



**MODEL LP21**  
 STRAP-ON SADDLE METER  
 SEALED METER MECHANISM – MAGNETIC DRIVE  
 CAST STRAP-ON SADDLE – SEALED TOTALIZER  
 4" SIZE

## SPECIFICATIONS

**METER** shall be a velocity propeller type, magnetic drive, sealed housing, 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. It shall comply with the applicable provisions of AWWA, except for the higher standard required in this specification. In the event of conflict, the specification herein shall prevail. The meter shall be a **WATER SPECIALTIES** 4 inch **MODEL LP21** 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 SADDLE** shall be cast iron and protectively coated with 12 mils minimum of fusion epoxy resin, applied by the fluidized bed method. The meter saddle shall have the nominal size and direction of flow cast on it, and a non-corrosive tag containing the meter serial number attached to the saddle. Strap-on saddles will be formed to fit 4" pipe (4.5" O.D.). An o-ring compression type seal shall be used in attaching the meter to the service line.

**GEARBOX** shall be bronze, sealed and filled with a high grade lubricant. 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 totalizer drive magnet.

**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. 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.

**TOTALIZER** shall be a six digit, straight reading type with a 3" diameter, 100 division dial and center sweep test hand to permit timing for an accurate determination of flow rate. The totalizer shall read in units of \_\_\_\_\_ (specify totalizer units) and shall be magnetically driven and equipped with change gears to facilitate easy change of registration without removing pressure from the line. The totalizer shall be encased in an o-ring sealed bonnet made from injection molded 20% glass filled engineered grade thermoplastic. The bonnet shall be attached to the meter head by screws with seal wire holes and have a hinged lid with 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.

**VOLUMETRIC TESTING** of all meters must be performed and approved prior to shipment. The completed meter head assembly will be accuracy tested. The testing will be conducted in accordance to AWWA testing procedure, rates, and volume. The amount of water used to conduct the test shall be left on the totalizer. Prior to shipping, a tag shall be attached to the meter showing the totalizer reading after testing. The test facility must be certified annually to an accuracy of  $\pm 0.25\%$  and be traceable to the National Institute of Standards and Technology. If desired, the test can be witnessed by the customer or their selected agent. Certified accuracy test records will be furnished at no charge.

**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.