

Casting a Wider Net

Chromalloy expands production capabilities with new, high-tech engine parts facility

LEE ANN TEGTMEIER/TAMPA, FLA.

Chromalloy's \$30-million investment in a new casting facility here signals its fine-tuned strategy to focus on engine parts that have higher engineering barriers to entry. These parts typically feature longer lead times, so Chromalloy plans to differentiate itself through technology and faster turnaround time, says Armand Lauzon, Jr., Chromalloy president and Sequa CEO.

The company's major investment in a new casting facility here increases its ability to make hot-section engine parts, such as turbine blades and vanes, but the most vital aspect of the outlay funds high-technology process automation on the front end and lean design that lets the facility create higher-quality parts faster.

Lead times for engine parts have been cut to 1-4 weeks at the new plant, from 12-16 weeks at its original facility here, according to Tom Trotter, vice president and general manager of Chromalloy Castings. Because of its lean design, parts travel "significantly less than 2,000 ft.," compared to about 5,000 ft. The number of furnaces has climbed to six from one. Combined, this enables Chromalloy to produce three times as many single-crystal and directionally solidified components and twice as many equiax components.

"Our technology has to be at the forefront [because] we com-

A Chromalloy Castings employee makes a wax mold for an engine part at the company's new Tampa facility.

pete and partner with [original equipment manufacturers]," says Lauzon.

For instance, it partners with Rolls-Royce in an engine repair business (TRT Ltd.) and a component coatings business (Turbine Surface Technologies Ltd.), as well as with Pratt & Whitney in Advanced Coating Technologies, a venture that provides thermal barrier protection for commercial and military engine airfoils. Belac LLC, which produces high-

pressure turbine replacement parts for engines, is a joint venture of Chromalloy, Lufthansa Technik, United Airlines and Alitalia Serbici.

Chromalloy works on 90% of the en-

independent producers of alternative engine parts and developers of repairs, says each piece of its capabilities—from design engineering to coatings—enhances the other, which makes Chromalloy faster and more cost-effective, Trotter says. The expanded casting capability here completes the company's cradle-to-grave "value chain," says Lauzon.

"We're typically 40-50% lower on total parts costs," he notes.

With engine maintenance and overhaul costs accounting for approximately 40% of total MRO expenditures, and material costs equaling about 50% of



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gines powering today's airline fleet, but its technology innovations primarily target the CFM International CFM56-7 (and F108 military variant), GE CF6-80C2 and Pratt & Whitney PW4000.

Chromalloy, one of the world's largest

engine MRO costs, it is easy to see why operators have installed more repaired parts, used serviceable material and certified alternative parts as they seek to cut costs.

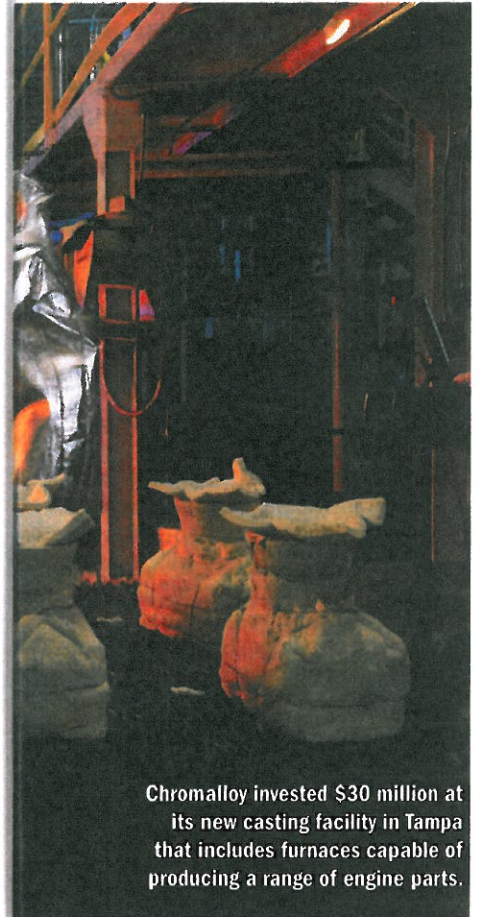
While the company says its casting facility rounds out its life-cycle value chain, it would be a mistake to assume this chain is complete. On Dec. 2, 2010, the same day it officially opened the casting facility, Chromalloy announced plans to invest another \$5 million in it.

The 15,000-sq.-ft. building will gain a 40,000-sq.-ft. addition that will bring

complex ceramic core development on site. This activity, the vast majority of which outside companies now do, will enable Chromalloy to cast the entire range of aero and aero-derivative power generation engines on site, says Trotter.

Its Carson City, Nev., facility manufactures some engine cores and will transfer some of that technology here, says Trotter.

He says the ability to make in-house cores, used in the casting process to form cooling passages within components, "will shave time off development; help speed time to market and further



Chromalloy invested \$30 million at its new casting facility in Tampa that includes furnaces capable of producing a range of engine parts.

CHROMALLOY

improve quality controls. He plans the building addition and capability to be fully operational in January 2012.

Trotter expects the total component output here to be split between aviation engine parts and aero-derivative power-generation engines.

Chromalloy's investments have increased since it was purchased by the Carlyle Group, one of the largest private equity firms, in December 2007. The Carlyle Group manages more than \$97.7 billion in assets and Chromalloy is the largest business unit of Sequa Corp. ☛