

Jet has area ties

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When Boeing's new 787 Dreamliner begins service in 2008, the long-range, midsize jet will have Central Minnesota ties.

TC/American Monorail in Waite Park has been producing a lifting system for the assembly. GCI Engineered Solutions, near Alexandria, designed a portion of the assembly line process that will produce Boeing's new jet. GCI found companies to produce parts for the assembly system, including TC/American.

GCI, based in Garfield, specializes in designing and manufacturing industrial manipulators, torque reaction systems and material handling equipment.

The local TC/American facility specializes in manufacturing and fabricating parts, including overhead cranes for assembly lines.

Both companies started breaking down their parts of the project Thursday and shipping them to Boeing's Everett, Washington plant, where the planes will be assembled. GCI will send employees to help set up the assembly line system, said Jacob Stock, GCI project manager.

Boeing's Dreamliner, costing \$8 billion to develop, promises better fuel efficiency, improved cabin air quality and more room for passengers. Boeing has orders for 432 Dreamliners.

Northwest Airlines Corp., based in Eagan, will receive 18 of the 787 jets, scheduled to begin service in October 2008.

A challenge

The project has been challenging because of the massive size of the assembly line dimensions that Boeing required.

"It's one of a kind," the engineer said. "There were so many different things that needed to be considered when designing something that large."

The company used engineers from every category, from electrical to mechanical, to design the system.

Since mid-July, TC/American has been fabricating the lifting system in its local 73,700-square-foot facility.

Jerry Peterson, local plant manager, said the facility has worked on several projects with Boeing since the mid-'80s. But Peterson said the lifting system is the largest project the plant has produced.

"The lifting system will attach the horizontal and vertical fins to the body of the plane. It extends 64 feet high and 100 feet wide, and weighs about 560,000 pounds," the TC/American project manager, Loren Loso, said. The system, made mostly of steel, will take about 27 truckloads to transport to Boeing's plant.

"The sheer size and weight of it proved to be a challenge, but we have good people on the floor handling it," Loso said.

TC/American and GCI have modest operations with about 30 employees each. But that has not held them back from tackling large-scale projects.

Both firms often work with national companies. TC/American fabricated a crane system for General Electric to assemble its engines while GCI has designed assembly lines for Caterpillar Inc., which manufactures construction and mining equipment.

"A lot of people who come in here don't realize we're doing this," Peterson said.