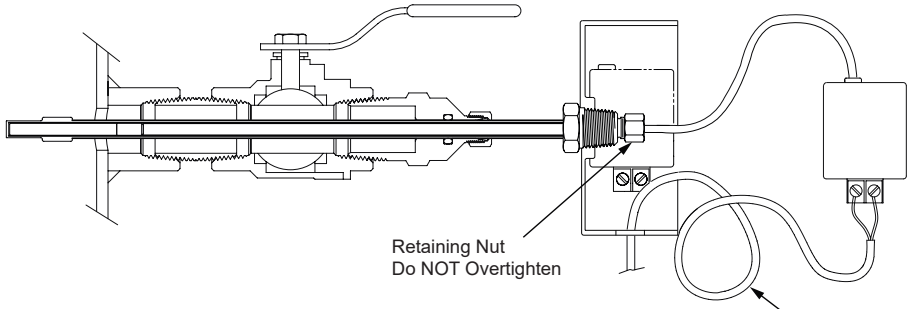
Hot Tap Thermowell Hardware Installation Instructions
For System-10 and System-20 BTU Meters

For Use With Kits: INSTL0033-TSH, INSTL0035-TSH, INSTL0060-TSH, INSTL060A-TSH, INSTL0065-TSH, INSTL0040-TSH, INSTL0501-TSC, INSTL0502-TSC



Kit includes:

- (2) Welded branch outlets or pipe saddles
- (2) Close nipples
- (2) 1” full port ball valves
- (2) Hot tap thermowells with attached junction boxes.

NOTE: Temperature sensors not included in kit.

IMPORTANT NOTE

ONICON BTU meters are precision measuring devices that must be installed according to the instructions contained in this document in order to maintain their accuracy and reliability.

This kit can be installed on a pressurized pipe. A hot tap drilling machine is used to create a ⅞” opening in the pipe wall. Once installed, this kit allows for insertion and removal of the thermowells without a system shutdown.

Directions:

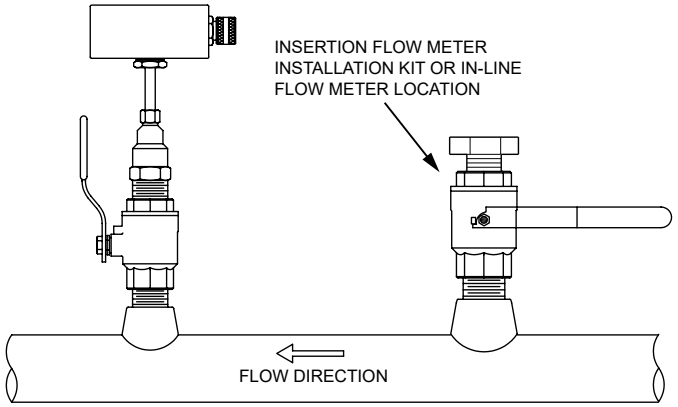
1. Identify an appropriate location for each thermowell.
2. Weld the branch outlets onto the pipe or install pipe saddles as per the manufacturer’s instructions.
3. Install the close nipples and ball valves. Use a paste type thread sealant. DO NOT use Teflon® tape.
4. Use a hot tap drilling machine with a ⅞” hole saw to drill the access hole.
5. Remove the drill and flush all debris out of the valve before installing the thermowells.
6. Install the hot tap thermowells according to the instructions attached to each thermowell.

WARNING

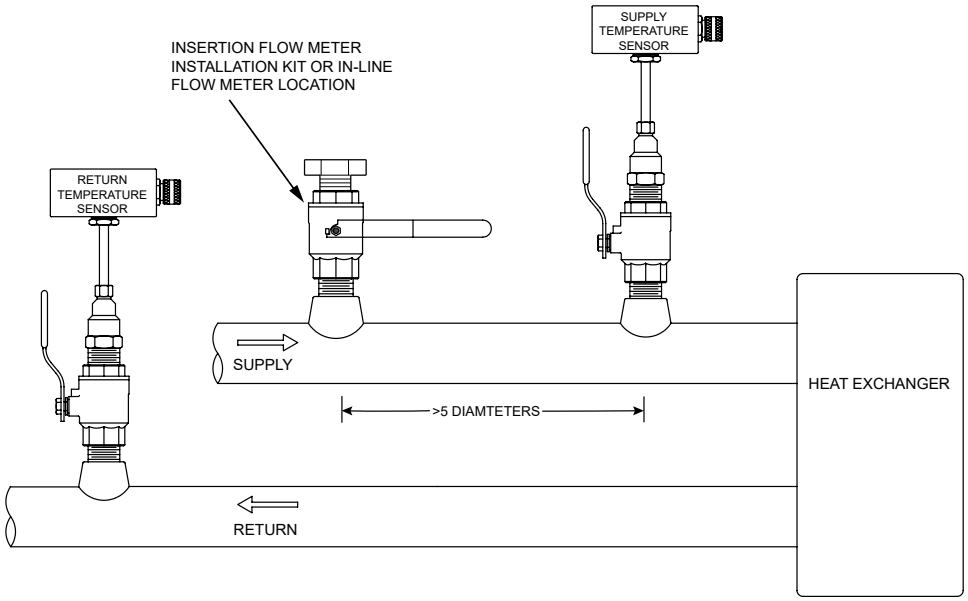
Hot tap thermowells are installed in pressurized pipes. Failure to follow the installation instructions attached to each thermowell could result in serious injury.

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Hot Tap Thermowell Site Selection General Guidelines

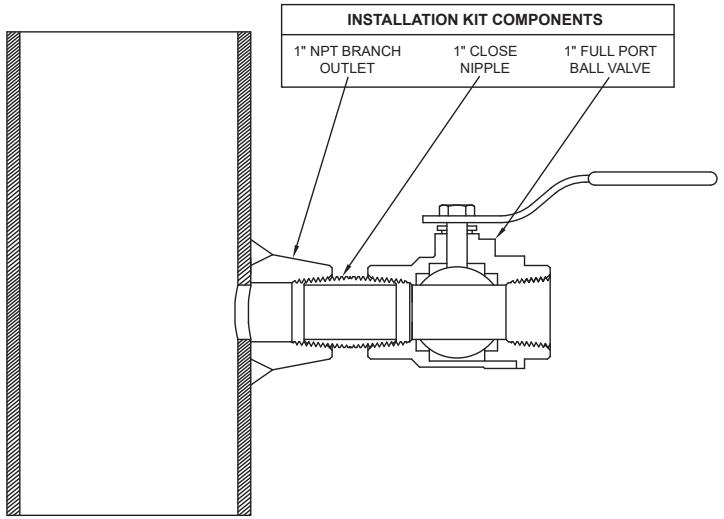


One sensor will be located in the same pipe with the flow meter. This sensor must be located at least 12” or 5 pipe diameters, whichever is greater, downstream from the flow meter.

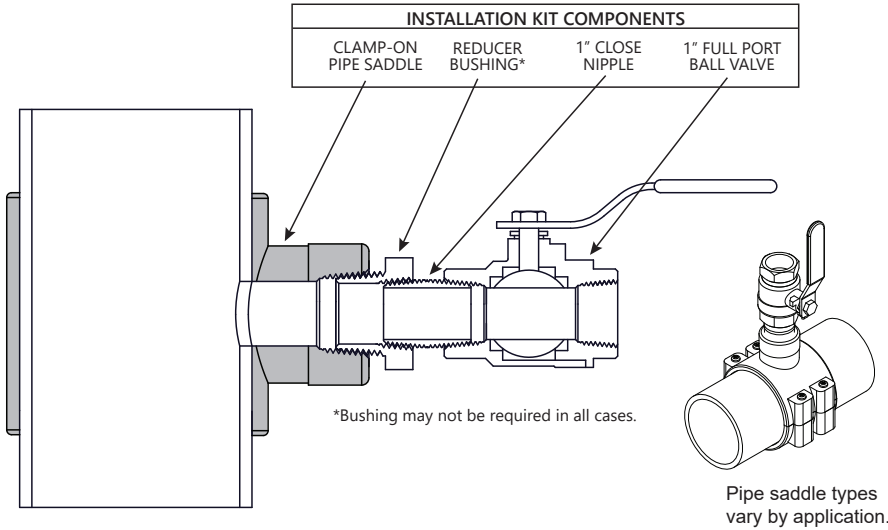


The supply and return sensors should be located in the piping system such that they only measure the temperature of the liquid flowing immediately in to and out of the section of the piping system where the energy measurement is made.

Hot Tap Installation Detail for Welded Steel Pipe



Hot Tap Installation Detail When Using a Clamp-on Saddle



Pipe saddle types vary by application.

IMPORTANT NOTE

ONICON provides pipe saddles to facilitate the installation of our flow meters. These saddles are purchased from leading manufacturers who provide quality products. Separate installation instructions accompany the saddle. Please follow these instructions when installing the saddle. Pay particular attention to bolt torque specifications and temperature/pressure limits.