

Press Release

Synova and Makino Introduce the HybridCell

A hole-drilling solution combining Synova's Laser MicroJet® and Makino's hi-speed EDBV machines

LAUSANNE, Switzerland, August 30, 2016 - As aerospace and industrial gas turbine manufacturers strive to improve performance, the need for high-quality hole drilling of turbine engine components is rapidly becoming mission-critical. To address this need, Synova and Makino are joining forces to offer a unique solution, the HybridCell, which combines the power of Synova's Laser MicroJet® (LMJ) with Makino's leading edge EDM capabilities. It is a fully automated, manufacturing-ready, work cell that can handle a wide range of hole-drilling applications.



Synova's Laser MicroJet and Makino's EDBV3. The whole is truly greater than the sum of its parts!

The HybridCell consist of a MCS 500 cutting system, along with Makino's EDBV EDM hole-drilling machine. The system is available through Makino's extensive North American Single Source Technologies sales channel.

“Combining Synova's MCS 500 Laser MicroJet machine with Makino's well established hi-speed EDBV machines enables our customers to drill holes in components already pre-coated with a thermal barrier, as opposed to post-coating drilling processes currently being used. This approach significantly simplifies the overall process, improves quality and reduces overall manufacturing”, says Dr Bernold Richerzhagen, Synova Founder and CEO.

The Laser MicroJet system is used to cut diffuser shapes in the coating layer and drilling metering holes, while the EDBV is used to drill deep through holes. The machine tasks are easily balanced between the HybridCell machines, ensuring an optimum throughput. An innovative solution is provided to handle difficult “non-line of sight” holes on the EDM machine. A sophisticated data transfer scheme is also part of the cell, enabling high accuracy hole-drilling of complete components.

“All EDM drilling on EDBV machines is performed while being fully submerged under water. This enables faster machining speeds, improves part quality, and creates more stable and consistent conditions during cavity wall penetration. Speeds up to 10 times that of conventional technologies are achieved”, adds Brian Pfluger, EDM Product Manager at Makino.

Join us at IMTS to learn more about the technology.

Visit Makino in the south hall at S-8700.

Visit Synova in the north hall at N-6377.

About Synova

Synova S.A., headquartered in Lausanne, Switzerland, manufactures leading-edge laser cutting systems that incorporate the proprietary water jet guided laser technology (Laser MicroJet®) in a true industrial CNC platform. Customers benefit from significant yield and quality improvements in cutting, as well as enhanced capabilities for micro-machining a wide range of materials. For more information, contact us at sales@synova.ch or visit our website at www.synova.ch.

About Makino

A world leader in advanced CNC machining centers, Makino is committed to providing high-performance, leading-edge machining technologies and innovative engineered process solutions that enable manufacturers to focus on making what matters. Makino offers a wide range of high-precision metal-cutting and EDM machinery, including horizontal machining centers, vertical machining centers, 5-axis machining centers, graphite machining centers, and wire and sinker EDMs.

Makino’s flexible automation solutions provide reduced labor costs and increased throughput in a variety of production volumes and designs. Makino’s engineering services offers industry-leading expertise for even the most challenging applications across all industries. For more information, call 1-800-552-3288 or visit makino.com.

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