

## LED & LASER SCANNING TECHNOLOGIES



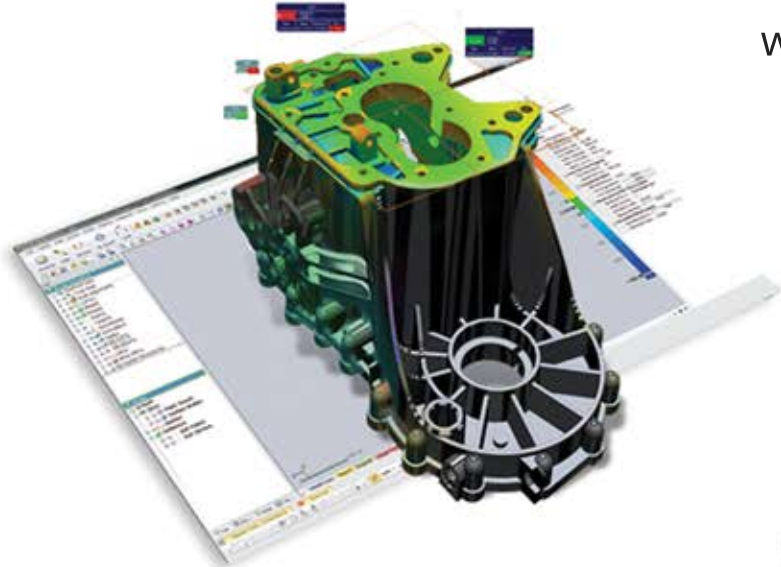
Zeiss Comet L3D 2



Hexagon Absolute AS1

With brands like Zeiss, Hexagon, Faro, PolyWorks, and Geomagic, we have the best tools for any 3D metrology requirement.

- ✓ Scan to Cad Comparisons
- ✓ Mold Verification
- ✓ Dimensional Analysis
- ✓ Virtual Assemblies
- ✓ Reverse Engineering
- ✓ PolyWorks & Scan Training
- ✓ On Site Alignments & Inspection
- ✓ Digital Twin of Artifacts



**CMM Services**  
**X-Ray & CT Scanning**  
**Portable CMM**  
**3D Scanning**  
**2D Vision**  
**Gage Certifications**  
**Reverse Engineering**  
**GD&T Consultation**  
**On Site Support**  
**PC-DMIS &**  
**PolyWorks Training**  
**Free Quotations**



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# HAVEN METROLOGY

INSIGHT INTO THE INSIDE

WITH

**X-RAY &  
COMPUTED  
TOMOGRAPHY  
TECHNOLOGIES**



CMMs • X-Ray & CT • 3D Scanning • Reverse Engineering • Vision

ISO/IEC 17025:2017 Dimensional Calibration  
ISO/IEC 17025:2017 Dimensional Accreditation  
ASNT & NAS410 Certified for RT/ CT  
ITAR Registered & Compliant  
NIST:800-171 & CMMC 2.0 Cybersecurity Audited  
CAGE Code:

**www.havenmetrology.com**  
**1-616-607-8095**

## X-RAY & CT SCANNING

### 225kv Microfocus & 450kv High Energy Systems

For the analysis of medical microplastics to inconel aerospace castings, radiography & CT is revolutionizing how engineers understand their products.

- ✓ Part to Part & CAD Comparisons
- ✓ Porosity, Inclusions, & Cracks
- ✓ FAI / Dimensional Analysis
- ✓ Foams, Plastics, Composites, Castings
- ✓ Fault & Failure Analysis
- ✓ Wall Thickness, Clearance, Interference
- ✓ Reverse Engineering
- ✓ 1 to 450 Micron Resolution Imaging
- ✓ Product Sorting
- ✓ Up to 5x6ft-c & 500lb System Capacity



#### NON DESTRUCTIVE TESTING

Band saws are no longer required for inspecting internal features of your most complex parts.

#### MATERIAL ANALYSIS

Materials testing like porosity, inclusions, adhesion, cracks, penetration, points of failure, fitment analysis & linear density.

#### INCREDIBLE ACCURACY

Artifact driven calibrations mean we scale system accuracy relative to a given project.

#### CUSTOMIZABILITY

Both our cabinet and vault are customizable and have the highest resolution sources, fastest detectors, and heaviest manipulators.

## 10 COORDINATE MEASURING MACHINES

### CMMs SET THE BENCHMARK FOR ALL OTHER MEASURING DEVICES

- ✓ Dimensional Analysis
- ✓ GD&T Consultations
- ✓ Programming
- ✓ PC-DMIS Training
- ✓ On Site Programming
- ✓ Capability / R&R Studies
- ✓ Fixture Certifications
- ✓ Contact Probe Scanning



## REVERSE ENGINEERING

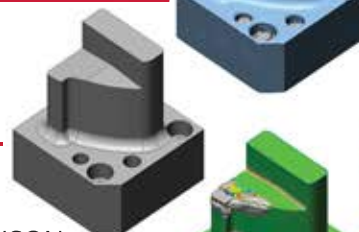
If you have an old component with no CAD, or have modified a part to work better, we can reverse engineer a turnkey CAD model for you.

ACTUAL  
DIE STEEL

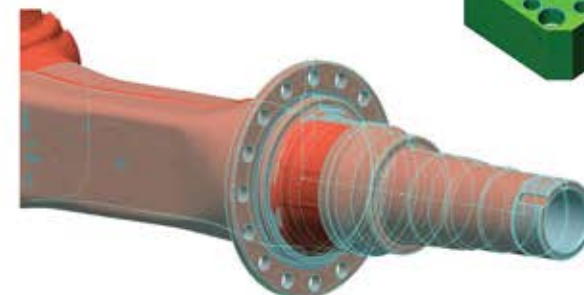


SCANNED  
DIE STEEL

REVERSE  
ENGINEERED  
MODEL



DEVIATION  
COLOR COMPARISON

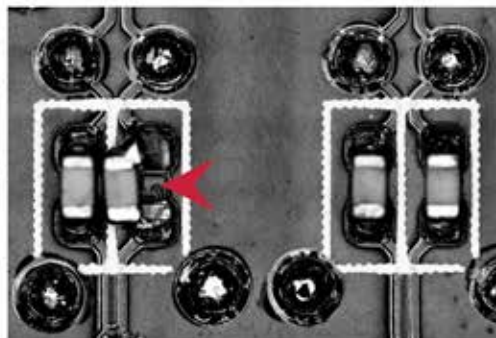


## VISION SERVICES

### HEXAGON OPTIV ADVANTAGE 2D APPLICATIONS

#### SUBMICRON REPEATABILITY

- ✓ Circuit Boards
- ✓ Inscriptions
- ✓ Graphics
- ✓ Bar & QR Codes
- ✓ Scratches
- ✓ Labels



## ON SITE SERVICES & TRAINING

Extreme portability & flexibility of our measuring devices and schedules means we can come to you for on site inspections, training, and demonstrations.

