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www.rossmachine.com



Our commitment to quality can be seen on the shop floor. Each of our thirty three machining centers including our ten vertical 5-axis machines, were selected carefully to cover a wide spectrum of work-piece size and material.

Ross Machine Company was founded by Thomas Ross Sr. in September of 1986. In December 2000, Tom moved our company into a new 26,500 square foot building.



"Lights out Manufacturing is the core of what we do!"

Today, Ross Machine Company is a Maryland-based AS9100D and ISO 9001-2015 certified precision machining contract manufacturer. We manufacture complex parts that require state of the art equipment and a high level of expertise in machining and programming. We can provide both short and long production runs with prototyping capabilities.

We routinely machine...Aluminum, Copper and Copper Alloys, Plastics, Stainless Steel and Steel.

We maintain working relationships with other businesses that specialize in Welding, EDM, Sheet Metal, Plating and Finishing.

Obviously it takes more than just a fair price to make our customers completely satisfied. Customer satisfaction not only depends on our constant ability to deliver the quality and finish of parts that customers expect, but also fair pricing and delivering orders on time.

From a print-to-production to quality control and delivery, we will give you the kind of service you expect.

Facilities List

PC Software

- (1) **PRO/ENGINEER PTC CREO 3.0** - Solid model design & manufacturing software.
- (5) **PC-DMIS Version 2018 R2** - Capable of importing PRO/ENGINEER and other CAD files, allowing for precise inspections. Also allows for pre-programming measurement routines.
- (5) **MASTERCAM 2019** - PC based CNC programming software. This software is capable of programming irregular 3D sculpted surfaces with IGES capabilities with remote (modem) transfer.

(10) 5-Axis Machining Centers

- (2) **Matsuura 5-Axis MAM72-63V PC6** - Vertical 5-Axis Machining Center. X-axis travel 29.92", Y-axis travel 33.26", Z-axis travel 25.98", Max. work size 24.8 dia. x 17.7 height, Max work piece weight 770lbs. **6 Pallet** Changer, 20,000 RPM spindle, 25HP Spindle Motor, 240 Tool Changer and Tool Breakage Detection.
- (2) **Matsuura 5-Axis MAM72-35V** - Vertical 5-Axis Machining Center. X-axis travel 26.77", Y-axis travel 15.74", Z-axis travel 24.60", Max. work size 11.81 dia. x 9.84 height, Max work piece weight 132lbs. **32 Pallet** Changer, 20,000 RPM spindle, 25HP Spindle Motor, 300 Tool Changer and Tool Breakage Detection.
- (3) **Yasda 5-Axis PX30i** - X-axis travel 26.77", Y-axis, travel 15.74", Z-axis travel 19.68" Max. work size 15.75" dia. x 12.40" height, Max work piece weight 170lbs. **33 Pallet** Changer, 300 Tool Changer and Tool Breakage Detection.
- (3) **Matsuura 5-Axis LX160 & LF160** - Vertical 5-Axis Machining Centers. X-axis travel 19.68", Y-axis travel 9.84", Z-axis travel 11.81", Max. work size 6.29 dia. x 7.87 height, Max work piece weight 44lbs. 42 Pallet Changer, 46,000 RPM spindle, 7.5HP Spindle Motor, 338 Tool Changer and Tool Breakage Detection.

Vertical Machining Centers

- (1) **Brother Speedio W1000xd1** - Vertical Machining Center. 39" x 19" travel; 16,000 RPM spindle; 21 Tool Automatic tool changer. Renishaw NC1 Tool Check.
- (5) **Brother Speedio R650Xd1** - Vertical Machining Center. 25.6" x 15.7" travel; 16,000 RPM spindle; 28 Tool Automatic tool changer. Renishaw NC1 Tool Check. **2 Pallet Changer**
- (5) **Fanuc RoboDrill T21iDL** - Vertical Twin Pallet High Speed Machining Centers. 24,000 RPM spindle, 27.55" x 15.7" of travel, 21 Tool Automatic Tool Changers, and Renishaw NC4 Laser Tool Check.
- (4) **Fanuc RoboDrill T21iEL** - Vertical Twin Pallet High Speed Machining Centers. 24,000 RPM spindle, 27.55" x 15.7" of travel, 21 Tool Automatic Tool Changers, and Renishaw NC4 Laser Tool Check.
- (2) **Fanuc RoboDrill a-D21SiB5** - Vertical High Speed Machining Centers. 24,000 RPM spindle, 11.81" x 11.81" of travel, 21 Tool Automatic Tool Changers

Horizontal Machining Centers

(3) Matsuura Maxia H.Plus-300 - Horizontal Machining Center with **11 pallet** changers.19.6" X 22.04" travel; 20,000 RPM spindle; 320 Tool Automatic Tool Changer and Laser Tool Check.

(5) Matsuura H.Plus-300 - Horizontal Machining Center with 11 pallet changers.19.6" X 19.6" travel; 20,000 RPM spindle; 240 Tool Automatic Tool Changer and Laser Tool Check.

Non-CNC Support Equipment

Bridgeport Series 2 - Manual Milling Machine with 48" table with ANILAM Digital Readout (.0005" resolution).

Universal laser Systems PS 6.60 - For part marking / laser etching.

Chevalier Surface Grinder - 18"x 6"swing.

Spartan PA 10/2 - Horizontal Band Saw with Automatic Feed and Cutting. Capacity Sizes...Rectangular 8" x 12", Round 10".

Grob 4V-24 - Vertical Band Saw. 3HP 230/460 Volt Motor, Infinitely Variable Speed 40-5000 F.P.M., 24" Throat Depth, 12" Work Height.

Sweco Vibro-Energy - Finishing Tumbler.

Roto-Finish Spiration ST-1 SLT - Finishing Tumbler.

Almco OR-5V - 5 cu ft. Round Bowl Vibratory Finishing Machine.

Holding Magnetic – De-burring and Polishing Machine.

Empire Pro-Finish Model PF-3648- Glass Bead Cabinet.

Pemserter Series 4 - Pneumatic Press. Installs self-clinching fasteners in size M2 / #0 thru M10 / 3/8" in steel, and sizes up to M12 / 1/2" in aluminum or circuit boards.

Ramco Migi-Kleen - Ultrasonic 4 Stage Parts Washer.

Quality Control

Brown & Sharpe Global Classic CMM - PC-DMIS CAD++ DCC and PC-DMIS CAD++ offline software, high-resolution Aurodur scales, PH10M Motorized Probe Head, TP20 Probes and TP20 MCR 20 Tool Rack which allows the program to run uninterrupted.

Brown & Sharpe Global FX CMM - PC-DMIS CAD++ DCC and PC-DMIS CAD++ offline software, PH10M Motorized Probe Head, TP20 Probes and TP20 MCR 20 Tool Rack which allows the program to run uninterrupted.

Brown & Sharpe Mistral CMM - PC-DMIS CAD++ DCC and PC-DMIS CAD++, PH10M Motorized Probe Head, TP20 Probes and TP20 MCR 20 Tool Rack which allows the program to run uninterrupted.

Hexagon Optiv 664 CMM - PC-DMIS CAD++ DCC and PC-DMIS CAD++, vision sensor offers powerful image processing with automatic feature detection, precision video auto-focus, as well as powerful image and element filters.

Assembly Area

A diverse type of work flows through our dedicated 1,500 sq. ft. assembly and hardware installation area. Our trained employees conduct close tolerance assembly using hand tools and semi-automatic secondary equipment requiring expertise in a variety of applications.

Some of our assembly and installation processes include: Spira EMI Shielding Installation, Silicone EMI Gasket Installation, Laser Marking & Engraving, Bearing Installation, Bushing Installation, Heli-Coil Installation, Pem Nut and Stud Installation, Dowel Pin Installation, Keensert Installation and Press in Electrical Connector Installation

Contact List

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