

Resonetics granted patent for laser machining method

Nashua, N.H., Jan 20, 2017—The U.S. patent office recently granted Resonetics a new patent (US 9,511,448, 12 Dec 2016) “Laser Machining System and Method for Machining Three-Dimensional Objects from Plurality of Directions.” The new patent is an extension of existing Resonetics’ proprietary technology (U.S. 9,132,585 15 Sep 2015).

The extension adds the ability for a quick switch of the machining location by only moving the laser beam instead of rotating the work piece. Kevin Hartke, Chief Technology Officer states, “The technical team at Resonetics continues to push the limits of laser micro manufacturing. This patent is an example of innovation in active beam control and adaptive part positioning, which provides our customers with higher yield and throughput”.

Micro manufacturing of medical devices often requires fabrication of multiple features on different surfaces of a single component. Resonetics’ newest patent technology enables a laser beam to adapt to device components regardless of their size, shape, or position. To present the component to the laser, the part must be translated several times with high precision. Micro scale adds further complexity to the tool design and motion control, where the high acceleration and motion of the stages becomes the limiting factor, often resulting in throughput loss and higher manufacturing costs. The processing of challenging component geometries with a range of feature sizes and position is made possible by sophisticated machine vision and opto-mechanical systems and algorithms controlling the laser beam so that micro features can be fabricated even as parts move away from a nominal condition.

About Resonetics

Resonetics is the leader in laser micro manufacturing for life sciences. Core competencies are laser ablating, cutting, drilling and welding. Resonetics’ expertise started in polymer processing and has expanded to metals and glass. Our team makes millions of life-changing device components a year. Our passion for laser technology complements our customers’ passion for improving and saving lives. Together, we collaborate to solve complex challenges and develop the next generation of life science devices. Locations include Boston, Costa Rica, Dayton, Minneapolis, and San Diego. Resonetics is ISO 13485:2003 Registered.

For more information contact: sales@resonetics.com, or visit Resonetics.com