

# NTS SERVICE SPOTLIGHT

## GUN BORE MAPPING

### INDUSTRY-LEADING LASER-BASED INSPECTION

Until recently, quantitative gun barrel inspection had to be conducted manually, a process that would take hours and provide minimal data. Electronic star gauges and video borescope were developed, but these systems provided a minimal number of data points. The BEMIS™ system captures over 7,000 data points per revolution and performs inspections in mere minutes. It also removes much of the user-error that exists in the legacy methods.

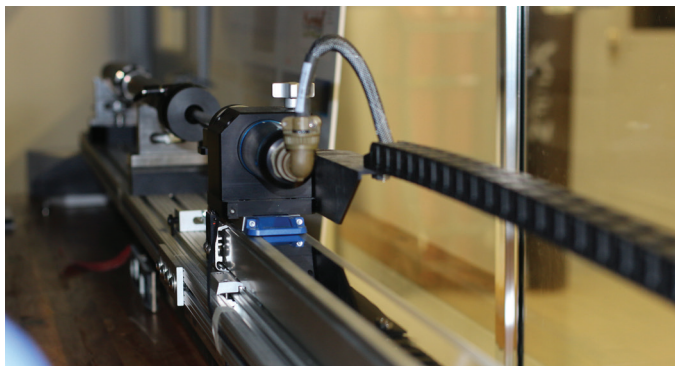
### FIREARM AND AMMUNITION TESTING

Located in Belcamp, MD, just minutes from the U.S. Army Aberdeen Proving Ground, NTS Chesapeake is the industry's first commercial service lab for gun barrel inspection. Both facilities are NVLAP and A2LA ISO/IEC 17025:2005 accredited. We also offer customers scanning services utilizing the BEMIS-SC™ for small caliber weapons. The BEMIS-SC™ is intended for 5.56 - 12.7 mm barrels.

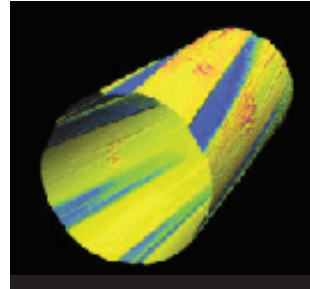
#### **Applications include:**

Barrel erosion/endurance – characterize liners, barrel quality after a number of rounds have been fired to track wear and erosion.

- Quality assurance/control – inspection of new barrels by manufacturers and end-users to characterize manufacturing quality and compare different barrels.



**Eliminate user-error and get your inspection performed within minutes**



**We provide 3D visualization and analysis of the barrel**



**High Resolution LaserVideo™, creates camera-like images**

- Barrel certification/re-certification – inspect fielded weapon systems, report wear and dimensional variance over time in order to better predict barrel lifetime.

#### **Test services include:**

- Fast automated inspection and processing, providing high-precision, consistent, traceable results in minutes – concise and detailed reports provided
- Quantified measurements of internal bore dimensions, including rifling depth and twist rate (both standard & progressive), customized statistical analysis of results
- 3D visualization and analysis of the entire length of the barrel, including precise bore straightness and deflection measurements
- 3D surface measurements – providing point-cloud/surface information in order to compare empirical data direct to the CAD geometry
- High Resolution LaserVideo™, creating camera-like images of the entire inner surface – visualize and measure performance-degrading irregularities such as corrosion, chrome loss, and port erosion

### ABOUT NTS

As one of the largest commercial test laboratory networks in North America, NTS offers test, inspection and certification services for environmental, dynamics, EMC, wireless, product safety, materials, ballistics and much more. Our client partners rely on NTS to bring quality products to market quickly and efficiently, and so can you.