

Quarter Circle Orifice Plate

Introduction

The **Arrotop Quarter Circle Orifice Plate** is a specialized flow measurement device designed for applications involving clean and viscous fluids at low velocities and Reynolds numbers. Its unique design, featuring a rounded upstream edge forming a quarter circle, ensures accurate flow measurement, particularly for low-density and low Reynolds number fluids. This orifice plate is ideal for precise flow control in challenging fluid conditions.

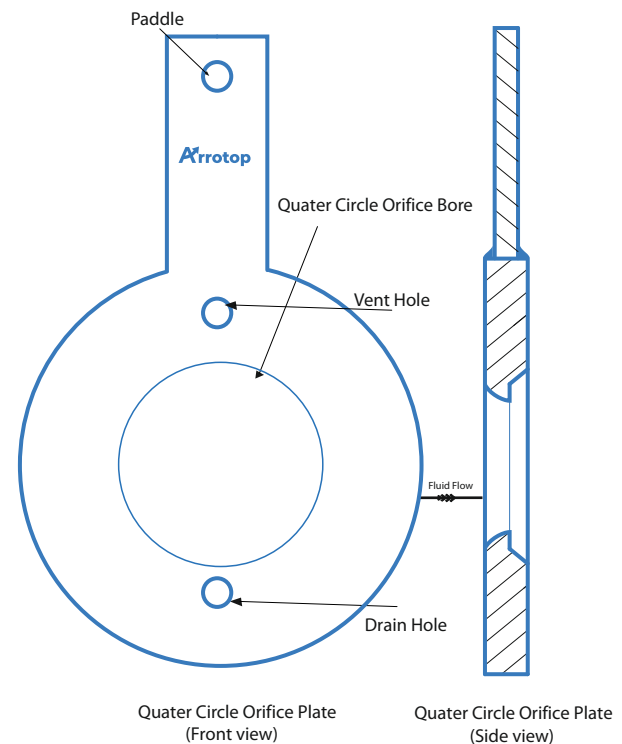
Product Data



The **Arrotop Quarter Circle Orifice Plate (Model: ARO-QCOP-004)** offers reliable flow measurement for low Reynolds number applications involving clean and viscous fluids. The orifice plate's upstream edge is rounded to form a quarter circle, and the downstream side features a 45° bevel. This design minimizes pressure drop and enhances measurement accuracy for fluids with Reynolds numbers ranging from 2,000 to 10,000. Suitable for various industrial applications, the ARO-QCOP-004 provides consistent performance and is adaptable to different pipeline configurations.

Technical Specifications

Model Number	ARO-QCOP-004
Material	SS 304/L, 316/L, Duplex, Super Duplex, Hastelloy, Carbon Steel, Monel, Inconel, PP, PVC, PTFE-coated, Stellite-coated (special alloys on request)
Sizes	0.5" to 20" (up to 48" on requests)
Beta Ratio	0.245 to 0.6
Thickness	3.18 mm, 6.35 mm, 9.52 mm, 12.7 mm (other on request)
Standards	ISO 5167, ASME B16.36, BS 1042, API 2530, AGA Report 3
Effective Range	Typically suitable for Reynolds numbers between 250 and $\sqrt[5]{19\beta}$
Fluid Types	Clean and viscous liquids, low-density fluids at low velocity
Accuracy	Within 1% of the maximum flow rate
Repeatability	$\pm 0.1\%$ of the indicated flow rate
Tapping Methods	Flange Taps, Corner Taps, Radius Taps
Limit of use	Orifice Diameter(d) : 15 mm, Pipe Diameter(D) : 500 mm, Beta Ratio(β) : 0.245 to 0.6



Sizes and Dimensions

DN (Nominal Diameter)	Orifice Diameter (mm)	Plate Thickness (mm)
DN15 (0.5")	15	3.18
DN25 (1")	25	3.18
DN50 (2")	50	6.35
DN100 (4")	100	6.35
Dn150 (6")	150	9.52
DN200 (8")	200	9.52
DN300 (12")	300	12.7
DN400 (16")	400	12.7
Dn500 (20")	500	12.7

Advantages

- ➔ High Accuracy
- ➔ Versatility
- ➔ Durability
- ➔ Ease Of Installation
- ➔ Low Maintenance
- ➔ Cost-Effective
- ➔ Wide Range Of Sizes
- ➔ Customizable
- ➔ Robust Construction
- ➔ Reliable Performance

Applications

- ➔ Chemical Processing
- ➔ Oil and Gas
- ➔ Power Generation
- ➔ Water Treatment
- ➔ Food And Beverage
- ➔ Pharmaceutical
- ➔ HVAC Systems
- ➔ Mining
- ➔ Pulp And Paper
- ➔ Marine And Shipbuilding
- ➔ Automotive



Additional Features

- ▶ **Customization** : Available in various materials and sizes to meet specific application requirements.
- ▶ **Accessories** : Gaskets, bolts, and nuts available upon request.
- ▶ **Compliance** : Meets international standards ensuring reliable and accurate performance.
- ▶ **Installation Support** : Technical support available for installation and maintenance.
- ▶ **Calibration Services** : Optional calibration services to ensure precise measurements.
- ▶ **Documentation** : Comprehensive documentation provided for installation, operation, and maintenance.

Conclusion

Arrotop's **Quarter Circle Orifice Plates** provide a precise and reliable solution for fluid flow measurement, especially for low Reynolds number applications involving clean and viscous fluids. With a commitment to quality and innovation, Arrotop delivers products that ensure superior performance and longevity.

Contact Us



sales@arrotop.in
export@arrotop.in



www.arrotop.in



+91 9930498865
+91 9930498815