## Turbine Meters (TM)

2", 3", 4", 6", 8", 10"



## **Specifications**

**Applications -** For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

**General-** All cold Turbine water meters conform to the AWWA C701 Cold Water Meters - Turbine Type, for Customer Service standard, latest revision, or as otherwise stated.

**Lead Free Main Case** - The Turbine Meter (TM) main casing is epoxy coated cast iron. Turbine Meters meet the changes to the Safe Drinking Water Act. The serial number is permanently marked on the drop-in along with the size, direction of flow and manufacturer (RG3).

**Measuring Element -** The measuring element consists of the measuring element insert, rotator, inlet straightening vanes and the calibration assembly. All of the spindles are stainless steel.

**Test Plug -** A test plug is incorporated to allow for field accuracy and pressure testing.

**Construction -**Turbine Meter construction consists of four basic components: main case, measuring element, register housing and permanently sealed register. The measuring element consists of a rotor, straightening vanes, accuracy regulator, spindles, gears and a drive coupling assembly. Rotor rotation is transmitted through magnetic coupling to the register gearing. All bolts are made of stainless steel to prevent corrosion. The register housing is cast bronze for durability.

**Installation** - Turbine Meters can be installed in virtually any position as long as the totalizer is not placed upside down. Cavitation can present a significant error curve, so RG3 Meter Company recommends 10 pipe diameters of straight pipe upstream of the meter and 5 pipe diameters of straight pipe downstream. It is highly recommended that a Z-plate strainer be used to protect the turbine and help reduce the effects of turbulence. Installing a separate flow-straightening device upstream ensures the highest possible accuracy.

The meter must be installed in a clean pipeline, free from any foreign materials. The meters should be installed with the direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal or inclined lines up to 45 degrees.

**Maintenance -** The Turbine Meter is designed to provide long-term service with minimal maintenance. When maintenance is required, the meter can remain in place and the measuring element with integral straightening vanes can be removed, repaired or replaced. Pre-tested and calibrated measuring elements are available for purchase and exchange.







**Direct Read Sealed Registers** - These registers are the straight read, magnetic drive, odometer type with a sweep hand and leak detector. Registers are hermetically sealed to prevent fogging. Registers are roll sealed and dry with a 360° test view. All direct reading register cups are made of copper to prevent corrosion and covered with a high-strength, impact-resistant glass lens to prevent breakage. The register housings and lids are made of high strength polymer or copper alloy. All registers are secured to the main case by means of a tamper-proof Torx screw to allow for in-line service replacement.

Registers include the following: Company name Month and year of manufacture Center sweep hand Large, easy to read numbers Size of meter Unit of Measure (Example U.S. Gallons, Cubic Feet, or m3) Low flow / leak indicator





## **Register Options -**

Direct Read - Bronze or Engineered Plastic Housing Tesla 4 TR- AMR / AMI - RF Transceiver Register Tomahawk - AMR/AMI - Absolute Encoder Register

**Magnetic Drive** - Direct magnetic drive registers use high strength magnets to provide positive, reliable and dependable register coupling.

Characteristics- Meets or exceeds latest revision of AWWA C701 dimensional standards. Rated at 120 °F.

Test Plug Standard	Copper Can Sealed Register	Direct Read & AMR/AMI Register Options	Large Numbers for Easy Reading	Easy Maintenance	Easily Read in a Pit or Meter Box	Retrofit AMR/ AMI Register After Installation
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**Tamper-Proof Features -** Registers shall contain a locking device to prevent theft of water usage. Removing the register requires a special tool.



2912 South Access Rd. Longview, TX 75602 PH: 903-753-3456 Fax: 903-753-5678 RG3METER.COM



## **Turbine Meters (TM)**

2", 3", 4", 6", 8", 10"







Model		TM20	TM30	TM40	ТМ60	TM80	ТМ10
Size		2"	3"	4"	6"	8"	10"
Start Flow	USGPM	7/8	1 - 1/8	1 - 3/8	7 - 1/2	8	14
Low Flow	USGPM	2	2 - 1/2	5	12	20	30
High Flow	USGPM	400	550	1250	2500	4500	7000
Continuous	USGPM	200	450	1000	2000	3500	5500
Max. Pressure	P.S.I.	160	160	160	160	160	160
Max. Temp	Deg.F	120°	120°	120°	120°	120°	120°
Length	Inches	10"	12"	14"	18"	20"	26"
Height	Inches	9-1/2"	10-1/4"	11"	12-7/8"	14 - 1/4"	19"
Width	Inches	7"	7-1/2"	9"	11"	13-1/2"	16"
Weight	Pounds	24 lb	32 lb	38 lb	84 lb	126 lb	205 lb
Flange Holes		6 *TM20 fits 4 hole round or 2 hole oval flanges	4	8	8	8	12

\* Due to continuous research and product enhancement, RG3 Meter Company reserves the right the change product or system specifications without notice, except to the extent an Outstanding contractual obligation exists.





