

Orifice Plate for Flow Measurement

Orifice Plates are the most commonly used differential pressure measurement device and are applicable for measurements in gases, clean liquids, and low velocity steam. Orifice plates allow for relatively easy installation and replacement if necessitated by changes in process parameters or life cycle deterioration.

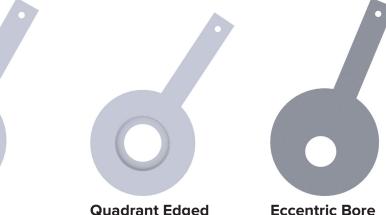
Armstrong supplies components for a typical orifice meter installation including flange unions, gaskets, orifice plate, and appropriate pressure tap sets.

Design and Manufacturing Standards

- Manufactured under strict control with high quality in observation with ASME and ISO 9001 certification standards
- AGA, ISA, ANSI, and API applicable codes
- Nondestructive testing and special service options available



Product Specifications	
Accuracy	±1.0% to ±5.0%
Turndown	Up to 10:1 turndown in flow
Operating Temperature	-400°F to 1250°F (-240°C to 677°C)
Operating Pressure	Dependent on material of construction
Line Size	$\frac{1}{2}$ " and above (12.7mm and above)
Beta Ratio	0.30 to 0.75



Square Edge Concentric

1

Standard bore specification for clean liquid, gas, and steam.

Quadrant Edged

Used in high viscosity, low Reynolds number applications.

Eccentric Bore

Allows for passage of entrained gas or solids through the bore.



For fluids containing large and heavy sediments or solids.



Orifice Meter Runs

2

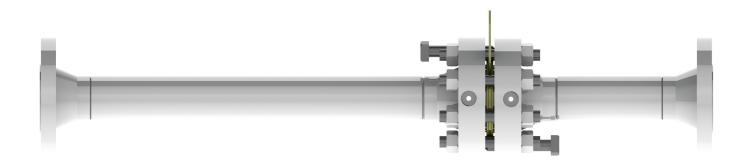
Orifice meter runs are available in accordance with AGA 3 code or any other desired specification for material, size, and capacity. General configuration of orifice meter runs includes:

Instrument Connection $-\frac{1}{2}$ " (12.7mm) pipe coupling and plug are supplied on downstream tube. Additional couplings are available upon request.

End Connection – Ends are supplied beveled for field welding. Threaded, flanged, and mechanical connections are available upon request.

Alignment – Meter runs are provided with alignment holes and studs.

Packing/Crating – Meter runs are crated and shipped fully assembled, ready for installation.



Orifice Plate and Meter Offerings - Model Numbers	
AOP	Universal Orifice Plate
AOU	Orifice Flange Union, Hardware Optional, Gaskets, No Plate
AOUP	Orifice Flange Union, Hardware Optional, Gaskets, Plate
AOUPFR	Orifice Meter Run, Plate, Flanged In-Line, Union
AOUPWR	Orifice Meter Run, Plate, Welded In-Line, Union
AOPTR	Orifice Meter Run, Plate, Threaded, Welded In-Line, No Flange Union
AOPWR	Orifice Meter Run, Plate, Welded, Welded In-Line, No Flange Union