

In designing the installation, we recommend:

1. The installation should include a high quality, low pressure loss shutoff valve upstream of the meter to prevent damage to the customer property when service is required. A downstream shutoff valve is likewise recommended.
2. The meter should be installed in a location that is accessible for reading, service and inspection.
 - a. We recommend a minimum of 8" of clearance from the register.
 - b. We recommend a minimum of 3" of clearance from all other sides of the meter.
3. The meter should be installed in a direct horizontal plane, with the register facing upright or at 90 degrees from upright, or in a direct vertical plane with the register facing the point of access for manual reading. The maximum degree of variance from either orientation should not exceed 5%.
4. For best results, we recommend 7.5" of strait pipe before the meter intake and 7.5" of strait pipe at the outflow of the meter. If both are not possible due to restriction of space, we recommend 7.5" of strait pipe before the meter intake and whatever length is available at the outflow.
5. The installation should be leak tight, with properly sized gaskets. When meter couplings are ordered from NextCentury, gaskets are provided. Whenever a meter is pulled from the line, discard and replace the old gaskets.
6. Although AWWA opposes the grounding of electrical systems to potable water delivery lines, such practices do exist. Therefore, to prevent harm to service personnel when working on a meter installed in a metal water piping system, make certain that an electrical grounding strap is installed around the meter.

According to NEC:

"NEC (2011) 250.68(B) Effective Grounding Path. The connection of a grounding electrode conductor or bonding jumper to a grounding electrode shall be made in a manner that will ensure an effective grounding path. Where necessary to ensure the grounding path for a metal piping system used as a grounding electrode, bonding shall be provided around insulated joints and around any equipment likely to be disconnected for repairs or replacement. Bonding jumpers shall be of sufficient length to permit removal of such equipment while retaining the integrity of the grounding path."

At the time of installation:

1. Thoroughly flush the service line upstream of the meter to remove dirt and debris. For new construction projects, install a spacer pipe in the designated meter location, until the water system is thoroughly flushed.
2. Set the meter in the line. Arrows on the side of the meter indicate the direction of flow.

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3. Do not over-tighten coupling connections; tighten only as required to seal.
 - a. Do not use pipe sealant or Teflon tape on meter threads.
 - b. Pipe sealant or Teflon tape may be used as appropriate in the threaded end of the coupling pipe.

4. With only an upstream shutoff valve installed,
 - a. Slowly open the shutoff valve to remove air from the meter and service line.
 - b. Slowly open a consumer faucet to allow entrapped air to escape from the service line. c. Close the consumer faucet.
 - d. Carefully observe the meter installation to ensure it is properly sealed with no leaks.

5. With an upstream and downstream shutoff valve installed,
 - a. Close the outlet (downstream) shutoff valve.
 - b. Slowly open the inlet (upstream) shutoff valve.
 - c. Carefully observe the meter installation to ensure it is properly sealed with no leaks.
 - d. Slowly open the outlet (downstream) shutoff valve.
 - e. Slowly open a consumer faucet to allow entrapped air to escape from the service line. f. Close the consumer faucet.

These installation instructions are consistent with recommendations by the American Water Works Association in AWWA Manual M6, Water Meters-Selections, Testing and Maintenance.