

ENGINEERING



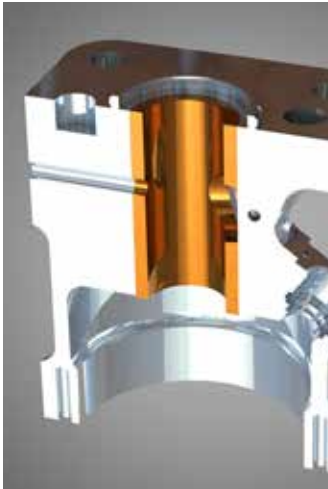
SMI is proud to run a fully contained operation, allowing us to have 100% control of our quality and processes at all times. From writing our own programs to on-site robotic automation, everything we do is accomplished in-house at one of our three northern Michigan facilities.

ENGINEERING CAPABILITIES

Gibbs CAM | CNC Programming
Surf CAM | CNC Programming
Solidworks | Design Software
Unigraphics NX9.0 | Design software
DFMA | Concurrent Cost Modeling
Visual IPI | PPAP & FAIR Modules
Polyworks | 3D Metrology Software

3D Scanning | Reverse Engineering
3D Printing | Rapid Prototyping
Roboguide | Robotics Programming
RSLogix | PLC Programming
Advanced Product Quality Planning (APQP) Processes
Design and Build of Production Assembly Equipment and Work Holding

MACHINING



SMI specializes in both low volume-high mix and high volume machining for the automotive and aerospace industries

MACHINING CAPABILITIES

- Horizontal Machining | Up to 600mm Envelope
- Vertical Mill Turn Machining | Up to 1200mm Envelope
- Vertical Machining | Up to 600mm Envelope
- Lathes with Live Tooling | Up to 550mm Swing
- Wire EDM | Up to 300mm Envelope
- CNC EDM Sinters | Up to 250mm Envelope
- Jig Grinding | Up to 300mm Envelope
- OD - ID Grinding | Up to 250mm Swing
- Manual Honing



Adhering to the principles of lean manufacturing, SMI is dedicated to continuous process improvement. Testing, inspections and certifications are critical to our daily operation. These tight internal controls allow us to exceed customer expectations by consistently delivering a quality product, on time, within budget.

AUTOMATED & MANUAL CAPABILITIES

Volume Capabilities from under 10 parts per day to over 4000 parts per day.

Lean Manufacturing Environment

- Organization
- Problem solving – continuous improvement
- Poka Yoke
- Value Stream mapping
- Virtual Kanban
- Standard Work
- Cellular single piece flow
- Just in time delivery

Manual assembly work cells

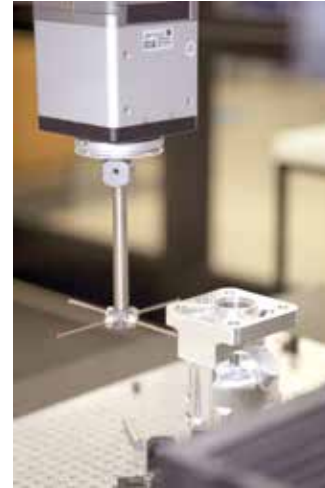
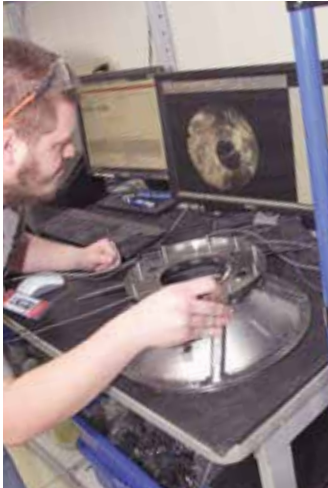
Manual assisted automated work cells

Fully automated work cells with robot and palletized transfer integration

Electronic Data Interchange (EDI) capability with our customers

Material Requirements Planning (MRP) system used to manage material requirements to a supply base

INSPECTION



INSPECTION CAPABILITIES

- Zeiss CMMs | Up to a 2000mm Envelope
- Laser Scanning | Up to 300mm Envelope
- Shop Floor CMMs | Up to 450mm Envelope
- Material Analysis | XRF Gun
- Gage Certification | Laser Mics
- Surface Analysis | Profilometers
- Rigid & Flexible Borescope | Down to 3.25mm Holes x 3 ft.
- SPC Data Collection & Analysis
- Gauss Analysis | Detection & Elimination
- Electrostatic Analysis | Electrostatic Field Meter

Drawing from our extensive expertise, Skilled Manufacturing, Inc. is founded on the principles of hard work and ingenuity. Our engineers and skilled manufacturing professionals aspire to perfection in each and every facet of our business.

SPECIAL PROCESSES



By applying process control, product control and low-volume, high-mix production standards to a new market, SMI is successfully—and cost-effectively—serving the aerospace and automotive industries with precise, made-in-America components.

CAPABILITIES FOR UNIQUE PROCESSES

Ultrasonic Cleaning | Up to 37 Liter Tanks
AF5333 Cleaning | Up to 1200mm Envelope
NDT | NADCAP, HON, WWD Approved
Lapping | Up to 600mm Envelope
Microscope Deburring
ECD Deburring | Up to 1100mm Envelope
Welding | NADCAP-Certified Exotic Metals (Titanium, Fusion, Tack, etc.)
Targeted Oil Flow Testing | Up to 10 gpm
Pressure Testing | Up to 1500 psi
Leak Testing | Air Pressure Decay & Differential
ISO 8 Class 100,000 Clean Room | Positive Pressure Particulate Monitored

SMI is dedicated to being best in class by understanding customer needs, creating innovative solutions and continuously improving to deliver quality products that our customers demand. Our accomplishments are backed by implementing tools and technologies that support our vision.

QUALITY \ DELIVERY



In our never-ending quest for perfection, neither the classic *Top-Down* nor *Bottom-Up* management style makes it into the SMI playbook. We prefer a level playing field where the entire team is working together, supporting each other, and striving to reach a common goal: 100% customer satisfaction. From the skilled technicians on the shop floor to the innovative engineers in the front office, everyone at SMI understands that he or she plays critical role in our success. And our success—ultimately—will be your success, too.

CERTIFICATIONS

ISO 9001-2000 / AS 9100
ISO 14001-2004
TS 16949-2009
Nadcap Non-destructive Testing
Nadcap Welding
C3 Certified Clean Corporate Citizen
Michigan Business Pollution Prevention Partnership
National Minority Certified Supplier

ABOUT US



Aerospace Division



Automotive Division

OUR MISSION

The perfect execution and meticulous attention to detail that provides engineered solutions for our customers that generate jobs and security for our community.

OUR VISION

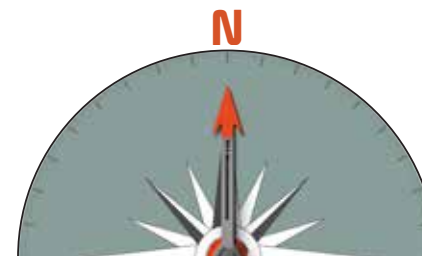
Responsible economic growth as a result of strong partnerships.

OUR VALUES

- Safety
- Customer Satisfaction
- Continuous Improvement
- Teamwork and Communication
- Integrity
- Trust and Respect

TRUE NORTH PERFECT EXECUTION

Safety | Quality | Delivery | Cost



LEADERSHIP TRIANGLE





SMI COMPANY SPECIFICATIONS

Number of Manufacturing Plants | 03

Area of Plants | Automotive ~100,000 ft.² | Aerospace ~100,000 ft.² | Specialty ~50,000 ft.²

Number of Employees | 275

Locations | All plants located in Traverse City, Michigan

- ▶ **Automotive Division** | 3680 Cass Road | Traverse City, Michigan 49684
- ▶ **Aerospace Division** | 2440 Aero Park Drive | Traverse City, Michigan 49686
- ▶ **Automotive \ Specialty Division** | 1867 Cass-Hartman Court | Traverse City, Michigan 49684