

**MODEL LP-04**

150 psi FLANGED TUBE METER  
SEALED METER MECHANISM – MAGNETIC DRIVE  
STAINLESS STEEL STRAP-ON SADDLE  
INDICATOR-TOTALIZER  
SIZES 4" thru 16"

**SPECIFICATIONS**

**METER** shall be a velocity propeller type, magnetic drive, sealed housing, stainless steel strap-on saddle meter for 150 psi working pressure. The meters shall have provisions for using seal wires to assure the meter is not removed by unauthorized personnel. The meter shall be a **WATER SPECIALTIES** \_\_\_\_\_ inch **MODEL LP-04** with a sealed indicator having a range of 0 to \_\_\_\_\_ and shall be equipped with a six digit sealed totalizer reading in units of \_\_\_\_\_ and shall be accurate within  $\pm 2\%$  of true flow within a range of \_\_\_\_\_ to \_\_\_\_\_ GPM or an approved equal. The meter assembly shall be constructed as follows:

**METER TUBE** shall be fabricated steel pipe and use 150 lb. AWWA Class "D" flat face steel flanges. The internal and external of the meter tube shall be blasted to near white metal and coated with 12-15 mils of fusion epoxy coating, applied by the fluidized bed method. Meter tubes shall have a constant nominal inside diameter to offer minimum obstruction to the flow and shall be furnished with four straightening vanes.

**METER SADDLE** shall be 16 GA. stamped stainless steel. The meter saddle shall have the direction of flow, and a non-corrosive tag containing the meter serial number attached to the saddle. Strap-on saddles will be formed to fit each particular pipe size. A "D" shaped neoprene compression ring shall seal the saddle to the pipe line. Flat gaskets or other type seal will not be accepted.

**GEARBOX** shall be bronze, o-ring sealed to keep water from entering the meter mechanism. The drive mechanism shall be magnetically driven from the propeller, through a magnetic coupling and be isolated from the water flow by means of an o-ring sealed housing. A rigid stainless steel vertical shaft is required from the miter gear frame to the indicator-totalizer, flexible cables will not be accepted.

**PROPELLER** shall utilize a water lubricated ceramic sleeve and spindle bearing system. The stainless steel/ceramic spindle on which the propeller is mounted shall be parallel to the direction of the water flow in the pipe. Dual ceramic thrust bearings shall be standard on all meters to handle flows in both the forward and reverse directions. Ball bearings or other types of sleeve bearings will not be accepted. The propeller shall be a conical shaped, three bladed propeller, injection molded of thermoplastic material, resistant to normal water corrosion and deformity due to high flow velocities. Propellers, which have been trimmed, shaved or require varying change gears for the same size meters, will not be accepted.

**INDICATOR-TOTALIZER** shall have a full 4" diameter indicator dial having a range of 0 to \_\_\_\_\_ (specify indicator range and units) and shall be equipped with a six digit, straight reading type totalizer with black numbers on white wheels at least 3/16" high. The totalizer shall read in units of \_\_\_\_\_ (specify totalizer units) and shall have a test hand to check the accuracy of the indicator. The indicator drive mechanism shall be temperature compensated, so the indicator hand shall be accurate and linear within  $\pm 1\%$  at all points on the dial when the unit is operated within the temperature range of 32°- 140° F. The unit shall be equipped with change gears to facilitate easy change of registration without removing pressure from the line or removing the meter head from the meter tube. The indicator-totalizer shall be protected by an o-ring sealed bonnet made from injection molded 20% glass filled engineered grade of thermoplastic. The bonnet shall be attached to the meter head by screws located under the hinged lid, which has a padlock hasp.

**PARTS & SERVICE:** Supplier must have test facilities, spare parts, personnel to maintain, instruct, train or whatever is necessary to assure meters will be maintained throughout the guarantee period. Facilities must be located within \_\_\_\_\_ miles of the location of the meter.

**VOLUMETRIC TESTING** of all meters must be performed and approved prior to shipment. The complete meter head assembly must be accuracy tested in the same pipe size and same type tube that the meter will be mounted in. The test shall be near minimum, intermediate, and maximum manufactured specified flow ranges of the meter. The amount of water used to conduct the test must be left on the totalizer. Prior to shipping, a tag shall be attached to the meter showing the totalizer reading after the test. The test facility must be certified annually to an accuracy of  $\pm 0.2\%$  and be traceable to the National Institute of Standards and Technology. If desired, the test shall be witnessed by the customer or their selected agent and a copy of the certified accuracy test record must be furnished at no charge to the customer, if requested.

**ONE MANUFACTURER** shall make all meter sizes and styles required for this contract. The meters shall be manufactured and tested in the U.S.A. and shall be of a design in production in the U.S.A. for at least 5 years.