

# Installation Instructions

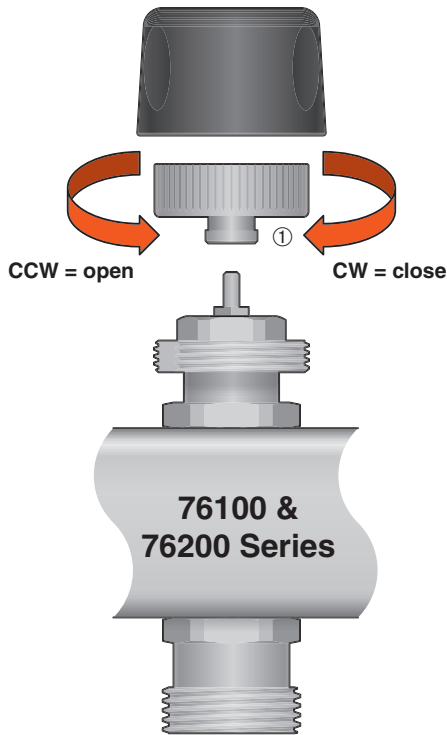
## 1-1/4" Stainless Steel Manifold

### Balancing

#### Return Manifold

Primary Balancing.

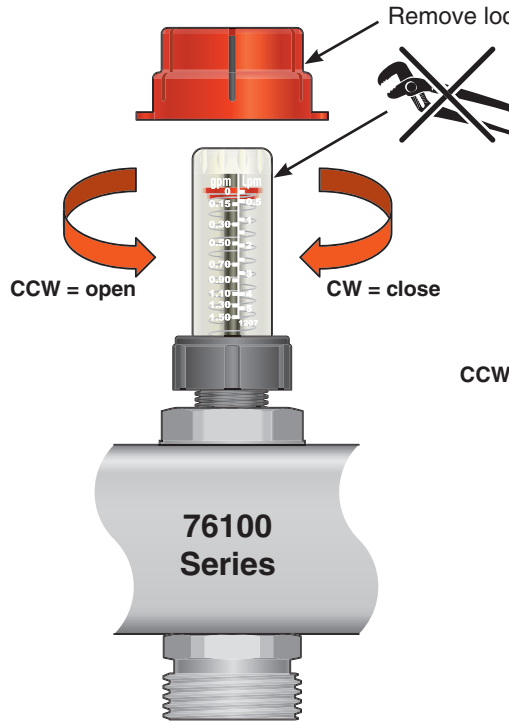
Black cap for manual shut-off only.  
Use drip cap ① for balancing.



#### Supply Manifold

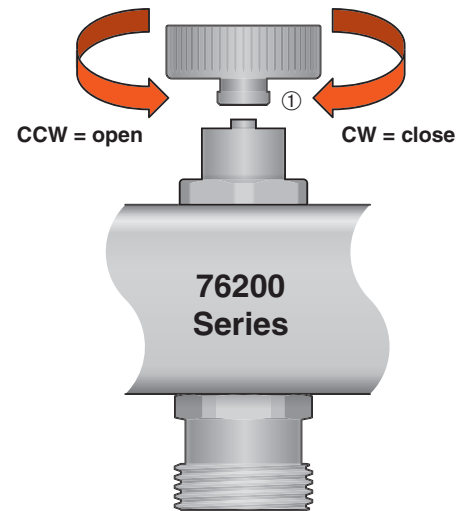
Secondary Balancing (Fine Tuning).

Flow meter balancing adjustment  
range: 0-1.5 US gpm or 0-5 L/min.



Remove locking cap to adjust flow meter.

**Please note:**  
Do not use tools to adjust flow meters. (Damage to the flow meter will occur, and will not be covered under warranty).



#### Balancing Notes:

**Return :** Use for primary balancing purposes and manual shut-off. Use drip cap to adjust the return manifold.①②

**Caution:** Opening the return valve too far will result in removing the valve stem.

**Supply :** Use for secondary balancing / fine tuning the flow rate. Remove locking cap to adjust the flow meter by hand, do not use tools.

#### Balancing Method 1:

Valve setting or flow characteristic known (pre-balancing)

1. Fully open supply valve (flow meter) [factory open].
2. Close return valve completely [factory open].
3. Open return valve the number of turns as per heatloss calculation or friction head graph.
4. After all valves are set, field adjustments may be necessary.

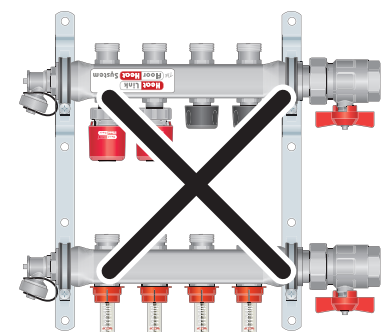
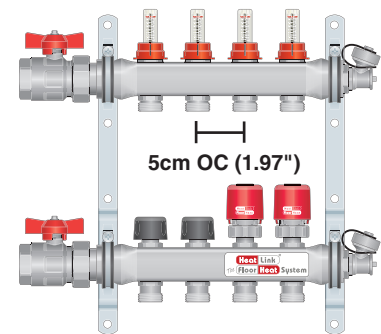
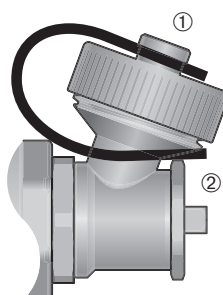
#### Balancing Method 2:

Only flow rate known

1. Ensure all supply valves are open [factory open].
2. Ensure all return valves are open (remove black cap).
3. Use the return valve to adjust flow to desired setting (flow meter).
4. Valves adjusted first may need to be re-adjusted once all other loops have been set.

#### Notes:

- Hose bib thread is an ASME thread.②
- After fill procedure: the drip cap ① should be placed back on to the hose bib ②.
- Pipe to manifold connectors sold separately.

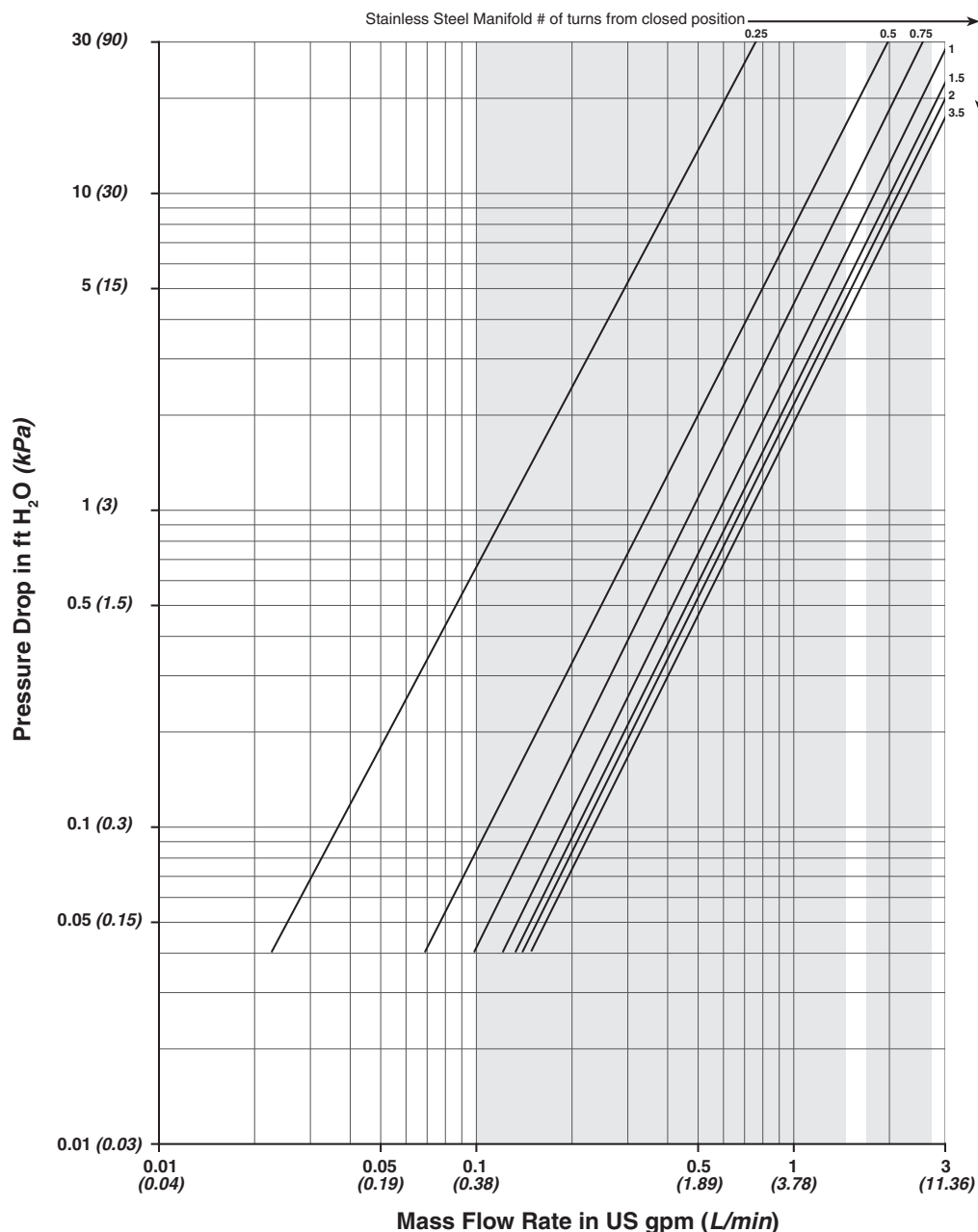


Flow meter will function sideways.  
**Do not install manifolds upside down.**

# Installation Instructions

## 1-1/4" Stainless Steel Manifold

### 76100 Series Friction Head Graph



## PEX to Manifold Connections

### PEX Tubing to Manifold Connection using #77100 Series Connectors

(not included)

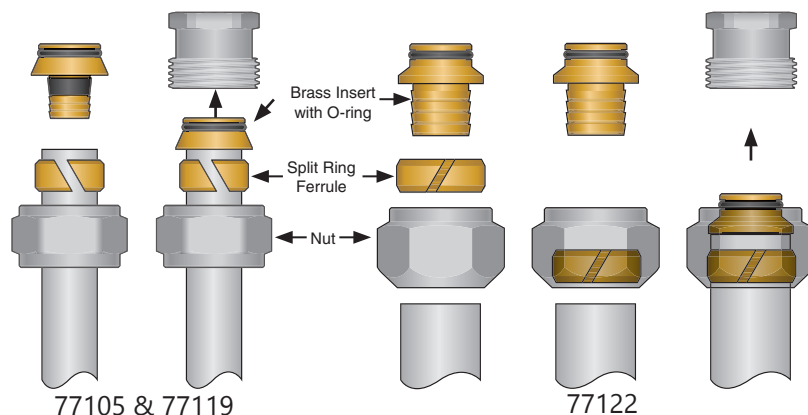
1. Lubricate the inside of the manifold port with silicone o-ring lubricant (#79952).
2. Cut the PEX tubing at a 90° angle.
3. For 1/2" and 3/8" connectors (#77105, #77119) and tubing place the Nut and Split Ring Ferrule onto the PEX tubing.
4. For 3/4" connectors (#77122) and tubing insert the split ring ferrule into the nut first.

#### Method A

5. Push the Brass Insert onto the PEX tubing as far as it will go.
6. Push the PEX tubing with Brass Insert as far as it will go into the connector base. Ensure the o-ring is clean and take care not to pinch it.

#### Method B

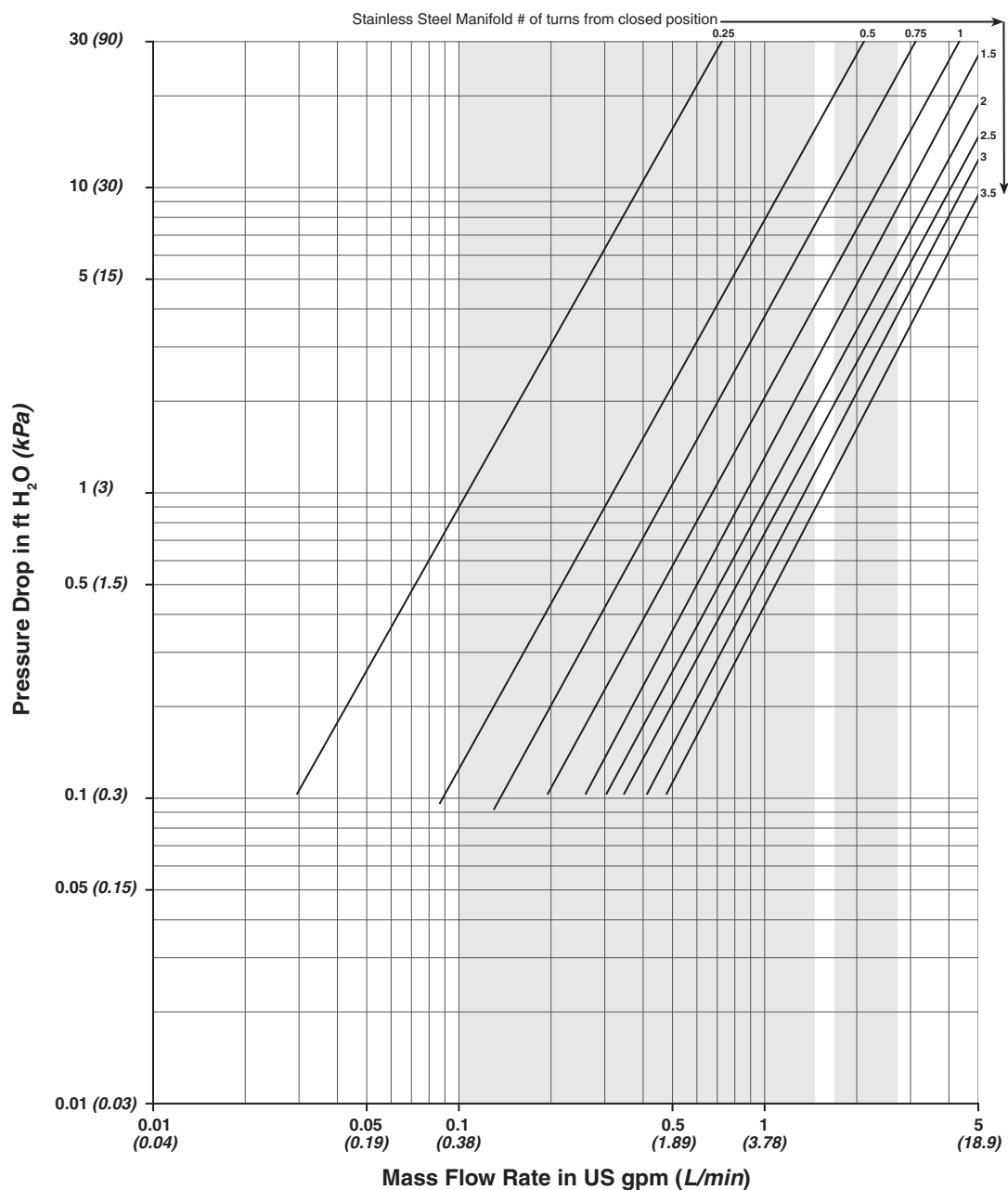
5. Push Brass Insert as far as it will go into the manifold. Ensure the o-ring is clean and take care not to pinch it.
6. Push PEX tubing onto the Brass Insert as far as it will go.
7. Use a wrench to tighten the nut.



# Installation Instructions

## 1-1/4" Stainless Steel Manifold

### 76200 Series Friction Head Graph



Working loop flow ranges from 0.1 to 1.25 US gpm (0.38 to 4.7 L/m) for floor heating and from 1.5 to 2.5 US gpm (5.7 to 9.5 L/m) for snowmelting. Pressure drop must be closely checked when water flow is beyond the upper working range.

## Technical Data

Max. Operating Temperature: 230°F (110°C)  
Max. Operating Pressure: 87 psi (6 bar)  
Tested (Water) Pressure: 145 psi (10 bar)  
Max. Flow Rate: 18 USgpm (4.1 m<sup>3</sup>/h)

# Installation Instructions

## 1-1/4" Stainless Steel Manifold

### General Guidelines

Please review the instructions and warranty carefully. Assembly and installation are the installer's responsibility and beyond HeatLink's control.

1. Assemble the manifold under clean conditions. Any dirt on the o-rings may compromise the seal. **Ensure the o-rings are clean.**
2. Brace or support the supply and return mains parallel to the manifold and centered with the manifold's inlet and outlet. This will prevent stress and possible damage on the manifold supply and return end connections.
3. Use precautions when soldering or applying heat within 16" of any manifold component.
4. Ball valves in front of manifold are for isolating the manifold in case of servicing requirements.
5. Prevent aggressive substances from coming into contact with the manifold and its accessories. This warning includes, but is not limited to, bug sprays, lubricants, strong cleaning solvents, paints, bleaches, fluxes, etc. However, pipe dopes and Teflon tape are permitted for use on FNPT supply end connections. No tape or dope is needed where a gasket or o-ring seal is provided.
6. Protect the manifold during all phases of construction using a polyethylene sheet or a permanent HeatLink manifold enclosure.
7. The ports on the manifold are straight threads. Tightening an NPT threaded fitting into these ports can damage the manifold. For pressure testing use Pressure Test Kit #79935.

Only HeatLink Manifold accessories should be used on the manifold ports.

8. When installing actuators on the return manifold, the black shut off cap must be removed.
9. **Manifolds are not to be installed upside down.**
10. Do not use HeatLink Stainless Steel Manifolds and accessories for purposes other than those for which they were designed. Do not exceed their specifications. Failure to follow these guidelines or the product's instructions will void the warranty.
11. In case a leak develops during testing, remove pressure from system before servicing the effected component.
12. **A water analysis is recommended for every installation site. For warranty claims a water analysis is mandatory.**
13. Consult with your HeatLink® dealer or distributor if you have any questions regarding the operations and limits of HeatLink products. Review all instructions and warranty information carefully.

## WARNING!

**DO NOT** disassemble the HeatLink Stainless Steel manifold while the system is under pressure. Serious injury can result. **Use only silicone o-ring lubricant #79951 or #79952. Use of petroleum based lubricants will void the warranty.**

### Limited Warranty

Refer to the HeatLink Limited Heating Warranty

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