



PRECISION GRINDING CAPABILITIES

Resonetics® precision grinding solutions support the development and production of complex MedTech components, combining deep process knowledge with advanced automation. With over 100 grinding systems and more than 6 million parts produced annually, these capabilities are built to scale while maintaining consistency and control.

Next-generation grinding platforms feature robotic load and unload systems with inline inspection, enabling efficient, repeatable processes for high-volume manufacturing.

Applications

Precision grinding supports a wide range of critical device components, including:

- Core and guidewires
- Mandrels for reflow, forming, packaging, and manufacturing and assembly, including crescent and grooved profiles
- Insert and over-molding core pins
- Device tip wires, including ground and atraumatic tipped designs
- Catheter wires for articulating and/or stiffening functions
- Snare and retrieval wires
- Stylets



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Grinding Services

A range of grinding services is available to support complex geometries and tight tolerances across various device designs:

- CNC profile grinding
 - Centerless grinding
 - Plunge grinding
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Materials

Experience across a broad range of MedTech materials:

- Nitinol wires
 - Coated materials
 - 300, 400, and 17-series SST
 - MP35N
 - PEEK
 - PTFE
 - Various polymers and other metals
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Specifications

Built to handle demanding specifications and high-volume production:

- No limitations on grind lengths or raw material lengths
 - Raw material diameters from 0.004" to 1"
 - Ground diameters down to 0.001"
 - Diameter tolerances to ± 0.0001 "
 - Length tolerances to ± 0.003 "
 - Tubing wall thicknesses down to 0.001"
 - Fully automated grinding processes
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Features

Precision features engineered for performance and consistency:

- Single and multiple tapers
- Single and multiple steps
- Depth markers
- Flats
- Trocars and paddles
- Atraumatic tips
- Complex and long uninterrupted profiles
- Precision ground thin-wall tubing



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