

Full-Service Metals Manufacturer Cuts Reject Rate in Half with Automated Wrapping Machinery



At DeWys Manufacturing, Marne, Michigan, a lift truck operator wraps a load of metal bars to its pallet using the TAB Wrapper Tornado orbital wrapping machine. The TAB Wrapper has stopped the company's palletized loads from shifting during transit, cut the reject rate in half and saved more than 1,000 man-hours of time in packaging.

When considering the many steps involved in producing polished medical equipment, finished office equipment and a host of metal components and parts from design, manufacture and finishing to assembly, inspection and delivery, and when considering the time, effort and costs involved with each step, it seems that packaging and shipping

for delivery would be the easiest parts of the process. But for Mark Schoenborn, chief operating officer at full-service metals manufacturer DeWys Manufacturing, Marne, Michigan, it was exactly these final parts of the process that nagged at his mind. Schoenborn is responsible for operations for the DeWys "Circle of Companies," which comprises



The TAB Wrapper Tornado encases the entire palletized load in multiple layers of plastic film to keep everything intact and in one place to ensure each order arrives safely and without defects. At DeWys Manufacturing, this TAB Wrapper has replaced wrapping with a horizontal turntable wrapper and by hand.

a range of services offered under one roof from precision sheet metal fabrication, parts machining, welding and contract manufacturing to powder coating, assembly and direct shipping to any location. Schoenborn manages a staff of 160 team members serving customers throughout the United States.

Running a company dedicated to Lean Manufacturing principles including delivering high quality products with zero defects, Schoenborn struggled with an order return rate he considered unacceptable. A single order that gets rejected upon arrival and returned could cost DeWys Manufacturing thousands upon thousands of dollars, and nearly 150 pallet loads are shipped out daily. These costs stack on top of the costs in time, materials, labor and opportunity cost to repair or completely reproduce the product or part and then reship. Defects like this create a cascading effect that saddles the customer

and, in turn, his or her customer, with costly delays and potentially lost sales. While the total annual costs for returns weren't disclosed, Schoenborn was growing increasingly concerned about their cost - and their cost to the company's stellar reputation.

From a review of data on returned orders, Schoenborn noted that most of these returns were due to scratches, scuffs and other defects that occurred during transport to the customer. The high center of gravity of the finished furniture and equipment, the mass of many heavy, metal parts and/or their sometimes

long or unwieldy shapes are prone to shifting inside trucks and trailers. The plastic film was not always strong or wrapped well enough to keep the parts and products secured in place. All too often, a large bump, short stop at a traffic light or tight turn would cause large pieces of metal to slide off of the pallet and arrive scarred from the trip and unacceptable upon inspection. Orders were either wrapped on a semi-automatic, horizontal stretch wrapper or by hand. Though workers paid close attention to the plastic wrapping, the wrapping system was coming up short.

Then, while attending the Fabtech trade show for the metals industry, Schoenborn happened

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upon a company demonstrating a new way to wrap palletized loads. Instead of wrapping products to themselves horizontally as turntables do, the new way wraps products 360 degrees around and under the pallet to join the products to the pallet and create a single, secure, unitized load. The patent-pending concept was developed by Tom Brizek, owner of TAB Industries, LLC, a metal fabrication, warehousing and logistics company in Reading, Pa., to safely wrap and ship large, metal doors. Its line of orbital wrapping machines is called the TAB Wrapper Tornado and it has quickly grown to account for more than half of the company's revenues. Offered in three standard sizes to suit 60" x 60", 48" x 48" and 24" x 24" pallets, and in custom sizes, the TAB Wrapper Tornado encases the entire palletized load in multiple layers of plastic film to keep everything intact and in one place to ensure safe arrivals while also guarding against the elements. Instead of using two workers to wrap each pallet, the TAB Wrapper Tornado allows a single forklift driver to center the load within the wrapping ring and wrap the load while it is raised on the forklift. With the company's newest advance,

automated, wireless remote operation with automated cut and wrap, the forklift driver may operate the TAB Wrapper automatically without leaving his/her seat. "I immediately saw how the TAB Wrapper fastens the load to the skid and knew it would prevent product damage during transit and make our whole system run faster and more efficiently," says Mark Schoenborn. "I bought one on the spot."

Once plugged in at DeWys Manufacturing, the TAB Wrapper quickly replaced both the horizontal turntable wrapper and the manual wrapping method and is currently used to wrap upwards of 150 skids per day. All four lift truck drivers use it almost non-stop. Though

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The lift truck operators at DeWys Manufacturing wrap their palletized loads with the TAB Wrapper Tornado by remote control without leaving their seats. Thanks to the automated TAB Wrapper, the company has been able to grow and process the additional orders without hiring extra full-time staff.



the 80-inch model was designed to accommodate standard, 48-inch pallets, the TAB Wrapper is very versatile and handles a wide range of different products, regardless of shape or size, according to Schoenborn. “With the TAB Wrapper, we’ve been able to eliminate several steps in the packaging process, we’ve eliminated ergonomic and safety issues with manual wrapping and we’re saving so much time,” says Schoenborn. To calculate time savings, the horizontal turntable wrapper required two people and a full minute to wrap a pallet while the TAB Wrapper needs but one person and 15 seconds. At 150 pallets per day, the math reveals DeWys Manufacturing saves two hours per day and four man-hours simply by using the more modern, automated wrapping machinery. This translates to 1,040 man-hours saved annually. At \$15.00/hour, this translates to a direct savings of \$15,600.00 and a payback time on the machine of less than a year. “The time savings really add up for us, but for a much larger company, the savings would be huge considering it only uses a quarter of the time,” says Schoenborn. DeWys Manufacturing has also been able to meet on-time

delivery targets while enjoying substantial growth in sales without hiring additional full-time employees to work in the packing and shipping area. “The savings that come from not having to hire more people aren’t as visible as cutting the cost of material or healthcare but they impact the bottom line just the same, or more,” says Schoenborn.

Most importantly, DeWys Manufacturing has cut its order return rate by at least 50 percent since installing the TAB Wrapper, according to Schoenborn. This translates to far fewer customer complaints and to thousands upon thousands of dollars in savings. It has also enhanced the company’s reputation as a quality manufacturer while meeting the Lean Manufacturing demands for efficiency and continuous improvement. “The TAB Wrapper has virtually eliminated customer complaints due to issues with load shifting in transit, it saves time, saves on labor and we wrap everything we physically can on it,” says Schoenborn. “It’s definitely worth it for anybody who wants their products to arrive safely after they’re shipped out the door.”

For more information on DeWys Manufacturing, call 616.677.5281 or see www.dewysmfg.com.

For more information on the TAB Wrapper Tornado, call 610.921.0012 or see www.TABWrapper.com.

For more information on the TAB WRAPPER TORNADO:

Call Andy Brizek at TAB Industries, LLC
610-921-0012
or see www.TABWRAPPER.com



TAB Industries, LLC
2525 N.12th Street, Reading PA 19605