

## TURNING

1	CAZENEUVE	Engine Lathe 18" Swing 40" B.C. 12 h.p.
2	HARDINGE	Manual Chucker, model HC
2	HARDINGE	Tool Room Lathe, model HLV
1	HARDINGE	CHNC Chucker with General Numeric Control 1-5/8" through the Spindle
1	HARDINGE	CHNCII Super-Precision Computer Controlled with General Numeric Control 1-5/8" through Spindle
1	HARDINGE	Conquest 42 Mill-Turn with Fanuc OT Control 1-5/8" through Spindle
1	SCHAUBLIN 70 SV	High Speed Instrument Lathe
1	OKUMA-HOWA HL-35	CNC Turning Center Chucking up to 12: dia and 19" between centers
2	MORI SEIKI	Model SL-1ACNC with Fanuc 6T Control
1	MORI SEIKI	SL25MC Mill-Turn with Fanuc 10T Control 2-5/8" through the Spindle
15	HYUNDAI	HIT-8G CNC Lathes (3 with Mitsubishi 6 Axis Robots)
1	PROTO-TRAK TRL1540V	Prototype-Lathe Programmable
5	WASINO G06	Gang Tool Lathe 1 1/16" bar capacity with gantry loaders.
2	WASINO G06	Gang Tool Lathe 1 1/16" bar capacity with bar feeders.
4	WASINO G07	Gang Tool Lathe 1 7/16" bar capacity with gantry loaders.
3	WASINO G07	Gang Tool Lathes with bar feeders 1 7/16" bar capacity & gantry loaders
1	HYUNDAI/KIA SKT15LS	CNC Turret Lathe 2" capacity with sub-spindle

## MACHINING CENTERS

1	MORI SEIKI	Horizontal Machining Center, Model MH-40, 61 tools, 2 pallet shuttle with Fanuc 6M Control
1	MORI SEIKI	Vertical Machining Center, Model MV40B, 30 tools, 2 pallet shuttle with Yasnac OMC Control
1	MORI SEIKI	Vertical Machining Center, Model MV40, 30 tools, with Yasnac OMC Control
1	KITAMURA	Horizontal Machining Ctr. Model HX400I, 100 tools, 2 Pallet Shuttle w/ Fanuc 16i-m Control
1	KITAMURA	Horizontal Machining Center, Model H-300, 30 tools, 2 pallet shuttle with Fanuc 6MB Control & Full B Axis
1	KITAMURA	Vertical Machining Center, Model #1, 16 tools with Fanuc 10M Control
1	KITAMURA	Mycenter 1/485 Vertical Machining Center, 16 tools with Fanuc OM Control
1	HAAS	VF-3 Vertical Machining Center, 32 tools with HAAS Control
1	HAAS	VF-4 Vertical Machining Center, 24 tools with HAAS Control
2	HAAS	Vertical Mini Mill Machining Center, 10 tools with HAAS Control
1	HAAS	Vertical Super Mini Mill, 10 tools, 10,000 rpm & Haas Control

## MILLING

2	DECKEL FP1	Toolmakers Milling machine with complete accessories
2	DECKEL FP2	Toolmakers Milling Machine with complete accessories
1	DECKEL GL	Pantograph Engraving machine
1	HECKERT	Universal, Model #2 Milling machine with automatic cycle, 40" travel
1	BARKER	Lever Operated Milling Machine
1	SCHAUBLIN	Universal Milling Model 13, with Acurite III Readouts

## GEAR CUTTING

1	MIKRON 132-01	High Precision Gear Hobber 4-3/8" capacity
1	MIKRON 79	High Precision Gear Hobber 2" Capacity
1	MIKRON 102	Universal Gear Hobber 8" Capacity
2	FELLOWS #3	Gear Shapers 4" Capacity

## JIG BORING

1	DECKEL LKB	Optical Co-ordinate Jig Borer 16" X 10" X 13" table with jig grinding attachment
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## HONING AND LAPPING

1	SUNNEN	Honing Machine, Model ML-3500 with auto sizing
1	SUNNEN	Honing Machine, Model 1660, Mandrels 1/8"-4/14"
1	SUNNEN	Honing Machine, Model 1804, with Automatic Sizing. Mandrels 1/8"-41/4"
1	HAUSER	Pivot Polisher
1	LAPMASTER	Model 15, 15" Flat Lapping Machine
1	LAPMASTER	Model 20, 20" Flat Lapping Machine with Diamond Lapping Capability

## THREAD FORMING

1	KINEFAC	MC-10F Thread Rolling Machine, 1-72 thru 1 1/2" Dia capable of rolling up to 46 RC Material.
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## GRINDING

1	STUDER	S30-1 Hydraulic Automatic Cylindrical Grinder 16"
1	TSCHUDIN HTG 300	Hydraulic Automatic Cylindrical Grinder 12"
1	TSCHUDIN HTG 410	Hydraulic Automatic Cylindrical Grinder 19"
2	TSCHUDIN HTG 600	Hydraulic Automatic Cylindrical Grinder 24"
1	TRIPET	Automatic Hydraulic Internal Grinder
1	JONES & SHIPMAN 540	Surface Grinder 18" X 6"
1	JONES & SHIPMAN 540	Surface Grinder with Diaform Attachment
1	JONES & SHIPMAN 540LH	Surface Grinder 18" X 6"
1	JONES & SHIPMAN 1400	Surface Grinder 8: X 24" Capacity
2	MATRIX	Model 16 Thread Grinder and Form Grinder Single or Crush Grinding
1	CHEVALIER	Grinder FSG-1632TX 16" X 32" Capacity
1	KELLENBERGER	Kel-Vista Universal CNC Cylindrical Grinder. Model UR 175/1000 40" between ctrs. Fanuc series 21 I-t Control.

## DRILLING

1	PACERA	Drill Press, 3/4" capacity
2	PRECIS	Bench Drill Presses 3/8" capacity
1	PRECIS	Watchmaker Drill Pres 1/8" capacity
1	PRECIS	Drill Press 1/16" capacity
2	I.M.	Drill Presses 3/4" capacity
2	STEINEL	Multi Drill 12 Spindles 1/4" capacity
1	SOLID	Gang Drill 6 Spindles 1/64 to 3/8"
1	SOLID	Gang Drill 6 Spindles 1/64" to 5/8" dia.
1	MOLLART	N.C. Gundrilling Machine capacity 1" diameter X 20" long.
1	MOLLART	CNC Gundrilling Machine capacity 1" diameter x 30" long (twin spindle)

## TOOL AND CUTTER GRINDING

2	DECKEL 50	Single Lip Cutter grinder 4" Wheel
3	ARBOGA	Pedestal Off-hand grinders
1	PRECISION	High Speed Mounted Point Grinder
1	TATAR	Drill Sharpener #60 to 1/2" dia.
1	SOLID	Cutter Grinder
3	ACCU-FINISH	Series 2 Tool Sharpener
1	MEGAPOINT	Drill Sharpener

## EDM

1	HANSVEDT BENCHMAN	Benchman Electrical Discharge Machine
1	HANSVEDT BENCHMAN	Benchman Electrical Discharge Machine
1	AGIETRON	EMT 1.10 Electrical Discharge Machine
1	CURRENT	ST300 EDM Drilling Machine (Hole Popper)
1	SODICK	CNC Electrical Discharge Machine Model AM35 with full U-Axis

## CAD/CAM SYSTEM

3	SEATS	MASTERCAM
4	SEATS	(PCADRA) CAD Software w/1 Color Laser Printer

## MISCELLANEOUS

1	LAPOINTE	Horizontal Broaching Machine, 36" Broach, 8 ton
2	KASTO	Model #SSB260VA Bandsaw
1	AGA	Press, 3 ton capacity
1	BLUE-M	Drying Furnace
1	BARON BAKERSLEY	Vapor Degreaser
2	INGERSOLL RAND	Air Compressor 30 and 60 h.p. (rotary screw)
1	S. BADER	Belt Sander 3" Wide X 132" Long
1	S. BADER	Belt Sander 1" Wide X 72" Long
3	MITSUBISHI ROBOTS	6 Axis Robots mounted to 3 Hyundai Lathes.
1	BLAST/SHOT PEEN	Glass Beading, and Shot Peening to Mil Specification, up to 125 lbs. Pressure
1	SNAP-ON	Hydraulic Press, 25 ton
1	CRESS	Tool Room Heat Treating oven 12"x 12" x 20" deep.
1	JET	Metal Bandsaw, model #B/S400
14	HAAS	Programmable Indexing Fixtures
1	SAUK	Oil Dispensing & Storage System
1	HANEL	Vertical Storage System 25,000 pounds 38 shelves
1	RAYMOND	4000 LB. Lift Truck
1	ROACH	Conveyor System
1	FINISH THOMPSON	LS-55 Distillation Unit
1	LANDA	Water Evaporation System
1	HOTSY	Parts Cleaner
2	3M	Microfice Reader/Printer
3	ROSLER	Rotary Tumbling Machines (6 Cu. Ft, 4 ½ Cu-Ft. 1 ½ Cu. Ft.)
2	TECHNIFOR	Dot Peen Marking Machines With 2D Capability
1	GREENERD	Model HPF-25, 25 Ton Automatic Hydraulic Press. With Precision Length Stops.
1	GREENERD	HCA-50-60R8. 50 Ton Automatic Hydraulic Press with Precision Length Stops
1	VIC ROC	U-Bolt Bender up to 1" Dia solid bar.
2	ABP	MK-30 7.5KW @ 400 Khz Induction Heaters
1	EARLSDON FILLET ROLLER	1 1/2" capacity fillet rolling

## METROLOGY

1	SIP MUL 300	Measuring Machine 12" capacity, accuracy within .00002
3	TAYLOR-HOBSON	"Talysurf" Surface Analyser, Mark 3 (small bore capability)
1	CONVENTRY GAUGE	Set of 23 Cylindrical reference discs
1	MITUTOYO	Laboratory Gauge Block Set (84 pcs.)
10	MITUTOYO	Micrometer Height Gauge 12", Graduated .00001
1	AGROMAG	Metal Tester Model 1101-C
1	OGP-GL20	20" Optical Comparator fully programmable.
7	ROCK OF AGES	Granite Surface Plates 24" X 36", 36" X 45", 36" X 60" Accuracy .000170; .000300; .000400
1	ALBERT GNEHM	Hardness Tester, Rockwell and Superficial with Test Blocks
1	PNEUMO PRECISION	Roundness Checking machine .000004 accuracy
2	MITUTOYO	14" Contour Projector with accessories
5	TESA/BROWN & SHARPE	Micro-Hite 1 Digital Height Gage with built-in microprocessor
1	LAPMASTER	Optical Flat
6	MITUTOYO	Inspection Gage Blockset (84 pc. Set)
1	BROWN & SHARPE	Gage 2000 (454) Coordinate Measuring machine, meas. Range 16" X 18" X 20"
1	Z-MIKE	1220 Laser Micrometer
1	BROWN & SHARPE	DCC Coordinate Measuring Machine w/servos on all axis. .000030 repeatability. .00013 volumetric accuracy.
1	NITON ANALYZER	Material verification using XRF technology.

## INSPECTION

2	TAFT PIERCE	Bench Centers
13	MITUTOYO	Blade outside micrometer 0-1" to 2-3"
8	INTAST & DIATEST	Bore gage and Masters .0571 to .8086"
20	STARRETT:MITUTOYO	Depth micrometers 0-3" and 0-6"
12	CARL MAHR	Dial indicator .00005 to .0005 grad.
98	COMPAC, FEDERAL, MERCER, MITUTOYO, YUASA, HARDINGE	Dial indicator .0001" to .0010" grad.
20	TESA, ETALON, MITUTOYO	Dial outside micrometers 0-1" to 3-4"
2	MITUTOYO	Dial Height gage 0.01-.450 mm to 0.01-600mm
5	MITUTOYO	Dial Height gage .001".012"; .001"-.018"; .001"-24"
12	TESA	Dial Caliper 0-6" Electronic
2	MAGNETIC ANALYSIS	Dial Magnetic Detector
2	MITUTOYO	Disc Micrometer 0-1"
1	S & F 101	Fine Pitch gear checker with masters
2	MITUTOYO	Groove Micrometer 0-1"; 1-2"
5	SHARDLOW, STARRETT	Height gage 12"; 500 mm and 20"
9	MITUTOYO-TESA	Inside micrometer .275" to 4"
1	FOWLER	Master Square
1	VAN KEUREN	Measuring wires – thread and gear
1	C.E.J.	Micro Test indicator .00005"
8	ZEISS INTERNATIONAL	Microscopes – Binocular 10X-50X; 200X-1000X
14	JOHNSON GAGE	Thread Gaging System for Internal & External Threads to Fed-Std-H28

## INSPECTION CONTINUED

70	STARRETT, ETALON MITUTOYO	Outside micrometers 0-1" to 7-8"
1	UNIVAR	P/H Meter
23	ROCK OF AGES	Surface Plates – Granite 12 X 18; 24 X 36
6	TESA	Thread Pitch Micrometer 0-1" to 2-3" and 0-0.25 mm; 0.25 mm-.050 mm
4	MARPOSS	LVDT Electronic ID and OD gaging
6	FEDERAL	Air Gaging Systems including matching capabilities

7000+ PLAIN AND THREAD PLUG GAGES, ANGLE PLATES, SINE PLATES, PARALLEL BLOCKS, PARALLELS, VEE-BLOCKS, INDICATOR STAND, SNAP GAGES. ETC.

## PLATING FACILITIES & NDT

SURFACE FINISHING  
MAGNAFLUX

Painting & Stenciling to Commercial and MIL Specifications  
Fluorescent Penetrant Inspection System, Model ZA-37H  
with inspection booth

MAGNAFLUX

H-710G Magnetic Particle Inspection System