

## **COORDINATE MEASURING SYSTEM**

- Giddings & Lewis Cordax Apollo II Model RS-50 DCC High Performance Coordinate Measuring System Measuring envelope 40" x 48" x 30" tall. Equipped with G&L "Direct Inspect" inspection software and "Direct Design", reverse engineering software.

## **COMPUTER AIDED DESIGN SYSTEM**

- Three stations Solid Works 2015
- Complete 3D Modeling capability –Full translation capability with most software

## **CNC PROGRAMMING**

- 2 Seats of Mastercam2017

## **WIRE E.D.M.**

- Pratt and Whitney model W1 five axis (independent U and V axis) Maximum work piece 13.8" x 17.7" x 10" -electronic Z axis.—Max work piece weight 600lbs
- Sodick Model AQ535L (independent U and V axis) Maximum travels: X=21.6", Y=13.7", Z=11.8". Maximum weight of work piece: 1496lbs.

## **MILLING MACHINES**

- All CNC machining centers are 3D capable
- OKK VM-5 **X40" x Y20" x Z20"**-20 station tool changer
- OKK VM-7 vertical machining center **X60" x Y30" x Z24"**with 20 station tool changer
- Topwell CNC vertical milling machine, **X50" x Y20" x Z24"**
- Cincinnati Hydrotel, 120" x 28" x 14", maximum work height 32" with Sony 3 axis readout.
- DeVlieg 3H-48, with automatic positioning, capacity 48" right to left, 36" vertical.
- Manual milling machines (5 units), capacity 12" x 48", with readout.

## **LATHES**

- Monarch, 24" swing x 102" centers.
- Clausing lathe 12" swing with readouts
- Hardinge super precision HLV-H, 11" swing with readouts
- HAAS SL-10T CNC Lathe, 16.25" swing
- HAAS SL-30 CNC Lathe, 29" swing

## **GRINDERS**

- Mattison, high powered surface grinder, capacity 36" x 120" x 36" high.
- Mattison, high powered surface grinder, capacity 16" x 48" length x 16" high.
- Clausing 12-24 surface grinder, capacity 12" x 24".
- Brown & Sharp, 6" x 18" micromaster surface grinder.
- Chevalier 6" x 18" surface grinder.

## **PRESSES**

- Hamilton **1200**Ton, 4 point -Single action, 72" x 108" ram and bolster -18" stroke -30" ram adjustment -Complete with air cushions.
- Hamilton **900**Ton TS-1249, 88" x 124" ram and bolster -24" stroke -60" maximum shut height
- Verson**300**Ton, 2 point -single action -96" X 60" ram & bolster -14" stroke -12" ram adjustment
- Clearing **250**Ton straight side -72" x 42" ram -30" maximum shut height.
- Minster **60**Ton OBI.
- Niagara, **35**Ton OBI, 120 strokes per minute, 10 1/4" maximum shut height.
- Servo feeds and coil lines up to 20,000 lbs

## **FABRICATION EQUIPMENT**

- MIG, TIG and Arc Welding.
- Cincinnati, 1/4" x 10 foot mechanical gap shear.
- Cincinnati, 10 foot press brake.
- Hypertherm MAX 43 plasma cutter, 1/2" capacity.

## **SERVICE AND TRANSPORT EQUIPMENT**

- 5 and 10 ton overhead bridge cranes servicing production and machining bays.
- Forklift capacity up to 40,000 lbs.