

Material Specification – 18 for MAGNETIC DRIVE TURBINE TYPE WATER METERS 1 1/2 THROUGH 16-INCH

1. GENERAL

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

2. 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 1 1/2 and 2-inch meters, 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.

Components in contact with potable water shall be certified to comply with NSF/ANSI 61, NSF/ANSI 61 Annex G, and NSF/ANSI 372.

3. METER MAIN CASES/FLANGES

Meter main cases shall be made of a copper alloy in accordance with AWWA C701.

Main cases 1 1/2 through 10-inches shall be in accordance with NSF/ANSI 61 requirements. For 1 1/2 and 2-inch meters, flanges shall be two hole, oval type. For meters that are 3-inches and larger, flanges shall be round in accordance with AWWA C701. Meters that are 12-inches and larger may be CI with a corrosion-resistant coating approved by Denver Water. A test port shall be supplied on the outlet side of the meter.

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.

4. REGISTERS/REGISTER BOXES

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

5. METER NUMBERS

The Denver Water meter number shall be plainly stamped or engraved on the meter main case and on the brass register caps; 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.

6. MEASURING TURBINES

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

7. TURBINE SPINDLES

Turbine spindles shall be made of stainless steel or monel.

8. EXTERNAL FASTENERS

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

9. CERTIFICATION

The manufacturer shall furnish a sworn statement that the inspection and all specified tests have been completed and that results comply with the requirements of these Standards. A copy of the Certification shall be provided to Denver Water.

10. 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, register type, and model, etc. Each shipment of meters shall be accompanied by a CD-ROM or USB drive that contains a file with this information in tabular form for upload into Denver Water's meter inventory system.

11. ACCEPTABLE MANUFACTURERS AND MODELS

Manufacturers	Models
Badger Meter, Inc.	Recordall Turbo Series Meter
Neptune Technology Group	HP High Performance Turbine Meter

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