

Turbine Meter Installation Guide

MEASUREMENT PRODUCT | GUIDES

REV. #G061920A



The installation instructions detailed below are consistent with recommendations by the American Water Works Association in AWWA Manual M6; Water Meters—Selection, Installation, Testing, and Maintenance.

RECOMMENDED INSTALLATION:

Proper installation is essential to maximize the accuracy and life of Turbine Meters. Turbine Meters are sensitive to unbalanced water flow patterns caused by upstream piping arrangements, including pumps, valves, tees and elbows. Care should be taken to install the meter as far from these turbulence producing devices as possible.

- 1. When no AWWA C-701 strainer is installed, seven to ten pipe diameters of straight pipe are recommended immediately upstream of the meter.
- 2. When an AWWA C-701 strainer is installed, a minimum five pipe diameters of straight pipe are recommended upstream of the meter.
- 3. Downstream of the meter a minimum of three pipe diameters of straight pipe is recommended between the meter and a Service Saddle or Testing Tee.
- 4. There should be straight unobstructed pipe, a minimum of five pipe diameters, downstream of the outlet flange and turbulent producing fittings.
- 5. Valves immediately upstream of the meter should only be full-open gate valves.



NOTE: Turbine meters may be installed vertically or horizontally. When installed vertically, water flow must be moving upward through the meter. If installed horizontally meters must be installed in a level, horizontal position with both register and dial face facing upward as illustrated below. Turbine meters must operate in a completely full line of water at all times. The downstream pipe should be arranged to provide sufficient back pressure to maintain a full line of water.