

EQUIPMENT LIST- 8/17

(Machines with Red text have probing capabilities)

CYLINDRICAL GRINDERS

- 1 ea. Studer S40 6.9 x 39.4 CNC OD Grinder 4-Axis w/ thread grinding capability (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. 14 x 28 Shigiya 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
- 2 ea. 9 x 40 Center Lapping Machine
- 1 ea. 10 x 28 Studer ID & OD Universal Grinder

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

- 1 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
- 2 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)
- 3 ea. 22 x 60 Lathe
- 1 ea. 22 x 60 Gap Lathe
- 1 ea. 17 x 60 Tool Room Lathe w/DRO-Gap Bed
- 1 ea. 17 x 60 Tool Room Lathe w/DRO

JIG BORING AND JIG GRINDING MACHINES

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

DRILLING MACHINES

EDM EQUIPMENT

- 1 ea. 31 x 23 x 20 Mitsubishi MV4800 Wire EDM (5-Axis) (7/16)
- 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 Sinkers) (9/01)
- 1 ea. LeBlond Makino EDNC85 - 47 x 32 x 18 Tank
- 1 ea. D1-T50 Amp Charmille w/Rotating Spindle & Monitor 33 x 20 x 13 Tank
- 1 ea. 13.8 x 8.7 x 8.7 5-axis Wire EDM Charmilles Robofil 240cc U, V travel 13.8 x 8.7 (11/05)
- 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)
- 1 ea. 19.7 x 13.8 x 11.8 Mitsubishi FA20S Adv. Wire EDM (5-axis) (11/11)

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. Black Oxidizing Unit 20 x 20 x 20 (NIP)

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)
- 2 ea. Zeiss Duramax 05/05/05 CMM
- 1 ea. B&S XCEL 9*12*9 CNC CMM 41" x 70" x 35" (9/98)
- 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)

INSPECTION EQUIPMENT (cont.)

- 1 ea. Speroni Esperia Tool Presetter
- 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 Plates
- 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" Brown & Sharpe Straight Edge
- 1 ea. 48" Brown & Sharpe Straight Edge
- 1 ea. 36" Brown & 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
- 4 ea. 16" Starrett VB400 Optical Comparator

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)
- 3 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. 4" Churchill Horizontal Boring Mill (49 x 39 x 48) with DRO

CNC EQUIPMENT

- 1 ea. Makino D500 5 Axis Vertical Machining Center
- 1 ea. Makino PS950 Vertical Machining Center
- 1 ea. 41 x 22 x 18 Okuma Genos M560-V Vertical Machining Center
- 1 ea. 16 x 22 Okuma LB2000EX Horizontal Lathe
- 1 ea. 16 x 42 Okuma LB3000 Horizontal Lathe
- 5 ea. Catia V5 Stations
- 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. 16 x 12 x 20 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. 29 x 23 x 20 Deckel DMU 70 eV w/ Heidenhain Ctrl. 5-Axis (5/02)
- 1 ea. 32 x 29 x 19 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)

CNC EQUIPMENT (cont.)

- 1 ea. 39 x 31 x 32 Kitamura MyCenter 4-axis HMC (3/07)
- 1 ea. 63 x 40 x 47 Toshiba BMC-80E 4-Axis (11/01)
- 1 ea. 22 x 24 x 22 Okuma MX-40HA HMC 4-Axis (12/00)
- 1 ea. 22 x 20 x 20 Mori Seiki SH403 HMC 4-Axis (12/00)
- 1 ea. 19 x 32 Okuma LT3000EX 8-Axis CNC Turning Center
- 1 ea. 10 x 19 Okuma Crown 2-Axis Turning Center (9/98)
- 1 ea. 8 x 24 Mori Seiki CNC Lathe SL-200 (7/99)
- 1 ea. 9 x 14 Hardinge T-42 lathe w/live tooling (6/17)
- 1 ea. 25 x 61 Mori Seiki NT 4250 DCG Lathe (12/07)
- 2 ea. 24 x 37 Mori Seiki SL-403B CNC Lathe (1/08)
- 1 ea. 19 x 17 x 15 Deckel Maho DMU50 5-Axis VMC (1/08)
- 1 ea. 35 x 78 Mori Seiki CNC Lathe SL603B (10/11)
- 1 ea. 86 x 63 x 72 Toyoda FH1250SX 5-Axis HMC (10/11)
- 1 ea. 39 x 31 x 33 Toyoda FH630SX 5-Axis HMC (10/11)
- 1 ea. 39 x 31 x 31 Mitsubishi MH60D 4-Axis HMC
- 1 ea. 22 x 22 x 24 Makino A55E HMC (9/11)
- 2 ea. 36 x 20 x 18 Makino PS95 VMC (11/11)
- 2 ea. 21 x 39 x 20 Makino D500 5-Axis VMC (6/08)

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

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 Shop floor Control Software
- 1 ea. MS Project Standard 2003 Scheduling Software

HONING MACHINES

- 1 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. ElectroX Cobra Laser Marker
- 1 ea. ElectroX Maxim Laser Marker
- 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
- 3 ea. Vibratory Deburring Machine
- 2 ea. 16 x 24 KPT/Haberle Vacuum Plates

BUILDINGS

- Over 140,000 sq-ft on 20 acres, Temp. controlled