

MEP SUCCESS STORIES



DEVEN BERGER
CONTINUOUS IMPROVEMENT
MANAGER
CTE SOLUTIONS

"Working with Purdue MEP has been quite the blessing. We were at a point in time where we were ready for change, but were not quite sure how to implement it. When (Purdue MEP's) Mike Hensley came in and explained Lean manufacturing and used the Lean Lego simulation to demonstrate how things could change, we were very excited. This has allowed us to improve in so many different areas."

PURDUE
UNIVERSITY®

Manufacturing
Extension Partnership

MANUFACTURING EXTENSION PARTNERSHIP CTE SOLUTIONS, PLYMOUTH, INDIANA



PURDUE HELPS CTE SOLUTIONS CUT WASTE, IMPROVE ON-TIME DELIVERY

"BEFORE WE LEARNED LEAN MANUFACTURING, WE SENT OUT ABOUT 100 JOBS A WEEK. NOW, WE SEND OUT 150 TO 200 SHIPMENTS WEEKLY. THIS IS ALL THANKS TO LEAN MANUFACTURING."

CHICO PIZANO
FINAL PROCESS SUPERVISOR
CTE SOLUTIONS

PLYMOUTH MEDICAL DEVICE MAKER UTILIZES LEAN MANUFACTURING TO REDUCE WORK-IN-PROGRESS

CTE Solutions faced a big challenge. Large amounts of work in progress and unexpected growth had become obstacles to meeting its on-time delivery goals.

CTE Solutions began in 1950 as Culver Tool & Engineering. The company made tools for broaching and by 1963 was a major automotive production broaching house in Northern Indiana. In 1987, the company was purchased by Dave Winrotte, Deven Berger's grandfather, and the company began making spinal implants for the medical industry.

Wade and Lisa Berger, Winrotte's daughter, purchased the company in November 2011. By 2011, Culver Tool & Engineering became one of the largest contract spinal rod manufacturers in the orthopedic industry and also continued providing broaching for the automotive industry. In 2013, the company changed its name to CTE Solutions to reflect its transition to providing medical instruments and implants.

"We were good at getting individual jobs done, but not moving those jobs to the next part of the process," says Deven Berger, the Plymouth company's continuous improvement manager. "We had huge stacks of product, and nothing was getting done. The jobs also were taking up space, and we do not have a lot of space. We needed to use our space better and also reduce our lead time."

That's when Purdue University's Manufacturing Extension Partnership stepped in to help.

"I was working somewhere else, and would get Purdue MEP emails about what they can do to help companies," says Doug Satorius, engineering director at CTE Solutions, which specializes in orthopedic medical devices. "When I came here and saw the issues we faced, I contacted Purdue MEP, and they offered all kinds of assistance. That led us to get involved with Lean manufacturing."

CTE Solutions utilized Purdue MEP for on-site Lean manufacturing training in value stream mapping, 5S/visual workplace, quick changeover and cellular manufacturing. Several staff also took Six Sigma Certification courses and consulted with Purdue MEP experts on Lean manufacturing.

Berger says Purdue's assistance, led by Mike Hensley, produced several positive results.

"The big thing for me was that I learned what waste was, how to identify it and eliminate it. I also learned that culture is just as much a part of it as improving your process," he says. "Money was part of the goal, but it wasn't the biggest thing. The real goal was moving our stuff through faster to better serve our customers and employees."

"A happy employee is going to be a much better and more efficient employee. If you can help employees learn that change is good, that's huge. Employees took ownership, and it has made a big difference. Improving morale has been a key factor for us."

Benefiting from the Purdue MEP partnership, CTE Solutions was able to:

- 57% increase in on-time delivery.
- Improve growth from 10% (2015 to 2016) to 20% (2016 to 2017). So far, growth is even higher this year.
- Reduce work in progress while increasing production capacity and on-time delivery.

"Purdue has helped us handle the growth," Berger says. "Before Lean manufacturing training, the goal of sending out 100 jobs a week stressed us out. We were always working overtime and even weekends. Now, we send out 150-200 or more jobs a week, and it's not stressful at all. We have fun and enjoy it."

ABOUT MEP

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 \$2.25 billion of economic impact in Indiana since 2005.

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