

Pocket Guide

Viega PureFlow® Systems



viega

Viega.

Connected in quality.

Building on Tradition

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

Heritage of quality, vision for the future

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



WARNING!

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.**



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

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Viega PureFlow Systems

Viega PureFlow is a high-quality, flexible PEX system for hot and cold potable water distribution. It is the most complete potable water solution available on the North American market. With tubing, fittings, and distribution manifolds, Viega provides everything you need for a total plumbing system that is not only easy to install but also helps reduce energy costs and water waste.

The Viega PureFlow plumbing system offers maximum security thanks to press and full-circle crimp fitting techniques. Viega provides the highest-quality PEX tubing with the best UV and chlorine ratings in the industry. All Viega PureFlow tubing, fittings, and manifolds are NSF certified for use in potable water systems.

Viega PureFlow and its related fittings are listed to the requirements of AWWA C904 and approved for use in water service applications. Viega offers a variety of threaded, solder, and ProPress® adapters to transition PEX to several types of piping materials.

The systems incorporate:


- Viega PureFlow PEX tubing: red, white, blue, and black cross-linked polyethylene tubing designed with superior chlorine and UV resistance.
- Black Viega PureFlow PEX tubing (¾" - 2"): UL 1821 listed for use in multipurpose one- and two-family fire sprinkler systems per NFPA 13D.
- Viega FostaPEX® tubing: cross-linked polyethylene with additional aluminum and polyethylene layers to provide rigidity and form stability, available in red or silver to differentiate hot water lines.
- A range of Zero Lead bronze, Eco Brass®, or polymer fittings for PureFlow Press and PureFlow Crimp fitting systems.
- Viega ManaBloc® distribution system for use with Viega PureFlow PEX tubing.
- A range of inline, manifold, and stop valves for Viega PureFlow fitting systems.
- Viega press tools and jaws for the PureFlow Press fitting systems.
- Viega crimp tools for the PureFlow Crimp fitting systems.


Smart Connect® Technology


Locating unpressed connections is an important step in the pressure testing process. Viega PureFlow Press Polymer fitting systems incorporate Smart Connect technology, providing quick and easy identification of unpressed connections during a pressure test.

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

Unpressed connections are located by pressurizing the system with air or water. When testing, the proper pressure range is 40 to 100 psi.

- 

1 Identify an unpressed connection during pressure testing when water flows out of the unpressed fitting joint.
- 

2 Upon identification, use the press tool to press the fitting, making a secure, leak-proof connection.
- 

3 Viega PureFlow connections are fast and reliable.

Specifying PureFlow Systems

Viega offers many tools to assist the specifying engineer, engineer, contractor, and installer to ensure Viega PureFlow systems are properly designed and installed. This can be done by referring to one of the resources listed below:

- Engineering Specifications are available at www.viega.us.
- Viega guide specifications in Master Spec format are available upon request at (800) 976-9819.
- Contact your local Viega field sales representative.

With a 25 year limited warranty and unmatched quality in the industry, Viega offers a complete system solution for all your plumbing needs.

Viega PureFlow PEX tubing and Viega PureFlow Press polymer fittings are manufactured in the United States and provide secure, reliable connections for residential and light commercial projects, ranging from potable water to snow melting applications.

Codes

The Viega PureFlow system is accepted by the following model codes for use in potable hot- and cold-water distribution systems:

- Housing for Urban Development (HUD)
- IAPMO: California Plumbing Code (CPC)
- IAPMO: National Standard Plumbing Code (NSPC)
- IAPMO: Uniform Mechanical Code (UMC)
- IAPMO: Uniform Plumbing Code (UPC)
- ICC – International Code Council
- ICC: International Mechanical Code (IMC)
- ICC: International Plumbing Code (IPC)
- ICC: International Residential Code (IRC)
- National Building Code of Canada (NBCC)
- National Plumbing Code of Canada (NPCC)

Check with your local Viega representative for code compliance in your area.

Standards

- ASTM E814
- ASTM E84
- ASTM F1807/F2159
- ASTM F876/F2023
- ASTM F877
- ASTM F3347
- ASTM F3348
- ASTM F3253
- AWWA C904
- ISO 9001
- NFPA 13D
- NSF/ANSI 14
- NSF/ANSI 359
- NSF/ANSI 372
- NSF/ANSI 61

Certifications

- CAN/ULC S101
- CAN/ULC S102.2
- CAN/ULC S115
- CAN/ULC/ORD/ C199P
- Certificate of Listing
- cNSF®us pw-G
- CSA B137.5
- IAPMO R&T
- ICC – ES
- ICC ES-PMG™
- NSF U.P. Code
- NSF-pw certification mark
- PEX 5306
- TR 4 Listed Materials
- UL/ANSI 1821
- UL/ANSI 263

Note: Certifications available at:

- www.nsf.org
- www.spec-direct.com (Intertek)
- www.ul.com
- www.canada.ul.com

Fire Resistant Construction



U.S. listings
Plenum rating

Viega PureFlow PEX tubing has been tested and listed to the ASTM E84 with the following ratings:

ASTM E84 Plenum Ratings / Listing				
Manufacturer	Products Listed	Flame Spread	Smoke Development	Limitations
Viega	3/8" to 2" PEX	25 or less	50 or less	1/2" minimum insulation thickness, no spacing limitations

Listings include fitting connections in line when covered by insulation.

Viega PureFlow PEX has the following listings for each respective construction type:

ANSI/UL 263 and ASTM E119		
Construction Type	Assembly Type	Design No.
Wood Frame Construction	Floor / Ceiling	M517
	Walls	VL/FWDP 60-01
Noncombustible Concrete / Steel Construction	Floor / Ceiling	VL/FWDP 120-01
		VL/FWDP 120-02
	Walls	VL/FWDP 60-02

U.S. Fire Resistant Construction



Canadian listings
Plenum rating

Viega PureFlow PEX tubing has been tested and listed to the CAN/ULC S102.2 with the following ratings:

CAN/ULC S102.2 Ratings / Listing				
Manufacturer	Products Listed	Flame Spread	Smoke Development	Limitations
Viega	¾" to 2" PEX	25 or less	50 or less	½" minimum insulation thickness, no spacing limitations
Viega	¾" to ½" PEX	25 or less	50 or less	No spacing limitations

Listings include fitting connections in line when covered by insulation.

Viega PureFlow PEX has the following listings for each respective construction type:

ANSI/UL 263 and ASTM E119		
Construction Type	Assembly Type	Design No.
Wood Frame Construction	Floor / Ceiling	M522
	Walls	VL/FWDP 60-01
Noncombustible Concrete / Steel Construction	Floor / Ceiling	VL/FWDP 120-01
		VL/FWDP 120-02
	Walls	VL/FWDP 60-02

Canadian Fire Resistant Construction

PureFlow Press

Viega PureFlow Press fittings allow installers to make secure press connections in less than seven seconds. With Viega press technology, pressure testing can be completed immediately after connections are made.

Viega PureFlow Press fittings are approved for potable water and hydronic heating applications. They are available in sizes ranging from 3/8" through 2" in both Zero Lead and high-grade polymer materials and include a factory-assembled, stainless steel sleeve with three viewing holes and a tool locator ring to ensure a proper press connection.

The following design criteria make Viega PureFlow Press fittings ideal for use in potable water applications:

- High corrosion resistance
- Excellent strength properties
- Resistant to stress corrosion
- Superior wear properties
- Compatible with all materials

PureFlow Press Zero Lead Bronze

Viega PureFlow Press Zero Lead bronze fittings are manufactured from a high-quality Zero Lead material specifically designed for press technology meeting or exceeding all manufacturing requirements.

PureFlow Press Polymer

Viega PureFlow Press polymer fittings are manufactured from Radel R® and incorporate the Viega Smart Connect technology.

PureFlow Press Fitting Markings

Each Viega PureFlow Press fitting is marked where space permits with the following information:

Manufacturer	VIEGA
ASTM Standard	ASTM F877, F3253, F3347, F3348
Temperature Rating	180°F (potable), 200°F (hydronic heating)
Certifications	cNSF®us pw-G, CSA B137.5, UPC® or UP Code, cULus®, ICC-ES PMG™ 1038 / 1015

All fittings may not be listed with each organization shown.



WARNING!

Use only Viega stainless steel attached PureFlow Press sleeves and press tools with

Viega PureFlow Press fittings.



Viega PureFlow Press polymer fittings must be protected from UV exposure, which can damage them. In the event of incidental UV exposure during storage, installation, and handling, combined exposure of PureFlow Press fittings shall not exceed 15 days.



Do not expose Viega products to any foreign substance that includes but is not limited to VOC (volatile organic chemical) compounds,



paints, solvents, glues, cleaners, and disinfectants. Viega products that are exposed to these types of substances are at risk of having failures (leaks).

PureFlow Crimp

Viega PureFlow Crimp fittings are in metallic or polymer configurations. The following design criteria make PureFlow Crimp fittings ideal for use in potable water applications:

- Excellent strength properties
- Corrosion resistant
- Fast installation

PureFlow Crimp Eco Brass Fittings

PureFlow Crimp Eco Brass fittings are manufactured from a high-grade Zero Lead alloy.

PureFlow Crimp PolyAlloy Fittings

PureFlow Crimp PolyAlloy fittings are manufactured from a performance-grade polymer (Acudel® and/or Radel-R®) with excellent chlorine- and corrosion-resistant properties.

PureFlow Crimp Fitting Markings

Each PureFlow Crimp fitting is marked where space permits with the following information:

Manufacturer	VEIEGA
ASTM Standard	ASTM F1807 (metallic), F2159 (polymer)
Temperature Rating	180°F
Certifications	UPC®, or U.P. Code, NSF-pw, CSA B137.5, cNSF®us pw-G, ICC-ES PMG™ 1038

All fittings may not be listed with each organization shown.



WARNING!

Use only ASTM F1807 copper crimp rings and full-circle crimp tools with PureFlow Crimp fittings.



WARNING!

NOT for use with FostaPEX tubing.



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



Do not expose Viega products to any foreign substance that includes but is not limited to VOC (volatile organic chemical) compounds, paints, solvents, glues, cleaners, and disinfectants. Viega products that are exposed to these types of substances are at risk of having failures (leaks).



PureFlow Press Hand Tools

The Viega PureFlow Press connection must always be carried out with the aid of a Viega PureFlow Press tool. The hand tool incorporates a forced compression mechanism to complete a secure connection each time. A ratchet inside the tool prevents the tool from being opened until the proper force has been applied to the press sleeve. A safety release screw allows the tool to be opened at any time, but any connection made without full tool compression must be repressed. The tool handles are color coded to match the PureFlow Press tool locator rings.

The reduced grip feature permits one-handed operation, making the Viega PureFlow Press system ideal for tight spaces and awkward locations. The compression of the tool also allows press connections to be made in temperatures as low as -4°F.



PureFlow Press Power Tools

The Viega PureFlow Press connection may also be carried out with a Viega power tool. These RIDGID® tools are designed to make the same consistent press as the Viega PureFlow Press hand tools. The compression of the tool also allows press connections to be made in temperatures as low as 23°F.



RP-241-B Kit



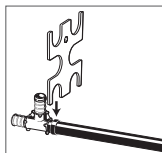
Compact Power Tool RP-240

PureFlow Crimp Hand Tools

The Viega PureFlow Crimp connection must always be carried out with the aid of a Viega PureFlow Crimp tool. There are multiple configurations of Viega PureFlow Crimp tools that are ideal for tight spaces and awkward locations. The compression of the tool also allows for crimp connections to be made in temperatures as low as -30°F.

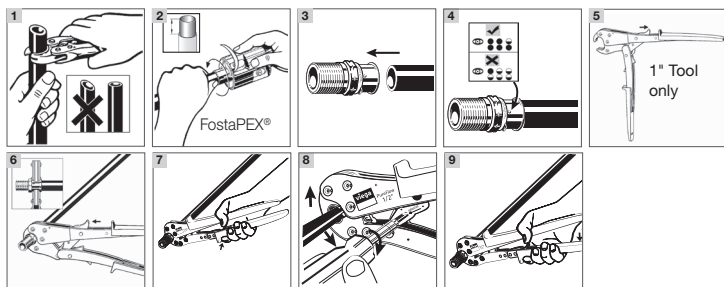


A caliper (GO/NO GO gauge) is available to check the calibration of the crimp tool. A crimp is good if the GO gauge fits over the ring and the NO GO gauge does not.



At least one connection should be checked at the beginning and end of each day to ensure proper crimps have been made. Most crimp tools can be recalibrated (refer to “Viega PureFlow Crimp Hand Tool” on page 16).

Viega PureFlow Press Hand Tool



- 1** Square off tubing to proper length. Uneven, jagged, or irregular cuts will produce unsatisfactory connections.
- 2** If using FostaPEX tubing, insert into prep tool, push and turn until no resistance is felt. If using Viega PureFlow PEX, continue to Step 3.
- 3** Insert PureFlow Press fitting with attached sleeve into tubing and engage fully.
- 4** 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.
- 5** 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).
- 6** 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 8 if it is not).

- 7** Close handles, using trigger to reduce grip span if desired.
- 8** 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 6.
- 9** Extend the PureFlow press tool handle and continue ratcheting until automatic tool release occurs at the proper compression force.



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.

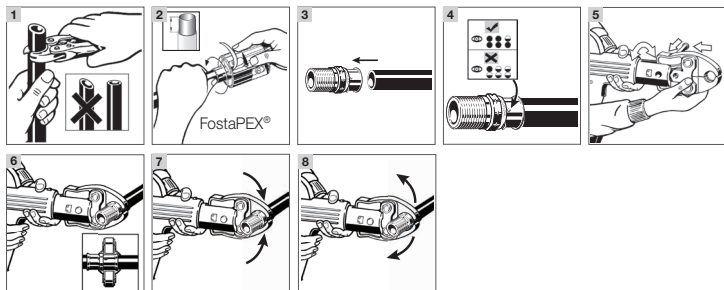


CAUTION!

Do not press twice.

i 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.

Viega PureFlow Press Power Tool



- 1** Square off tubing to proper length. Uneven, jagged, or irregular cuts will produce unsatisfactory connections.
- 2** If using FostaPEX tubing, insert into prep tool, push and turn until no resistance is felt.
- 3** Insert PureFlow Press fitting with attached sleeve into tubing and engage fully.
- 4** 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.
- 5** Insert the appropriate PureFlow press jaw into the press tool and push in the holding pin until it locks.
- 6** Open jaw and position perpendicular over press sleeve, resting it against the tool locator ring.
- 7** Start the pressing process; hold the trigger until the jaw has automatically released.
- 8** When press connection is complete, open and remove the jaw.



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.



WARNING!

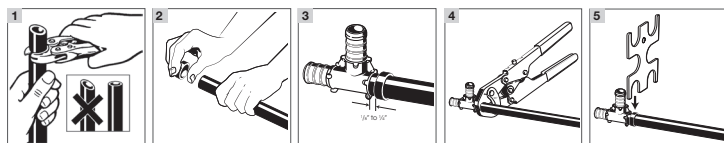
The tool locator ring must be present to ensure a proper PureFlow Press connection.



CAUTION!

Do not press twice.

Viega PureFlow Crimp Hand Tool



- 1** The tubing should be cut squarely and evenly without burrs. Uneven, jagged, or irregular cuts will produce unsatisfactory connections.
- 2** Slide the crimp ring onto the tubing and insert the fitting into the tube to the shoulder or tube stop.
- 3** Position the ring $\frac{1}{8}$ " to $\frac{1}{4}$ " from the end of the tubing.
- 4** 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.

- 5** 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.



CAUTION!

Do not crimp twice.



Crimp dimensions can be verified with the Go/No-Go gauge.

PureFlow PEX Tubing

Viega PureFlow PEX (cross-linked polyethylene) is the ideal tubing choice for potable water systems. In addition, the smooth walls of Viega PureFlow PEX tubing are resistant to corrosion and scaling.



Properties and Performance

Linear Expansion Coefficient:

1.1 inch per 100 feet per 10°F

Temperature and Pressure Ratings:

180°F at 100 psi

73.4°F at 160 psi

UV Resistance:

Maximum exposure 6 months

Chlorine Resistance:

PEX 5306 – end-use condition of 100% at 140°F (approved for continuous domestic hot water circulation systems)

Bend Radius:

Viega PureFlow PEX can be easily bent by hand or with the use of Viega-approved bend supports (see “Wood Frame Construction” on page 39) to a radius as small as five times tubing outer diameter.

PureFlow PEX Tubing Markings

Viega PureFlow PEX tubing is marked every five feet with the following representative information.

Print Line Markings	
Length Marker	000 feet
Company	Viega
Product Name	Viega PureFlow PEX
Nominal Tubing Size	½"
Standard Dimension Ratio Tube Size	SDR 9 CTS (copper tube size)
Material Designation Code	PEX 5306
Temperature & Pressure Rating	100 psi @ 180F 160 psi @ 73F
NSF Listing (Potable)	cNSF®us-pw
NSF Chlorine Listing	CL5
ASTM Tubing Standards Certification	F876, F877
Canadian Standard Assoc	CSA B137.5
Fittings System Compatibility	PureFlow - ASTM F877, F1807, F2159, F3347, F3348
IAPMO Listing	UPC®
UL Listing Rating*	cULus 3SAV UL1821 130 psi @ 120F
Plenum Rating**	FS/SD 25/50 ASTM E84 CAN/ULC S102.2
Fire Resistance Ratings	CAN/ULC S101 ANSI/UL 263, UL 2846
ICC Listing	ES-PMG™ - 1038
AWWA Listing	C904
HUD Listing	MR 1276
Manufacturer's Date Code	1/1/2010
Material Code	X14.2
Country of Manufacture	Made in the USA

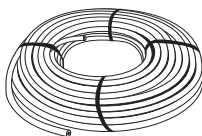
* ¾" through 2" Black Viega PureFlow PEX only

** 2" and smaller tube sizes when wrapped with ½" - 1" thick E84 rated insulation, ½" and smaller with no insulation per ULC S102.2 listing. Tubing may include fitting connections when wrapped.

FostaPEX® Tubing

Viega FostaPEX tubing is the ideal companion for the Viega PureFlow plumbing system. This tubing can be easily bent by hand like the Viega PureFlow PEX tubing but holds its shape after bending (combining the benefits of both rigid and flexible tubing). The result is fewer fittings and bend supports and less labor.

A unique feature of FostaPEX is that the inner layer is fully dimensioned Black Viega PureFlow PEX tubing. The aluminum and outer PE layers surround the inner PEX tubing. This construction allows the inner layer alone to meet all temperature and pressure requirements of the system. Using the prep tool to remove the outer layers allows the use of the standard Viega PureFlow Press Zero Lead bronze and polymer fitting systems, which reduces tooling costs for the contractor and simplifies connections.



Properties and Performance

Linear Expansion Coefficient:

0.16 inch per 100 feet per 10°F

Temperature and Pressure Ratings:

200°F at 80 psi *

180°F at 100 psi

73.4°F at 160 psi

*For non-potable hydronic heating systems only

UV Resistance:

Maximum exposure 12 months.

FostaPEX should not be installed where permanently exposed to sunlight.

Chlorine Resistance:

PEX 5306 – end-use condition of 100% at 140°F (approved for continuous domestic hot water circulation systems)

Bend Radius:

FostaPEX tubing can be bent to a radius of 3.5 times tubing outer diameter with the use of a tubing bender.



WARNING!

Not for use with PEX Crimp fittings.

FostaPEX Tubing Markings

FostaPEX tubing is marked every five feet with the following representative information.

Print Line Markings	
Length Marker	000 feet
Company	Viega
Product Name	FostaPEX
Nominal Tubing Size	½"
Standard Dimension Ratio Tube Size	SDR 9 CTS (copper tube size)
Material Designation Code	PEX 5306
Temperature & Pressure Rating	100 psi @ 180F 160 psi @ 73F
NSF Listing (Potable)	cNSF®us-pw-rfh
NSF Chlorine Listing	CL5
ASTM Tubing Standards Certification	F876, F877
Canadian Standard Assoc	CSA B137.5
Fittings System Compatibility	PureFlow - ASTM F877, F3347, F3348
IAPMO Listing	UPC®
Plenum Rating*	FS/SD 25/50 ASTM E84 CAN/ULC S102.2
Fire Resistance Ratings	CAN/ULC S101 ANSI/UL 263, UL 2846
ICC Listing	ES-PMG™ - 1015,1038
AWWA Listing	C904
HUD Listing	MR 1276
Manufacturer's Date Code	1/1/2010
Material Code	X18.1
Country of Manufacture	Made in the USA

* 2" and smaller tube sizes when wrapped with ½" - 1" thick E84 rated insulation, ½" and smaller with no insulation per ULC S102.2 listing. Tubing may include fitting connections when wrapped.

PureFlow PEX Tubing with Corrugated Sleeving

Viega PureFlow PEX tubing is available with a flexible polypropylene corrugated sleeving that is pre-installed on Viega PureFlow PEX red and blue 300-foot coils in ½" and ¾" sizes. This sleeved PEX product is ideal for direct burial and/or cast in cement applications.



Properties and Performance

Linear Expansion Coefficient:

1.1 inch per 100 feet per 10°F

Temperature and Pressure Ratings:

180°F at 100 psi

73.4°F at 160 psi

UV Resistance:

Maximum exposure 6 months

Chlorine Resistance:

PEX 5306 – end-use condition of 100% at 140°F (approved for continuous domestic hot water circulation systems)

Bend Radius:

Viega PureFlow PEX can be easily bent by hand or with the use of Viega-approved bend supports to a radius as small as five times tubing outer diameter.

PureFlow PEX Tubing Markings

Viega PureFlow PEX tubing is marked every five feet with the following representative information.

Print Line Markings	
Length Marker	000 feet
Company	Viega
Product Name	Viega PureFlow PEX
Nominal Tubing Size	½"
Standard Dimension Ratio Tube Size	SDR 9 CTS (copper tube size)
Material Designation Code	PEX 5306
Temperature & Pressure Rating	100 psi @ 180F 160 psi @ 73F
NSF Listing (Potable)	cNSF®us-pw
NSF Chlorine Listing	CL5
ASTM Tubing Standards Certification	F876, F877
Canadian Standard Assoc	CSA B137.5
Fittings System Compatibility	PureFlow - ASTM F877, F1807, F2159, F3347, F3348
IAPMO Listing	UPC®
UL Listing Rating*	cULus 3SAV UL1821 130 psi @ 120F
Plenum Rating**	FS/SD 25/50 ASTM E84 CAN/ULC S102.2
Fire Resistance Ratings	CAN/ULC S101 ANSI/UL 263, UL 2846
ICC Listing	ES-PMG™ - 1038
AWWA Listing	C904
HUD Listing	MR 1276
Manufacturer's Date Code	1/1/2010
Material Code	X14.2
Country of Manufacture	Made in the USA

* ¾" through 2" Black Viega PureFlow PEX only

** 2" and smaller tube sizes when wrapped with ½" - 1" thick E84 rated insulation, ½" and smaller with no insulation per ULC S102.2 listing. Tubing may include fitting connections when wrapped.

General System Sizing and Calculations

Viega PureFlow systems should be designed following standard plumbing engineering practice. Follow local codes to determine minimum tubing size and required fixture pressures.

Pressure drop through fittings can be estimated from the charts on the following pages. Values are expressed in equivalent length of tubing, so add the values for the relevant fittings to the length of tubing in the run, and then determine the total pressure drop from the charts.

To determine the pressure drop through runs of Viega PureFlow PEX and FostaPEX tubing, refer to the “Viega PureFlow Press Friction Loss” tables below. For a known flow rate, tubing size, and tubing length, the pressure drop through the run can be easily determined.

Viega PureFlow Press Friction Loss

Equivalent feet of SDR9 PEX tubing

PureFlow Press Zero Lead Bronze Fittings				
Size	Coupling	Elbow	Tee Run	Tee Branch
3/8"	2.9	9.2	2.9	9.4
1/2"	2.0	9.4	2.2	10.4
3/4"	1.0	8.0	1.0	9.0
1"	1.0	10.0	2.0	10.0
1 1/4"	2.0	11.0	2.0	11.0
1 1/2"	2.0	13.0	2.0	12.0
2"	1.0	19.0	2.0	18.0

PureFlow Press Polymer Fittings				
Size	Coupling	Elbow	Tee Run	Tee Branch
3/8"	4.5	14.3	6.5	14.7
1/2"	2.6	12.6	3.9	14.0
3/4"	2.5	18.9	3.6	19.1
1"	3.1	17.7	3.8	18.4
1 1/4"	4.0	18.6	6.4	18.7
1 1/2"	5.2	29.4	7.9	28.3
2"	8.9	36.4	10.2	37.5

Viega PureFlow Crimp Friction Loss

Equivalent feet of SDR9 PEX tubing

PureFlow Crimp Eco Brass Fittings				
Size	Coupling	Elbow	Tee Run	Tee Branch
3/8"	2.9	9.2	2.9	9.4
1/2"	2.0	9.4	2.2	10.4
3/4"	0.6	9.4	1.9	8.9
1"	1.3	10.0	2.3	11.0

PureFlow Crimp PolyAlloy Fittings				
Size	Coupling	Elbow	Tee Run	Tee Branch
3/8"	10.9	22.3	N/A	N/A
1/2"	7.1	16.5	7.2	17.9
3/4"	4.8	17.4	6.6	17.7
1"	4.5	18.0	6.0	17.0