

- ♦ Five Axes CNC Machining Services
- ◆ Tooling ◆ EDM ◆ FAA Repair Station

Facility List

I. STRUCTURES:

- 7000 SQ FT MAIN MANUFACTURING FACILITY
- 2200 SQ FT OFFICE BUILDING AND LIGHT ASSEMBLY AREA
- 2000 SQ FT WAREHOUSE BUILDING AND PART CLEANING AREA

II. DATA PROCESSING EQUIPMENT

- AVAILABLE COMPUTER HARDWARE
 - INTEL R2308WTTYS RACK-BASED SERVER SYSTEM WITH HYPER-V SUPPORT, SEAGATE RAID6 ARRAY / DATA CACHING & BACKUP, APC SMART-UPS W/ NETWORKED MANAGEMENT & ENVIRONMENTAL CONTROLLER
 - INDIVIDUAL DATA ENTRY AND PROGRAMMING WORKSTATIONS (14)
 - SYSTEM NETWORKED WITH CISCO SG300-20 20PORT GIGABIT MANAGED SWITCH / CAT6
- AVAILABLE SOFTWARE (PARTIAL LIST)
 - MICROSOFT WINDOWS SERVER 2012 R2 STANDARD
 - O WINDOWS 8 AT WORKSTATIONS
 - O WATCHGUARD FIREWALL
 - ESET ENDPOINT ANTIVIRUS
 - O SIEMENS NX 11.0 CAD/CAM
 - O APTNT/CAM
 - O SPECTRUM MULTI-DNC SYSTEM W/ WI-BOX LINKS TO MACHINE TOOL CONTROLS (VER. 9)
 - O JOBBOSS PROJECT MANAGEMENT SOFTWARE(VER.12) W/ MULTIPLE DATA ENTRY WORKSTATIONS
 - O INFINITY/QS PROFICIENT SPC

III. COMPUTER NUMERICAL CONTROL EQUIPMENT

- 4 MITSUBISHI 600 HORIZ MACHINING CENTERS W/ M66S CONTROLS, DIGITAL AC AXIS/SPINDLE MOTOR DRIVES
 - FOURTH AND FIFTH STACKED ROTARY AXIS
 - O FORTY TOOL MAGAZINE W/ CAT 50 TOOL HOLDERS
 - 30 X 26 X 20 IN MACHINING ENVELOPES
 - O 20 HP SPINDLE / 5000 RPM
 - O HI PRESSURE COOLANT THRU SPINDLE
 - O MP10 RENISHAW TOUCH PROBE
 - O NC3 RENISHAW LASER TOOL SETTER
 - O BALLUFF READ/WRITE RFID
- MITSUBISHI 200 HORIZ MACHINING CENTERS W/ M66S CONTROLS, DIGITAL AC AXIS/SPINDLE MOTOR DRIVES
 - O FOURTH AND FIFTH STACKED ROTARY AXIS
 - O FORTY EIGHT TOOL MAGAZINE W/ CAT 50 TOOL HOLDERS
 - O 24 X 20 X 20 IN MACHINING ENVELOPES
 - O 20 HP SPINDLE / 5000 RPM
 - O HI PRESSURE COOLANT THRU SPINDLE
 - O OMP60 RENISHAW TOUCH PROBE
 - O NC3 RENISHAW LASER TOOL SETTER
 - O BALLUFF READ/WRITE RFID

Ellingson, Inc. Facility List Page 1

- TOOLING AND RELATED EQUIPMENT
 - O OVER 1500 CAT50 TOOL HOLDERS
 - O PARLEC TMM SERIES 1800 PRECISION TOOL MEASURING MACHINE W/ TOOL PRESETTER SCREENS, PGC PLUS 6 MANAGEMENT SOFTWARE AND BALLUFF READ/WRITE RFID
 - SOUTHWEST IND. TRAK-DPMSX3 CNC BEDMILL 31" X 17" W/NMTB40 TOOLING & TRAK ELECTRONIC HANDWHEELS
 - SOUTHWEST IND. TRAK-1840SX CNC LATHE 18" X 40"
 10 P SPINDLE / 150 4000 RPM

IV. ELECTRICAL DISCHARGE MACHINING EQUIPMENT:

- TWO MITSUBISHI M35K1 C7 4 AXIS CNC EDM
 - O 30 AMP POWER SUPPLY
 - O 32 STATION TOOL CHANGER W/ 20MM 3R HOLDERS
 - O 10 IN X 14 IN TABLE TRAVEL
 - O 14 IN HEAD STROKE
 - O EDM INCEPTION PROGRAMMING SYSTEM
 - O OPTICAL TOOL SETTER WITH DRO
- ONE MITSUBISHI M35J C7 4 AXIS CNC EDM
 - 30 AMP POWER SUPPLY
 - O 16 STATION TOOL CHANGER W/ 3R MACRO HOLDERS
 - O 10 IN X 14 IN TABLE TRAVEL
 - O 14 IN HEAD STROKE

V. HONING EQUIPMENT:

- TWO SUNNEN ML5000 HORIZONTAL POWER STROKED HONING MACHINES
 - PROGRAMMABLE STROKE W/ AUTOMATIC SIZE CONTROL
 - O MULTISTONE MANDREL CAPABILITY W/DIAMOND OR BORAZON INSERTS

VI. INSPECTION:

- TWO BROWNE & SHARPE GLOBAL PERFORMANCE DCC CMM MODEL 7.10.7 (HEXAGON METROLOGY)
 - O PCDMIS CAD++ AND DCC SCANNING SOFTWARE
 - O MOTORIZED FB2 CONTROL SYSTEM
 - O FULL THERMAL COMPENSATION
 - O LEITZ LSP-X3 ANALOG SCANNING PROBE HEAD
 - O 6 STATION TOOL RACK FOR LEITZ PROBE HEADS
- ROMER ABSOLUTE ARM MODEL 7525SI(HEXAGON METROLOGY)
 - O PC-DMIS CAD++ SCANNING SOFTWARE
 - O 2.5m 7-AXIS HIGH ACCURACY ARM
 - O RS3 INTEGRATED SCANNER
 - TESA TKJ 3mm / 6mm / 15mm BALL PROBES
- OTHER ITEMS
 - O J&L EPIC 114 OPTICAL COMPARATOR
 - O BAUSCH & LOMB STEREO MICROSCOPES
 - o BORE SCOPES
 - O GRANITE SURFACE PLATES
 - O OD, ID & DEPTH MICROMETERS, HEIGHT GAGES
 - O THREAD GAGES
 - O PIN GAGES

Ellingson, Inc. Facility List Page 2

VII. DEBURRING

- TWO DEBURRING STATIONS WITH AIRFLOW SYSTEMS EASY BENCH DOWNDRAFT TABLES.
- FULL COMPLEMENT OF PNEUMATIC AND MOTOR-DRIVEN FOREDOM HANDPIECES, PENCIL AND MICRO GRINDERS.
- BAUSH & LOMB STEREO MICROSCOPES

VIII. ASSEMBLY ROOM

- HELICOIL INSERTION STATION
- ROSAN BROACHING AND ASSEMBLY EQUIPMENT
- LEE PLUG INSTALLATION STATION WITH HYDRAULIC CYLINDER ASSIST
- HYDRAULIC PRESS STATION FOR BEARING REMOVAL, INSTALLATION AND STAKING
- PRESSURE TEST STATION (6000 psi)

IX. CERTIFICATIONS

- AS9100 REV C
- ISO9001:2008
- FAA REPAIR STATION, PART 145
- FAA/EASA (EUROPEAN AVIATION SAFETY AGENCY)

X. PARTS CLEANING

- PRO-ULTRASONIC CLEANING UNIT / HEATED, STAINLESS STEEL TANK, COATED BASKETS
- TWO AQUEOUS PARTS WASHING TANKS /HEATED, 5 MICRON FILTER UNITS, AND 60 PSI POWER FLUSH
- PARTS RINSE STATION USING RO & PURTEC DEIONIZED WATER MEETING ASTM D1193 TYPE IV STANDARD
- ALKALINE CLEANER / CHEMETALL LIQUI-DET MEETING BAC 5749 STANDARD

Ellingson, Inc. Facility List Page 3