



DEPARTMENT OF TRADE AND COMMERCE
STANDARDS BRANCH

S-GA.293

OTTAWA, May 28, 1964.

TYPE APPROVAL

ROCKWELL "R-2" ROTO-SEAL POSITIVE DISPLACEMENT GAS METER

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

Apparatus Approved: "R-2", Roto-Seal, Positive Displacement, Rotary Gas Meter manufactured by Rockwell Mfg., Co., Pittsburgh, Pa., U.S.A. and distributed in Canada by Rockwell Mfg. Co., Ltd., Guelph, Ontario.

Rating of Apparatus:

| | |
|--|---------------------|
| Rated Capacity..... | 3000 cu. ft./hr. |
| Capacity per revolution (cu. ft.)..... | 0.03 ³⁴⁶ |
| Maximum Working Pressure..... | 125 P.S.I. |
| Connections..... | 2" flange |

Description: This positive displacement meter measures gas by a rotary movement of two vanes in an annular channel.

It consists basically of the following assemblies:

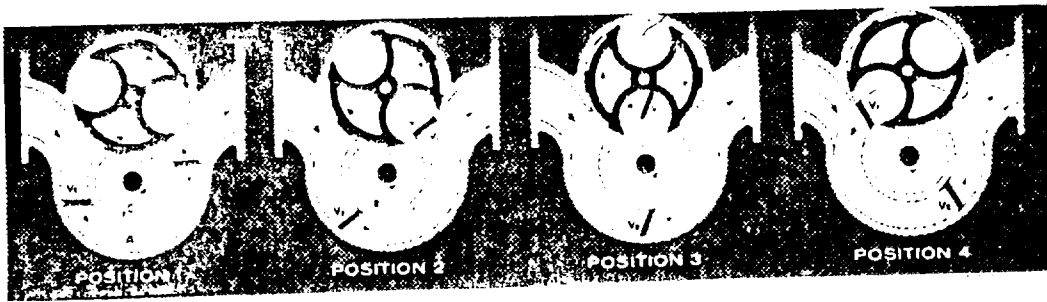
- (1) The steel meter housing contains the basic measuring mechanism consisting of (a) the main rotor with two vanes, the idler gate and timing gears attached to one end plate, and (b) the central stationary member and the magnetic register drive assembly attached to the other end plate.
- (2) The register end bell assembly contains the magnetic follower with associated gear train to the register together with a suitable housing and register mounting plate.
- (3) Timing gear end bell.

Each end of the shaft of the main rotor carries an oil slinger, and the end bells have suitable provision for observing the oil level for both horizontal and vertical mounting of the meter.

The exploded view of the meter on the back of the circular shows the meter in detail with end plates separated from the meter body.

In operation (refer to schematic diagrams 1-4 on back of circular), the gas flows through the annular channel "A" from the meter inlet to the outlet. The two vanes V₁ and V₂, attached to the main rotor, are turned through the

ROCKWELL "R-2" AUTO-SEAL POSITIVE DISPLACEMENT GAS METER



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Description: (cont'd)

annulus "a" around a central stationary member "c" by the differential pressure created by the gas flow. The vanes, after passing the meter outlet port, move into the recess about in the idler gate "B" and are returned to the inlet port. The idler gate also prevents gas from re-passing the measuring channel "a".

Diagrams 1-4 show the rotating members at various angular positions during one revolution and are self-explanatory.

This meter should not be used for rates of flow greater than 3000 C.F./H. or lower than 3.0 C.F./H., at existing flow conditions.

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