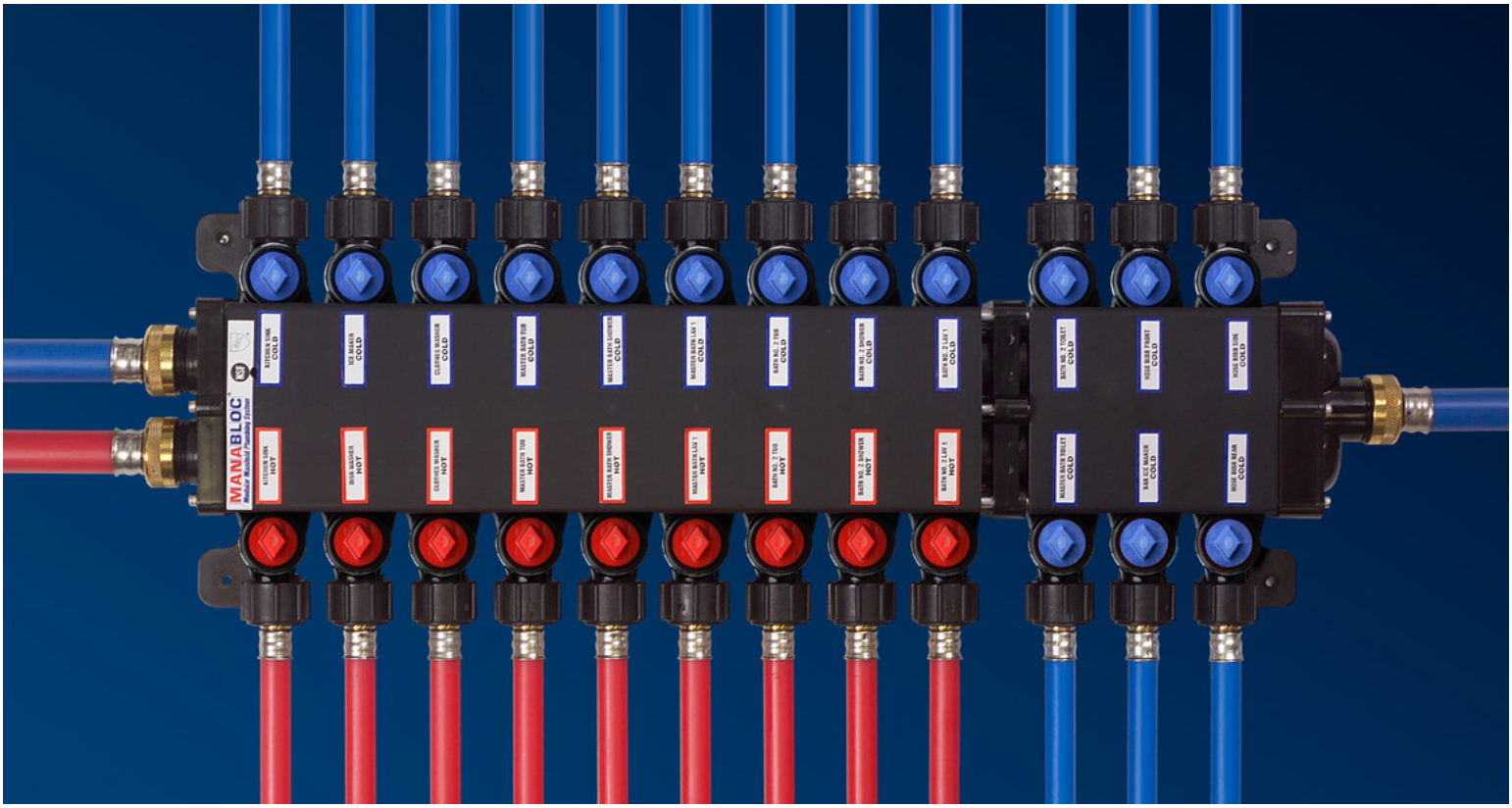
Submittal Package

Viega ManaBloc®



Project _____ **Date** _____

Engineer _____ **Contractor** _____

Submitted by _____

Approved by _____ **Date** _____ **Approved by** _____ **Date** _____

Table of Contents

☐ Hot and Cold Potable Water

- ☐
- ☐
- ☐
- ☐
- ☐

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.**

Zero Lead identifies Viega products meeting the lead free requirements of NSF/ANSI/CAN 61 through testing under NSF/ANSI/CAN 372 (0.25% or less maximum weighted average lead content).

1 Tech Data Sheet

Viega ManaBloc Manifold for PureFlow® PEX

Scope

The Viega ManaBloc manifold system supplies water to individual plumbing fixtures through dedicated ports and distribution lines. Each outlet port is equipped with a built-in ¼ turn shut-off valve to provide control for each fixture from a central location. The ManaBloc has separate hot and cold ports to manage the entire plumbing system. Based on model, outlet ports can be factory installed or come separately to ensure the exact configuration required is achieved. Supply ports come separately regardless of model. Refer to the Connections Available chart on the next page for availability.

Materials

The modular ManaBloc sections are molded from polysulfone plastic. This material is used extensively in the medical industry and is highly resistant to hot water, chlorine and other chemicals typically found in potable water systems. The other components making up the ManaBloc consist of corrosion-resistant metals and engineered plastics that have been chosen specifically for each purpose.

Marking and Certification

ManaBloc units are marked with the product name, unit part number, material designation, production date and marks of third-party certifications by NSF International (NSF-pw) to ASTM F877, ANSI/NSF standards 14 and 61, CSA B137.5, listed with IAPMO as meeting the requirements of the Uniform Plumbing Code and listed to ICC ES-PMG 1038.

Recommended Uses

The ManaBloc is recommended for use in hot and cold potable water distribution systems in single and multifamily dwellings, as well as multiple-unit structures (apartments, condos, hotels, motels, etc.). Maximum pressure/temperature rating is 100 psi @ 180°F. The ManaBloc is not to be used directly in line with hot water domestic recirculation loops. Viega ManaBloc system components are not interchangeable with components and tubing from other suppliers. For information on other hot and cold applications not listed here, consult with your Viega representative.

Handling and Installation

The ManaBloc shall be protected from UV and foreign substances which include but are not limited to VOC (volatile organic chemical) compounds, paints, solvents, glues, cleaners and disinfectants. Products that are exposed to these types of substances are at risk of having failures (leaks). Use of these materials in hot and cold water distribution systems must be in accordance with good plumbing practices, applicable code requirements, and current installation practices available from Viega. Contact a Viega representative or the applicable code enforcement bureau for information about approvals for specific applications.

Capacities and K-Factor

Specifications	English Units	SI Units
Main Waterway (each side)	1¼"	31.8mm
Main Inlet/Outlet Connection	1" Male NPSM	–
Outlet Ports	⅜" CTS and ½" CTS	9.5mm and 12.7mm
Outlet Port Rating (each) (@ 8 FPS tubing velocity)	⅜" - 2.5 GPM ½" - 4 GPM	⅜" - 9.5 LPM ½" - 15.1 LPM
Outlet Port K-Factor	⅜" - .35 ½" - .21 (PSI=KxGPM^2)	⅜" - 1.66 x 10^{-3} ½" - 9.997 x 10^{-4} (BAR=KxLPM^2)
Main Bore Flow Capacity (each side) (2015 IPC Table 604.10.1)	31 GPM	117.3 LPM
Main Bore Through Feed K Factor (36 Ports with "Y" Block)	0.012 (PSI=KxGPM^2)	56.98x10^{-6} (BAR=KxLPM^2)
WSFU Capacity (each side) (2015 IPC, table E103.3(3))	60	–

Quality Assurance

When the product is marked with the ASTM F877 designation, it affirms that all ManaBloc manifold control units are factory-assembled and pretested prior to delivery to the field. Viega utilizes protective packaging to reduce risk of damage during shipping and storage. ManaBloc manifolds are not intended to be fabricated or disassembled in the field. ManaBloc manifolds are intended for potable water use only.

Certifications

- cNSF®us pw-372
  - Zero Lead listing meeting California AB 1953 and Vermont Act 193
  - NSF International Performance and Health Effects (Standards 14 & 61)
  - NSF certified to CSA B137.5 (Canadian Standards Association)
- ICC ES-PMG™ 1038 plumbing applications
- IAPMO Certified

Connections Available

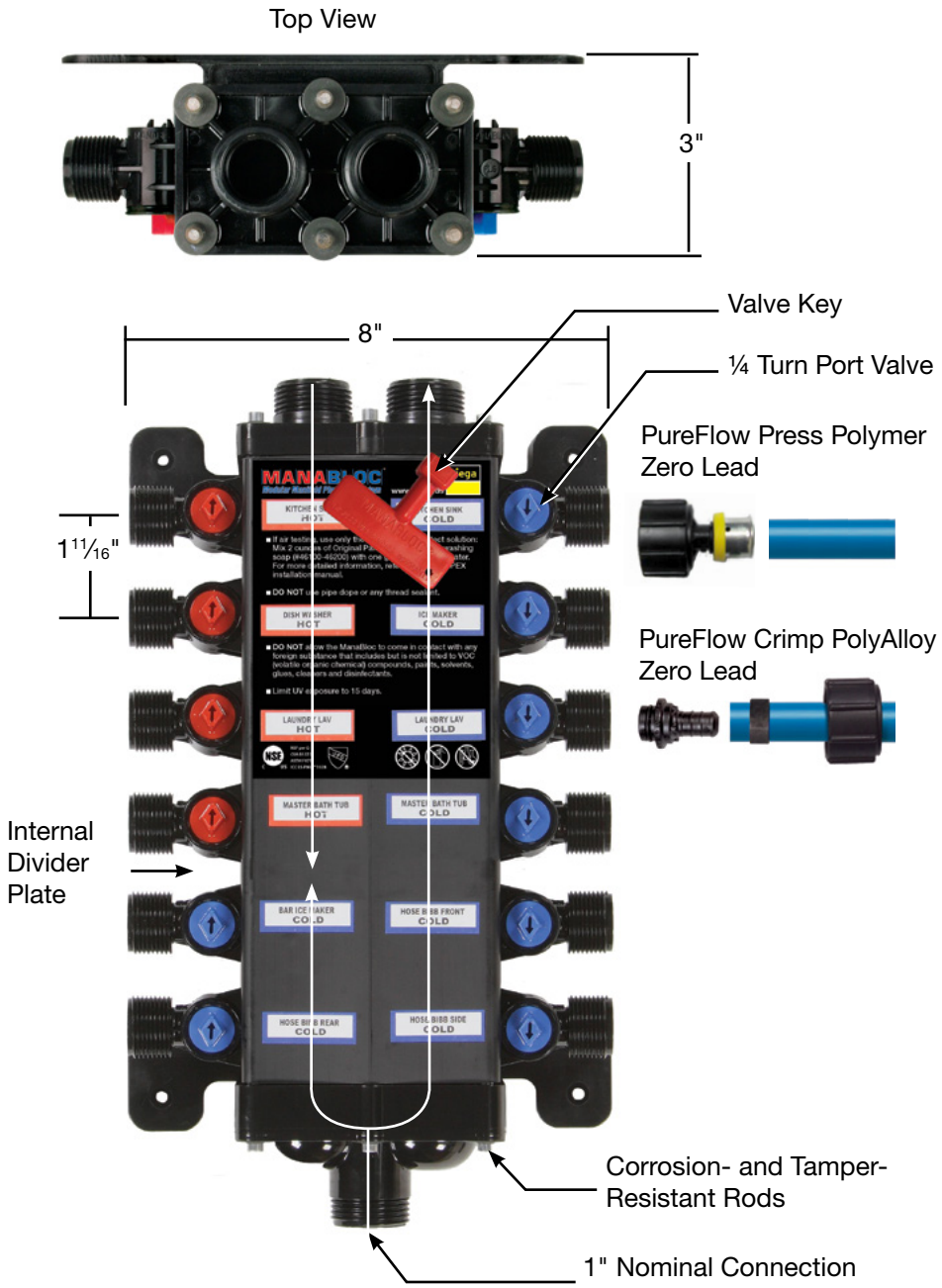
Connection	Polymer	ZL Bronze	Polybutylene[1]
Press	O[2] S	O S	
Crimp	O[2] S	S	O[2]
Compression		S	
MPT		S	S

O = Available connection for outlet ports
S = Available connection for supply ports
[1] For retrofit applications only
[2] Includes sweep configuration (angled at 12 degrees)

ManaBloc Dimensions	
Total Ports	**Length (in)**
14	15 7/16
18	18 13/16
24	23 13/16
30	28 7/8
36	33 15/16

Dimensions reflect stock ManaBloc sizes.

ManaBloc Pressure Drop Table Expressed as PSI Drop Through Port		
Port Size (in)	**Rated Flow (gmp)**	**PSI Drop (psi)**
3/8	2.5	2
1/2	4	3.4



Tech Data Sheet

Viega PureFlow ManaBloc Supply Adapter

Description

Viega PureFlow supply adapters are used to connect PEX supply lines, CTS-sized supply lines, and polybutylene (PB) supply lines to Viega ManaBloc® and Viega MiniBloc® manifolds. They come in press, crimp, compression, male pipe thread, and polybutylene connection types. PureFlow supply adapters are available in ¾" and 1" sizes.

Materials

Viega PureFlow supply adapters are available in:

- Zero lead bronze fittings use high-quality zero-lead material
- Zero lead brass (Eco Brass) fittings use zero-lead alloy
- Polymer fittings use high-grade polymer (polyphenylsulfone)
- PolyAlloy fittings use performance-grade polymer (polyphenylsulfone)

Marking and Certification

Viega PureFlow Press Polymer fittings with attached stainless steel sleeves are manufactured and certified to the requirements of ASTM F877 and ASTM F3348. Viega PureFlow Press Polymer fittings and sleeves are marked with the size, manufacturer's mark, and required markings of third-party certification organizations.

PureFlow Crimp PolyAlloy fittings are marked with the F2159 ASTM Standard and the NSF-pw mark indicating third party certification by NSF International. Rings are marked with SDR-9 and/or PEX, F1807, and manufacturer's mark. PureFlow Polybutylene PolyAlloy fittings are marked with the ASTM F877 and the NSF-pw mark indicating third party certification by NSF International. Fittings also meet the requirements of ANSI/NSF-61 and are suitable for contact with potable water. NSF International and other certification organizations conduct random on-site inspections of manufacturing facilities and independently test Viega fittings for compliance with physical, performance, and toxicological standards.

Recommended Uses

The supply adapters are intended for use with ManaBloc manifold systems. See the table below for descriptions, model, and part numbers. Viega ManaBloc system components are not interchangeable with components and tubing from other suppliers.

Handling and Installation

Polymer press and PolyAlloy crimp and polybutylene adapters are corrosion and impact resistant. However, they are still softer than metals and must be protected from UV exposure and volatile organic compounds (VOCs) which can damage them. Use of these materials in hot and cold water distribution system must be in accordance with good plumbing practices, applicable code requirements, and current installation practices available from Viega. Contact a Viega representative or the applicable code enforcement bureau for information about approvals for specific applications.

Quality Assurance

A product marked with the ASTM F877, ASTM F2159, or ASTM F3348 designation affirms that the product was manufactured, inspected, sampled, and tested in accordance with these specifications and has been found to meet the specified requirements.

Certifications

- cNSF®us pw-372
  - Zero Lead listing meeting California AB 1953 and Vermont Act 193
  - NSF International Performance and Health Effects (Standards 14 and 61)
  - NSF certified to CSA B137.5 (Canadian Standards Association)
  - NSF Certfied to NSF-U.P. Code approved for Uniform Plumbing Code listed to ASTM F2159, F876 / F877, or ASTM F3348
- ICC ES-PMG™ 1038

Description	Model	Part No.
¾" to 1" Polymer Press Supply Adapter	V5613.2	49414
1" to 1" Polymer Press Supply Adapter	V5613.2	49416
¾" to 1" Zero Lead Bronze Press Supply Adapter	2877.8ZL	96141
1" to 1" Zero Lead Bronze Press Supply Adapter	2877.8ZL	96161
¾" to 1" Zero Lead Brass CTS Supply Adapter	V5032ZL	46346
¾" to 1" Zero Lead Brass MPT Supply Adapter	V5033ZL	46646
1" to 1" Zero Lead Brass MPT Supply Adapter	V5033ZL	46656
¾" to 1" Zero Lead Brass Crimp Supply Adapter	V5034ZL	46414
1" to 1" Zero Lead Brass Crimp Supply Adapter	V5034ZL	46416
¾" to 1" Zero Lead Brass PB Supply Adapter	V5035ZL	50268
1" to 1" Zero Lead Brass PB Supply Adapter	V5035ZL	50269
¾" to 1" PolyAlloy Crimp Supply Adapter	V5213	50141
1" to 1" PolyAlloy Crimp Supply Adapter	V5213	50151

Tech Data Sheet

Viega PureFlow ManaBloc Port Adapter

Description

Viega PureFlow port adapters are used to connect distribution lines and polybutylene (PB) distribution lines to Viega ManaBloc® and Viega MiniBloc® manifolds. They come in press, crimp, and polybutylene connection types. PureFlow supply adapters are available in ⅜" and ½" sizes.

Materials

Viega PureFlow port adapters are available in:

- Zero lead bronze fittings use high-quality zero-lead material
- Zero lead brass (Eco Brass) fittings use zero-lead alloy
- Polymer fittings use high-grade polymer (polyphenylsulfone)
- PolyAlloy fittings use performance-grade polymer (polyphenylsulfone)

Marking and Certification

Viega PureFlow Press Polymer fittings with attached stainless steel sleeves are manufactured and certified to the requirements of ASTM F877 and ASTM F3348. Viega PureFlow Press Polymer fittings and sleeves are marked with the size, manufacturer's mark, and required markings of third-party certification organizations.

PureFlow Crimp PolyAlloy fittings are marked with the F2159 ASTM Standard and the NSF-pw mark indicating third party certification by NSF International. Rings are marked with SDR-9 and/or PEX, F1807, and manufacturer's mark. PureFlow Polybutylene PolyAlloy fittings are marked with the ASTM F877 and the NSF-pw mark indicating third party certification by NSF International. Fittings also meet the requirements of ANSI/NSF-61 and are suitable for contact with potable water. NSF International and other certification organizations conduct random on-site inspections of manufacturing facilities and independently test Viega fittings for compliance with physical, performance, and toxicological standards.

Recommended Uses

The port adapters are intended for use with ManaBloc manifold systems. See the table below for descriptions, model, and part numbers. Viega ManaBloc system components are not interchangeable with components and tubing from other suppliers.

Handling and Installation

Polymer press and PolyAlloy crimp and polybutylene adapters are corrosion and impact resistant. However, they are still softer than metals and must be protected from UV exposure and volatile organic compounds (VOCs) which can damage them. Use of these materials in hot and cold water distribution system must be in accordance with good plumbing practices, applicable code requirements, and current installation practices available from Viega. Contact a Viega representative or the applicable code enforcement bureau for information about approvals for specific applications.

Quality Assurance

A product marked with the ASTM F877, ASTM F2159, or ASTM F3348 designation affirms that the product was manufactured, inspected, sampled, and tested in accordance with these specifications and has been found to meet the specified requirements.

Certifications

- cNSF®us pw-372
  - Zero Lead listing meeting California AB 1953 and Vermont Act 193
  - NSF International Performance and Health Effects (Standards 14 and 61)
  - NSF certified to CSA B137.5 (Canadian Standards Association)
  - NSF Certfied to NSF-U.P. Code approved for Uniform Plumbing Code listed to ASTM F2159, F876 / F877, or ASTM F3348
- ICC ES-PMG™ 1038

Description	Model	Part No.
⅜" to ½" Polymer Press Port Adapter	V5613.1	49224
½" to ½" Polymer Press Port Adapter	V5613.1	49234
⅜" to ½" Polymer Press Sweep Port Adapter	V5613.5	50263
½" to ½" Polymer Press Sweep Port Adapter	V5613.5	50262
⅜" to ½" Zero Lead Bronze Press Port Adapter	2877.3ZL	96101
½" to ½" Zero Lead Bronze Press Port Adapter	2877.3ZL	96120
⅜" to ⅜" PolyAlloy Crimp Port Adapter	V5039.1	51133
⅜" to ½" PolyAlloy Crimp Port Adapter	V5039.1	50023
½" to ⅜" PolyAlloy Crimp Port Adapter	V5039.1	51123
½" to ½" PolyAlloy Crimp Port Adapter	V5039.1	50133
⅜" to ½" PolyAlloy Crimp Sweep Port Adapter	V5039.2	50261
½" to ½" PolyAlloy Crimp Sweep Port Adapter	V5039.2	50260
⅜" to ½" Zero Lead Brass PB Port Adapter	V5613.8	50267
½" to ½" Zero Lead Brass PB Port Adapter	V5613.8	50266
⅜" to ½" Polymer PB Sweep Port Adapter	V5613.7	50265
½" to ½" Polymer PB Sweep Port Adapter	V5613.7	50264

Tech Data Sheet

Viega PureFlow ManaBloc Sweep Adapter

Description

This product specification designates the requirements for Viega PureFlow ManaBloc Sweep Adapters. Press, crimp, and polybutylene adapters are available in sizes ⅜" and ½". Connections are to be completed with a tool that is appropriate for the connection style.

Materials

- Press Adapter – polyphenylsulfone
- Crimp Adapter – polyphenylsulfone
- Polybutylene Adapter – polyphenylsulfone

Marking and Certification

Viega PureFlow Press Polymer fittings with attached stainless steel sleeves are manufactured and certified to the requirements of ASTM F877 and ASTM F3348. Viega PureFlow Press Polymer fittings and sleeves are marked with the size, manufacturer's mark, and required markings of third-party certification organizations.

PureFlow Crimp PolyAlloy fittings are marked with the F2159 ASTM Standard and the NSF-pw mark indicating third party certification by NSF International. Rings are marked with SDR-9 and/or PEX, F1807, and manufacturer's mark. PureFlow Polybutylene PolyAlloy fittings are marked with the ASTM F877 and the NSF-pw mark indicating third party certification by NSF International. Fittings also meet the requirements of ANSI/NSF-61 and are suitable for contact with potable water. NSF International and other certification organizations conduct random on-site inspections of manufacturing facilities and independently test Viega fittings for compliance with physical, performance, and toxicological standards.

Handling and Installation

Polymer press and PolyAlloy crimp and polybutylene adapters are corrosion and impact resistant. However, they are still softer than metals and must be protected from UV exposure and volatile organic compounds (VOCs) which can damage them. Use of these materials in hot and cold water distribution system must be in accordance with good plumbing practices, applicable code requirements, and current installation practices available from Viega. Contact a Viega representative or the applicable code enforcement bureau for information about approvals for specific applications.

Quality Assurance

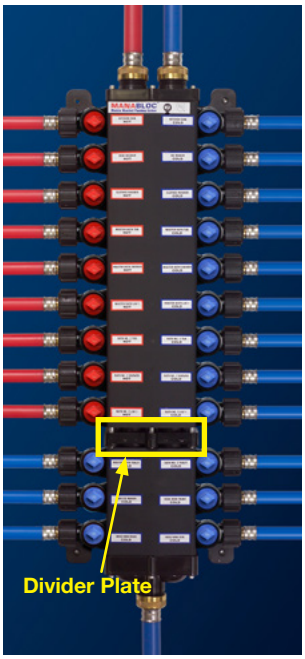
A product marked with the ASTM F877, ASTM F2159, or ASTM F3348 designation affirms that the product was manufactured, inspected, sampled, and tested in accordance with these specifications and has been found to meet the specified requirements.

Certifications

- cNSF®us pw-372
  - Zero Lead listing meeting California AB 1953 and Vermont Act 193
  - NSF International Performance and Health Effects (Standards 14 and 61)
  - NSF certified to CSA B137.5 (Canadian Standards Association)
  - NSF Certfied to NSF-U.P. Code approved for Uniform Plumbing Code listed to ASTM F2159, F876 / F877, or ASTM F3348
- ICC ES-PMG™ 1038

Recommended Uses

The sweep adapters are intended for use with ManaBloc manifold systems. In the event that a ManaBloc purchased before May 2009 needs to be replaced, a ManaBloc Sweep Adapter is required to maintain the previously drilled hole spacing. This generation of ManaBlocs can be identified by the external divider plate as shown. In old-style ManaBlocs there was a space between the ports above and below the divider plate. Holes for tubing were drilled in adjacent studs according to where the ports were located. When an old-style ManaBloc is replaced with a new one, the ports will not line up with the previously drilled holes. A sweep adapter will be required for each port below the divider plate. For example, the replacement for the ManaBloc pictured would require 6 sweep adapters. See the table below for part numbers and descriptions. The installation of the sweep adapters is the same as for the standard port adapters. Viega ManaBloc system components are not interchangeable with components and tubing from other suppliers. For information on other hot and cold applications not listed here, consult your Viega representative.



Description	Part No.
½" Replacement ManaBloc Sweep - PolyAlloy Crimp	50260
⅜" Replacement ManaBloc Sweep - PolyAlloy Crimp	50261
½" Replacement ManaBloc Sweep - Polymer PEX Press	50262
⅜" Replacement ManaBloc Sweep - Polymer PEX Press	50263
½" PB Replacement ManaBloc Sweep	50264
⅜" PB Replacement ManaBloc Sweep	50265

Tech Data Sheet

Viega MiniBloc® Manifold for PureFlow PEX

Scope

This specification designates requirements for the Viega MiniBloc for use in combinations installations supplying water to individual plumbing fixtures through dedicated ports and distribution lines. Each port (outlet) is equipped with a built-in ¼ turn shut-off valve to provide control for each fixture from a central location. The MiniBloc has separate hot and cold water inlets and ports to manage the entire plumbing system and are also available in single temperature flow through models. A variety of standard and zero lead fitting options are available for the MiniBloc distribution ports, including PureFlow Press Polymer andand PureFlow Crimp PolyAlloy. These distribution connections come complete with the MiniBloc when ordered. However, supply connections and fixture transition fittings are not included with the unit but are available separately.

Materials

The modular MiniBloc sections are molded from polysulfone (PLS) plastic. This material is used extensively in the medical industry and is highly resistant to hot water, chlorine and other chemicals typically found in potable water systems. The other components making up the MiniBloc consist of corrosion-resistant metals and engineered plastics that have been chosen specifically for each purpose. The stiffener used in the compression port fitting assembly is manufactured from 304 stainless steel.

Marking and Certification

MiniBloc units are marked with the product name, unit part number, material designation, production date and marks of third-party certifications by NSF International (NSF-pw) to ASTM F877, ANSI/NSF standards 14 and 61, CSA B137.5, listed with IAPMO as meeting the requirements of the Uniform Plumbing Code and listed to ICC ES-PMG 1038.

Recommended Uses

The MiniBloc is recommended for use in hot and cold potable water distribution systems in single and multifamily dwellings, as well as multiple-unit structures (apartments, condos, hotels, motels, etc.). Maximum pressure/temperature rating is 100 psi @ 180°F. The MiniBloc is not to be used directly in line with hot water domestic recirculation loops. Viega MiniBloc system components are not interchangeable with components and tubing from other suppliers. For information on other hot and cold applications not listed here, consult with your Viega representative.

Handling and Installation

The MiniBloc shall be protected from UV and foreign substances which include but are not limited to VOC (volatile organic chemical) compounds, paints, solvents, glues, cleaners and disinfectants. Products that are exposed to these types of substances are at risk of having failures (leaks). Use of these materials in hot and cold water distribution systems must be in accordance with good plumbing practices, applicable code requirements, and current installation practices available from Viega. Contact a Viega representative or the applicable code enforcement bureau for information about approvals for specific applications.

Capacities and K-Factor

Specifications	English Units	SI Units
Main Waterway (each side)	1¼"	31.8mm
Main Inlet/Outlet Connection	1" Male NPSM	–
Fixture Ports	⅜" CTS and ½" CTS	9.5mm and 12.7mm
Fixture Port Rating (each) (@ 8 FPS tubing velocity)	⅜" - 2.5 GPM ½" - 4 GPM	⅜" - 9.5 LPM ½" - 15.1 LPM
Fixture Port K-Factor	⅜" - .35 ½" - .21 (PSI=KxGPM^2)	⅜" - 1.66 x 10^{-3} ½" - 9.997 x 10^{-4} (BAR=KxLPM^2)
Main Bore Flow Capacity (each side) (2015 IPC Table 604.10.1)	31 GPM	117.3 LPM
Main Bore Through Feed K Factor (36 Ports with "Y" Block)	0.012 (PSI=KxGPM^2)	56.98x10^{-6} (BAR=KxLPM^2)
WSFU Capacity (each side) (2015 IPC, table E103.3(3))	60	–

Quality Assurance

When the product is marked with the ASTM F877 designation, it affirms that all MiniBloc manifold control units are factory-assembled and pretested prior to delivery to the field. Viega utilizes protective packaging to reduce risk of damage during shipping and storage. MiniBloc manifolds are not intended to be fabricated or disassembled in the field. MiniBloc manifolds are intended for potable water use only.

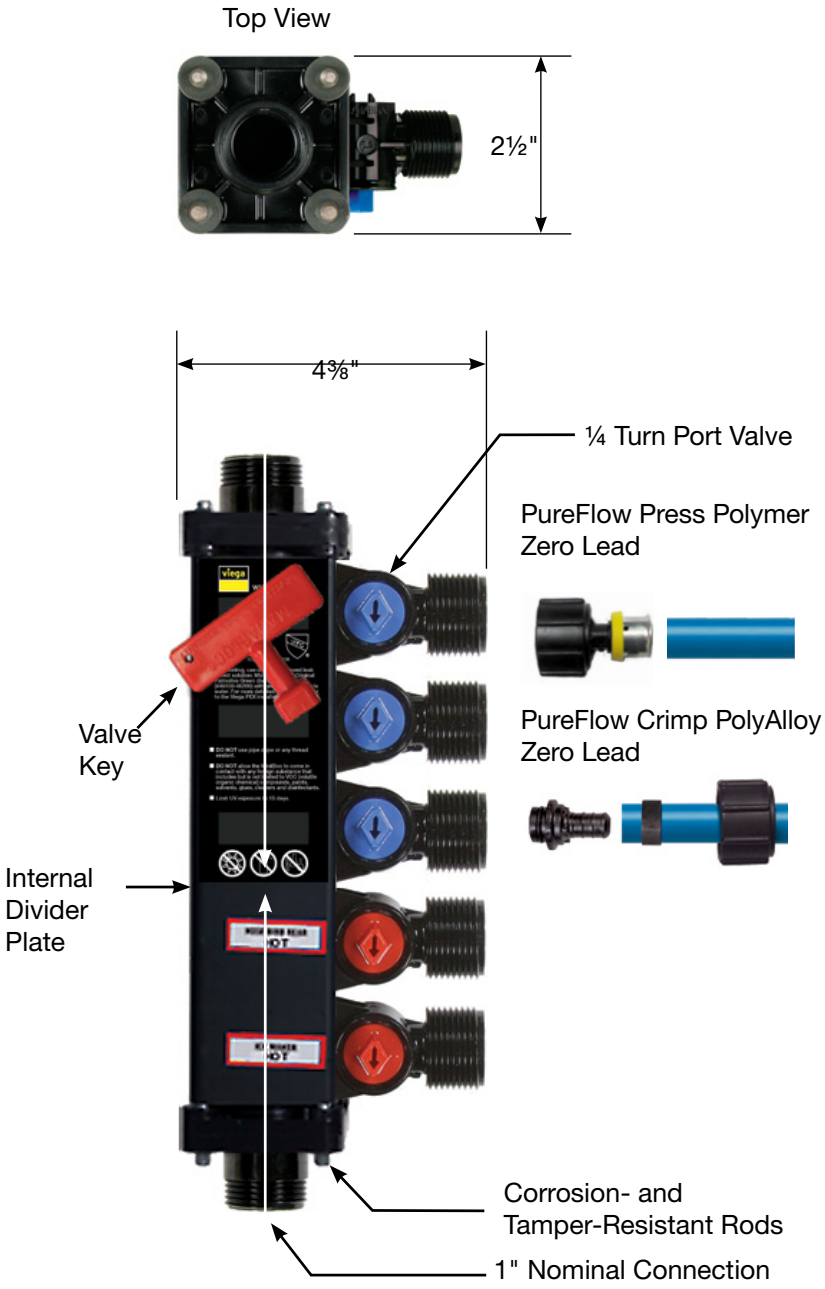
Certifications

- cNSF®us pw-372
  - Zero Lead listing meeting California AB 1953 and Vermont Act 193
  - NSF International Performance and Health Effects (Standards 14 & 61)
  - NSF certified to CSA B137.5 (Canadian Standards Association)
- ICC ES-PMG™ 1038 plumbing applications
- IAPMO Certified

MiniBloc Dimensions	
Total Ports	**Length (in)**
3	8.19
4	9.87
5	11.55
6	13.23
7	14.91
8	16.59
10	19.95

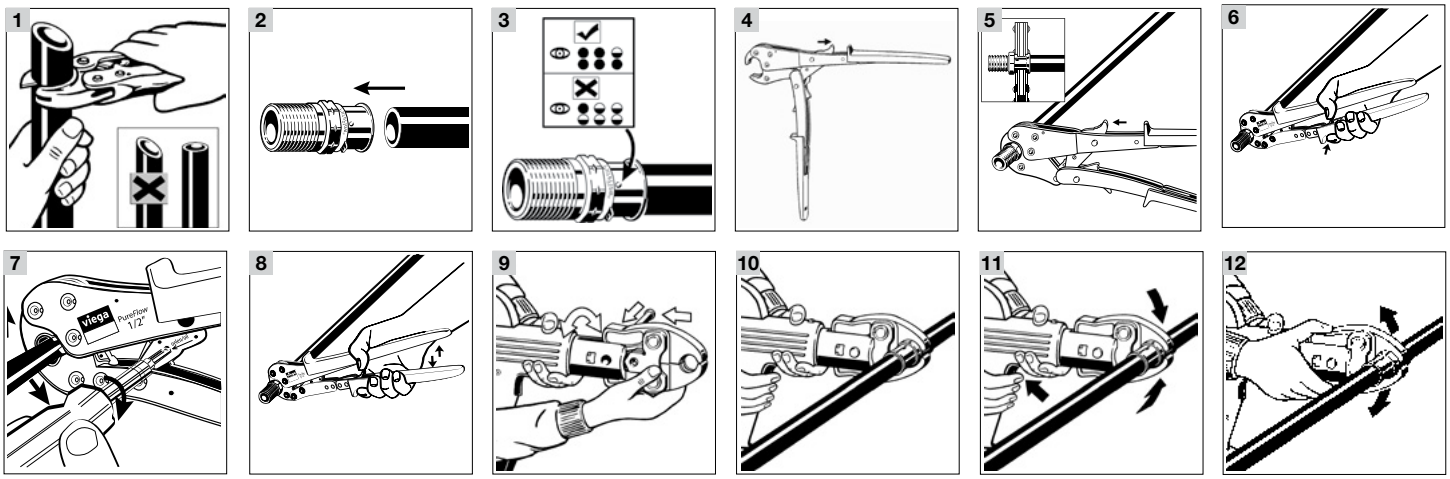
Dimensions reflect stock MiniBloc sizes.

MiniBloc Pressure Drop Table Expressed as PSI Drop Through Port		
Port Size (in)	**Rated Flow (gmp)**	**PSI Drop (psi)**
⅜	2.5	2
½	4	3.4



2 Product Instructions

PureFlow Press Connections



Viega PureFlow Press Fittings

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

1 Square off tubing to proper length. Uneven, jagged, or irregular cuts will produce unsatisfactory connections.

2 Insert PureFlow Press fitting with attached sleeve into tubing and engage fully.

3 Ensure full tubing insertion at view holes in attached press sleeve. Full insertion means tubing must be completely visible in at least two view holes and partially visible in the one.

If using hand tools continue with steps 4 to 8. If using power tools skip to steps 9 to 12.

Pressing with a Hand Tool

4 For the 1" tool, open the tool handles fully (thumb grip is available to maintain open jaw). Then close tool jaws to engage ratchet (ensure that thumb grip is returned fully forward before closing jaws).

5 Position the PureFlow press tool perpendicular over the press sleeve, resting it against the tool locator ring. For 1" tool, close tool jaws to engage ratchet (ensure that thumb grip is returned fully forward before closing jaws). Make sure the PureFlow press tool is properly aligned (see step 7 if it is not).

The tool locator ring must be in the factory-installed position while making a press to ensure a consistent leak-proof connection. It may be necessary to rotate the tool locator ring to avoid interference between the ring and tool.

6 Close handles, using trigger to reduce grip span if desired.

7 If the PureFlow press tool is not properly aligned with the locator ring, use the emergency release (using a screw driver to turn the emergency release) to open the press tool. Once released, align the PureFlow press tool properly and go back to step 5.

WARNING!
The connection is not leak-proof when the tool has been opened by emergency release. The tool locator ring must be present to ensure a proper PureFlow Press connection.

8 Extend the PureFlow press tool handle and continue ratcheting until automatic tool release occurs at the proper compression force.

CAUTION!
Do not press twice.

Pressing with a Power Tool

9 Insert the appropriate PureFlow press jaw into the press tool and push in the holding pin until it locks.

10 Open jaw and position perpendicular over press sleeve, resting it against the tool locator ring.

The tool locator ring must be in the factory-installed position while making a press to ensure a consistent leak-proof connection. It may be necessary to rotate the tool locator ring to avoid interference between the ring and tool.

11 Start the pressing process; hold the trigger until the jaw has automatically released.

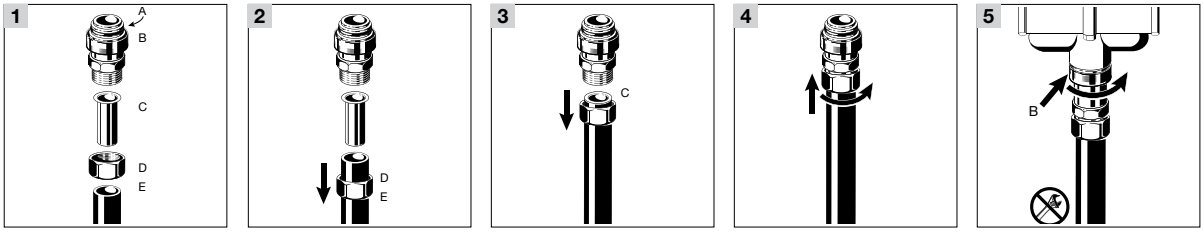
12 When press connection is complete, open and remove the jaw.

WARNING!
The tool locator ring must be present to ensure a proper PureFlow Press connection.

CAUTION!
Do not press twice.

Product Instructions

ManaBloc Supply Adapter



ManaBloc Zero Lead Compression / Male NPT / End Cap

The water supply to the ManaBloc shall be turned off before attempting installation of press supply adapters.

CAUTION!
Use only supplied sealing element.

1 Ensure the sealing element (A) is in place and clean of any dirt or debris. Wet sealing element with tap water.

2 Slide the supplied compression nut (D) with ferrule (E) onto the tubing (threads of the nut toward the end of the tubing). Nut comes assembled with ferrule.

3 Insert the supplied Stainless Steel Insert Stiffener (C) fully into the end of the PEX tubing as shown. Insert Stiffener is not required when making a connection to CPVC or copper tubing.

4 Insert the pipe fully into the ManaBloc supply adapter and thread compression nut onto fitting. Wrench tighten (supporting the HEX on fitting body with a crescent wrench) 1 to 1¼ turns past hand tight. The piping must not put stress on the ManaBloc as leaking damage may result.

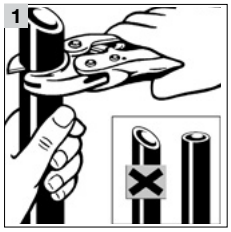
5 Insert the fitting into the desired inlet/outlet port until the fitting flange sets flush with the port. Thread the nut (B) onto the ManaBloc inlet/outlet port. Hand tighten only.

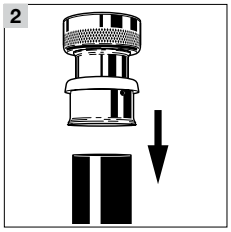
CAUTION!
Do not over tighten.

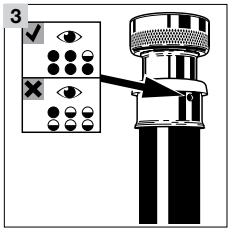
For male NPT ManaBloc adapters use only Teflon tape to pipe threads. DO NOT use pipe dopes, thread sealers, Teflon pastes, etc. For the end cap adapter follow steps 1 and 5.

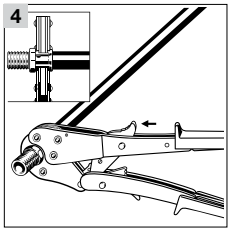
Product Instructions

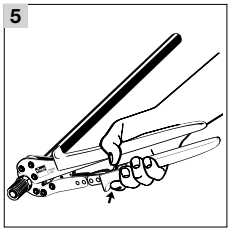
PureFlow Press Polymer ManaBloc Supply Adapter

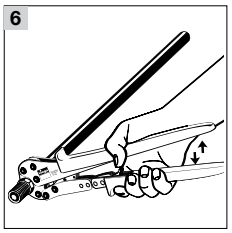


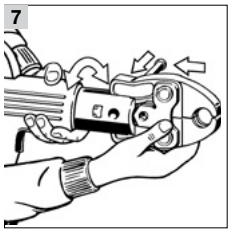


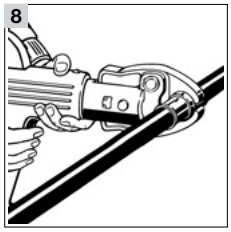


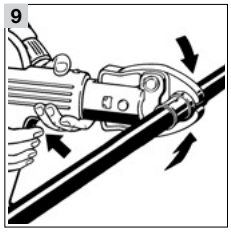


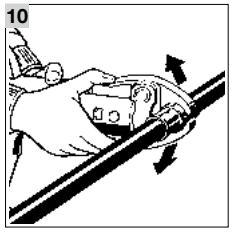


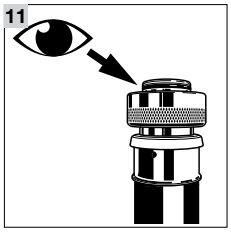


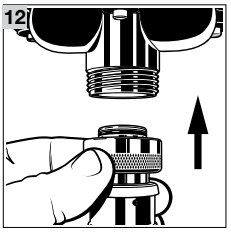


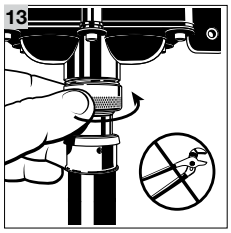












Model V5613.2

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

1 Square off tubing to proper length. Uneven, jagged, or irregular cuts will produce unsatisfactory connections.

2 Insert PureFlow Press fitting with attached sleeve into tubing and engage fully.

3 Ensure full tubing insertion at view holes in attached press sleeve. Full insertion means tubing must be completely visible in at least two view holes and partially visible in the one.

If using hand tools continue with steps 4 to 6. If using power tools skip to steps 7 to 10. For both, continue with steps 11 to 13.

Pressing with a Hand Tool

4 Position the PureFlow press tool perpendicular over the press sleeve, resting it against the tool locator ring. For 1" tool, close tool jaws to engage ratchet (ensure that thumb grip is returned fully forward before closing jaws). Make sure the PureFlow press tool is properly aligned.

5 Close handles, using trigger to reduce grip span if desired.

6 Extend the PureFlow press tool handle and continue ratcheting until automatic tool release occurs at the proper compression force.

CAUTION!
Do not press twice.

Pressing with a Power Tool

7 Insert the appropriate PureFlow press jaw into the press tool and push in the holding pin until it locks

8 Open jaw and position perpendicular over press sleeve, resting it against the tool locator ring.

9 Start the pressing process; hold the trigger until the jaw has automatically released

10 When press connection is complete, open and remove the jaw.

CAUTION!
Do not press twice.

11 Ensuring sealing element is in place and clean of any dirt or debris, wet sealing element with tap water.

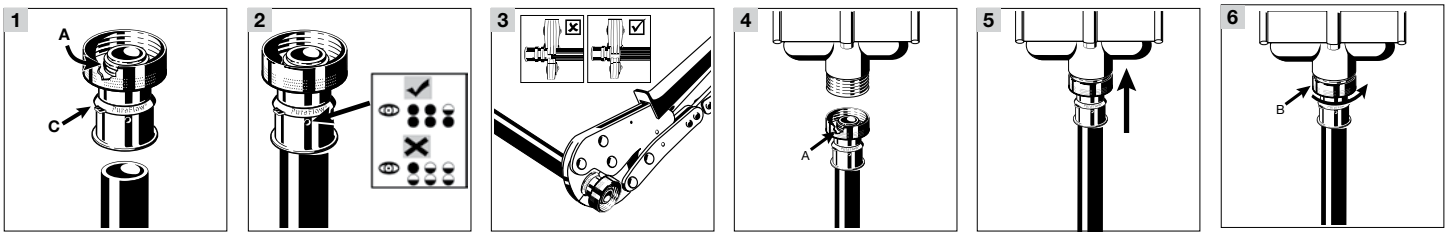
12 Insert fitting into desired supply port until the fitting flange sets flush with the port.

13 Thread swivel nut onto ManaBloc port.

CAUTION!
Hand tighten only.

Product Instructions

PureFlow Press Supply Adapter



Zero Lead ManaBloc Supply Connection

The water supply to the ManaBloc shall be turned off before attempting installation of press supply adapters.

CAUTION!
Use only supplied sealing element.

1 Ensure sealing element (A) and the tool locater ring (C) are present and in the factory installed position.

2 Insert the PureFlow Press fitting into tubing and engage fully. Check full tubing insertion at view holes in sleeve. Full insertion means tubing must be completely visible in at least two viewing holes and may be partially visible in one.

3 Press the sleeve with an appropriately sized press tool.

CAUTION!
Do not press twice.

Refer to the current Viega PureFlow Water Systems Installation Manual for additional pressing instructions.

4 Ensuring the sealing element (A) is in place and clean of any dirt or debris, wet sealing element with tap water.

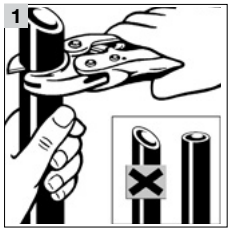
5 Insert fitting into the desired inlet/outlet port until the fitting flange sets flush with the port.

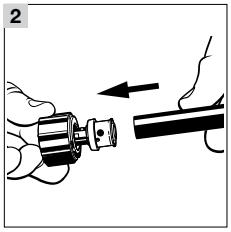
6 Thread swivel nut (B) onto the ManaBloc inlet/outlet port. Hand tighten only.

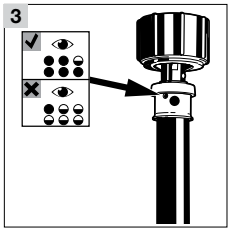
CAUTION!
Do not over tighten.

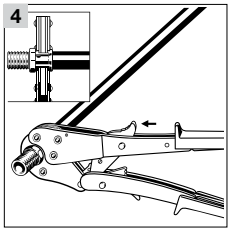
Product Instructions

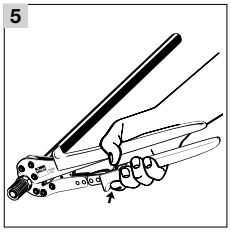
PureFlow Press Polymer ManaBloc Port Adapter

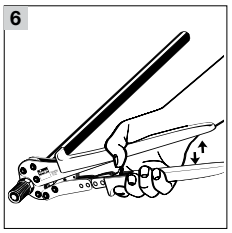


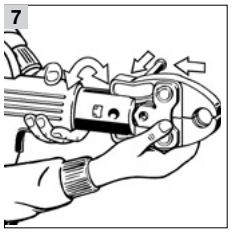


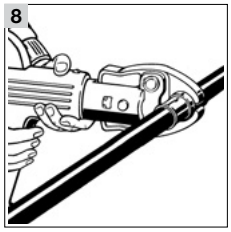


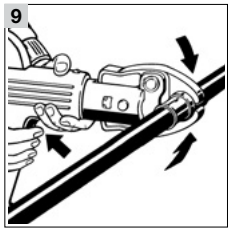


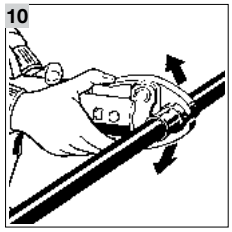


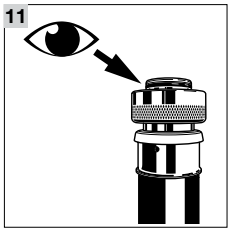


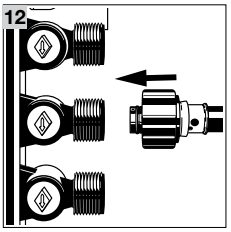


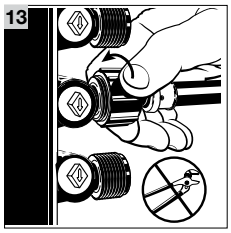












Model V5613.1

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

1 Square off tubing to proper length. Uneven, jagged, or irregular cuts will produce unsatisfactory connections.

2 Insert PureFlow Press fitting with attached sleeve into tubing and engage fully.

3 Ensure full tubing insertion at view holes in attached press sleeve. Full insertion means tubing must be completely visible in at least two view holes and partially visible in the one.

If using hand tools continue with steps 4 to 6. If using power tools skip to steps 7 to 10. For both, continue with steps 11 to 13.

Pressing with a Hand Tool

4 Position the PureFlow press tool perpendicular over the press sleeve, resting it against the tool locator ring. For 1" tool, close tool jaws to engage ratchet (ensure that thumb grip is returned fully forward before closing jaws). Make sure the PureFlow press tool is properly aligned.

5 Close handles, using trigger to reduce grip span if desired.

6 Extend the PureFlow press tool handle and continue ratcheting until automatic tool release occurs at the proper compression force.

CAUTION!
Do not press twice.

Pressing with a Power Tool

7 Insert the appropriate PureFlow press jaw into the press tool and push in the holding pin until it locks

8 Open jaw and position perpendicular over press sleeve, resting it against the tool locator ring.

9 Start the pressing process; hold the trigger until the jaw has automatically released

10 When press connection is complete, open and remove the jaw.

CAUTION!
Do not press twice.

11 Ensuring sealing element is in place and clean of any dirt or debris. Wet sealing element with tap water.

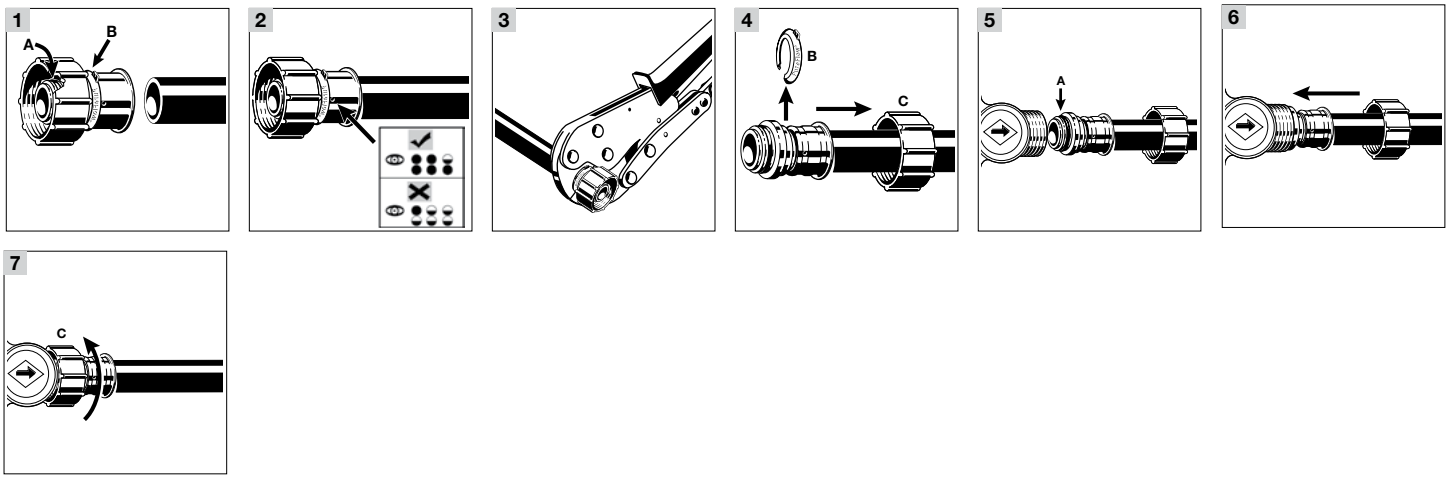
12 Insert fitting into desired supply port until the fitting flange sets flush with the port.

13 Thread swivel nut onto ManaBloc port. Open the port valve before turning on the main water supply.

CAUTION!
Hand tighten only.

Product Instructions

PureFlow Press Port Adapter



Zero Lead ManaBloc Port Connection

The water supply to the ManaBloc shall be turned off before attempting installation of press supply adapters.

CAUTION!
Use only supplied sealing element.

1 Ensure sealing element (A) is in place and the tool locator ring (B) is present in its factory installed position.

2 Square off tubing to proper length and insert the fitting fully into the end of the tubing as shown. Full insertion means tubing must be completely visible in at least two viewing holes and may be partially visible in one.

3 Placing the PureFlow Press tool jaw over the attached press sleeve resting it against the tool locator ring. Press the sleeve with an appropriately sized press jaw. Refer to current Viega PureFlow Water Systems Manual for additional pressing information.

CAUTION!
Do not press twice.

4 Remove tool locator ring (B) and slide swivel nut (C) over tubing as shown.

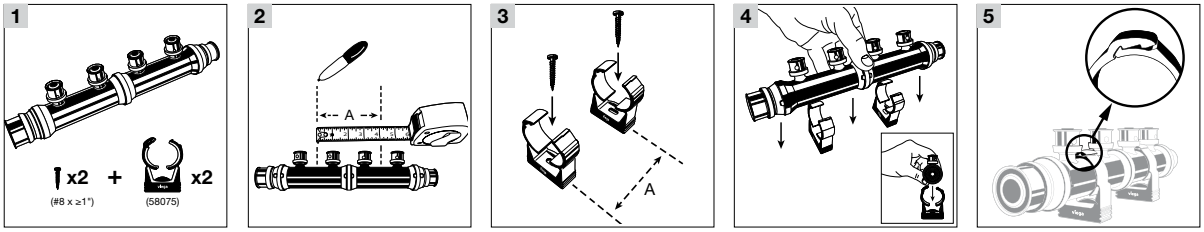
5 Ensure sealing element (A) is in place and clean of any dirt or debris. Wet sealing element with tap water.

6 Insert the fitting into the desired port until the fitting flange sets flush with the end of the port.

7 Thread the swivel nut (C) onto the ManaBloc port. Hand-tighten only. Open the port valve(s) before turning on the main water supply.

Product Instructions

Mounting the Viega PureFlow Press Polymer Manifold



Models V5636 and V5636.1

1 You will need two #8 mounting screws and two lock clips (part number 58075) to mount the manifold.

Lock clips sold separately (part number 58075).

2 Measure the distance (A) between the first and last set of manifold ports (as shown). Using a straight edge, mark dimension (A) on mounting surface. Ensure the mounting surface is level and suitable to support the weight of the manifold filled with water.

3 Align the 1¼" lock clips with the marks transferred on the mounting surface from step 1 and attach them using a 1" or longer screw appropriate for the mounting surface.

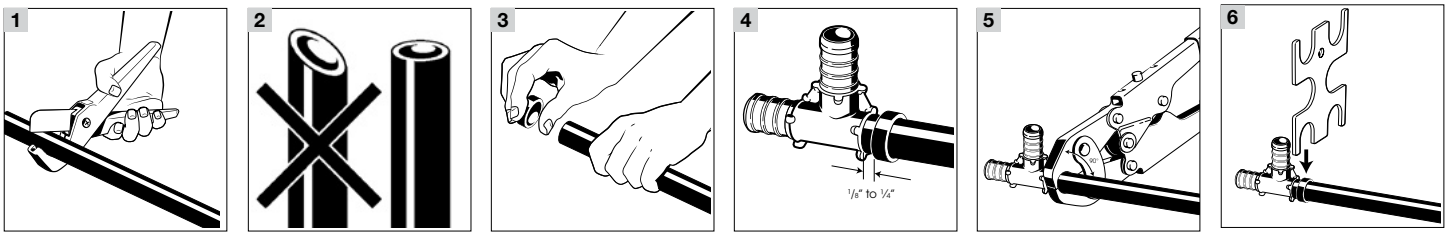
4 With the lock clips in the open position, insert the manifold body into the clips centering them between the end ports.

5 Push evenly on both ends of the manifold until lock clips snap manifold body firmly into place.

To make press connections refer to the "PureFlow Press Connections" on page 15.

Product Instructions

PureFlow Crimp Connections



Making Viega PureFlow Crimp Connections

1 The tubing should be cut squarely and evenly without burrs. Uneven, jagged or irregular cuts will produce unsatisfactory connections.

2 The diagram shows a correctly cut tube compared with an incorrectly cut tube.

3 Slide the crimp ring onto the tubing and insert the fitting into the tube to the shoulder or tube stop.

4 Position the ring ⅛" to ¼" from the end of the tubing.

5 The ring must be attached straight. Center the crimping tool jaws exactly over the ring. Keep the tool at 90° and close the handles completely.

CAUTION!
Do not crimp twice!

6 When checking crimp connections with a caliper (GO/NO GO gauge), push the gauge STRAIGHT DOWN over the crimped ring. NEVER slide the gauge in from the side. Do not attempt to gauge the crimp at the jaw overlap area. The overlap area is indicated by a slight removal of the blackening treatment. A **crimp is acceptable** if the GO gauge fits the ring and the NO GO does not. A **crimp is unacceptable** if the GO gauge does not fit the ring or the NO GO gauge does fit. An incorrect crimp must be cut out of the tubing and replaced. If you check the crimp connections with a micrometer or caliper, use the dimensions shown in the table.

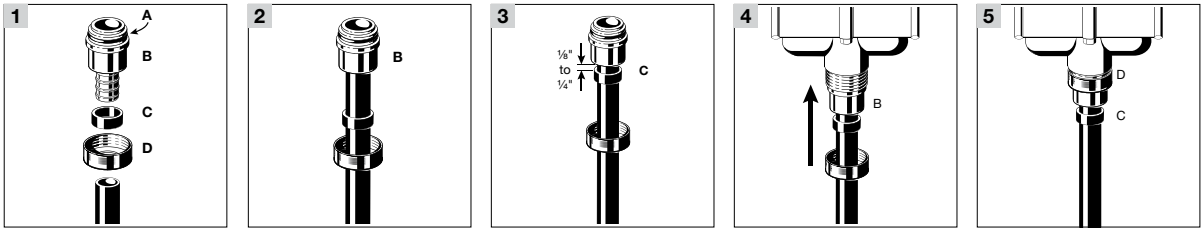
Crimp outside diameters should fall within the dimensions listed in the table below when measured with a micrometer or caliper.

Crimp Diameter Dimensions

Ring Size (in)	Minimum (in)	Maximum (in)
⅜	0.58	0.60
½	0.70	0.72
¾	0.95	0.96
1	1.18	1.19

Product Instructions

PureFlow Crimp Supply Adapter



Zero Lead ManaBloc Supply Connection

The water supply to the ManaBloc shall be turned off before attempting installation of crimp supply adapters.

CAUTION!
Use only supplied sealing element.

1 Slide the supplied swivel nut (D) and a crimp ring (C) onto the tubing (threads of the nut toward the end of the tubing).

2 Insert the barbed end of the fitting (B) fully into the end of the tubing as shown.

3 Slide the crimp ring (C) to within ⅛" to ¼" from the end of tube. Crimp the ring with an appropriately sized full-circle crimp tool.

CAUTION!
Do not crimp twice.

Refer to the current Viega PureFlow Water System Installation Manual for additional crimping information.

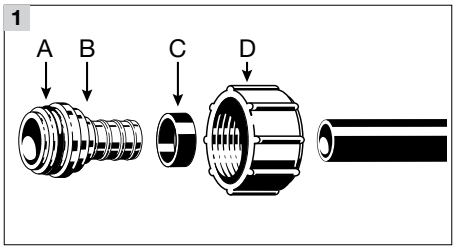
4 Ensuring sealing element (A) is in place and clean of any dirt or debris, wet sealing element with tap water. Insert fitting (B) into desired supply port until the fitting flange sets flush with the port.

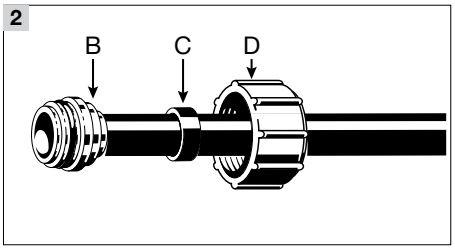
5 Slide the swivel nut (D) over the crimped ring (C) and thread the nut onto the ManaBloc supply port. Hand tighten only.

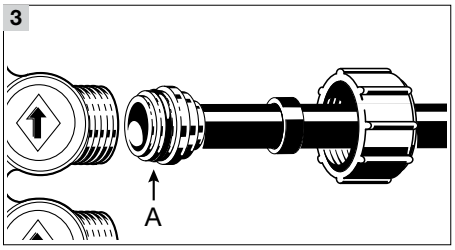
CAUTION!
Do not over tighten.

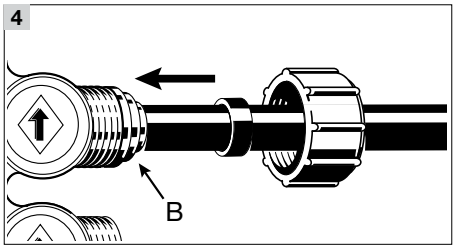
Product Instructions

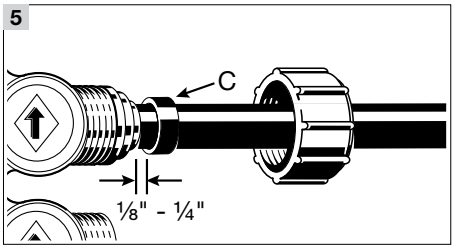
PureFlow Crimp Port Adapter

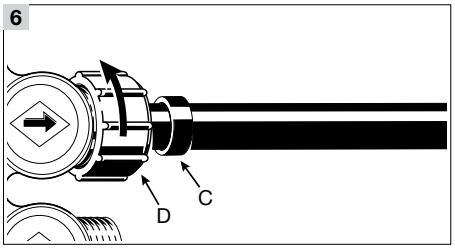












Zero Lead ManaBloc Port Connection

The water supply to the ManaBloc shall be turned off before attempting installation of crimp supply adapters.

CAUTION!
Use only supplied sealing element.

1 Make sure all components are present: (A) sealing element, (B) fitting, (C) crimp ring, (D) swivel nut.

2 Slide the supplied swivel nut (D) and a crimp ring (C) onto the tubing and insert the barbed end of the fitting (B) fully into the end of the tubing as shown.

3 Ensure sealing element (A) is in place and clean of any dirt or debris, wet sealing element with tap water.

4 Insert fitting (B) into desired port until the fitting flange sets flush with the end of the port.

5 Slide the crimp ring (C) to within ⅛" to ¼" from the end of tube. Crimp the ring with an appropriately sized full-circle crimp tool.

CAUTION!
Do not crimp twice.

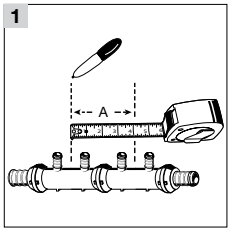
Refer to current Viega PureFlow Water Systems installation manual for additional crimping information.

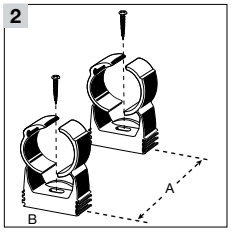
6 Slide the swivel nut (D) over the crimped ring (C) and thread the nut onto the ManaBloc port. Hand tighten only. Open the port valve(s) before turning on the main water supply.

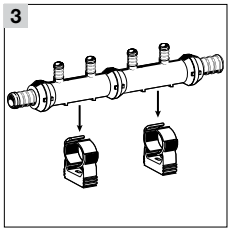
CAUTION!
Do not over tighten.

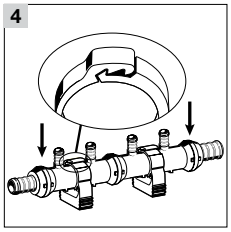
Product Instructions

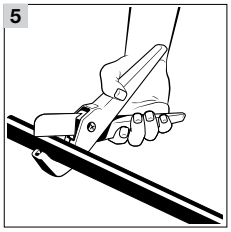
Mounting the Viega PureFlow Crimp PolyAlloy Manifold

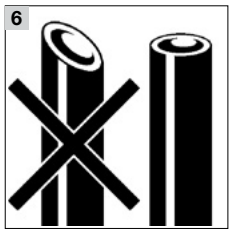


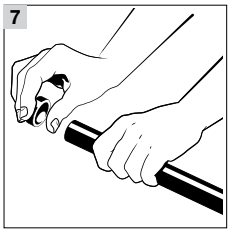


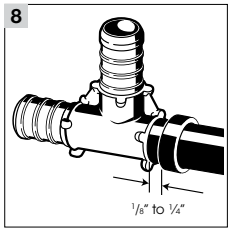


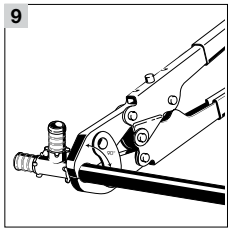


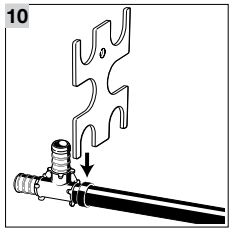












Models V5031.2 and V5031.22

Viega recommends using a minimum of two mounting brackets on manifolds with three ports and larger.

1 Measure the distance (A) between the first and last set of manifold ports (as shown). Using a straight edge, mark dimension (A) on mounting surface. Ensure the mounting surface is level and suitable to support the weight of the manifold filled with water.

2 Align the 1¼" lock clips (B) with the marks transferred on the mounting surface from step (1) and attach them using a 1" or longer screw appropriate for the mounting surface.

3 With the lock clips in the open position, insert the manifold body into the clips centering them between the end ports.

4 Push evenly on both ends of the manifold until lock clips snap manifold body firmly into place. Lock the clips into their second locking position to adequately secure the manifold.

Lock clips sold separately (part number 58075).

WARNING!
PureFlow Crimp PolyAlloy manifold must be protected from UV exposure and petroleum products, which can damage them. In the event of incidental UV exposure during storage, installation and handling, combined exposure of PolyAlloy PureFlow fittings shall not exceed 15 days.

Making Viega PureFlow Crimp PolyAlloy Connections

5 The tubing should be cut squarely and evenly without burrs. Uneven, jagged or irregular cuts will produce unsatisfactory connections.

6 The diagram shows a correctly cut tube compared with an incorrectly cut tube.

7 Insert the fitting into the pipe to the shoulder or tube stop.

8 Position the ring ⅛" to ¼" from the end of the tubing.

9 The ring must be attached straight. Center the crimping tool jaws exactly over the ring. Keep the tool at 90° and close the handles completely.

CAUTION!
Do not crimp twice.

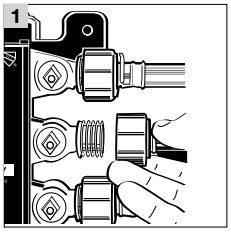
10 When checking crimp connections with a GO / NOGO gauge, push the gauge straight down over the crimped ring. Never slide the gauge in from the side. Do not attempt to gauge the crimp at the jaw overlap area. The overlap area is indicated by a slight removal of the blackening treatment. A crimp is acceptable if the GO gauge fits the ring and the NO GO does not. A crimp is unacceptable if the GO gauge does not fit the ring or the NO GO gauge does fit. An incorrect crimp must be cut out of the tubing and replaced. If you check the crimp connections with a micrometer or caliper, use the dimensions shown in the chart below.

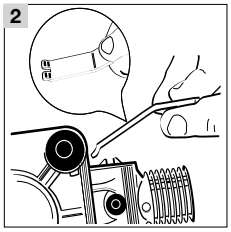
Crimp Diameter Dimensions
Crimp outside diameters should fall within these dimensions when measured with a micrometer or caliper.

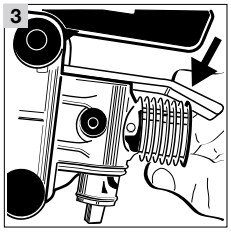
Ring Size (in)	Minimum (in)	Maximum (in)
⅜	0.580	0.595
½	0.700	0.715
¾	0.945	0.960
1	1.175	1.190

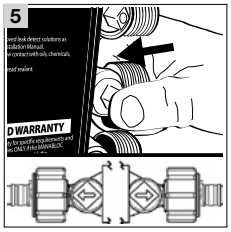
Product Instructions

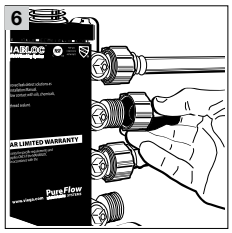
ManaBloc ¼ Turn Valve Stem Replacement











1 Turn off main water supply and drain system to a point below valve needing replacement stem. Unscrew port connection nut from the port requiring the valve stem replacement as well as the ports directly above and below. Pull the fittings and tubing away from the ports. Be prepared for a small amount of water to drain from the lines.

2 Slide notched end of the removal tool behind the port. Align tool on the rib centered under the tie rod behind the port.

3 Pull removal tool firmly toward valve body. DO NOT use excessive force. When positioned properly the valve stem will pop out of the valve bore.

4 Pull valve stem out and discard.

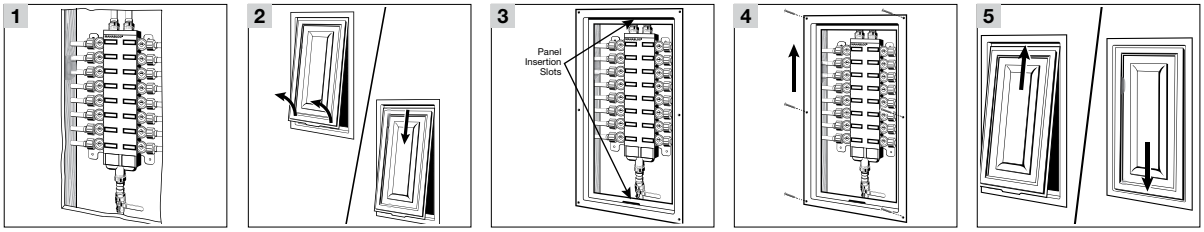
5 Insert new stem into valve bore ensuring no debris is present on sealing surfaces. Press on stem until it snaps into place.

Valve stem MUST be installed in the "ON" position: left side, arrow left, right side, arrow right.

6 Replace distribution lines and port nuts. HAND TIGHTEN ONLY.

Product Instructions

ManaBloc Access Panel Installation



WARNING!
The ManaBloc access panel is designed to fit between 16" on center framing. If other than 16" on center framing is present, additional bracing will be needed.

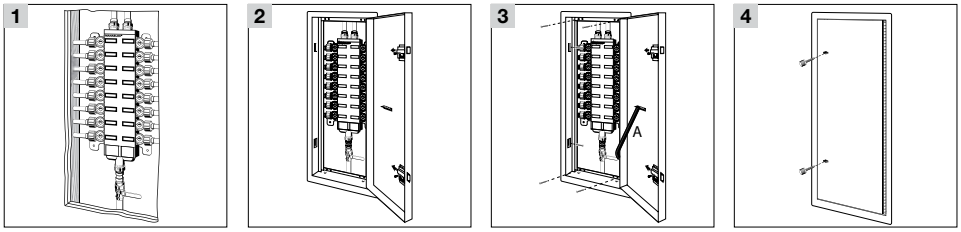
Using your ManaBloc part number and chart below, determine the proper cut-out size.

1. Cut and remove the section of dry wall over the ManaBloc, centering the opening between the studs. Ensure that all tubing connections and valves are accessible.
2. Remove the panel from the frame by lifting the bottom of the panel up and outward. Then remove from the top frame slot with a downward motion.
3. Place frame, with the small slot at the bottom, into the dry wall opening, resting the frame on bottom of the opening.
4. Lift frame up ¼" and use provided hardware to secure frame to studs, being careful not to over-tighten.
5. Replace the panel by inserting top edge of panel into the upper frame slot. Then, while pushing the panel in, lower into bottom slot of frame.

Part No.	Max. Ports	Dimensions (in)	Cut out (in)	Outside (in)
50718	14	14 x 18	14⅜ x 19¾	16½ x 21¼
50726	16	14 x 26	14⅜ x 27¾	16½ x 29¼
50730	24	14 x 30	14⅜ x 31¾	16½ x 33¼
50739	36	14 x 39	14⅜ x 40¾	16½ x 42¼

Product Instructions

ManaBloc UL Rated Access Panel Installation



The Viega ManaBloc uninsulated UL rated access panel is designed to fit between 16" on center framing or a similar sized opening in a masonry wall.

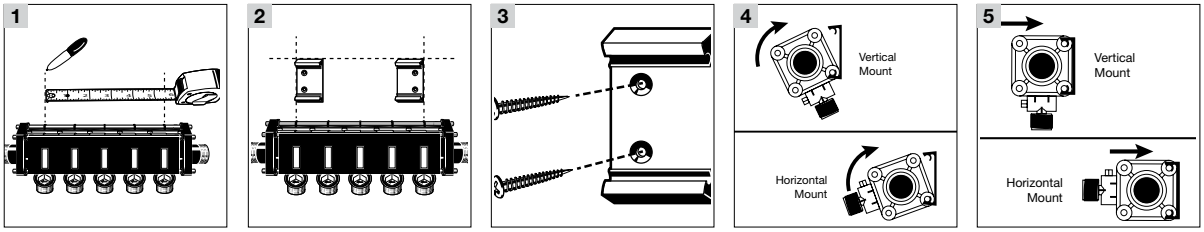
CAUTION!
The finished wall surface must be 1¼" thick in order for the inner frame to allow proper clearance of the supply and distribution tubing.

1. Ensure rough opening is a sufficient size for the access panel to fit and the finished wall is a minimum of 1¼" thick.
2. With the panel in the open position, insert the frame into the opening vertically.
3. For stud installations, use 1" or longer # 8 wood screws to mount the frame to the studs. Use the mounting holes present in the inner frame. Make sure all tubing clears the frame edges before attaching the frame to the studs. Attach optional door spring (A).
4. Once the panel is latched closed you can open it with the included keys or knurled knobs. Key operation: Insert each key into the key slot and turn them clock wise to release the latches. Knob operation: Thread each knob into the key opening hand tight. Once tight, the knob can be turned a quarter turn clockwise to release the latches.

Make certain to leave both panel keys and/or knobs with the tenant or facility maintenance department.

Product Instructions

MiniBloc Mounting Instructions



The MiniBloc shall be installed using the ManaBloc installation instructions and this instruction sheet.

1 For proper bracket spacing, measure distance between the center ribs of the first and last MiniBloc module. Mark this distance on the selected mounted surface.

2 Align the outside edge of each bracket within each end mark. Mounting brackets shall be mounted level and parallel to each other before affixing the MiniBloc manifold

Use both mounting brackets provided with each MiniBloc manifold. Ensure the mounting surface is suitable to support the weight of the manifold and attached tubing when filled with water.

3 Use two wood screws per bracket, 1" or longer, to prevent misalignment.

4 Position bottom metal tie-rod into the bottom clip of the mounting brackets then roll manifold toward top clip. The MiniBloc may be mounted either vertically or horizontally.

5 Complete mounting by firmly pushing the MiniBloc toward the top clip of the mounting brackets which should spread and snap over top metal tie-rod.

3 Engineering Specifications
PureFlow System

Part 1: General

1.1 Summary
This specification covers branch and main, parallel water distribution systems (ManaBloc), cross-linked polyethylene tubing, and fittings using PureFlow press and PureFlow crimp technology for hot and cold water distribution systems. The system is assembled when the fitting barb is inserted fully into the tubing and either a stainless press sleeve or copper crimp ring is pressed/crimped over the tubing and fitting using the appropriate tool to create a leak proof permanent joint.

1.2 References
ANSI/UL 263: Fire test of building construction and materials. Standard methods of fire endurance tests of building construction and materials.
ASTM E84: surface burning characteristics of building materials.
ASTM F1807: specification for metal insert fittings utilizing a copper crimp ring for SDR9 cross-linked polyethylene (PEX) tubing.
ASTM F2023: test method for evaluating the oxidative resistance of cross-linked (PEX) tubing and systems to hot chlorinated water.
ASTM F2159: specification for plastic insert fittings utilizing a copper crimp ring for SDR9 cross-linked polyethylene (PEX) tubing.
ASTM F3347: Standard Specification for Metal Press Insert Fittings with Factory Assembled Stainless Steel Press Sleeve for SDR9 Cross-linked Polyethylene (PEX) Tubing.
ASTM F3348: Standard Specification for Plastic Press Insert Fittings with Factory Assembled Stainless Steel Press Sleeve for SDR9 Cross-linked Polyethylene (PEX) Tubing.
ASTM F876: specification for cross-linked polyethylene (PEX) tubing.
ASTM F877: specification for cross-linked polyethylene (PEX) plastic hot and cold water distribution systems.
AWWA C904: cross-linked polyethylene (PEX) pressure pipe, ½ in. (12 mm) through 3 in. (76 mm), for water service
CAN/ULC S102.2: standard method of testing for surface burning characteristics of flooring, floor covering and miscellaneous materials and assemblies.
CSA CAN/CSA B137.5: cross-linked polyethylene (PEX) tubing systems for pressure applications.
IAPMO Uniform Mechanical Code.
IAPMO Uniform Plumbing Code.
ICC International Mechanical Code.
ICC International Plumbing Code.
NAPHCC National Standard Plumbing Code.
NSF 14: plastic piping component and related materials.
NSF 61: drinking water system components – health effects.

1.3 Quality Assurance
A. The installer shall be a qualified installer, licensed within the jurisdiction, and familiar with the installation of cross-linked polyethylene (PEX) tubing systems.
B. The installation of cross-linked polyethylene (PEX) tubing for hot and cold water distribution systems shall conform to the requirements of the ICC International Plumbing Code or IAPMO Uniform Plumbing Code.

1.4 Delivery, Storage And Handling
A. The cross-linked polyethylene (PEX) tubing shall be shipped to the job site on truck or in such a manner to protect the tubing. The cross-linked polyethylene fittings and manifolds shall not be handled roughly during shipment. The tubing and fittings shall be unloaded with reasonable care.
B. Cross-linked polyethylene plastic tubing and fittings shall be stored in a flat, dry, well ventilated location, not exposed to direct sunlight. Normal care in handling shall be exercised to avoid abuse of the tubing. The tubing and fittings shall not be thrown or dropped on the ground, walked on, or dragged.

1.5 Project Conditions

A. The location of a manifold with valves shall be accessible and in an area not subject to freezing. Proper support of the manifold shall be provided.
B. PEX tubing should not be left exposed in direct sunlight for extended periods of time – short periods not to exceed 6 months are permissible.
C. Plastic manifolds and fittings should not be left exposed in direct sunlight for extended periods of time — short periods not to exceed 15 days are permissible.

1.6 Warranty

A. The tubing and fittings manufacturer shall warrant that the tubing and fittings are free from defects and conform to the designated standard. The warranty shall only be applicable to tubing and fittings installed in accordance with the manufacturer's installation instructions.
B. The manufacturer of the tubing and fittings shall not be responsible for improper use, handling, or installation of the products.

Part 2: Products

2.1 Manufacturer

Viega LLC
585 Interlocken Blvd.
Broomfield CO, 80021
Phone: (800) 976-9819
www.viega.us

2.2 Material

A. Tubing Standard: Viega PureFlow PEX high-density cross-linked polyethylene tubing shall be manufactured to the requirements of ASTM F876 and meet the standard grade hydrostatic pressure ratings from Plastic Pipe Institute in accordance with TR-4/03. The following three standard grade ratings are required:
   - 200 degrees F (93 degrees C) at 80 psig (551 kPa)
   - 180 degrees F (82 degrees C) at 100 psig (689 kPa)
   - 73.4 degrees F (23 degrees C) at 160 psig (1102 kPa)

   1. Chlorine testing: According to ASTM F876 shall meet or exceed the following end use condition.
      a. End use conditions of : 100% @ 140°F. Per PEX 5306 (CL5).
   2. UV testing: According to ASTM F876 PEX tubing products shall meet or exceed the following exposure limits.
      a. Viega PureFlow PEX 6 months.

B. Fitting Standard: PureFlow Press fittings shall be manufactured from UNS, C87700, C87710 bronze or polyphenylsulfone, meeting the requirements of ASTM F877 and ASTM F3347 (metallic) or ASTM F3348 (polymer) tested as a system with Viega PureFlow PEX tubing. The PureFlow Press sleeve shall be manufactured out of a 304 grade or better stainless steel and have three view holes (attached sleeve) to ensure proper PEX tubing insertion. The attached sleeve fitting will incorporate a tool locator ring that shall be in place while making a proper press connection. The PureFlow Press connection shall be made with a Viega supplied ratcheting PureFlow Press hand tool or PureFlow Press power tool.
C. Fitting Standard: PureFlow Crimp fittings for use with copper crimp rings shall be manufactured from UNS C69300 or C87850 Brass / Eco Brass® meeting the requirements of ASTM F1807 and or PolyAlloy polymer meeting the requirements of ASTM F2159. The PureFlow Crimp connection shall be made by use of a full circle crimp tool designed to crimp F1807 copper crimp rings.
D. Manifolds: Acceptable manifolds shall include:
   - Copper Manifolds: Shall be copper material having a male or female solder, ProPress or PureFlow Crimp inlets. All outlets shall be PureFlow Press, PureFlow Crimp or ProPress fittings. Shall be provided by the Cross-linked Polyethylene system manufacturer.
   - Polymer Manifolds: Shall be plastic material having a male NPSM thread, PureFlow Press or PureFlow Crimp inlets. All outlets shall be PureFlow Press or PureFlow Crimp connections provided by the PEX system manufacturer.

E. Adapter Fittings: PEX adapter fittings shall conform to one of the following ASTM standards; F877, F1807, F2159, or ASME B1.20.1 and be listed to the CSA B137.5. The adapter fittings shall mate to NPT threads, copper tubing, copper fittings or ProPress fittings.

2.3 Source Quality Control

A. The PEX tubing and fitting manufacturer shall maintain a third party listing of the tubing and fittings. The tubing and fittings shall be certified in accordance with ANSI/NSF 14/61 to verify suitability to transport potable water. The tubing and fittings shall have the mark "NSF-pw", "cNSF® us pw-G", or "NSF 61" permanently marked on the product to verify the material listing.
B. The manufacturer of the PEX tubing and fittings shall maintain a quality control program in accordance with ISO 9001 or NSF International in the manufacturing plant to assure that the tubing and fittings are continually being produced to the required standard. The tubing and fittings shall be certified as complying with NSF 14.

Part 3: Execution

3.1 Examination

The installing contractor shall carefully examine the PEX tubing for defects, cuts, abrasions, cracks, fading color, or blemishes. There shall be no cracks or heavy deformations of the tubing. Fittings and manifolds shall be checked for any signs of abuse. Any damaged tubing or fittings shall be rejected.

3.2 Preparation

Viega PureFlow PEX tubing: Cross-linked polyethylene tubing shall be cut with a PEX tubing cutter. The tubing shall be cut squarely and neatly to permit a proper connection between the tubing and fitting.

3.3 Installation General Locations

Plans indicate general location and arrangement of PEX system. Identified locations and arrangements are used to size pipe and calculate friction and loss and other design considerations. Install PEX tubing as indicated, except where deviations to layout are approved on coordination drawings.

3.4 Installation, Pex Tubing

A. Pressure rating: Install components having a pressure rating equal to or greater than the system operating pressure.
B. Install PEX tubing that is free of blemishes, cuts, gouges, kinks or noticeable fading of color.
C. Changes in direction: PEX tubing shall not exceed an eight times the tubing outside diameter (OD) free bend radius or a five times the tubing OD supported bend radius, with use of a Viega approved bend support. Install fittings for changes in direction where any minimum bend radius is exceeded and branch connections.
D. PureFlow Press connections: PureFlow Press fittings shall be made in accordance with the manufacturer's installation instructions. The Stainless press sleeve shall be placed over the end of the squared off PureFlow PEX tubing while fully inserting the fitting barb into the tubing. Full tubing insertion shall be verified by a visual confirmation of PEX being present through the view holes before engaging a press connection. Full insertion for an attached sleeve connection means tubing must be completely visible in at least two view holes and partially visible in the final view hole. The PureFlow Press connection shall be made with a Viega supplied ratcheting PureFlow Press hand tool or PureFlow Press power tool.
E. PureFlow Crimp connections: PureFlow Crimp fittings shall be made in accordance with the manufacturer's installation instructions. The copper crimp ring shall be placed over the end of the squared off PEX tubing then the PureFlow Crimp fitting fully inserted into the tubing. Position the crimp ring ⅛" to ¼" from the end of the tubing before engaging a crimp connection. The PureFlow Crimp connection shall be made with a Viega supplied full circle crimp tool or equivalent.
F. Threaded joints: Threaded joints shall have a potable water listed joint sealant tape applied to the male threads only. Tighten joint with a wrench and backup wrench as required.
G. PEX tubing protection: Protect PEX tubing from exposure to direct and indirect sunlight exposure. PEX tubing shall be stored under cover, shielded from direct and indirect sunlight when material is stored for any length of time.

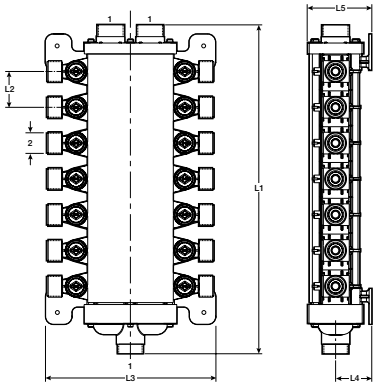
H. Penetration protection: Provide allowance for thermal expansion and contraction of PEX tubing passing through a wall, floor, ceiling or partition by wrapping with pipe insulation, or by installing through an appropriately sized sleeve. Penetrations of fire resistance rated assemblies shall maintain the rating of the assembly.
I. Backfill material: Back fill material must be free of large rocks, glass, or other sharp objects which can damage the PEX tubing.
J. Horizontal support: PEX tubing must be supported every 32" horizontally with Viega approved suspension clips or plastic insulators.
K. Vertical support: PEX tubing must be supported at each floor or ceiling penetration and every four feet in between.

4 Dimensional Documents

Viega ManaBloc

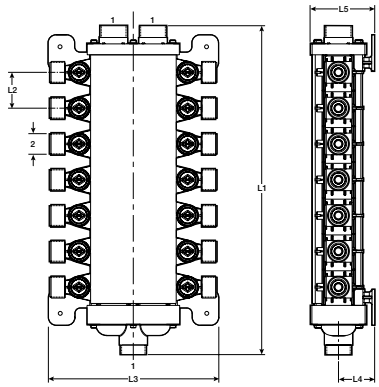
Eco Brass is a high grade, zero-lead alloy with high strength and corrosion resistance.

ManaBloc Distribution Manifold - Model V5040.6



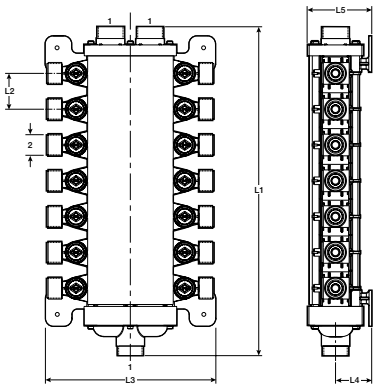
Part No.	Size (in) 1	2	Ports	L1 (in) Dec	L1 (in) Frac	L2 (in) Dec	L2 (in) Frac	L3 (in)	L4 (in) Dec	L4 (in) Frac	L5 (in)
49610	1 x ⅝ NPSM		14	15.44	15 7/16	1.68	1 11/16	8.00	1.70	1 11/16	3.00
49615	1 x ⅝ NPSM		18	18.80	18 13/16	1.68	1 11/16	8.00	1.70	1 11/16	3.00
49620	1 x ⅝ NPSM		24	24.16	24 3/16	1.68	1 11/16	8.00	1.70	1 11/16	3.00
49625	1 x ⅝ NPSM		30	28.88	28 7/8	1.68	1 11/16	8.00	1.70	1 11/16	3.00
49630	1 x ⅝ NPSM		36	33.92	33 15/16	1.68	1 11/16	8.00	1.70	1 11/16	3.00

ManaBloc Distribution Manifold - Model V5040.0



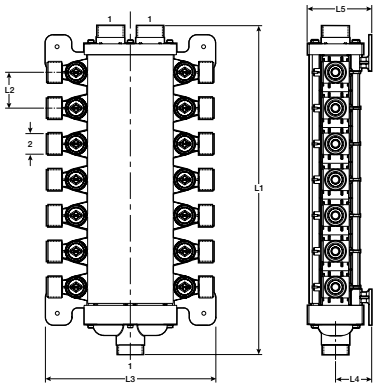
Part No.	Size (in) 1	2	Ports	L1 (in) Dec	L1 (in) Frac	L2 (in) Dec	L2 (in) Frac	L3 (in)	L4 (in) Dec	L4 (in) Frac	L5 (in)
49635	1 x ⅝ NPSM		24	24.16	24 3/16	1.68	1 11/16	8.00	1.70	1 11/16	3.00
49640	1 x ⅝ NPSM		30	28.88	28 7/8	1.68	1 11/16	8.00	1.70	1 11/16	3.00
49645	1 x ⅝ NPSM		36	33.92	33 15/16	1.68	1 11/16	8.00	1.70	1 11/16	3.00

ManaBloc Distribution Manifold Press - Model V5630



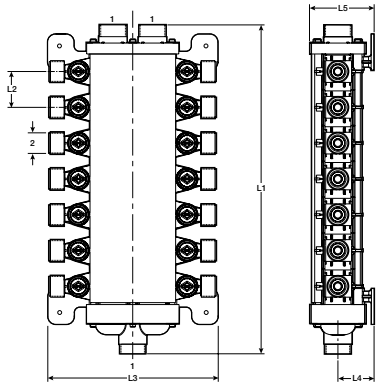
Part No.	Size (in) 1	2	Ports	L1 (in) Dec	L1 (in) Frac	L2 (in) Dec	L2 (in) Frac	L3 (in)	L4 (in) Dec	L4 (in) Frac	L5 (in)
49142	1 x ⅝ NPSM		12	15.44	15 7/16	1.68	1 1/16	8.00	1.70	1 1/16	3.00
49143	1 x ⅝ NPSM		14	15.44	15 7/16	1.68	1 1/16	8.00	1.70	1 1/16	3.00
49183	1 x ⅝ NPSM		18	18.80	18 13/16	1.68	1 1/16	8.00	1.70	1 1/16	3.00
49243	1 x ⅝ NPSM		24	24.16	24 3/16	1.68	1 1/16	8.00	1.70	1 1/16	3.00
49303	1 x ⅝ NPSM		30	28.88	28 7/8	1.68	1 1/16	8.00	1.70	1 1/16	3.00
49363	1 x ⅝ NPSM		36	33.92	33 15/16	1.68	1 1/16	8.00	1.70	1 1/16	3.00

ManaBloc Distribution Manifold Press - Model V5640



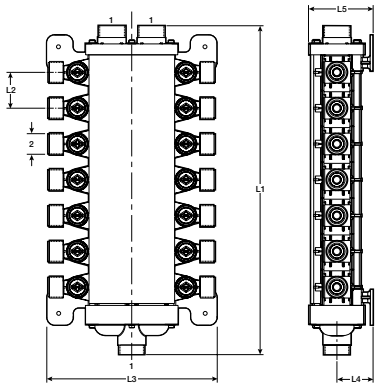
Part No.	Size (in) 1	2	Ports	L1 (in) Dec	L1 (in) Frac	L2 (in) Dec	L2 (in) Frac	L3 (in)	L4 (in) Dec	L4 (in) Frac	L5 (in)
49186	1 x ⅝ NPSM		18	18.80	18 13/16	1.68	1 1/16	8.00	1.70	1 1/16	3.00
49246	1 x ⅝ NPSM		24	24.16	24 3/166	1.68	1 1/16	8.00	1.70	1 1/16	3.00
49306	1 x ⅝ NPSM		30	28.88	28 7/8	1.68	1 1/16	8.00	1.70	1 1/16	3.00
49366	1 x ⅝ NPSM		36	33.92	33 15/16	1.68	1 1/16	8.00	1.70	1 1/16	3.00

Viega ManaBloc Distribution Manifold Zero Lead Crimp - Model V5030.8



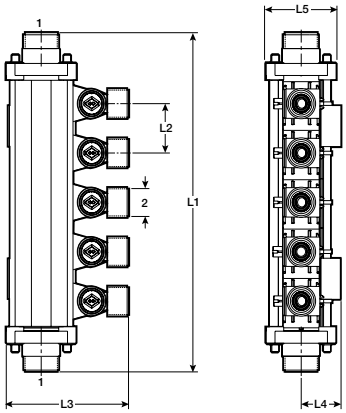
Part No.	Size (in) 1	2	Ports	L1 (in) Dec	L1 (in) Frac	L2 (in) Dec	L2 (in) Frac	L3 (in)	L4 (in) Dec	L4 (in) Frac	L5 (in) Dec	L5 (in) Frac
50244	1 x ⅜ NPSM		12	12.34	12 5/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50142	1 x ⅜ NPSM		14	15.85	15 7/8	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50143	1 x ½ NPSM		14	15.85	15 7/8	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50245	1 x ⅜ NPSM		18	16.17	16 3/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50250	1 x ½ NPSM		18	16.17	16 3/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50247	1 x ⅜ NPSM		24	24.16	24 3/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50243	1 x ½ NPSM		24	24.16	24 3/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50248	1 x ⅜ NPSM		30	29.25	29 1/4	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50303	1 x ½ NPSM		30	29.25	29 1/4	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50249	1 x ⅜ NPSM		36	34.29	34 5/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50363	1 x ½ NPSM		36	34.29	34 5/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16

Viega ManaBloc Distribution Manifold - Model V5030.51



Part No.	Size (in)		Ports	L1 (in)		L2 (in)		L3 (in)	L4 (in)		L5 (in)	
	1	2		Dec	Frac	Dec	Frac		Dec	Frac	Dec	Frac
51618	1 x ⅜ NPSM		18	19.17	19 3/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50624	1 x ⅜ NPSM		24	24.16	24 3/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50630	1 x ⅜ NPSM		30	29.25	29 1/4	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16
50636	1 x ⅜ NPSM		36	34.29	34 5/16	1.68	1 1/16	8.00	1.68	1 1/16	2.94	2 15/16

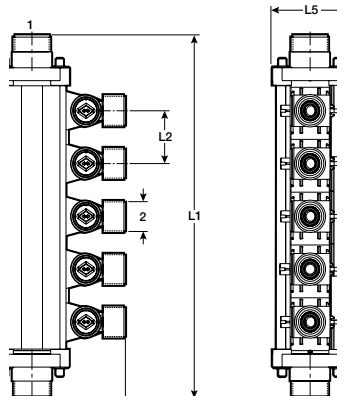
MiniBloc Zoning Manifold Press - Models V5650 / V5660



Part No.	Size (in)		Ports	L1 (in)		L2 (in)		L3 (in)		L4 (in)		L5 (in)	
	1	2		Dec	Frac	Dec	Frac	Dec	Frac	Dec	Frac	Dec	Frac
49033	1 x ⅝ NPSM		3	8.19	8 3/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	4.75	4 3/4
49043	1 x ⅝ NPSM		4	9.87	9 7/8	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	4.75	4 3/4
49453*	1 x ⅝ NPSM		5	11.55	11 9/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	4.75	4 3/4
49063	1 x ⅝ NPSM		6	13.23	13 1/4	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	4.75	4 3/4
49473*	1 x ⅝ NPSM		7	14.91	14 15/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	4.75	4 3/4
49083	1 x ⅝ NPSM		8	16.59	16 9/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	4.75	4 3/4
49410*	1 x ⅝ NPSM		10	19.95	19 15/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	4.75	4 3/4

**Manifold incorporates hot and cold ports.*

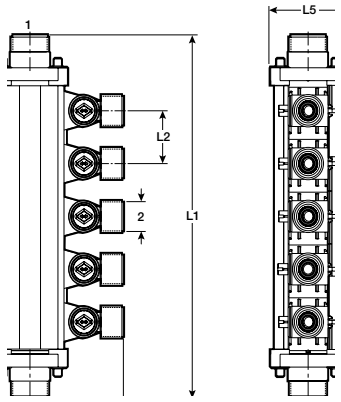
Viega MiniBloc Zoning Manifold Zero Lead Crimp - Model V5031.5



Part No.	Size (in)		Ports	L1 (in)		L2 (in)		L3 (in)		L4 (in)		L5 (in)	
	1	2		Dec	Frac	Dec	Frac	Dec	Frac	Dec	Frac	Dec	Frac
50033	1 x ⅝ NPSM		3	8.19	8 3/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	2.50	2 1/2
50043	1 x ⅝ NPSM		4	9.87	9 7/8	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	2.50	2 1/2
51063*	1 x ⅝ NPSM		5	11.55	11 9/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	2.50	2 1/2
50063	1 x ⅝ NPSM		6	13.23	13 1/4	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	2.50	2 1/2
51073*	1 x ⅝ NPSM		7	14.91	14 15/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	2.50	2 1/2
50083	1 x ⅝ NPSM		8	16.59	16 9/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	2.50	2 1/2
51003*	1 x ⅝ NPSM		10	19.95	19 15/16	1.68	1 1/16	4.37	4 3/8	1.42	1 7/16	2.50	2 1/2

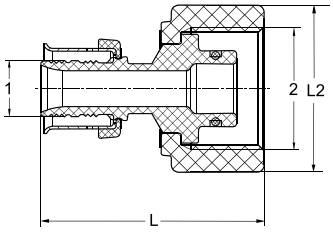
**Manifold incorporates hot and cold ports.*

Viega MiniBloc Zoning Manifold - Model V5067



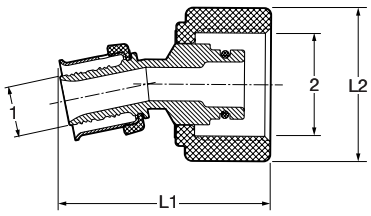
Part No.	Size (in)		Ports	L1 (in)		L2 (in)		L3 (in)		L4 (in)		L5 (in)	
	1	2		Dec	Frac	Dec	Frac	Dec	Frac	Dec	Frac	Dec	Frac
51063	1 x ½ NPSM		5	11.55	11 9/16	1.68	1 11/16	4.375	4 3/8	1.25	1 1/4	2.625	2 5/8
51073	1 x ½ NPSM		7	14.91	14 15/16	1.68	1 11/16	4.375	4 3/8	1.25	1 1/4	2.625	2 5/8
51003	1 x ½ NPSM		10	19.95	19 15/16	1.68	1 11/16	4.375	4 3/8	1.25	1 1/4	2.625	2 5/8

PureFlow Press Port Adapter Polymer P x Port - Model V5613.1



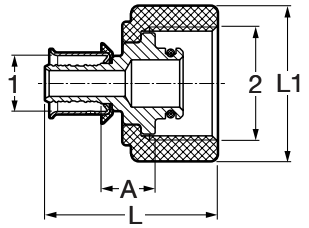
Part No.	Size (in)		L (in)		L2 (in)	
	1	2	Dec	Frac	Dec	Frac
49234	½ x ½ Port		1.89	1 7/8	1.40	1 3/8
49224	⅜ x ½ Port		1.89	1 7/8	1.40	1 3/8

Viega PureFlow Press Port Adapter Sweep - Model V5613.5



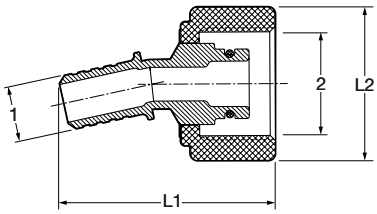
Part No.	Size (in)		L (in)		L1 (in)	
	1	2	Dec	Frac	Dec	Frac
50262	½ x ½ Port		1.96	1 15/16	1.42	1 7/16
50263	⅜ x ½ Port		1.95	1 15/16	1.42	1 7/16

PureFlow Press Port Adapter Zero Lead Bronze P x ManaBloc Port - Model 2877.3ZL



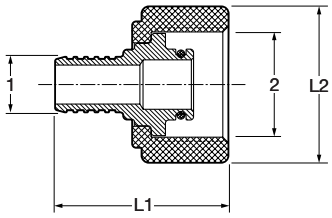
Part No.	Size (in)		A (in)		L (in)		L1 (in)	
	1	2	Dec	Frac	Dec	Frac	Dec	Frac
96101	⅜ x ½ Port		0.51	½	1.58	1 9/16	1.42	1 7/16
96120	½ x ½ Port		0.51	½	1.58	1 9/16	1.42	1 7/16

Viega ManaBloc Port Adapter Sweep - Model V5613.7



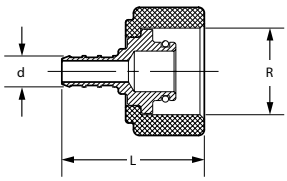
Part No.	Size (in)		L (in)		L1 (in)	
	1	2	Dec	Frac	Dec	Frac
50264	½ PB x ½ Port		1.99	2	1.42	1 7/16
50265	⅜ PB x ½ Port		1.98	2	1.42	1 7/16

Viega PureFlow Port Adapter Zero Lead Bronze for ManaBloc Polybutylene x Port - Model V5613.8



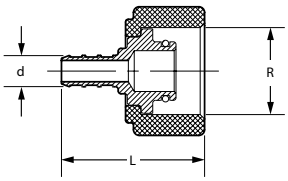
Part No.	Size (in)		L1 (in)		L2 (in)	
	1	2	Dec	Frac	Dec	Frac
50267	⅜ PB x ½ Port		1.58	1 9/16	1.42	1 7/16
50266	½ PB x ½ Port		1.57	1 9/16	1.42	1 7/16

Viega PureFlow Crimp Port Adapter Zero Lead Brass For ManaBloc Crimp x Port - Model V5039ZL



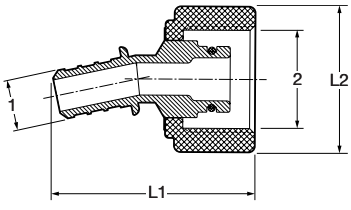
Part No.	Size (in)		L (in)	
	1	2	Dec	Frac
46624	⅜ x ½ Port		1.58	1 9/16
46634	½ x ½ Port		1.58	1 9/16

Viega PureFlow Crimp Port Adapter Zero Lead PolyAlloy for ManaBloc Crimp x Port - Model V5039.1



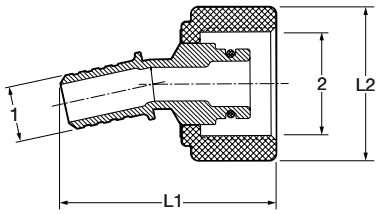
Part No.	Size (in)	L (in)	
	1	Dec	Frac
50023	⅜ x ½ Port	1.58	1 9/16
50133	½ x ½ Port	1.58	1 9/16
51123	½ x ⅜ Port	1.58	1 9/16
51133	⅜ x ⅜ Port	1.58	1 9/16

Viega PureFlow Crimp Port Sweep Adapter Zero Lead PolyAlloy for ManaBloc Crimp x Port - Model V5039.2



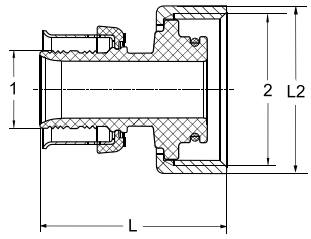
Part No.	Size (in)		L1 (in)		L2 (in)	
	1	2	Dec	Frac	Dec	Frac
50260	½ x ½ Port		1.97	2	1.42	1 7/16
50261	⅜ x ½ Port		1.96	1 15/16	1.42	1 7/16

Viega PureFlow Crimp Port Sweep Adapter Zero Lead PolyAlloy for ManaBloc Polybutylene x Port - Model V5039.2



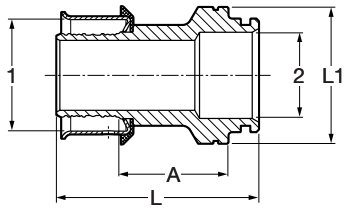
Part No.	Size (in)		L (in)		L1 (in)	
	1	2	Dec	Frac	Dec	Frac
50264	½ PB x ½ Port		1.99	2	1.42	1 7/16
50265	⅜ PB x ½ Port		1.98	2	1.42	1 7/16

PureFlow Press Supply Adapter Polymer for ManaBloc P x Supply - Model V5613.2



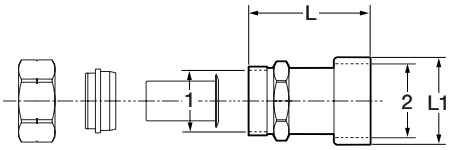
Part No.	Size (in)		L (in)		L2 (in)	
	1	2	Dec	Frac	Dec	Frac
49414	¾ x 1 ManaBloc		1.59	1 9/16	1.45	1 7/16
49416	1 x 1 ManaBloc		1.75	1 ¾	1.45	1 7/16
49418	1¼ x 1 ManaBloc		2.42	2 7/16	1.45	1 7/16

PureFlow Press Supply Adapter Zero Lead Bronze P x ManaBloc Supply - Model 2877.8ZL



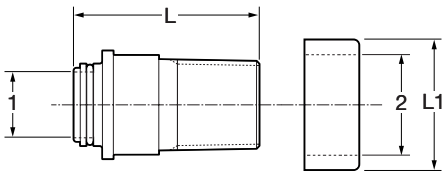
Part No.	Size (in)		A (in)		L (in)		L1 (in)	
	1	2	Dec	Frac	Dec	Frac	Dec	Frac
96141	¾ x 1 ManaBloc		0.87	⅞	1.79	1 13/16	1.43	1 7/16
96161	1 x 1 ManaBloc		0.77	¾	1.80	1 13/16	1.43	1 7/16

Viega PureFlow ManaBloc Supply Adapter Zero Lead Brass CTS x Supply - Model V5032ZL



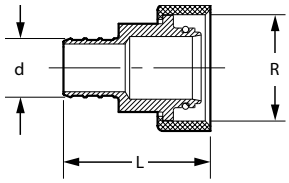
Part No.	Size (in)		L (in)	L1 (in)	
	1	2		Dec	Frac
46346	¾ CTS x 1 ManaBloc		2.00	1.43	1 7/16

Viega PureFlow ManaBloc Supply Adapter Zero Lead Brass MPT x Supply - Model V5033ZL



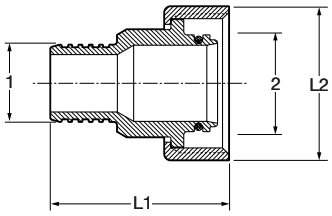
Part No.	Size (in)		L (in)		L1 (in)	
	1	2	Dec	Frac	Dec	Frac
46646	¾ MPT x 1 ManaBloc		2.14	2 1/8	1.43	1 7/16
46656	1 MPT x 1 ManaBloc		2.34	2 5/16	1.43	1 7/16

Viega PureFlow Crimp Supply Adapter Zero Lead Brass For ManaBloc Crimp x Supply - Model V5034ZL



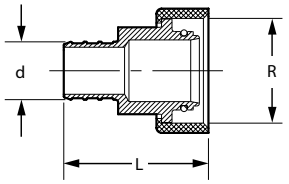
Part No.	Size (in)		L (in)	
	1	2	Dec	Frac
46414	¾	1	1.66	1 11/16
46416	1	1	1.84	1 13/16

Viega PureFlow Supply Adapter Zero Lead Bronze for ManaBloc Polybutylene x Supply - Model V5035ZL



Part No.	Size (in)		L1 (in)		L2 (in)	
	1	2	Dec	Frac	Dec	Frac
50268	¾ PB	1	1.66	1 11/16	1.43	1 7/16
50269	1 PB	1	1.66	1 11/16	1.43	1 7/16

Viega PureFlow Crimp Supply Adapter Zero Lead PolyAlloy for ManaBloc Crimp x Supply - Model V5213



Part No.	Size (in)		L (in)	
	1	2	Dec	Frac
50141	¾	1	1.66	1 11/16
50151	1	1	1.84	1 13/16

5 Limited Warranty – Viega Plastic Systems

Subject to the conditions and limitations in this Limited Warranty ("Warranty"), Viega LLC ("Viega") warrants to end users, installers, and distributors in the United States and Canada that the following products ("Viega Products") will be free of failure caused by a manufacturing defect from the date of installation for the time periods specified in the tables included in this Warranty.

This Warranty will be valid only in the event the following conditions have been met: The Viega Products have been properly installed (1) by a licensed contractor in compliance with applicable building, permit, and inspection codes; (2) in potable water systems; (3) under normal conditions of use; (4) under applications approved by Viega; (5) under Viega-specified system operating conditions; (6) using tools compatible with Viega systems; and (7) in alignment with Viega's listings.

Further, you have a right to a remedy under this Warranty only if the Viega Product failure resulted from a manufacturing defect in the Viega Product and if the failure occurred during the applicable warranty period. You do not have a remedy under this Warranty if the failure was caused by (1) components other than those manufactured and/or sold by Viega; (2) failure to design, install, inspect, test, or maintain the Viega Product in accordance with Viega's installation and product instructions in effect at the time of installation; (3) use of Viega Products under non-recommended system operating conditions (e.g., water pressures, temperatures, or other external chemical or physical conditions); (4) improper handling or protection of the Viega Product prior to, during, or after installation (e.g., inadequate freeze protection or exposure to environmental conditions not recommended for the application); (5) chemically corrosive or aggressive water conditions (e.g., unauthorized solvents or chemicals; antifreeze, rust inhibitor, or other treatment fluids); or (6) acts of nature, including, without limitation, earthquakes, fire, or weather damage.

In the event of a failure of a Viega Product covered by this Warranty, it is the duty and responsibility of the end user to take appropriate measures to mitigate all potential damage, including making timely repairs to the system in which the Viega Product has been installed. The part or parts which you claim failed must be kept and returned to Viega for testing. Viega may be contacted at the phone number or mailing address below. All warranty claims must be made within 30 calendar days after the failure has (or should reasonably have) been discovered. You should be prepared to ship, at your expense, the Viega Product which you claim failed due to a manufacturing defect, with documentation of the installation date and the amount spent on any repair or replacement if performed by you. Within a reasonable time after receiving the Viega Product, Viega will investigate the cause of the failure, which includes the right to inspect the Viega Product at a Viega location and reasonable access to the site of any alleged damage. Viega will notify you in writing of the results of its review.

For products with warranty periods of 10 years or more: If Viega determines that the failure or any resulting damages were the result of a manufacturing defect in the Viega Product covered by this Warranty and occurred during the first 10 years covered by this Warranty, Viega will reimburse the property owner for reasonable repair or replacement charges for drywall, flooring, paint, or personal property damage resulting from the failure. After the first 10 years, the Warranty will cover only material costs for pipe and fittings sold by Viega, excluding any labor or installation costs.

Termination connections to non-Viega end-use devices or equipment such as filtration, water softeners, shower valves, faucets, stops, and other such devices, when utilizing Viega PureFlow PEX, does not void the system warranty as described.

VIEGA SHALL NOT BE LIABLE FOR CONSEQUENTIAL ECONOMIC LOSS DAMAGES (E.G., ECONOMIC LOSS, WATER OR PROPERTY DAMAGE, OR MOLD REMEDIATION) UNDER ANY LEGAL THEORY AND WHETHER ASSERTED BY DIRECT ACTION, FOR CONTRIBUTION, INDEMNITY, OR OTHERWISE.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR ANY STATUTE OF LIMITATIONS RELATING TO SUCH WARRANTIES. Viega will be responsible for remedies only if all conditions of this Warranty have been met. Other than this Warranty, Viega does not authorize any person, company, contractor, or distributor to create any additional warranty, obligation, or liability in connection with the Viega Product.

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

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Viega Tubing		
Tubing	**Connected Fitting**	**Warranty Term**
Viega PureFlow PEX (ASTM F876)	PureFlow Press polymer fittings (ASTM F3348)	30 years
	PureFlow Press alloy fittings (ASTM F3347)	25 years
	PureFlow Crimp polymer fittings (ASTM F2159)	25 years
	PureFlow Crimp alloy fittings (ASTM F1807)	25 years
	Non-Viega crimp polymer fittings (ASTM F2159)	10 years
	Non-Viega crimp alloy fittings (ASTM F1807)	10 years
Viega PureFlow Barrier PEX (ASTM F3253)	PureFlow Press polymer fittings (ASTM F3348)	30 years
	PureFlow Press alloy fittings (ASTM F3347)	30 years
	PureFlow Crimp polymer fittings (ASTM F2159)	5 years
	PureFlow Crimp alloy fittings (ASTM F1807)	5 years

Non-Viega Tubing		
Tubing	**Connected Fitting**	**Warranty Term**
Non-Viega PEX (ASTM F877)	PureFlow Press polymer fittings (ASTM F3348)	10 years
	PureFlow Press alloy fittings (ASTM F3347)	10 years
	PureFlow Crimp polymer fittings (ASTM F2159)	5 years
	PureFlow Crimp alloy fittings (ASTM F1807)	5 years

Other Plastic Viega Products	
Product	**Warranty Term**
ManaBloc® / MiniBloc	10 years
PureFlow valves	5 years
Accessible metal compression or metal/polyalloy crimp fittings, manifolds, and panels	5 years
PureFlow Press hand tools and tubing cutters[1]	2 years
Lav, closet risers, and riser accessories[2]	2 years
Controls, mixing stations, or electrical components	2 years

[1]Power tools and jaws used with PureFlow Press fittings are warranted by the manufacturer, and Viega extends no separate warranty on those tools or jaws.

[2]Connection to non-Viega plumbing products intended for riser and/or water service applications does not void the system warranty provided all pipe, fittings, valves, and manifolds are sold by Viega after the transition location.

Manufactured housing and recreational vehicle manufacturers in the United States are subject to a separate warranty available here. Please reference the applicable limited warranty in effect during the time of installation.

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