Specification Sheet

Industrial Turbine Meters

Model T3000 Cast Iron, Magnetic Drive, Round Flanged Ends

Sizes 10" & 12"

Description

Operation. T3000 Turbine Meters are designed for installation where occasional low and moderate to high sustained flows are demanded. Water passes through the meter without a change in flow direction, driving a helix rotor in direct proportion to the quantity of water passing through the meter. Rotor revolutions are transferred to a register by appropriate reduction gearing and a magnetic drive.

Compliance to Standards. The T3000 Turbine Meter complies with all performance and material requirements of the American Water Works Association Standard C701, Class II In-Line (High-Velocity) Type, as most recently revised.

Installation. The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal, inclined or vertical lines. It is recommended that a plate strainer be used to protect the-measring element and help reduce the effects of turbulence. The installer should consider a bypass pipe with gate valves for use during maintenance and a downstream test plug for future field testing.

Application. The meter is for use in POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will perform with accuracy registration of 100% ± 1 1/2% within the normal flows*. Both pressure loss and accuracy tests are made before shipment. No adjustments need be made before installation.

Construction. The meter consists of a main case, a measuring element, a top cover and a magnetically driven register assembly. The main case is cast in iron with raised characters showing model, size, and direction of flow. The measuring element assembly consists of the rotor, accuracy regulator, spindles and

Specifications

Performance	**10"**	**12"**
95%-101% Accuracy GPM	55	95
98.5%-101.5% Accuracy GPM	65-5500	110-7000
Continuous Flow GPM	3200	4300
Maximum Flow GPM	5500	7000
Operating Pressure psi	150	150
Operating Temperature °F	120	120
Sweep Hand Registers		
US Gallons	1000	1000
Cubic Feet	100	100
Cubic Meters	10	10
Imperial Gallons	1000	1000
Capacity of Register		
US Gallons (millions)	1000	1000
Cubic Feet (millions)	100	100
Cubic Meters (millions)	10	10
Imperial Gallons (millions)	1000	1000
Register Types	Permanently sealed direct reading register	
Materials		
Main Case	Spheroidal Graphite Iron	
Top Cover Plate	Spheroidal Graphite Iron	
Body O-Ring	Neoprene Rubber	
Case Nuts and Bolts	Epoxy Coating	
Body Coating Paint	Epoxy Coating	
Measuring Element	Bronze	
Straightening Vane Assembly	Bronze	
Regulator Seal Plug	Stainless Steel	
Rotor	Polypropylene	
Rotor Bushings	PTFE Compound	
Rotor Thrust Bearings	Ceramic Jewel	
Rotor Spindle	Tungsten Carbide	
Undergearing	Polyacetal Resin	
Domed Register Lens	Tempered Glass	
Register Housing and Lid	Polymer or Bronze	
Register Can	90% Copper Alloy	

gears, filters and undergear assembly. The measuring element is attached to the underside of the cover by four lugs, securing nuts and washers. The flow straightener and front vane bearing are secured to the measuring element assembly by four (4) stainless steel bolts. The main case and cover are assembled with a flat gasket and stainless steel nuts, bolts and washers. Two (2) joint breaking screws are provided to aid in disassembly. There is a register adapter plate secured to the top cover. The register assembly is secured to the plate with a slotted screw and is hinged over the inlet throat. However, the register can be rotated and locked in any 360 degree position therein.

Register. The register is contained within a 90% copper seamless can which is oven cured at 150°F for 90 minutes to eliminate condensation. The 1/4" true tempered glass lens is domed and secured in an "L" shaped gasket, then roll sealed to produce a permanently sealed design. To assure easy reading, the totalizer wheels are large and color coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, the extra thin sweep hand does not interfere with meter reading, and the flow indicator will give visual indication of plumbing leaks.

Magnetic Drive. The magnetic drive design eliminates miscoupling associated with right angle drives. Torque is absorbed in the undergear assembly below the driving magnet. Consequently, the driving magnet at all flows is turning slowly, assuring magnetic coupling with the register assembly. The undergearing is protected by an appropriately filtered encasement.

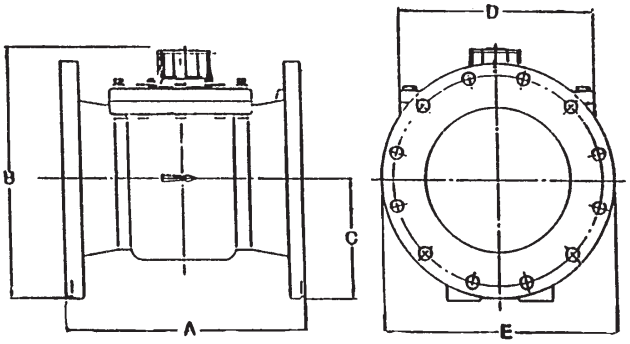
Connections. This meter is available with twelve-bolt round flanged end connections. Round flanged connections conform to ANSI B16.1 cast iron pipe flange, Class 125. Cast iron companion flanges are available. The companion flanges are faced, drilled and tapped with ANSI B2.1 internal taper pipe thread and conform to ANSI B16.1 cast iron pipe flange, Class 125.

Maintenance. The measuring element and flow straightener can be removed, repaired or replaced without removing the main case from the service line. Pretested and calibrated measuring elements with cover plates and registers are available for exchange or purchase. In addition, AMCO Water Metering Systems maintains a fully equipped and staffed repair facility in Ocala, Florida.

Pulsers. See Specification Sheet #LRP/HRP-T3000.
LRP (2-wire) Reed Switch, 4 Watt (50V AC/DC Max.)
HRP (3-wire) Slotted Disc, 6-15 VDC
Both units require power from an external source.

Dimensions and Net Weights

Meter Size	Dimension (Inches) A	B	C	D	E	Weight (lbs.)
10”	17 3/4	18 15/16	8 1/4	15 7/8	16 1/8	246
12”	19 3/4	20 3/8	9 3/4	15 7/8	19 1/16	278



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The company’s policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. hn

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