

by Abbe Miller, editor-in-chief

SOLUTIONS PROVIDER

With the investment in a new fiber laser cutting machine, a contract manufacturer expands its capabilities to simplify customers' supply chains

Laser Genius+
1530

In today's manufacturing landscape, the fabricators that thrive are the ones that can position themselves as comprehensive solution providers. If a business is comfortable being a one-trick pony, it had better be sure no one else can pull off that same trick or do it better. For everyone else, diversification into advanced, multi-material processing opens up new business opportunities while also simplifying current customers' operations. Replacing multiple vendors with one partner is a hard business pitch to pass on.

LGS Technologies is a prime example of a successful fabricator taking the comprehensive, single-source approach. Located just outside of Dallas, the forward-thinking shop isn't new to the world of value-add. Back in 2000, company leadership realized that they had evolved their business so much that it required a name change. Originally Longhorn Gasket & Supply Co., prospective customers were overlooking the company's broader manufacturing solutions,

assuming they were nothing more than a gasket provider.

"In the early days, it was just a small company servicing the needs of its customers," explains Terry Buckley, LGS's president. "But over the years, it had just grown and grown. We were doing such a good job die cutting gaskets for customers that they would come to us with their other fabrication needs. If we were selling a gasket or seal to somebody, they often needed a small bracket or another piece of sheet metal. We'd evaluate those requests and when it made sense, add various capabilities like metal fabrication to our portfolio."

What has emerged is anything but a traditional metal fabrication shop. Today, LGS is a multi-process contract manufacturer solving customers' complex problems through wide-ranging fabrication, material and assembly capabilities. Living in a high-mix, multi-material world that consists of metal, foam, adhesives, plastics, you name it, there's little that customers can't get from the company. →

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Terry Buckley, president, LGS Technologies

Beyond the broad spectrum of materials and processing capabilities, LGS is also known for achieving tight tolerances, competing on speed and completeness, and – music to customers’ ears – replacing multiple vendors with one partner. For customers in demanding

industries, such as aerospace, defense, electronics and medical, LGS represents a simplified supply chain with one-stop reliability. For LGS, a wide customer base represents long-term stability, ensuring that when one industry fluctuates, another is there to sustain growth.



LGS Technologies invested in a Prima Power Laser Genius+ 1530. The 6-kW fiber laser adds versatility and compatibility by processing a range of materials and thicknesses.

“We have customers that we’ve been working with for 40 years – and not on the same products,” Buckley says. “Whether they’re redesigning products or launching totally new ones, they still have some of the same needs they did 40 years ago. We supply to those folks every day, but we’re also picking up new markets. We’ve strategically positioned ourselves so that we aren’t dependent on one market. The tie that binds is that they all have a need for gaskets, seals or custom-fabricated components.”

Evolution of capabilities

LGS Technologies began its journey in 1953 when the company was founded under its original name, Longhorn Gasket & Supply Co. Operating out of a small 3,500-sq.-ft. facility, the business initially fabricated leather transmission belts and nylon-reinforced belts for flour and textile mills. It quickly established itself by providing custom die cut gasket materials to support regional agricultural operations, cotton gins, and the growing oil and gas sector.

Over subsequent decades, Longhorn Gasket & Supply strategically

broadened its technical scope. During the Texas oil boom of the 1960s, the company expanded into sheet metal processing to manufacture custom metal gaskets, shims and heavy equipment components. By the 1970s and 1980s, it added high-volume metal stamping, produced military components and became an authorized 3M industrial converter for pressure-sensitive adhesives. If the equipment to produce a prospective job didn’t exist, no problem; the company would simply commission the development of custom machines.

“The company hired engineers to design its own automatic punch presses before automatic punch presses really existed,” Buckley says. “A gentleman was hired to design and build an OD, ID cutting machine. These moves helped find a competitive advantage to land even more customers like Texas Instruments.”

As the company continued to add advanced metal fabrication capabilities alongside its core soft-goods division, the original name →



LGS Technologies operates out of a state-of-the-art 153,000-sq.-ft. facility in Lancaster, Texas, about 20 miles south of Dallas.

became problematic with customers frequently overlooking its diverse offerings. To accurately reflect its multi-process capabilities while also preserving its rich legacy, the organization officially rebranded as LGS Technologies in 2000. Today, the company operates out of a state-of-the-art 153,000-sq.-ft. facility in Lancaster, Texas, about 20 miles south of Dallas.

Focus on the customer

Over the years – even when the company lacked the equipment – LGS had a hard time telling customers no. Those decisions, however, have proven beneficial for both customers and internally. Today's capabilities for custom die cutting, waterjet cutting, CNC routing, laser cutting, laminating and

precision sheet metal fabrication allow LGS to serve as a single-source partner across an array of industries and sectors, including aerospace, defense, medical, automotive, energy, telecom and, now, data centers.

With these diverse manufacturing capabilities, LGS provides distinct value to customers by offering integrated sub-assemblies. For instance, if a customer requires a complex component featuring a metal bracket paired with an electrical insulator, EMI gasket or thermal management pad, LGS can manufacture and assemble the entire unit in-house.

“From our standpoint, we want to do what our customer needs us to do,” Buckley says. “If they ask us to assemble something, then we’ll put it together. We had a customer that needed us to die cut a piece of adhesive that went into a controller for a high-end sauna-type shower. It was like a piece of spaghetti that just barely went around the edge of a piece of glass. They couldn’t assemble it themselves, so they asked us if we could do it.”

LGS ended up buying the glass from the customer’s supplier, brought it in and found a solution. This turned out to be investing in an automated pick-and-place system that could place the adhesive on the glass.

“Those are the kind of value-add things we try to do for our customers,” Buckley says.

To say the least, LGS’s comprehensive production model is a godsend for many customers. Not only does it provide them with capabilities they don’t possess in-house, it also streamlines their procurement chain, allowing them to only have to manage one purchase order. Whether it’s low-volume specialized runs or high-capacity production orders scaling into millions of parts, LGS can be that one source.

“The true value our team brings versus our competitors on the die cutting side of the business is that we have all of these capabilities under one roof,” Buckley explains. “The value the customer gets from that is broad. They only have to place one purchase order, perform one inspection, receive one shipment. →



A Prima Power Combi Tower Laser allows LGS Technologies to perform lights-out manufacturing.

All of those things are cost reductions because otherwise, they have to deal with all these different vendors. They're shipping all these different components and dealing with multiple receipts and inspection points."

Fully equipped shop floor

To be that one source for customers, LGS has amassed an impressive range of capabilities and equipment, including

machines that it developed internally. The current fleet includes turret punch presses for punch holes and processing sheet metal, waterjets for high-precision cutting in metal and other materials, die punch equipment for punching gaskets and seals, reciprocating knife tables for processing soft goods and non-metals, CNC routers and mills, and a multitude of lasers featuring various technologies. And that's just the short list.

To further broaden the company's capabilities, LGS recently invested in a Laser Genius fiber laser cutting machine from Prima Power. Like its other equipment procurements, the new laser delivers substantial operational, quality and commercial benefits for the LGS team and their customers. Historically, anything that required numerous holes was automatically sent to a turret punch

press, but the Laser Genius is changing the team's overall workflow.

In addition to its ability to process highly reflective material – a major selling point for LGS, which previously only had CO₂ laser equipment – the Laser Genius is incredibly fast and highly automated. This frees up operators for higher value tasks and even allows the shop to run lights-out overnight when needed. →



Whether it is gaskets, seals, industrial tapes or specialized packaging, LGS Technologies combines 70-plus years of expertise with state-of-the-art processes.

“There was a time in our company where if we needed to add a bunch of holes to a sheet metal part, we’d run it on the turret because turrets and punching holes just go hand in hand,” Buckley says. “But the Laser Genius has changed our philosophy. We can laser cut with some of the same speeds we were getting with our turrets, and cutting components with large perimeters is when the laser really shines.

“We also wanted something that could run lights-out and had some autonomy to automate some of our processes,” he adds.

Previously, LGS had invested in a turret punch press with an automated sheet feeder for similar purposes. Buckley stresses, however, that the desire to automate isn’t to eliminate staff, but to get more capacity with the same level of employees that would then be freed up

to focus on other higher value work. Focusing on the employee’s quality of work has always been important at LGS and was instilled by the company’s founder decades ago.

“He wanted to have a company where people could make a good living and have the American dream,” Buckley says. “During his lifetime, he saw work moving to China and all these other far-flung places, but he knew it was important for our country to have manufacturing capabilities here. When we’re talking about automation, it isn’t about running lights-out with fewer people on the floor. It’s about adding capacity to service our customers, grow our company and continue to add staff. That’s what his vision was all about.”

Capturing complex work

Overall, the goal for LGS with the new Laser Genius wasn’t just about adding a faster, automated machine to the floor. The true transformation the company was looking for came in the form of simplifying customers’ supply chains. And that would come from the direct quality improvements and

ability to capture complex, value-add work the Laser Genius could provide.

Since investing in the new Prima laser, the company has seen quality improvements through clean and accurate laser cuts. The level of precision, in fact, has resulted in the near elimination of secondary deburring. Most parts can go straight from the machine to a shipping box, saving LGS and customers significant time and labor.

Additionally, LGS has realized a strategic shift in its approach to selling. Previously, capacity constraints meant LGS had to pass on large-volume quotes because the jobs required more shifts than it could support. Today, however, the Laser Genius allows the sales team to pursue high-volume jobs while also tackling customers’ complex manufacturing problems – proof that the right technology can lead to the ultimate end goal: supply chain simplicity. ●



Learn more about LGS Technologies and its offering of custom-fabricated services, including custom die cutting, waterjet cutting and laser cutting.

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