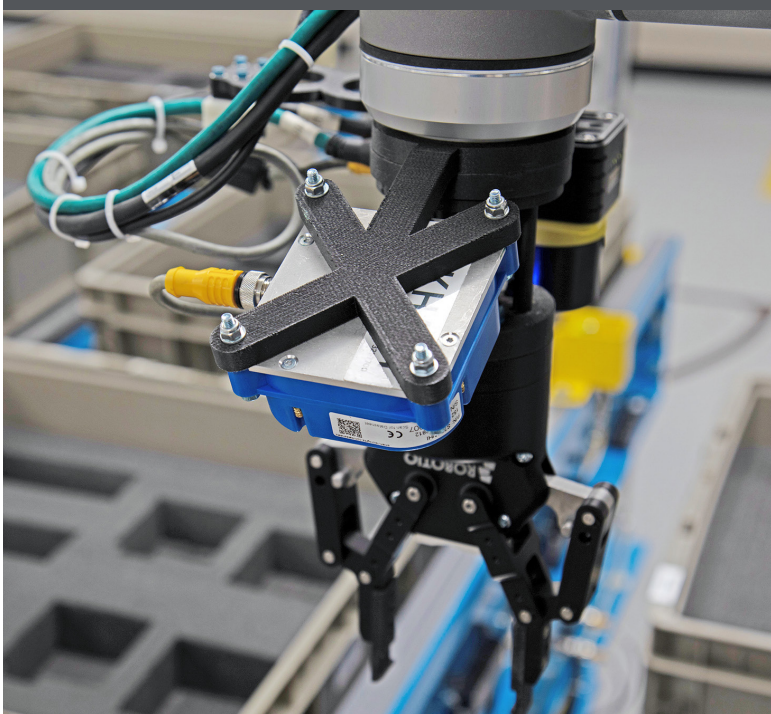
Improving the Life of the Line

Eckhart is Leading Industry 4.0 With Additive Manufacturing Solutions

Eckhart, a leader in advanced industrial solutions, is committed to improving the lives of factory-floor workers through safety, reliability and efficiency in manufacturing for industries from medical device to automotive.

> “Industry 4.0 is really the ecosystem that is a smart factory. It takes all of the systems in a factory, ties them together to help not only those who manage the process, but also to help the employees on the factory floor become more informed on the health of the system.”
>
> Andrew Storm
> CEO, Eckhart



stratasys

Improving the Life of the Line

“Industry 4.0 is really the ecosystem that is a smart factory. It takes all of the systems in a factory, ties them together to help not only those who manage the process, but also to help the employees on the factory floor become more informed on the health of the system,” said Andrew Storm, Eckhart’s CEO.

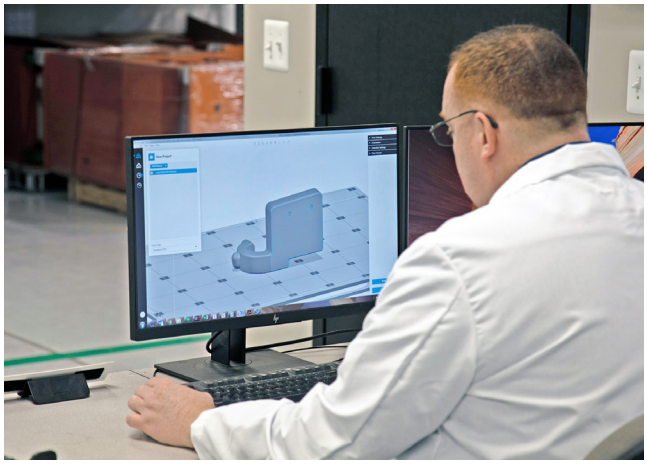
“Ninety percent of Fortune 500 manufacturing CEOs believe adopting Industry 4.0 technologies is imperative,” added Dan Burseth, vice president of Eckhart. “And we build technology implementation plans with some of the largest manufacturers in the world, designing tools, equipment and automation that truly improve the life of the people tasked with running the line.”

Customized, Proven Additive Solutions

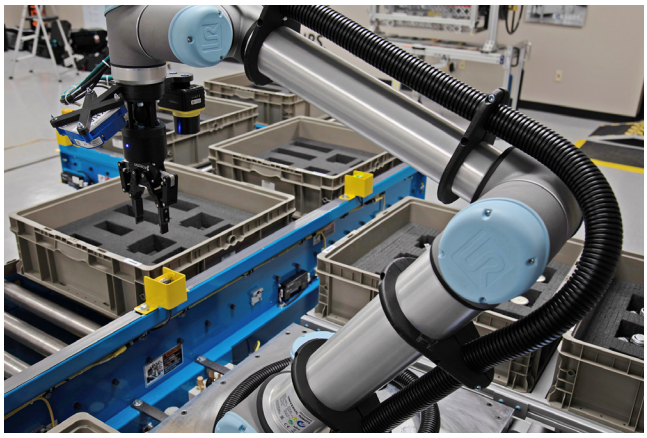
Eckhart customizes factory floor solutions to address specific needs of each client, walking the floor to see exactly where ergonomics, line of site or bill of materials can be improved using autonomous guided vehicles, collaborative robotics and additive manufacturing.

“Our customers want proven solutions, durable solutions; the assembly environment is harsh. These tools are being used 60 times an hour for an 8-hour shift, 3 shifts a day, 6-7 days a week,” said Bob Heath, Eckhart’s Additive Manufacturing Applications Engineer. “With Stratasys engineering-grade materials, Nylon 12 with carbon fiber and ULTEM™ 1010 resin, we are able to produce durable, lasting solutions that can hold up and withstand the rigors of an automotive environment.”

When working to streamline production for their leading industry clients, from Ford to Mercedes to Airbus, Eckhart has shown how additive manufacturing with Stratasys materials greatly improves the way things have always been done.



Eckhart uses Jigs and Fixtures for GrabCAD Print™ software to design new tooling with speed and ease.



Improving the Life of the Line

"Traditionally, we had to design our parts around the way we were going to manufacture them, whether it was manually machining or CNC machine, our part design was limited to our manufacturing capabilities," said Heath. "But with additive manufacturing, the complexities and capabilities are limitless."

Many of Eckhart's clients have seen great benefit from small tweaks to their processes, adopting 3D printed jigs and/or fixtures for applications such as a lug nut starter, badge alignment tools and wiper alignment set fixtures.

"Pressing on badges, emblems on vehicles – these things are repetitive tasks. When we go into plants and we pick up a badge tool, and it's heavy, it's either above or right at that ergonomic limit for the operator to be able to pick up 60 times an hour. So we're alleviating the repetitive injury strain on the operator," explained Heath.

"We provide solutions that are not replacing operators but are making up for the operators they can't hire, or projecting the ability of one operator so that one can be the same as five, and additive manufacturing is one of the tools that we have to facilitate that," said Drew Morales, Director of Business Development and Engineering Systems at Eckhart.

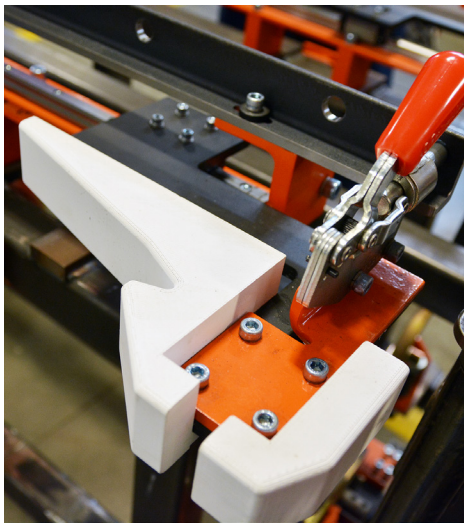
This 3D printed lug nut starter is a lightweight solution that improves ergonomics and assembly speed.

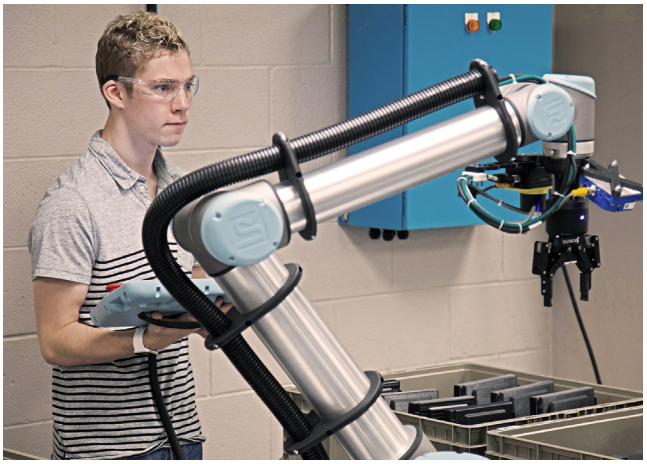
Improving the Life of the Line

Partnering for a Streamlined Future

Eckhart recognizes time and innovation are top priorities, and all businesses are under an extreme amount of pressure to iterate faster. Eckhart sees this across the board, from heavy truck manufacturers like Caterpillar to medical device manufacturers Medtronic and Boston Scientific, to aerospace manufacturers Boeing, Airbus and Lockheed Martin.

"We feel very strongly that 3D printing is the catalyst that allows businesses to test hypotheses much faster than they've ever been able to before," concluded Storm. "Speed and customization ultimately is empowered through the use of 3D printing."





Stratasys Headquarters

7665 Commerce Way,
Eden Prairie, MN 55344
+1 800 801 6491 (US Toll Free)
+1 952 937-3000 (Intl)
+1 952 937-0070 (Fax)

1 Holtzman St., Science Park,
PO Box 2496
Rehovot 76124, Israel
+972 74 745 4000
+972 74 745 5000 (Fax)

stratasys.com
ISO 9001:2008 Certified