Arrotop
Metalloys & Engineering Pvt Ltd

Segmental Orifice Plate

Introduction

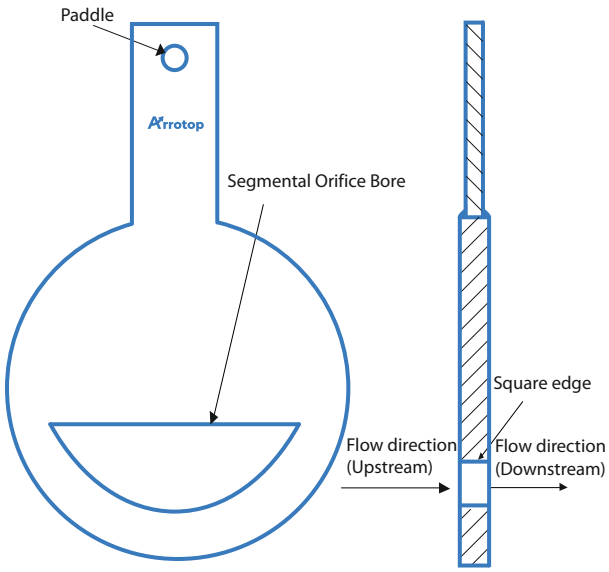
The **Arrotop Segmental Orifice Plate** is a specialized flow measurement device designed for fluids containing solid particles, vapors, or water condensates. Featuring a segment-shaped orifice, this plate minimizes the accumulation of solids or gases in front of the orifice, enhancing measurement accuracy. This design is particularly effective in ensuring free flow for solids in liquids or gas bubbles in liquids, making it ideal for various challenging fluid conditions.

Product Data

The **Arrotop Segmental Orifice Plate (Model: ARO-SOP-005)** provides accurate flow measurement for pipelines handling fluids with solids or vapors. Its unique segment-shaped orifice creates a clear flow path in the undisturbed part of the pipeline, preventing sedimentation or gas accumulation. The curved edge of the orifice is flush with the inside wall of the pipe, ensuring free passage for particles or condensation. This plate is suitable for diverse industrial applications, offering reliable performance and reducing measurement errors due to sedimentation or gas pockets.

Technical Specifications

Model Number	ARO-SOP-005
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	4" to 14" (100m to 350mm) others sizes on request
Beta Ratio	0.3 to 0.8
Thickness	6.35 mm, 9.52 mm, 12.7 mm (other on request)
Effective Range	Typically suitable for Reynolds number greater than 10,000
Standards	ISO 5167, ASME B16.36, BS 1042, API 2530, AGA Report 3
Fluid Types	Liquid with solid particles, vapors likely to deposit water condenstates
Accuracy	Within 1.2% of the maximum flow rate
Repeatability	± 0.1% of the indicated flow rate
Tapping Methods	Flange Taps
Limit of use	Orifice Diameter(d) : 30mm, Pipe Diameter(d) : 100mm < D < 350mm, Beta Ratio(β) : 0.3 to 0.8



Segmental Orifice Plate (Front view)

Segmental Orifice Plate (Side view)

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Sizes and Dimensions

DN (Nominal Diameter)	Orifice Diameter (mm)	Plate Thickness (mm)
DN100 (4")	100	6.35
Dn150 (6")	150	9.52
DN200 (8")	200	9.52
DN250 (10")	250	12.7
DN300 (12")	300	12.7
DN350 (14")	350	12.7

Advantages

- High Accuracy
- Enhanced Accuracy
- Versatility
- Durability
- Adaptability
- 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 **Segmental Orifice Plates** provide a precise and reliable solution for fluid flow measurement, particularly for fluids with solids or vapors. With a commitment to quality and innovation, Arrotop delivers products that ensure superior performance and longevity. Choose Arrotop for your orifice plate requirements and experience our dedication to excellence.

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