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NOTICE OF APPROVAL
AVIS D'APPROBATION

G - 116

Ottawa, April 23, 1976

ROCKWELL PRESSURE REGULATOR MODEL 143-PL

Apparatus

Inlet Pressure Range, psig	7.5 to 80
Outlet Pressure, psig	5
Approved Maximum Flow of 0.6 Sp. Gr. Gas, SCFH *	523 to 2865
Main Orifice Diameter	1/4 inch
Regulator Connections, NPT	1" x 1" & 3/4" x 1"
Pilot Spring No.	080-02-021-01
Pilot Spring Colour Code	Blue
Set Point Conditions:	
Inlet Pressure, psig	40
Outlet Pressure, psig	5
Flowrate, 0.6 Sp. Gr. Gas, SCFH	100

* Approved maximum flow is determined by the minimum inlet pressure of a system in which the regulator is installed. Refer to Table 1 of this document.

Approval is hereby granted for the use of the above named apparatus in Pressure Factor Measurement installations.

Description

This model is a pressure loaded type, that is, it uses a smaller pilot regulator to maintain a constant loading pressure on the upper surface of the main regulator diaphragm. For example, if the pressure downstream decreases, this reduction in pressure will be transmitted to the underside of the main regulator diaphragm via the throat section. (Refer to the cross-sectional view of Figure 1.) The reduction in pressure under the diaphragm will cause it to move down. This movement opens the main valve which increases

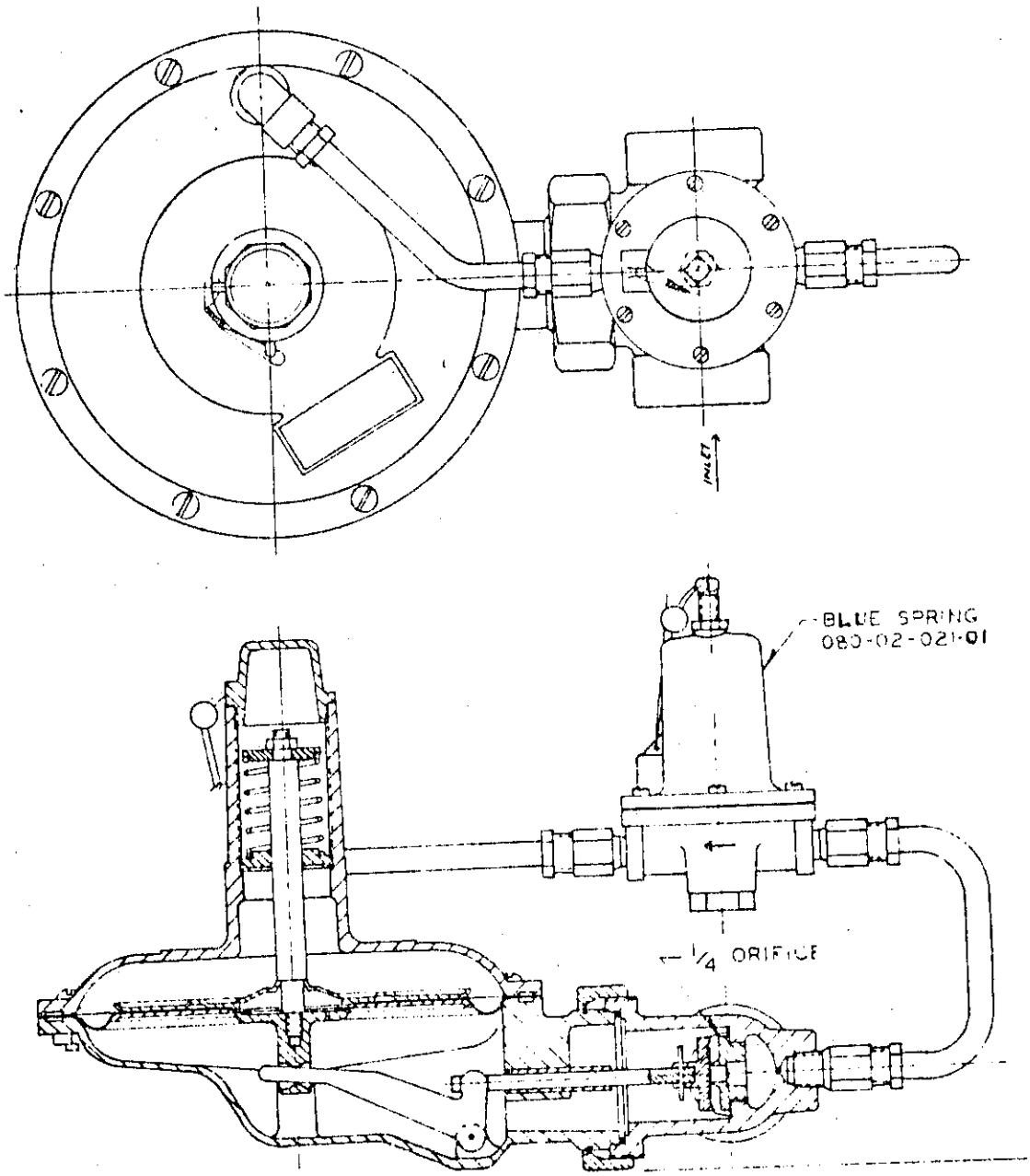

Figure 1

Internal and External Views,
Rockwell 143-PL Regulator

the flow to match the demand. In this way the outlet pressure is returned to the regulated value because the valve is opened just enough to balance the loading pressure above the diaphragm with the outlet pressure below the diaphragm.

The capacities for various inlet pressures and the outlet pressure of 5 psig are listed in Table 1 below.

Inlet Pressure, psig	7.5	10	20	40	60	80
Capacity, SCFH of 0.6 Sp. Gr. Gas	523	740	1281	1957	2453	2865

Table 1

This data has been taken from Rockwell specification sheet RM-319, dated February 16, 1976.

For field testing procedure refer to Technical Gas Circular G-75-3.

Approval granted to: Rockwell International of Canada Limited,
Guelph, Ontario.

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