Description (Con'd.)

The meter is designed to operate in a horizontal line and an upright position only. However, a variation of 5° from horizontal mounting is tolerable. Either a horizontal or vertical index can be used.

In operation, as gas enters the meter, the nose cone immediately diverts the flow into a channel surrounding the inside periphery of the meter body. By means of this channel, the flow of gas is directed axially toward the rotor blades. The passage of the gas stream over the blades exerts a force, that causes the rotor to revolve with an angular velocity directly proportional to the flow rate of the gas. The registration of the gas flow is accomplished through the gear linkage from the rotor unit to the index.

The braking mechanism operates as follows:

As gas is called for on the downstream side of the meter, a differential pressure is built up across the plates. At about 2" w.g., the plates, acting somewhat like butterfly valves, open permitting full gas flow. When the demand for gas ceases, the spring return closes the plates, and puts the brake shoe on the rotor drum, thereby stopping the rotor.

The meter should not be used for rates of flow greater than 30,000 C.F./H. for line pressures up to 50 p.s.i. For line pressures ranging from 50 to 125 p.s.i., a 10 inch differential is the limiting factor.

For gas of 0.6 s.g. the minimum rate of flow decreases from 2300 C.F./H., at a line pressure of 0.25 p.s.i., to 740 C.F./H. at a line pressure of 125 p.s.i. For gases of different specific gravity, the above values for minimum rates of flow would be altered accordingly.

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