

**FACILITY**

Over 145,000 Square Foot Manufacturing Facility  
Manufacturing, Assembly, and Quality Areas  
Partner Engineering Offices with Wi-Fi Access  
CAD/CAM System – Siemens NX System  
Autocad and Solidwork seats  
Class 100,000 Clean Assembly Room  
Docuware Record Management System

**Certifications:**

AS9100C  
ISO9001:2008  
ITAR and SAM Registered  
ISO/TS 16949:2009  
DPD/MBD Approval

**MILLING & TURNING**

**CNC Milling Centers**

Mori Seiki MV-1003 VMC w/4 1/2 axis indexer  
95" x 40" x 31"  
Mori Seiki NH6300/Full 4 axis 43" x 35" x 38"  
Mori Seiki DC5/Full 4 axis 31" x 20" x 20"  
OKK HM60/4 axis 29" x 28" x 30"  
OKK HM600/Full 4axis 30" x 29" x 31"  
OKK VP600/4 axis 32" x 22" x 18"  
OKK HMC400/Full 4 axis 30" x 29" x 31"  
OKK HM6300  
Haas Highspeed VF-5/4 axis indexer  
60" x 27" x 25"  
Haas VF-3 (2) 40" x 20" x 25"  
Haas VF-2 w/4 axis indexer 20" x 14" x 10"  
Hurco BMC-20 VMC/3 axis 24" x 14" x 15"  
Makino SNC64 3 axis 23" x 15" x 15"  
Matsurra RA2-F/3 axis 23" x 16" x 18"

**Milling Machines**

Bridgeport or DPM 2-3 programmable axis (20)  
Cincinnati Nova80 12" x 60" x 12"

**CNC Turning Centers**

Doosan 2600LY 14" x 50" centers  
Hardinge Conquest CS-51 Dia. 9.8" x 20" length  
Hardinge Conquest T42 Dia. 9.4" x 14" length  
Takisawa TM-20 Dia. 12" x 20" length  
Mori Seiki SL-25 Dia. 10" x 40" length  
Okuma LB-15 Dia. 9.8" x 9" length  
Okuma LC-30 Dia. 17.6" x 25" length  
Haas SL10 10.9" x 14"

**Lathes**

Hardinge (6) 10" x 20"  
Hardinge HLV-H (3) 12" x 60" center  
LeBlond Makino 15" x 54"

**MISCELLANEOUS**

**Radial Arm Drill Press**

Summit Model 4  
12" column, 48" arm

**Lap System**

Hyprez 12 Lap (4) 3" x 3" x 6"

**Saws**

Band saws (2)  
DoAll 3613-20 24" vertical band saw

**ELECTRICAL DISCHARGE MACHINING**

**Wire EDM**

Mitsubishi FX10 (2) 13.7" x 9.4" x 8.5"  
Mitsubishi SX20 (1) 19.7" x 13.7" x 10.5"  
Mitsubishi FA-20 (1) 19.7" x 13.7" x 11.5"  
EDM CT300 Drill .002" - .250" Holes 12" x 12"

**Sinker EDM**

Makino EDNC 43 18" x 14" x 14"  
Makino Edge 2 Series 2000 12" x 10" x 10"

**PRECISION GRINDING**

**Surface Grinders**

Mitsui 612 (2)  
Brown & Sharpe 1024 Micromaster 6" x 12"  
Okamoto 20-35 DX  
Okamoto 12-24 DX  
Elb SG88 Grinder 120" x 28" x 33"

**Cylindrical Grinders**

Kellenberger Model 1000U 14" x 40"  
Fischer ZSM1250 Center Grinder 7.875" x 39.37"

**INSPECTION**

**Coordinate Measuring Machines**

Zeiss UC 850 72" x 33" x 24"  
Zeiss UPMC850 33" x 27" x 24"  
Zeiss DuraMax 19" x 19" x 19"  
Sheffield Endeavor 9.9.7 36" x 36" x 26"

**Vision Systems**

OGP Avant AT5600 24" x 18"  
Smart Scope FOV  
Smart Scope MVP (2)

**INJECTION MOLDING**

**Plastic Injection Molding Machines**

Nissei UH1000/Triple Melt 154 Ton  
Nissei ES1000 88 Ton  
Nissei FN3000 150 Ton  
Nissei FN4000 197 Ton  
Nissei FN6000 300 Ton  
Nissei Vertical Rotary 30 Ton  
Cincinnati Milacron Vista 300 Ton  
Engel ES 105 ton  
Ferromatik K-200 Two Shot 200 To

**SHEET METAL & WELDING**

DiAcro Model 35-14-72 (2)  
35 Ton Hydraulic Press Brake, 72" Table  
DiAcro Model 75-66  
75 Ton Hydraulic Press Brake, 72" Table  
DiAcro Model 55-6  
55 Ton Hydraulic Press Brake, 72" Table  
Cincinnati 230 AF, 230 Ton, 120" Table 10" stroke  
Cincinnati 2CC06 Power Shear 6" squaring arm  
Grindmaster Type MC5B/B-1300, 24"  
Timesaver Mini Belt 848 Belt Sander  
Cleanomat CLHA Conveyor Washer, 52"  
Strippit Super 30/40 HD Punch Press  
Haeger Model 8U Pem Setter  
MADA CSH-220 Power Notcher  
Wysong Power Shear 48"

**Lasers Marking/Cutting**

Cincinnati Model C1500B Laser 48" x 96"

**Waterjet**

Omax 2652 Waterjet 52" x 26" x 4"

**Welders**

Thermal-Arc 300GTSW Tig (2)  
Thermal-Arc 250GTSW Tig  
Miller Dimension 302  
ESAB Mig (2)  
Lincoln SP 125 Plus  
Black & Decker Spot Welder  
Sciaky Spot Welder  
Erico Stud Welder  
No Mark 5 Stud Welder  
Thermal-Arc PAK 5XR Plasma  
Thermal Dynamics Plasma Cutter  
Hypertherm Plasma Max 40 Cutter

**Hydraulic Presses**

Dake 908150-4 150T

**THERMOFORMING**

**CNC Routers**

Thermwood Model 40 CNC Router  
60" x 60", 4 ATC  
Thermwood Model 67 CNC Router  
60" x 120", 50 ATC  
Onsrud A-1136 Pin Router

**Thermoforming**

Maag Vacuum Former  
48" x 48", .008"-.375" Material

**MATERIALS TESTING & ANALYSIS**

**Mechanical**

ATS Microhardness  
Brinell  
Equitip  
Microdur  
MTS Tensile (1123)  
MTS Tensile (4202)  
New Age (Digital)  
Portable Rockwell  
Versitron Rockwell  
Versitron Superficial

**Metallography**

Stuers Abrapol  
Stuers Labopress  
Buehler Electromet III  
  
Accutom precision saw  
Discotom cut off saw  
Linear ACM Wafer Saw

**Abrasion**

Loop Abrasion  
Taber Abraser -Model 503  
Calowear Tester

**Wear/Friction**

Capstan Friction  
Paper Clip Friction  
Reciprocating Ball on Plane (ASTM G133)  
Block on Ring LFW-1 (ASTM G77)  
Taber Scratch  
Loop Abrasion (ASTM G174)

**Miscellaneous**

Erichsen Cup  
Metler AT261 balance  
Metler P360 balance  
Pencil Hardness  
Sartorius 2400 balance  
Spring Back Tester  
Surface Quality Monitor  
Danley Tensile Bar Punch/Die  
TMI Micrometer

**Surface Texture**

Perthen Concept  
Perthen M4pi  
Rank Talysurf  
Vacuum Coater  
Zygo New View

**Microscopes**

Reichert Metallograph MeF3  
Reichert Polyvar  
Zeiss (Stereo Scope)

**NDE Inspection**

Niton Alloy Analyzer – Model XLp818  
Borescope Extendable  
Borescope Miniature  
Fischer Thickness Gage  
Inframetrics Model 760 Thermal Imager  
Penetrant Test  
T-Mike UT Tk  
USD-10 Flaw Det.  
USL-38 Flaw Det.  
Vacuum Box Leak Det.

**Plastics Corrosion**

Gardner Gloss Meter  
Shore A Durometer  
Shore D Durometer  
Stress Rupture Tester  
Wedge Bend Impact Tester

**EQUIPMENT DIAGNOSTICS**

ME Scope Modal Analysis Package  
IRD Model 880 Analyzer/Balancer  
Dynamics Research Balance stand W/2000LB & 5000LB heads  
CSI Consultant Analyzers (6)  
SP395 Analyzer  
CV395B DynamicPro Signal Analyzer  
Larson Davis Handheld Sound Analyzer  
IRD Model B01 Balance Stand  
TEAC Model RD-130T 8 Channel Digital Recorder  
Flir P-60 Infrared Camera  
Data Physics Signalcalc Mobilyzer 15 channel Analyzer  
Data Physics Signalcalc Mobilyzer 4 channel Analyzer  
CSI Motor Status units (2)  
Bently Nevada Adre Analysers (2)  
Monarch Palm Strobes (2)  
Monarch Strobes (3)  
CSI 444A Strobe  
TEC Laser Tach (4)  
Monarch Laster Tach Model PLT200 (2)

**MISCELLANEOUS**

**Part Cleaning**

Aqueous Cleaning tank with sonic and heat	36" x 24" x 24"
Rinse tank with agitation and heat	36" x 24" x 24"
Air Drying tank with heat (2)	36" x 24" x 24"
Solvent cleaning tank with agitation (2)	48" x 20" x 24"
Branson B452R Vapor Degreaser tank	10" x 12" x 8"
Caustic soda tank with sonic	42" x 26" x 26"
Rinse tank	42" x 26" x 26"
Glass bead blaster	24" x 24" x 24"
Baking soda blaster	36" x 36" x 24"

**Ovens**

Blue M (6)

**Marking Systems**

Ceo Diode Pump Yag	7" x 7"
Dot Peener	
Markem Imaje9020	
Ink Jet Printer	

**Selective Laser Sintering**

3D Vanguard SLS3 with Hi-Q12.5" x 10.5" x 16"