

HOW TIDI PRODUCTS REVOLUTIONIZED THEIR PROCESSES **WITH FIVE ROBOTIQ PALLETIZING SOLUTIONS**



Industry
MEDICAL



Solution
PALLETIZING



Location
UNITED STATES



Units
5



Company Size
400



Key Result
30% PRODUCTION INCREASE



PALLETIZING SOLUTION

THE CONTEXT

For over fifty years, TIDI Products has been a leader in the manufacturing of disposable infection prevention and patient safety products.

The company ships thousands of boxes worldwide and, until recently, palletizing was an entirely manual process. This was posing a risk to the health of their workforce and reducing the consistency of the palletization.

Robotiq's Palletizing Solution brought about remarkable results to the company's US Wisconsin facility, creating better working conditions for employees and significantly increasing productivity of their palletizing process.

The productivity gains from the first palletizing cell were **30%**, which is very impressive. Subsequent cells have increased by a similarly impressive **25%**. The robots have also solved the safety and ergonomics issues, which were the team's top concerns.

Robotiq had a discussion with Cameron Lemke, Value Stream Manager at TIDI Products, to shed light on their impressive surge in their palletizing process.

INTRODUCING TIDI PRODUCTS

TIDI Products is deeply committed to supporting caregivers and protecting patients. With over 50 years of experience, the company has been providing quality solutions to healthcare professionals across the globe, helping reduce the risk of contamination and improve patient care. Their portfolio includes renowned brands like POSEY®, STERILE-Z®, C-ARMOR®, PenBlade®, TIDISHIELD® and GRIP-LOK®.

The company has a global presence, with facilities in the United States, China and Mexico, as well as distribution partners worldwide. It employs over 2,000 associates across all locations and 400 at its headquarters in Neenah.



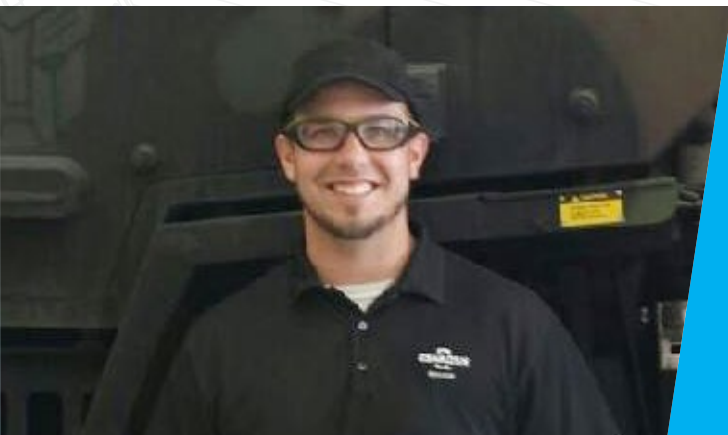
TACKLING LABOR CHALLENGES AND INCREASING PRODUCTION SPEED

Before robotics, the palletizing task was entirely manual. It involved erecting, loading, sealing and palletizing boxes. This was extremely time-consuming for the team as the same employee had to make several stations on the line and constantly walk around from station to station, wasting valuable time and energy.

Two problems affected their end-of-line operations:

- › **Labor challenges** — The challenge of labor meant that one person was assigned to two different tasks (e.g. filling the box and palletizing). This was inefficient and created an undesirable work situation for that person.
- › **Slowed production** — The inefficiency meant that the facility wasn't able to deliver all their orders in a timely manner. There was a growing backlog and they were being forced to decline orders, losing revenue.

The team faced a tough challenge: how to keep the production line running despite labor challenges and a backlog of orders. They believed that robotic automation could help solve these problems by increasing the production speed, cutting costs and freeing up employees to focus on other tasks.



Cameron Lemke is the Value Stream Manager at **TIDI Products**. He focuses on building an engaging environment which creates a team that's committed to continuous improvement.





UNLOCKING NEW OPPORTUNITIES WITH A RELIABLE PARTNERSHIP

The team was looking for a supplier to provide the robotic solution. NEFF Automation suggested they use the **Robotiq Palletizing Solution**.

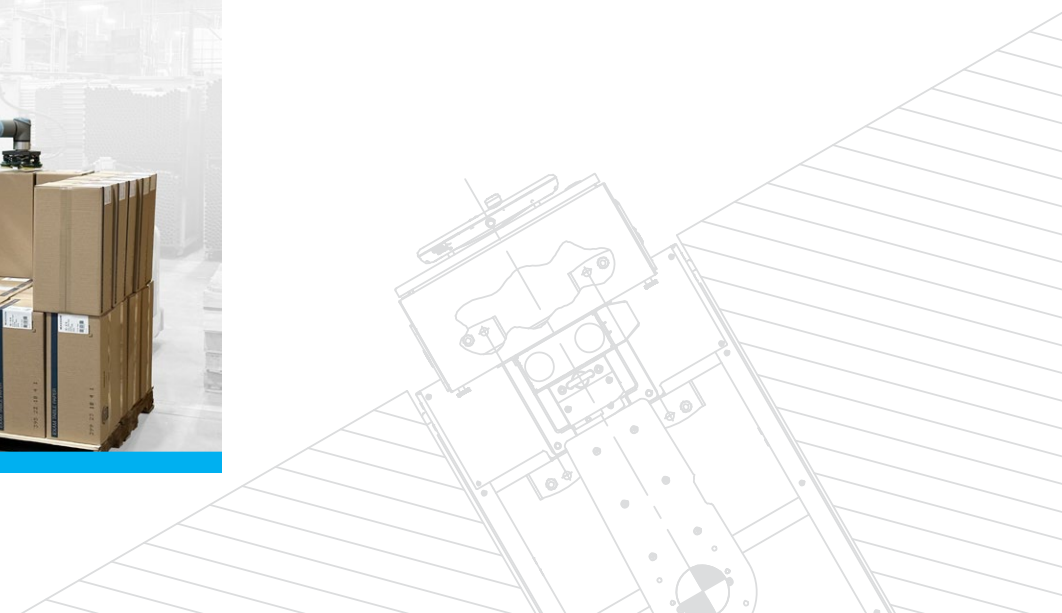
Cameron says that one of the great benefits of using the Robotiq solution is the support and communication provided.

Robotiq's Palletizing Solution provided TIDI Products with the flexibility they needed for various applications.

“ It’s all about the ease of relationship. Robotiq is very flexible and very willing to work together as a team, with clear and concise communication. We’ve had other companies say they can do something, but they can’t. But with Robotiq, it’s all about reliability and effectiveness. ”



The box is pushed to the right and straightened to the vertical.



SPRAINS, STRAINS, AND GAINS: THE CHALLENGES OF ERGONOMICS AND CONSISTENCY

The major drivers to using robotics were worker safety and consistent productivity.

"What we do is very manual. It's a very physically demanding job. Everything involves labor, moving different sized boxes coming off the end-of-line conveyor onto pallets."

The weight of the boxes varied anywhere from 10 lb (4.5 kg) up to well over 25 lb (11.3 kg). The team had run into problems from an ergonomics perspective. Even a small, awkward movement could cause strains or sprains that could put someone out of work for days.

For productivity, one problem was training and task consistency.

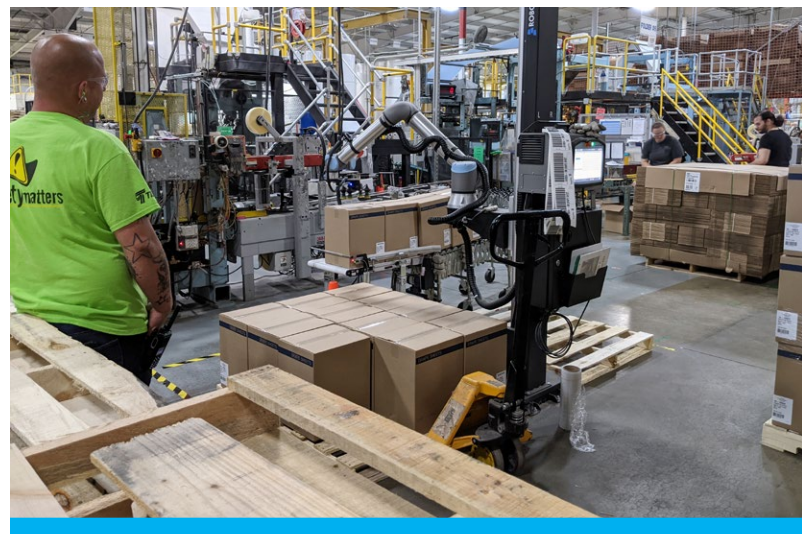
"Depending on the particular product line, we have a demand that says you need to palletize it in a certain sequence. Training takes a lot of time in order to do that and get it done right. By automating, we improve the quality and overall customer satisfaction by providing a better, more consistent product."

HOW PALLETIZING AUTOMATION HELPS SHOW RESPECT TO THE WORKFORCE

The need for a better, safer and more efficient way of manufacturing is at the forefront of many companies' priorities.

In addition to reducing injury, Cameron noted that automation has been a great way for the company to show its appreciation for all team members. By simplifying the process and taking out physical constraints, it helps extend the life of workers and make their jobs more satisfying.

Reducing the physical strain on workers means they can stay healthy and productive for longer. Additionally, automated palletizing can help to free up valuable time for operators to focus on other tasks, as they can run two workstations at once.



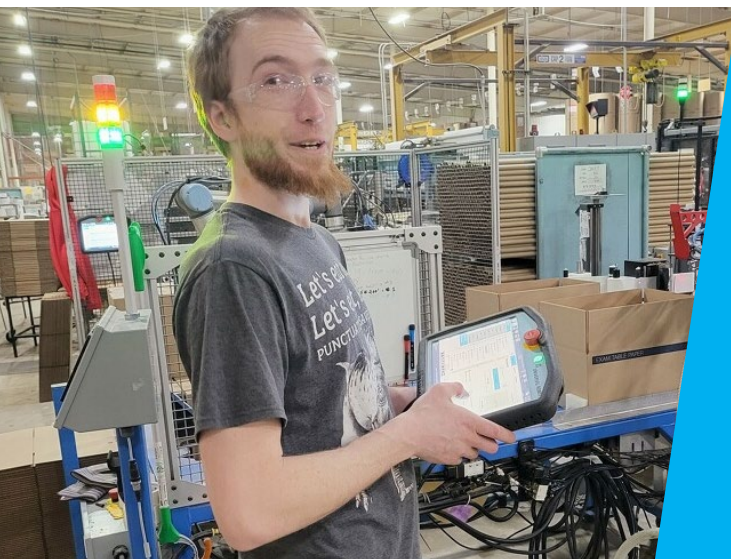
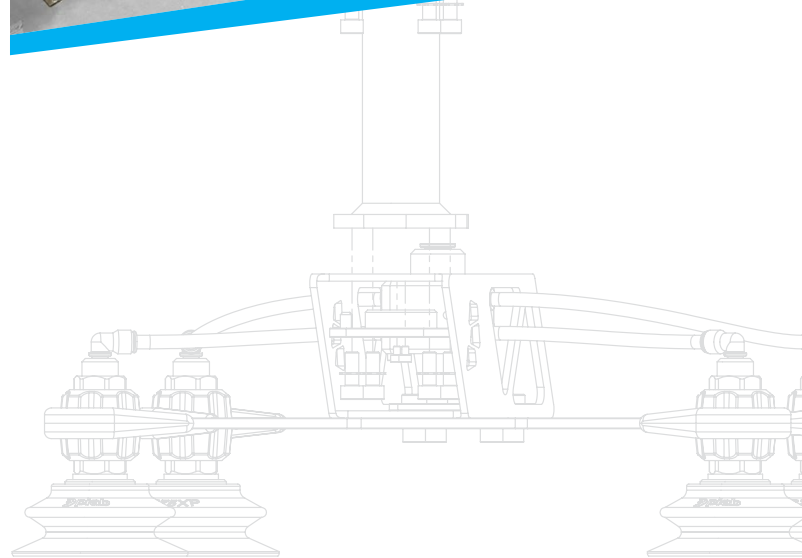
A SIMPLE SOLUTION TO MAXIMIZE EFFICIENCY AND TEAM MORALE

The results of switching to robotics were clear - a safe working environment with consistent products delivered on time.

Robotiq's Palletizing Solution offered several advantages over other robotics automation systems. Its flexibility is something that the team didn't fully realize at first. Its user-friendly interface also allowed operators to gain control over robotic processes quickly and intuitively.

"One thing that we learned relatively quickly was the ability of the palletizing solution is vast. It has a lot of capabilities that we didn't recognize right away. When we set it up, it was palletizing the same product each time. Now it's palletizing from two different machines, two different feeders, and it's still very successful. We're still continuing to learn and have those 'Aha moments,' which I think is great."

A common step that leads to success in robotic deployments is when one or more members of the team take ownership of the robot and its programming. This has also been the case with the deployment by Cameron's team.



“ One of our operators, Justin, has become very good at the programming portion of it. He has a lot of passion for understanding the ins and outs of how the robot works. So he can help make modifications if we make changes. ”



HOW AUTOMATION INCREASED PRODUCTION

What were the impacts of the palletizing solution on their operations?

The decision to free up the associates from mundane manual labor allowed them instead to focus on tasks that could add greater value for the company like keeping the machines running and running them faster. Increasing speed was a definite benefit.

The productivity gains from the first palletizing cell were 30%, which is very impressive. Subsequent cells have increased by a similarly impressive 25%.

The team has been able to combine two separate work centers into one. So they could double their performance on that cell. They have gone from two operators to just one and added more uptime across the board.

The robots have also solved the safety and ergonomics issues, which were the team's top concerns.

"The problem of strains and sprains is definitely reduced, if not eliminated from a palletizing perspective on those machines. It's been night and day difference in the elimination of that risk."

30%
productivity gains from
the first palletizing cell

25%
productivity gains from the
subsequent palletizing cell

HOW CAMERON AND HIS TEAM ARE LEADING THE WAY AT TIDI PRODUCTS

Cameron's team in Wisconsin is the first to use robotic palletizing within TIDI Products. But they are hoping to see even more teams within the company follow their lead.

He says that the return on investment of the solution definitely justifies the investment.

“ If I was to go back in time to give myself some advice, I’d say ‘Do it sooner.’ It’s a simple solution. And, sure, there are upfront costs, but it’s very easily justifiable and it’s very beneficial to the business and people.

If you’re in a business that cares about your team, this is a very easy way to invest in your team to help them feel supported and encourage their longevity with your business. ”

THE NUMBERS IN BRIEF

Challenges solved

- › Labor shortage causing low palletizing productivity and ergonomics causing safety issues for workers, especially older workers.

Productivity gains

- › **30%** on the first deployment
- › **25%** on subsequent deployment
- › **Double performance** on the combined workcell.

Other gains

- › Ergonomics issues are significantly reduced as is job satisfaction for workers doing the palletizing tasks.

Unlock greater potential with Robotiq Palletizing Solution and find out how it can transform your business operations.

CONNECT WITH AN EXPERT