Department of consumer and corporate affairs / Ministère de la consommation et des corporations

STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL G-33-4

OTTAWA June 9, 1972

ROCKWELL SERIES 'G' GAS TURBO METERS

This approval is supplementary to that of Circular G-33-2, dated August 10, 1970 and Circular G-33-3, dated April 16, 1971.

Apparatus

	Model T-30 Mark II	Model T-60 Mark II	Model T-140* Mark I
Rated capacity, cu. ft./hr at line conditions	30,000	60,000	140,000
Capacity per revolution of meter output shaft, cu. ft.	100	1,000	1,000
Maximum working pressure, psi	125	125	125
Meter connections, flange	6"	8"	10"

* The interchangeability of modules, covered by Circular G-33-3, does not apply to this Model.

Description

The meters listed in this Circular are additions to the line of Series G Turbo gas meters approved previously.

The Mark II version reflects the latest product refinements which are to improve the general performance. The basic differences between the earlier production models of the Turbo meters and the Mark II version include the machined nose cone and surrounding body at the entrance, longer blades in the turbine wheel with some overlap to provide a solid front to the gas flow, magnetic coupling and bearings that are isolated from the flow stream and permanently lubricated bearings. Mark II meters may be recognized externally by the position of the measuring module and the top plate assembly, which are slightly off-set to the downstream side of the

meter, and a single pressure tap located in the meter body at the upstream side. In other respects the Mark II Turbo meters are similar to the earlier models and various provisions and installation requirements delineated in Circulars G-33-2 and G-33-3 apply to the Mark II version.

The Mark I, T-140 Turbo meter differs from all other Turbo meters approved to date in that its design is based on a shunt metering principle. The meter utilizes the basic measuring mechanism of the eight inch size T-60 Turbo model and approximately one half of the flowing gas by-passes the turbine blade through an annular area outside the measuring mechanism. The output shaft of the meter registers the total volume passed through the employment of an appropriate gear multiplication ratio between the turbine blade and the meter output shaft.

It should be recognized that, due to the by-pass design, this meter is more susceptible to the effects of gas "jetting" than other models and therefore it may not be installed with short coupled spools illustrated in Circular G-33-2. The recommended lengths of straight piping with various dimensions are shown on attached illustration and must be followed exactly.

In order to inspect the internal measuring mechanism of the T-140 meter, it is necessary to swing the meter out of the flow line. Four screws hold the mechanism in place and their removal permits the withdrawal of the unit through either end of the meter.

Except as mentioned in this Circular, other provisions contained in Circular G-33-2 apply to Model T-140 meter.

Approval granted to:

Rockwell Manufacturing Company
of Canada Limited,
Guelph, Ontario.

J.S.T. Swanson, P. Eng.
Chief, Standards Laboratory,
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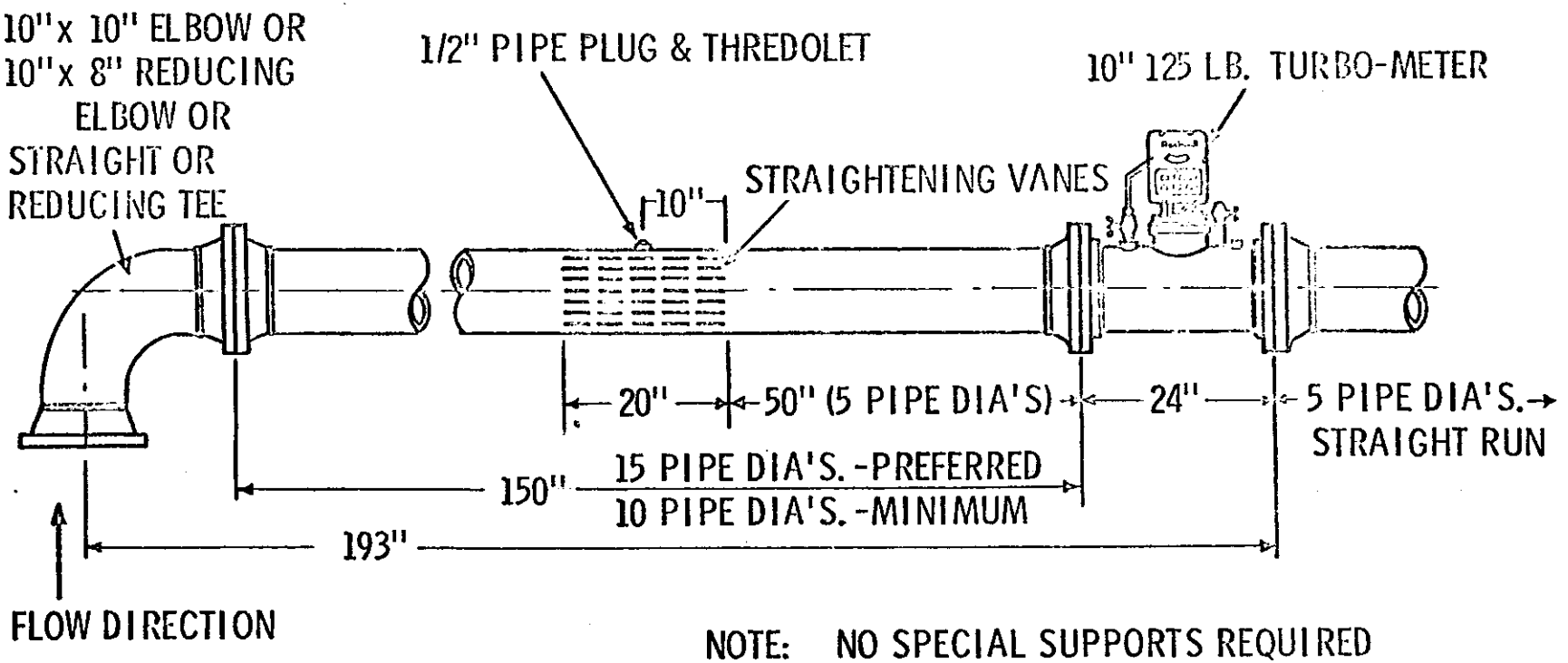
Ref: SL-100-978 H and J

RECOMMENDED INSTALLATION

Rockwell T-140 Turbo-Meter



NOTE: NO SPECIAL SUPPORTS REQUIRED TO HOLD METER, ST'D PIPE SUPPORTS ARE SUFFICIENT.