Specification Sheet

Industrial Turbine Meters

Model T3000 Bronze, Magnetic Drive, Flanged Ends

Sizes: 1 1/2", 2" and 3"

T3000CB

T3000CP

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 measuring 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 tee for future field testing.

Application. T3000 meters are 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 case cover and a magnetically driven register assembly. The main case is cast in bronze with raised characters showing model, size and direction of flow. The case has a throated inlet. A case dowel pin is inserted for locating the cover plate. The measuring element assembly consists of the rotor, straightening vanes, accuracy regulator, spindles and gears, filters and undergear assembly. The measuring element is attached to the

Specifications

Performance	**1 1/2"**	**2"**	**3"**
95%-101% Accuracy GPM	3	3	4
*98.5%-101.5% Accuracy GPM	4-200	4-200	5-750
Continuous Flow GPM	160	160	600
Maximum Flow GPM	200	200	750
Operating Pressure psi	150	150	150
Operating Temperature °F	120	120	120
Sweep Hand Registers			
US Gallons	100	100	100
Cubic Feet	10	10	10
Cubic Meters	1	1	1
Imperial Gallons	100	100	100
Capacity of Register			
US Gallons (millions)	100	100	100
Cubic Feet (millions)	10	10	10
Cubic Meters (millions)	1	1	1
Imperial Gallons (millions)	100	100	100

Register Type	Permanently sealed direct reading register.
Materials	
Main Case	Bronze
Top Cover Plate	Bronze or Polymer
Body O-Ring	Neoprene Rubber
Case Bolts	Stainless Steel
Measuring Element	Polyphenylene Oxide
Rotor	Polypropylene
Rotor Bushings	PTFE Compound
Rotor Thrust Bearing	Ceramic Jewel
Rotor Spindle	Tungsten Carbide
Undergearing	Polyacetal Resin
Register Lens	Tempered Glass
Register Housing and Lid	Polymer or Bronze
Register Can	90% Copper Alloy

side of the cover with four stainless steel screws and washers, one insert of which is placed eccentrically in the cover. The internal regulator assembly is interconnected with an external regulator shaft located on top of the cover. This allows meter calibration without depressurizing the test bench or meter service. The regulator is protected by a tamperproof device. The main case and cover are assembled with an O-ring gasket and stainless steel bolts. The register assembly is secured to the main case 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 secured in an "L" shaped gasket, then roll sealed to produce a permanent 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 detect 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. As a result, the driving magnet is turning slowly at all flows, assuring magnetic coupling with the register assembly. The undergearing is protected by an appropriately filtered encasement.

Connections. All sizes are available with 4-bolt round flanged end connections. The 1 1/2" and 2" meters are also available with 2-bolt oval flanged-end connections. Both flanged connections conform to ANSI B16.1 cast-iron pipe flange, Class 125. Both bronze and 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.

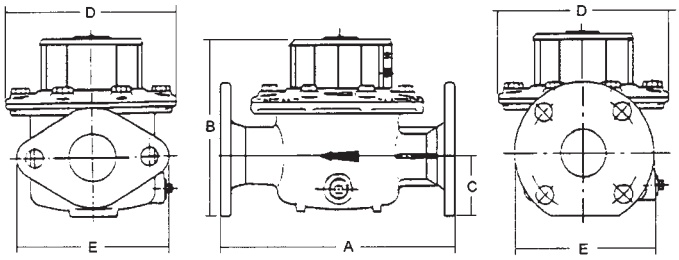
Maintenance. The measuring element with integral straightening vanes can be removed, repaired or replaced without removing the main case from the service line. Blank cover plates are available for use during repair. Pretested and calibrated measuring elements with cover plates and registers are available for exchange or purchase. In addition, AMCO Water Metering Systems Inc. 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	Dimensions (Inches) A	B	C	D	E	Weight (lbs.)
1 1/2" Oval	10	7 3/4	2 7/16	7 3/8	5 5/8	19 1/2
1 1/2" Round	10	7 3/4	2 7/16	7 3/8	5 1/16	20
2" Oval	10	7 3/4	2 7/16	7 3/8	6 1/8	21 1/2
2" Round	10	7 7/8	2 9/16	7 3/8	6 1/16	22
3"	11 7/8	9 3/8	3 13/16	7 3/8	7 1/2	33 3/8

Note: Add ¾" to overall height with polymer top plate (1½" - 3")



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