



TRADE AND COMMERCE  
CANADA

SD-GA.38

## STANDARDS DIVISION

OTTAWA, June 25, 1953.

## TYPE APPROVAL

AMERICAN METER COMPANY SERIES "A-70" AND "A-88" ORIFICE METERS

The apparatus specified and illustrated herein has been duly approved by the Standards Division under the provisions of the Gas Inspection Act, Chapter 82, R.S.1927, as amended, and may be admitted to verification in Canada.

Apparatus Approved: Types Series "A-70" and "A-88" Westcott' Orifice Meters, manufactured by the American Meter Company Inc., and distributed in Canada by the Canadian Meter Company Ltd., Hamilton, Ontario.

Application: Measurement of gas in conjunction with standard orifice plates.

Rating of Apparatus:	A-70	A-88	A-88 (Hi-press)
Differential Ranges ..... (inches of water)	10, 20, 50, 100, 200	10, 20 50, 100, 200	50, 100
Working Pressure ..... (# per square inch)	750 and 1000	1800	3000 and 5000
Static Pressure Ranges .... (same for all three types)	30"Vac-10#, 30"Vac-20#, 0-25#, 0-50#, 0-100#, 0-250#, 0-500#, 0-1000#, 0-2000#, 0-3000#, 0-4000#, 0-5000#.		

Description: The type "A-88" American Westcott meter is the standard orifice meter produced by the American Meter Company. It is furnished in the ranges indicated above. The type "A-70" orifice meter is an earlier form of the same meter and is still being manufactured in small quantities. The two types are essentially the same except for the improved check valves, higher working pressures and altered seal tubes of the type "A-88". In both types the float of the differential element is located in the low-pressure chamber of the manometer and actuates the differential pen arm directly through a Teflon-sealed stuffing box. The meter is compensated for angularity of float travel without linkages.

In the case of the type "A-70" meter, the high-pressure chambers of the 20-inch, 50-inch and 100-inch meters are completely interchangeable. To extend the range above 100 inches, a special low-pressure body is provided with a long seal tube for use with a 200-inch high-pressure chamber. If a 200-inch meter is required for use at a lower differential range, it may be converted into a 100-inch, a 50-inch or a 20-inch meter by the use of a short section of seal tubing and the appropriate high-pressure tubing.

On the type "A-88" the improved design permits greater flexibility in changing the differential range. Union-type seal tube connections and the one-piece swaged construction of the high-side chambers provide complete interchangeability of the 20-, 50-, 100- and 200-inch ranges. The regular 10-inch meter is not interchangeable.

The static pressure springs for both types are available in either stainless steel or Ambrac. Ambrac helical elements are usually furnished in the various pressure ranges up to 500 pounds; the higher range elements are furnished only in stainless steel. Stainless steel pressure elements are available in the low-pressure ranges of 0-25 pounds and higher.

The Series A-88 Orifice Meters are also made in 50- and 100-inch models which are designed to withstand working pressures of 3000 and 5000 pounds per square inch.

Standard construction of both types includes stainless steel internal parts, over-range and reverse-flow check valves, and adjustable pulsation dampeners with Teflon packings. The meters may be furnished with key-wound or electric chart drives for 24-hour or 7-day rotation of 12-inch-diameter charts having uniform scales or direct-reading square-root scales.

*R. W. MacLean*  
R. W. MacLean,  
Director,  
Standards Division.

Ref: A-318

*E. F. Power*  
E. F. Power,  
Assistant Director (E&G),  
Standards Division.