MODEL LP31 STRAP-ON SADDLE METERS
SEALDED METER MECHANISM - MAGNETIC DRIVE
STAINLESS STEEL STRAP-ON SADDLE
SEALDED TOTALIZER
SIZES 4" thru 20"

DESCRIPTION

MODEL LP31 STRAP-ON SADDLE METERS are designed for irrigation or other low pressure service up to 150 PSI working pressure. The stainless steel saddle (brass 4") and u-straps permit installation on a wide range of steel, cast-iron, plastic (3/16" PVC wall minimum), asbestos, and other pipe materials for each nominal meter size. It is necessary upon ordering to furnish the I.D. dimension of the pipe the meter is to mounted on, for calibration purposes. The pipe O.D. dimension (20" max.) or wall thickness must also be furnished for proper sizing of the U-straps. NOTE: Consult factory for O.D. larger than 20'.

INSTALLATION is made by cutting a hole in the existing pipe line and then attaching the meter securely to the line. U-straps for attaching the meter saddle to the line are furnished with each meter. The meter can be installed in any of the following positions: vertically, horizontally, or inclined on suction or discharge lines. The meter must have a full flow of liquid for proper accuracy. Fully opened gate valves, fittings, or other obstructions that tend to set up flow disturbances should be a minimum of ten pipe diameters upstream and two pipe diameters downstream from the meter. Installations with less than ten pipe diameters of straight pipe require straightening vanes. Meters with straightening vanes require at least five pipe diameters upstream and two pipe diameters downstream.

PROPELLER is magnetically coupled with the drive mechanism through the sealed oil filled gearbox. This completely eliminates water entering the meter assembly, as well as the need for any packing gland. The propeller is a conical shaped three bladed propeller, injection molded of thermoplastic material resistant to normal water corrosion and deformity due to high flow velocities.

BEARING in propeller is a water lubricated ceramic sleeve and spindle bearing system with a ceramic/stainless steel spindle. Dual ceramic thrust bearings, standard on all meters, handle flows in both forward and reverse directions. The bearing design promotes extended periods of maintenance free propeller operation.

TOTALIZER is o-ring sealed and magnetically coupled with the driving mechanism, and features a six digit totalizer with a full 3" diameter, 100 division, center sweep dial that permits extremely accurate readings for timing purposes in determining flow rates. The totalizer dial can be furnished in gallons, cubic feet, acre feet, or any standard liquid measuring units. The bonnet, with padlock hasp, can be positioned in four different directions for the easiest possible reading when the meters are mounted in unusual positions.

CHANGE GEARS may be easily exchanged in the field when changing the dial, or when recalibrating for different pipe sizes. It is not necessary to remove pressure from the line for these changes.

O-RING SEALS are used at the meter head and all points where seals are required, making the meter mechanism completely immune to any of the corrosive effects of atmospheric moisture or the liquids measured by the meter assembly.

EQUIPMENT

U-STRAPS - stainless steel
LUG STRIPS - stainless steel
SADDLE - stainless steel (4" - cast iron)
SHAFTS AND BOLTS - stainless steel
SEPARATOR - stainless steel
GEARBOX - stainless steel
PROPELLER SPINDLE - ceramic sleeve/stainless steel
PROPELLER BEARING - ceramic sleeve type
VERTICAL SHAFT BEARING - shielded stainless steel
MAGNETS – anticorrosive aluminized barrier coated magnets; Everlube 6155

ACCURACY

Plus or minus 2% of actual flow within the range specified for each meter size.

PRESSURE RANGE

Up to 150 PSI maximum working pressure.

TEMPERATURE RANGE

Maximum 140° F. Consult factory for special construction for higher temperatures.

MINIMUM FLOWS

As shown for each meter size and construction are required for accurate registration. See flow chart.

MAXIMUM FLOWS

As shown for each meter size and construction are rated for continuous operation. See flow chart.

INTERMITTENT FLOWS

As shown for each meter size and construction are rated for 10% to 15% of the total time the meter is operating. Consult factory for High Velocity construction when intermittent flows are higher than shown on flow chart and/or when longer operating periods are required.

MATERIALS

Used in construction are chosen to minimize the corrosive effects of the liquids measured by the meter assembly. MAGNETS – anticorrosive aluminized barrier coated magnets; Everlube 6155

OPTIONAL EQUIPMENT

Totalizer Extensions and a wide range of controls and instruments for indicating, totalizing and recording flow data for each meter. Special constructions and materials are available upon request.

ORDERING INFO

Must be specified by the customer and includes: Minimum and maximum flow ranges, pipe I.D. and O.D. or wall thickness, 20’ O.D. maximum (Consult factory for larger diameters), [4“ meter for 4.5” O.D. only], position of meter (vertical, horizontal, or inclined), temperature of meter environment, totalizer dial units, type of materials and construction, and optional equipment desired.
#### MODEL LP31

150 psi STRAP-ON SADDLE METER  
SEALED METER MECHANISM - MAGNETIC DRIVE  
STAINLESS STEEL STRAP-ON SADDLE  
SEALED TOTALIZER  
SIZES 4” thru 20”

**PLEASE SPECIFY PIPE I.D. AND O.D.**  
‡ 4” METER MUST BE 4.5” O.D. FOR PROPER SEALING OF THE SADDLE

<table>
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<tr>
<th>METER &amp; PIPE SIZE</th>
<th>FLOW RANGES, GPM</th>
<th>DIMENSIONS</th>
<th>SHIPPING WEIGHT POUNDS</th>
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