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Stratasys and Eckhart Sign Agreement with Exclusive Rights to Accelerate 3D Printing Adoption for Factory Tools

The collaboration is to support the design of a new generation of factory tools and could bring disruptive innovation to the industrial tooling market in North America

MINNEAPOLIS & REHOVOT, Israel & WARREN, Mich.--(BUSINESS WIRE)-- [Stratasys](#) (Nasdaq:SSYS), a global leader in applied additive technology solutions and Eckhart, Inc. today announced an exclusive three-year collaboration agreement to advance the adoption of 3D printing for factory tooling in North America.

For over 60 years Eckhart has been building the tools that manufacturers use to make their production lines safe and efficient. The company's advanced manufacturing solutions are used by the largest manufacturers in the world to assist and automate the assembly process for industries such as automotive, aerospace, heavy construction, medical and others.

Eckhart's ergonomic lift-assist and torque-mitigating tools allow a technician to perform tasks like lifting and positioning a car engine while it is bolted to the chassis. And the company also makes tools that let manufacturers complete high-torque assembly processes where space and part shape limit access.

Eckhart believes that the tooling industry is ripe for change with the introduction of additive manufacturing technology to help redesign factory tools.

"At Eckhart, we believe that with additive manufacturing, there is a real opportunity to reinvent how industrial tools are designed, manufactured, and ultimately used by customers," says Eckhart President and CEO, Andy Storm.

Three Key Ways Additive Manufacturing Can Help

Based on the unique ability of additive manufacturing to help drive innovation for next generation factory tooling, Eckhart sees three main ways the additive processes can help the tooling industry:

Light-weighting & Ergonomics: The lighter and more organically shaped a tool is, the easier it is to operate and move around the assembly environment. A strong point of additive manufacturing is its ability to produce organically shaped parts that are lighter than conventional designs produced in metal, while still being strong. Stratasys' carbon-fiber-reinforced nylon (FDM Nylon 12CF) has a strength-to-weight ratio that enables it to replace metal in many applications.

Line-of-Sight Improvement: Additive manufacturing can be used to design voids in a tool.

Traditionally made tools often have extra material that isn't providing a value. By reducing the unneeded material, line-of-sight is improved. By cutting material out you can see more of the assembly operation.

Simplified Build Structure and Simplified Bill of Materials Additive manufacturing can be used to significantly reduce the part count of an assembly. By redesigning an assembly of numerous parts into a single part and 3D printing it, designers can reduce the part count and thereby simplify both the build structure and the bill of materials for manufacture.

"Our intent is to completely replace existing metal tools with 3D printed equivalents," says Storm. "The potential for innovation in weight-savings, simplified bills-of-material, and enhanced operator visibility that additive manufacturing affords is unprecedented."

"We're looking forward to working closely with Eckhart to help redesign a new generation of factory tools," says Stratasys Senior Vice President of Sales, North America, Patrick Carey. "Both companies not only have a great deal to offer one another, but a lot to learn from each other as well. Like Eckhart, Stratasys believes this three-year exclusive agreement has the potential to bring disruptive innovation to the industrial tooling market in North America."

Eckhart's 3D printing laboratory is located in its recently opened Advanced Technology Center in Warren, Mich. As part of the partnership with Stratasys, the lab includes printers using Stratasys' proprietary fused deposition modeling (FDM) 3D printing process. The laboratory has Stratasys' Fortus 450mc, F370, and Fortus 250mc 3D Printers designed to produce on-demand parts, leveraging production-grade thermoplastics, as well as advanced manufacturing tools. Eckhart also uses a range of Stratasys materials, including the carbon-fiber-reinforced (FDM Nylon 12 CF).

In addition to accelerating the adoption of 3D printing, the partnership is aimed to leverage both companies' expertise in adjacent markets to promote the adoption of Industry 4.0 and the use of micro sensors in 3D printed tools to begin integrating advanced diagnostics that will enable the smart factories of the future.

"The significant advancements in micro sensors and position based technologies afford us an opportunity to change how our customers monitor and manage the health of their line," says Storm. "We're partnering with the global 3D printing leader whose technology is transforming how, when, and where things are made to integrate advanced technology into our suite of solutions and bring real value by helping Eckhart's strategic customers accelerate the adoption of Industry 4.0."

About Stratasys

Stratasys is a global leader in applied additive technology solutions for industries including Aerospace, Automotive, Healthcare, Consumer Products and Education. For nearly 30 years, a deep and ongoing focus on customers' business requirements has fueled purposeful innovations—1,200 granted and pending additive technology patents to date—that create new value across product lifecycle processes, from design prototypes to manufacturing tools and final production parts. The Stratasys 3D printing ecosystem of solutions and expertise—advanced materials; software with voxel level control; precise, repeatable and reliable FDM and PolyJet 3D printers; application-based expert services; on-demand parts and industry-defining partnerships—works to ensure seamless integration into each customer's evolving workflow. Fulfilling the real-world potential of additive, Stratasys

delivers breakthrough industry-specific applications that accelerate business processes, optimize value chains and drive business performance improvements for thousands of future-ready leaders. Corporate headquarters: Minneapolis, Minnesota and Rehovot, Israel. Online at: www.stratasys.com, <http://blog.stratasys.com> and [LinkedIn](#).

About Eckhart, Inc.

For over 60 years Eckhart, Inc. has engineered advanced industrial solutions that enhance the quality of life. Eckhart's proven portfolio of advanced manufacturing solutions includes Autocraft™ Autonomous Guided Vehicles (AGVs), FlexCheck™ collaborative robotic systems, 3D printing, and custom automated tooling design & build solutions for the world's largest manufacturers. Eckhart serves an established and loyal, blue-chip customer base of leading industrial original equipment manufacturers that include Stryker Medical, General Electric, Raytheon, Ford, Tesla, Boeing, PACCAR, John Deere, Bradford White, and Caterpillar. For additional information, please visit www.eckhartusa.com.

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