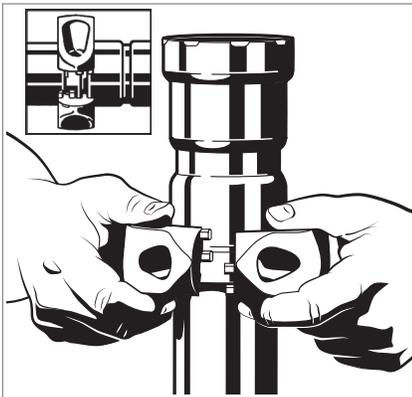


- Start pressing process and hold the trigger until the jaw has engaged the fitting.

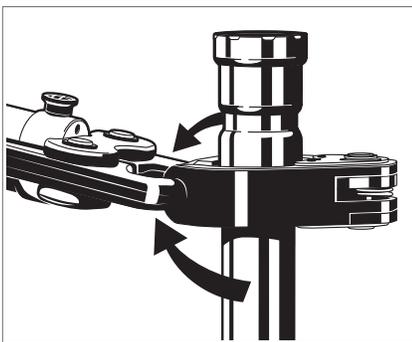


WARNING!

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



- For 1¼" to 2" fitting connections, open MegaPress ring and place at right angles on the fitting. MegaPress ring must be engaged on the fitting bead.
- Visually check insertion depth using mark on piping.

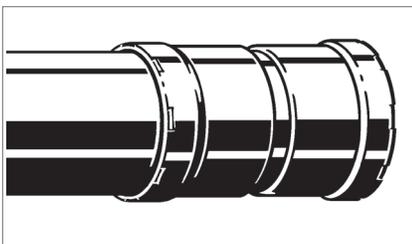


- Place V2 actuator onto MegaPress ring and start pressing process.
- Hold the trigger until the actuator has engaged the MegaPress ring.



WARNING!

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



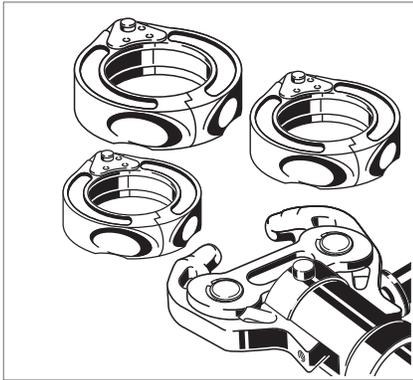
- Once the press is complete, remove MegaPress jaw from fitting or release V2 actuator from RIDGID MegaPress ring.
- Remove MegaPress ring from the fitting.
- Remove control label to indicate press has been completed.

4.7.2 Viega MegaPress Stainless 2½" to 4" Installation



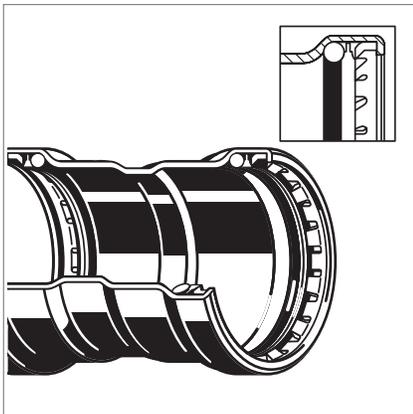
WARNING!

Read and understand all instructions for installing Viega MegaPress Stainless 2½" to 4" fittings. Failure to follow all instructions may result in extensive property damage, serious injury, or death.



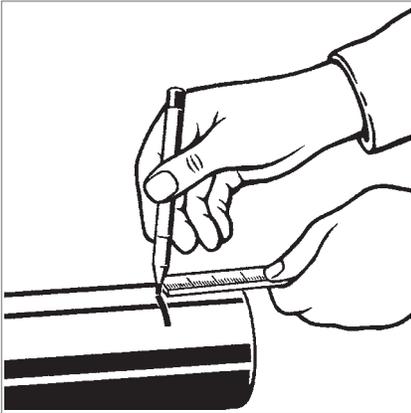
Use only rings that are compatible with MegaPress Stainless 2½" to 4" fittings.

- Viega MegaPress Stainless 2½" to 4" fitting connections must be made using MegaPress XL rings and a PressBooster/Z3 actuator.
- See RIDGID Operator's Manual for proper tool instructions.
- Use of incompatible rings will result in an improper connection.
- Do not mix actuators and rings from different manufacturers.



- Check the sealing element, separator ring, and grip ring for correct fit:
 - The pipe end is not bent or damaged.
 - The pipe is deburred.
 - The correct sealing element is in the fitting.

Illustration demonstrates proper fit of grip ring, separator ring, and sealing element.



- Measure insertion depth (see table below).
- Mark the proper insertion depth on the outside of the pipe.



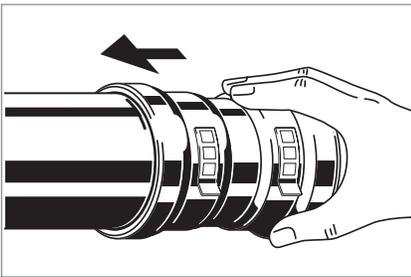
Improper insertion depth

Improper insertion depth may result in an improper seal.

- Be sure to mark the correct insertion depth on the pipe before pressing the fitting.

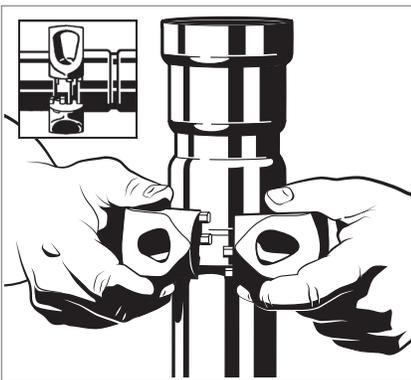
Pipe Diameter (inches)	Insertion Depth (inches)	Insertion Depth (mm)
2½	1 13/16	46
3	2 5/16	59
4	3 1/8	80

Table 25: Minimum insertion depths MegaPress Stainless 2½" to 4"

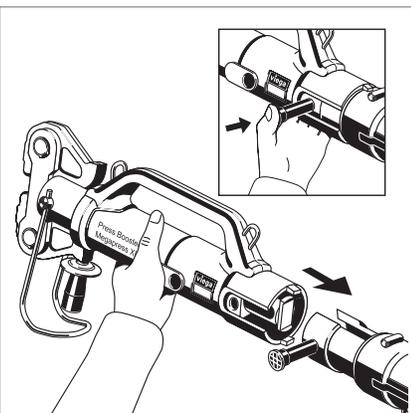


- While turning slightly, slide fitting onto the pipe to marked insertion depth.

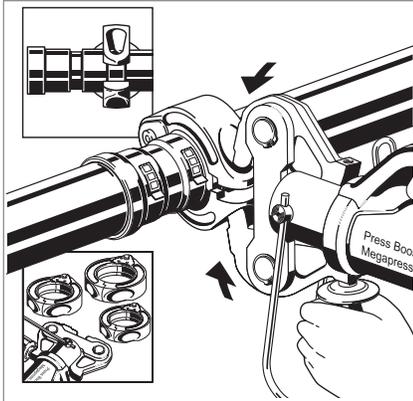
Note: End of pipe must contact stop.



- Open the MegaPress ring and place at right angles on the fitting.
- MegaPress ring must be engaged on the fitting bead.
- Check insertion depth.



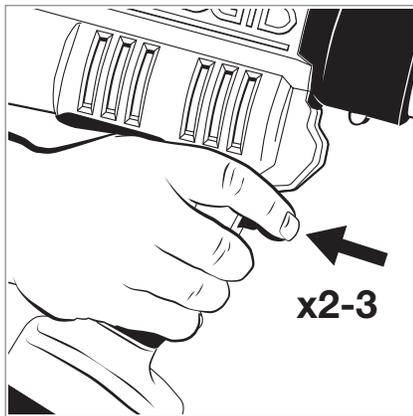
- Remove the retaining bolt of the press machine.
- Slide the PressBooster in via the press jaw fixture.
- Look at insertion depth mark on the pipe to make sure that the pipe is properly inserted into the fitting.



- Place PressBooster/Z3 actuator onto MegaPress XL rings and start pressing process.
- Hold the trigger until the actuator has engaged the MegaPress ring.

**WARNING!**

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



- The PressBooster requires two presses of the trigger to execute a complete press. A third press may be needed to initiate a release cycle to reset the rollers back to the original position.
- Once the press is complete, release the PressBooster/Z3 actuator from MegaPress XL ring.
- Remove the MegaPress XL ring from fitting.
- Remove control label to indicate press has been completed.

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.
- If an unpressed fitting is found, make sure the pipe is fully inserted before completing the press.
- If the initial test is successful, system may be pressure tested as required up to 600 psi.

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.
- If an unpressed fitting is found, make sure the pipe is fully inserted before completing the press.
- If the initial test is successful, system may be pressure tested as required up to 200 psi.

Viega recommends air testing of gas systems at a minimum of ½ psi.

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 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 LLC
585 Interlocken Blvd.
Broomfield, CO 80021

Phone (800) 976-9819
www.viega.us

IM-MP 591324 0321 MegaPress Stainless (EN)

©2021, Viega®, FostaPEX®, GeoFusion®, ManaBloc®, MegaPress®, ProPress®, SeaPress®, Smart Connect®, Climate Mat®, Climate Panel®, Climate Trak®, PureFlow®, XL®, XL-C®, Visign®, Visign for Style®, Visign for More®, Visign for Care®, Visign for Public®, Viega Eco Plus®, and Viega: Connected in quality® are trademarks of Viega Holding GmbH & Co. KG. Eco Brass® is a registered trademark of Mitsubishi Shindoh Co., LTD. RIDGID® is a registered trademark of RIDGID, Inc. LoopCAD® is a registered trademark of Avenir Software Inc. Radel® R is a registered trademark of Solvay Advanced Polymers, LLC. LEED® is a registered trademark of the U.S. Green Building Council®.

