

EQUIPMENT LIST



MACHINING CENTERS

Super NTMX (5-axis Mill Turn)

Bar Feeder, Parts Catcher,
Tool Magazine Capacity: 48 tools
Upper Tool Spindle: Max.
Rotation Speed: 12,000 min-1, High Precision B-axis Head
Lower Left/Right Spindle: Max.
Rotation Speed: 5,000 min-1, Bar Capacity Dia.: +51mm
Lower Turret: Dodecagonal 24-station Turret
Max. Turning Diameter: +200mm Max.
Turning Length: +780mm

Makino Machining Complex (MMC)

48 Pallet Management System, Makino Advanced Systems
(MAS-A5) Cell Controller Software. Incorporating 1x A55E
Horizontal Machining Center, 1x A51NX Horizontal
Machining Center and 2x A51 Horizontal Machining Center

Makino A-55 Horizontal Machining Center

22.0" x 22.0" x 23.6" X, Y, Z Travel
137 Tool ATC, 14,000 RPM, 30HP Spindle motor
RP 2-RET Retractable Tool Probe, NC 4th Axis Rotary

Makino A-51 Horizontal Machining Center

22.0" x 22.0" x 23.6" X, Y, Z Travel, 1,969 IPM
Rapid Traverse Rate, 14,000 RPM
134 Automatic Tool Changer
Renishaw Laser Tool Measurement System, Touch Probe

Makino A-51 Horizontal Machining Center

22.0" x 22.0" x 23.6" X, Y, Z Travel, 2,360 IPM
Rapid Traverse Rate, 14,000 RPM
134 Automatic Tool Changer, RP 2-RET Retractable Tool
Probe, Touch Probe

Makino A51NX Horizontal Machining Center

22.0" x 25.2" x 25.2" X, Y, Z Travel, 2,362 IPM
Rapid Traverse Rate, 14,000 RPM
219 Automatic Tool Changer, Renishaw Laser Tool
Measurement System

Makino Machining Complex2 (MMC2)

24 Pallet Management System, Makino Advance Systems
(MAS-A5) Cell Controller Software.
Incorporating 2x A61NX Horizontal Machining Center

Makino A61NX Horizontal Machining Center

28.7" x 25.6" x 31.5" X, Y, Z Travel, 2,362 IPM
Rapid Traverse Rate, 14,000 RPM
134 Automatic Tool Changer, Renishaw Laser Tool
Measurement Center

Makino A61NX Horizontal Machining Center

28.7" x 25.6" x 31.5" X, Y, Z Travel,
2,362 IPM Rapid Traverse Rate, 14,000 RPM
218 Automatic Tool Changer, Renishaw Laser Tool
Measurement Center. PRO 6 Controller

Makino A-66 Horizontal Machining Center

31.5" x 27.6" x 25.2" X, Y, Z Travel, 1,575 IPM
Rapid Traverse Rate, 14,000 RPM 30 HP
Spindle Motor, 60 Tool Automatic Tool Changer
Renishaw MP10 Touch Trigger Probe System

3 Haas VF-2SS Vertical Machining Centers

30 x 16 Table Travel, 12,000 RPM,
25 Tool Automatic Tool Changer
Renishaw Probe System

Nakamura SC-250 Turning Center

2" Bar Capacity, 20 HP Spindle Motor, 8" Chuck Capacity,
50 - 5,000 RPM, 11.81" Maximum Turning Diameter, Fanuc
21iTA Controls, Iemca VIP 70 Automatic Magazine Barfeed

Nakamura SC-300 Turning Center

2.79" Round Collet Capacity, 20 HP Wide Range Motor,
10" Chuck Capacity, 35 - 3,500 RPM,
13.77" Maximum Turning Diameter, Fanuc 21-TB Controls,
SMW THW Model 265-71; Three-Jaw Power Chuck

3 Matsuura MX-520 5-Axis Vertical Machining Centers

20,000 RPM BT40 Maxia Spindle,
520 mm x 350 mm Maximum Work Piece Size,
Magazine Storage Capacity of 60 Tools

2 ROBO Flex Model CS Robotic Cells

M20iA Fanuc Robot. Two 24" Conveyors
Fanuc iRVision 2D System with LED Lighting
Re-Grip Station

2 Citizen L-32-1M10 Swiss Machines

1-1/4" Bar Capacity

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INSPECTION EQUIPMENT

Brown & Sharpe Global FX 121510

47.2" x 59" x 39.4" Measuring Range DC241 Controller
HP-S-X1H Scanning Probe Head
Probe Rack, PC-DIMS CAD++ Software

Brown & Sharpe ONE Shop Floor CMM Model #7107

27.6" x 39.4" x 25.6" Measuring Range,
FBII Control System, Geometric
Thermal Temperature Compensation, Renishaw PH10T
Probe Head and TP20 Probe, PC DMIS Cad Software,
Probe Rack

Brown & Sharp Global Performance: Silver Edition

19.6" x 27.5" x 19.6" Measuring Range. DC240C Control
System. TesaStar-Sm Probe Head with Scanning Capabilities
Probe Rack, PC-DMIS CAD++ Software

Sprint CNC 250 Vision Center

Dimensions (XYZ): 28 x 21.75 x 31.5"
Measuring Range: 12 x 6 x 6"
Camera: High Resolution Color CCD with
768 x 494 Pixel Array

Brown & Sharpe Gage 2000 Reflex Coordinate Measuring Machine

18" x 20" x 16" Measuring Range, Touch Trigger Probe

Rahn Grey Granite Surface Plate

24" x 36" x 4" with Stand

Starrett Grade A Surface Plate

36" x 36" x 6" with Stand

Starrett MV70 Height Gage Master

12" Range

Assorted Inspection Equipment

Vernier Calipers, Plug Gages, Gage Pins, Depth
Micrometers, Outside Micrometers

CAD/CAM SYSTEMS

Virtual Gibbs CAM System Software - 7 Seats

Milling - 2, 2.5 and Simple 3 Axis with
Simple 4th Axis Positioning
5-Axis Multi-tasking Machining
Turning - 2 Axis Turning
Rotary Axis Milling
Volumill 3D

SolidSurfacer

Solid Modeling and 3 Axis Surface Machining
Export, Import, Repair and Machining of Solid Models from
Many CAD Sources, including Parasolid, SAT Files, IGES,
DXF, Point List, Solidworks, Solid Edge Part, and Step Files.

Solidworks Premium

Modeling
Creating Prints
DWGeditor
Photoview 360

Solidworks Inspection Software

PC-DMIS CAD++ Offline Programing Seat

MACHINES

2 Lagun FTV-2 Vertical Milling Machines

9" x 48" Table, 3,000 RPM, Variable Speed Power Feed,
Acurite III 3-Axis DRO

Takisawa Web TSL-800D Gap Bed Engine Lathe

14" x 40" Rated Capacity, 20" Swing in Gap, 1,800 RPM,
1.5" Hole thru Spindle

OTHER SHOP EQUIPMENT

Bridgeport 815 Surface Grinder

Hand Feed, 8" x 15" Rated Capacity, 12" Wheel Diameter
8" x 15" Permanent Magnetic Chuck

DoAll CNC C-916(VFD)

9" x 16" Rectangle and 10.75" Round Cutting Capacity
Features include Automatic Indexing Pneumatic Head Lift
and Hydraulic Feed.
Variable Band Speed Adjustment from 105 to 275 fpm
(32 to 83m/min)

Miller Synchrowave 250 AC/DC Welder

250 Amp Output, 40% Duty Cycle, Bernard Water
Cooling System

Millermatic 212 Wire Feed

100 Wire Feed
22 Gauge to 3/8 Steel
14 Gauge to 3/8 Aluminum
30-210 amp Welding Range

Roll-In Universal Saw

8.75" x 14.5" Rated Capacity, Pneumatic Gravity Feed

Yale Forklift Truck

3,000 lb Rated Capacity, 189" Vertical Lift, Side Shift

PARTS FINISHING

Royson 4L-C Rectangle Tumbler

3.5 Cubic Feet Capacity
16 x 16 x 36 Inside Dimensions

BV 2 DR Bowl Vibrator Tumbler

2 Cubic Feet Capacity
Dimensions: 30 x 10 x 36

BUSINESS SYSTEM

TR Systems PC Workstations
JobBoss Job Control Software
UniPoint Quality Software
Instagate Internet Modem

FACILITY

New Building August 2012
22,000 Square Feet
2 Loading Docks