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Miniature Mechanical Fabrication & Machining



With our ability to perform precision micromachining and fabrication to micron level tolerances, **Optics Technology, Inc.** is a valuable business partner to companies in a diverse range of demanding markets. We work in integrated teams that continually push the limits of manufacturing technology to produce miniature components and mechanical assemblies with complex features and critical surface finishes. With the ingenuity that comes from advanced technical knowledge and decades of experience, we are capable of fabricating intricate components that meet your custom specifications and high-quality standards.

We use a range of equipment that is specifically geared for machining and fabricating minute details on micro-scale workpieces. Featuring 4-axis machining motion, our micro CNC milling and turning equipment can handle parts as small as .005" in diameter. Precision Components include but not limited to: Optical, Lenses, Collimators, Ferrules, Fiber Optic, Medical Devices, Microscopes and Endoscopes. We can also manufacture micro springs with diameters of .001" and up and tap threads from .5 UNM and up. With our custom fixturing and tool making capabilities, we use the best work holding and cutting methods for upholding tolerances as close as 2 microns. Our machining and fabrication capabilities apply to a range of materials, including titanium, stainless steel, and plastics.

The trend towards miniaturization is dominant in many industries. We have the interdisciplinary knowledge in engineering and manufacturing to produce components with smaller sizes at an unmatched level of accuracy. With our people and our processes, we implement solutions that improve your products and technologies and promote your position in the marketplace. [Contact us](#) today to learn more about our mechanical fabrication and machining capabilities for miniature and micro-sized components.



[Request for Quote](#)

Miniature Mechanical Fabrication & Machining Specifications

Processes

Micro CNC Milling
CNC Turning
Assemblies

Materials

Titanium
Stainless Steel
Plastics

Axes

4

Minimum Milling Diameter

.005 in

Maximum Milling Diameter

2 in

Custom Spring Minimum Diameter

.001 in

Tolerances (\pm)

.0002 in

Round Work

1 5/8 in

Square Milling

No more than 1 Ft.

Machine Taps

.5 UNM

Major Diameter

.0002 in

Additional Services

Custom Fixturing
Custom Tool Making Capabilities

Additional Information

Industry Focus

Aerospace
Astronomy
Industrial
Medical
Military

National Laboratories
Photographic
Sensory Technologies
Universities

Intended Applications

Watchmaker Parts
Fiber Ferrules
Endoscope Components

Fiber Components
Connectors

File Formats

Zemax
Code 5

SolidWorks
MasterCam

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