

# Equipment List



## Engineering

### Software and Hardware

- (3) Unigraphics ® NX with MoldWizard (current version)
- (3) PowerShape ® Toolmaker (current version)
- (1) SolidWorks ® 2011
- (1) Pro/Engineer ® Wildfire 4.0

Windows® 7 64-bit workstations  
XES 8850 ® Large Format Plotter & Scanner

### Data Transfer Options

Email    engineering@chicagomold.com  
FTP      Call or Email for details  
Other    CD / DVD / USB Drive

## Manufacturing

### Production Software and Hardware

- (11) PowerShape ®
  - (14) PowerMill ® [(4) 5-axis, (7) 3+2 axis]
  - (2) CopyCAD ®
  - (1) ArtCAM ®
  - (20+) 3D cad viewing and drafting workstations
- Windows® 7 64-bit workstations

### Horizontal Milling Machines

**FPT-LEM 936** horizontal boring mill with a 3-axis +2 milling head, with a 52" x 118" x 78" work capacity, a Fidia high speed control

**(2) Giddings & Lewis 8000H** 5" horizontal boring mills with 60" x 96" x 67" work capacities, G & L 8000B control high speed 3D CNC controls.

### Vertical Milling Machines

**Fidia G996** high speed 5-axis trunnion style machining center, 33" X 37" x 25" work capacity.

**Fidia K199** high speed machining center with a 5-axis continuous bi-rotary milling head, 70" X 40" X 40" work capacity.

**Fidia K197** high speed machining center with a 5-axis continuous bi-rotary milling head, 65" X 30" X 33" work capacity.

**(2) Fidia K165** high speed machining centers with a 3-axis +2 milling head, 40" X 24" X 20" work capacity.

**Fidia HS 644** high speed machining center with a graphite milling package, 24" X 18" X 16" work capacity.

**Makino V56** full 5-axis high speed milling machine partnered with 3R System Robot equipped with a 162 position work piece changer.

**Makino SNC64** high speed milling machine partnered with 3R System Robot equipped with 144 position work piece changer.

**Droop & Rein** vertical milling machine with a 60" X 96" X 56" work capacity, equipped with a Fidia high speed control.

**Haas VF5/50** vertical machining center with a 40" x 85" work capacity.

**(2) Haas VF9** vertical machining centers with 40" x 85" work capacities.

### EDM Equipment

**Ingersoll CNC-1200 Gantry** with tool changer 50" X 78" capacity with C-Axis head and compound angle burning capabilities.

**Ingersoll CNC-1000E Gantry** with tool changer 40" X 60" capacity with C-Axis head and compound angle burning capabilities.

**Makino 85W CNC** EDM machine with tool changer, 40" X 60" work capacity.

**(2) Makino EDNC 65** EDM machines with tool changers, 30" X 40" work capacities and MGF controls. Sinkers have C-Axis heads and compound angle burning capabilities. Machines are partnered with a 3R System Robot equipped with a 162 position work piece changer.

**Bridge type machine** 63" x 120" capacity, with a 3R orbiting head and ERM 200 AMP control.

## Inspection Equipment

### 3D Digitization and 3D Coordinate Measurement

**ATOS III** optical 3D digitizing (white-light scanning) system with 3 different measurement volumes of 550 x 550 mm; 300 x 300 mm; and 150 x 150 mm. Fitted with ATOS III enhanced projection unit, two measuring CCD cameras with 4M pixels each, and 1.7M AROBI holding structure extension.

### Coordinate Measuring Machines

**Brown & Sharpe** validator with upgraded Sharpe 32 controller, 48" X 60" work table using **PC-DMIS** software *Curves & Surfaces* Release 3.2063 and fitted with an MH8 Probe Head and TP20 Probe.

**Faro Arm** 8 foot Gold with CAM2 software.

### Optical Comparator

**Jones & Lamson** FC-14.

**CONTINUALLY  
MEETING  
EXPECTATIONS**

## General Shop Equipment

### Milling Machines

(8) **Prototrak Moldmaker** vertical milling machines with a 17" X 31" work capacity machine with 3 axis CNC controls.

### Lathes

**LeBlond** movable bed type lathe - 42" dia. maximum swing.  
**LeBlond** 17" x 54".  
**Feeler** precision lathe.

### Surface Grinders

**Cincinnati #2** tool & cutter grinders with ID-OD attachments.  
**Cincinnati Universal ID-OD** 10" x 24".  
(4) **Gardner** surface grinders 8" x 18".  
**Mattison** surface grinder 30" x 72" x 36".  
(4) **Mitsui Hi-column** surface grinders 8" x 18".  
(2) **Mitsui Hi-column** surface grinder 6" x 12".  
**Okamoto** surface grinder 24" x 32".

### Cutter Grinders

(3) **Deckel SOE** single lip optical cutter grinder.  
(3) **Gorton 375-4** universal cutter grinders.

### Jig Grinders

**Moore #3** jig grinder.

### Drilling Equipment

(2) **Giddings & Lewis Bickford** Radial drill press, 6' and - 17" column.  
**Horizontal gun drill**, 144" x 72" x 48" with 72" drilling capacity from one side. Drill sizes range from 1/8" to 2".  
(2) **Horizontal gun drill**, 108" x 72" x 48" with 72" drilling capacity from one side. Drill sizes range from 1/8" to 2".  
(2) **Eldorado** gun drill sharpeners.  
**Darex SP2500** drill sharpener  
**Darex TDR82B** drill sharpener

### Fitting Presses

**Reis Model 180** fitting press 200 ton 60" x 96" work capacity.  
(2) **Reis 42" x 54"** fitting press.

### Welding Equipment

**Miller 350** Heliarc welder.  
**Miller 250** Wire welder.  
(2) **Microwelders**.

### Band Saws

**Do-all 26"** contour band saw.  
(2) **Marvel #8** high column band saw.

### Cranes & Capacities

1<sup>st</sup> Bay, (1) 5 ton.  
2<sup>nd</sup> Bay, (2) 5 ton.  
3<sup>rd</sup> Bay, (1) 5 ton and (1) 10 ton.  
4<sup>th</sup> Bay, (1) 10 ton and (1) 20 ton.  
5<sup>th</sup> Bay, (2) 10 ton.  
6<sup>th</sup> Bay, (1) 5 ton.

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