BRIEF FUNCTIONAL DESCRIPTION

Refer to the attached Instruction Bulletins for complete information on the components described briefly below. Drawing ID-10B-1002 printed on the rear of this sheet illustrates typical installations of the Ori-flowrator Flowmeter.

The instrument defined above is a kinetic manometer used to measure fluid flow in conjunction with a primary orifice. The Ori-flowrator Meter is placed in parallel with the primary orifice and can measure flow regardless of the main line pipe size. The Ori-flowrator Meter provides flow rate indication on a linear scale over a range of approximately 10:1 (7:1 for 25" differential meters); whereas the measurement range with a conventional type differential pressure instrument, with a square root scale, is approximately 4:1. The total pressure drop across the Ori-Flowrator Meter is the same as the drop across the primary orifice. A range orifice is located in the meter outlet fitting, as shown in Figure 1 and determines the differential pressure range of the unit.

Flow rate through the range orifice is measured by the Ori-Flowrator Meter. This range orifice is sized so that fluid flow through the meter at maximum pressure drop, is exactly equal to the flow rate required to lift the meter float to the maximum position.

Since the flow through the range orifice is proportional to the instantaneous flow rate through the main flow line, the Ori-Flowrator Meter also measures the main line instantaneous flow rate.