Press Release

US Debut for Synova’s LCS 305 Highly Dynamic 5-axis Laser Machining Center

TOTOWA, NJ, September 1, 2022 – Synova, a leading manufacturer of high-precision laser cutting systems, will debut its advanced LCS 305 laser machining center at the International Manufacturing Technology Show (IMTS) in Chicago. The CNC machine with five synchronous axes processes complex three-dimensional geometries with accuracy and speed thanks to the machine’s two highly dynamic torque motor driven rotary axes. A fully automatic calibration system includes laser-nozzle alignment, automatic jet positioning, jet angle correction and touch probing.

The Laser MicroJet® (LMJ) system enables 3-D cutting and shaping of hard and brittle materials such as industrial diamond or ceramic as well as sophisticated composites used in aerospace and automotive applications. The LCS 305 with water jet guided laser technology is capable of precision machining parts made of ceramic-matrix composites (CMC, a composite made of SiC) while protecting the material from heat-related effects. The low weight and heat-resistant new material is used for hot section aeroengine components to increase aircraft efficiency.

“The issue of heat affected zones and micro-cracks is greatly reduced when using Synova’s unique Laser MicroJet systems because of the inherent heat dissipation properties of the water jet,” says Dr Bernold Richerzhagen, Synova Founder and CEO.

“Customers are already using our water jet laser to cut CMC shrouds and drill cooling holes in turbine blades,” states John Ross, Director of Operations at Synova USA. “The LMJ has demonstrated the precision and reliability required for such applications.”

The LMJ ‘wet laser’ technology cools workpieces while efficiently washing away debris. The water jet maintains the laser’s focus creating a cylindrical laser beam that results in parallel walls and tight kerf widths.

Join us at IMTS to learn more about the LCS 305 system and the benefits of the hybrid water jet laser technology. Visit Synova in the North Building at Booth 236127 (Level 3) from September 12-17, 2022.

About Synova

Synova S.A., headquartered in Duillier, Switzerland, has manufactured advanced laser cutting systems that incorporate its proprietary water jet guided laser technology (Laser MicroJet®) in a true industrial CNC platform for more than 25 years. Customers benefit from significant yield and improved cutting quality as well as enhanced capabilities for precision machining a wide range of materials. www.synova.ch.
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