

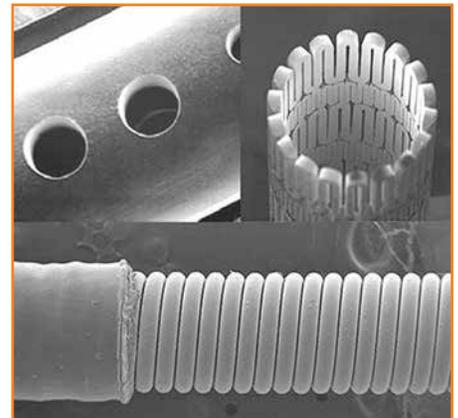
Customized Laser Workstations

For more than 28 years, Resonetics has designed, manufactured and serviced laser micromachining workstations to solve complex challenges in life science products. As a leading contract manufacturer, we build systems for our own use. There are times, however, when you need your own, in-house laser processing capability. Resonetics is well-equipped to meet this need, and we work collaboratively to provide a comprehensive solution including training and service. We understand that your requirements are unique, so unlike other systems integrators who mass-produce standard systems, we focus on customized work stations that are tailored to your specific needs. Resonetics will deliver a true turnkey solution that's ready for your process validation as soon as it's installed on your factory floor.



Laser workstations for micro manufacturing
Your relationship with Resonetics will begin at our state-of-the-art Lightspeed ADL™ application development lab, which is equipped with 10 laser workstations of various wavelengths and a team of engineers and technicians who will dial in a laser configuration and manufacturing process before you need to commit to a particular system for purchase.

With our many years of experience in laser micromachining and systems integration, chances are good that we've already identified manufacturing solutions to solve problems like yours.



Customized Laser Workstations

Why Resonetics?

Our experienced team of physicists, optics designers, and electrical, software and mechanical engineers have been working together for years along with a 24/7 in-house service department. Resonetics brings unmatched experience, scale and versatility with more than 500 system sales installed all over the world. While we are driven to find innovative solutions, our clients will tell you we're also easy to work with and understand the importance of clear communication, integrity and a sense of urgency. If you need to laser-micromachine polymer, we'd love to help. Call us or come for a visit. You'll be glad you did.

Wide Breadth of Laser Technologies

Resonetics integrates a wide variety of laser technologies into these systems and chooses the optimal wavelength to meet quality, throughput and cost objectives. The specific laser technologies we've worked with include the following:

- Excimer (193nm, 248nm)
- DPSS (1064nm, 532nm, 355nm, 266nm)
- CO2 (10.6µm, 9.4µm)
- Femtosecond (1550nm, 1064nm, 532nm)
- Picosecond (1064nm, 532nm, 355nm)

The laser systems handle 2-D and 3-D components with a high degree of consistency and reliability. Common material formats include:

- Flat sheets up to 305mm x 305mm (12"x12")
- Tubes 0.1mm to 6.35mm (0.004" to 0.25") diameter
- Fine wires, spooled or cut to length
- Web 51mm (2") wide and beyond
- Individual molded and machined components

In-Line Process Controls

The systems are built with in-line process controls such as:

- In-line power/energy meter
- Beam profiler
- Machine vision for alignment and/or inspection
- Autofocus sensor for part height detection
- Laser micrometers (for wire and tube diameter measurement)

