MICHIGAN AUTOMOTIVE RESEARCH & DEVELOPMENT DIRECTORY
Author
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Center for Automotive Research, Altarum Institute

Acknowledgements
A great deal of work went into the compilation of this directory. The author would like to acknowledge the following: Diana Douglas, Lynette Ross, Cathy Rowe, Debbie Schilz and Bernard Swiecki from the Center for Automotive Research. As well as, Gary Krause and Amanda Becker from the MEDC.

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INTRODUCTION
Overall, R&D is a major industry in Michigan.

- #1 state for vehicle-related R&D activity, spending $13.5 billion and employing 65,000
- #1 state in industrial R&D intensity: ratio of R&D dollars to Gross State Product
- #1 state in per capita R&D investment
- #4 overall in high-tech employment, more than 531,000
- #2 State for total R&D investment—$18.8 billion in 2000

1. In 2000, the most recent year for which full information is available (National Science Foundation)
2. U.S. Census Bureau, Statistical Abstract of the US, 1999
3. Altarum Institute, Center for Automotive Research, 2002
Crossover R&D

Industry-related R&D starts with the search for product improvement. But it does not end there. Innovations in the automotive manufacturing process are crossing over into other industries. Those solutions morph into new processes, in turn migrating to other sectors with unforeseen and often surprising results. There are no limits to potential applications.

- Consider the 3-D CAT scan technology developed by Ford Motor scientists for nondestructive evaluation of auto parts. It has evolved into the scanners now used in diagnosis by hospitals.

- CAD, CAM and CAE introduced new efficiencies into the engineering of auto components and systems. They have become indispensable tools for all manner of design and modeling disciplines, among them architectural design and molecular research.

- Just-in-time inventory control, logistics and quality management all started as solutions to specific auto-assembly problems. They have evolved to become the science of logistics and supply-chain management, with applications in every industry and in every country.

- QQC is a small Dearborn-based company specializing in lasers. It has licensed laser technology to auto supply giant Visteon for diamond-hardening applications. The same technology is being used by Boeing for aircraft tools, and has been adapted for use in arthroscopy surgical instrument equipment by Linvatec and in ophthalmology by Alcon Laboratories.

- Or take POM Group, the Auburn Hills-based prototyper for the automakers. Its direct metal deposition process is a major advance in metalworking with applications in aerospace and defense, electronics, consumer products and health care.
Directory of R&D Facilities in Michigan

This is the first directory of vehicle-related R&D facilities published in Michigan, and in fact the only one of its kind in the nation. It lists 135 companies that have facilities located in the state devoted to basic or applied vehicle-related research, engineering, testing and/or product development. They range from multi-national, multi-industry conglomerates to one-shop, homegrown enterprises.

How to Use This Directory

This directory is available in an online version at MEDC and CAR Web sites. The online version is searchable by category and will be updated frequently.

Following the alphabetic company information section in this directory are a number of indexes. The indexes are grouped by: company location, vehicle components/specialties, company activities and special services. After finding a company name in one of these indexes, turn to the main alphabetic section for further information regarding that company.

Information in the listings include:

- Name, address, phone numbers and Web site of research facilities
- Parent organization
- Principal executives at the facility
- Employment and make-up by degree and specialty
- Description of R&D activities
- Description of the facility
- Services offered by the facility
The main section of this directory is arranged by company name in alphabetic order. The entries in the main alphabetic section contain information related to the company.
**AFL Automotive**
999 Republic Drive, Allen Park, MI 48101
ph: 313.441.5400 • fx: 313.441.5490 • www.aflauto.com

**PARENT ORGANIZATION**
Alcoa Fujikura Ltd

**PRINCIPALS**
Not reported

**TOTAL EMPLOYMENT**
Not reported

**AUTOMOTIVE R&D SPENDING**
Not reported

**ECONOMIC ACTIVITY 2001**
Not reported

**PROFESSIONAL STAFF**
Not reported

**R&D ACTIVITIES**
Product development and engineering

**PRODUCTS**
A diversified base of products which interface or are integral parts of the electronic/electrical distribution systems. Assemble and deliver integrated electrical systems

**FACILITY DESCRIPTION**
Not reported

**OTHER SERVICES**
Work on projects for others and work for hire

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**Altair Engineering, Inc**
1820 E Big Beaver Road, Troy, MI 48083

**PARENT ORGANIZATION**
Altair Engineering, Inc

**PRINCIPALS**
Jim E Brancheau, CTO
Mike Heskitt, VP Global Engineering
James P Dagg, VP Global Software Development
Tim Smith, Dir Design Engineering
Rick Darling, Dir Development and Testing

**TOTAL EMPLOYMENT**
650

**AUTOMOTIVE R&D SPENDING**
90%

**ECONOMIC ACTIVITY 2001**
$63 Million

**PROFESSIONAL STAFF**
Engineers: 400
Engineering software developers: 130
PhD engineers: 30
Technicians: 5
Vehicle development engineers: 6

**R&D ACTIVITIES**
Design development, process automation and engineering software. Including: structural optimization, robust design, alternative materials, NVH, durability, safety/energy management and manufacturing processes

**PRODUCTS**
From components to full vehicle systems

**FACILITY DESCRIPTION**
Product development and test facilities

**OTHER SERVICES**
Consulting
American Axle & Manufacturing
AAM Technical Center
2965 Technology Drive, Rochester Hills, MI 48309
ph: 800.299.AXLE (2953) • www.aam.com

PARENT ORGANIZATION
American Axle & Manufacturing

PRINCIPALS
Daniel V Sagady, VP Engineering, Product Development
Richard F Dauch, VP Sales

TOTAL EMPLOYMENT
Not reported

PERCENT EMPLOYMENT R&D
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Applied research, product development and testing

PRODUCTS
Product design and development, competitive analysis, systems integration, chassis systems, forged products, validation and certification of driveline systems

FACILITY DESCRIPTION
80,000 sq ft facility. Design, validation and testing facility

OTHER SERVICES
Not reported

Analytical Process Systems
1771 Harmon Road, Auburn Hills, MI 48236
ph: 248.393.0700 • fx: 248.393.0800 • www.aps-mich.com

PARENT ORGANIZATION
Analytical Process Systems

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
CAD department
Electrical engineers
Mechanical engineers
Software engineers

R&D ACTIVITIES
Engineering, testing and product development

PRODUCTS
Single source solutions provider for mobile and stationary source emissions, specialty testing equipment, control system integration and facility safety systems

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Consulting services, design and build only or complete turnkey solutions
ArvinMeritor Automotive
2135 W Maple Road, Troy, MI 48084
ph: 248.435.1000 • fx: 248.435.1393 • www.arvinmeritor.com

PARENT ORGANIZATION
ArvinMeritor Automotive

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers

R&D ACTIVITIES
Engineering

PRODUCTS
Broad range of integrated systems, modules and components to OEMs. In addition to coil coating applications

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Work on projects for others

ATEQ Corporation
42000 Coppernick Road, Suite A4, Canton, MI 48187

PARENT ORGANIZATION
ATEQ Corp

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Engineering and testing

PRODUCTS
Design and manufacture high technology leak testers for the manufacturing industry

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
None
Autoliv Inc
1320 Pacific Drive, Auburn Hills, MI 48326
ph: 248.475.9000 • www.autoliv.com

PARENT ORGANIZATION
Autoliv Inc

PRINCIPALS
Ray Pekar, Facility Director

TOTAL EMPLOYMENT
450

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers: 200
Professionals: 190
Technicians: 60

R&D ACTIVITIES
Design and development of vehicle safety components. Vehicle testing of automotive safety systems

PRODUCTS
Safety restraints

FACILITY DESCRIPTION
North American headquarters containing crash laboratory

OTHER SERVICES
Component and full vehicle crash testing

Automotive Technologies International Inc
PO Box 140, Romeo, MI 48065
ph: 810.444.4274 • fx: 810.724.2173

PARENT ORGANIZATION
Automotive Technologies International Inc

PRINCIPALS
David Breed, CEO, President
Stuart Davis, Facility Manager

TOTAL EMPLOYMENT
14

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers: 9
PhD Scientists: 2
Technician: 1

R&D ACTIVITIES
Develop automotive safety systems

PRODUCTS
Sensors

FACILITY DESCRIPTION
Lab and prototype facility

OTHER SERVICES
Develop systems in partnership with other companies
AVL Powertrain Engineering, Inc
47519 Halyard Drive, Plymouth, MI 48170
ph: 734.414.9600 • fx: 734.414.9690 • www.avl.com/pei

PARENT ORGANIZATION
AVL Powertrain Engineering, Inc

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
120

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Development engineers
Software engineers

R&D ACTIVITIES
Testing and engineering

PRODUCTS
Modern gasoline and diesel engines as well as alternatively fuelled power plants for a world-wide customer base. Totally new design and development of an engine or engine family and improvement of existing engines

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Complete test cell facility. Powertrain validation testing with 20 dispersed test sites including vehicle facilities

Aztec Manufacturing
15378 Oakwood Drive, Romulus, MI 48174
ph: 734.942.7433 • www.aztecmfgcorp.com

PARENT ORGANIZATION
Aztec Manufacturing

PRINCIPALS
Gregory Lopez, VP Operations
Mike Radeka, Dir Product Development
Dan Crowther, General Manager

TOTAL EMPLOYMENT
138

AUTOMOTIVE R&D SPENDING
10%

ECONOMIC ACTIVITY 2001
$28 Million

PROFESSIONAL STAFF
Engineers: 7
Product development: 2
Technicians: 3

R&D ACTIVITIES
Automotive component product development and engineering

PRODUCTS
Chassis, suspension and powertrain components

FACILITY DESCRIPTION
Product development, engineering office, quality lab, prototype tool room and production machine shop

OTHER SERVICES
Work on projects for others
**BASF Corp**

1609 Biddle Avenue, Wyandotte, MI 48192  
ph: 800.527.TECH • fx: 734.324.5254 • www.basf.com

**PARENT ORGANIZATION**  
BASF AG

**PRINCIPALS**  
Not reported

**TOTAL EMPLOYMENT**  
North America: 14,000

**AUTOMOTIVE R&D SPENDING**  
Not reported

**ECONOMIC ACTIVITY 2001**  
North America: $6.9 Billion

**PROFESSIONAL STAFF**  
Chemical engineers

**R&D ACTIVITIES**  
Basic/applied research and product development

**PRODUCTS**  
Molded automotive parts made of microcellular polyurethane (MPU) for suspension applications. Jounce bumpers, spring aids, coil spring isolators, shock mounts and body mounts made of Elastocell®

**FACILITY DESCRIPTION**  
Not reported

**OTHER SERVICES**  
Work on products for others

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**Borg-Warner Air Fluid Systems**

6700 18½ Mile Road, Sterling Heights, MI 48314  
www.bwauto.com

**PARENT ORGANIZATION**  
Borg-Warner Air Fluid Systems

**PRINCIPALS**  
Not Reported

**TOTAL EMPLOYMENT**  
114

**AUTOMOTIVE R&D SPENDING**  
Not Reported

**ECONOMIC ACTIVITY 2001**  
Not Reported

**PROFESSIONAL STAFF**  
Design engineers  
Mechanical engineers

**R&D ACTIVITIES**  
Engineering and product development

**PRODUCTS**  
Engine performance reliability and fuel economy, transmissions, four-wheel drive systems and air fluid systems.

**FACILITY DESCRIPTION**  
Not Reported

**OTHER SERVICES**  
Work on projects for others
**BOS Automotive Inc**
2619 Product Drive, Suite 108, Rochester Hills, MI 48309  

**PARENT ORGANIZATION**
BOS GmbH & Co KG

**PRINCIPALS**
Mark Miles, President  
Mike Matthews, Dir Engineering

**TOTAL EMPLOYMENT**
25

**AUTOMOTIVE R&D SPENDING**
Not reported

**ECONOMIC ACTIVITY 2001**
$40 Million

**PROFESSIONAL STAFF**
Designers: 7  
Engineers: 4  
Program managers: 5  
Technicians: 3

**R&D ACTIVITIES**
Develop, design, and build luggage covers, restraining nets, passenger sun protection systems and cargo management systems

**PRODUCTS**
Not reported

**FACILITY DESCRIPTION**
Sales, program, management, engineering and prototype facility

**OTHER SERVICES**
Not reported

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**Bosal International North America**
345 Metty Drive, Ann Arbor, MI 48103  

**PARENT ORGANIZATION**
Bosal International Lummen, Belgium

**PRINCIPALS**
John Miles, President  
Mike Matthews, Dir Engineering

**TOTAL EMPLOYMENT**
21

**AUTOMOTIVE R&D SPENDING**
100%

**ECONOMIC ACTIVITY 2001**
$4 Million

**PROFESSIONAL STAFF**
Mechanical engineers: 19

**R&D ACTIVITIES**
Basic research testing

**PRODUCTS**
Exhaust systems for original equipment customers

**FACILITY DESCRIPTION**
Anechoic chamber (noise data)—model shop, noise test track

**OTHER SERVICES**
Facilities available for use by others
**Bosch Rexroth Corp**

1701 Harmon Road, Auburn Hills, MI 48236

ph: 248.393.3330 • fx: 248.393.2893 • www.boschrexroth-us.com

- **PARENT ORGANIZATION**
  Robert Bosch GmbH

- **PRINCIPALS**
  Not reported

- **TOTAL EMPLOYMENT**
  Not reported

- **AUTOMOTIVE R&D SPENDING**
  Not reported

- **ECONOMIC ACTIVITY 2001**
  Not reported

- **PROFESSIONAL STAFF**
  Applications engineers

- **R&D ACTIVITIES**
  Product development and engineering

- **PRODUCTS**
  Assembly technology—providing standardized modules for the fast, simple execution of manual and automated production lines. Products include ball and roller rail systems, linear bushings and shafts, ball screw assemblies, linear motion systems, aluminum structural framing, ergonomic workstations and accessories, robot and handling systems, flexible assembly conveyors and planning software and training

- **FACILITY DESCRIPTION**
  Not reported

- **OTHER SERVICES**
  Consulting and work on projects for others

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**Branson Ultrasonics Corporation**

2650 Commerce Drive, Rochester Hills, MI 48309

ph: 248.299.0400 • fx: 248.299.9343 • www.branson-plasticsjoin.com

- **PARENT ORGANIZATION**
  Emerson

- **PRINCIPALS**
  Not reported

- **TOTAL EMPLOYMENT**
  Not reported

- **AUTOMOTIVE R&D SPENDING**
  Not reported

- **ECONOMIC ACTIVITY 2001**
  Not reported

- **PROFESSIONAL STAFF**
  Design engineers
  Mechanical engineers

- **R&D ACTIVITIES**
  Product development and engineering

- **PRODUCTS**
  Instrument panels, glove box/knee bolsters, instrument clusters, interior trim, HVAC housings, intake manifolds, carbon canisters, electronic modules, resonators and exterior lighting

- **FACILITY DESCRIPTION**
  Not reported

- **OTHER SERVICES**
  Work on projects for others
Bruei & Kjaer
15873 Middlebelt Road, Livonia, MI 48154
ph: 734.522.8600 • www.bksv.com

PARENT ORGANIZATION
Spectris Technology

PRINCIPALS
Gary Newton, Facilities Mgr, Sales

TOTAL EMPLOYMENT
7

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
$4 Million

PROFESSIONAL STAFF
Application engineer: 2
Facilities: 1
Sales: 2

R&D ACTIVITIES
Not reported

PRODUCTS
Noise, vibration and harshness reduction equipment

FACILITY DESCRIPTION
Training facilities, service and support center

OTHER SERVICES
Consulting, equipment calibration and services

Burke E Porter Machinery Co
730 Plymouth Avenue NE, Grand Rapids, MI 49505
ph: 616.459.9531 • fx: 616.459.1032 • www.bepco.com

PARENT ORGANIZATION
Burke E Porter Machinery Co

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Systems engineers

R&D ACTIVITIES
Product development and systems engineering

PRODUCTS
Advanced electrical, mechanical, and software solutions for automotive test systems. Test systems and test stands

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Work on projects for others
### Calsonic Kansei North America Inc

**Address:** 27000 Hills Tech Court, Farmington Hills, MI 48331  
**Phone:** 248.848.4876 • Fax: 248.848.4850 • [www.calsonic.com](http://www.calsonic.com)

<table>
<thead>
<tr>
<th><strong>PARENT ORGANIZATION</strong></th>
<th><strong>R&amp;D ACTIVITIES</strong></th>
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<tbody>
<tr>
<td>Calsonic Kansei Corp</td>
<td>Testing product development</td>
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<tr>
<th><strong>PRINCIPALS</strong></th>
<th><strong>PRODUCTS</strong></th>
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<tbody>
<tr>
<td>David Keeney, VP Engineering</td>
<td>HVAC, exhaust, engine cooling and interior modules</td>
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<tr>
<th><strong>TOTAL EMPLOYMENT</strong></th>
<th><strong>FACILITY DESCRIPTION</strong></th>
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<tbody>
<tr>
<td>Not reported</td>
<td>Mechanical and electronic</td>
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<tr>
<th><strong>AUTOMOTIVE R&amp;D SPENDING</strong></th>
<th><strong>OTHER SERVICES</strong></th>
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<tbody>
<tr>
<td>100%</td>
<td>Wind tunnel and EMC test chamber</td>
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<tr>
<th><strong>ECONOMIC ACTIVITY 2001</strong></th>
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<tr>
<td>$3.6 Billion</td>
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<tr>
<th><strong>PROFESSIONAL STAFF</strong></th>
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<tbody>
<tr>
<td>Electrical engineers</td>
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<tr>
<td>Technicians</td>
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<tr>
<td>Thermal engineers</td>
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### Cascade Engineering

**Address:** 5251 36th Street SE, Grand Rapids, MI 49512  
**Phone:** 616.975.4800 • Fax: 616.975.4707 • [www.cascadeng.com](http://www.cascadeng.com)

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<tr>
<th><strong>PARENT ORGANIZATION</strong></th>
<th><strong>R&amp;D ACTIVITIES</strong></th>
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<tbody>
<tr>
<td>Cascade Engineering</td>
<td>Concept design, product design, FEM/FEA, process engineering, materials engineering and testing</td>
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<thead>
<tr>
<th><strong>PRINCIPALS</strong></th>
<th><strong>PRODUCTS</strong></th>
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<tbody>
<tr>
<td>Fred Keller, CEO</td>
<td>Interior automotive trim, exterior automotive body panels, under hood and firewall sound abatement products, interior and exterior truck components</td>
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<tr>
<td>Mike Volz, President, COO</td>
<td></td>
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<tr>
<td>Steve Peterson, CFO</td>
<td></td>
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<tr>
<td>John Kundrat, VP Technology</td>
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<tr>
<td>Jennifer Fischer, Dir Corp Development</td>
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<tr>
<th><strong>TOTAL EMPLOYMENT</strong></th>
<th><strong>FACILITY DESCRIPTION</strong></th>
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<tbody>
<tr>
<td>900</td>
<td>CAD/CAM/CAE design center, materials laboratory, CMM lab, R&amp;D laboratory and process engineering facility</td>
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<tr>
<th><strong>AUTOMOTIVE R&amp;D SPENDING</strong></th>
<th><strong>OTHER SERVICES</strong></th>
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<tbody>
<tr>
<td>50%</td>
<td>Materials lab services, CMM lab services, custom compounding of thermal plastics and design/analysis</td>
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<table>
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<tr>
<th><strong>ECONOMIC ACTIVITY 2001</strong></th>
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<tbody>
<tr>
<td>$2 Million</td>
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<table>
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<tr>
<th><strong>PROFESSIONAL STAFF</strong></th>
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<tbody>
<tr>
<td>Engineers and scientists: 60</td>
</tr>
<tr>
<td>Technicians: 20</td>
</tr>
</tbody>
</table>
Citation Corporation
27275 Haggerty Road, Suite 420, Novi, MI 48377
ph: 248.522.4500 • www.citationcorp.com

PARENT ORGANIZATION
Citation Corp

PRINCIPALS
Karl Sekerka, VP Sales, Marketing
Vincent Genise, VP Product Engineering, Development

TOTAL EMPLOYMENT
50

PERCENT EMPLOYMENT R&D
90%

ECONOMIC ACTIVITY 2001
$800 Million

PROFESSIONAL STAFF
Application engineers: 3
Design engineer: 5
Engineering analyst: 5
Lab technician: 2
Test engineer: 1

R&D ACTIVITIES
Product development, design, structural analysis, manufacturing process simulation and validation test

PRODUCTS
Chassis, suspension, brakes, body and powertrain components

FACILITY DESCRIPTION
Facility contains design, analysis, simulation, materials and structural labs

Clark Engineering Services, LLC
821 E Front Street, Buchanan, MI 49107
ph: 616.697.8632 • fx: 616.697.4525 • www.ceslab.com

PARENT ORGANIZATION
Clark Engineering Services, LLC

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
109

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
$5 Million to $10 Million

PROFESSIONAL STAFF
Test engineers

R&D ACTIVITIES
Testing

PRODUCTS
CES product testing experience ranges from small components such as starters and air motors to transmissions and axles in excess of 1000 horsepower

FACILITY DESCRIPTION
The CES test facility covers over 55,000 sq ft located on a 24-acre test site. The facility is capable of testing vehicles, sub-assemblies or individual components

OTHER SERVICES
Work on projects for others and consulting
Climax Research Services
51229 Century Court, Wixom, MI 48393
ph: 248.960.4900 • fx: 248.960.4970 • www.climaxresearch.com

PARENT ORGANIZATION
Climax Research Services

PRINCIPALS
A Duane Rose, President
Dr John M Tartaglia, Engineering Mgr

TOTAL EMPLOYMENT
42

AUTOMOTIVE R&D SPENDING
95%

ECONOMIC ACTIVITY 2001
$3.8 Million

PROFESSIONAL STAFF
Chemists: 4
Engineers: 9
Engineering interns: 3
Technicians: 12

R&D ACTIVITIES
Metallurgical engineering and testing

PRODUCTS
Research/test new alloy and designer metals

FACILITY DESCRIPTION
Laboratories for chemical analysis, metallurgy, corrosion, wear, fatigue testing and heat treatment

OTHER SERVICES
Consulting and conduct engineering projects for others. Facilities available for use by others on contract basis

Collins & Aikman Corporation
Global Product Development Division
47785 W Anchor Court, Plymouth, MI 48170
ph: 734.207.7000 • www.colaik.com

PARENT ORGANIZATION
Collins & Aikman Corp

PRINCIPALS
Graham Thompson, Sr VP GPDD
Surendra Khambete, Sr Dir Materials Tech
Christopher Griffen, Sr Dir Acoustics Tech
Satha T Raveendra, Dir CAE Tech
Terry Anderson, Dir Materials Dev

TOTAL EMPLOYMENT
41

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
NVH engineers: 22
NVH technician: 5
PhD: 6

R&D ACTIVITIES
Basic and applied research, testing, engineering and product development

PRODUCTS
Auto interiors, interior panels, headliners, carpets and trunk liners

FACILITY DESCRIPTION
Vibro-acoustic testing

OTHER SERVICES
Materials testing, physical properties, acoustic, vibration, testing and analysis
Control Power-Reliance, LLC
310 Executive Drive, Troy, MI 48083
ph: 248.583.1020 • fx: 248.583.9496 • www.cp-r.com

PARENT ORGANIZATION
JE Myles, Inc and EXPERTEK

PRINCIPALS
Ed Myles, President
Scott Myles, Vice President

TOTAL EMPLOYMENT
43

AUTOMOTIVE R&D SPENDING
90%

ECONOMIC ACTIVITY 2001
$5 Million

PROFESSIONAL STAFF
Engineers: 9

R&D ACTIVITIES
6-axis rail and truck impact drive file development and transportation simulation testing of parts, containers and dunnage

PRODUCTS
Test vehicle sub-assemblies in their respective shipping containers and dunnage

FACILITY DESCRIPTION
An array of product functional testing equipment including 6-axis, 15,000 lb capacity testing machines and a rail impact test machine. This is a proprietary full size rail car (15 ft long) operating on over 100 ft of track with computer controlled acceleration, deceleration simulating actual field conditions.

OTHER SERVICES
Consulting and testing services, validation of prototype parts, containers and dunnage designs for major automotive companies and their Tier 1 and 2 suppliers

Corrsys-Datron Sensorsystems, Inc
21654 Melrose Avenue, Building 16, Southfield, MI 48075
ph: 248.204.0850 • fx: 248.204.0864 • www.corrsys-datron.com

PARENT ORGANIZATION
Corrsys-Datron Sensorsystems, Inc

PRINCIPALS
Frank W Ervin III, Vice President
Adam Ramouni, General Sales Mgr

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Engineering and product development

PRODUCTS
Design, development, and manufacture of instrumentation for dynamic vehicle testing and other applications that require the precision measurement of variables including speed, distance, height and angle

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Work on products for others
### Cosworth Technology, Inc

**41000 Vincenti Court, Novi, MI 48375**  
**ph: 248.471.5000 • fx: 248.471.3680 • www.cosworth-technology.com**

**Parent Organization:** Cosworth Technology, Inc  
**PRINCIPALS:** Jonathan Hurden, US Operations Dir  
**Total Employment:** Not reported  
**Automotive R&D Spending:** Not reported  
**Economic Activity 2001:** Not reported  
**Professional Staff:** Calibration engineers, Diagnostic engineers, Project engineers, Software engineers, Technicians/diagnostic automotive

**R&D Activities:** Engineering, testing and product development

**Products:** Engine engineering, installation systems, electronic systems applications, emissions and drivability development and on-board diagnostics

**Facility Description:** Recently added a vehicle emission testing laboratory. Associated with the emissions laboratory are controlled soak areas, a prototype shop and customer work areas

**Other Services:** Work on products for others

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### DaimlerChrysler Corporation

**1000 Chrysler Drive, Auburn Hills, MI 48326**  
**ph: 248.576.5741 • fx: 248.576.4742 • www.dcx.com**

**Parent Organization:** DaimlerChrysler Corp  
**PRINCIPALS:** Dieter Zetsche, President, CEO  
Bernard I Robertson, Sr VP Engineering Technologies, Regulatory Affairs  
Richard O Schaum, Executive VP Product Development, Quality  
Thomas J Freeman, VP Advanced Product Design Strategy  
**Total Employment:** Not reported  
**Percent Employment R&D:** Not reported  
**Economic Activity 2001:** Not reported  
**Professional Staff:** Not reported

**R&D Activities:** Applied research, engineering, testing and product development

**Products:** Design, prototype, and engineer products for DaimlerChrysler vehicles

**Facility Description:** Includes: powertrain test facility, wind tunnel, road simulators and emissions test facilities

**Other Services:** No external services

**Additional Information:** DaimlerChrysler has extensive R&D capabilities focused on applied research and product development within the company. For further information contact DaimlerChrysler at the phone number listed above
Defiance Testing & Engineering
950 Maplelawn Drive, Troy, MI 48084
ph: 248.458.5900 • fx: 248.458.5901 • www.defiancetest.com

PARENT ORGANIZATION
Gentek

PRINCIPALS
Clive Spackman, VP, General Mgr

TOTAL EMPLOYMENT
200

AUTOMOTIVE R&D SPENDING
90%

ECONOMIC ACTIVITY 2001
$38 Million

PROFESSIONAL STAFF
Engineers: 60
   (BS: 27, MS: 25, PE: 8)
   Technicians: 100

R&D ACTIVITIES
Block cycle and real time simulation testing, fatigue durability, safety, noise and sound quality evaluations, data acquisition, environmental and CAE

PRODUCTS
Component to full vehicle, car, light truck, heavy truck and off highway chassis, bumpers, suspension and steering, electrical components and systems, body structure and closures, powertrain and exhaust interior

FACILITY DESCRIPTION
A2LA and ISO guide 17025 certified, 270,000 sq ft of facilities. Structural test lab using primarily hydraulic actuators

OTHER SERVICES
Provide service at our facility or at the customers location

Delphi Automotive Systems Technical Center
12501 E Grand River Avenue, Brighton, MI 48116
ph: 810.494.4492 • fx: 810.494.4421

PARENT ORGANIZATION
Delphi Corp

PRINCIPALS
Matthew M Henry, Chief Engineer

TOTAL EMPLOYMENT
406

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not Reported

PROFESSIONAL STAFF
Not Reported

R&D ACTIVITIES
Applied research, testing, engineering and product development

PRODUCTS
Engine management, chassis systems, passenger protection, brakes, steering, and power doors

FACILITY DESCRIPTION
Model shop, electronics lab, instrumentation lab, vehicle disassembly and automotive cold box

OTHER SERVICES
Consulting. Facilities available for use by others
### Delphi Corporation

**Parent Organization**
- Delphi Corp

**Principals**
- Dr Andrew Brown, Dir Engineering
- Dr Tony Lee, Dir Global R&D, Technology Leveraging

**Total Employment**
- Michigan: 18,000

**Automotive R&D Spending**
- 90%

**Economic Activity 2001**
- $26.1 Billion

**Professional Staff**
- Technical professionals: 2,500

**R&D Activities**
- Basic and applied research, testing, engineering and product development

**Products**
- Automotive systems, components and modules (chassis, thermal systems, steering, connection systems, electronics and engine management)

**Facility Description**
- Mechanical lab, model shop and electronics lab

**Other Services**
- No external services

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### Denso International America Inc

**Parent Organization**
- Denso

**Principals**
- Doug Patton, Sr VP T/C

**Total Employment**
- Southfield: 499 (168 in labs)

**Automotive R&D Spending**
- 10%

**Economic Activity 2001**
- $4 Billion

**Professional Staff**
- Engineers: 130
- Technicians: 32
- Office Support: 6

**R&D Activities**
- Product development in the areas of climate control products, fuel pumps and electronic displays. Testing is conducted for Denso’s product line at the component, system and vehicle level

**Products**
- Climate control systems, engine controls and sensors, starter motors, alternators, accessory drive motors, telematics systems, display and information products, gasoline and diesel fuel handling systems, safety system items and related products

**Facility Description**
- Vehicle test capabilities include: a full size anechoic chamber, emission test chamber, two engine dyno cells, high temp chamber, high/low temp chamber, climatic wind tunnel, component and system bench test capabilities, materials lab, EMC component chamber, vibration test capabilities, BSR chamber, a full machine shop and rapid modeling capabilities. 177,000 sq ft facility

**Other Services**
- No external services
Donnelly Corporation
49 W Third Street, Holland, MI 49423
ph: 616.786.7000 • fx: 616.786.6034 • www.donnelly.com

PARENT ORGANIZATION
Donnelly Corp

PRINCIPALS
Dwane Baumgardner, Chairman, CEO

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Developing, designing/producing electronics hardware/software and exterior systems

PRODUCTS
Automotive mirrors, vision optics/imaging, thin film coating/electrochromics, precision glass fabrication, injection molding, encapsulation, adhesion and packaging technologies

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Work on products for others

Dow Automotive
1250 Harmon Road, Auburn Hills, MI 48326
Phone: 248.391.6300 • fx: 248.391.6417 • www.dow.com/automotive

PARENT ORGANIZATION
Dow Chemical Co

PRINCIPALS
Lawrence A Denton, President
Mike Heather, Dir Global R&D

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers
Materials scientists

R&D ACTIVITIES
Basic and applied research, engineering, testing and product development

PRODUCTS
Plastics, adhesives, sealants, plastics-enhanced products, and body engineered systems for the global automotive industry. Engineering capabilities include: modularization, CAD/CAE, finite element analysis, design optimization through tool and prototype development, processing methodology selection mold-filling analysis. Occupant safety testing

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
In-house testing and validation, along with program and supply-chain management expertise (including: equipment selection and processing method recommendations)
**Dow Corning Corp**

47799 Halyard Drive, Suite 77, Plymouth, MI 48170

ph: 734.454.2000 • fx: 734.454.0216 • www.dowcorning.com/content/auto

- **PARENT ORGANIZATION**
  Dow Corning Corp

- **PRINCIPALS**
  Not reported

- **TOTAL EMPLOYMENT**
  Not reported

- **AUTOMOTIVE R&D SPENDING**
  Not reported

- **ECONOMIC ACTIVITY 2001**
  Not reported

- **PROFESSIONAL STAFF**
  Not reported

- **R&D ACTIVITIES**
  Application engineering, basic and applied research

- **PRODUCTS**
  Chemical products for automotive applications including: adhesives, protection materials, sealing and gasketing materials and torque transfer fluids

- **FACILITY DESCRIPTION**
  Not reported

- **OTHER SERVICES**
  Not reported

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**DuPont Automotive**

950 Stephenson Highway, Troy, MI 48083

ph: 800.533.1313 • www.dupont.com/automotive

- **PARENT ORGANIZATION**
  DuPont

- **PRINCIPALS**
  Not reported

- **TOTAL EMPLOYMENT**
  Not reported

- **AUTOMOTIVE R&D SPENDING**
  Not reported

- **ECONOMIC ACTIVITY 2001**
  Not reported

- **PROFESSIONAL STAFF**
  Engineers

- **R&D ACTIVITIES**
  Basic/applied materials research and engineering

- **PRODUCTS**
  Materials for powertrain, fuel, electrical/electronics, body interior, coatings, body exterior and safety glass

- **FACILITY DESCRIPTION**
  Not reported

- **OTHER SERVICES**
  Not reported
Dura Automotive Systems, Inc
2791 Research Drive, Rochester Hills, MI 48309
ph: 248.299.7202 • www.duraauto.com

PARENT ORGANIZATION
Dura Automotive Systems, Inc

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
200

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$2 Billion
(No manufacturing at this location)

PROFESSIONAL STAFF
Engineering: 98
Technicians: 10

R&D ACTIVITIES
Applied research, testing and advanced product development

PRODUCTS
Park brakes, pedals, jacks, tire carriers, window systems—hood hinges, hood latches and shifters

FACILITY DESCRIPTION
Office, electronics lab, mechanical lab and fabricating area

OTHER SERVICES
No external services

Durr Industries, Inc
40600 Plymouth Road, Plymouth, MI 48170

PARENT ORGANIZATION
Durr Industries, Inc

PRINCIPALS
Joseph M Klobucar, Sr Engineering Mgr, R&D

TOTAL EMPLOYMENT
200

AUTOMOTIVE R&D SPENDING
90%

ECONOMIC ACTIVITY 2001
$200 Million

PROFESSIONAL STAFF
Chemist: 1
CFD engineer: 1
R&D engineer: 2

R&D ACTIVITIES
Applied research and product development

PRODUCTS
Vehicle finishing equipment/systems, spray booths, bake ovens and paint circulation systems

FACILITY DESCRIPTION
Test spray booth, test oven, powder paint lab and liquid paint test lab

OTHER SERVICES
We cooperate with other companies involved in automotive finishing
Dynamic Corporation
2565 Van Ommen Drive, Holland, MI 49424
ph: 616.399.2200 • www.dynamicinc.com

PARENT ORGANIZATION
Dynamic Realty, Inc

PRINCIPALS
Jack Feddema, Vice President (Holland)
Ram Atwood, Vice President (Auburn Hills)
Steve Connelly, Vice President (Saginaw)

TOTAL EMPLOYMENT
120

AUTOMOTIVE R&D SPENDING
90%

ECONOMIC ACTIVITY 2001
$10 Million

PROFESSIONAL STAFF
CAD-CAM specialists: 8
Engineers: 52
Techs: 30

R&D ACTIVITIES
Product development, testing and prototyping

PRODUCTS
Safety restraints, steering systems, suspension-design
and prototyping, axle design and prototyping, fuel
systems engineering and prototyping

FACILITY DESCRIPTION
Holland—A2LA accredited inspection lab;
Saginaw—Product development and testing
with electronics;
Auburn Hills—QA 9000 registered class-A
prototype facility

OTHER SERVICES
Consulting and sub-contract

Eaton Innovation Center
26201 Northwestern Highway, Southfield, MI 48076
ph: 248.354.2844 • fx: 248.208.2018 • www.eaton.com

PARENT ORGANIZATION
Eaton Corp

PRINCIPALS
Craig A Black, VP, Chief Technology Officer

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Design engineers
Materials scientists
Metallurgists
Stress analysts

R&D ACTIVITIES
Basic/applied research and product development

PRODUCTS
Engine air management systems, power train and
specialty controls

FACILITY DESCRIPTION
Physicochemical/mechanical testing lab for mono-
tonic and fatigue testing of materials, components
and assemblies

OTHER SERVICES
Not reported
Emhart Fastening Teknologies

PO Box 868, Mount Clemens, MI 48046
ph: 586.949.0440 • fx: 586.949.0443 • www.emhart.com

PARENT ORGANIZATION
Emhart Fastening Teknologies

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers

R&D ACTIVITIES
Product engineering

PRODUCTS
Fabric, insulation fastener/fastening systems for vehicles and components

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
No external services

Entela Inc

3033 Madison Avenue, Grand Rapids, MI 49458
ph: 616.247.0515 • fx: 616.247.7527 • www.entela.com

PARENT ORGANIZATION
Entela Inc

PRINCIPALS
Kim Phillipi, President, CEO
Tom Kladder, CFO, VP Finance
Sam DeMarco, VP Marketing
Alex Porter, Business Development Mgr

TOTAL EMPLOYMENT
190

AUTOMOTIVE R&D SPENDING
70%

ECONOMIC ACTIVITY 2001
$25 Million

PROFESSIONAL STAFF
Engineers: 38
Project/program managers: 20
Technicians: 15

R&D ACTIVITIES
Product development, engineering, design candidate evaluation, testing, accelerated testing, materials evaluation and failure analysis

PRODUCTS
Engineering and testing services, materials, interior components and systems, electronics, in-vehicle entertainment, HVAC, power distribution, batteries, lighting and glass

FACILITY DESCRIPTION
Laboratories include: materials lab, product test lab, electronics lab, EMC lab, test fixture lab and performance test lab

OTHER SERVICES
Public training
**FANUC Robotics North America Inc**

3900 W Hamlin Road, Rochester Hills, MI 48309  
ph: 248.377.7570 • fx: 248.276.4133 • www.fanucrobotics.com

**PARENT ORGANIZATION**  
FANUC Robotics North America Inc

**PRINCIPALS**  
Rick Schneider, President, CEO

**TOTAL EMPLOYMENT**  
Not reported

**AUTOMOTIVE R&D SPENDING**  
Not reported

**ECONOMIC ACTIVITY 2001**  
Not reported

**PROFESSIONAL STAFF**  
Application engineers

**R&D ACTIVITIES**  
Applied engineering and design engineering

**PRODUCTS**  
Robots and robotic systems, software, controls and vision products that aid in the development of robotic systems

**FACILITY DESCRIPTION**  
Not reported

**OTHER SERVICES**  
Design and implement a robotic solution to enhance productivity and profitability

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**Fasco DC Motors**

402 E Haven Street, Eaton Rapids, MI 48827  
ph: 517.663.2161 • fx: 517.663.1797 • www.fasco.com

**PARENT ORGANIZATION**  
Fasco DC Motors

**PRINCIPALS**  
Not reported

**TOTAL EMPLOYMENT**  
Not reported

**AUTOMOTIVE R&D SPENDING**  
Not reported

**ECONOMIC ACTIVITY 2001**  
Not reported

**PROFESSIONAL STAFF**  
Application engineers  
Design engineers

**R&D ACTIVITIES**  
Applied engineering and design engineering

**PRODUCTS**  
FHP motors, blowers and gear motors

**FACILITY DESCRIPTION**  
Not reported

**OTHER SERVICES**  
Work on projects for others
Federal–Mogul
560 Avis Drive, Ann Arbor, MI 48108

PARENT ORGANIZATION
Federal–Mogul Corp

PRINCIPALS
Eduardo Matsuo, Chief Engineer
Keri Westbrooke, Dir Product Technology
Carmo Ribeiro, Product Mgr

TOTAL EMPLOYMENT
36

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not Reported

PROFESSIONAL STAFF
Not Reported

R&D ACTIVITIES
Testing, engineering and product development for heavy duty pistons

PRODUCTS
Piston development for heavy duty machinery

FACILITY DESCRIPTION
Engineering, design and testing labs for heavy duty engines

OTHER SERVICES
Projects for others

Federal–Mogul
560 Avis Drive, Ann Arbor, MI 48108

PARENT ORGANIZATION
Federal–Mogul Corp

PRINCIPALS
Eduardo Matsuo, Chief Engineer
Keri Westbrooke, Dir Product Technology
Carmo Ribeiro, Product Mgr

TOTAL EMPLOYMENT
36

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not Reported

PROFESSIONAL STAFF
Not Reported

R&D ACTIVITIES
Testing, engineering and product development for heavy duty pistons

PRODUCTS
Piston development for heavy duty machinery

FACILITY DESCRIPTION
Engineering, design and testing labs for heavy duty engines

OTHER SERVICES
Projects for others
FEV Engine Technology, Inc
4554 Glenmeade Lane, Auburn Hills, MI 48326
p: 248.373.6000 • www.fev.com

PARENT ORGANIZATION
FEV Motorentechnik GmbH

PRINCIPALS
Gary W Rogers, CEO
Robert J Last, Dir Marketing, IT

TOTAL EMPLOYMENT
160

AUTOMOTIVE R&D SPENDING
80%

ECONOMIC ACTIVITY 2001
Not Reported

PROFESSIONAL STAFF
Project engineer: 60
Sr engineer/prog mgr: 10

R&D ACTIVITIES
Engineering design and prototyping services for advanced gasoline, diesel and alternative-fueled combustion engines, fuel cell development, engine integration and in-vehicle calibration services

PRODUCTS
Advanced gasoline, diesel, and alternative-fueled combustion engines, engine integration and in-vehicle calibration testing services

FACILITY DESCRIPTION
Engine and vehicle design, testing and development labs

OTHER SERVICES
Support to customers in the design, prototyping and development

First Technology Automotive and Special Products
28411 Northwestern Highway, Southfield, MI 48034
p: 248.353.6200 • fx: 248.353.8333 • www.1firsttech.com

PARENT ORGANIZATION
First Technology PLC

PRINCIPALS
Not Reported

TOTAL EMPLOYMENT
Not Reported

AUTOMOTIVE R&D SPENDING
Not Reported

ECONOMIC ACTIVITY 2001
Not Reported

PROFESSIONAL STAFF
Design engineers

R&D ACTIVITIES
Engineering and product development

PRODUCTS
Safety and comfort products, automotive electronics, control devices and precision ceramic components

FACILITY DESCRIPTION
Not Reported

OTHER SERVICES
No external
**Ford Motor Company**

One American Road, Dearborn, MI 48126  
ph: 313.322.3000 • www.ford.com

**PARENT ORGANIZATION**  
Ford Motor Co

**PRINCIPALS**  
William Clay Ford, Jr, CEO  
Gerhard Schmidt, VP Research  
Chris P Theodore, North American  
Product Development,  
Alex P Ver, Advanced Manufacturing Engineering

**TOTAL EMPLOYMENT**  
Not reported

**R&D ACTIVITIES**  
Applied research, engineering, testing and product development

**PROFESSIONAL STAFF**

**ECONOMIC ACTIVITY 2001**  
Not reported

**ADDITIONAL INFORMATION**  
Ford Motor Company has extensive R&D capabilities focused on applied research and product development within the company. For further information contact Ford at the phone number listed above.

**Freudenberg-NOK**

47690 E Anchor Court, Plymouth, MI 48170  

**PARENT ORGANIZATION**  
Freudenberg-NOK

**PRINCIPALS**  
Joseph Day, President, CEO  
Dr Ted Duclos, CTO

**TOTAL EMPLOYMENT**  
250

**AUTOMOTIVE R&D SPENDING**

30%

**R&D ACTIVITIES**

Advanced product/process development for sealing and vibration control components, component sub-system and vehicle testing

**PRODUCTS**

Powertrain sealing components, chassis sealing components and vibration control for both

**FACILITY DESCRIPTION**

Elastomer mixing and molding physical and environmental testing facilities. Adhesive development and chemical analytical capability

**OTHER SERVICES**

Chassis roll test facility available for use by others
Gates Automotive Technical Center (GATC)
2975 Waterview Drive, Rochester Hills, MI 48309

PARENT ORGANIZATION
Tomkins PLC

PRINCIPALS
John Bohenick, VP Technology, R&D

TOTAL EMPLOYMENT
120

AUTOMOTIVE R&D SPENDING
80%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers: 20
Research managers: 6
Research scientists: 30
(chemists and engineers)
Technicians: 20

R&D ACTIVITIES
Applied research in systems technology, composite science, material science, electro-mechanical drive systems and components. Material property, fatigue, and durability testing, analytical testing, and engine and vehicle testing and evaluation

PRODUCTS
Power Transmission systems including accessory and synchronous belt drive systems, transmission drives (CVT), motorcycle primary and secondary drives, and other industrial belt drive systems

FACILITY DESCRIPTION
Advanced analysis exists for system modeling as well as non-linear CAE to support composite science. Testing capabilities for polymers and metals, component function, performances, and durability. Complete system testing on engines, transmissions, and vehicles

OTHER SERVICES
Some services (engineering and analysis) are provided to customers for special advanced projects

General Motors Technical Center
30200 Mound Road, Warren, MI 48092
ph: 586.986.2502 • fx: 586.986.6347 • www.gm.com

PARENT ORGANIZATION
General Motors

PRINCIPALS
Dr Lawrence D Burns, VP R&D, Planning

TOTAL EMPLOYMENT
Engineers and technicians: 8,000
(by the end of 2003)

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers
Technicians

R&D ACTIVITIES
Engineering, testing, product development and applied research

PRODUCTS
Design, prototype, and engineer products for General Motors vehicles

FACILITY DESCRIPTION
1.2 million sq ft facility, with a new 960,000 sq ft, eight-story tower currently under construction and slated to be completed late 2003

OTHER SERVICES
No external services
Gentex Corporation
600 N Centennial Street, Zeeland, MI 49464
ph: 616.772.1800 • fx: 616.772.7348 • www.gentex.com

PARENT ORGANIZATION
   Gentex Corp
PRINCIPALS
   Fred Bauer, COB, CEO
   Dennis Alexejun, VP North American Automotive Marketing
TOTAL EMPLOYMENT
   Not reported
AUTOMOTIVE R&D SPENDING
   Not reported
ECONOMIC ACTIVITY 2001
   Not reported
PROFESSIONAL STAFF
   Chemists
   Electrical engineers
   Mechanical engineers
   Research scientists
R&D ACTIVITIES
   Basic/applied research, engineering and product development
PRODUCTS
   Electro-optical products (products that employ sophisticated optical sensing devices and related electronic circuitry)
FACILITY DESCRIPTION
   Not reported
OTHER SERVICES
   Work on products for others

GKN Automotive
3300 University Drive, Auburn Hills, MI 48326

PARENT ORGANIZATION
   GKN plc
PRINCIPALS
   Ian Griffiths, Managing Dir Automotive Driveline
TOTAL EMPLOYMENT
   Not reported
AUTOMOTIVE R&D SPENDING
   Not reported
ECONOMIC ACTIVITY 2001
   Not reported
PROFESSIONAL STAFF
   Not reported
R&D ACTIVITIES
   Engineering
PRODUCTS
   Velocity jointed half shafts and catalytic metal substrates
FACILITY DESCRIPTION
   Not reported
OTHER SERVICES
   Consulting and work on projects for others
Gonzalez Design Engineering
1610 E Highwood, Pontiac, MI 48340
ph: 248.745.1200 • fx: 248.745.1212 • www.gonzalez-group.com

PARENT ORGANIZATION
Gonzalez Design Engineering

PRINCIPALS
James Fox, Dir Research

TOTAL EMPLOYMENT
900

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$112 Million

PROFESSIONAL STAFF
Engineers: 400
Technicians: 200

R&D ACTIVITIES
Basic and applied research, testing, engineering and product development

PRODUCTS
Welding assembly systems and robotics. Research in welding and joining body panels

FACILITY DESCRIPTION
Mechanical and electronics labs

OTHER SERVICES
Apply research to specific customer needs

Grand Haven Stamped Products (GHSP)
1250 S Beechtree Street, Grand Haven, MI 49417
ph: 616.842.5500 • fx: 616.844.7776 • www.ghsp.com

PARENT ORGANIZATION
JSJ Corp

PRINCIPALS
Jerry Scott, President
Dan Fisher, VP Engineering

TOTAL EMPLOYMENT
600

AUTOMOTIVE R&D SPENDING
95%

ECONOMIC ACTIVITY 2001
$134 Million

PROFESSIONAL STAFF
CAD Designers: 20
Engineers: 82
Technicians: 25

R&D ACTIVITIES
Product development and testing

PRODUCTS
Driver controls

FACILITY DESCRIPTION
Mechanical, electronics, model shop and finite element labs

OTHER SERVICES
Mechanical test lab does work for others
Greening Testing Laboratories, Inc
19465 Mount Elliott Avenue, Detroit, MI 48234
ph: 313.366.7160 • fx: 313.366.5415 • www.greeninginc.com

PARENT ORGANIZATION
Greening Inc

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Electronics engineers

R&D ACTIVITIES
Applied research, engineering, testing and product development

PRODUCTS
Test development, data analysis, and other methodologies for the transportation industries. Designs and manufacturing of special instrumentation including analog, digital and computer-based control systems

FACILITY DESCRIPTION
Has capabilities to simulate in service environments in the laboratory

OTHER SERVICES
Testing work for others

Guardian Automotive Products
23751 Amber Avenue, Warren, MI 48089
ph: 586.757.7800 • fx: 586.757.8329 • www.guardian.com

PARENT ORGANIZATION
Guardian Industries Corp

PRINCIPALS
Jerry Wolf, Sr, Program Manager

TOTAL EMPLOYMENT
180

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers
Process engineers
Scientists
Technicians

R&D ACTIVITIES
Applied research, testing, engineering and product development

PRODUCTS
Automotive glass and plastic exterior trim components

FACILITY DESCRIPTION
Materials, mechanical and diagnostic labs

OTHER SERVICES
Consulting services
Hantech LLC
1150 Stephenson Highway, Troy, MI 48083
ph: 248.588.7670

PARENT ORGANIZATION
Hantech LLC

PRINCIPALS
David D Duche, President

TOTAL EMPLOYMENT
13

AUTOMOTIVE R&D SPENDING
75%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Electrical engineers: 2
Mechanical engineers: 9

R&D ACTIVITIES
Manufacturing process development and engineering

PRODUCTS
Manufacturing assembly systems, materials joining and machining, equipment concept and feasibility studies, robot and work cell simulation

FACILITY DESCRIPTION
Engineering, simulation, CAD and CAE labs

OTHER SERVICES
Consulting, design, process and simulate projects for systems integrators

Hawtal Whiting Inc
41155 Technology Park Drive, Sterling Heights, MI 48314
ph: 810.726.3444 • fx: 810.726.3455 • www.hawtal.com

PARENT ORGANIZATION
Wagon PLC

PRINCIPALS
Bob Valcke, COO
Mike Harrington, VP Engineering Programs

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Design engineers
Multi-discipline engineers

R&D ACTIVITIES
Product design development and testing

PRODUCTS
Provision of: modeling, design/engineering, manufacturing feasibility, testing and prototype services

FACILITY DESCRIPTION
Styling/modeling studios, color/trim matching room and model shop. 50,000 sq ft facility

OTHER SERVICES
Consulting. Facility available for use by others
Hayes Lemmerz International, Inc
Technical Services
1600 W Eight Mile Road, Ferndale, MI 48220
ph: 248.399.9600 • fx: 248.399.3512 • www.hayes-lemmerz.com

PARENT ORGANIZATION
Hayes Lemmerz International

PRINCIPALS
Daniel M. Sandberg, Vice President,
President Automotive Brake,
Powertrain Components

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers

R&D ACTIVITIES
Applied research, engineering, testing and product
development

PRODUCTS
Wheels, brake components, powertrain components,
and structural components for passenger cars,
minivans, sport utility vehicles and light trucks.
Rapid prototyping

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
No external services

07/2002

Hi-Lex Automotive Center
1055 W Square Lake Road, Troy, MI 48098
ph: 248.813.8317 • fx: 248.813.8433 • www.hi-lex.com

PARENT ORGANIZATION
Hi-Lex Corp

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers

R&D ACTIVITIES
Applied research, engineering, testing and product
development

PRODUCTS
Automotive and recreational electromechanical
devices, control cables, window regulators, sunroof
subassemblies and prototypes

FACILITY DESCRIPTION
Prototype facilities. Products can be thoroughly
tested to determine durability and reliability. Envi-
ronmental simulation chambers and noise testing in
an anechoic room

OTHER SERVICES
No external services

07/2002
HP Pelzer Automotive Systems
1175 Crooks Road, Troy, MI 48084
ph: 248.280.2500 • www.hppelzer.com

PARENT ORGANIZATION
HP Chemie Pelzer GmbH, Whitten, Germany

PRINCIPALS
David Greeneisen, President, CEO
Clarence Peoples, VP R&D

TOTAL EMPLOYMENT
North America: 680
Troy: 65

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
North America: $72 Million

PROFESSIONAL STAFF
Acoustic engineers: 5
Materials engineers: 4
Product design engineers: 10
Process engineers: 10
Test engineers: 4

R&D ACTIVITIES
Develop acoustic treatments for automobiles. Components using urethane foam, EVA, resonated fiber, tufted and needled carpet and other miscellaneous materials

PRODUCTS
Floor carpet, trunk trim, inner dash insulator, engine compartment insulators, wheel well insulators, various dampers, deadeners and absorbers

FACILITY DESCRIPTION
The headquarters facility in Troy. Acoustic test facility (4-wheel dynamometer and reverberation rooms) for evaluating designs

OTHER SERVICES
Contract acoustic testing

Husky Injection Molding Systems Ltd
45145 W Twelve Mile Road, Novi, MI 48377
ph: 248.735.6300 • fx: 248.735.6422 • www.husky.ca

PARENT ORGANIZATION
Husky Injection Molding Systems Ltd

PRINCIPALS
Trefor Jones, General Mgr

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers

R&D ACTIVITIES
Applied research and engineering

PRODUCTS
Global supplier of injection molding systems to the plastics industry. Injection molding technologies, support infrastructure and plant construction

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Engineering consulting, plant audits, feasibility studies, factory planning studies, process mechanical design and integrated work cell design
**Hutchinson FTS**  
1835 Technology Drive, Troy, MI 48083  
ph: 248.597.3646 • fx: 248.589.7730 • www.hutchinsonfts.com

**PARENT ORGANIZATION**  
Total Fina EIF

**PRINCIPALS**  
Paul Campbell, President, CEO  
Daniel F. Kiblawi, VP Engineering

**TOTAL EMPLOYMENT**  
Not reported

**AUTOMOTIVE R&D SPENDING**  
Not reported

**ECONOMIC ACTIVITY 2001**  
Not reported

**PROFESSIONAL STAFF**  
Design, development and R&D engineers: 42

**R&D ACTIVITIES**  
Applied research, product development and testing

**PRODUCTS**  
Air conditioning fluid transfer components and assemblies

**FACILITY DESCRIPTION**  
Mechanical lab, thermal lab, fluid mechanics lab and prototype fabrication lab

**OTHER SERVICES**  
No external services

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**IEE Automotive**  
1121 Centre Road, Auburn Hills, MI 48326  
ph: 248.373.9700 • www.iee.com

**PARENT ORGANIZATION**  
IEE Automotive

**PRINCIPALS**  
Not reported

**TOTAL EMPLOYMENT**  
Not reported

**AUTOMOTIVE R&D SPENDING**  
Not reported

**ECONOMIC ACTIVITY 2001**  
Not reported

**PROFESSIONAL STAFF**  
Not reported

**R&D ACTIVITIES**  
Applied engineering center

**PRODUCTS**  
Sensor technology (for seats and airbag deployment) detects when passenger is in a seat and the presence of child seat.

**FACILITY DESCRIPTION**  
Electronics lab

**OTHER SERVICES**  
Not reported
Inergy Automotive Systems
Technical Center
2585 W Maple Road, Troy, MI 48084

PARENT ORGANIZATION
Inergy Automotive Systems

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Development engineers

R&D ACTIVITIES
Basic and applied research, testing, engineering, and product development

PRODUCTS
Integrated fuel systems—interface the performance of the fuel system with the vehicle engine management, diagnostics, chassis and exhaust systems

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Engineer, test and certify a system for a customer

Johnson Controls Automotive Systems Group
49200 Halyard, Plymouth, MI 48170
ph: 734.254.5000 • www.johnsoncontrols.com

PARENT ORGANIZATION
Johnson Controls, Inc

PRINCIPALS
Rande Somma, North American President
Bill Fluherty, VP New Product Strategy, Industrial Design

TOTAL EMPLOYMENT
1700

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Design, engineering, validation and systems integration

PRODUCTS
Automotive interiors and batteries

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
No external services
Kaiser Aluminum
26913 Northwestern Highway, Southfield, MI 48034
ph: 248.352.4630 • fx: 248.352.4635 • www.kaiser.com

PARENT ORGANIZATION
Kaiser Aluminum

PRINCIPALS
Richard Larimer, VP Marketing, Sales
Doug Richman, VP Engineering

TOTAL EMPLOYMENT
18,000

AUTOMOTIVE R&D SPENDING
20%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Material/alloy development and process development

PRODUCTS
Aluminum products

FACILITY DESCRIPTION
Metallurgy lab, casting extrude, forge R&D and small process operations

OTHER SERVICES
Work with OEMs, Tier 1 and 2 suppliers to develop specific products

Johnson Matthey Testing
12600 Universal Drive, Taylor, MI 48180

PARENT ORGANIZATION
Johnson Matthey

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Emissions engineers

R&D ACTIVITIES
Basic/applied research, testing and engineering

PRODUCTS
Catalysts for vehicle exhaust emission control. Apply catalysis in controlling emissions from both petrol and diesel engine vehicles

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Not reported

Johnson Matthey Testing
12600 Universal Drive, Taylor, MI 48180

### Karmann USA Inc
17197 N Laurel Park Drive, Suite 537, Livonia, MI 48152  
ph: 734.542.0106 x369 • www.karmannusa.com

<table>
<thead>
<tr>
<th>PARENT ORGANIZATION</th>
<th>Wilhelm Karmann GmbH</th>
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<tr>
<td>PRINCIPALS</td>
<td>Dr Hans-Joachim Emmelmann, CEO</td>
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<tr>
<td></td>
<td>Tim Olind, COO</td>
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<tr>
<td></td>
<td>Stephen Chesna, Dir Business Operations</td>
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<td>Mark B. Stevens, Dir Sales, Marketing</td>
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<tr>
<td>TOTAL EMPLOYMENT</td>
<td>50</td>
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<td>AUTOMOTIVE R&amp;D SPENDING</td>
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<tr>
<td>ECONOMIC ACTIVITY 2001</td>
<td>$4.1 Million</td>
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<tr>
<td>PROFESSIONAL STAFF</td>
<td>Engineers</td>
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<tr>
<td></td>
<td>Designers</td>
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<td></td>
<td>Technicians</td>
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### R&D ACTIVITIES
Applied research, testing, engineering, and/or product development on automotive bodies and roof systems

### PRODUCTS
Body and convertible top design, engineering, testing and development

### FACILITY DESCRIPTION
Building a new 38,000 sq ft building in Plymouth, MI which will have design, engineering, testing and shop facilities. Move-in November, 2002

### OTHER SERVICES
Some consulting work. Some facilities are shared with our current joint venture partner (ASC)

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### Koyo
North American Engineering & Technical Center  
47771 Halyard Drive, Plymouth, MI 48170  
ph: 734.454.1500 • fx: 734.454.4076 • www.koyusa.com

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<th>PARENT ORGANIZATION</th>
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<td>PRINCIPALS</td>
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<td>TOTAL EMPLOYMENT</td>
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<td>AUTOMOTIVE R&amp;D SPENDING</td>
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<tr>
<td>ECONOMIC ACTIVITY 2001</td>
<td>Not reported</td>
</tr>
<tr>
<td>PROFESSIONAL STAFF</td>
<td>Applications engineers</td>
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</table>

### R&D ACTIVITIES
Applied research and engineering

### PRODUCTS
Ball/roller bearings and steering systems

### FACILITY DESCRIPTION
Not reported

### OTHER SERVICES
Work on products for others
Lear Corporation
Technical Division
21557 Telegraph Road, Southfield, MI 48034
ph: 248.447.1680 • fx: 248.447.5926 • www.lear.com

PARENT ORGANIZATION
Lear Corp

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
200

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Applied research

PRODUCTS
Total vehicle interior systems

FACILITY DESCRIPTION
Electronics, mechanical, plastics, fabric and total interior prototyping

OTHER SERVICES
Full service to OEM customers from design development to production parts

Loctite Corporation
Automotive Technology Center
2455 Featherstone Road, Auburn Hills, MI 48326
ph: 248.364.4700 • www.automotive@locitite.com

PARENT ORGANIZATION
Henkel

PRINCIPALS
Charles J Evans, VP, General Mgr
Allen D Forgach, Dir Engineering

TOTAL EMPLOYMENT
20

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$40 Million

PROFESSIONAL STAFF
Engineers: 6
Technicians: 4

R&D ACTIVITIES
Application engineering and technical service

PRODUCTS
Adhesive and sealant applications

FACILITY DESCRIPTION
Application and testing labs

OTHER SERVICES
Work on projects for others
Lotus Engineering, Inc
1255 N Main Street, Ann Arbor, MI 48104
ph: 734.995.2544 • fx: 734.995.9301 • www.lotusengineeringinc.com

PARENT ORGANIZATION
Group Lotus, PLC

PRINCIPALS
John Briggs, Vice President
Tim Holland, Vice President
Sumax Cobb, Vice President

TOTAL EMPLOYMENT
60

AUTOMOTIVE R&D SPENDING
100%

R&D ACTIVITIES
Applied research, testing and product development

PRODUCTS
Produce speciality automobiles
(Tier 5 supplier)

FACILITY DESCRIPTION
Mechanical lab with design area and testing facility

OTHER SERVICES
Work on products for others

Magna Automotive Testing
19868 Haggerty Road, Livonia, MI 48152
ph: 734.432.4256 • fx: 734.591.9207 • www.magnaautomotivetesting.com

PARENT ORGANIZATION
Intier Automotive Seating of America, Inc

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

R&D ACTIVITIES
Testing and engineering

PRODUCTS
Safety testing, environmental for-post road simulation, structural testing, instrumentation, and FEA fatigue simulation

FACILITY DESCRIPTION
Contract test facility specializing in complete interior and body testing for vehicle manufacturers and Tier 1 suppliers

OTHER SERVICES
Interiors and body testing
Magneti Marelli North America
1389 Wheaton Avenue, Suite 800, Troy, MI 48083
ph: 888.297.1855

PARENT ORGANIZATION
Magneti Marelli SPA

TOTAL EMPLOYMENT
23

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$1 Million

PROFESSIONAL STAFF
Design engineers: 2
Product engineers: 3
Ride development engineers: 4

R&D ACTIVITIES
Product design development and benchmarking

PRODUCTS
Shock absorbers

FACILITY DESCRIPTION
Dynamic, prototype and mechanical labs

OTHER SERVICES
Support services for OEMs

MAHLE, Inc
23030 Haggerty Road, Farmington Hills, MI 48335
ph: 248.305.8200 • fx: 248.305.8600 • www.mahlein.com

PARENT ORGANIZATION
MAHLE GmbH

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Numerical simulation engineers
Application engineers

R&D ACTIVITIES
Product testing and simulation measuring

PRODUCTS
Pistons and related components, filter systems and valve train systems

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Numerical simulation of power cell system components and failure analysis
MANN+HUMMEL AUTOMOTIVE, Inc (AUUS)
6400 Sprinkle Road, Portage, MI 49002
ph: 616.329.3900 • fx: 616.329.5000 • www.mannhummelauto.com

PARENT ORGANIZATION
Filterwerk MANN + HUMMEL GmbH

PRINCIPALS
Claude Mathieu
Charles Vaillant

TOTAL EMPLOYMENT
280

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$50 Million

PROFESSIONAL STAFF
Design engineers: 10
FEA/CAE engineers: 2
Release engineers: 3
Testing engineers: 2

R&D ACTIVITIES
Product design development (FEA/CAE) and testing

PRODUCTS
Plastic intake manifold, air filter systems and fluid filter systems

FACILITY DESCRIPTION
Design and development office, testing lab and prototype shop

OTHER SERVICES
No external services

McLaren Performance Technologies
32233 W Eight Mile Road, Livonia, MI 48152
ph: 248.477.6240 • fx: 248.477.3349 • www.mclarenengines.com

PARENT ORGANIZATION
McLaren Performance Technologies

PRINCIPALS
Steven Rossi, President, CEO

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Mechanical engineers

R&D ACTIVITIES
Engineering services

PRODUCTS
Engine technology development and prototypes

FACILITY DESCRIPTION
16 dynamometer test cells

OTHER SERVICES
Product development and engine testing
MDE International, Inc
G4033 S Center Road, Burton, MI 48519
ph: 810.743.5980 • www.mdeintl.com

PARENT ORGANIZATION
MDE International, Inc

PRINCIPALS
Jeffrey B Koch, President
Richard Benoit, Dir New Business Development
Bob Mills, Manager

TOTAL EMPLOYMENT
MI office: 40
Company total: 250

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Testing for the transportation industry, utilizing public road surfaces and controlled proving ground facilities

PRODUCTS
Reliability, durability and OBDII testing of vehicles and components

FACILITY DESCRIPTION
Automotive testing facility used for inspection and service of test vehicles. Offices are located in Burton, MI; Bemidji, MN; Corpus Christi, TX; Denver, CO; Las Vegas, NV; Yucca, AZ

OTHER SERVICES
Testing services for the transportation industry. Our facilities are available for the use by others

Mechanical Simulation Corporation
709 W Huron, Ann Arbor, MI 48103
ph: 734.668.2930 • www.carsim.com

PARENT ORGANIZATION
Mechanical Simulation Corp

PRINCIPALS
Steve Hann, President
Tom Gillespie, Vehicle Dynamics
Mike Sayers, Head of Engineering

TOTAL EMPLOYMENT
10

PERCENT EMPLOYMENT R&D
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Sales & marketing engineers: 2
Software development (PhD): 3
Software support engineers: 3
Vehicle dynamics (PhD): 2

R&D ACTIVITIES
Applied research and product development

PRODUCTS
Vehicle dynamics simulation software, active safety electronic control systems—vehicle stability/rollover, ABS, TCS, 4WS and active suspensions

FACILITY DESCRIPTION
Software development facility and vehicle dynamic simulation lab

OTHER SERVICES
Consulting and custom software development
Metaldyne
47603 Halyard Drive, Plymouth, MI 48170
ph: 734.207.6200 • fx: 734.207.6500 • www.metaldyne.com

PARENT ORGANIZATION
Metaldyne

PRINCIPALS
Tim Leuliette, Chairman, President, CEO

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Mechanical engineers

R&D ACTIVITIES
Product development and testing

PRODUCTS
Manufacture and integrate a wide range of metal-based components, assemblies and modules for chassis, engine, driveline and transmission applications

FACILITY DESCRIPTION
Specialized labs for: materials engineering, design, dynamometer, structure and fatigue testing, noise vibration/harshness and rubber design

OTHER SERVICES
Not reported

Metaldyne

MGA Research Corp
446 Executive Drive, Troy, MI 48083
ph: 248.577.5001 • fx: 248.577.5025 • www.mgaresearch.com

PARENT ORGANIZATION
MGA Research Corp

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Electrical engineers
Mechanical engineers
Software engineers

R&D ACTIVITIES
Safety related testing

PRODUCTS
Component, safety and durability testing services

FACILITY DESCRIPTION
Component-level, bench-top systems through full scale crash and accelerator sled facilities

OTHER SERVICES
Product testing
Michigan Rubber Products, Inc
1200 Eighth Avenue, Cadillac, MI 49601
ph: 231.775.1316  •  fx: 231.775.3160  •  www.Michigan-Rubber.com

PARENT ORGANIZATION
Applied Tech Products

PRINCIPALS
Dennis Brovont, President
Emilio Chuey, Director
John Lund, Vice President

TOTAL EMPLOYMENT
400

AUTOMOTIVE R&D SPENDING
98%

ECONOMIC ACTIVITY 2001
$51 Million

PROFESSIONAL STAFF
Engineers: 12
Scientists: 3
Technicians: 5

R&D ACTIVITIES
Basic and applied research, testing, engineering and product development

PRODUCTS
Rubber components and assemblies to support multiple automotive systems such as air induction systems, AIR emissions systems, NVH and sealing applications

FACILITY DESCRIPTION
Chemical lab for elastomer compounds development, mechanical lab for testing and evaluation, and a model shop for process and application-related development

OTHER SERVICES
Work on projects for others

Michigan Scientific Corp (MSC)
321 E Huron Street, Milford, MI 48381
ph: 248.685.3939  •  www.michsci.com

PARENT ORGANIZATION
MI Scientific Corp

PRINCIPALS
Hugh Larsen
John Peterson
Kent Larsen
Mike Castiglione

TOTAL EMPLOYMENT
35

AUTOMOTIVE R&D SPENDING
70%

ECONOMIC ACTIVITY 2001
Charlevoix and Milford: $5 Million
(combined sales)

PROFESSIONAL STAFF
Engineers: 25
Machinists: 10
Scientists: 2
Technicians: 20

R&D ACTIVITIES
Testing and engineering

PRODUCTS
Engines, chassis, axles/shafts, brakes, transmissions—engineering measurements

FACILITY DESCRIPTION
Equipment to measure forces, temperature, pressure, acceleration, electrical measurements

OTHER SERVICES
Consult for other companies and work on projects for others
Mitsubishi Electric Automotive America
15603 Centennial Drive, Northville, MI 48167
ph: 734.453.6200 • fx: 734.453.6211 • www.meaa-mea.com

PARENT ORGANIZATION
Mitsubishi Electric Corp

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Application engineers
Electronics engineers

R&D ACTIVITIES
Engineering and product development

PRODUCTS
Powertrain products, body and chassis products and in-vehicle entertainment systems

FACILITY DESCRIPTION
117,000 sq ft operational space

OTHER SERVICES
Work on products for others

Mitsubishi Motor Research & Development of America, Inc
4300 Varsity Drive, Ann Arbor, MI 48108
ph: 734.973.4441 • fx: 734.973.4469

PARENT ORGANIZATION
Mitsubishi Motor Corp

PRINCIPALS
Dennis Gore, Executive Dir, Deputy General Mgr

TOTAL EMPLOYMENT
73

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Professionals: 19
Technicians: 8

R&D ACTIVITIES
Testing, engineering and product development

PRODUCTS
Fuel emissions, safety, HVAC and whole vehicle evaluation

FACILITY DESCRIPTION
Testing and design engineering center

OTHER SERVICES
No external services
**Molex Automotive**

2025 Taylor Road, Auburn Hills, MI 48071  
ph: 248.371.9700 • fx: 248.371.9707 • www.molex.com

**PARENT ORGANIZATION**  
Molex Inc

**PRINCIPALS**  
Not reported

**TOTAL EMPLOYMENT**  
Not reported

**AUTOMOTIVE R&D SPENDING**  
Not reported

**ECONOMIC ACTIVITY 2001**  
Not reported

**PROFESSIONAL STAFF**  
Not reported

**R&D ACTIVITIES**  
Engineering, product development, testing and validation

**PRODUCTS**  
Automotive electrical connectors and interconnect systems

**FACILITY DESCRIPTION**  
Not reported

**OTHER SERVICES**  
Work on products for others

---

**Modern Body Engineering Corporation**

1900 E Fourteen Mile Road, Madison Heights, MI 48071  
ph: 248.588.8080 • www.modernbody.com

**PARENT ORGANIZATION**  
Modern Body Engineering Corp

**PRINCIPALS**  
V Reo Campian, President  
Jonathan Campian, Vice President

**TOTAL EMPLOYMENT**  
15

**AUTOMOTIVE R&D SPENDING**  
100%

**ECONOMIC ACTIVITY 2001**  
Not reported

**PROFESSIONAL STAFF**  
Engineers: 12

**R&D ACTIVITIES**  
Engineering and product development

**PRODUCTS**  
Develop and create tool dies

**FACILITY DESCRIPTION**  
Model shop

**OTHER SERVICES**  
Work on projects for others
**MSX**

**Vehicle Development and Engineering Center**

275 Rex Boulevard, Auburn Hills, MI 48326  
ph: 248.299.1000 • www.msx.com  

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**PARENT ORGANIZATION**

MSX International, Inc

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**PRINCIPALS**

Mike Presser, Sr VP Engineering  
Gerry Bryce, VP Product Engineering  
Mike Evans, Dir Shops, Vehicle Services

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**TOTAL EMPLOYMENT**

200

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**AUTOMOTIVE R&D SPENDING**

100%

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**ECONOMIC ACTIVITY 2001**

$12 Million

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**PROFESSIONAL STAFF**

Program/engineering management: 40  
Product designers/management: 60  
Shop test/vehicle development technicians: 60  
Vehicle prototype/special vehicle technicians: 40

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**R&D ACTIVITIES**

Full vehicle product development; concepts through prototype and validation

---

**PRODUCTS**

Vehicle body and chassis development services  
(engineering, supporting system and vehicle performance validation)

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**FACILITY DESCRIPTION**

Vehicle development center includes model and tool shop, prototype, build and fabrication facilities

---

**OTHER SERVICES**

Engineering consulting, product development and program management

---

**MSX**

Vehicle Development and Engineering Center  
275 Rex Boulevard, Auburn Hills, MI 48326  
ph: 248.299.1000 • www.msx.com  

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**PARENT ORGANIZATION**

Munro and Associates, Inc

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**PRINCIPALS**

Sandy Munro, President

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**TOTAL EMPLOYMENT**

Not reported

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**AUTOMOTIVE R&D SPENDING**

Not reported

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**ECONOMIC ACTIVITY 2001**

Not reported

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**PROFESSIONAL STAFF**

Engineering consultants

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**R&D ACTIVITIES**

Engineering consulting

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**PRODUCTS**

Help manufacturers transform their organizations through the implementation of a concurrent engineering strategy

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**FACILITY DESCRIPTION**

Not reported

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**OTHER SERVICES**

Consulting
National Steel Corporation
Technical Research Center
1745 Fritz Drive, Trenton, MI 48183
ph: 734.676.8080 • fx: 734.676.2030 • www.nationalsteel.com

PARENT ORGANIZATION
National Steel Corp

PRINCIPALS
Dr Stephen Denner, VP Research, Technology

TOTAL EMPLOYMENT
3,700

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers
Scientists

R&D ACTIVITIES
Basic and applied research, design analysis, engineering feasibility and product development

PRODUCTS
Activities are principally designed to emphasize and address the manufacturability (formability, joinability and paintability) and performance (corrosion behavior, dent performance and structural integrity) of steel

FACILITY DESCRIPTION
1,100-acre complex, housing mechanical testing laboratory, failure analysis laboratory and dent testing equipment

OTHER SERVICES
Consult with suppliers and OEMs

Nissan Technical Center North America
39001 Sunrise Drive, Farmington Hills, MI 48331
ph: 248.488.4123 • fx: 248.488.3901 • www.nissandriven.com

PARENT ORGANIZATION
Nissan Motor Co

PRINCIPALS
Mitsuhiko Yamashita, President

TOTAL EMPLOYMENT
572

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
CAD/Technicians: 83
Engineers: 336
Professionals: 40

R&D ACTIVITIES
Basic and applied research, testing, engineering and product development

PRODUCTS
Wide variety of components and complete vehicles

FACILITY DESCRIPTION
Automotive research, development and testing facility

OTHER SERVICES
No external services
North American Lighting, Inc
38900 Hills Tech Drive, Farmington Hills, MI 48334
ph: 248.553.6408 • www.nal.com

PARENT ORGANIZATION
Koito Manufacturing Co, Ltd

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Design engineers

R&D ACTIVITIES
Design engineering, program management and product development

PRODUCTS
Automotive lighting products

FACILITY DESCRIPTION
Technical center—model shop

OTHER SERVICES
In-house styling department acts as a conduit between customer vehicle stylists and NAL lighting engineers

NSK Corp
3861 Research Park Drive, Ann Arbor, MI 48106
ph: 734.761.9500 • fx: 734.761.9508 • www.us.nsk.com

PARENT ORGANIZATION
NSK Corp

PRINCIPALS
Ollie Martins, President, CEO

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Application engineers

R&D ACTIVITIES
Engineering and product development

PRODUCTS
Anti-friction bearings, precision machinery/parts, mechatronics and clutches

FACILITY DESCRIPTION
Not reported

OTHER SERVICES
Work on products for others
Ogihara America Corporation
1480 W McPherson Park Drive, Howell, MI 48843
ph: 517.548.4900 • fx: 517.548.6036 • www.ogihtara.com

PARENT ORGANIZATION
Ogihara Corp, Japan

PRINCIPALS
Tokio Ogihara, President
Larry Snowden, Dir Engineering
Richard Burden, Mgr Engineering, New Technology

TOTAL EMPLOYMENT
456

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$167 Million

PROFESSIONAL STAFF
CAD/CAM/CAE: 7
Die engineers: 6
Manufacturing engineers: 6
Welding engineers: 5

R&D ACTIVITIES
New technology development

PRODUCTS
Class A and interior body panels

FACILITY DESCRIPTION
Stamping plant, tool and die facility

OTHER SERVICES
Consulting and new technology testing

OMG Corp
2347 Commercial Drive, Auburn Hills, MI 48326
ph: 248.340.1040 • www.automotivecatalysts.com

PARENT ORGANIZATION
OMG, Inc

PRINCIPALS
Bob White, Lab Mgr

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Applied research catalyst development testing

PRODUCTS
Emission control catalysts

FACILITY DESCRIPTION
Technical center, lab, marketing and sales

OTHER SERVICES
Catalyst testing and analysis
Paragon Laboratories, Inc
12649 Richfield Court, Livonia, MI 48150
ph: 734.462.3900

PARENT ORGANIZATION
Paragon Laboratories, Inc

PRINCIPALS
Jerry ParmenTier, President
Thomas J Jonaitis, Petroleum Laboratory Mgr
Dale H Norton, Petroleum Analyst

TOTAL EMPLOYMENT
12

AUTOMOTIVE R&D SPENDING
50%

ECONOMIC ACTIVITY 2001
$1.3 Million

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Analysis of fuels and lubricants

PRODUCTS
Testing/analysis of gasoline, diesels, alcohol-based fuels, bio-diesels and oils

FACILITY DESCRIPTION
Analytical chemistry laboratory

OTHER SERVICES
Provide chemical analysis of fluid powers

Perceptron
47827 Halyard Drive, Plymouth, MI 48170
ph: 734.414.6100 • fx: 734.414.4700 • www.perceptron.com

PARENT ORGANIZATION
Perceptron

PRINCIPALS
Al Pease, Chairman, CEO
Kent Gilbert, VP Engineering

TOTAL EMPLOYMENT
140

AUTOMOTIVE R&D SPENDING
95%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
R&D technical staff: 45

R&D ACTIVITIES
Applied research, testing, engineering and product development

PRODUCTS
Automated quality measurement systems

FACILITY DESCRIPTION
Headquarters, manufacturing, research, development and testing labs

OTHER SERVICES
No external services
**Peterson Spring**
21200 Telegraph Road, Southfield, MI 48034
ph: 248.799.5400 • fx: 248.357.5874 • www.pspring.com

**PARENT ORGANIZATION**
Peterson American Corp

**PRINCIPALS**
Derek Saynor, VP Engineering
Ron Check, Product Engineering Mgr

**TOTAL EMPLOYMENT**
45

**PERCENT EMPLOYMENT R&D**
75%

**ECONOMIC ACTIVITY 2001**
$110 Million

**PROFESSIONAL STAFF**
Engineers: 25
Scientists: 2
Technicians: 5

**R&D ACTIVITIES**
Basic and applied research, testing, engineering and product development

**PRODUCTS**
High-strength materials, metal forming, springs, clamps, pressings and drivetrain rings

**FACILITY DESCRIPTION**
Materials lab and dynamic testing lab

**OTHER SERVICES**
No external services

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**Pilot Industries, Inc**
2319 Bishop Circle E, Dexter, MI 48130
ph: 734.426.4376 • fx: 734.426.8160 • www.pilotindustries.com

**PARENT ORGANIZATION**
Pilot Industries, Inc

**PRINCIPALS**
Not reported

**TOTAL EMPLOYMENT**
Not reported

**AUTOMOTIVE R&D SPENDING**
Not reported

**ECONOMIC ACTIVITY 2001**
Not reported

**PROFESSIONAL STAFF**
Design engineers
Manufacturing engineers
Quality control engineers
Scientists

**R&D ACTIVITIES**
Product development, applied research, engineering and testing

**PRODUCTS**
Prototypes, fuel/fluid handling systems and systems integration

**FACILITY DESCRIPTION**
Not reported

**OTHER SERVICES**
Work on products for others
**POM Group**

2350 Pontiac Road, Auburn Hills, MI 48236

ph: 248.409.7900 • fx: 248.409.7901 • www.pomgroup.com

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**PARENT ORGANIZATION**

POM Group

**PRINCIPALS**

Dr. Jyoti Mazumder, CEO
Dwight M Morgan, President
Tim W Skszek, VP, Chief Engineer
Brian Ziskie, VP Marketing
Dean Askounis, Dir Advanced Manufacturing

**TOTAL EMPLOYMENT**

50

**AUTOMOTIVE R&D SPENDING**

75%

**ECONOMIC ACTIVITY 2001**

$10 Million

**PROFESSIONAL STAFF**

Engineers: 15
Metallurgists: 2
Technicians: 25

**R&D ACTIVITIES**

Applied research, alloy development, alloys testing and mold engineering

**PRODUCTS**

Components of molded plastic, die cast metal, direct metal, stamped metal, hydroformed and thixomolded

**FACILITY DESCRIPTION**

40,000 sq ft facility includes: metallurgical lab, fabrication shop and CAD/CAM area

**OTHER SERVICES**

Not reported

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**Pro-Tech Industries**

6079 Birch Road, Flint, MI 48507

ph: 810.238.1030 • www.protechind.com

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**PARENT ORGANIZATION**

Pro-Tech Industries

**PRINCIPALS**

John Tomczak, President
Gerald Tomczak, Vice President
David Currie, President, Manufacturing Operations

**TOTAL EMPLOYMENT**

40

**AUTOMOTIVE R&D SPENDING**

95%

**ECONOMIC ACTIVITY 2001**

$6 Million

**PROFESSIONAL STAFF**

Controls design engineers: 2
Draftsmen: 5

**R&D ACTIVITIES**

Manufacturing design and build services. Testing advanced product design engineering services and product development

**PRODUCTS**

Powertrain, fuel systems, instrumentation and chassis development both in the product development and manufacturing design/build

**FACILITY DESCRIPTION**

Mechanical and electrical design and build services

**OTHER SERVICES**

Mechanical and controls design and build services
<table>
<thead>
<tr>
<th>QED Inc</th>
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<tr>
<td><strong>PARENT ORGANIZATION</strong></td>
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<tr>
<td><strong>PRINCIPALS</strong></td>
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<tr>
<td><strong>TOTAL EMPLOYMENT</strong></td>
</tr>
<tr>
<td><strong>AUTOMOTIVE R&amp;D SPENDING</strong></td>
</tr>
<tr>
<td><strong>ECONOMIC ACTIVITY 2001</strong></td>
</tr>
</tbody>
</table>
| **PROFESSIONAL STAFF** | Design: 10  
Engineers: 15  
Program managers: 5 |
| **R&D ACTIVITIES** | Prototype/production design, engineering vehicle developments and integration |
| **PRODUCTS** | Body, interior cockpit and chassis |
| **FACILITY DESCRIPTION** | Design and engineering facility |
| **OTHER SERVICES** | Design and engineering services and vehicle development consulting. Manpower service for the automotive industry |

<table>
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<tr>
<th>QMP America</th>
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<tbody>
<tr>
<td><strong>PARENT ORGANIZATION</strong></td>
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<td><strong>PRINCIPALS</strong></td>
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<tr>
<td><strong>TOTAL EMPLOYMENT</strong></td>
</tr>
<tr>
<td><strong>AUTOMOTIVE R&amp;D SPENDING</strong></td>
</tr>
<tr>
<td><strong>ECONOMIC ACTIVITY 2001</strong></td>
</tr>
</tbody>
</table>
| **PROFESSIONAL STAFF** | Engineers  
Researchers  
Specialists  
Technicians |
| **R&D ACTIVITIES** | Basic and applied research |
| **PRODUCTS** | Ferrous powder producer—iron and steel powders |
| **FACILITY DESCRIPTION** | Not reported |
| **OTHER SERVICES** | No external services |
QQC, Inc
12825 Ford Road, Dearborn, MI 48126
ph: 313.581.0043 • fx: 313.581.2480 • www.qqc.com

PARENT ORGANIZATION
QQC, Inc

PRINCIPALS
P Mistry, President, Dir Research

TOTAL EMPLOYMENT
6

AUTOMOTIVE R&D SPENDING
35%

ECONOMIC ACTIVITY 2001
$1.5 Million

PROFESSIONAL STAFF
Engineers: 2
Scientists: 2
Technicians: 2

R&D ACTIVITIES
Applied research of thin film coatings

PRODUCTS
Engine and chassis components

FACILITY DESCRIPTION
Laser lab and metallurgical lab

OTHER SERVICES
Consulting and working on projects for others

RECARO North America, Inc
3275 Lapeer Road W, Auburn Hills, MI 48236
ph: 800.8RECARO • www.recaro-nao.com

PARENT ORGANIZATION
RECARO North America, Inc

PRINCIPALS
John Marcozzi, President, COO
Yoji Komori, Executive Dir Sales

TOTAL EMPLOYMENT
60

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Designers
Engineers

R&D ACTIVITIES
Engineering and product development

PRODUCTS
Manufacturer of specialty automotive seats

FACILITY DESCRIPTION
46,000 sq ft

OTHER SERVICES
Work on products for others
Ricardo Inc
9059 Samuel Barton Drive, Belleville, MI 48111
ph: 734.397.6666 • www.ricardo.com

PARENT ORGANIZATION
Ricardo, PLC

R&D ACTIVITIES
Applied research and advanced engineering programs

PRINCIPALS
Jeremy Holt, President
Peter Brown, VP Powertrain Projects,
  Design Engineering
Louis Infante, VP Vehicle Engineering
Graham Weller, VP Engineering
Clive Wotton, VP Project Mgmt, Quality

TOTAL EMPLOYMENT
300

AUTOMOTIVE R&D SPENDING
80%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers: 150
Machinist: 17
Technicians: 133

Robert Bosch Corporation
38000 Hills Tech Drive, Farmington Hills, MI 48331
ph: 248.553.1318 • www.robertbosch.com

PARENT ORGANIZATION
Robert Bosch Corp GmbH

R&D ACTIVITIES
Testing, application development and some primary product development

PRINCIPALS
Dr Kurt Liedtke, Chairman, CEO
John Moulton, President Powertrain Div
Dave Robinson, President Electrical/Electronic Div
Hans Weckerle, President Chassis Div

TOTAL EMPLOYMENT
1,300

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$4.2 Billion

PROFESSIONAL STAFF
Engineers: 600
Technical Sales Engineers: 400

FACILITY DESCRIPTION
Design and analysis work stations, engine and transmission test beds; fully equipped and semi-anechoic, test track, chemistry laboratory, vehicle calibration and emissions facility, engine and transmission test rigs, metallurgy and metrology laboratory, PCB design, population and test facility, heat treatment facilities and rapid prototyping stations

OTHER SERVICES
Consulting work, project work at client facilities, as well as project work for clients at Ricardo facilities

FACILITY DESCRIPTION
North American automotive administrative and technical headquarters

OTHER SERVICES
No external services
Sachs Automotive of America
2107 Crooks Road, Troy, MI 48084
ph: 248.458.3600 • www.zfsachs.com

PARENT ORGANIZATION
ZF Friedrichshafen AG

PRINCIPALS
Julio Caspari, President
Ron Gesquiere, VP Sales, Engineering
Dave Hunt, Dir Engineering (Suspension)
Ralf Nenninger, Dir Sales, Engineering (Clutch)
Michael Fister Dir Sales, Engineering (Torque Converter)

TOTAL EMPLOYMENT
130

AUTOMOTIVE R&D SPENDING
95%

ECONOMIC ACTIVITY 2001
R&D proto: $2.5 Million to $3 Million
NAFTA production: $270 Million

PROFESSIONAL STAFF
Designers: 7
Engineering specialists: 4
Engineers: 27
Technicians: 21

R&D ACTIVITIES
Application engineering and product development

PRODUCTS
Suspension: shocks/struts and modules.
Powertrain: clutches and torque converters

FACILITY DESCRIPTION
Product design and development, mechanical testing, machine shop and prototyping lab

OTHER SERVICES
No external services

Saginaw Machine Systems, Inc
800 N Hamilton Street, Saginaw, MI 48602
ph: 989.753.8464 • fx: 989.753.1751 • www.saginawmachine.com

PARENT ORGANIZATION
SMS Holdings Co, Inc

PRINCIPALS
Jim Buckley, President, CEO
Al Gay, Mgr Engineering and Service

TOTAL EMPLOYMENT
58

AUTOMOTIVE R&D SPENDING
95%

ECONOMIC ACTIVITY 2001
$16 Million

PROFESSIONAL STAFF
Engineers: 13
Technicians: 18

R&D ACTIVITIES
Applied research, testing, engineering and product development

PRODUCTS
Powertrain; including transmission, clutch, drive assemblies and brakes

FACILITY DESCRIPTION
Machine tool manufacturing facility

OTHER SERVICES
Engineering and technical consultation available.
Facility not available for use by others
### Saturn Electronics & Engineering, Inc

**Address:** 255 Rex Boulevard, Auburn Hills, MI 48326  
**Phone:** 248.853.5724  
**Fax:** 248.299.8514  
**Website:** www.saturnee.com

<table>
<thead>
<tr>
<th>Parent Organization</th>
<th>R&amp;D Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturn Electronics &amp; Engineering, Inc</td>
<td>Technology/product development, engineering and prototyping</td>
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</table>

<table>
<thead>
<tr>
<th>Principals</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wally Tsuha, President, CEO</td>
<td>Electronics design, engineering services and prototypes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Employment</th>
<th>Other Services</th>
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<tbody>
<tr>
<td>Not reported</td>
<td>Work on products for others</td>
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<table>
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<tr>
<th>Economic Activity 2001</th>
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<td>Not reported</td>
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<table>
<thead>
<tr>
<th>Professional Staff</th>
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<tbody>
<tr>
<td>Design engineers</td>
<td></td>
</tr>
<tr>
<td>Manufacturing engineers</td>
<td></td>
</tr>
<tr>
<td>Technicians</td>
<td></td>
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</tbody>
</table>

### Sealant Equipment & Engineering, Inc

**Address:** 45677 Helm Street, Plymouth, MI 48170  
**Phone:** 734.459.8600  
**Fax:** 734.459.8686  
**Website:** www.sealantequipment.com

<table>
<thead>
<tr>
<th>Parent Organization</th>
<th>R&amp;D Activities</th>
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</thead>
<tbody>
<tr>
<td>Sealant Equipment &amp; Engineering, Inc</td>
<td>Not reported</td>
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<table>
<thead>
<tr>
<th>Principals</th>
<th>Products</th>
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<tbody>
<tr>
<td>Not reported</td>
<td>Meter/mix/dispensing equipment and fluid control valves</td>
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<table>
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<tr>
<th>Total Employment</th>
<th>Other Services</th>
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<th>Economic Activity 2001</th>
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<tr>
<td>Not reported</td>
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<table>
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<tr>
<th>Professional Staff</th>
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<tbody>
<tr>
<td>Not reported</td>
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</table>
Siemens VDO Automotive
North American Technical Center
2400 Executive Hills Boulevard, Auburn Hills, MI 48236
ph: 248.209.5774 • fx: 248.209.7822 • www.usa.siemensvdo.com

07/2002

PARENT ORGANIZATION
Siemens AG

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Development product. Powertrain testing and systems development

PRODUCTS
Advanced fuel control systems, electronic displays and instrumentation

FACILITY DESCRIPTION
Emissions, chassis cell, vehicle climatic chamber and engine dynos

OTHER SERVICES
Testing

SLP Engineering
1465 Axtell Road, Troy, MI 48084
ph: 248.288.3888 • www.slpeng.com

07/2002

PARENT ORGANIZATION
SLP Engineering

PRINCIPALS
Ed Hamburger, President
Reg Harris, Marketing Dir
Jeff Yachnin, Chief Engineer

TOTAL EMPLOYMENT
35

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$30 Million

PROFESSIONAL STAFF
Project/Design engineers: 4

R&D ACTIVITIES
Design, product development, and testing of automotive components including: body components, chassis/suspension and powertrain

PRODUCTS
Exterior cladding, hoods, suspension, exhaust systems, airboxes and rockers

FACILITY DESCRIPTION
Engineering facility, chassis rolls, engine dyno, prototype shop, design studio and clay studio

OTHER SERVICES
Tier 1 for General Motors
(market and sell speciality vehicles)
**Solvay Engineered Polymers**

**Automotive Applications Development Center**

1200 Harmon Road, Auburn Hills, MI 48236

ph: 248.391.9500 • fx: 248.391.9501 • www.solvayengineeredpolymers.com

**Parent Organization**
Solvay SA

**Principals**
- Bruce Denison, Mgr Advanced Processes
- Craig Abernathy, Mgr CAE Services
- Dave Edge, Mgr Surface Applications

**Total Employment**
50

**Automotive R&D Spending**
95%

**Economic Activity 2001**
Not reported

**Professional Staff**
- Engineers: 10
- Technicians: 10

**R&D Activities**
Testing, applied research and engineering

**Products**
Automotive exterior and interior trim parts

**Facility Description**
Mechanical lab and test facility

**Other Services**
Consulting to customers

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**Soudronic Automotive**

31690 Glendale Avenue, Livonia, MI 48151

ph: 734.367.9422 • fx: 734.367.9433 • www.soudronic.com

**Parent Organization**
Soudronic Automotive

**Principals**
- Marcel van Schaik, General Mgr North America

**Total Employment**
Not reported

**Automotive R&D Spending**
Not reported

**Economic Activity 2001**
Not reported

**Professional Staff**
- Engineers

**R&D Activities**
Development of advanced welding systems

**Products**
Welding equipment for tailored/tubular blanks and laser welding

**Facility Description**
Welding equipment manufacturing and R&D site

**Other Services**
Not reported
**Specialized Vehicles, Inc**

2468 Industrial Row, Troy, MI 48084


**PARENT ORGANIZATION**
Specialized Vehicles, Inc

**PRINCIPALS**
Michael J Koran, President

**TOTAL EMPLOYMENT**
20

**AUTOMOTIVE R&D SPENDING**
100%

**ECONOMIC ACTIVITY 2001**
$1.5 Million

**PROFESSIONAL STAFF**
Engineers: 2
Technicians: 7

**R&D ACTIVITIES**
Automotive engine concept development, design and implementation

**PRODUCTS**
Automotive powertrain systems and subsystems

**FACILITY DESCRIPTION**
Vehicle development and engine dynamometer lab

**OTHER SERVICES**
Automotive engine concept development, design and implementation

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**SSI Technologies Inc**

24114 Research Drive, Farmington Hills, MI 48335

ph: 248.471.0500 • fx: 248.471.0507 • www.ssitechnologies.com

**PARENT ORGANIZATION**
SSI Technologies Inc

**PRINCIPALS**
David Baum, CEO
Bill Coon, COO

**TOTAL EMPLOYMENT**
Not reported

**AUTOMOTIVE R&D SPENDING**
Not reported

**ECONOMIC ACTIVITY 2001**
Not reported

**PROFESSIONAL STAFF**
Not reported

**R&D ACTIVITIES**
Not reported

**PRODUCTS**
Sensors and sensor-based monitoring systems, coil assemblies, solenoids and powdered metal parts

**FACILITY DESCRIPTION**
Technical Center

**OTHER SERVICES**
Not reported

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Stabilus
36225 Mound Road, Sterling Heights, MI 48310
ph: 586.977.2950 • fx: 586.446.3920 • www.stabilus.com

PARENT ORGANIZATION
Stabilus

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Application engineers

R&D ACTIVITIES
Application engineering and product development

PRODUCTS
Gas springs and dampers

FACILITY DESCRIPTION
Testing and development laboratory

OTHER SERVICES
Not reported

STM Power, Inc
275 Metty Drive, Ann Arbor, MI 48103
ph: 734.995.1755 • fx: 734.995.0610 • www.stmpower.com

PARENT ORGANIZATION
STM Power, Inc

PRINCIPALS
Lennart Johansson, Chairman, CTO
Tom Hazlett, President, CEO

TOTAL EMPLOYMENT
60

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers
Managers

R&D ACTIVITIES
Basic and applied research, testing, engineering and product development

PRODUCTS
Complete engines and generator sets

FACILITY DESCRIPTION
Engineering and test lab

OTHER SERVICES
No external services
Subaru Research and Development, Inc
3995 Research Park Drive, Ann Arbor, MI 48108
ph: 734.623.0075

PARENT ORGANIZATION
Fuji Heavy Industries, Ltd

PRINCIPALS
Tatsuo Sakai, President
Frank Kurk, Facility Manager

TOTAL EMPLOYMENT
26

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Engineers: 13
Professionals: 7
Technicians: 3

R&D ACTIVITIES
Emissions testing, research and design

PRODUCTS
Vehicle emissions, durability testing, government vehicle certification, vehicle design and service analysis

FACILITY DESCRIPTION
Chassis dynamometer emissions testing area, mechanical service area and design studio

OTHER SERVICES
No external services

Takata, Inc
2500 Takata Drive, Auburn Hills, MI 48326
ph: 248.377.1500 • fx: 248.373.5186 • www.takata.com

PARENT ORGANIZATION
Takata, Inc

PRINCIPALS
Not reported

TOTAL EMPLOYMENT
Not reported

AUTOMOTIVE R&D SPENDING
Not reported

ECONOMIC ACTIVITY 2001
Not reported

PROFESSIONAL STAFF
Quality engineers
Safety system engineers

R&D ACTIVITIES
Engineering and testing

PRODUCTS
Automotive safety systems, seat belts, air bag systems and steering wheels

FACILITY DESCRIPTION
Prototype build and evaluation shop, research and test laboratory

OTHER SERVICES
No external services
### Testing Service Group

**Address:** 828 Whitney Drive, Lapeer, MI 48446  
**Phone:** 810.245.1600, **Fax:** 810.246.1606  
**Website:** [www.testlab.com](http://www.testlab.com)

<table>
<thead>
<tr>
<th><strong>Parent Organization</strong></th>
<th>Testing Service Group</th>
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</thead>
<tbody>
<tr>
<td><strong>Principals</strong></td>
<td>Mark Lockwood</td>
</tr>
<tr>
<td><strong>Total Employment</strong></td>
<td>40</td>
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<tr>
<td><strong>Automotive R&amp;D Spending</strong></td>
<td>100%</td>
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<tr>
<td><strong>Economic Activity 2001</strong></td>
<td>Not reported</td>
</tr>
<tr>
<td><strong>Professional Staff</strong></td>
<td>Engineers, Technicians</td>
</tr>
<tr>
<td><strong>R&amp;D Activities</strong></td>
<td>Testing</td>
</tr>
<tr>
<td><strong>Products</strong></td>
<td>Fuel systems and testing/analysis services</td>
</tr>
<tr>
<td><strong>Facility Description</strong></td>
<td>Electronics and environmental labs</td>
</tr>
<tr>
<td><strong>Other Services</strong></td>
<td>Labs for testing fuel systems</td>
</tr>
</tbody>
</table>

### Textron Fastening Systems

**Address:** 6125 Eighteen Mile Road, Sterling Heights, MI 48314  
**Phone:** 586.254.3900  
**Website:** [www.textronfasteningsystems.com](http://www.textronfasteningsystems.com)

<table>
<thead>
<tr>
<th><strong>Parent Organization</strong></th>
<th>Textron</th>
</tr>
</thead>
</table>
| **Principals**          | Dave Fulbright, VP Engineering  
                          | John Allen, Dir Engineering  
                          | Bill Turnmire, Mgr Laboratory Services |
| **Total Employment**    | 100     |
| **Automotive R&D Spending** | Not reported  |
| **Economic Activity 2001** | Not reported  |
| **Professional Staff**  | Not reported |
| **R&D Activities**      | Testing, engineering and product development |
| **Products**            | Fastening systems for all automotive assemblies |
| **Facility Description** | Mechanical and performance testing laboratory for fasteners |
| **Other Services**      | Contracted testing for customers with fastener related problems |
### The Budd Company

**Automotive Center**
1515 Atlantic Boulevard, Auburn Hills, MI 48326  
ph: 248.391.2880 • [www.buddcompany.com](http://www.buddcompany.com)

**PARENT ORGANIZATION**
- ThyssenKrupp

**PRINCIPALS**
- William C Phillips, Director

**TOTAL EMPLOYMENT**
- 26

**AUTOMOTIVE R&D SPENDING**
- 100%

**ECONOMIC ACTIVITY 2001**
- $2.5 Million

**PROFESSIONAL STAFF**
- Engineers: 17
- Technicians: 7

**R&D ACTIVITIES**
- Applied research testing and process development

**PRODUCTS**
- Body systems, closure systems and chassis systems

**FACILITY DESCRIPTION**
- Facilities for product and material testing, analytical simulation and production and process development

**OTHER SERVICES**
- Work only for the company

---

### Tower Automotive

**Technical/Customer Service Center**
27175 Haggerty Road, Novi, MI 48377  
ph: 248.675.6000 • fx: 248.675.6200 • [www.towerautomotive.com](http://www.towerautomotive.com)

**PARENT ORGANIZATION**
- Tower Automotive

**PRINCIPALS**
- James Arnold, Division Leader  
  David DeBoer, Technology Leader

**TOTAL EMPLOYMENT**
- 250

**AUTOMOTIVE R&D SPENDING**
- 100%

**ECONOMIC ACTIVITY 2001**
- No sales

**PROFESSIONAL STAFF**
- Engineering leaders: 22  
  Mechanical designers/analysts: 47

**R&D ACTIVITIES**
- Product development and testing

**PRODUCTS**
- Chassis and structural products

**FACILITY DESCRIPTION**
- Not reported

**OTHER SERVICES**
- Product development for OEM customers and some contracted product development
# Toyota Technical Center USA, Inc

**1555 Woodridge Avenue, Ann Arbor, MI 48105**  
**ph: 734.995.2600 • fx: 734.995.4200 • www.toyota.com/about**

**Parent Organization:** Toyota Motor Corp  
**Principals:** George Yamashina, President  
**Total Employment:** 550  
**Automotive R&D Spending:** 100%  
**Economic Activity 2001:** Not reported  
**Professional Staff:**  
- Engineers: 300  
- Technicians: 100  

**R&D Activities:** Engineering and product development  
**Products:** Vehicle design engineering, parts, materials, and vehicle evaluation, prototype vehicle development, and emissions certification  
**Facility Description:** Test facility, prototype lab, material and parts evaluation labs  
**Other Services:** No external services

# TRW Automotive

**12025 Tech Center Drive, Livonia, MI 48150**  
**ph: 734.266.2600 • www.trw.com**

**Parent Organization:** TRW Automotive  
**Principals:** John Plant, President, CEO  
**Total Employment:** Not reported  
**Automotive R&D Spending:** Not reported  
**Economic Activity 2001:** Not reported  
**Professional Staff:**  
- Designers  
- Engineers  
- Researchers  
- Technicians  

**R&D Activities:** Applied research, engineering and product development  
**Products:** Braking, steering, suspension, seat belt systems, safety electronics and engine components  
**Facility Description:** Not reported  
**Other Services:** Work on products for others
**US ARMY Tank-Automotive RD&E Center (TARDEC)**

**National Automotive Center (NAC)**

6105 E Eleven Mile Road, Warren, MI 48397

ph: 586.574.6387 • www.tacom.army.mil/tardec/nac/

**PARENT ORGANIZATION**

Department of the Army

**PRINCIPALS**

Dr Richard E McClelland, Dir TARDEC

Dennis J Wend, Director, NAC

**TOTAL EMPLOYMENT**

Not reported

**AUTOMOTIVE R&D SPENDING**

75%

**ECONOMIC ACTIVITY 2001**

Not reported

**PROFESSIONAL STAFF**

Not reported

**R&D ACTIVITIES**

Applied research, testing, engineering and product development

**PRODUCTS**

Component, subsystem and systems for combat and tactical vehicles. Fuels and lubricants; fuel storage, distribution and quality. Water generation, purification, distribution, quality and logistics equipment

**FACILITY DESCRIPTION**

The following principal laboratories: advanced collaborative environment, advanced concepts, advanced material and manufacturing, bridging, crew station technology, electronics architecture, embedded simulation, fuels and lubricants, high performance computing, intelligent mobility research, laser, propulsion, rapid prototyping, robotic system integration, simulation, terrain sensing, track and suspension, visual perception and water purification labs

**OTHER SERVICES**

Many of TARDEC’s labs are open to use by the private sector

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**United States Steel Automotive Center**

5850 New King Court, Troy, MI 48098

ph: 248.267.2608 • www.ussautomotive.com

**PARENT ORGANIZATION**

United States Steel Corp

**PRINCIPALS**

J Juddo, Dir Product Technology

Dr M Shi, Mgr Advanced Applications

J Shaw, Technical Marketing Mgr

**TOTAL EMPLOYMENT**

100

**AUTOMOTIVE R&D SPENDING**

100%

**ECONOMIC ACTIVITY 2001**

Not reported

**PROFESSIONAL STAFF**

Applications engineers: 12

Material scientists: 5

Technicians: 6

**R&D ACTIVITIES**

Advanced steel characterization and application technology—all automotive aspects

**PRODUCTS**

Sheet steel

**FACILITY DESCRIPTION**

Mechanical, metalography, material test and computer simulation lab

**OTHER SERVICES**

Mechanical and material test services. Work on projects for others
**Valeo**
3000 University Drive, Auburn Hills, MI 48326  
ph: 248.340.3000 x8437 • www.valeo.com

**PARENT ORGANIZATION**  
Valeo SA

**PRINCIPALS**  
Chandra Lewis, Marketing Manager  
Robert Strazzella, VP North America

**TOTAL EMPLOYMENT**  
800

**AUTOMOTIVE R&D SPENDING**  
100%

**ECONOMIC ACTIVITY 2001**  
North America: $2.2 Billion

**PROFESSIONAL STAFF**  
Engineers: 300

**R&D ACTIVITIES**  
Design, testing and product development

**PRODUCTS**  
Thermal systems (engine cooling, climate control);  
electrical/electronic (wipers, switches-sensors, starters-alternators, security systems, motors & actuators, lighting) and transmissions (clutches)

**FACILITY DESCRIPTION**  
Auburn Hills—electrical-electronics development  
(University Dr)  
Auburn Hills—thermal systems development  
(N Atlantic Blvd)  
Livonia—clutch testing

**OTHER SERVICES**  
No external services

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**Visteon Technical Center**
17000 Rotunda Drive, Dearborn, MI 48121  
ph: 313.755.9121 • fx: 313.755.2776 • www.visteon.com

**PARENT ORGANIZATION**  
Visteon

**PRINCIPALS**  
John Quigley, Global Technology Development  
John Kill, VP Product Development

**TOTAL EMPLOYMENT**  
3600

**AUTOMOTIVE R&D SPENDING**  
100%

**ECONOMIC ACTIVITY 2001**  
Not reported

**PROFESSIONAL STAFF**  
Not reported

**R&D ACTIVITIES**  
Applied research, testing, engineering and product development

**PRODUCTS**  
All-wheel drive systems, integrated circuits, audio and in-vehicle entertainment systems, fuel storage and delivery systems

**FACILITY DESCRIPTION**  
Multiple facilities

**OTHER SERVICES**  
No external services
Yazaki North America Inc
6801 N Haggerty Road, Canton, MI 48187
ph: 734.983.1000 • www.yzaki-na.com

PARENT ORGANIZATION
Yazaki International Corp (Holding)
Yazaki Corp (Japan)

PRINCIPALS
Kurt Zielske, VP EDS Engineering
Myron Trenne, VP R&D

TOTAL EMPLOYMENT
1,400

AUTOMOTIVE R&D SPENDING
100%

ECONOMIC ACTIVITY 2001
$1.65 Billion

PROFESSIONAL STAFF
Not reported

R&D ACTIVITIES
Applied research, testing, engineering and product development

PRODUCTS
Wiring harnesses, electronics and instrumentation

FACILITY DESCRIPTION
Electronics lab

OTHER SERVICES
Offers testing facility to other companies
COMPANIES BY LOCATION

This index lists companies according to the Michigan municipality where their research, development or testing facilities are located.
ALLEN PARK
AFL Automotive

ANN ARBOR
Bosal International North America
Federal-Mogul
Lotus Engineering
Mechanical Simulation
Mitsubishi Motor
    Research & Development of America
NSK
STM Power
Subaru Research and Development
Takata
Toyota Technical Center USA

AUBURN HILLS
Analytical Process Systems
Autoliv
Bosch Rexroth
DaimlerChrysler
Dow Automotive
FEV Engine Technology
GKN Automotive
IEE Automotive
Loctite, Automotive Technology Center
Molex Automotive
MSX Vehicle Development and
    Engineering Center
OMG
POM Group
RECARO North America
Saturn Electronics & Engineering
Siemens VDO Automotive
    North American Technical Center
Solvay Engineered Polymers,
    Automotive Applications Development Center
Takata
The Budd Company Automotive Center
Valeo

BELLEVILE
Ricardo

BRIGHTON
Delphi Automotive Systems Technical Center

BUCHANAN
Clark Engineering Services

BURTON
MDE International

CADILLAC
Michigan Rubber Products

CANTON
ATEQ
Yazaki North America

CHARLEVOIX
Michigan Scientific

DEARBORN
Ford Motor
QQC
Visteon Technical Center

DETROIT
Greening Testing Laboratories

DEXTER
Pilot Industries

EATON RAPIDS
Fasco DC Motors

FARMINGTON HILLS
Calsonic Kansei North America
MAHLE
Nissan Technical Center North America
North American Lighting
Robert Bosch
SSI Technologies

FERNDALE
Hayes Lemmerz International,
    Technical Services

FLINT
Pro-Tech Industries
GRAND HAVEN
Grand Haven Stamped Products

GRAND RAPIDS
Burke E Porter Machinery
Cascade Engineering
Entela

HOLLAND
Donnelly
Dynamic

HOWELL
Ogihara America

LAPEER
Testing Service Group

LIVONIA
Bruel & Kjaer
FCI Automotive
Karmann USA
Magna Automotive Testing
McLaren Performance Technologies
Paragon Laboratories
QMP America
Soudronic Automotive
TRW Automotive

MADISON HEIGHTS
Modern Body Engineering

MILFORD
Michigan Scientific

MT. CLEMENS
Emhart Fastening Teknologies

NORTHVILLE
Mitsubishi Electric Automotive America

NOVI
Citation
Cosworth Technology

Husky Injection Molding Systems
Tower Automotive
Technical/Customer Service Center

PLYMOUTH
AVL Powertrain Engineering
Collins & Aikman
Global Product Development Division
Dow Corning
Durr Industries
Freudenberg-NOK
Johnson Controls Automotive Systems Group
Koyo North American
Engineering & Technical Center
Metaldyne
Perceptron
Sealant Equipment & Engineering

PONTIAC
Gonzalez Design Engineering

PORTAGE
MANN + HUMMEL Automotive

ROCHESTER HILLS
American Axle & Manufacturing
AAM Technical Center
BOS Automotive
Branson Ultrasonics
Dura Automotive Systems
FANUC Robotics North America
Gates Automotive Technical Center (GATC)

ROMEO
Automotive Technologies International

ROMULUS
Aztec Manufacturing

SAGINAW
Saginaw Machine Systems

SOUTHFIELD
Corrsys-Datron Sensorsystems
Denso International America
SOUTHFIELD CONTINUED

DSM Engineering Plastics,
  Automotive Marketing & Technical Center
Eaton Innovation Center
First Technology
  Automotive and Special Products
Kaiser Aluminum
Lear, Technical Division
Peterson Spring

STERLING HEIGHTS

Borg-Warner Air Fluid Systems
Hawtal Whiting
Stabilus
Textron Fastening Systems,
  Technical Resource Center

TAYLOR

Johnson Matthey Testing

TRENTON

National Steel,
  Technical Research Center

TROY

Altair Engineering
ArvinMeritor Automotive
Control Power-Reliance
Defiance Testing & Engineering
Delphi
DuPont Automotive
Hantech
Hi-Lex Automotive Center
HP Pelzer Automotive Systems
Hutchinson FTS
Inergy Automotive Systems Technical Center
Magneti Marelli North America
MGA Research
Munro & Associates
QED
Sachs Automotive of America
SLP Engineering
Specialized Vehicles
United States Steel Automotive Center

WARREN

General Motors Technical Center
Guardian Automotive Products
US ARMY Tank-Automotive RD&E Center
  (TARDEC) National Automotive Center

WIXOM

Climax Research Services

WYANDOTTE

BASF

ZEELAND

Gentex
VEHICLE COMPONENT/SPECIALITIES

In this index, companies are listed according to the specialities. Component groupings include:

- Chassis (body/suspension/brakes)
- Powertrain/drivetrain
- Interior
- Emissions
- Safety
- Materials/Processes
### CHASSIS: BODY/SUSPENSION/BRAKES

- AFL Automotive
- Altair Engineering
- ArvinMeritor Automotive
- Aztec Manufacturing
- BASF
- Borg-Warner Air Fluid Systems
- Branson Ultrasonics
- Brul & Kjaer
- Cascade Engineering
- DaimlerChrysler
- Defiance Testing & Engineering
- Delphi
- Delphi Automotive Systems Technical Center
- Denso International America
- Donnelly
- Dura Automotive Systems
- Dynamic
- Entela
- Fasco DC Motors
- FCI Automotive
- Ford Motor
- Freudenberg-NOK
- General Motors Technical Center
- Gentex
- Grand Haven Stamped Products
- Guardian Automotive Products
- Hayes Lemmerz International, Technical Services
- Hi-Lex Automotive Center
- HP Pelzer Automotive Systems
- Karmann USA
- Koyo North American Engineering & Technical Center
- Lotus Engineering
- Magneti Marelli North America
- Mechanical Simulation
- Metaldyne
- Michigan Rubber Products
- Michigan Scientific
- Mitsubishi Electric Automotive America
- Molex Automotive
- MSX Vehicle Development and Engineering Center
- Nissan Technical Center North America
- North American Lighting, Ogihara America
- POM Group
- Pro-Tech Industries
- QED
- QQC
- Robert Bosch
- Sachs Automotive of America
- Saginaw Machine Systems
- Saturn Electronics & Engineering
- Sealant Equipment & Engineering
- SLP Engineering
- Solvay Engineered Polymers, Automotive Applications Development Center
- Stabilus
- Textron Fastening Systems, Technical Resource Center
- The Budd Company Automotive Center
- Tower Automotive Technical/Customer Service Center
- TRW Automotive
- US ARMY Tank-Automotive RD&E Center (TARDEC)
- Valeo
- Visteon Technical Center
- Yazaki North America

### POWERTRAIN/DRIVETRAIN

- ATEQ
- AVL Powertrain Engineering
- Aztec Manufacturing
- Branson Ultrasonics
- Calsonic Kansei North America
- Cosworth Technology
- DaimlerChrysler
- Defiance Testing & Engineering
- Delphi
- Delphi Automotive Systems Technical Center
Denso International America
Dow Corning
Dynamic
Eaton Innovation Center
Fasco DC Motors
Federal-Mogul
FEV Engine Technology
Ford Motor
Freudenberg-NOK
Gates Automotive Technical Center (GATC)
General Motors Technical Center
GKN Automotive
Hayes Lemmerz International
Technical Services
Inergy Automotive Systems Technical Center
Johnson Controls Automotive Systems Group
Lotus Engineering
MAHLE
MANN + HUMMEL Automotive
McLaren Performance Technologies
Metaldyne
Michigan Scientific
Mitsubishi Electric Automotive America
NSK
Pilot Industries
Pro-Tech Industries
QQC
Ricardo
Robert Bosch
Sachs Automotive of America
Saginaw Machine Systems
Siemens VDO Automotive
North American Technical Center
SLP Engineering
Specialized Vehicles
SSI Technologies
STM Power
Testing Service Group
TRW Automotive
Valeo
Visteon Technical Center

INTERIOR

BASF
BOS Automotive
Branson Ultrasonics
Calsonic Kansei North America
Cascade Engineering
Collins & Aikman
Global Product Development Division
DaimlerChrysler
Defiance Testing & Engineering
Delphi Automotive Systems Technical Center
Denso International America
Donnelly
Emhart Fastening Technologies
Entela
First Technology
Automotive and Special Products
General Motors Technical Center
Gentex
Grand Haven Stamped Products
Hi-Lex Automotive Center
HP Pelzer Automotive Systems
Huchinson FTS
Johnson Controls Automotive Systems Group
Lear, Technical Division
Mitsubishi Electric Automotive America
North American Lighting
Ogihara America
Pro-Tech Industries
QED
RECARO North America
Siemens VDO Automotive
North American Technical Center
Solvay Engineered Polymers,
Automotive Applications Development Center
Takata
Visteon Technical Center
Yazaki North America

EMISSIONS

Altair Engineering
Analytical Process Systems
AVL Powertrain Engineering
EMISSIONS CONTINUED

Bosal International North America
Cosworth Technology
DaimlerChrysler
Defiance Testing & Engineering
Denso International America
FEV Engine Technology
Ford Motor
General Motors Technical Center
GKN Automotive
Johnson Matthey Testing
Michigan Rubber Products
Mitsubishi Motor
Research & Development of America
OMG
Paragon Laboratories
SLP Engineering
Subaru Research and Development
Toyota Technical Center USA
US ARMY
Tank-Automotive RD&E Center (TARDEC)

SAFETY

Altair Engineering
Analytical Process Systems
Autoliv
Automotive Technologies International
DaimlerChrysler
Denso International America
Dow Automotive
Dynamic
Emhart Fastening Teknologies
First Technology
Automotive and Special Products
Ford Motor
General Motors Technical Center
IEE Automotive
Magna Automotive Testing
Mechanical Simulation
MGA Research
Mitsubishi Motor
Research & Development of America
Robert Bosch
Takata
TRW Automotive

MATERIALS/PROCESSES

Altair Engineering
Bosch Rexroth
Burke E Porter Machinery
Clark Engineering Services
Climax Research Services
Control Power-Reliance
Corrsys-Datron Sensorsystems
Dow Automotive
Dow Corning
DuPont Automotive
Durr Industries
Entela
FANUC Robotics North America
GKN Automotive
Gonzalez Design Engineering
Greening Testing Laboratories
Hantech
Hawtal Whiting
Husky Injection Molding Systems
Kaiser Aluminum
Loctite, Automotive Technology Center
Lotus Engineering
Magna Automotive Testing
MDE International
MGA Research
Michigan Scientific
Mitsubishi Motor
Research & Development of America
Modern Body Engineering
Munro & Associates
National Steel Technical Research Center
Paragon Laboratories
Perceptron
POM Group
QMP America
Soudronic Automotive
Subaru Research and Development
Toyota Technical Center USA
United States Steel Automotive Center
COMPANY ACTIVITIES

For this directory research and development are defined as any of following activities:

- Basic research
- Applied research
- Engineering
- Testing
- Product development

Companies are listed in each category that applies
BASIC RESEARCH
BASF
Bosal International North America
Collins & Aikman
  Global Product Development Division
Delphi
Dow Automotive
Dow Corning
Eaton Innovation Center
Gentex
Gonzalez Design Engineering
Inergy Automotive Systems Technical Center
Johnson Matthey Testing
Kaiser Aluminum
Michigan Rubber Products
National Steel Technical Research Center
Nissan Technical Center North America
Paragon Laboratories
QMP America
STM Power
United States Steel Automotive Center

APPLIED RESEARCH
BASF
Collins & Aikman
  Global Product Development Division
DaimlerChrysler
Delphi
Delphi Automotive Systems Technical Center
Dow Automotive
Dow Corning
DuPont Automotive
Dura Automotive Systems
Durr Industries
Eaton Innovation Center
FANUC Robotics North America
Fasco DC Motors
FCI Automotive
Ford Motor
Gates Automotive Technical Center (GATC)
General Motors Technical Center
Gentex
Gonzalez Design Engineering
Greening Testing Laboratories
Guardian Automotive Systems
Hayes Lemmerz International
  Technical Services
Hi-Lex Automotive Center
Hutchinson FTS
Husky Injection Molding Systems
Inergy Automotive Systems Technical Center
Johnson Controls Automotive Systems Group
Johnson Matthey Testing
Kaiser Aluminum
Karmann USA
Koyo North American
  Engineering & Technical Center
Lear Technical Division
Loctite, Automotive Technology Center
Lotus Engineering
Mechanical Simulation
Michigan Rubber Products
National Steel
  Technical Research Center
Nissan Technical Center North America
OMG
Paragon Laboratories
Perceptron
Pilot Industries
POM Group
QMP America
QQC
Ricardo
Robert Bosch
Sachs Automotive of America
Saginaw Machine Systems
Solvay Engineered Polymers,
  Automotive Applications Development Center
Stabilus
STM Power
Subaru Research and Development
The Budd Company
  Automotive Center
TRW Automotive
United States Steel Automotive Center
US ARMY
  Tank-Automotive RD&E Center (TARDEC)
Visteon Technical Center
Yazaki North America

ENGINEERING
AFL Automotive
Altair Engineering, Inc
Analytical Process Systems
ArvinMeritor Automotive
ATEQ
AVL Powertrain Engineering
Aztec Manufacturing
Borg-Warner Air Fluid Systems
Bosch Rexroth
Branson Ultrasonics
Burke E Porter Machinery
Cascade Engineering
Climax Research Services
Collins & Aikman,
  Global Product Development Division
Corrsys-Datron Sensorsystems
Cosworth Technology
DaimlerChrysler
Defiance Testing & Engineering
Delphi
Delphi Automotive Systems Technical Center
Donnelly
Dow Automotive
Dow Corning
Emhart Fastening Teknologies
Entela
FANUC Robotics North America
Fasco DC Motors
FCI Automotive
Federal-Mogul
FEV Engine Technology
First Technology
  Automotive and Special Products
Ford Motor
Gates Automotive Technical Center (GATC)
General Motors Technical Center
Gentex
GKN Automotive
Gonzalez Design Engineering
Greening Testing Laboratories
Guardian Automotive Systems
Hantech
Hayes Lemmerz International
  Technical Services
Hi-Lex Automotive Center
Husky Injection Molding Systems
Hutchinson FTS
IEE Automotive
Inergy Automotive Systems Technical Center
Johnson Controls Automotive Systems Group
Johnson Matthey Testing
Karmann USA
Koyo North American
  Engineering & Technical Center
Loctite, Automotive Technology Center
Lotus Engineering
Magna Automotive Testing
MANN + HUMMEL Automotive
McLaren Performance Technologies
Michigan Rubber Products
Michigan Scientific
Mitsubishi Electric Automotive America
Mitsubishi Motor
  Research & Development of America
Modern Body Engineering
Molex Automotive
MSX Vehicle Development and
  Engineering Center
Munro & Associates
National Steel Technical Research Center
Nissan Technical Center North America
North American Lighting
NSK
OMG
Perceptron
Pilot Industries
POM Group
Pro-Tech Industries
QED
ENGINEERING CONTINUED

RECARO North America
Ricardo
Robert Bosch
Sachs Automotive of America
Saginaw Machine Systems
Saturn Electronics & Engineering
Siemens VDO Automotive
North American Technical Center
SLP Engineering
Solvay Engineered Polymers,
Automotive Applications Development Center
Specialized Vehicles
STM Power
Subaru Research and Development
Takata
Textron Fastening Systems,
Technical Resource Center
The Budd Company
Automotive Center
Toyota Technical Center USA
TRW Automotive
US ARMY
Tank-Automotive RD&E Center (TARDEC)
Visteon Technical Center
Yazaki North America

TESTING

Analytical Process Systems
Altair Engineering, Inc
ATEQ
Autoliv
AVL Powertrain Engineering
Calsonic Kansei North America
Cascade Engineering
Clark Engineering Services
Collins & Aikman,
Global Product Development Division
Control Power-Reliance
Cosworth Technology
DaimlerChrysler
Defiance Testing & Engineering
Delphi
Delphi Automotive Systems Technical Center
Denso International America
Dow Automotive
Dura Automotive Systems
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FEV Engine Technology
Ford Motor
Freudenberg-NOK
Gates Automotive Technical Center (GATC)
General Motors Technical Center
Gonzalez Design Engineering
Grand Haven Stamped Products
Greening Testing Laboratories
Guardian Automotive Systems
Hayes Lemmerz International
Technical Services
Hi-Lex Automotive Center
HP Pelzer Automotive Systems
Hutchinson FTS
Inergy Automotive Systems Technical Center
Johnson Controls Automotive Systems Group
Johnson Matthey Testing
Karmann USA
Loctite, Automotive Technology Center
Lotus Engineering
Magna Automotive Testing
MAHLE
MANN + HUMMEL Automotive
McLaren Performance Technologies
MDE International
Metaldyne
MGA Research
Michigan Rubber Products
Michigan Scientific
Mitsubishi Motor
Research & Development of America
Molex Automotive
MSX Vehicle Development and
Engineering Center
National Steel Technical Research Center
Nissan Technical Center North America
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<td>Collins &amp; Aikman, Global Product Development Division</td>
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<td>Hawtal Whiting</td>
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<td>Hayes Lemmerz International Technical Services</td>
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**PRODUCT DEVELOPMENT**

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<td>Bosch Rexroth</td>
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<td>PRODUCT DEVELOPMENT CONTINUED</td>
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<td>MAHLE</td>
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<td>Mitsubishi Motor</td>
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<td>Research &amp; Development of America</td>
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<td>Modern Body Engineering</td>
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<td>Molex Automotive</td>
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<td>MSX Vehicle Development and</td>
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<td>National Steel Technical Research Center</td>
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<td>Nissan Technical Center North America</td>
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<td>NSK</td>
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<td>Saginaw Machine Systems</td>
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<td>Saturn Electronics &amp; Engineering</td>
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<td>Siemens VDO Automotive</td>
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<td>Soudronic Automotive</td>
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<td>Specialized Vehicles</td>
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<td>Textron Fastening Systems,</td>
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<td>Technical Resource Center</td>
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<td>The Budd Company</td>
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<td>Automotive Center</td>
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<td>Tower Automotive</td>
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<tr>
<td>Technical/Customer Service Center</td>
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<td>US ARMY</td>
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<td>Tank-Automotive RD&amp;E Center (TARDEC)</td>
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<td>Valeo</td>
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<td>Visteon Technical Center</td>
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<td>Yazaki North America</td>
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SPECIAL SERVICES

Companies in this index are grouped according to the additional or special services they offer. Categories include:

- Consulting
- Testing facilities
- Facilities available for outside use
CONSULTING
Altair Engineering
Analytical Process Systems
Bosch Rexroth
Bruel & Kjaer
Clark Engineering Services
Climax Research Services
Control Power-Reliance
Defiance Testing & Engineering
Delphi Automotive Systems Technical Center
Dow Automotive
DuPont Automotive
Durr Industries
Dynamic
FEV Engine Technology
Freudenberg-NOK
Gates Automotive Technical Center (GATC)
GKN Automotive
Gonzalez Design Engineering
Guardian Automotive Products
Hantech
Hawtal Whiting
HP Pelzer Automotive Systems
Husky Injection Molding Systems
Inergy Automotive Systems Technical Center
Karmann USA
McLaren Performance Technologies
Mechanical Simulation
Michigan Scientific
MSX Vehicle
   Development and Engineering Center
Munro & Associates
National Steel Technical Research Center
North American Lighting
Ogihara America
QED
QQC
Ricardo
Saginaw Machine Systems
Solvay Engineered Polymers,
   Automotive Applications Development Center
United States Steel Automotive Center

TESTING FACILITIES
Autoliv
AVL Powertrain Engineering
Bruel & Kjaer
Calsonic Kansei North America
Cascade Engineering
Collins & Aikman,
   Global Product Development Division
Control Power-Reliance
Defiance Testing & Engineering
Freudenberg-NOK
Grand Haven Stamped Products
Greening Testing Laboratories
Hantech
Hayes Lemmerz International
   Technical Services
HP Pelzer Automotive Systems
Inergy Automotive Systems Technical Center
Magna Automotive Testing
MAHLE
McLaren Performance Technologies
MDE International
MGA Research
Ogihara America
OMG
Paragon Laboratories
Siemens VDO Automotive
   North American Technical Center
Testing Service Group
Textron Fastening Systems,
   Technical Resource Center
Yazaki North America

FACILITIES AVAILABLE
FOR USE
Bosal International North America
Calsonic Kansei North America
Climax Research Services
Delphi Automotive Systems Technical Center
Hantech
Hawtal Whiting
MDE International
US ARMY
   Tank-Automotive RD&E Center (TARDEC)
Yazaki North America
CONTACT INFORMATION

WEB LINKS TO THE R&D DIRECTORY:

To access the current online version of the Michigan Automotive Research and Development Directory, go to one of the following sites:

Michigan Economic Development Corporation
www.michigan.org
  • Click on Business Services
  • Select Reports and Publications from the Locate menu

The Center for Automotive Research home page at:
www.altarum.org/car/carhome.asp
  • Once there, scroll down to Recent Publications

UPDATE INFORMATION

This directory contains a listing of companies who have automotive related Research and Development (R&D) facilities within the State of Michigan. The on-line version of this directory will be periodically up-dated. If you would like to include your company or make changes please contact:

  Center for Automotive Research at Altarum Institute
  Kim Hill
  ph: 734-302-4750
  fx: 734-662-57366
  e-mail: kim.hill@altarum.org
American Axle & Manufacturing, Inc
Atlas Tool, Inc
Autocam Corporation
Aztec Manufacturing
Bell Engineering, Inc
Benteler Automotive Corporation
Bing-Lear Manufacturing Group
Brown Corporation of America, Inc
Chivas Industries LLC
DaimlerChrysler Corporation
Delphi Automotive Systems
Denso International America, Inc
Donnelly Corporation
Emhart Automotive
Ford Motor Company
Freudenberg–NOK
General Motors Corporation
Gentex Corporation
Gilreath Manufacturing, Inc
Gonzalez Design Engineering Company
Grand Haven Stamped Products Company
Guardian Industries Corporation
II Stanley Co, Inc
Johnson Controls, Inc
KUKA Flexible Production Systems Corporation
Lenawee Stamping Corporation
Means Industries, Inc
Michigan Rubber Products, Inc
MSX International
Ogihara America Corporation
Olofsson PCC Speciality Products, Inc
Paragon Die and Engineering Co
Peterson Spring
Robert Bosch Corporation
Saturn Electronics & Engineering, Inc
Textron Automotive, Inc
The Budd Co
Trans-Matic Manufacturing Company
TRW Automotive

*Membership as of 2002