



Carlson

Tool & Manufacturing Corp.

**CONTRACT CMM &
INSPECTION SERVICES**

HIGH PRECISION CMM INSPECTION

Inspection Services & Technology

Carlson's quality lab consists of the latest coordinate measuring technology with four CMM machines providing several measurement strategies for our customers including tactile point measuring, full-contact tactile measurement and non-contact laser scanning.

Touch Probe Measurement

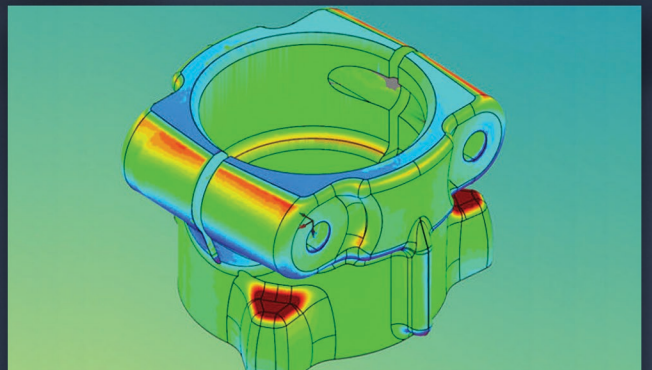
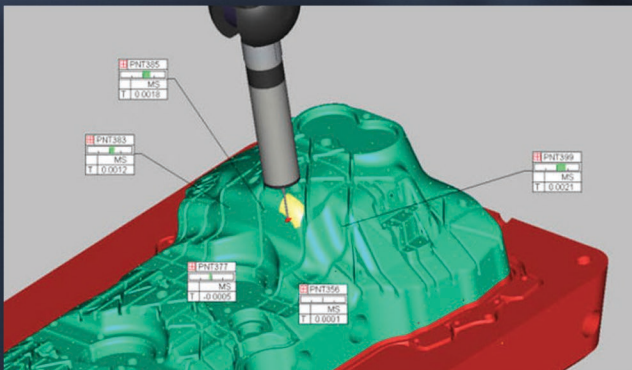
Our touch probe measurement machines provide both point and full contact surface scanning. Point data can be used for part verification and reverse engineering.

- Constant contact or touch point measurement
- 5-axis dynamic positioning of probes
- Extensive array of probe lengths, diameters & articulating heads

Non-Contact Laser Scanning

Our laser scanning sensors are designed for rapid non-contact scanning of parts & surfaces made from a wide variety of materials. Surface conditions include machined, stamped, forged, casted, painted, sand cores, composites and softer materials like plastics, rubber, clay or wood. Point data can be used for part verification as well as reverse engineering.

- 5-axis dynamic positioning of scanning laser
- Use multiple scans from multiple orientations
- 23,000 points/second scan rate
- 0.0015" scanning accuracy



REVERSE ENGINEERING & CMM EQUIPMENT

Reverse Engineering

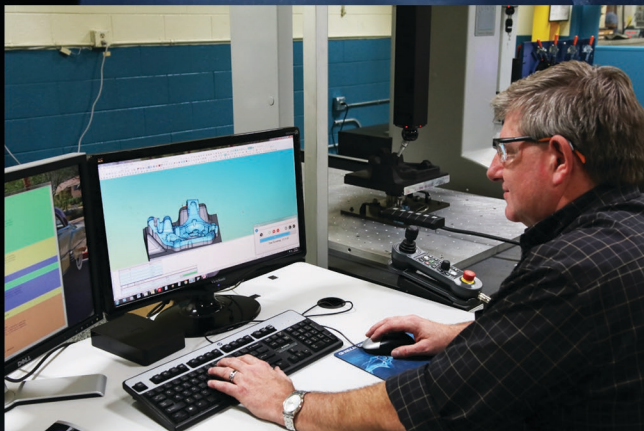
Some tooling surfaces are modified over time so the original CAD program (or model) no longer matches the production tool. Carlson can scan the tooling surfaces and create a new CAD model. Color maps are also easily created to show the dimensional difference between the scanned surface and the associated CAD model. Production parts can be compared to tooling surfaces to quantify process distortions, which aids in diagnosing why a part does not match the production tooling surfaces.

- Create new CAD model from part scans
- View full dimensions with color maps
- Diagnose part fluctuations from CAD model
- Compare tooling to production parts

Our CMM Equipment

We use a variety of CMM capabilities including: Laser scanning, constant contact scanning, touch trigger probing and a PC-DMIS Platform. Carlson's CMM equipment includes:

- 8,000 lbs under hook
- Faro Edge Arm with Laser Scanning
- DEA Alpha 79" x 129" x 59"
- Brown & Sharpe Global 35" x 59" x 31"
- Brown & Sharpe Performance 35" x 47" x 31"
- Brown & Sharpe Performance 20" x 20" x 20"





THE VISION OF CARLSON TOOL IS TO BE OUR
CUSTOMER'S MOST VALUED EMPLOYEE



Made in the USA

Starts Here

Carlson
Tool & Manufacturing Corp.

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Need Speed? Email quality@carlsontool.com to get your project started!