



DEPARTMENT OF TRADE AND COMMERCE
STANDARDS BRANCH

S.WA-615

OTTAWA, September 6, 1966.

APPROVED

A.O. SMITH - DOUBLE CASE BULK LIQUID
METERS MODELS C2, E3, F4, and G6

manufactured by A.O. Smith, Meter and Service Station Equipment Division, 1602 Wagner Ave., Erie, Pennsylvania.

<u>New Model Number</u>	<u>Old Number</u>	<u>Capacity G.P.M.</u>	<u>Flange Size</u>
C2-S1 or C2-A1	B-13	110	2" - 150#
E3-S1 or E3-A1	S-42, AS-42, AB-42	350	3" - 150#
F4-S1 or F4-A1	S-60, AS-60, AB-60	500	4" - 150#
G6-S1 or G6-A1	AB-100	830	6" - 150#
F4-V1		500	4" - 150#
G6-V1		830	6" - 150#

These models replace those listed under "Old Number", except the F4-V1 and G6-V1, vertical flow meters, which are new to the line.

The suffix "S1" designates the straight through (horizontal flow) pattern, and "A1" the angle pattern, in which the inlet and outlet are 90° apart.

These meters may be equipped with small cumulative registers, small resettable registers, large cumulative registers, large resettable registers, ticket printing registers, etc., as illustrated on SD-WA.249.

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

Application: Metering of bulk quantities of petroleum products in wholesale trade.

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

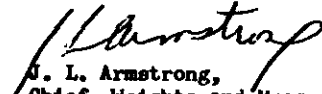
Because a combination air-eliminator-strainer unit is not supplied as a standard meter accessory, a bulk type air eliminator and strainer must be installed in a location where they will prevent all air and sediment from reaching the meter.


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

Description: These meters are of the rotary, positive displacement type; the design of the meter and the principle of operation is described in the illustration overleaf.

Testing: The standard tests for a bulk meter shall apply.

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.


N. L. Armstrong,
Chief, Weights and Measures Division,
Standards Branch.


R. W. MacLean,
Director,
Standards Branch.

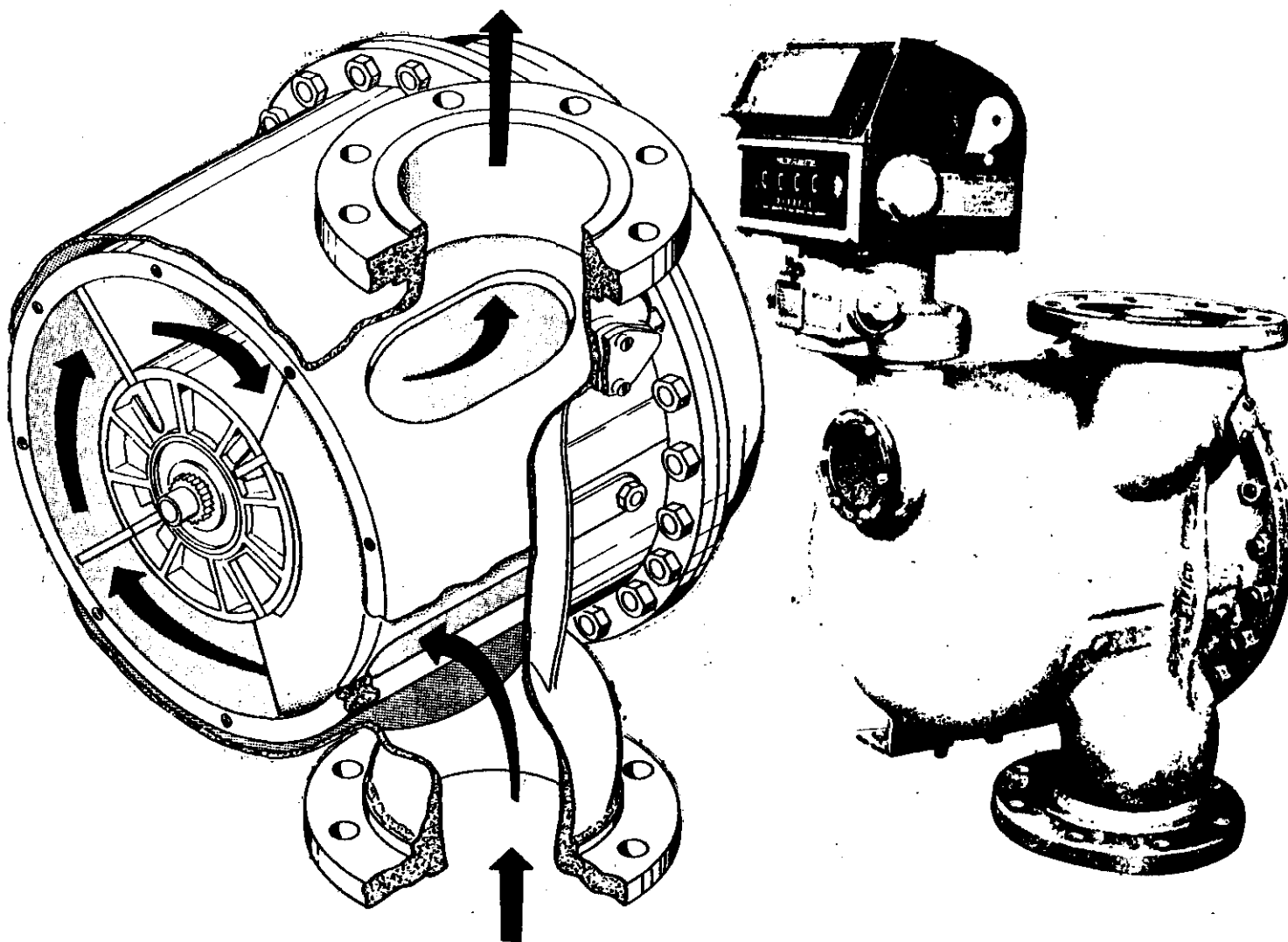
A.O. SMITH - DOUBLE CASE BULK METERS

DESCRIPTION

A. O. Smith Vertical Double Case Rotary Meters are of the positive displacement type.

The metering mechanism is an inner unit bolted into the outer housing. The double case design eliminates distortion of the measuring chamber due to pressure differential and piping strains. Pipe connections are confined to the outer housing which means the meter can be removed by taking off the cover and sliding it out. Inspection, maintenance and service is greatly simplified through the double case design.

The measuring function is accomplished in a chamber of precise volume created by the moving blades, rotor, body and cover. There is a smooth flow of product through the meter. The blades rotate around a fixed cam which causes them to move out to, but not touch, the body of the meter. Four chambers per revolution are formed as the rotor and blades are turned by product flow.



TYPE VI METER

(Diagram by A.O. Smith)