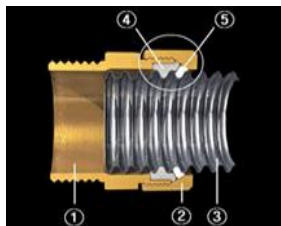




# CORRUGATED STAINLESS STEEL WATER DISTRIBUTION SYSTEM

## Installation Guide



# Table of Table of Contents

<b>Disclaimer</b>	<b>3</b>
<b>Product Description</b>	<b>4</b>
<b>Specifications</b>	<b>4</b>
<b>Installation</b>	<b>5-11</b>
<b>Bending</b>	<b>5</b>
<b>Supporting/Hanging</b>	<b>5</b>
<b>Cutting</b>	<b>5-6</b>
<b>Stripping Coating</b>	<b>6</b>
<b>Installing Fittings</b>	<b>6</b>
<b>Tightening</b>	<b>7</b>
<b>Trouble Shooting Connection</b>	<b>7</b>
<b>Tubing Location</b>	<b>7-8</b>
<b>Branch Location</b>	<b>8</b>
<b>Bored Holes</b>	<b>8</b>
<b>Mounting Through Metal</b>	<b>9</b>
<b>Outdoor/Underground Installations</b>	<b>9-10</b>
<b>Grounding/Bonding</b>	<b>10</b>
<b>Manifold Installation</b>	<b>10</b>
<b>Repair and Replacement</b>	<b>11</b>
<b>Testing Installation</b>	<b>11</b>
<b>Friction Loss</b>	<b>12</b>
<b>Pipe Sizing</b>	<b>13</b>
<b>Warranty</b>	<b>14-15</b>
<b>Contact Information</b>	<b>16</b>

# **Installation of Flexible Tubing**

## **Disclaimer**

All installations must comply with applicable standards, practices and codes set by local building authority. Manufacturer's suggested instructions do not supersede applicable local standards, practices or codes. Please contact the manufacturer or local building authority for any questions on installation. Only qualified, licensed professionals or qualified professionals under supervision of a licensed professional should install, modify or repair plumbing pipe and fixtures. Precautions must be taken to ensure that any exposed flexible piping is not damaged or abused during construction or assembly. All systems should be stored in secure, dry location prior to installation. Only fittings provided by the manufacturer are to be used. Ends of tubing are to be temporarily capped and plugged prior to installation to prevent entrance of dirt or other debris. Contact with sharp objects or harmful substances are to be avoided. Contact with any chemicals containing chlorides or ammonia must be followed by thorough rinse and wipe dry.

## Product Description

The Water Line System is a flexible water distribution system for potable, hot-cold water in residential and commercial applications. The tubing can also be used for glycol based and distilled water distribution. Made from corrosion resistant 304 or (on special order) 316L annealed stainless steel, the water line features durability and flexibility enabling numerous bends and twisting of the tubing for installation, use and repair. The tubing features brass fittings with sealing gaskets that allow for simple installation and enhanced corrosion resistance and strength. In addition to the regular brass fittings of tees, reducers and sockets, is the Push-Fit fitting. This tool-free, push-on connection allows flexible tubing to be connected with rigid pipe like copper, galvanized steel or CPVC. The tubing features operating pressure above 147 psi and operating temperature of 212°F. The stainless steel tubing comes in rolls from 50' to over 150' and diameters from 1/2" to 2". The flexible tubing can be purchased with red or blue polyethylene coating, which makes installation and repair easier with color coding and adds additional protection to the tubing from harsh chemicals or environmental conditions.

The Use of EASYFLEX is not restricted by the style, size, age, type of construction, height, or physical layout of the building. It can withstand vibrations, movement, seismic forces, shearing and mechanical structural strain. Corrugated stainless pipe helps to prevent ruptures in the plumbing system by flexing and absorbing vibrations and stresses.

## Product Ratings, Capabilities and Material Specifications

### Material Specification

- **Tube: 0.012 in. thick 304 Annealed Stainless Steel (ASTM A 240)**
- **Fittings: Nut & Body – Brass UNS C37700 (ASTM DS-561)**
- **Isolating Ring – Nylon 66**
- **Sealing Ring – Dow Corning K760 Silicon**
- **Teeth ring – 304 Stainless Steel (ASTM A 240)**
- **0.02 in. thick Polyethylene coating (ASTM D 3350)**
- **Push-Fit nut: Nylon 66**

## Features & Availability

- **IAPMO/UPC IGC 233 and ANSI/NSF 61 tested and approved**
- **Manufacturer's recommended Working Pressure: 220psi (1/2"), 176psi (3/4"), 147psi (1")**
- **IAPMO Tested Operating Temp & Pressure : 212°F, 147psi**
- **Diameter: 1/2", 3/4", 1", 1-1/4"**
- **Length: 50 ft, 100 ft, 150 ft / roll (Available in special lengths)**
- **Uncoated or Blue/Red PE (Polyethylene)**
- **Velocity: 8fps**

## Product Standards and Listings

EASYFLEX Water Line tube and fittings are produced to the requirements of IAPMO IGC 233-2006, ASTM A 240, ASME B1.20.1, ASTM D 3350, ASTM DS-561 and ANSI/NSF 61 – 2005, section 4.

Standard	Title
<b>ANSI/NSF Standard 61</b>	Drinking Water System Components – Health Effects
<b>ASTM A 240</b>	Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
<b>ASTM D 335</b>	Specifications for Polyethylene Plastics Pipe and Fittings Materials
<b>ASME B1.20.1</b>	Pipe Threads, General Purpose
<b>ASTM DS-561</b>	Metals and Alloys in the Unified Numbering System
<b>IAPMO IGC 233</b>	1. Material 2. Performance 3. Marking and Identification

## Applications:

<b>New Construction</b>	<b>Mechanical Plumbing</b>
<b>Retrofit</b>	<b>Solar Water Heating</b>
<b>Repair</b>	<b>Tankless Water Heaters</b>
<b>Laboratories</b>	<b>Hot Water Distribution</b>
<b>Commercial</b>	<b>Manufacturing</b>

**USER WARNING! Please Read Disclaimer before installing.**

**Tools For Installation**

1. **Open End Wrench** – For Assembly of Fittings
2. **Adjustable Wrench** – For manifold Body
3. **Pipe Wrench** – For attachments of tubing to fittings and manifold body.
4. **Drill** – For boring clearance holes through wood or metal framing. Recommended clearance hole size: 1/2" larger than tubing diameter.
5. **Utility knife with sharp blade**
6. **Tubing Cutter**
7. **Pliers**

**Flexible Tubing Installation Practices**

**General Installation**

- EASYFLEX flexible water piping can be used to provide outdoor connections to appliances that are attached to, or in close proximity to the building.
- EASYFLEX flexible water piping can be routed in most locations where traditional water piping materials are installed: inside hollow wall cavities, along or through floor joists in basements, on top of the joists in attics, on roof tops or along soffits or in chases outside of buildings.
- For underground burial, the flexible water tubing can be laid directly in the ground. The fittings must be encased in a sleeve of PVC or other insulator. Tubing and fittings must be encased in a PVC sleeve when run through concrete.
- Flexible water tubing can be used in conjunction with any rigid pipe in either new construction or renovation and replacement piping installations.
- Use gradual or low degree bends to maximize water flow and reduce friction loss.

**Bending The Tubing**

- Bending flexible water piping is one feature which contributes to the speed of installation. Tubing can be bent to desired position without restriction on bending radius. Multiple tight bends can restrict the water flow and increase pressure drop. Care must be taken to avoid repeated sharp bending, stretching, kinking or twisting of tubing. Gradual bends are suggested whenever possible.

**Horizontal Runs and Supporting**

- All horizontal runs shall be supported as specified in chart below.
- Tubing that runs parallel to the joists should be supported to the center of the vertical face at least 3" from the floor or ceiling.
- Tubing that runs perpendicular to the joists should be supported, preferably routed through drilled holes in the joists or inside an I-beam flange.

**Table 2. Horizontal and Inclined Runs**

<b>Tube Size (inch)</b>	<b>Spacing of Supports</b>
<b>1/2</b>	<b>6 ft</b>
<b>3/4</b>	<b>8 ft</b>
<b>1</b>	<b>8 ft</b>
<b>1 1/4</b>	<b>8 ft</b>

**Vertical Runs and Support**

- The spacing between supports on vertical runs shall not exceed 10 feet.
- The tubing shall be supported in a workman like manner with piping straps, tubing clips, bands, brackets or hangers suitable for the size and weight of the tubing.

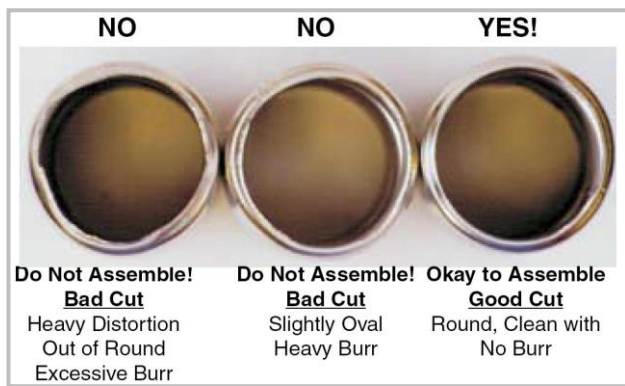


**Tubing edges are sharp. Take care when handling cut tubing.**

**Cutting Tubing to Length**

Determine the proper length of the tubing. Use a standard tubing cutter equipped with a sharp (preferably hardened steel) cutting wheel. Whenever possible, cut a straight section of tubing that hasn't been bent. It is not necessary to remove polyethylene jacket prior to cutting. A pipe cutter can cut through the polyethylene tubing jacket. The cut must be centered in a convolution (valley) between two corrugations. Use full, circular cutting stroke continuing in the same directions as starting

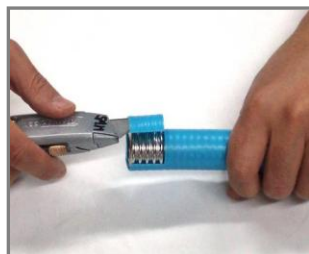
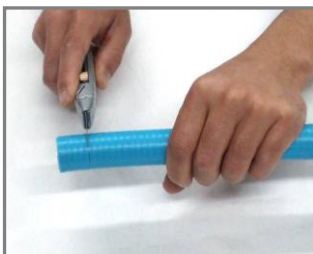
in. When the wheel has cut through jacket and is in contact with the stainless steel, it is important to slightly tighten the cutting wheel. A quarter turn is all that is necessary. You will hear the stainless steel "pop" or "crack" when you begin to cut through. Do not over tighten cutter. The tubing may flatten out if the cutter is tightened too much, and the cut edges will be deformed. Continue cutting until the tube is cut all the way around or only a small edge is attached. If necessary, bend, but, don't twist cut edge to separate tubing, then, ensure the twisted edge is not deformed or it will obstruct flow. Remove burrs or rough edges with pliers if necessary.



**Precision cuts made on a previously bent or twisted length of tubing may cause distorted or out-of-round tubing. For best results, ensure that all final end cuts are only made on straight lengths of tubing.**

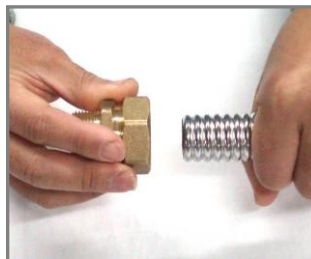
### **Stripping Jacket**

Using a utility knife, strip the jacket back six (6) convolutions (valley) or 1" from the end of the tubing. Using a utility knife, slice the tubing around the tubing then make a single slice along the axis or long side of the tubing towards the nearest end. Peel the polyethylene away. Use caution when cutting the jacket and handling the tubing.



### **Installing Fittings**

Remove the nut and check the fittings internal components are in place (silicone ring, isolating ring and nuts). Replace nut so that it is just sitting on the threads. Insert the tube into the fitting until it meets the internal wall. Hold the fitting on the tubing and finger tighten the nut onto the fitting.



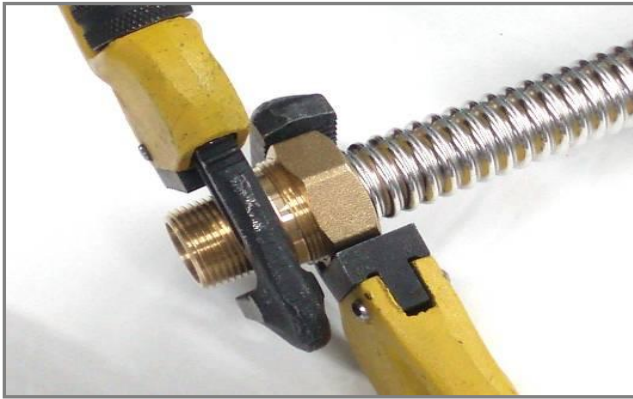
### **Attaching Fitting to another fitting or main line or fixed position fitting**

Use anaerobic joint sealing compound or PTFE tape on male end threads of connection. Connect male or female end of fitting to main line port or fixed position fitting. Tighten until resistance increases greatly or to fitting manufacturers torque instructions, if using other manufacturer's fittings. To attach flexible tubing to pipe fitting, follow instructions for attaching fitting found above.

### **Wrench Tightening**

**Field instructions:** using appropriate wrenches, secure the nut until the resistance of the wrenching force increases greatly or nut will not turn after 1.5 turns. Caution: Do not use any thread sealants for both side threads for this connection.





### **Final Torque:**

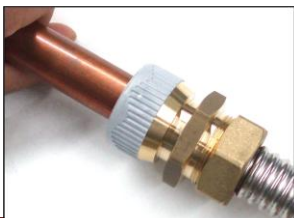
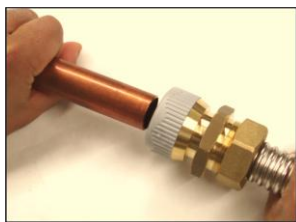
Tighten nut and fitting to the torque values shown in table 3. If the tubing begins to buckle or deform, you have tightened too much. If damaged, cut off section of damaged tubing and re-attach fitting using method in instructions

**Table 3. Size and Torque (Manufacturer recommended)**

Tube Size(inch)	Torque Value(ft-lb)
1/2	40 ~ 44
3/4	44 ~ 48
1	72 ~ 76
1 1/4	120 ~ 140

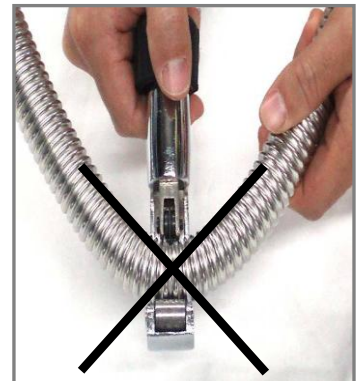
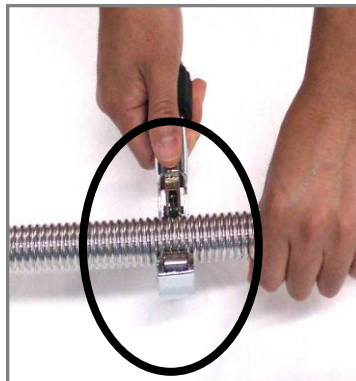
### **Push-Fit Assembly**

If necessary, using cutting tool, cut end of copper pipe to desired length. Push rigid pipe end into Push-Fit connection until pipe meets walls of fitting. Insure that rigid pipe is inserted completely into fitting. Insure copper pipe is pushed all the way in and will not pull out with force applied.



### **Trouble Shooting of Fittings Connections**

- The tube cutting is the critical step in the assembly procedure. Always cut in a straight section of piping, rather than an area you have bent. Use roller pressure lightly applied on every revolution to cut tube evenly around its surface. Make sure that cut part must be centered ***between two corrugations***.
- If the cutting connection cannot be made to seal upon applying torque per the instructions, continue to tighten an additional turn. If leakage continues, do not continue to apply torque. Disassemble the fitting and inspect the sealing surface. The most likely cause of leakage is foreign material on the sealing surfaces. Wipe both fitting and tubing with a clean cloth. Inspect the sealing ring, pressure ring and tube end. If any deformation is noted, re-cut the tubing and reassemble the fitting.



### **Tube Location**

Tubing can be located several places within the building.

- Beneath through, and alongside floor joists – Consideration should be given to future construction possibilities. On the top of ceiling joists in attic spaces – considered choice location in areas where slab-on-grade construction is prevalent.
- Inside wall cavities – Preferred for vertical sections of piping rather than horizontal sections.
- **Protect tubing from damage caused by screws and nails by using protective plates.**
- Installation clearance holes for routing the piping through stubs, joists, plates, etc. shall have a diameter 1/2" larger than the outside diameter of the piping.

## Branching

- Avoid branching if not necessary. This minimizes the number of joints in the system. Utilize only manufacturer supplied fittings and support tubing and fittings as described in previous instructions.

## Bored Holes

- In locations where flexible water tubing is installed through bored holes in joists, rafters, or wood members, holes shall be bored so that the edge of the hole is not less than 2" from the nearest edge of the wood member. The diameter of the bored holes shall be a minimum of 1/2" larger than the outside diameter of the tubing jacket unless the hole size conflicts with local building codes, which shall prevail.
- Where holes are to be bored in load bearing vertical members of the wall framing, the size of such holes shall not be larger than 40% of the width of the member. Holes up to 60% of the member's width are permitted if the members are doubled. **No more than two successive double bored members are permitted**
- Use a pipe grommet to secure the tubing through a bored hole.

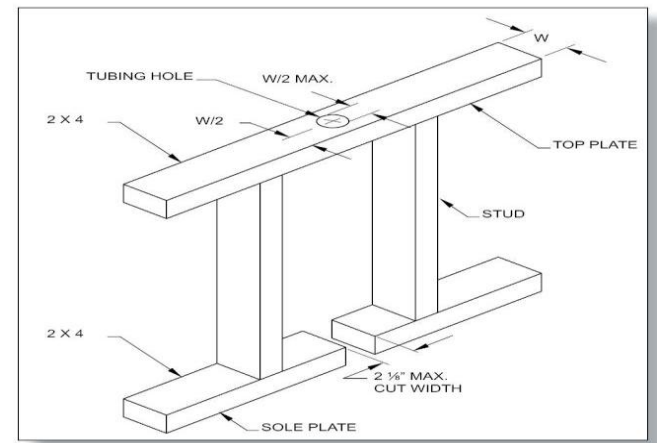
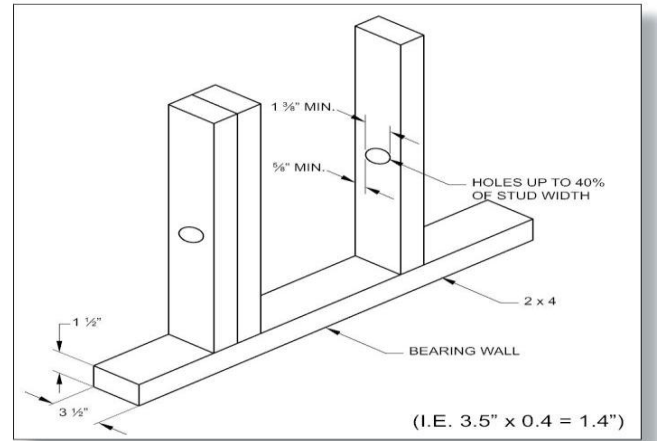
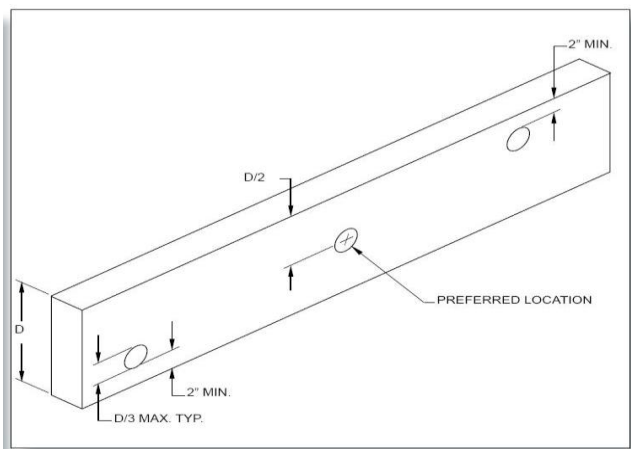


Table 4 Installation Clearance Holes	
Tubing Size	Drill Hole Size
1/2"	1 3/8"
3/4"	1 5/8"
1"	1 7/8"
1-1/4"	2 1/8"





### **Water Line Mounted Through Metal Framing**

- The installation instructions for metal framed structures are same as wood framed structure with the following exception.

When flexible water tubing passes through metal members it shall be protected by one of the following methods:

1. Busing securely fastened in the opening of the metal member.
2. Grommets securely fastened in the opening of the metal member.

The installer shall insure that no physical contact occurs between the metal member and the flexible water tubing.

- Water service pipe and the building sewer or drainage pipe shall be separated by a minimum of 5 feet of undisturbed or compacted earth. Exceptions to this standard are applied as per compliance with local codes.
- Potable water service and distribution pipe shall not be located in, under or above cesspools, septic tanks, septic tank drainage fields or seepage pits.
- When installed along the side of a structure in an exposed condition. The flexible water piping must be protected inside a conduit or installed in a location which will not subjected it to crushing or puncture damage.

### **Metal Studs**

- For installations involving horizontal runs through galvanized steel studs, the use of plastic grommets supplied by the stud manufacturer is recommended. The use of these grommets will reduce the likelihood of damage to the tubing non-metallic jacket.



EASYFLEX flexible water tubing must only be installed by qualified licensed professionals or under supervision of a licensed professional. All installations must comply with local code requirements and the instructions contained in the EASYFLEX Installation Guide

### **Underground Installations**

#### **General Provisions**

- **Inspection:** Before installation, flexible water tubing should be thoroughly inspected for cuts, scratches, gouges or split ends which might have occurred to the products during shipping and handling. Do not use damaged sections. Damaged sections found must be cut-out and discarded.
- Where local codes conflict with this manual, local codes take precedence.
- Flexible water piping can be buried directly in the ground, but not fittings, and not directly embedded in concrete without a sleeve (e.g. patio slabs, foundations and walkways). When burial is required, insure trench and backfill do not contain corrosive elements. EASYFLEX flexible water piping can be routed inside nonmetallic (e.g. PVC or PE) conduit, which conforms to standards to prevent freezing in exterior installations. Field wrappings shall provide equivalent protection for fittings. Nonmetallic (e.g. PVC or PE) conduit may also be used to protect fittings and shall be sealed at any exposed end to prevent water from entering.

- **Trench Preparation:** Trench bottom shall be solid with no hollows, lumps, rocks, or other materials that could damaged the tubing. All piping shall be installed at least **12" inches below the average frost depth**. In case of loose, rocky soil, the trench should be excavated **at least 6"** deeper than the desired pipe depth and filled with suitable soils. Regardless of soil condition, the backfill should be free of rocks, glass, or other sharp objects.
- **Laying the tubing:** Tubing should be laid with sufficient slack (snaking) to accommodate any contraction or elongation prior to backfilling. Minimum bending radius requirements for flexible water tubing shall be followed. In poor soil conditions, it's necessary to excavate deeper and use good clean fill or granular fill to smooth the trench bottom.
- **Backfilling:** Do not use clay, silt, or rocky backfill. Remove the construction materials or foreign objects from trench prior to backfilling. The tubing and fittings should be surrounded

with good clean fill, or sand. Compact the initial backfill around the tubing to provide adequate tubing support and prevent settlement. It is particularly important to adequately compact the soil around the tap connection.

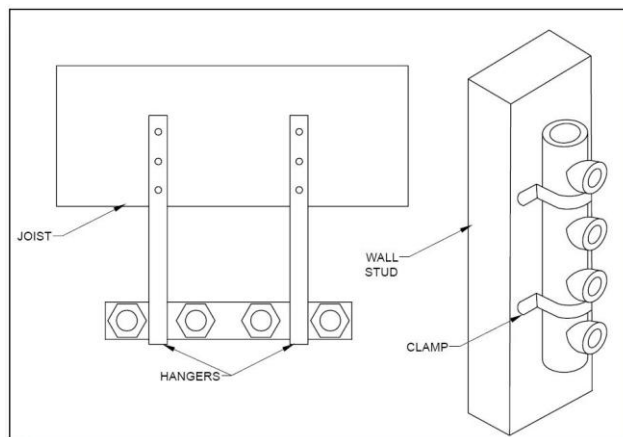
### **Electrical Grounding/Bonding**

- The EASYFLEX flexible water piping and/ or the components must not be used as a grounding electrode of any part of an electrical system.
  - **\*Grounding Tubing**  
Proper bonding and grounding may reduce the **risk of damage in a lightning strike**. A lightning strike can cause the system to become energized, and if not bonded, the differences in potential can cause the charge to arc to another system. This arcing can cause damage to the system. The CSST shall be bonded in accordance with NFPA 70-2005, section 250.104, using a bonding clamp approved for steel pipe to provide an adequate bonding connection which is continuous. A bonding connector shall be installed to the tubing near the service connection end and not connected to the brass nut of the fitting, in accordance with NEC section 250.70, and shall be permanently connected to the grounding electrode system. The bonding conductor shall be a 6 AWG copper wire, connected to either the electrical service enclosure, the grounded conductor at the electrical service, the grounding electrode conductor or to one or more of the grounding electrodes used.
- Short lengths of tubing connected to a grounded appliance are acceptable.

### **Manifold Installations**

#### **Installation of Water Distribution Manifold Assembly**

- Manifolds are installed where multiple tubing runs are made from a common location in a parallel arrangement. Depending on the location and available space, different mounting arrangements are permitted. A manifold assembly may be mounted on the surface of an interior wall, between open floor joists, in attic spaces, or within a partition wall inside ventilated enclosures the manifold assembly shall be installed in an accessible location where it can be inspected, maintained and serviced if repair or replacement is required.



- **Horizontal Manifold Installation**

Position the manifolds in the desired location and nail and screw the mounting bracket to the studs. Make sure all valve handles have room for operation.

- **Vertical Manifold Installation**

Manifolds may be coupled end to end and installed vertically along a stud. Position the manifold in the desired location and fasten it to the studs.

**Note: A vertical manifold installation usually requires bending the flexible water tubing immediately off the manifold. Extra care must be taken to assure that tube is not bent in a radius smaller than the minimum permitted for flexible water pipe. Also make sure that bending stress is not applied to the fitting that connects the tube to the manifold.**

- **Selecting the Manifold Size**

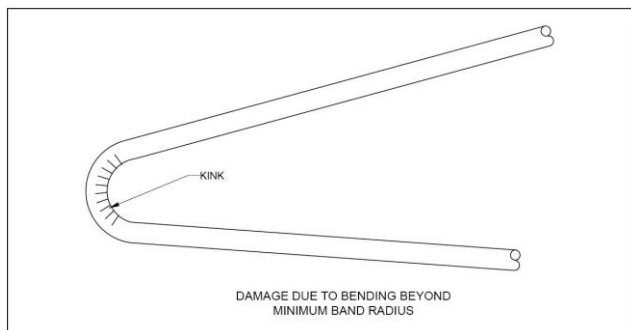
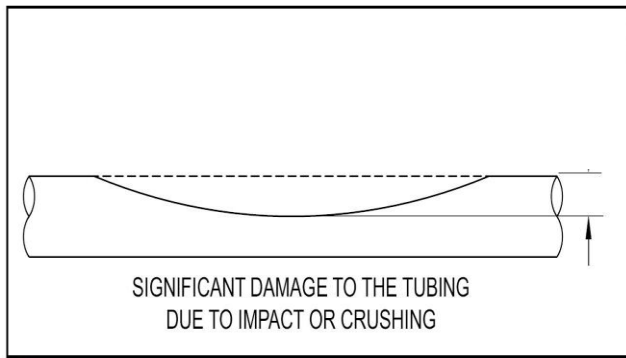
EASYFLEX manifolds are designed for easy connection to 1/2", 3/4", 1" flexible water line. When selecting the tube size, the following factors should be considered:

1. Local code requirements
2. Water demand of the fixture
3. Distance from the manifold to the fixture
4. Elevation change from manifold to the fixture
5. Water pressure available to the manifold

## **Repair and Replacement**

### **Repair of Damaged Tubing**

- Damaged tubing runs shall be repaired in accordance with this design guide and installation instruction manual. The repair can result in a line splice which may be located in a concealed location. If the tubing is damaged refer to the following subsections to determine the severity of damaged and, if necessary, the method of repair.
- Classification of Repairs
  - No repairs or replacement of the tubing is necessary if the tubing is only slightly dented by crushing.
  - EASYFLEX flexible water piping must be repaired or replaced under the following circumstances.
    - The tubing has been significantly damaged
    - The tubing has been punctured.
    - The tubing has been bent beyond it's minimum bend radius so that a crease or kink appears



### **Method of Repair**

**The installer shall determine the most reliable and economical method of repair using one of the following methods:**

- **Replace the entire tubing run:** In most cases when the tubing run is short and easily accessible, it can be replaced faster and more economically than repairing the damaged section. This is the preferred method because extra fittings are not required.
- **Repair the damaged section:** The damaged tubing can be repaired by each of two methods described below:
  - 1. Remove the section of tubing which is damaged and reconnect the new ends with a single mechanical coupling.
  - 2. Remove the section of tubing which is damaged and splice in a new section of tubing with two mechanical couplings. Use this repair method if the extent of the damage covers more than a small area, and there is not enough slack in the existing tubing run to make-up the damaged length.

### **Testing Installation**

**After all connections in the line have been made and tightened, test water line by running water through the line at the same pressure for intended use. If leaks are found, see trouble shooting instructions.**

## **Friction Loss**

Friction loss of tubing calculated in pounds per square inch (PSI) of pressure lost per foot of tubing with a friction constant = 70 and no bends. Sharp bends are calculated the same as for fittings and gradual bends calculated the same as straight pipe.

GPM	NOMINAL SIZE (ID)			
	1/2"	3/4"	1"	1-1/4"
1	0.032	0.004	0.002	0.001
2	0.114	0.015	0.005	0.002
3	0.241	0.032	0.012	0.004
4	0.410	0.055	0.020	0.008
5	0.619	0.083	0.030	0.011
6	0.867	0.117	0.042	0.016
7	1.153	0.156	0.055	0.021
8	1.476	0.199	0.071	0.027
9	1.836	0.248	0.088	0.034
10	2.231	0.301	0.107	0.041

**Note:**

1. Table is based on the \*Hazen-Williams formula.
2. Fluid velocities in excess of 5-8 ft/sec are not recommended.
3. Friction loss values shown are for the flow rates that do not exceed a velocity of 8 ft/sec.

$$*P = \frac{4.52Q^{1.85}}{C^{1.85}d^{4.87}}$$

Where: P = friction loss, psi per linear foot

Q = flow, gpm

D = average, I.D., in inches

C = 70, friction constant

## **Pipe Sizing**

Pipe shall be sized in reference to the supplied table included in this installation guide and or in compliance with local codes and standards. The water distribution system shall be designed, and pipe sizes shall be selected such that under conditions of peak demand, the capacities at the fixture supply pipe outlets shall not be less than required for the combined fixture demand.

**For specific information on fixture demand, see local building code.**

### **Pipe Sizing Chart** **Developed Length in Feet**

#### **Pressure Range: 30-45 psi**

<b>Diameter Size (in)</b>	<b>40</b>	<b>60</b>	<b>80</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>400</b>
<b>1/2</b>	6	5	4	3	2	1	1	1	1
<b>3/4</b>	16	16	13	11	8	5	5	4	4
<b>1</b>	28	24	22	21	16	14	12	11	10
<b>1-1/4</b>	35	33	30	27	23	22	21	18	17

#### **Pressure Range: 46-60 psi**

<b>Diameter Size (in)</b>	<b>40</b>	<b>60</b>	<b>80</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>400</b>
<b>1/2</b>	7	7	6	5	4	3	2	2	1
<b>3/4</b>	20	20	19	16	13	10	8	7	6
<b>1</b>	38	37	35	32	27	22	20	18	16
<b>1-1/4</b>	38	38	38	38	38	38	33	31	26

#### **Pressure Range: over 60 psi**

<b>Diameter Size (in)</b>	<b>40</b>	<b>60</b>	<b>80</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>400</b>
<b>1/2</b>	7	7	7	6	5	4	3	3	2
<b>3/4</b>	19	19	19	19	16	12	10	9	7
<b>1</b>	38	38	38	38	34	29	26	23	20
<b>1-1/4</b>	38	38	38	38	38	38	38	38	33

#### **Values in Water Supply fixture Units (WSFU)**

Source: IAPMO IGC-233-2008



## **WARRANTY**

### **EASYFLEX LIMITED WARRANTY EASYFLEX FLEXIBLE TUBING FOR WATER, FITTINGS AND MANIFOLDS**

Subject to the conditions and limitations in this Limited Warranty, EASYFLEX warrants to the real owner as installed by licensed plumbers, who purchase and properly install in a hot and cold potable water distribution system its Water Line System corrugated stainless steel tubing (CSST), fittings and manifold plumbing system, sold by EASYFLEX, under normal conditions of use, will be free from failure caused by manufacturing defect, from the time of installation:

- (I) Corrugated stainless steel tubing for a period of fifty (50) years.
- (II) Brass fittings and stainless steel manifolds for a period of twenty five (25) years.

Under this warranty, you only have a right to reimbursement if the failure or leak resulted from a manufacturing defect in the products covered by this warranty and occurred during the warranty period. You do not have a remedy or right of reimbursement under this warranty and this warranty does not apply if the failure or any resulting damage is caused by (1) components in the plumbing system other than those manufactured or sold by EASYFLEX; (2) not designing, installing, inspecting or testing the system in accordance with EASYFLEX'S installation instructions at the time of the installation, applicable code requirements, and good plumbing practices; (3) improper handling and protection of the product prior to or during installation, inadequate freeze protection, exposure to water pressures or temperatures in excess of the limitations on the pipe or tubing, or application of unauthorized solvents or chemicals.; (4) acts of nature such as earthquakes, fire, flood, or landslide; (5) damage caused by lightning without proper grounding as per NFPA 780, NEC 2005 article 250.70 and clamps complying with UL 467 standards; (6) remain in its originally installed location; (7) show no evidence of tampering, mishandling, neglect, accidental damage, modification or repair without the approval of EASYFLEX; (8) exposure to abnormal environmental

conditions relative to the norm for the installation site and outside manufacturer specified pressure and temperature range; including chemical and biological substance exposure; (9) freezing during or after the installation or inadequate freeze protection; (10) exposure to operating use and or conditions outside those specified by manufacturer.

In the event of a leak or other failure in the system, it is the responsibility of the property owner to obtain and pay for the repairs. Only if the warranty applies will EASYFLEX be responsible for reimbursement under this warranty. The part or parts which you claim failed should be kept and EASYFLEX contacted by writing to the address below or telephoning 714.258.2600 within thirty (30) days after the leak or other failure and identifying yourself as having a warranty claim. You should be prepared to ship, at your expense, the product which you claim failed due to a manufacturing defect, document the date of installation, and the amount of any claimed bills which you wish reimbursed. Within a reasonable time after notification, EASYFLEX will investigate the reasons for the failure, which includes the right to inspect the product at EASYFLEX and reasonable access to the site of the damage in order to determine whether the warranty applies. EASYFLEX will notify you in writing of the results of its review.

In the event that EASYFLEX determines that the failure or leak and any resulting damages were the result of a manufacturing defect in the products covered by this warranty, EASYFLEX will reimburse the property owner for reasonable repair or replacement charges to include drywall and painting or plastering costs, as well as damages to personal property resulting from the failure or leak. EASYFLEX SHALL NOT BE LIABLE FOR CONSEQUENTIAL ECONOMIC LOSS DAMAGES UNDER ANY LEGAL THEORY AND WHETHER ASSERTED BY DIRECT ACTION, FOR CONTRIBUTION OR INDEMNITY OR OTHERWISE. THE ABOVE LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Other than this limited warranty, EASYFLEX does not authorize any person or firm to create for it any other obligation or liability in connection with its products. Licensed plumbers are authorized to

provide this warranty in connection with any warranty extended by them to builders or owners of site built construction.

Some states do not allow the exclusion or limitation of incidental or consequential damages in certain types of transactions, so the above exclusion or limitations may not apply to you. This limited warranty gives you specific legal right and you also may have other rights which vary from state to state.

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