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## **Sparton's Core Competencies**

- Precision Machining
- Precision Sheet Metal Fabrication & Welding
- Assembly and Value Added Services

## Facility Information & Certifications

AS9100/ISO 9001:2015, registered through Perry Johnson Registrars, Cert# C2018-00904-R1

Cage Code: 35JX3 ITAR Registered

Lot traceability

80,000 Sq. ft. very clean and modern

## **Business Enterprise System and Shop Floor Control**

(5) Dell Servers deploying our various applications. We utilize Jobboss ERP software for estimating, order processing, scheduling, shop floor control, shipping, invoicing, and inventory. We utilize real time data collection from our bar coded shop travelers accompanying every job to provide our customers with timely job tracking through labor reporting. We also have full material lot control.

## Job Programming

Four full time engineering staff, with two additional people for over flow, use CAD and CAM software products networked through our DNC system that allows programs to be pulled from our servers at each machine.

- (5) seats, Solidworks for CAD
- (2) seats, Gibbs 3D CAM for machining
- (1) seat, HyperMill 5-Axis Cam software
- (2) seats Fabriwin CAM for sheet metal
- (1) NCell CAM laser nesting software
- (1) ProNC DNC

## **Importing of Customer CAD Files**

Customers can e-mail 3-D CAD files at <a href="mailto:rfq@sparton.biz">rfq@sparton.biz</a>. We can read SLDDRW, SLDPRT, EDW, TIF, PDF, DXF, DWG and IGES file formats. Please send dimensioned print files for quoting purposes. Fully detailed PDF drawings are the preferred method for quoting.

#### **Quality Assurance Lab**

- Zeiss Contura CMM
- Zeiss O-Inspect CMM (w/optics & probes)
- 3D Fabrivision laser inspection system for automated sheet metal inspection
- Federal CMM with Quadra-chek 5000 Software
- Micro-Vu Vector 12x12 Video Coordinate Measuring Machine
- InSpec Metrology Software used with Micro-Vu system, with profile edge detection
- Surtronic 3+ Surface Measurement System, with Surface Analysis Software
- Digital electronic height gages, up to 24" high,
  (5) Browne & Sharp;(2) Fowler

- Mitutoyo electronic bore gage (2-4" dia)
- 40" Versa-gage
- 12" Nikon comparator
- Bausch & Lomb scopes 40X magnification
- Minolta Multi-gloss 268
- Granite surface plates "lab grade", ranging in size from 24"x36" to 36"x72"
- 6", 12", 18", 24", and 40" Browne & Sharpe vernier height gage
- 12", 24", 40", and 72" assorted master vernier calipers
- Full sets of Meyer gage pins
- Browne & Sharp inspection gage block set

All metrology instruments used for final inspection purposes are calibrated annually using standards traceable to those of the National Bureau of Standards.

## **Machining Division**

## **CNC 5-Axis Machining Center**

(1) DMG/Mori-Seiki DMU-50 5-Axis Mill

## **CNC Horizontal Machining Center**

- (1) Matsuura HPlus-300, 240 tool capacity, 11 pallets
- (1) Matsuura H Plus-405, 240 tool capacity, 6 pallets
- (1) Matsuura MAM-500, 210 tool capacity, 11 pallets
- (1) Mori-Seiki SH-403, 60 tool capacity, 3 pallets
- (1) Mori-Seiki NHX-4000, 60 tool capacity, 2 pallets

## **CNC Vertical Single Pallet Machining Centers**

- (2) Mori-Seiki Dura-mill
- (1) Mori-Seiki MV-65/50, 30 tool changer, (X): 60", (Y): 25", (Z): 33"
- (1) Matsuura MC-800VF, 30 tool changer, (X): 31.5", (Y): 17.3", (Z): 19.2",944 IPM rapid speeds
- (1) Fanuc Robo-Drill  $\alpha$ -T10C, (1900 IPM), (X): 19.5", (Y): 15", (Z): 12"
- (2) 4th axis Tsudakoma indexing heads

## **CNC Vertical Two Pallet Machining Centers**

- (1) Matsuura ES-800
- (2) Fanuc Robo-Drill PC-II
- (1) Matsuura RA-4G, (X): 39",(Y): 19", with overhead lifting gantry
- (3) Matsuura RA IIIF, 30 tool changer, (X): 31.5", (Y): 17.3", (Z): 19.09"
- (1) Matsuura RA-1

## **CNC Turning Centers**

- (1) NLX 2500 SY/700
- (1) Nakamura NL-2000, 8" Chuck, 2-3/4" through spindle
- (1) Nakamura WT-100, 1-5/8 Through Spindle, bar feeders
- (1) Nakamura TW-20, w/Fanuc 16TT control, 6 axis turning center, 2" through spindle, LNS Quick Load bar feeder, with parts conveyer
- (1) Nakamura TW-20, w/Fanuc 16TT control, 7 axis turning center, 2 1/2" through spindle, LNS Quick Load bar feeder, with parts conveyer
- (1) Mori-Seiki, SL-150S, w/Fanuc 18T control, sub-spindle, and parts conveyer system, 1-3/4 through spindle, LNS Quick Load bar feeder
- (1) Nakamura SC300,12.72"Max Turn Dia,23.62"Max turn length

## **Prototype Turning**

- (1) 14" Trak Tool Room Lathe with Pro-Trak LX2 control
- (1) Hardinge hand chucker with automatic threading head & pneumatic bar-feed
- (1) 14" Sharpe Lathe with 42" between centers & travel dial
- (1) 26" Leblond Engine Lathe with 60" between centers & travel dial

## **Prototype Milling**

- (1) Trak Tool Room Mill with Pro-Trak MX2 control
- (4) Bridgeports

#### Bar and Plate Stock Room

- (1) Marvel Automatic Miter Saw, 0-60° L&R,15"x20" capacity,Auto-bar feed w/48" Stroke
- (1) 12" Mastercut Model S-300 HB automatic band saw with bundle cut & chip conveyor
- (1) 10" Kalamazoo horizontal band saw
- (1) 32" Jet vertical band saw, with blade welder

## **Coolant Maintenance and Recycling**

- (2) Sump Suckers, a coolant collection and filtration system filtering to 10 microns
- (1) Xybex Unit: scrounges tramp oil, & uni-mixer regenerates the coolant, w/coalescent unit
- (1) Samsco water evaporator

#### **Precision Sheet Metal Division**

### Laser Cutting

(1) 4000 Watt Mitsubishi 3015 LVPlus Laser Cutting Machine, (2) 60" x 120" capacity shuttle tables, 8 shelf material inventory tower, and full material handling automation for loading and unloading of parts on to multiple motorized carts for total lights out unattended cutting.

## Punching

- (1) Amada Pega King 358 CNC Punch Press, (58 stations, 33 ton, 4 auto-index stations)
- (1) Amada Pega Queen 345 CNC Punch Press, (44 stations, 33 ton,2 Auto-index stations)
- (4) Roper Whitney Kick press (5 tons)
- (-) Large assortment of punches and dies including standard cabling connections

## Forming

- (1) 88 ton X 8 ft, Amada HFE 8025 press brake, high-speed 6-axis programmable back gauge
- (1) 175 ton X 10 ft, Accurpress press brake with Accurpress CNC back gage system
- (1) 85 ton x 8 ft, Toyokoki HYB press brake with 6-axis programmable back gage
- (1) 60 ton X 8 ft, Wysong press brake with Auto-mec NC back gage
- (1) 17 ton X 4 ft, Di-Acro press brake with CNC Auto-mec NC gage
- (1) Pexto 36" hand roller/former

## **Tube Bending**

- (1) Diacro #2 hand bender, capacity up to 1" round mild steel bar, radius of 0-12"
- (1) 16 Ton Manual hydraulic round pipe bender with multiple shoes
- (1) Small manual diameter tube bender, with multiple die sizes

## Welding and Spot Welding

- (2) Arcworld II 500, Motoman robotic welding cells with two tables utilizing full head stock and tail stock rotational capability, connected to a central Airex fume extraction system
- (6) large manual welding booths, each with MIG and TIG welding equipment, with Airex central fume extraction system.
- (1) 150 KVA spot welder w/chiller
- (1) 75 KVA spot welder w/chiller

#### **Hardware Inserting**

- (1) 8-ton capacity, Haeger 824 press with Haeger Modular Autofeed System, 24" throat
- (1) 6-ton capacity, Haeger press with tooling

## Grinding

- (2) Wetsanders, 36" wet-sander, with Cyclotron Automatic Indexing Paperband Filtration system and Air Knife Drying System
- (1) 24" X 48" Mini-Max stroke sander, model #EE 1500
- (2) 3" wide belt grinder by Scantool
- (3) 1" X 42" belt & disc sander
- (1) 12" abrasive saw
- (1) Trinco glass beader, 24" X 48" capacity

State of the art Airex & Torit dust collection systems with five ECB-1 particle filtration system and one down flow dust collector with thirty-two particle filters - NFPA compliant

# **Assembly and Value Added Services**

Sparton is positioned to provide our customers with value added services that allow us to combine our unique set of core competencies in one facility, allowing customers to buy and manage fewer part numbers, while keeping only their core competencies in house. We can combine any of the following manufacturing or assembly processes to streamline both your purchasing and manufacturing floor operations.

- CNC Machining
- CNC Turning
- Sheet Metal Fabrication
- Welding
- Riveting
- Hardware and Fastener Installation
- Gasket and O-ring Installation
- Simple Functional Product Testing
- Simple Wiring
- Installing Labels & Safety Warning Decals
- Installing PC Boards to Fabricated Parts
- Installing Leveling Feet or Pads
- Installing Casters

## **Inventory Management**

Let us manufacture or purchase the materials, and manage the inventory for you. Simplify and streamline your internal processes by purchasing, storing, counting inventory levels, and tracking your supplier's shipments.

- Kanban
- Split Deliveries
- Kitting Part Groups To Streamline Your Assembly Process

### Shipping and Delivery

- (1)2015 Ford Transit 1500 Van
- 2016 International 24' box truck, with Lift gate
- 2011 Ford Transit van