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Technicians at SOLV Metals' Wisconsin Metal Parts inspect a perforated enclosure after forming. *Images: SOLV Metals*

A MERGER DRIVEN BY COLLABORATION

What SOLV Metals' story says about industry consolidation

By Tim Heston

Jake Erschen recalled walking the floor of a custom metal fabricator in Fort Wayne, Ind. The president of Waukesha, Wis.-based Lean Manufacturing Products had visited plenty of plants; he felt at home on the sheet metal shop floor. After all, his organization sells high-density shelving designed for such operations, with the aim of organizing raw stock, accelerating workflow, and helping fabricators better manage their inventory.

This time was different, though. He wasn't visiting the plant as an outside supplier. He was an employee.

In January, Lean and Waukesha, Wis.-based Wisconsin Metal Parts (WMP) became part of SOLV Metals, a group that includes the plant Erschen toured earlier this year, QuikCut LLC, as well as Stream Tek, a waterjet operation several blocks away. By combining several different but complementary metal manufacturers and a product line company, investors hope to build a diversified organization that's ready to scale.

Some History

Consolidation spurred by outside investment has some in the industry on edge, and for good reason, considering private equity's strip-and-flip reputation. If investors don't really know manufacturing, and metal fabrication in particular, they might resort to slash-and-burn cost cutting to squeeze short-term profits while sacrificing long-term growth.

The organization behind SOLV Metals, however, has roots in manufacturing—specifically, rebar fabrication in the 1970s. Daryle Doden and four other partners launched Ambassador Steel Corp. in 1974. By the time the partners sold it in 2008, the company had grown into the largest independent rebar fabricator and distributor in the U.S., with annual revenue surpassing $500 million.

After the sale, Doden launched a firm called Ambassador Enterprises, with investments spanning various industries. Each area has a holding company or business unit dedicated to it. The one devoted to the engineering, industrial, and manufacturing space is called SOLV Holdings. According to the Ambassador website, SOLV Holdings alone has $750 million in annual revenue and more than 1,500 employees. Within this is SOLV Metals. Now a 200-plus-employee organization, SOLV Metals was born from a conversation between industry executives about two years ago.

"About nine months after [SOLV Holdings] acquired my company, QuikCut, the CEO [Jeff Albert] asked me about my dreams and aspirations. I said, 'Why don't we start a division called SOLV Metals, so we could solve new and current clients' metal fabrication needs?'"

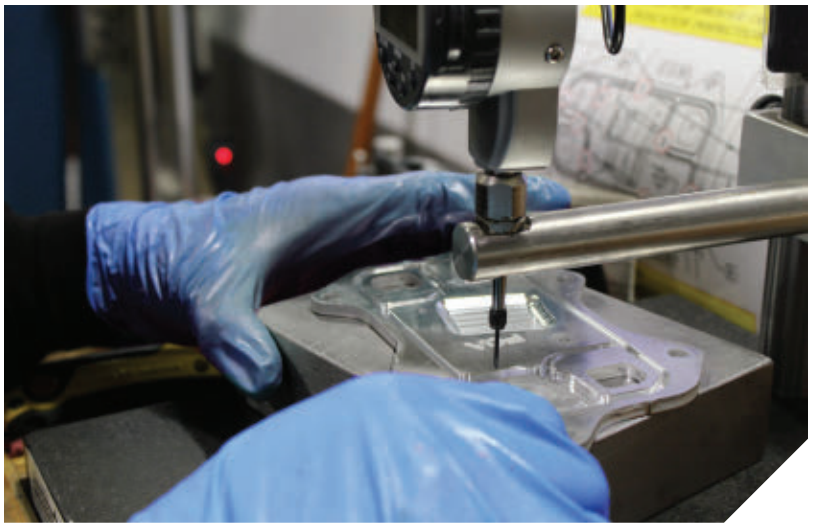
That was Mark Webb, who in April 2023 took the CEO role at the new entity. Less than a year later, SOLV announced its acquisition of WMP and Lean. "We want to be a first-stop, last-stop provider. If a client comes to us with a need, there's a sister company [within the group] that can come up with a solution."

The organizations within SOLV Metals have some duplicate services—laser cutting, bending, and welding—but the operations around them are designed to serve different customer mixes. WMP focuses on sheet metal fabrication, stamping (including some advanced prog-die design), welding, powder coating, machining, wire EDM, and assembly. The process mix has been built to serve customers demanding piece parts, subassemblies, or full assemblies, from initial prototypes to full production.

QuikCut offers something similar, but for a different mix of customers. It processes thin to thick sheet metal and plate, and the work ranges from cut and bent parts to fully fabricated, private label products. Like WMP, the operation has waterjet cutting, laser cutting, and bending, but it also cuts plate on large-bed plasma tables and delves significantly into OEM parts and the fabrication of large structures.

Meanwhile, Lean Manufacturing Products offers a make-to-order line of material handling and storage systems that spans a variety of metal fabrication operations, and it has close

A team from Lean Manufacturing Products reviews options for a compact, cartridge-based sheet metal storage system.



Employees at WMP perform electromechanical assembly (left) and inspect a machined part.

ties with WMP. Erschen worked at WMP, his father's business, as a project manager before launching Lean in 2016, and today WMP provides the manufacturing horsepower and expertise for the products that Lean engineers.

Those products mainly serve the sheet metal industry, but while walking through QuikCut's diverse departments, Erschen started brainstorming potential solutions across plate storage, tubing, and other areas. "In the past, before joining SOLV, if we wanted to look for new ideas or how we could help more customers or different markets, we'd have to go to the outside. Now, as we're walking through QuikCut, we're on the inside. We're no longer going in as customers or suppliers. We're going in as true teammates. I walked the floor with Andrew Peterson, vice president of operations, and we came up with a ton of great ideas about where we could help QuikCut and, in turn, other industries."

All SOLV Metals business units share one common approach: They value lean material flow. You won't see piles of work-in-process (WIP). Everyone realizes the gains to be had by accelerating material flow and achieving greater sales per square foot. Space devoted to inventory isn't productive, so the idea is to keep it moving. When inventory needs to be held, you minimize it as much as practical (depending on demand variability and supplier reliability), then organize and optimize what remains in as little space as possible.

Integration Strategy

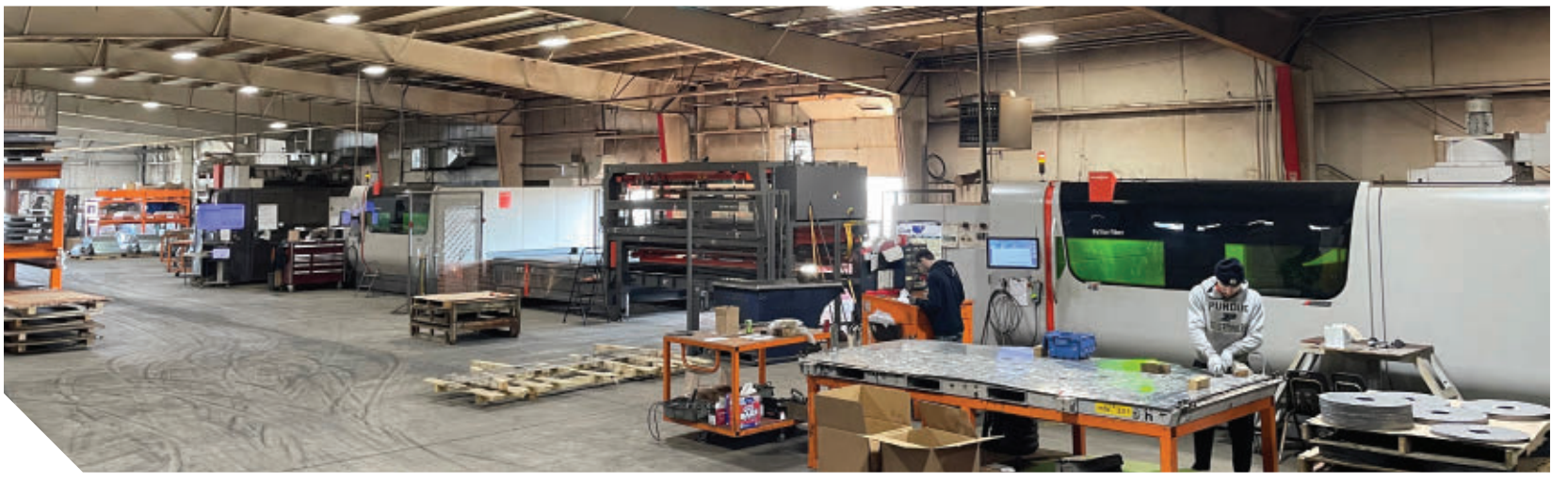
Webb has a background in software implementation, including enterprise resource planning (ERP) platforms. It's how he initially got into the metal manufacturing business. (Webb quipped, "They were so scared of it, they hired me.") His experience will guide SOLV Metals' merger of its back-end systems.

"We're now looking for something that might work better for the entire organization," he said. "But we also don't think one size fits all. We'll use synergies where it makes sense, and keep some elements separate."

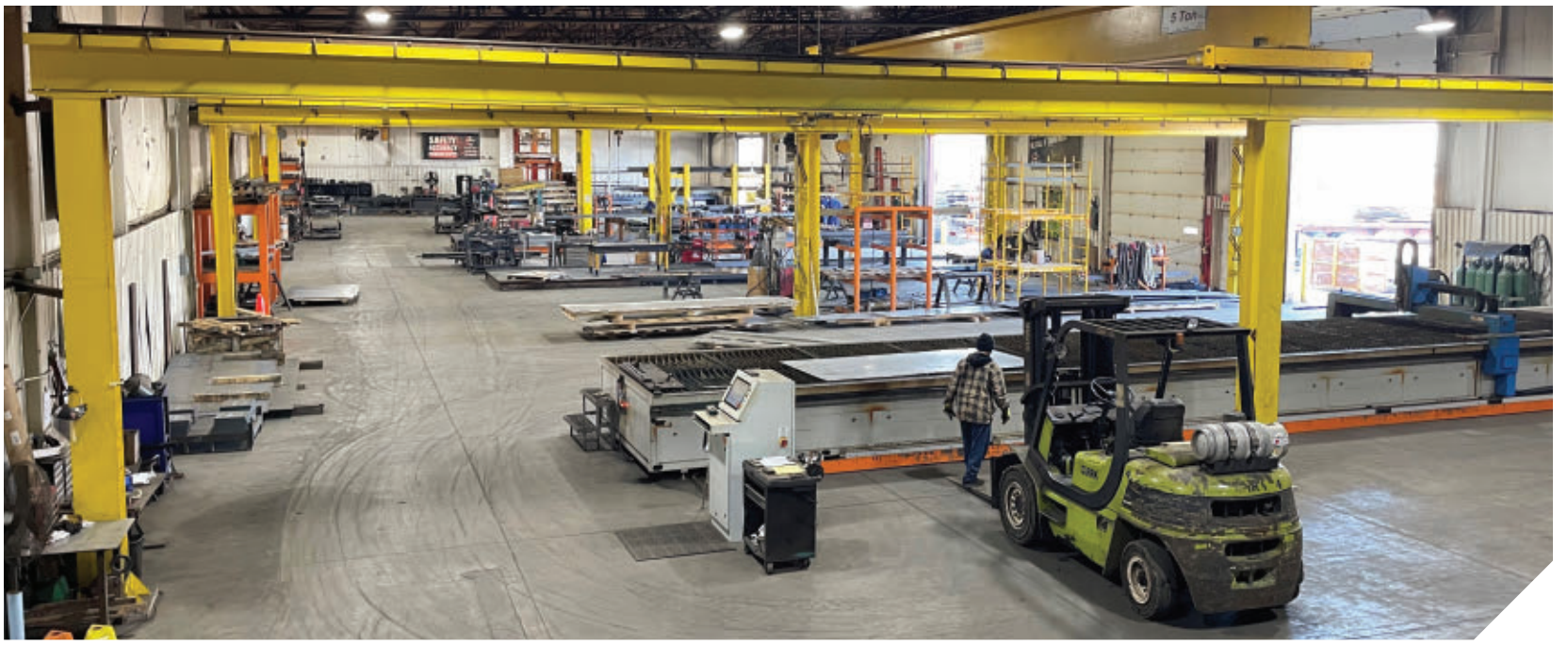
Webb's father-in-law began his career as a tool- and diemaker and launched a fabrication operation in Fort Wayne called Bruco Industries. He hired Webb to implement an ERP system, who then worked his way through various roles. "I eventually learned to run nearly every piece of equipment we had," he said. His father-in-law eventually sold him the business, at which point he rebranded it QuikCut LLC.

The operation can have a single piece or assembly alongside large structural sections destined for a job site, be it a bridge or various kinds of modular construction. WMP and QuikCut might share similar machines, but operationally, they're very different—and according to Erschen, Lean can benefit from this. Handling large, heavy plate has unique challenges, and reducing reliance on fork trucks and cranes can be a real game-changer. With Lean, WMP, Stream Tek, and QuikCut under the same umbrella, brainstorming can begin in earnest.

Managers at all of SOLV Metals' operations know the challenges of the job shop world, so when a solution meets application needs 80% of the time, that's a win. As one of Lean's first customers, WMP has integrated compact, cartridge-based racking deep into its operations.



Although very different organizations, both WMP (top) and QuikCut (bottom) share a similar philosophy on part flow.



QuikCut's plasma cutting offering complements the overall organization's laser cutting, punching, stamping, machining, and assembly capabilities.

The fabricator uses these cartridges as returnables; empty steel cartridges go back to the service center, which refills and returns them to WMP. Considering this, you might think the place would have few if any wooden pallets—but they're still there to support custom-orders or spot buys.

Lean has evolved its product lines as the industry turns more and more to automation. The cartridges themselves can actually be integrated within some material handling tower systems. "We integrate directly into many automated loading towers for lasers, but first we always need to understand the automation's hard constraints. From there, we can modify our cartridge design, or adjust positioning locators within the existing automation to account for the cartridge," said Steve Drida, project manager at Lean, adding that the company has adapted the cartridge system to work with specific elements of material handling automation, like pressure sensors, hard stops, and other methods of orientation that home the sheet position before it's transported to the cutting table.

Erschen added that integrating cartridges into existing automation towers can work especially well for high-product-mix operations that deal with multiple changeovers. "It's quick access, quick retrieval, and quick loading. And, of course, there are certain automation systems that are only designed to receive bare bundles, without any cartridge, pallet, or other dunnage. Typically these are spaced very tightly for extreme density."

In these cases, you can just transfer the material from the cartridge to the automation with a pin table [a frame with vertical rods, or pins, that can lift the sheet out of the cartridge, so it can be transferred to an automation system or elsewhere]."

Mixing the Customer Mix

That kind of in-the-weeds thinking spans all aspects of fabrication, particularly as the industry ramps up its automation efforts. Webb described an upcoming modular building project in the QuikCut plant involving weldments up to 40 ft. long. "On one of those, we could be putting up to eight welding cobots in a line, welding simultaneously," he said. "That's where we're headed."

Webb added that the QuikCut plant is also integrating a laser cutting center that will be the organization's first foray into automated parts stacking. That in turn will require a new approach to labor allocation, scheduling, and overall workflow. New technology comes with a learning curve, but now, as part of a larger group of companies, employees won't be learning in a vacuum.

"Now we get a chance to work with high-level organizations," Webb said. "We're bringing leaders together to uncover how we can create better systems and products through collaboration."

"Those aren't just words," Erschen said, adding that he and other company leaders had recently gotten back from a SOLV Holdings two-day conference focused on best practices. They might not have talked about sheet metal pin tables, but they still got into the weeds about challenges and operational improvement.

"Over the next five years, we're looking to grow both organically and through acquisition," Webb said, "and we're aiming for SOLV Metals to be a $200 million division of SOLV Holdings."

Successful mergers reveal an often-overlooked truth in this industry: The customer mix defines the metal fabricator, and nearly every contract and custom fabricator's customer mix is unique to some degree. Some ingredients simply don't go together, and the merger struggles. The trick is finding the right ingredients—which, in a landscape as diverse as metal fabrication, isn't easy. But once you find them and mix them together in the right way, you get something better. **FAB**

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SOLV Metals, SOLV Holdings, www.solvholdings.com