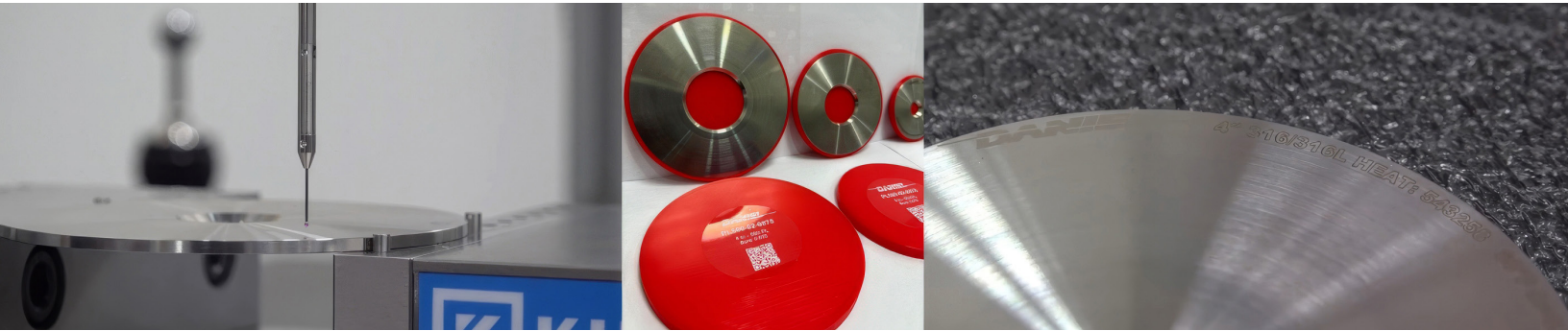


Universal Standard Orifice Plates



Quick-Ship Orifice Plate

Universal Size Orifice Plates, pioneered by Daniel®, are the industry standard across numerous applications. The Universal design is highly cost-effective, requiring lower initial investment, reduced maintenance, and minimal storage space.

Daniel's new standard plate is designed as a rapid delivery, cost-effective solution. Genuine Daniel OEM Plates are recommended for use in Daniel® Senior™ Fittings, as these fittings are guaranteed for performance with OEM components. Our new commercial plate offers customers the opportunity to utilize high-quality, reliable parts without compromise. The orifice plate serves as the heart of the meter so maintaining quality is paramount, as any compromise may adversely affect measurement accuracy.



Design Specifications

- **Sizes:**
Daniel Orifice Plates are available in line sizes from 2 to 12 inches
- **Bore:**
Orifice plate bore tolerances in strict accordance with API 14.3, AGA 3. Standard bore sizes available in increments of 0.125", within the Beta range of 0.2 to 0.7
- **Material:**
Standard stock materials utilized are 316 stainless steel
- **Finish:**
≤ 30 micro-inch surface roughness
- **Edges:**
Square and sharp, ensuring no reflection of light when viewed without magnification
- **Flatness:**
Flat within 0.010-inch per inch of dam height
- **Design:**
Routinely stocked items are based on a standard design applicable across all industries

Product Information

For optimal performance, the plate bore must be accurately sized and beveled. Standard plates feature a 45° bevel at the periphery of the bore hole, providing optimal conditions for clean, dry gas or low-viscosity liquids. Prior to shipment, the nominal plate bore of every Daniel Orifice Plate undergoes inspection using a Coordinate Measurement Machine (CMM) to ensure compliance with AGA 3/API 14.3 standards.

Measurement Errors Resulting from Poor Plate Maintenance

| Condition | - Error % |
|---------------------------|-----------|
| Liquid film on meter run | 0.2 - .75 |
| Liquid film on plate | <.25 |
| Plate installed backwards | 8 - 25 |
| Dull plate edge | 0.2 - 3 |
| Small nick in plate edge | 0.002 |
| Dished plate | 2.4 - 9.9 |
| Valve grease on plate | 1 - 3.2 |

Typical Applications

- Custody transfer of oil and gas
- Allocation Measurement

Application Sites

- Pipelines, including transmission and distribution
- Offshore and onshore production
- Gas processing facilities
- Large industrial operations

Features and Benefits

- Precision machining and stringent quality control enhances measurement accuracy and reliability
- Highly accurate flow measurements can be obtained without the need for calibration
- Simple design allows for straightforward operation and easy troubleshooting in the field
- Absence of moving parts results in minimal maintenance requirements
- Low total cost of ownership

Decades Proven. Field Chosen.

For nearly a century, Daniel has been the manufacturer with the experience and expertise to engineer and deliver trusted, superior products. Our products are legendary for providing the most reliable and accurate measurements in the global oil and gas industry.

Daniel® Orifice Plates and Plate Seals are distinguished by exceptional performance and superior durability. These reliable differential pressure measurement solutions have been integral to the oil and gas industry for nearly a century, maintaining their status as one of the most widely utilized technologies to enhance measurement accuracy and longevity under challenging conditions.

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