

# Cold Water Meters/ Fire Hydrant Meter Type

#### **GENERAL**

All meters furnished shall be produced in a manufacturing facility whose QMS is ISO 9001 certified.

#### **TYPE**

All meters shall be of the horizontal-axis, high-velocity type per AWWA Class II and shall be designed for portability in metering cold water flow from fire hydrants. Meter shall be certified to NSF/ANSI 372 requirements.

#### **CAPACITY**

The capacities of the meter in terms of normal operating range and maximum intermittent flow rates are as follows:

Size (in)	Normal Operating Range (gpm)	Intermittent Flow Rate (gpm)
3"	5-450	560

#### SIZE AND WEIGHT

The overall length of the meter shall be as follows:

Meter Size (in)	Meter Length (in)	Weight (lbs)
3"	15 1/2" less Couplings	23
	19 1/4" with Couplings and Gate Valve	29

#### CASE AND COVER

The maincase shall be cast aluminum. The cover shall be cast from a lead free, high-copper alloy containing a minimum of 85% copper. The maincase shall be finished with a thermoplastic coating for corrosion resistance. The size, model, arrows indicating direction of flow, and "AWWA Class II" shall be cast in raised characters on the maincase or cover.

The case shall be equipped with a single, easily replaceable "balanced handle" for ease of carrying and installation. The handle shall not be integral with the meter body.

The cover shall contain a calibration vane for the purpose of calibrating the turbine measuring element during testing and maintenance. The calibration vane shall be mounted under the register or be covered by a protective cap that is attached in a tamper-resistant manner.

#### **EXTERNAL BOLTS**

Casing bolts shall be made of AISI Type 316 stainless steel.



#### CONNECTIONS

The maincase shall be equipped with a standard 21/2" brass female swivel fire hose coupling assembly on the inlet side. On the outlet side, it shall include a standard brass male hose coupling. The assembly shall also include a 2" brass gate valve.

#### **REGISTERS**

Registers shall be permanently roll-sealed, straight-reading, indicating in cubic feet, gallons, or cubic metres. Registers shall include a center-sweep test hand, a low flow indicator, and a glass lens.

Registers shall be serviceable without interruption of the meter's operation.

#### REGISTER BOX SEALING

The register box shall be affixed to the top cover by means of a plastic tamperproof seal pin that must be destroyed in order to remove the register. The register cover must be of a locking design.

## METER SERIAL NUMBER

The meter serial number shall be imprinted on the register box cover.

#### MEASURING CHAMBER

The turbine measuring chamber shall be a self-contained unit attached to the cover for easy removal.

#### UNITIZED MEASURING ELEMENT

A UME is a complete assembly, factory-calibrated to AWWA Standards, that includes the cover, registers, and a turbine measuring element. It shall be easily field-removable from the meter body without the requirement of unbolting flanges.

#### INTERMEDIATE GEAR TRAIN

The intermediate gear train shall be directly coupled to the turbine rotor and magnetically coupled to the register through the meter cover. All moving parts of the gear train shall be made of a self-lubricating polymer or stainless steel for operation in water.

### **STRAINERS**

The fire hydrant meter shall be capable of containing an internal strainer and orifice plate.

Acceptable meters shall be the Neptune® Fire Hydrant Meter or approved equal.

