

# Armstrong Orifice Plates & Flanges

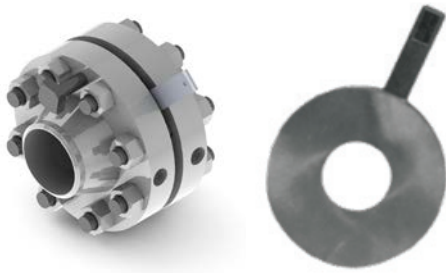
## Orifice Plate for Flow Measurement

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       |                                       |
|------------------------------|---------------------------------------|
| <b>Accuracy</b>              | ±1.0% to ±5.0%                        |
| <b>Turndown</b>              | Up to 10:1 turndown in flow           |
| <b>Operating Temperature</b> | -400°F to 1250°F (-240°C to 677°C)    |
| <b>Operating Pressure</b>    | Dependent on material of construction |
| <b>Line Size</b>             | ½" and above (12.7mm and above)       |
| <b>Beta Ratio</b>            | 0.30 to 0.75                          |



### Square Edge Concentric

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.



### Segmental Bore

For fluids containing large and heavy sediments or solids.

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## Orifice Meter Runs

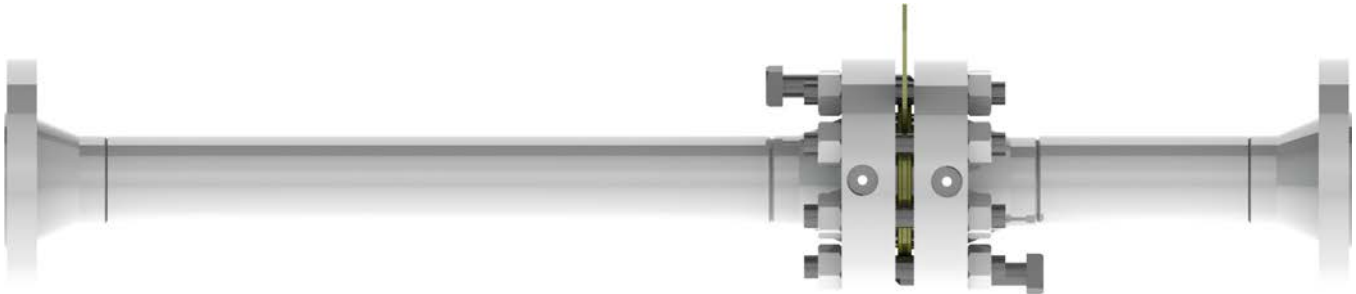
Orifice meter runs are available in accordance with AGA 3 code or any other desired specification for material, size, and capacity. General configuration of orifice meter runs includes:

**Instrument Connection** – ½" (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 |   |
|---|---|
| <b>AOP</b>  | Universal Orifice Plate   |
| <b>AOU</b>  | Orifice Flange Union, Hardware Optional, Gaskets, No Plate          |
| <b>AOUP</b>                                       | Orifice Flange Union, Hardware Optional, Gaskets, Plate             |
| <b>AOUPFR</b>                                     | Orifice Meter Run, Plate, Flanged In-Line, Union                    |
| <b>AOUPWR</b>                                     | Orifice Meter Run, Plate, Welded In-Line, Union                     |
| <b>AOPTR</b>                                      | Orifice Meter Run, Plate, Threaded, Welded In-Line, No Flange Union |
| <b>AOPWR</b>                                      | Orifice Meter Run, Plate, Welded, Welded In-Line, No Flange Union   |