

New Tooling Process, Collaborative Engineering Are Key to Higher Quality Product

By Mark Langlois

Southern Spring & Stamping, approaching its 60th anniversary, is an ISO 9001:2008 certified manufacturer of springs, stampings, and sheet metal fabrications. Applications for parts produced by the Venice, Fla.-based company vary from flight-critical components to downstream oil exploration components and tight-tolerance medical devices. According to Southern Spring & Stamping Director of Manufacturing Richard Mulvihill, customers choose the company's parts because of its reputation for "high quality parts, fast deliveries, competitive pricing, and quick lead times."

Mulvihill described a customer who came to Southern Spring & Stamping after a disappointing relationship with another supplier.

"A company came to us with an exotic specialty metal, and we created a new tooling process that delivered a more consistent and higher quality product," Mulvihill wrote in response to a *Design-2-Part* survey. "The part also had to withstand extreme environmental conditions without impacted performance, which our competitor could not achieve."

The real challenge for the partners was finding the right measuring tool to test the new part.

"It took years to find the appropriate inspection, which had not been available," Mulvihill wrote. "Numerous visits to the customer, and close interaction with their engineering and quality personnel, helped us collaboratively arrive at a solution. They had technical requirements to

meet, and we shared the manufacturing obstacles and provided alternative solutions."

During the design stage of the project, Southern Spring & Stamping employees assisted and offered suggestions while educating the customer about the firm's manufacturing capabilities. Southern Spring was able to inform the customer about Southern Spring's manufacturing capabilities; the customer's engineers were then able to modify the design. Southern Spring used a progressive die tool, and, during the manufacturing process, used stamping, vibratory deburring, and special packaging.

Those were a few of the firm's capabilities, which also include machining. For stampings, the company provides SolidWorks support, in-house tool and die production and maintenance, and short and long runs, from prototype to production. Value added services include grinding, welding, assembly, painting, powder coating, and silk screen printing.

Southern Spring & Stamping, also an approved supplier for Bell Helicopter and SAFRAN, recently added a fiber optic laser to its operations. Its customers are found in numerous industries, ranging from aerospace to medical and dental, oil and gas, automotive, industrial products, and lawn and

garden. Also represented are the electronics, communications, hydraulics, engine and consumer products industries.

