

## **Material Specification – 19**

### **for**

### **MAGNETIC DRIVE FIRE SERVICE TYPE WATER METERS**

### **3 THROUGH 10-INCH TURBINE TYPE**

**1. GENERAL**

Magnetic drive turbine type fire service water meters 3 through 10-inch shall be manufactured in accordance with AWWA C703 with the following additional requirements or exceptions.

**2. METER DESCRIPTION**

Main casings of the meter, internal parts, and strainers shall be designed for easy removal. Strainers, stainless steel mounting bolts, and flange gaskets shall be furnished with each meter. The strainer must be UL-listed or FM approved.

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 cast iron in accordance with AWWA C703.

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. MAINLINE METER**

The mainline meter shall be a turbine type meter that shall be UL-listed or FM approved.

**5. BYPASS METER**

The bypass meter may be the turbine type or the compound type. Ball valves shall be installed directly upstream of the meter and downstream of the bypass meter check valve.

**6. REGISTERS/REGISTER BOXES**

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

**7. 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.

**8. COATING**

Main cases shall have a polymerized coating in accordance with ANSI/AWWA C550.

**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 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.

**11. ACCEPTABLE MANUFACTURERS AND MODELS**

<b>Manufacturers</b>	<b>Models</b>
Badger Meter, Inc.	Fire Series Assembly
Neptune Technology Group	HP Fire Service Turbine Meter

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