

EQUIPMENT LIST

CNC MACHINING CENTERS (12 Machining Centers)

- 5: Mazak V-414/32 with M-32 CNC control and integral two pallet flexible manufacturing module. This state of the art machining center along with its two pallet changer is extremely efficient in running multiple small lots as well as larger lots of machined parts.
Capacities: X: 32.00"
Y: 16.14"
Z: 18.11"

- 1: Mazak VQC-20/50 Quality Center - Table size: 21.6" x 48.8" - 4 axis - 24 Tools
Travel: Y: 39"
X: 20"
Z: 18.1"

- 1: Mazak V-10N Power Center - Table size: 19.7" x 48.8" - 3 axis - 30 Tools
Travel: X: 40"
Y: 20"
Z: 20"

- 1: Mazak V-7.5 Power Center - Table size: 20.4" x 43.3" - 3 axis - 30 Tools
Travel: X: 30"
Y: 16"
Z: 20"

- 1: Mazak H-10 Horizontal Machining Center - 20" cube capacity - 4 axis, helical interpolation -
20 Tools - 800 lb. table load capacity

- 1: MHP Vertical Machining Center - 24 Tools
Travel: Y: 20"
X: 10"
Z: 5 ½"

- 1: Mazak VTC-20C Vertical Machining Center - Table size: 78.7" x 20.1" - 48 Tools
Travel: X: 65"
Y: 20"
Z: 20"

- 1: Mazak H-400N Horizontal Machining Center - 20" cube capacity - 4 axis - 60 Tools

- 1: Mazak H-580 Vertical Machining Center – 4 axis – 60 Tools
X: 28"
Y: 24"
Z: 26"

CNC TURNING CENTERS (14 Turning Centers)

1: Mazak Quick Turn 6T Turning Center

Capacities: 17" swing
1.26" diameter bar capacity
7.5 horsepower
12 tools

2: Mazak Super Quick Turn 10MS Turning Center

This is a two spindle CNC lathe with live tooling. It is capable of machining both sides of a turned part and performing drilling, milling, and tapping of bolt circles, face grooves, and keyways.

This is a fast and versatile machine offering extremely accurate parts typically three to five times faster than conventional two axis lathes and machining centers.

Capacities: Maximum machining diameter: 9.05"
Maximum machining length: 12.02"
Maximum bar work diameter: 1.65"
X-Axis stroke: 6.31"
Z-Axis stroke: 17.93"

1: Mazak Quick Turn 18N

This is an extremely fast and accurate two-axis CNC lathe equipped with Mazak's 32 bit control which has a processing speed time five times faster than conventional 16-bit CNC systems.

Capacities: Maximum machining diameter: 10.00"
Maximum machining length: 19.7"
Maximum bar work diameter: 2.7"
X-Axis stroke: 7.09"
Z-Axis stroke: 20.08"

3: Mazak Quick Turn 20

Capacities: 20" swing
24" between centers
20 horsepower
18 tools

1: Mazak Quick Turn 20N

Capacities: 20" swing
40 ³/₄" between centers
20 horsepower
12 tools

2: Mazak Quick Slant 30 Chucker and Universal 4 axis Lathe with 12' SMW Bar Feed

Capacities: 11" swing
31.5" between centers
2.38" diameter bar capacity
30 horsepower
16 tools

TURNING CENTERS (CONTINUED)

- 1: Mazak Quick Turn 30N
Capacities: 21" swing
40" between centers
30 horsepower
16 tools

- 2: Mazak SL-40N – Universal
Capacities: 21 ¼" swing
13 ¾" dia shaft work
62" between center
30 horsepower
15 tools

- 1: Haas SL10
Capacities: 8" swing, 6" chuck, 12 tools

ADDITIONAL TURNING EQUIPMENT

- 4: Hardinge Model AHC Chucker with Automatic Threading Head

- 1: South Bend Engine Lathes
Capacities: 16" swing over bed
60" distance between centers

INSPECTION EQUIPMENT

- 1: Mitutoyo BHN 506 CNC Coordinate Measuring Machine
Capacity: X-axis – 20"
Y-axis – 24"
Z-axis – 12"
Accuracy: .00036"
Workpiece Size: 550 lbs. Max.
Probe: Renishaw Star
Software: B & S pc-dmis for Windows

- 4: Granite Surface Plates
Capacity: 24" x 36" (3)
14" x 16" (1)

- 3: Gage Block Sets
-- 81 pc. Webber Master Set
-- 36 pc. Webber Working Set
-- 36 pc. Starrett Working Set

- 1: Surtronic 3 Surface Finish Gage

- 1: Newage Model ME2R Hardness Tester
Capacity: Brinell, Rockwell Scales

- 6: Height Gages
Capacity: 0 – 24"

26: Outside Diameter Micrometers
Capacity: 0 – 24"

4: Thread Micrometers
Capacity: 0 – 4"

15: Dial Bore Gages
Capacity: 0 – 12"

DRILLING EQUIPMENT

- 2: Clausing 20" Variable Speed Drive Drill Press No.3 M.T. - 6 ½" travel
- 4: Clausing 20" Variable Speed Drive No. 3 M.T. with Air Hydraulic Feed w/Commander Attachments
Capacity: 18 hole - small diameter
- 1: Rockwell 20" capacity, single spindle
- 3: Arboga single spindle drill presses - hand feed - No. 3 M.T.
- 2: Six spindle Drill Presses
- 1: Three Spindle Drill Press
- 1: Leland Gifford 5 Spindle Drill Press No. 3 M.T. - Power Feed
- 1: Burgmaster Model 1-D Bench Model Turret Drilling & Tapping Machine

TAPPING EQUIPMENT

- 2: Proconier High Speed Tapping Attachment Size No. 1, Style E
Capacity: Steel, ¼"
- 4: Proconier High Speed Tapping Attachment Size No. 3, Style F
Capacity: Steel, 1"

RADIAL DRILLS

- 1: Caser - F-25 Radial Drilling Machine No. 3 M.T.
Capacity: 36" Arm Length
33" Maximum Drilling Radius
- 1: Ooya Radial Drilling Machine No. 4 M.T.
Capacity: 48" Arm Length

MILLING EQUIPMENT

- 1: Sunstrand No. 0 Horizontal Milling Machine
- 1: Hitachi-Seiki Model ML – No. 2 Vertical Milling Machine
Capacity: 53 1/8" x 12 1/8" table
- 1: Millrite Vertical Milling Machine - 14" x 18"
- 1: Cincinnati No. 4P Horizontal Milling Machine
Capacity: 16" x 79" table
- 2: Bridgeport Model BR2J Milling Machines with Optical System & 2-axis Digital Read-out

GRINDING AND HONING EQUIPMENT

- 1: Cincinnati No. EA-3 Centerless Grinding Machine
Capacity: 0 – 3" Diameter
- 1: Okuma Type GCU Universal & Cylindrical Grinding Machine
Capacity: 12 1/2" Maximum Grinding Diameter
41 1/2" Between Centers
- 1: Covel surface Grinding 6" x 18"
- 1: Leblond No. 2 Tool & Cutter Grinder
- 1: Elliot No. 5 Tool & Cutter Grinder
- 1: Sellers Drill Grinder
- 1: Sunnen Model MBB-1680-C Power Stroked Precision Honing Machine

CUT-OFF EQUIPMENT

- 2: Johnson Model HSA High Speed Band Saws w/ Automatic Hydraulic Table Feed
- 1: Hyd-Mech H-12 Cut-off Saw
- 1: Walker Turner Band Saw
Capacity: 20"

WELDING EQUIPMENT

- 1: Lincoln - 600 amp
- 1: Airco Arc Welding - 600 amp
- 1: Airromatic D.C. Rectifier, Constant Voltage Welding Machine - 300 amp
- 1: P & H Arc Welder - 180 amp

Note: We have facilities for Silver Soldering on a production basis.

MISCELLANEOUS EQUIPMENT

- 1: Horizontal Zagar Broaching Press
- 1: Clark Fork Lift - 3000# Capacity
- 1: Nissan Fork Lift - 4000# Capacity