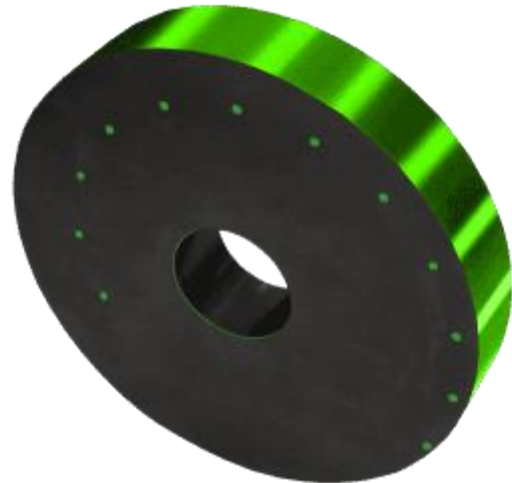


Ketos Ring – Magnetic Particle Testing Tool

Product Description:

The Ketos Ring is a precision-engineered reference standard used for evaluating the overall performance of a magnetic particle examination system. It serves as a crucial tool in Non-Destructive Testing (NDT), particularly in Magnetic Particle Inspection (MPI), by ensuring that magnetic field strength, particle sensitivity, and system functionality meet industry standards.



Manufactured from high-quality ferromagnetic steel, the Ketos Ring is designed with a 5-inch diameter, a thickness of 0.875 inches, and a central mounting hole of 1.25 inches. The 12 precision-drilled through-holes, each with a 0.070-inch diameter, are positioned at incremental distances from the outer diameter (OD) surface. These holes simulate artificial defects, allowing operators to verify the system's ability to detect fine discontinuities under real-world conditions.

Key Features:

- ✓ **Standardized Performance Testing** – Helps assess the sensitivity and consistency of MPI systems.
- ✓ **Precision-Drilled Holes** – 12 through-holes positioned at 0.070-inch increments from the OD, simulating various defect sizes.

- ✓ **High-Quality Ferromagnetic Steel** – Ensures accurate **field strength** verification.
- ✓ **Compatible with AC & DC Magnetization** – Can be used with **circular or longitudinal magnetization methods**.
- ✓ **Durable & Reusable** – Designed for **repeated use** in quality control and system calibration.
- ✓ **Compliance with Industry Standards** – Meets **ASTM and ASME requirements** for MPI testing.

Technical Data Sheet:

Parameter	Specification
Material	High-Quality Ferromagnetic Steel
Outer Diameter (OD)	5 inches (127 mm)
Thickness	0.875 inches (22.2 mm)
Central Hole Diameter	1.25 inches (31.75 mm)
Number of Through-Holes	12
Hole Diameter	0.070 inches (1.78 mm)
Hole Positioning	0.070 to 0.840 inches from OD (incremental increase of 0.070 inches per hole)
Magnetization Compatibility	AC & DC Magnetization
Test Method	Magnetic Particle Inspection (MPI)

Compliance	ASTM E709, ASTM E1444, ASME Section V Article 7
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Usage Instructions:

1. **Mounting** – Secure the **Ketos Ring** onto the **magnetic particle testing equipment** using the **1.25-inch center hole**.
2. **Magnetization** – Apply **circular or longitudinal magnetization** using **AC or DC currents**.
3. **Particle Application** – Apply **magnetic particles** (wet or dry method) while magnetization is active.
4. **Observation** – Inspect the **12 drilled holes** for proper particle indications. The number of visible hole indications determines the **system's sensitivity and performance**.
5. **Adjustment & Recalibration** – If fewer than the expected number of holes are visible, **adjust the magnetizing current, bath concentration, or field direction**.

Applications:

- ◆ **Magnetic Particle System Sensitivity Testing**
- ◆ **Quality Control for MPI Equipment & Materials**

- ◆ **Calibration & Performance Verification**
- ◆ **NDT in Aerospace, Automotive, and Industrial Manufacturing**
- ◆ **Routine System Checks for MPI Inspection Laboratories**