



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

**STANDARDS BRANCH - DIRECTION DES NORMES**

**NOTICE OF APPROVAL**

S.WA-756

OTTAWA August 12, 1969.

Approved: A.O. Smith - Double Case Bulk Meters

manufactured by: A.O. Smith Corporation, Erie, Pennsylvania  
distributed in Canada by: Petroquip Limited, Toronto, Ont.  
Barber Engineering Ltd., Calgary, Alta.  
McIntosh Supply Ltd., Vancouver, B.C.

Apparatus Listed: Double-case liquid meters for petroleum products model numbers as listed below:

<u>Model No.</u>	<u>Capacity GPM Petroleum Products</u>	<u>Maximum Capacity on LPG</u>	<u>Size</u>	<u>Pressure Rating PSI</u>
C2-S3;C2-S5 C2-S6;C2-S7	100	80	2"	275; 300 720;1440
E3-S3;E3-S5; E3-S6;E3-S7	350	250	3"	275;300; 720;1440
F4-S3;F4-S5; F4-S6;F4-S7	500	375	4"	275;300; 720;1440
G6-S3;G6-S5; G6-S6;G6-S7	800	625	6"	275;300; 720;1440

Rating of Apparatus: Maximum capacities are listed as above; minimum capacities are 20% of the maximum.

Application: Metering of bulk quantities of crude and refined petroleum products in pipe lines, at oil terminals and loading racks for barges, tank cars, and tank trucks.

Conditions: It is expected that for most applications a register with 1/10th gallon wheel will be required on the C2 models and possibly on the E3 models.

Deaerators, strainers, and where necessary back pressure valves should be installed in accordance with A.O. Smith recommendations in their bulletin 129-E.

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In installations where reverse flow could occur, a check valve must be installed to automatically prevent this from happening.

Drawings for installations of 4" and 6" meters are to be submitted for approval in advance of construction, in view of the high cost of any piping alterations, should an installation made without prior approval need modifications to meet the requirements of the Standards Branch.

Description: The measuring elements in these meters are of the same pattern as used on other A.O. Smith meters, but are installed in double cases of appropriate thickness to withstand higher pressures than single case meters - Meters for LPG have a special trim and are operated at lower rates than meters for petroleum products, to prevent excessive wear which could be caused by the poor lubricating properties of propane, etc.

Inspection and Testing: The installation should be examined to ensure that adequate air and vapor prevention is provided. In those installations where air can enter the system or where vapor can form within the system due to atmospheric or operating conditions, adequate back pressure, condensing tanks or liquid level sensing devices and controls shall be employed to prevent the passage of air, or vapor through the meter. Flow control and check valves must be installed if required by the installation .

References: SW-85-S7                      S.WA-615  
SL-102-770                      S.WA-547

Note: Approval is granted under the Weights and Measures Act, Chapter 292, and Regulations thereunder (P.C. 6894) for use in Canada under the general conditions of P.C. 6894, and under any special conditions listed above.

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