



Gorbelt Free Standing Work Station Crane Helps Double Productivity

Industry:
Metal Fabrication

Product:
sheet metal

The Problem:
forklifts and manual handling
caused safety and productivity
issues

The Solution:
Free Standing Work Station Crane
with Aluminum Bridge



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Professional Fabrications, Inc. is a small fabrication shop in suburban Wisconsin which cuts and forms sheet metal for radiators, generators and other electrical applications. The sheet metal being handled typically measures between 4 and 5 feet wide by 8 to 10 feet long, and is between $\frac{3}{4}$ to 1 inch thick, often weighing as much as 650 pounds.

When the shop received two new laser cutting machines for its fabricating, it began searching for the best way to lift the sheet metal onto the cutting machines. It required the raw sheets to be lifted from the stack where they are delivered, turned to a machine directly behind the operator, and precisely placed on the laser cutting table.

Initially, the company tried moving the sheet metal onto the machine with a fork lift. With this method, placement was too difficult and the fork lifts were bumping into the machines. The company also tried using two operators to lift and position the sheets onto the machine. While positioning was more accurate than with the fork lift, the doubled cost of labor paired with safety hazards that come with such heavy, sharp material eliminated that option.

“Moving the sheet metal onto the cutting machines was too great of an injury risk to ignore,” said Brian Moeller, Manufacturing Engineer for Professional Fabrications. “We had a lost time injury, and within a week recognized the need for something to help move the metal.”

Among the options for a solution was automating the process. While it would have reduced injuries, the cost of the automation was far too high for the shop to invest in.

The company decided on two Gorbels free-standing work station cranes with 1 ton capacity aluminum bridges, one for each cell with a laser cutting machine. A one-ton capacity chain hoist with a vacuum end effector grips the sheet metal, and one operator is able to effortlessly move the heavy sheet metal from the delivered stack and place it on the cutting table.

“The Gorbels system has worked out very well,” said Moeller. “One operator is able to do 30 cycles per shift now, where before we may have only done 15. Plus, there have been no injuries. Operators are very happy and there was no hesitation to use the Gorbels cranes. They aren’t complicated and don’t slow them down, so they use them.”