

MIKE REES VICE PRESIDENT OF MANUFACTURING

"Before we began implementing these Lean manufacturing tools, we were on pace to produce 60-70 hot tubs a day. Now, we are confident we can reach 80-90 daily, thanks to this partnership with Purdue."



Manufacturing **Extension Partnership**

MANUFACTURING EXTENSION PARTNERSHIP MASTER SPAS INC., FORT WAYNE, INDIANA



INDIANA MANUFACTURER TAPS PURDUE TO MAINTAIN GLOBAL LEADERSHIP IN HOT TUBS, SWIM SPAS

Terry Valmassoi, president of Master Spas Inc., knew that process tools led by an internal team could tackle new-employee retention issues, increase output, eliminate bottlenecks, and reduce lead times.

As Master Spas evaluated the best way to begin a Lean manufacturing program, a supplier from Pennsylvania recommended training available through the federal Manufacturing Extension Partnership (MEP) program, which could benefit the largest swim spa manufacturer in the world, and one of the largest portable spa and hot tub manufacturers in the country.

That expertise would come from just 100 miles down the Hoosier Heartland Corridor — through Purdue University's MEP program.

"We are extremely happy with our decision to work with Purdue MEP in training our team to use Lean manufacturing tools," Valmassoi says. "Our Purdue MEP consultant, Mike Hensley, has been an exceptional trainer and really cares about Master Spas, our employees and the success of Lean initiatives."

"Our total revenues grew 14.5% in 2015, and we are on track to grow another 20% in 2016, levels that would not have been possible without the Lean tools the company is implementing."

— Terry Valmassoi, President, Master Spas Inc.

Twenty employees have received Purdue-led training on Value Stream Mapping, which focuses on how to document, analyze and improve the flow of information or materials used in large-scale manufacturing. Employees also were shown how 5S techniques can help in organizing workspaces more effectively and efficiently.

In addition, Purdue MEP trained 80 employees in Lean manufacturing to identify and eliminate waste and improve production quality. Fourteen employees gained Six Sigma Green Belt certification, which

combines a detailed roadmap with powerful statistical tools to address and resolve critical production issues.

Master Spas is seeing results from its Purdue partnership in several key areas:

- Employee retention: Faced with high turnover of new employees within 90 days, the company expanded its break room, implemented attendance bonuses, and now posts large images of employees and products throughout the plant.
- Quality control: The company placed a focus on identifying and eliminating defects in products before they move on to the next process.
- Inventory of finished goods: Master Spas has seen a 35% drop within the first 90 days of implementation.

"While the company is very happy with these outcomes, we anticipate more significant results will be realized over the next year as these initiatives and investments are completed," says Mike Rees, vice president of manufacturing.

Master Spas invested \$4 million in 2016 to expand its production and office footprint to nearly 300,000 square feet on 27 acres in southwest Fort Wayne.

Indeed, growth has been a part of Master Spas' impressive history since its launch in 1996.

Master Spas employs more than 400 people to manufacture hot tubs that sell for \$5,000 to \$14,000 each. The company diversified into swim spas in 2006 when there was only one other competitor. Its line of swim spas, priced from \$18,000 to \$45,000 and generating 25% of its total revenue, has been endorsed by 18-time Olympic gold medalist Michael Phelps since 2010. Today, Master Spas is the dominant player in that market, which has grown to 30 competitors.

"Master Spas is on a path of continuous improvement due to this training. I would highly recommend the Purdue MEP program to any company that is interested in a Lean program for continuous improvement," Valmassoi says.











Purdue MEP provides high-value solutions that help Indiana businesses maximize their success by increasing profits, reducing costs, and implementing growth systems. Our organization serves more than 500 companies annually by implementing continuous improvement principles in the areas of productivity, growth, and technology. Purdue MEP has helped our clients collectively achieve over \$2 billion in economic impact in Indiana since 2005.

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