

**Material Specifications – 17
for
MAGNETIC DRIVE COMPOUND TYPE WATER METERS
3-INCH THROUGH 6-INCH**

1. GENERAL:

Magnetic drive compound type water meters, 3-inch through 6-inch, furnished under this Standard, shall be manufactured in strict accordance with the latest edition of AWWA C702 and C707 with the following additional requirements. The displacement section of the meter may be a disc or oscillating piston type, whereas the main line shall be of the 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 in order to provide for field-testing without the removal of the meter. Stainless steel mounting bolts and flange gaskets shall be furnished with each meter.

2. MAIN CASES/FLANGES:

The main cases shall comply with ANSI/NSF 61 requirements. Flanges shall be a four hole, round type and shall NOT have slotted holes. The flanges shall be an integral part of the main case and shall be composed of the same material; flanges shall NOT be removable from the main case.

3. REGISTERS/REGISTER BOXES:

Meter registers and register boxes shall comply with the requirements of [MS-15](#).

4. METER NUMBERS:

The Denver Water meter number shall be plainly chisel stamped on the meter main case and on the brass register caps. This meter number shall be heat stamped in a contrasting color on the plastic register caps. The Denver Water meter number shall be attached to the meter in bar code form 39 using a separate tag. Dimple type stamping methods and paper or 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 shall be stamped on the top of the register cap.

5. 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.

6. CHAMBERS:

Chambers shall be made of copper alloy that contains no less than 85% copper.

7. MEASURING CHAMBER DIAPHRAGMS:

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

8. DRIVE SPINDLE:

The up shaft, 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 the normal operation of the water meter.

9. EXTERNAL FASTENERS:

External fasteners shall be stainless steel as described in AWWA C702.

10. TORRENT SECTION:

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

11. TEST CERTIFICATIONS:

Meters shall comply with the AWWA test requirements for new coldwater compound type water meters. Each meter shall be furnished with a tag attached it that displays the results of the certified accuracy tests performed by manufacturer. This tag shall identify the meter by the manufacturer's meter number, the Denver Water meter number and a bar code representation in form 39 of the Denver Water meter number.

12. DOCUMENTATION:

The meter shall have a firmly attached tag that documents the manufacturer's serial number, the Denver Water meter number, a 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:

Badger Meters, Inc.: RCDL Compound Series Meter
Neptune Technology Group: Tru/FLOW Compound Meter
Sensus Metering Systems: SRH Compound Meter

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