



EQUIPMENT LISTING

CNC Mills

- One Mazak Vertical Machining, Variaxis 500-5X/2, Full 5 Axis High Speed Machining Center with Matrix Control 60Tool Magazine,Thru Spindle Coolant. "X" axis 20.08, "Y" axis 20.08, "Z" axis 18.11, "A" axis 150°, "C" axis 360°, Mazak 3D High Speed Software, Fine Spline Interpolation, High Smoothing Function, 1000psi. high pressure coolant system.
- One Mazak Variaxis 200/2, 5 axis High Speed Machining Center with PC-fusion control, 40Tool Magazine "X" axis 20", "Y" axis 20", "Z" axis 18", "A" axis 150°, "C" axis 360°, 1000psi. high pressure coolant system.
- Two Mazak Variaxis 500II with Matrix Control, full 5 axis High Speed Machining Center High Pressure thru Spindle Coolant, Nurbs Interpolation, 40Tool Magazine "X" axis 20", "Y" axis 20", "Z" axis 18", "A" axis 150°, "C" axis 360°, Mazak 3D High Speed Software, Fine Spline Interpolation, High Smoothing Function.
- One Mazak Variaxis 500III with Matrix Control, full 5 axis High Speed Machining Center , Nurbs Interpolation, 40Tool Magazine "X" axis 20", "Y" axis 20", "Z" axis 18", "A" axis 150°, "C" axis 360°, Mazak 3D High Speed Software, Fine Spline Interpolation, High Smoothing Function.
- One Mazak Vertical Machining, Variaxis 630-5X/2, Full 5 Axis High Speed Machining Center with Matrix Control 80Tool Magazine,Thru Spindle Coolant. "X" axis 24.8, "Y" axis 30.12, "Z" axis 20.08, "A" axis 150°, "C" axis 360°, Mazak 3D High Speed Software, Fine Spline Interpolation, High Smoothing Function.
- One Mori Seiki Vertical Machining, NMV 3000 DCG, Full 5 Axis High Speed Machining Center, MSX-711IV control, "X" Axis 19.68", "Y" Axis 13.78", "Z" Axis 20.08", "B" Axis 340 Degrees, "C" Axis 360 Degrees, 61 Tool Magazine, 12,000 rpm Spindle, High Pressure Chip Blaster.
- Two Mazak Vertical Machining, VCN 410A2KY, High Speed Machining Center, 30Tool Magazine, 12000 RPM, Thru Spindle Coolant, Matrix Nexus Control. "X" axis 22.05, "Y" axis 16.14, "Z" axis 20.08.
- One Mazak Vertical Machining, VCN 410A-HS2KY, High Speed Machining Center, 30Tool Magazine, 15000 RPM, Thru Spindle Coolant, Matrix Nexus Control. "X" axis 22.02, "Y" axis 16.14, "Z" axis 20.08
- One Mazak Vertical Machining, VCN 510C II, High Speed Machining Center, 30Tool Magazine, 18000 RPM, Thru Spindle Coolant, Matrix Nexus Control. "X" axis 41.34", "Y" axis 20.87", "Z" axis 20.08"

CNC Lathes

- Two Mazak Horizontal NC Lathe, Integrex I-150 with MTA bar feeder and Matrix Control, High Speed 5 Axis Machining Center, 36Tool Magazine, High Pressure Coolant, Turret Air Blast.
- Two Mazak Horizontal NC Lathe, Integrex I-150 new KOD design, with Matrix Control, High Speed 5 Axis Machining Center, 36Tool Magazine, High Pressure Coolant, Turret Air Blast.
- One Mazak Horizontal NC Lathe, Integrex 200-4ST 60" / 1500U with Matrix Control, Dual Spindle, High Speed 8 Axis Machining Center, 40Tool Magazine, 26 Swing, 60 Workpiece, High Pressure Coolant, Lower Turret.
- Two Mazak "Integrex 100IV ST" with Matrix Control, High Speed 8 axis machining center, 213 PSI Thru spindle, 2nd Spindle C-axis .0001 Deg. Incr., 40Tool Magazine, Automatic Parts catcher, BB206 Chuck Package for 2" bar capacity, C1-C2 Synchronous Function, MillTurning Function.
- One Mazak "Integrex 200 III S" Dual Spindle, High Speed 8 axis machining center with 640+ fusion control, 40 Tool Magazine, 20 1/2" swing, 40" length of work piece, high pressure coolant system.
- One Mazak Nexus QTN200MY w/MATRIX control with high pressure coolant system, Rotary Tool Spindle Speed of 6000 RPM w/ V-type and H-Type Mill Holder.

- One Mazak Nexus QTN250MY w/MATRIX control with high pressure coolant system, Rotary Tool Spindle Speed of 6000 RPM w/ V-type and H-Type Mill Holder.
- One Mazak "QuickTurn 200 Smart" Smart Controls, high pressure coolant system.
- One Mazak "QuickTurn 15" Turning Center with T-2 Control, Completely Tooled Swing Over Bed 10.000 Turn 6.000 Diameter x Z 19.000, 2.0 Through Bore
- One Mazak "QuickTurn 25" Turning Center with T-2 Control, Completely Tooled

CNC Swiss Turn Machines

- One Star SR20RIIQ with thread whirling with Fanuc 18i-TB Controls
- Four Hanwha XD20H Swiss style turning center with Fanuc 18i-TB Controls
- Three Hanwha XD20H Swiss style turning center with Fanuc 0i Series Controls
- One Hanwha XDI20 Swiss style turning center, "14 axis" with Fanuc 310i-Model A controls
- One Hanwha SL32H Swiss type turning center, 32mm with Fanuc 18i-TB Controls

CNC EDM Machines

- One Mitsubishi FHA20S Wire Cut EDM 4 Axis with 64 bit CPU Control System
Total Table Travel X-axis 19.6, Y-axis 13.7, Z-axis 11.8, U-axis 3.000, and V-axis 3.000
- One Mitsubishi FA10SM Wire Cut EDM 4 Axis with 64 bit CPU Control System
Total Table Travel X-axis 13.7, Y-axis 9.8, Z-axis 8.6, U-axis 1.25, V-axis 1.25
- One Mitsubishi FA10MD Wire Cut EDM 4 Axis with 64 bit CPU Control System
Total Table Travel "X" axis 13.7 "Y" axis 9.8 "Z" axis 8.6 "U" axis 1.25 "V" axis 1.25

Manual EDM Machines

- One Mitsubishi ED2000M, EDM Drill
- One Mitsubishi EA12V Sinker EDM
- One Mitsubishi EA8 Sinker EDM

Jig Grinders

- One #3 Moore Jig Grinder
Total Table Travel X-axis 18.500, Y-axis 11.00, Z-axis 17.00
- One #2 Moore Jig Grinder
Total Table Travel X-axis 16.400, Y-axis 10.500, Z-axis 13.000

Surface Grinders

- One Chevalier Horizontal Wet Grinder 12 x 28 "Z" 15.000
- One Chevalier Horizontal Wet Grinder 16 x 40 "Z" 15.000
- One Harig 618 Surface Grinder 6.000 x 18.000 "Z" 9.5 with Rack and Pinion Equipment
- Four Harig 612 Surface Grinders 6.000 x 12.000 "Z" 9.5 with Rack and Pinion Equipment
- One Blanchard Rotary Grinder with 42.000 Table "Z" 16.000

ID-OD Universal Grinders

- One #1 Browne & Sharpe ID-OD Grinder, Range 9.500 Ø x 20.000, 14" swing
- One #2 Browne & Sharpe ID-OD Grinder, Range 9.500 Ø x 29.000, 14" swing
- One Jones-Shipman OD Grinder Model 1300, Range 9.500 Ø x 25.000, 12.700 swing
- One Dedtru 3" max Ø x 12.500 long on a Harig 612 Surface Grinder

Jig Bores

- One #2 Moore Jig Bore, Completely Tooled
Total Table Travel "X" axis 18.000 "Y" axis 7.000 "Z" axis 12.000

Manual Mills

- One Comet Vertical Mill with Digital Readouts
- Two Bridgeport Vertical Mills with Digital Readouts

Manual Lathes

- One Clausing Metosa, 10" Lathe, 16" Swing, 65" bed
- Two Hardinge Chucking Lathe 6 x 18" Travel 12" Swing over bed, Completely Tooled

Drill Presses

- One Drill Press

Welders

- One 200 AMP Wire Welder
- One 300 AMP Heliarc Welder
- One Miller Maxstar 200 Welder Heliarc
- One Plasma Cutter, Hypertherm
- One Lincoln Precision Welder, Tig 275 Ready Pack
- One LaserStar Technologies 1900 Series Laser Welder

Presses

- One Niagra Model 60 Air Clutch Open Back Inclining Press 3" stroke
- One White 200Ton Hydraulic Press 32" x48" Bolster 25" shut height

Heat Treat

- One Blue M Drying Oven
- One Cress Electric Furnace w/910 Processor
- One Recco Electric Furnace w/4100 West Processor
- One Cress Electric – Deep Throat
- One Grieve Model AA-1000 with a Partlow MRC 7000 control
- One Gruenberg Oven with Athena controls

Sheet Metal

- One Wysong 10 Gage 8' Shear
- One Di-acro 48" Brake Press
- One Grizzly Box Brake 48"
- One Grizzly Hand Notcher 4Ton 6.000 x 6.000

Saws

- One Horizontal Wells saw, Cut Diameter 14"
- One Horizontal HE & M saw, Cut Diameter 16"
- One Marvel Series 8 Bandsaw Mark-I, 17" throat, Cut Diameter 21"
- One Grob Vertical Band Saw 18" throat Cut Diameter 8.5"

Inspection

- One OGP Smartscope Specialist 300 Vision Inspection System
- One Wenzel Xtreme LH 6.10.5 CMM WPC 2030 Electronic Control System with Open Dimas software
Measuring Range: X-axis 25.6, Y-axis 39.4, Z-axis 19.7
- One Brown & Sharpe TESA Micro-Hite plus M600
- One Mitutoyo 13" PH – 350 Optical Comparator, Digital Readout
Total Table Travel: 10x Lens, X-axis 6.400, Z-axis 5.000
- One OGP 30" Optical Comparator Lenses – 10x, 20x, 31.125x, 62.25x, 100x
- One OGP 14" Optical Comparator Lenses – 10x, 20x, 50x
- One Starrett 14" Optical Comparator Model HE400
- One Set of 4 Mitutoyo Optical Parallel set
- One Mitutoyo SurfTest 211 Surface Roughness Tester .02-160um
- One Master Gauge Blocks Starrett 81pc sets
- One Gauge Blocks Mitutoyo 8pc sets 5.000 – 20.0000
- Seven Gauge Blocks Sets: Mitutoyo, Starrett, & CMI 81pc sets
- One Starrett Outside Micrometers Set Range 0.000 to 60.0000
- One SPI Inside Micrometers Set Range 0.250 to 12.0000
- One Laser "Z" Micrometer Range 0.0001 to 1.2000 Diameter
- Two Gage Pins Sets Meyers Range from 0.015 to 1.0000
- One Gage Pins Set Meyers range 1.52mm to 12.7mm
- Eleven Certified AA to B Grade Surfaces Plates Range 24"x24" to 60"x30"
- Three Rockwell Tester Wilson 7.000 Travel
- One Renshaw ML-10 Gold Standard Lazer and QC-10 Ball-bar system, extended range, fully equipped
RX 10 Rotary Indexer

Hone

- One Sunnen Hone

Chemical Processes

Alkaline clean and Citric Passivation process

Nitric Passivation

Electropolish

Chromate Chemical Film Process (clear and yellow), trade names Iridite and Alodine

Magnaflux

Surgistain

Siemens Recycle DI System

Finishing

Three Bead Blaster Cabinets

One Newing-Hall NH-300 CNC Engraver 13.000x16.000 bed

One NWL Laser marking and engraving with full rotary axis

One NWL Laser marking system Mistral Evolution2

One Empire Pressurized Media Blaster

One Problast Micro Blaster

One WetTechnologies Slurry Blaster, Model WT36P

One Hammond Roto-Finish Centrifugal Media Bowl

Software

Windows 2000 Server and 2003 Server

Exact Software JobBoss Shop Management Software

Cebos/Exact Software MQ1, Document Management Software for Quality and Maintenance

AutoDesk Inventor and AutoCad Mechanical Transmagic Translation Software

Surfcam CAD/CAM System (3, 4 and 5 axis machining)

Discus - First Article Inspections, In-Process Inspection Plans, Manufacturing Process Plans.

Griffo Brothers CAD/CAM (Mazatrol Only)

Multi-DNC (with an 8 machine Rocket Hub)

PartMaker SwissCam Software for Swiss Turn(s)