



Meters & Electronics

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Aug
2020

PD40, PD50, MJ40, & MJ50 Water Meters – 1.5” and 2” *Installation/Start-up Instructions*

INTRODUCTION

The PD water meters are a volumetric-type meter operating on the oscillating piston principle. This utilizes a piston that water rotates in a working chamber, each piston revolution being equivalent to a known volume of water. Appropriate reduction gearing and a magnetic drive transfers the piston movement to a straight reading sealed register calibrated in U.S. Gallons.

The MJ water meter is a multi-jet type meter. Multi-jet meters use multiple ports surrounding an internal chamber to create multiple jets of water against an impeller, whose rotation speed depends on the velocity of water flow. A magnetic drive transfers the impeller rotation to a straight reading sealed register calibrated in U.S. Gallons.

All materials in the meter have been selected for their ability to withstand wear and corrosion and to have a long working life with no maintenance. Please note that this meter is a precision measuring instrument and should be handled as such, ie, do NOT carry the meter by the pulse wire.

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.

PREINSTALLATION RECCOMENDATIONS:

1. A shutoff valve upstream of the meter to prevent water damage to the customer property when service is required, a downstream shutoff valve is also recommended.
2. The meter should be installed in a horizontal plane, with the register upright, in a location accessible for reading, service and inspection.
3. The installation should be leak-tight, with properly sized gaskets. When meter connections are ordered from M&E, gaskets are provided. Proper gaskets and couplings also are available from a qualified plumbing distributor to connect to the NPT threads. Whenever a meter is changed out of a line, replace the old gaskets with new.
4. Although AWWA opposes the grounding of electrical systems to potable water delivery lines, such practices do exist. To prevent accidental harm to service personnel, make certain that an electrical grounding strap is installed around the meter.

DURING THE INSTALLATION:

1. Thoroughly flush the service line upstream of the meter to remove dirt and debris.
2. Remove meter spud thread protectors. Note: To protect the meter spud threads, store the meter with the thread protectors in place.
3. Set the meter in the line. Arrows on the side of the meter and above the outlet spud indicate the direction of flow.
4. Do not over-tighten connections; tighten only as required to seal. Do not use pipe sealant or Teflon tape on meter threads.
5. A. With upstream shutoff valve only: Open the shutoff valve slowly, to remove air from meter and service line. Open a downstream faucet slowly to allow entrapped air to escape. Close the faucet.

B. With upstream and downstream shutoff valves installed:
 1. To test the installation for leaks: Close the outlet (downstream) shutoff valve. Open the inlet (upstream) shutoff slowly until the meter is full of water.
 2. Open the outlet (downstream) valve slowly until air is out of the meter and service line. Open a downstream faucet slowly to allow entrapped air to escape. Close the faucet.
7. When installing meters equipped with electronic registers that require connections to external devices, please refer to installation instructions or diagrams provided by M&E.

MAINTENANCE/LUBRICATION

There are no maintenance or lubrication requirements.