Technology Preview - Proof of Concept

This unit represents a proof of concept, not a commercial product.
Technical specifications and performance data are under validation.

Optical Measuring Machine for Barrel Inspection

TECHNO ID

A new way to measure the internal dimensions

The TECHNO ID demonstrates the next-generation approach to **non-contact optical measurement for rifled barrels**.

The Techno ID targets **axial mapping of the bore geometry**, **rifling profile**, and **roundness variations** for advanced quality control, R&D, and forensic applications.

What it measures

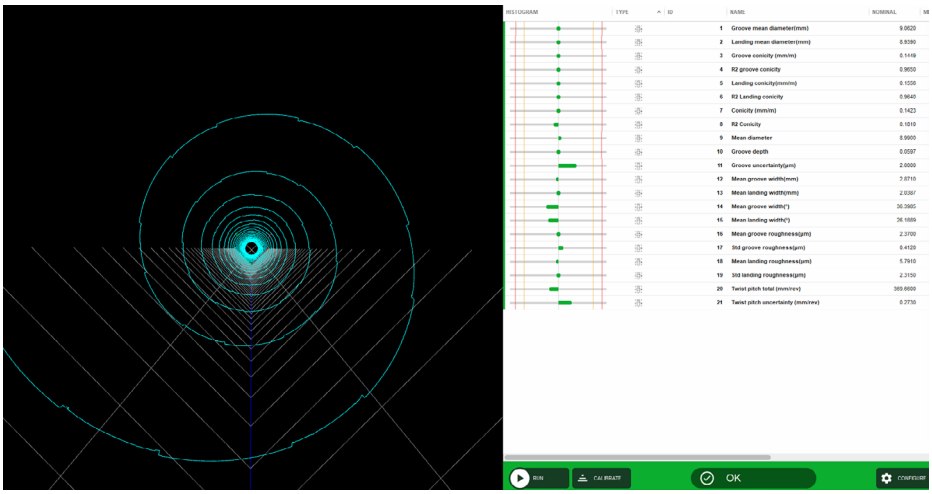
Parameter	What it means	Why it matters
Grooves diameter	Distance between opposing grooves	Detects wear or deformation affecting bore size
Landing diameter	Distance between opposing lands	Identifies machining defects and can be used to measure wear over time
Groove Depth	Radial distance from Groove to Land	Evaluates bullet engagement and rifling integrity
Groove Pitch and Twist Rate	Longitudinal distance for one full rifling rotation	Verifies actual vs designed twist; critical for consistency
Bore Roundness	Deviation from perfect circularity	Detects ovalization and roundness

Technology Preview - Proof of Concept

This unit represents a proof of concept, not a commercial product.
Technical specifications and performance data are under validation.

Why it's different

- Non-contact measurement with high optical resolution
- All key parameters extracted simultaneously
- Continuous twist and groove tracking along the entire bore
- Digital reporting for traceability and data analysis



Practical benefits

- Early detection of machining or wear defects
- Validation of barrel design in R&D stages
- Forensic support through detailed geometric reporting
- Reduced rework and scrap through repeatable, non-destructive inspection
- Correlation of internal geometry with ballistic performance (in lab conditions)

Extending capability through OD measurement expertise

While the TECHNO ID focuses on internal bore inspection, its long-term potential is **strengthened by the proven outer-diameter (OD) measurement technology** developed in Vicivision systems. Our machines are widely recognized for their ability to capture external geometries with high repeatability, automation-friendly workflows, and fully digital reporting.

Integrating this OD measurement heritage with next-generation internal optical metrology sets the foundation for a future platform capable of inspecting both the inside and outside of a barrel in a single setup. Such unified measurement would enable full geometric characterization, from external concentricity and profile features to internal rifling and bore conditions.

This technology pathway positions the **ID TECHNO** as a **game changer**, enabling **comprehensive barrel metrology** with unmatched convenience and precision.

VICIVISION AMERICA

VICIVISION America, LLC.
16611 North 91st Street - Suite 103 - Scottsdale, Arizona 85260
480-331-8479 vicivisionamerica.com