Rhonda Schmidt stitches the bootie to the boot uppers at Falcon Performance Footwear in Auburn. After working with the Maine Manufacturing Extension Partnership and learning how to streamline operations, the shoe manufacturer has cut its boot production time in half.

— Jose Leiva/Sun Journal

For decades, Thos. Moser Cabinetmakers handcrafted heirloom furniture the same way, at pretty much the same speed.

Slowly.

It did it to maintain quality, yes, but the Auburn company also didn't know how else to work. It made its chairs, tables and beds in small batches and stockpiled the inventory. When customers started asking for variation — different styles, different sizes, different
colors — Thos. Moser had to be more flexible. And the company couldn't do it.

Orders were taking up to six months to fill.

"The same principles didn't work for us," said Manufacturing Manager Rick Foss.

So Thos. Moser called in the Maine Manufacturing Extension Partnership, or MEP, a little-known government-backed organization that helps small and medium Maine manufacturers become more efficient, productive and competitive. Through its Lean initiative, Maine MEP cross-trained Thos. Moser workers, changed the manufacturing floor's layout to make it more efficient and created work centers for specific products so components and products could be made in the same area at the same time and with less opportunity for error.

The company, which used to make 25 to 30 types and styles of furniture, now makes more than 250. It handcrafts products in four months — a third less time than before. Soon, it believes, it can get those pieces done in two months, without sacrificing quality.

Foss credits Maine MEP for the turnaround.

"It's great. We've changed our business practices for the better two-fold, three-fold," he said.

Thos. Moser isn't the only one, even in the small city of Auburn. The Strainrite Companies, a liquid filtration manufacturer, used Maine MEP to help improve both efficiency and employees' job satisfaction. Falcon Performance Footwear used Maine MEP and recently cut its production time in half.

Over the past 13 years, Maine MEP has helped dozens of manufacturers across the state streamline, cut costs and become more efficient, all without cutting one of the most expensive parts of business — employees.

"It's about eliminating waste. It's not about eliminating jobs," said MEP Project Manager Wayne Messer.

That's something manufacturers like. During the economic downturn, demand for the Maine MEP's Lean initiative has remained steady, even when businesses have to pay for it. In the long run, they say, the savings of time, money and energy is worth it.

"It's great financially for us and it's great for the customers as well," said Falcon President Carl Spang.

The faster the better

When a business asks Maine MEP for help, project managers — people with industry experience — visit the company to assess its situation. Sometimes they can pick out what's wrong just by walking the manufacturing floor.
"You can actually see areas where an organization is very inefficient," Messer said. "You can see piles of inventory that shouldn't be there because every time you've got inventory piled up you have labor and materials, which are dollars, tied up on the floor that aren't being put to good use."

Visits and assessments are free, as are the suggestions specialists makes. If the company wants to hire Maine MEP to help make those changes, that can cost anywhere from hundreds of dollars to tens of thousands of dollars, depending on service and time required. Projects can take days to weeks to complete.

Thos. Moser has sought Maine MEP's help several times.

In 1998, the furniture maker participated in "Lean 101," a course that simulates a poorly run business and shows company leaders and employees how to fix it. In 2003, Maine MEP helped Thos. Moser streamline production by creating work centers for specific products. Until that point, employees made components — table legs and table tops, for example — and assembled them at different times and in completely different areas.

"You never knew if your parts were right, if they fit," Foss said. "Now where we build them in the product family work centers, they build the parts and they assemble at the same time."

In 2005, Thos. Moser asked Maine MEP to help train its workers in Lean techniques to make their work more efficient. The company also changed the layout of the production floor and cross-trained employees.

Today Thos. Moser is working with Maine MEP to review the administrative side of the business, including order entry, shipping and supply. It hopes to cut its order-to-door time to a fraction of what it once was.

"We can satisfy (customers) quicker, we can put the money back into the company quicker, and we can generate more customer interest, because when they hear 17 weeks or 20 weeks, it's a long time and it discourages some customers," Foss said.

Falcon Performance Footwear asked the Maine MEP for help late in the summer of 2010, and it has worked with the group constantly since. The most significant change: making shoe parts — such as leather uppers and bootie inserts — at the same time, rather than one right after the other. The change, from sequence manufacturing to parallel, meant there wasn't as much waiting around. The company cut its boot production time in half, from 14 days to 7.

"All of our fire boots are made to order. We have no finished goods inventory, so the faster we can make them the better off we are," Spang said.

He has come to rely on Maine MEP to provide "a second set of eyes."

"You begin to accept things the way they are. You don't question as much as you should when you're associated with an operation over time and you might be a little risk averse," Spang said. "MEP is very good at taking a fresh look at things, understanding the possibilities and pursuing them in a rational way."
At the Strainrite Companies, Operations Manager Peter Brown has been working with Maine MEP for years. He first encountered a Manufacturing Extension Partnership in New Hampshire several years ago — funded in part by the U.S. Department of Commerce, there’s at least one MEP in every state — and he thought the group’s Lean focus could help his new employer in Auburn. Like Thos. Moser and Falcon Performance Footwear, Strainrite learned ways to make manufacturing more efficient. But, Brown said, his company’s biggest change was employee satisfaction.

As part of the Lean initiative, workers are encouraged to bring up issues bothering them, whether the problem is low morale or a high scrap rate on the manufacturing floor. Those issues are then addressed.

"We saw (improvement) in terms of employee morale, employee longevity, employee satisfaction. Which, in and of itself, translates into improvements in efficiency, better relationships between management and employees, and overall better work environment," Brown said.

Over the past 10 years, Maine MEP has helped 600 to 800 of Maine's nearly 1,800 small- and medium-sized manufacturers, assisting with technology, supply chain management and international sales. Although businesses can ask for help with efficiency only, nearly all of MEP’s services involve Lean initiatives in some way.

A nonprofit organization, Maine MEP's funding comes in equal parts from the federal government, the state and the fees manufacturers pay for service. The group's annual federal funding is based in part on its effectiveness. It loses that funding if surveys show manufacturers aren't getting enough out of the program.

So far, that hasn't been a problem. In Auburn, Thos. Moser, Falcon Performance Footwear and Strainrite Companies all said they would recommend Maine MEP and its Lean work.

"Absolutely," said Brown at Strainrite. "I've been a Lean cheerleader for a long time."

At Maine MEP, Messer believes Lean — and getting leaner — will only become more important to companies' survival.

"It's not a destination, it's a journey," he said.

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