

## KOBOLD INSTRUMENTS, INC

# Installation Bulletin & Product Guarantee

### Series WM Water Meters

## INSTALLATION

**New Service Lines:** New service lines should be flushed prior to installing water meters. A spool piece matching the length of the meter or an old meter with measuring element removed should be installed in place of the installed meter so the lines can be flushed.

**Electrical Grounded Pipe Systems:** "AWWA opposes the grounding of electrical systems to pipe systems conveying drinking water to a customer's premises". However, it is recognized that many pipe systems continue to be used as a grounding electrode system.

Section 260-81 (A) of the National Electric Code (NEC) requires that "continuity of the grounding path or bonding connection to interior piping shall not rely on water meters." All meters should be permanently ground strapped to prevent accidents to serviceworkers changing meters.

**Piping:** It is recommended that meters be mounted in a horizontal position, protected from freezing, damage and tampering. The line opening in which the meter is to be set should match the lay length of the meter, allowing slight additional space for coupling gaskets. The service line configuration should have straight piping, which is necessary for proper flow conditioning both upstream and downstream of the meter. The meter should not be used to straighten misaligned pipes because of the potential for damage to the meter.

**Meter Installation:** To prevent cross threading at installation, set the meter between the coupling nuts with the direction of flow through the meter corresponding to the direction of flow in the system. Engage the coupling nuts to the threaded meter ends. Check to ensure that the nuts are properly aligned to avoid cross-threading damage to the threaded meter ends.

Two fiber gaskets are provided for sealing of the coupling to the meter. No pipe dope or sealants should be used on the meter end of the connection.

**Put Meter in Service:** After the line has been thoroughly flushed, open the shut-off valve slowly to pressurize the service line to the meter setting. Slowly open the inlet side valve, which will fill the meter with water. Check for leaks around the meter and connections. Open the meter outlet side valve slowly to pressurize the consumer side of the system. Open a consumer faucet slowly to allow entrapped air to escape.

Above installation instructions adapted from ANSI/AWWA Standards C708-05, Cold-Water Meters-Multijet Type, and C712-02, Cold Water Meters-Singlejet Type, by permission. Copyright © 2005 and 2002, American Water Works Association.

## GUARANTEE FOR KOBOLD INSTRUMENTS, INC. WATER METERS

**Materials and Workmanship:** If used and installed as described above KOBOLD guarantees WM series water meters to be free from defects in materials and workmanship for a period of 12 months after installation or 18 months after shipment from KOBOLD, whichever comes first.

**Claims:** Any meter covered by this guarantee that fails to meet the terms of the stated guarantee will be repaired or replaced, at the option of KOBOLD, without additional charge to the customer. The customer is responsible for removing the meter from service, returning it to KOBOLD and for freight cost to and from KOBOLD. Customer is also responsible for reinstalling repaired or replaced product.

**Limits of Liability:** This guarantee does not apply to meters damaged by aggressive water conditions, foreign matter in water, vandalism, negligence, installation not in accordance with KOBOLD installation instructions, mis-application or other use not as described above, acts of God or other conditions beyond the control of KOBOLD.

The foregoing express guarantee is in lieu of all other guarantees or warranties whatsoever, whether express, implied or statutory (except for warranty of title), including but not limited to implied warranties of merchantability and fitness for a particular purpose.

Customers exclusive remedy and KOBOLD's sole liability on any claim, whether in tort (including strict liability), negligence, contract, warranty or otherwise, for any meter which fails to meet the terms of the guarantee stated above, shall be limited to repair or replacement as described above. In no event shall KOBOLD or its business partners be liable for incidental or consequential damages of any kind, including but not limited to loss of profits or revenue, loss of use, cost of capital, cost of substitute equipment, facilities or services, downtime costs, delays and claims of customers of the customer or other third parties.