

Ancient Process Goes High-Tech At New Chromalloy Plant In Tampa

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Tom Trotter, vice president and general manager of Chromalloy- Julie Busch Branaman

Next time you hop on an airplane or flip a light switch, consider this: Some of the parts that keep the plane in the air and the power plant humming may well have come from a shiny new manufacturing plant in Sabal Park, not far from the Florida State Fairgrounds.

It is a fitting place for tradition to meet innovation — a place where Chromalloy, a global technology company founded in 1950 to serve the budding jet engine industry, has taken its processes into the space age, and beyond.

“When I know that our parts are on the aircraft, I’ve got no problem getting on the plane,” says Tom Trotter, vice president and general manager of the new 115,000-square-foot facility on Queen Palm Drive.

Chromalloy is the world’s largest independent supplier of replacement parts for gas turbine engines used in commercial and military aircraft, power plants and other heavy industrial uses. The company employs 4,000 workers at 33 facilities around the globe.



It has maintained a presence in Tampa for more than two decades, operating a castings plant on Anderson Road near the airport. Plant operations evolved over the years from producing coatings for turbine engines, to repairing critical components within them.

When Chromalloy decided to produce its own replacement parts as well, the company set its sights on building a new high-tech facility.

“We couldn’t create the capacity we wanted to create in that [Anderson Road] space, so we went with the new site to grow our business,” says Trotter, who joined the company in 2008 to help usher in a new era at Chromalloy Castings.

The company could have gone anywhere to start its new venture — but it chose to stay in Tampa.

“We did have some pretty fierce competition from Texas and Nevada,” he says.

There were two reasons Tampa prevailed: “We already had a casting presence in Tampa; we wanted to retain the technical resources – production people and engineers – that we already had. And the state of Florida, Hillsborough County and the City of Tampa worked with us very well to make it feasible.”

The new \$27 million state-of-the-art plant, with its gleaming stainless steel machinery and vintage Star Wars robotics, employs a “lost wax process” used by ancient Egyptians to transform gold into the jewelry of the pharaohs, and bronze into the sculptures and statues of ancient Greece and Rome.

“Of course, it’s been refined, and a lot of science added to it the past 3,000 to 5,000 years,” Trotter says.

The process, also called investment casting, involves taking wax patterns and coating them in ceramic slurry to create a hard shell on the outside of the patterns. From these molds, turbine blades, turbine vanes and other replacement parts for gas turbine engines are cast.

Instead of gold and bronze, however, Chromalloy uses “super alloys” — proprietary nickel- and cobalt-based metal mixtures that can stand up to the high heat and stress of a turbine environment, where engines churn at speeds of 14,000 to 40,000 revolutions per minute.

Adding Jobs In Florida’s New Economy

The new plant, which commenced full production in October, captured the attention of Rick Scott, Florida’s new governor, who chose to unveil part of his new budget plan while touring the facility in early February.

“He was interested in talking to us because we’re one of the few people in this economy that are creating jobs,” Trotter says. “He came on a day we were doing our ceramic core groundbreaking.”

The castings plant currently employs about 200 skilled and semi-skilled workers, plus another 50 engineers, scientists and support personnel.

Several of its engineers graduated from the University of South Florida, where the company is “reinvigorating” a relationship that has brought job opportunities and research grants in the past.

The University of Florida has also contributed its talent to the Chromalloy payroll.

“The proximity to high-quality educational institutions is definitely a plus to us being here,” he says. “At this facility, it’s our intent to double the employment and triple the number of parts over the next three or four years. It could happen very soon.”

The company will look globally for some of its experience and talent. But it will also draw from local universities, where it has already established internship programs.

Creating Internships For Students

There will also be new opportunities for local high school and vocational school grads.

“We’re just beginning to work with local school systems to develop a pipeline for production employment,” Trotter says. “Some assembly operations, casting furnace operators that melt the alloy, robotics operators, finishing operators, maintenance personnel are also key in a high-tech facility like this.

“It’s really our intent to reach back deep into the school system to provide employment for kids that may or may not really want to go on to college. That way we can make a difference in the community.”

Company-wide, Chromalloy has 20 new programs in the development cycle. Replacement parts — the focus of the Tampa operation — are the cornerstone of the company’s growth strategy.

The castings plant rounds out a suite of services that have put the company at the forefront of turbine engine maintenance, with the goal of reducing customers’ operating costs by using proprietary coatings and repair techniques and manufacturing its own parts.

“We machine, coat and put them back in the customer’s jet engine. There’s really no other company in the world that has all of those capabilities under one roof.”

Jan Hollingsworth is a Valrico-based freelance writer working from a restored Victorian parsonage built in the mid-1880s for a Methodist circuit rider. Comments? Contact 83 Degrees.