

Piedmont Machine & Mfg, Inc.

22 Carpenter Court NW

Concord, NC 28027

Phone: 704.782.2227 • **Toll Free:** 800.442.2839**Email:** sales@piedmontmachine.com**General CNC Machining**

Adhering to ISO 9001 standards, Piedmont Machine offers precision CNC machining services for a range of OEM parts, castings, forgings, spacers, and valve components. Our machine shop is equipped with 3- to 5-axis CNC machines to meet custom manufacturing requirements of industries ranging from automotive to mining. These CNC machines enable us to turn cylindrical components up to 17" in length as well as complex milled parts up to 25" in length and 45" in width.

Typical materials processed include aluminum, brass, stainless steel, and alloy steels. We also work with plastic polymers such as PVC, nylon, and ABS. Our machines feature automated bar feed and CNC control capabilities that enable us to handle low to high volume production runs. The live tooling capabilities of our CNC lathes facilitate the completion of multiple machining operations in a single setup, reducing the need for secondary processing.

Utilizing CNC mills and lathes, we manufacture precision-machined components with tight geometrical tolerances. Our lights out manufacturing and Lean Manufacturing practices are designed to improve manufacturing efficiency and reduce overall production costs. Depending on your specific application requirements, Piedmont Machine engineers perform CAM programming to precise dimensions.

Specifications

Industry Focus	Appliance Automotive Agricultural Electronics HVAC Industrial Marine Military/Mil-Spec Mining Packaging Pneumatics Hydraulics Controls Valves Bearings Oil and Gas Electrical Construction
Intended Application	Castings Shafts Hydraulics Pneumatics Forgings Jewelry Valve Components Fasteners Bushings Spacers Fittings Standoffs
	Concentricity: $\pm .0003$

Tolerances	Diameter (outer/inner): $\pm .0003$ in Length (over 6 in): $\pm .002$ in Straightness : $\pm .0003$
Tolerance (CNC Precision Saw Cutting)	0.005 in
Part Diameter	Max: 35 in (889 mm) Min: 0.125 in (3.175 mm)
Part Length (Turning)	Max: 17 in (431.8 mm)
Chucking Capacity	Max Diameter: 10 in
Shaft Works	Max Diameter: 3 in Max Length: 14 in
Cast and Die Cast Parts	Max Length: 30 in Max Width: 15 in
Part Length (Milling)	Max: 25 in (635 mm)
Width (Milling)	Max: 45 in (1143 mm)
Machining Processes	Boring Broaching Counterboring Countersinking Drilling Facing Gear Hobbing Knurling Parting/Cutting Pocketing Profiling Reaming Spline Tapping Thread Milling Turning <ul style="list-style-type: none"> ● Contour Turning ● Form Turning ● Taper Turning ● Straight Turning Threading <ul style="list-style-type: none"> ● External ● Internal Internal Forming
Materials (Metals)	Alloy Steels Aluminum <ul style="list-style-type: none"> ● Extruded Shapes Brass Bronze Alloys Carbon Steel Copper Stainless Steel Tool Steel Cold Rolled Steel Hot Rolled Steel Bearing Steel Forging and Cast Iron
Materials (Plastic Polymers)	ABS (Acrylonitrile Butadiene Styrene) Delrin Nylon Phenolic PVC (Polyvinyl Chloride) VHMW
	Four-jaw chuck

Fixtures	In-House Fixtures & Tooling Pallet System Three-jaw chuck
Equipment Capabilities	Bar Feed CAM Programming Services CNC Control Capabilities Live tooling
Equipment List	From simple 2-axis turning to 7-axis, turn-mill-drill CNC Swiss-type machines, we are equipped with a full line of CNC equipment from the following manufacturers: Star Citizen Matsuura Mori Seiki Miyano Nakamura-Tome Fanuc-RoboDrill KMT
Machinery Axis	3 to 5 Axis Machinery
Secondary Services Offered	Casting CNC Precision Saw Cutting Injection Molding Laser Cutting Metal Fabrication Welding
Production Volume	Low Volume to High Volume Min: 10,000 Units Min: 100 Units
Lead Times Available	J.I.T. Deliveries Quoted on job by job basis Rush Services Available
Industry Standards	ANSI ASME ASTM ISO 9001:2008 Mil-Spec PPAP RoHS Compliant
Efficiency	Lean Manufacturing Lights Out Manufacturing
File Formats	AutoCAD (DWG,DWZ) BMP DXF GIF JPEG PDF TIFF