How does a fabricator grow during a recession?

THREE WAYS: CROSS-TRAINING, QUICK RESPONSE, AND CUSTOMER DIVERSITY

By Tim Heston

Prototek isn’t just a New England shop, though. Besides its New Hampshire fabrication and machining plants, the $31 million company has facilities in Graf- ton, Wis., and Sunnyvale, Calif. Its niche of prototype and low-volume work means the shop floor processes a broad mix of jobs at any given time. It’s a quick-turn operation; some jobs are delivered within two weeks, but many are turned around in one to three days.

Prototek’s business centers around diversity in various forms, all of which could be grouped into two broad categories: processes and people. Analyze Prototek’s strategies around both and you can see just how resilient custom metal fabrication is, even in the face of a pandemic unprecedented in modern times.

Processes

Bruce, Brian, and Roger Isabelle launched Prototek in 1987 as a small job shop in Concord, N.H. In 2003 the company moved to its current location in Contoocook. Growth continued steadily over the years until 2017, when the founders sold the business to CORE Industrial Partners, a private equity firm out of Chicago.

Years ago private equity gained a reputation in this business for the infamous “strip and flip,” but according to sources, CORE has done nothing of the kind. In fact, the firm gave Prototek the capital it needed to expand. Over the past two years Prototek purchased a machine shop in Sunnyvale, Calif., called Hayes Manufacturing, as well as Cal-X, a sheet metal and machining operation in Grafton, Wis.

These locations gave Prototek a much larger geographic footprint. That’s obvious, but what’s far subtler is how the new ownership affected Prototek’s processes. The company refined operations in many ways, but those refinements didn’t rip out the foundations that made Prototek successful in the first place.

Over the past two decades the company has instituted many practices of continuous improvement. Managers take daily gemba walks. Operators use tools from 5S shadow boards and refer to highly visible, color-coded schedules posted throughout the plant, among other lean practices.

That said, managers also maintain a healthy balance between refining processes and maintaining flexibility. “Manufacturing seems to be getting to a point where many people are becoming so process-oriented that they forget about the result. Prototek is all about developing and refining processes and systems, but only when they support our desired outcomes, including a customer retention rate of 90% or more, on-time delivery, and quality parts going out the door. We’re not making processes for the sake of making processes,” Swett said.

To illustrate, Swett described the machine layout at the fabricator’s main plant in New Hampshire. Within an expedite cell, some of the company’s most experienced operators bring one-off and low-volume parts off the laser and through every stage of production, including deburring, bending, hardware insertion, welding, and grinding.

“Jobs delivered in three days or less usually go directly through the expedite cell,” Swett said. “It’s single-piece part flow from one machine to the next, and it’s designed not to compromise our legacy work.”

Separating the expedite work helped eliminate the emergency teardown and setups at press brakes and other equipment—a relatable experience for anyone who has worked in high-product-mix manufacturing. That said, Prototek is still a job shop, so everyone needs to deal with exceptions. For instance, if a quick-turn order.

A Prototek operator bends an edge radius for a quick-turn order.
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