

## Material Specification – 17 for MAGNETIC DRIVE COMPOUND TYPE WATER METERS 3 THROUGH 6-INCH

### 1. GENERAL

Magnetic drive compound type water meters 3 through 6-inch shall be manufactured in accordance with AWWA C702 with the following additional requirements or exceptions.

### 2. METER DESCRIPTION

The displacement section of the meter may be a disc or oscillating piston type whereas the main line shall be turbine type. Meters shall be designed for the easy removal of internal parts so as not to disturb the connections to the pipeline, and for the removal of the meter. A tapped boss shall be provided near the outlet of the meter to provide for field-testing without the removal of the meter. 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 casing shall be made of copper alloy in accordance with AWWA C702.

Flanges shall round in accordance with AWWA C 702. Flanges shall be an integral part of the main case and composed of the same material; 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.

### 4. REGISTERS/REGISTER BOXES

Meter 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. Plastic number labels affixed to the register are not acceptable.

The manufacturer's serial numbers shall run consecutively for each meter in the group ordered and be stamped on the top of the register cap.

### 6. PISTON/DISC SPINDLES, THRUST ROLLERS, AND THRUST ROLLER BEARING PLATES

Piston/disc spindles, thrust rollers, and thrust roller bearing plates shall be of monel or stainless steel in accordance with AWWA C702.

### 7. MEASURING CHAMBER DIAPHRAGMS

Measuring chamber diaphragms shall be of monel or stainless steel in accordance with AWWA C702.

**8. DRIVE SPINDLE**

The upshaft, or drive spindle, shall be stainless steel or a suitable engineering plastic. The driving pawl and magnet shall be securely fastened to the drive spindle in a manner that prevents the loss of the pawl during normal operation of the water meter.

**9. EXTERNAL FASTENERS**

External fasteners shall be stainless steel in accordance with AWWA C702.

**10. TORRENT SECTION**

The torrent section shall be constructed in accordance with AWWA C702 and provided with stainless steel fasteners.

**11. 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.

**12. DOCUMENTATION**

The meter shall have a firmly attached tag that documents 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 the information in tabular form for upload into Denver Water's meter inventory system.

**13. ACCEPTABLE MANUFACTURERS AND MODELS**

<b>Manufacturers</b>	<b>Models</b>
Badger Meter, Inc.	Recordall Compound Series Meter
Neptune Technology Group	Tru/FLOW Compound Meter

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