Fisher Barton

Turning Center of Excellence

Accurate Specialties
A DIVISION OF FISHER BARTON

Welcome to the Accurate Specialties Turning Center of Excellence

Accurate Specialties Turning Center of Excellence, a division of Fisher Barton, holds ISO 9001:2015 certification and is ITAR registered, showcasing our commitment to excellence in machining. Specializing in precision solutions and high complexity, our new facility is equipped with the latest multi-axis CNC lathes and mills with a highly skilled team to consistently deliver top-tier quality and reliability in every component.

Understanding the properties of different CNC machining materials is vital to the proper machining of parts for any industry. We have the engineering expertise as well as state-of-the-art equipment to accurately CNC machine components made of most metals and alloys, including aluminum, brass, bronze, Inconel, Monel, stainless steel, titanium, and other metals.

With over 50 years of metallurgical expertise, we continuously innovate. In addition to close tolerance machining, we offer advanced heat treatment and Engineered Coating Solutions® to further extend the life of your components. This dedication ensures our clients receive durable, tailor-made products that exceed expectations and fulfill their unique requirements.

ITAR Registered Categories

- Category IV - Launch vehicles, guided & ballistic Missiles, rockets, torpedoes, bombs, and mines
- Category VI - Surface vessels of ware and special naval equipment
- Category VII - Ground vehicles
- Category XIII - Materials and miscellaneous articles
- Category XV - Spacecraft systems and associated equipment

Precision Machining Capabilities

Leveraging advanced technology and extensive expertise, our facility delivers high-quality, precision-machined components tailored to your exact specifications. We specialize in a comprehensive range of turning operations, from intricate, small-diameter parts to large, heavy components. Our core competencies in Swiss Machining, CNC Horizontal Turning, and CNC Vertical Turning enable us to serve a diverse array of industries with efficiency and accuracy.

	Swiss Machining	CNC Horizontal Turning	CNC Vertical Turning
Outside Diameter	**Min: .125" (3.2mm)**	**Min: .75” (19.05mm)**	**Min: 12” (304.8mm)**
	Max: 1.49" (38mm)	**Max: 26” (660.4mm)**	**Max: 6.5’ (1981.2mm)**
Part Length	**Min: .125" (3.2mm)**	**Min: 2.5” (63.5mm)**	**Min: 2” (50.8mm)**
	N/A	**Max: 72” (1828.8mm)**	**Max: 50” (1270mm)**
Material	**Must Be US Sourced Metal Unless Customer Supplied**		
Process Tolerance	**VTL and HTL to ±.001 / Swiss Down to ±.0005**		

Swiss Machining

Our Swiss machining capabilities are ideal for producing small, complex, and slender components with exceptional precision and rapid cycle times. This technology utilizes a sliding headstock and a guide bushing to provide superior support to the workpiece, minimizing deflection and enabling the creation of intricate features with very tight tolerances.

Key Capabilities:

- High Precision & Tight Tolerances: Achieves tolerances as tight as ±0.0005 inches.
- Complex Geometries: Ideal for intricate parts with features like micro-threads, small holes, and complex profiles.
- High-Volume Production: Automated bar feeding allows for continuous, high-speed production, making it cost-effective for large quantities.
- Material Versatility: Proficient in machining a wide range of materials, including stainless steel, titanium, brass, and various alloys.

CNC Horizontal Turning

Our state-of-the-art CNC turning centers are the backbone of our versatile machining services. This process is perfect for producing cylindrical components with a high degree of accuracy and repeatability. By rotating the workpiece and feeding a cutting tool along its length, we can perform a multitude of operations in a single setup.

Key Capabilities:

- Diverse Operations: Capable of a wide range of operations including threading, boring, facing, grooving, knurling, and tapping.
- Accuracy & Repeatability: Computer numerical control ensures that every part is machined to the exact same specifications, from the first to the last.
- Prototyping to Production: Efficient for both small-run prototypes and large-scale production volumes.
- Wide Range of Materials: Effectively machines everything from aluminum and steel to exotic alloys.

CNC Vertical Turning

For large, heavy, and bulky workpieces, our vertical turning lathes (VTLs) offer the ideal solution. In this configuration, the workpiece is mounted on a horizontal, rotating table, and the cutting tool is positioned above it. This orientation uses gravity to enhance stability, allowing for heavy and aggressive cutting of large-diameter parts.

Key Capabilities:

- Large & Heavy Components: Easily accommodates large-diameter and heavy workpieces.
- Enhanced Stability: The vertical orientation provides superior rigidity, minimizing vibration and ensuring high accuracy on large parts.
- Heavy-Duty Cutting: Capable of deep, aggressive cuts, which reduces cycle times for large components.
- Better Surface Finishes: Chip management assists in clearing chips from the cutting zone, leading to better surface finishes and longer tool life.

Quality & Additional Services

Coordinate Measuring Machines (CMM)

Measuring CNC parts with a Coordinate Measuring Machine (CMM) offers several advantages over traditional hand tools like calipers and micrometers.

Precision: CMMs are highly precise machines capable of measuring parts to extremely tight tolerances, often within microns or even fractions of a micron. This level of precision is difficult to achieve consistently with hand tools.

Complex Geometry: CNC parts can have intricate and complex geometries that are challenging to measure accurately with hand tools alone. CMMs can measure these complex shapes with ease, including free form surfaces, contours, and non-linear dimensions.

Repeatability: CMM measurements are highly repeatable, meaning that the same part measured multiple times will yield consistent results. This repeatability is crucial for quality control and ensuring parts meet stringent specification

On-Site Sawing

We process all material in house with our fully automatic TSUNE CNC saws which allows us to keep material costs to a minimum. With their large capacity, automatic bar feeding, accuracy, and versatile working envelopes, we are able to make precision cuts efficiently. This allows us to stay competitive, minimize material waste, and pass these savings on to our customers.

Additional Services from Fisher Barton

We have a wide range of additional services that allows us to stay on the leading edge of our industry.

- Heat Treating
- Grinding
- Surface Engineering – Thermal Spray
- Mechanical/Metallurgical Testing
- Laser cutting and Waterjet cutting
- Permanent Marking (Engraving, Etching)

Why Choose Accurate Specialties?

- Cutting-edge technology for unmatched precision and complex geometries
- Customized solutions tailored to your specific requirements
- On-time delivery and reliable customer support
- Long-tenured, highly experienced professionals dedicated to quality craftsmanship
- Streamlined processes designed to provide expertise and short lead times.
- Surface engineering technology for high-wear components that extend the life of the product
- In-house capabilities providing full-service prototyping and testing services

Fisher Barton

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Please contact us for complete machine capability listing. Visit fisherbarton.com or call 920-545-0704 for detailed information on all our capabilities.

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