



## EQUIPMENT LIST – 9/09

*Machines with Red text have probing capabilities.*

### CYLINDRICAL GRINDERS

- 1 ea. Studer S40 6.9 x 39.4 CNC OD Grinder 3-Axis (7/06)
- 1 ea. Studer ECO 650 13.5 x 25.5 CNC O.D. Grinder 2-Axis (8/01)
- 1 ea. Kellenberger R175 x 1000 CNC Cyl. Grinder 3-Axis Kelco 9 (2/98)
- 2 ea. Kellenberger R175 x 1000 CNC Cyl. Grinder 2-Axis Kelco 7 (2/01)
- 1 ea. Henninger Model ZS200 Center Grinder
- 1 ea. 25 x 26 Glauchau ID and Face Grinder
- 1 ea. 14 x 28 Shigiyi ID & OD Universal Grinder
- 3 ea. 12 x 40 Toyoda ID & OD Universal Grinder
- 1 ea. 10 x 40 Studer ID & OD Universal Grinder
- 1 ea. 10 x 24 Tachella ID & OD Universal Grinder
- 1 ea. 8 x 14 Toyoda ID & OD Universal Grinder
- 1 ea. 7 x 24 Studer ID & OD Universal Grinder
- 1 ea. 10 x 24 Majestic OD Universal Grinder
- 1 ea. 10 x 18 Majestic OD Universal Grinder
- 1 ea. 4 x 8 Studer OD Universal Grinder
- 1 ea. 14 x 6 Voumard ID Universal Grinder
- 1 ea. 10 x 16 Studer OD Universal Grinder with Tracer
- 1 ea. 20 x 106 Toyoda ID & OD Universal Grinder
- 1 ea. 12 x 36 Karstens OD Universal Grinder
- 1 ea. Centerless Grinder .118 to 3.543 Dia.
- 1 ea. Technica ZSM6-5100-810 .1-2.3 x 43 Center Hole Grinder (6/06)
- 1 ea. Henninger ZS-200 .1-4.3 x 47 Center Hole Grinder
- 1 ea. 9 x 40 Center Lapping Machine

### SURFACE GRINDERS

- 1 ea. 28 x 60 x 24 Okamoto Surface Grinder
- 4 ea. 12 x 24 Okamoto Surface Grinder
- 1 ea. 6 x 18 Okamoto Surface Grinder
- 1 ea. 6 x 12 Jakobsen Surface Grinder

### TOOL & CUTTER GRINDERS

- 2 ea. Tachella Universal Tool & Cutter Grinder
- 1 ea. Monoset Tool & Cutter Grinder

### WAY GRINDER AND PLANER/MILLER

- 1 ea. 30 x 40 x 120 Okamoto CNC Grinder w/2 Grinding Heads
- 1 ea. 50 x 60 x 200 Elb Ways Grinder w/3 Grinding Heads and 4 Electro Magnets 24 x 72
- 1 ea. 48 x 48 x 200 Niles Planer/Miller w/2 Milling Heads (4/01)

### ROTARY SURFACE GRINDERS

- 1 ea. Shibaura Blanchard Type Grinder with 43" Chuck
- 1 ea. Sansei Rotary Grinder with 20" Table

### MANUAL LATHES

- 4 ea. 15 x 32 Tool Room Lathe
- 3 ea. 15 x 32 Tool Room Lathe with Tracer Attachment
- 1 ea. 15 x 42 Tool Room Lathe
- 2 ea. 30 x 120 Gap Lathe with 4" Spindle Bore
- 1 ea. 45 x 120 Gap Lathe w/DRO
- 1 ea. 25 x 80 Gap Lathe with Taper Attachment
- 1 ea. 25 x 60 Gap Lathe
- 1 ea. 25 x 60 Gap Lathe with Taper Attachment (5/97)
- 1 ea. 22 x 60 Lathe
- 1 ea. 22 x 60 Gap Lathe
- 3 ea. 17 x 60 Tool Room Lathe w/DRO-Gap Bed
- 1 ea. 17 x 60 Tool Room Lathe w/DRO

### MANUAL MILLING MACHINES

- 3 ea. 12 x 30 Vertical Milling Machines
- 7 ea. 12 x 30 Horizontal & Vertical Milling Machines (2 w/DRO)
- 4 ea. 12 x 39 Horizontal & Vertical Milling Machines (3 w/DRO)
- 4 ea. Bridgeport Mills
- 2 ea. 24 x 55 Universal Milling Machines (one w/Digital Readout)
- 1 ea. 15 x 59 Horizontal Milling Machine
- 3 ea. 15.5 x 38 x 24 Deckel FP-53 Universal Milling Machine w/DRO
- 1 ea. 3" Sacem Horizontal Boring Mill (40 x 30 x 45) with DRO
- 1 ea. 4" Churchill Horizontal Boring Mill (49 x 39 x 48) with DRO

### CNC EQUIPMENT

- 4 ea. CAMAX Series 7 Camand Version 14.0
- 4 ea. Autocad 13, 14 & 2000 CAD Stations
- 4 ea. Teksoft Pro CAD/CAM 2 D Stations
- 3 ea. PRO E CAD/CAM - 3 D Stations, Version 2.0
- 1 ea. 30 x 16 x 18 Okuma MC-4VAE VMC 4-Axis
- 1 ea. 12 x 12 x 12 Mori Seiki M-300A1 VMC w/Pallet Changer 4-Axis
- 1 ea. 21 x 12 x 16 Chiron FZ12W Magnum VMC w/Fanuc 21M Ctr 3-Axis (7/98)
- 1 ea. 21 x 16 x 16 Chiron FZ15W VMC w/Fanuc Control 4-Axis (11/01)
- 1 ea. 27 x 19 x 20 Deckel DMU 70 eV w/ Heidenhain Ctrl. 5-Axis (5/02)
- 1 ea. 32 x 29.3 x 19.7 Kitamura MyTrunnion 5-axis VMC 20K rpm (12/06)
- 1 ea. 39 x 23 x 23 Deckel Maho DMC103V 3-Axis (5/05)
- 1 ea. 39 x 31 x 31 Mitsubishi MH60EN 4-Axis HMC w/Meldas 655M Control (12/00)
- 1 ea. 39 x 31.5 x 32.3 Kitamura MyCenter 4-axis HMC (3/07)
- 1 ea. 20 x 18 x 18 Toshiba BMC-40 4-Axis
- 1 ea. 63 x 44 x 39 Toshiba BMC-80 4-Axis
- 1 ea. 63 x 40 x 47 Toshiba BMC-80E 4-Axis (11/01)
- 1 ea. 39 x 32 x 30 Mazak H-630 4-Axis HMC
- 1 ea. 22 x 24 x 22 Okuma MX-40HA HMC 4-Axis (12/00)
- 1 ea. 100 x 24 x 28 Cincinnati Milacron HMC 4 1/2-Axis
- 1 ea. 22 x 20 x 20 Mori Seiki SH403 HMC 4-Axis (12/00)
- 1 ea. 19 x 24 Okuma LB25 Turning Center – (2.7 Bar)
- 1 ea. 19 x 32 Okuma LT-15M 7AXIS CNC Turning Center
- 1 ea. 10.6 X 19.6 Okuma Crown 2 Axis Turning Center (9/98)
- 1 ea. 8 x 15 Hitachi Seiki CNC Lathe HT20SII
- 1 ea. 2 x 8 Mori Seiki CNC Lathe SL-1
- 1 ea. 9 x 20 Mori Seiki CNC Lathe SL-3
- 1 ea. 16 x 37 Mori Seiki CNC Lathe TL-5
- 1 ea. 8 x 24 Mori Seiki CNC Lathe SL-200 (7/99)
- 1 ea. 19 x 36 Mitsubishi CNC Lathe M-TC12
- 1 ea. 25.9 x 73.3 Mori Seiki NT 4250 DCG Lathe (12/07)
- 1 ea. 24.4 x 37.7 Mori Seiki SL-403B CNC Lathe (1/08)
- 1 ea. 19.7 x 17.7 x 15.7 Deckel Maho DMU 50 w/ Heidenhain Ctrl. 5-axis (1/08)

### THREAD GRINDERS

- 1 ea. 12 x 46 Matrix Thread Grinder w/ID Thread Grind Attach. (9/01)
- 1 ea. Matrix 20 x 48 Thread Grinder
- 1 ea. 5 x 18 SIP Thread Grinder

### JIG BORING AND JIG GRINDING MACHINES

- 1 ea. 15 x 20 x 20 Waida Jig Borer-Jig Miller with .000050" DRO
- 1 ea. 24 x 40 X 30 Waida Jig Borer with 3-Axis .000050" DRO
- 5 ea. Ray Jig Grinding Attachments

### DRILLING MACHINES

- 1 ea. 13 x 48 OOYA Radial Drill

## EDM EQUIPMENT

- 1 ea. 29 x 19 x 17 Mitsubishi FX30K Wire EDM (5-Axis) (7/00)
- 1 ea. 23 x 16 x 12 Hitachi 460Q Wire EDM (5-Axis)
- 1 ea. 8 x 26 x 30 Mitsubishi Wire EDM (4-Axis)
- 1 ea. 48 x 34 x 15 Charmilles Roboform 55P (4-Axis Sinker) (9/01)
- 1 ea. LeBlond Makino EDNC85 - 47 x 32 x 18 Tank
- 1 ea. Walter HW 102V with Variocop - 19 x 14 x 17 Tank
- 1 ea. D1-T50 Amp Charmille w/Rotating Spindle & Monitron  
33 x 20 x 13 Tank
- 1 ea. Ex-Cell-O Challenger No. 3 w/400 Amp. Power Supply  
61 x 30 x 21 Tank
- 1 ea. 13.8 x 8.7 x 8.7 4-axis Wire EDM Charmilles Robofil 240cc (11/05)  
U, V travel 13.8 x 8.7
- 1 ea. 13.4 x 9.8 x 11.8 Charmilles Roboform 350 350 sinker (11/05)
- 1 ea. 13.8 x 9.8 x 13.4 Charmilles HD-20 Hole Popper- .008 to .236  
(11/05)

## WELDING, HEAT TREATING & SAWING

- 2 ea. 355 Amp Welder with Heli-Arc
- 1 ea. Unitec Spot Welder
- 2 ea. 8 x 9 x 18 Heat Treating Furnace
- 1 ea. 18 x 18 x 36 Lindberg Heat Treating Furnace
- 2 ea. 400 Amp Mig Welder
- 1 ea. 300 Amp Mig Aluminum Welder
- 1 ea. 14.5 Dia. Motorized Variable Speed Welding Table
- 1 ea. 13 x 16 Automatic Cut-Off Saw
- 1 ea. 16 x 24 Cut-Off Saw
- 2 ea. 13 x 15 Cut-Off Saws
- 1 ea. 18" Abrasive Cut-Off Saw
- 1 ea. 38" Contour Saw
- 1 ea. 10 x 12 Automatic Cut-Off Saw (2/99)
- 1 ea. Thermotron Temp/Humidity Chamber 38 x 38 x 38 (5/01)

## PLATING EQUIPMENT

- 3 ea. 100 Amp. Hard Chrome Plating Unit
- 1 ea. 250 Amp. Hard Chrome Plating Unit
- 1 ea. 500 Amp. Hard Chrome Plating Unit
- 1 ea. 1000 Amp. Hard Chrome Plating Unit
- 1 ea. Black Oxidizing Unit 20 x 20 x 20

## ROTARY TABLES

- 1 ea. 20" Tilting Rotary Table 15 Seconds Readout Nikken
- 1 ea. 12" Tilting Rotary Table
- 2 ea. 32" SIP Rotary Table 1 Second Readout
- 12 ea. Rotary Tables - Ranging 6" to 20"

## INSPECTION EQUIPMENT

- 1 ea. Zeiss Prismo Calypso Vas+SACC CMM 47 x 71 x 39 (4/02)
- 1 ea. Zeiss Accura CMM 47 x 70 x 39 (8/09)
- 2 ea. Zeiss Contura G2 CMM 39 x 47 x 24 (8/09)
- 1 ea. B&S Microxcel PFX 4.5.4 CMM 22"x29.5"x17"
- 1 ea. B&S XCEL 9\*12\*9 CNC CMM 41" x 70" x 35" (9/98)
- 1 ea. Mitutoyo B241 CMM 17" x 28" x 40"
- 1 ea. Talyrond 265 Roundness & Profiling MM 10 x 19 (6/04)
- 1 ea. DP-3DX Digimatic Mini Processor (SPC)
- 1 ea. KPT Speroni Model 46 Tool Presetter (12/00)
- 2 ea. MU Electronic Checkers
- 1 ea. Renishaw ML10-AC10 Laser Measurement System (11/00)
- 1 ea. Renishaw QC 10 Ballbar System (3/00)
- 1 ea. 12" Optical Comparator
- 1 ea. 20" Optical Comparator with Turret 20 200 Magnification
- 5 ea. 48 x 72 Surface Plate (Laboratory Grade)
- 5 ea. 24 x 36 Surface Plate
- 8 ea. 18 x 24 Surface Plates
- 1 ea. 18 x 18 Surface Plate
- 5 ea. 12 x 18 Surface plate
- 1 ea. 12 x 12 Surface plate
- 1 ea. 8 X 12 Surface Plate
- 1 ea. 36 X 48 Surface Plate
- 1 ea. 6 ft. x 12 ft. Surface Plate

- 1 ea. 36 x 60 Surface Plate (Laboratory Grade)

- 1 ea. 36 x 36 Surface Plate (Laboratory Grade)
- 4 ea. 12" Height Master
- 1 ea. 18" Height Master
- 1 ea. Hawkeye Precision Borescope 12"
- 30 ea. Complete Sets Dial Bore Gages (.060" 40")
- 8 ea. Complete Sets Indicator Mikes (0-7")
- 2 ea. Surface Tester Profilometer
- 2 ea. Tool Makers Microscope
- 1 ea. Auto Collimator
- 1 ea. 16" Browne & Sharpe Straight Edge
- 1 ea. 48" Brown & Sharpe Straight Edge
- 1 ea. 36" Browne & Sharpe Straight Edge
- 4 ea. Hardness Testers
- 1 ea. Calipers 0-80"
- 2 ea. Cylindrical Square
- 1 ea. Square Master
- 1 ea. 20" Sine Centers
- 2 ea. Inclinometers
- 1 set Optical Flats with Monochromatic Light Source
- 2 ea. Precision Air Bearing Table
- 3 ea. Marposs Electronic Gauge

## MATERIAL HANDLING

- 2 ea. 1 Ton Flat Bed Truck
- 3 ea. 15 Ton Cranes
- 4 ea. 10 Ton Cranes
- 3 ea. 5 Ton Crane
- 1 ea. 3 Ton Crane – Aux.
- 12 ea. 2 Ton Cranes – 2-Aux. & 10 Jib
- 13 ea. 1 Ton Jib Cranes
- 5 ea. ½ Ton Jib Cranes
- 1 ea. ¼ Ton Jib Crane
- 1 ea. 8,000 Lb. Fork Truck
- 2 ea. 4,000 Lb. Fork Truck
- 48" Loading Dock

## PRODUCTION CONTROL

- 1 ea. PC/Servers Windows 2000 w/40 Terminals running (1/02)  
Vantage by Epicor Shopfloor Control Software
- 1 ea. MS Project Standard 2003 Scheduling Software

## HONING MACHINES

- 2 ea. Sunnen Horizontal Honing Machine
- 1 ea. Model 1802 Sunnen Horizontal Honing Machine w/Auto  
Sizing
- 1 ea. Model CV616 Sunnen Vertical Honing Machine
- 1 ea. 4 Spindle Schmiede Vertical Honing Machine

## MISCELLANEOUS

- 1 ea. StarMark Laser Marking Machine 6" x 6" (4/98)
- 1 ea. Lumonics Laser Marking Machine 4" x 4"
- 1 ea. Binks Temp. Controlled Paint Booth 19.8" W x 13' H x 17'  
Long OSHA, NFPA, UFC and EPA Approved
- 1 ea. 75 Ton Hydraulic Press
- 1 ea. 150 Ton Press
- 1 ea. 1/4" x 10' Shear
- 1 ea. 12 Ga. Press Brake - 10 Ft.
- 2 ea. Sand Blaster (1 measures 12ft x 20ft x 10ft)
- 1 ea. Wysong " x 72" Roll Former
- 1 ea. Vibratory Deburring Machine
- 2 ea. 16 x 24 KPT/Haberle Vacuum Plates

## BUILDINGS

- Over 100,000 sq-ft on 10 acres, Temp. controlled.
- 7 Cinder Block Buildings w/Interior Structural Steel