



TRADE AND COMMERCE
CANADA

SD-GA.51

STANDARDS DIVISION

OTTAWA, June 2, 1954.

TYPE APPROVAL

AMERICAN METER COMPANY "DRI-FLO" ORIFICE METER

The apparatus specified and illustrated herein has been duly approved by the Standards Division under the provisions of the Gas Inspection Act, Chapter 129, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: American "Dri-Flo" Recording Orifice Meter, manufactured by the American Meter Company Inc., and distributed in Canada by the Canadian Meter Company Limited, Hamilton, Ontario.

Application: Measurement of gas in conjunction with standard orifice plates.

Rating of Apparatus:

- Differential Ranges 0-50, 0-100, 0-200 inches of water
- Working Pressure up to 1000 p.s.i.
- Static Pressure Ranges "Ambrac" Helical - up to 500 p.s.i.
Stainless Steel Helical - 0-25 to 0-10000 p.s.i.

scription: The main feature of the American "Dri-Flo" Orifice Meter is the bellows-type differential element which the manufacturer terms the "Slyphon" differential gauge. It consists of:- (1) a cylinder which is divided into two compartments, viz. a high-pressure and a low-pressure one, by a common barrier normal to the longitudinal axis of the cylinder; (2) two opposed, mechanically-connected, fluid-filled, seamless stainless steel bellows which are attached to the common center section, one on each side; (3) the Teflon seal stuffing box shaft which transmits the bellows movement through the stuffing box to the recording mechanism.

The bellows which are attached to the center section are capped at the ends and thus form chambers, one on each side of the center section. These closed ends of the bellows are joined by a shaft which passes through a hole in the center section. The chambers formed by the bellows are filled and sealed with a clean, non-corrosive low-freezing-point liquid and are interconnected through a pulsation dampener and an annular passage between the connecting shaft and the center section. The application of a differential pressure causes the high-pressure bellows to contract and the low-pressure one to expand, the liquid being forced toward the lower pressure side through the interconnecting channel.

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