



Price Erecting Combines Innovation With Whitney Portables for Big Savings

For over 90 years, Price Erecting Co., Milwaukee, WI, has been home to derricks, truck cranes, heavy lifts and all the equipment that efficiently handles machinery moving, steel erecting, precast concrete erecting and heavy factory maintenance jobs. The company is also home to creative, innovative project managers and engineers who approach each situation with an attitude to finish the job safer, faster...and cheaper.

Miller Park Baseball Stadium, about two miles from downtown Milwaukee, is home to Milwaukee Brewers and their fans, and a seven panel radial retractable roof that keeps players and game attendees warm and dry during baseball season and other events held at Miller Park.

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Price Erecting and Miller Park have come together, though not for the first time, on a project to improve the mechanics that open and close the signature stadium roof. Price Erecting was involved in much of the support work during the stadium's construction and is involved with maintenance and operations at Miller Park today.

Since the stadium's completion for opening day in April 2001, some operational challenges appeared within the roof system. Engineers determined that the best and simplest way to solve the challenges is to replace the two-wheel bogies (trolleys that support and move the roof panels) with four-wheel bogies. The replacements are narrower and longer to better



Miller Park Baseball Stadium's seven panel radial retractable roof.



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distribute the heavy weight of the panels—that range in weight from 1800 to 2500 tons.

A major part of the renovation process is refurbishing the horizontal rails that guide the bogies around the track surrounding the stadium. A steel "wear plate" is being added to the inside of each rail.

Dale Anderson, Price Erecting Millwright Superintendent and Project Manger, explains, "There are wear plates being added to the surface of the guide rails to enhance the operation of the roof driving system. Holes are punched in the existing track and the wear plates are bolted on." Total length of the wear plate being installed is approximately 4000 linear feet.

"Better Mousetrap" Thinking

This is an area where the creative approach and "better mousetrap" way of thinking that Price Erecting is proud of came into play.

The original quote for the stadium contractors included time and tooling required to drill the nearly 15,000 1-1/8" holes in 18" @ 71# WF structural beams with a flange thickness of 13/16" that form the guide rail for the retractable roof.

When Dale looked at the repetitive nature of the holes, he figured there had to be a better, faster, cheaper way to accomplish the job. He did the research—talked to his machine tool representative Don Raba at Angel Machinery and visited a fabricator who used a Whitney 90-ton press for structural steel.

He ended up with two Whitney Model 790 90-ton Flange Presses to punch horizontally rather than vertically. But his innovation didn't stop there.

Dale designed two custom brackets to hang one 90-ton press with the throat up, and the other with the throat down. The brackets rolled along the track, 140' in the air, supporting the presses that produced holes quickly and easily. For ease of mobility, Dale also changed the hoses to quick disconnect.

Economics of Creativity

Savings due to the change from drilling to punching 15,000 holes was dramatic. The estimated completion time dropped from 10 months of mag drill time to only two months of punching time. And other efficiencies contributed to the greatly reduced project costs.

"The decision was based on pure economics," Dale explains. "It was a much neater, more efficient process. There was also considerable savings just in tooling costs—about 10 to 1—between the drills and punch sets. And it's a much neater process—we didn't have concerns with the chips or cutting oil."

Rob Kieckhefer, Price Erecting Owner, took over the family business when his father-in-law, Glenn Price, son of the founder Leo Price, retired. Kieckhefer, proud of continuing the company's encouragement of innovative thinking, speculates on the process of moving from the drilling to the punching process, "My guess is that Dale probably thought of Whitney because we have used a lot of presses in the Miller breweries for putting high guards on conveyors. Typically, we're punching light gauge but I'm sure Dale said the only difference with this job is that we're punching structural beams." Dale's experience and creativity took it from there.

Bottom line, the switch from drilling to punching took an estimated 75 percent out of the cost of this part of the job. That savings are passed back to Miller Park. So it was a win-win situation. The job got done faster, easier and at less cost to the community.

Kieckhefer is pleased, "It's fun to see the creativity of our foremen—they look for a better way, a safer way to do every job. This is a good example of Price innovation—finding the Whitney punch for this application." ♦



Rob Kieckhefer, Price Erecting Owner; Dale Anderson, Price Erecting Millwright Superintendent and Project Manger and Don Raba of Angel Machinery.