

Material Specification – 18

MAGNETIC DRIVE TURBINE TYPE WATER METERS

1. GENERAL

Magnetic drive turbine type water meters, 1 1/2-inch through 16-inch, shall be manufactured in accordance with AWWA C701 with the following additional requirements or exceptions.

2. SIZES

This Specification covers magnetic drive turbine type water meters in 1 1/2-inch through 12-inch nominal diameters.

3. METER DESCRIPTION

Meters shall be designed for the easy removal of internal parts, the strainer, and the meter. Strainers shall be furnished with each meter. For meters, 1 1/2-inch and 2-inch, the strainer shall be an integral part of the meter main case. The internal parts of the strainer shall be stainless steel. The casing of the strainer shall be provided with a removable top plate with stainless steel fasteners. Stainless steel mounting bolts and flange gaskets shall be furnished with each meter.

4. METER MAIN CASES/FLANGES

Meter main cases shall be made of a copper alloy in accordance with AWWA C701. For meters, 1 1/2-inch and 2-inch, flanges shall be 2-hole, oval type. For meters, 3-inch and larger, flanges shall be round in accordance with AWWA C701. Meters, 12-inch and larger, may be CI with a corrosion-resistant coating approved by Denver Water.

Flanges shall be an integral part of the main case and composed of the same material as the case; flanges shall not be removable from the main case and shall not have slotted holes. Flanges shall be machined to a flat surface with a serrated finish in accordance with AWWA C207. A test port shall be supplied on the outlet side of the meter.

5. REGISTERS/REGISTER BOXES

Registers and register boxes shall be in accordance with [MS-15](#).

6. METER NUMBERS

The Denver Water meter number shall be plainly stamped or engraved on the meter main case; it shall be heat stamped in a contrasting color on the plastic register caps and attached to the meter in form 39 bar code using a separate tag. Paper or plastic number labels affixed to the register are not acceptable.

7. MEASURING TURBINES

Measuring turbines shall be made of materials in accordance with AWWA C701.

8. TURBINE SPINDLES

Turbine spindles shall be made of stainless steel or monel.

9. EXTERNAL FASTENERS

External fasteners shall be stainless steel in accordance with AWWA C701.

10. QUALITY CONTROL

The Manufacturer shall submit a written statement that the inspection and all specified tests have been completed and that results comply with the requirements of these Standards. Components in contact with potable water shall be certified to comply with NSF/ANSI 61 and NSF/ANSI 372, and a copy of the certification shall be provided to Denver Water, if requested.

11. DOCUMENTATION

The meter shall have a firmly attached tag documenting the Manufacturer’s serial number, the Denver Water meter number, a form 39 bar code representation of the Denver Water meter number, the Manufacturer’s certified test results, and other identifying characteristics such as nominal size, Manufacturer, meter model number, and register type and model.

12. APPROVED MANUFACTURERS AND MODELS

Manufacturers	Models	Size (Inch)
Badger Meter, Inc.	Recordall Turbo Series Meter	1 1/2 to 12
Neptune Technology Group	High Performance (HP) Turbine Meter	1 1/2 to 10

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