**Toolroom**

1 - Clausing Lathe, Colchester 13" swing, 60" bed, Full collet assembly, Four jaw chucks, New 1999

1 - Carlton Radial Drill, 3' arm, 11" column

1 - TPR820A Radial Drill

1 - Fosdick Drill Press, Table 24" x 42"

1 - Roll-In Saw, New 1997

1 - KBC Band Saw w/ Blade Welder

1 - KBC 20" Disk Sander

1 - Sweco Vibratory Finishing Machine, Model No. FM 1.2C

1 - Roto-Finish, Four chamber barrel finisher/polisher, Model No. DS-1

1 - L&R Ultrasonic Cleaning Machine, SweepZone AG

1 - Sonic Systems Ultrasonic Cleaning Machine

1 - Cyclone Dry Blast Cabinet

1 - Eagle/GWS - 6 Tool turret head CNC forming machine, 10" Stroke w/auxiliary clamps

1 - Atlas Copco GX7FF Air Compressor

1 - Komatsu Lift Truck- 6000 lb. capacity New 2007

**Grinding Department**

1 - Harig Surface Grinder, 6" x 18" Electromagnetic chuck, New 1989

1 - Harig Surface Grinder, 6" x 12" Ballway, New 1999

1 - Torit Dust Collector, New 1990

**Bench Centers**

**Whirly-jig**

Extensive inventory of grinding and checking equipment
### Milling Department

**Haas CNC VF4 Machining Center:**
- Table Size 52" x 20"
- X axis travel= 50", Y axis travel= 20", Z axis height= 25"
- Max under spindle is 29"
- Automatic Tool Changer with 24 tool capacity.
- 30 Hp High Torque Motor; 8,100 rpm Spindle Speed
- High Speed Machining Look Ahead Feature
- New 2012

**Haas CNC Super Mini Mill:**
- Table Size 28" x 12"
- X axis travel= 16", Y axis travel= 12", Z axis height= 10"
- Max under spindle is 14"
- Automatic Tool Changer with 10 tool capacity.
- 15 Hp High Torque Motor; 10,000 rpm Spindle Speed
- High Speed Machining Look Ahead Feature
- New 2008

**2 - Bridgeport Milling Machines:**
- #1) CNC Bridgeport/EZ-Trak CNC Equipped, New 2002
- #2) CNC Bridgeport/EZ-Trak CNC Equipped, New 1997
  - Series 1, 2 Hp Motor, Power feed for table, Table Size 9" x 48"
  - Digital read out, New 1990

**Haas CNC TL1 Lathe:**
- 16" Swing by X axis travel= 8", Z axis travel= 29"
- 7.5 Hp motor; 2,000 rpm Spindle Speed
- New 2010

1 - Dividing Head for Bridgeport
1 - Vertical or Horizontal Rotary Table

Complete line of accessories for Milling Department (ie: swivel vises, collets, etc.)

### Wire EDM Department

**1 - Charmilles Technology:**
- Robofil 290P Wire EDM w/Charmilles Control
- X axis travel= 15.5", Y axis travel= 9.5", Z axis height= 8.0"
- 4 Axis Programming (X, Y, U, V) (Taper and Twist Expert)
- New 2003
- Esprit CAD/CAM software w/gear generating add-on
## Press Room

<table>
<thead>
<tr>
<th>PRESS TYPE</th>
<th>TONS</th>
<th>STROKE</th>
<th>SPM</th>
<th>SHUT HEIGHT</th>
<th>BED L-R, F-B</th>
<th>RAM L-R, F-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Komatsu OBS200 w/50 Ton nitrogen cushion</td>
<td>New 1998</td>
<td>220</td>
<td>9.8&quot;</td>
<td>25-50</td>
<td>18&quot;</td>
<td>57&quot; x 35&quot;</td>
</tr>
<tr>
<td>Komatsu H1F150 Hybrid AC Servo Press</td>
<td>New 2008</td>
<td>165</td>
<td>7.9&quot;</td>
<td>30-55</td>
<td>16.5&quot;</td>
<td>49.2&quot; x 29.9&quot;</td>
</tr>
<tr>
<td>Komatsu H1F110 Hybrid AC Servo press</td>
<td>New 2006</td>
<td>121</td>
<td>5.91&quot;</td>
<td>1-65</td>
<td>13.76&quot;</td>
<td>43.3&quot; x 26.8&quot;</td>
</tr>
<tr>
<td>Komatsu OBS80</td>
<td>New 1999</td>
<td>88</td>
<td>5.12&quot;</td>
<td>37-75</td>
<td>13.8&quot;</td>
<td>40&quot; x 24&quot;</td>
</tr>
<tr>
<td>Komatsu OBS60</td>
<td>New 2007</td>
<td>66</td>
<td>4.7&quot;</td>
<td>42-85</td>
<td>11.8&quot;</td>
<td>35.4&quot; x 21.7&quot;</td>
</tr>
<tr>
<td>Sutherland HCP-121 (Straight Side)</td>
<td>New 2013</td>
<td>121</td>
<td>7&quot;</td>
<td>30-60</td>
<td>13.4&quot;</td>
<td>34&quot;x24&quot;</td>
</tr>
<tr>
<td>Sutherland M121-2 (Gap Press)</td>
<td>New 2014</td>
<td>121</td>
<td>7&quot;</td>
<td>35-65</td>
<td>15.7&quot;</td>
<td>70&quot;x26&quot;</td>
</tr>
<tr>
<td>Cincinnati- Hydraulic OBS Press</td>
<td>New 1988</td>
<td>75</td>
<td>8&quot;</td>
<td>35</td>
<td>14&quot;</td>
<td>36&quot; x 24&quot;</td>
</tr>
<tr>
<td>Di-Acro Hydraulic Press Brake</td>
<td>New 1986</td>
<td>35</td>
<td>2&quot;</td>
<td>25</td>
<td>9&quot;</td>
<td>72&quot;</td>
</tr>
<tr>
<td>Bliss OBI</td>
<td>New 1967</td>
<td>32</td>
<td>3&quot;</td>
<td>120</td>
<td>9&quot;</td>
<td>26&quot; x 18&quot;</td>
</tr>
<tr>
<td>Dennison Hydraulic Press</td>
<td>New 1984</td>
<td>20</td>
<td>10&quot;</td>
<td>20</td>
<td>20&quot;</td>
<td>30&quot; x 20&quot;</td>
</tr>
</tbody>
</table>

## Material Processing

- Atlas Copco rotary screw air compressor  New 2004
- Coe powered straightener / coil reel combo  New 1992 (Completely refurbished 2006)
  12" x .125" / 4000 lb. & 60" O.D. coil capacity
- Coe powered straightener / coil reel combo  New 1997 (Completely refurbished 2006)
  12" x .125" / 4000 lb. & 60" O.D. coil capacity w/hold down arm
- Coe servo roll feed 12" x .156" capacity  New 2006
- Coe servo roll feed 12" x .125" capacity  New 1997
- Coe servo roll feed 12" x .125" capacity  New 1999
- Komatsu lift truck 5000 lb. capacity  New 2002
- Loadmaster platform floor scale 5000 lb. capacity  New 1987
- National shear  48" x .250" capacity  New 2000
- P/A Industries coil reel - 1500 lb. & 42" O.D. capacity  New 1992
- Perfecto precision leveler 17 Roll 12" x .125" capacity  New 1988
Engineering and Computer Equipment

Sun Microsystems: Sun Blade 150 Workstation (Softech 2D/3D, 2D Cimcad & 3D Surface Milling Pkg)
CAD-PC  i7-4820K, NVIDIA HD 4GB, 8GB RAM (Esprit 2D/3D, CAD/CAM Software; 3D Surface Milling Pkg)
CAD-PC  i5-2500K, AMD HD 2GB, 8GB RAM (Esprit 2D/3D, CAD/CAM Software; Gear Generator)
CAD-PC  i5-3570K, Intel Graphics, 8GB RAM (Esprit 2D/3D, CAD/CAM Software; Wire EDM)
Various Computer Stations for tasking
Sage 50 Manufacturing Accounting Software w/ Inventory
Various Software Packages for Drawing, Painting and Word Processing
Brother HL3070 Laser Printer, Networked
HP DesignJet 500- 48" Color Plotter/Printer, Networked
1.0 Gigabit High Speed Network
Seagate NAS Storage Device, Raid 4TB

Measuring/Test Equipment

Granite Surface Plates:
(2) 24" x 18" x 3"
(2) 36" x 24" x 6"
(1) 48" x 36" x 6"

Digital Read Outs, Height Gages: Metric & Decimal Conversion

Complete Line of Checking Equipment

1 - Covel Optical Comparator (10x to 25x magnification)
Angle Plates
Gage Blocks
Mitutoyo Height Gages
Mitutoyo Height Master
Starrett Surface Plates
Service Physical Tester (Rockwell Hardness Tester)  Model: 8A

* Numerous other pieces of support equipment for material handling, processing, and/or safety.