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HBJ PHOTO / BRAD KANE

Scott Poeppel, additive processes manager for Joining Technologies, installs a Laser Applied Powder machine at the company's new facility in East Granby.

Laser Firm Finds Future Lies In R&D

Joining Technologies adds \$1.5 million facility in East Granby

By Brad Kane

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A small East Granby firm is making good on its promises of becoming a North American leader in laser technologies, pushing itself to the cutting edge with more research and development.

Joining Technologies, a 19-year-old company with 55 employees, will open a new 10,000 sq. ft. facility on Kripes Road in East Granby to achieve two new goals: perform bigger jobs for bigger firms, and create a research center for the development of new ways to use lasers in welding, cladding and additive processing.

"We are transforming from a job shop ... to an innovator that really leads the industry," said Dave Hudson, president of Joining Technologies.

The new Joining Technologies Research Center — called the JTRC — is a joint venture

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between the East Granby company and Fraunhofer ILT, a German firm specializing in laser machine parts. Joining will provide the bulk of the funding for the project, having already sunk \$1.5 million into the new facility, and Fraunhofer will supply parts and expertise. A Connecticut laser machine manufacturer, Trumpf, sold Joining Technologies the production equipment vital to this new operation.

This new commitment to research and development comes as other Connecticut companies are scaling back their R&D. In 2009, R&D spending by Connecticut companies dropped by 2 percent, mirroring a 3.5 percent national drop, the only record decrease in R&D history.

Despite the difficulties created by the economy, more Connecticut companies now are following Joining Technologies lead and trying to stay ahead of changes in their industries, said Matthew Nemerson, Connecticut Technology Council president and CEO.

Companies such as OEM Controls, Inc. in Shelton — that develops sophisticated control systems for aerospace and other transportation — constantly source around the world, inventing ways to meet the needs of clients in its supply chain.

In the global economy, using the same methods year in and year out doesn't cut it anymore, Nemerson said. Companies can lose their clients quickly to other businesses foreign and domestic that perform services better, cheaper and more efficiently. As a result, Connecticut companies reach out to their clients to see what new they need and how it can be provided.

"What we are seeing here is the integration of sophisticated supply chains," Nemerson said.

Trumpf, a German producer of laser manufacturing products with major

operations in Farmington, spent \$14.2 million in researching and developing new products this past fiscal year. One of its newest innovations is a 10-axis, 6-kilowatt machine with a carbon dioxide laser that will be an integral part of the new Joining Technologies facility.

"We don't stop innovating, and we always have several new products in the pipeline," said Burke Doar, Trumpf North America vice president for sales and marketing.

With this and other new equipment, Joining Technologies can work on bigger pieces of equipment for the aerospace industry and add new clients in the power generation and oil and gas industries. The new facility can handle projects weighing up to six tons.

"When we initially got into this, that wasn't what we were doing," said Scott Poeppel, Joining's additive processes manager and head of the new facility. "But the market has driven us to doing these kinds of jobs. We've had a lot of requests for it."

Not many laser providers have both a service facility and an R&D center in the same location, and the new facility will enable Joining Technologies to carve out a niche in the market, Poeppel said.

Ideally, customers will come to the company looking for ways to add laser additive manufacturing to their processes. Joining Technologies can then research for the company and hopefully develop a laser process that can help the customer. Joining

Technologies can then sell that client the new machine or offer to do the new laser additive process for the client.

For example, a manufacturer of aerospace engine parts might have a problem with the housing of its jet engine. Rather than bearing the expense of starting over from scratch, the company can come to Joining to develop a new laser additive method to make the jet engine housing better and like new.

"A lot of these companies are already coming to us," Hudson said.

This push toward new technologies and patents started last year when an engineer at Joining Technologies developed a new piece of equipment for welding thin metal sheets together. This invention, called the Infinite Web, and the way engineer Scott Boynton developed it, started the company down the road to be an innovative leader in its industry.

The Infinite Web won Joining Technologies the Platinum Innovation Prize from the Connecticut Quality Improvement Award. Sheila Carmine, the executive director for the quality improvement award group, said the Infinite Web was an excellent example of homegrown technology that has new service applications already producing results.

"We forget that the smaller companies, smaller manufacturers are the strong employers in Connecticut," Carmine said.

The equipment in Joining Technologies new building should be ready by Feb. 1, so it can start the service side of the new facility by then. The joint venture with Fraunhofer will be finalized this month, and the R&D portion of the facility should be up and running by the end of the second quarter.

"We will be the go-to guys in the North American market," Hudson said. ■



**Dave Hudson, president,
Joining Technologies**