

# McMillan Electric Sees Savings In Addressing Dock Gaps

Located in Woodville, WI, McMillan Electric Company employs 250 people and manufactures nearly 2 million motors a year. The company's product line includes a series of shaded-pole motors, permanent split capacitor motors, permanent magnet DC motors, and portable generators. McMillan's plant ships to customers throughout North America, and they, in turn, sell their products worldwide.

Environmentalism at McMillan starts at the top. On a regular basis, top management challenges all employees to identify ways to conserve energy and minimize the impact the company has on the environment.

As part of its proactive approach, McMillan also looks to its business partners to help achieve its environmental goals. Among its partners is Pogleasa Company, Inc., the local representative for Frommelt Products Corp., a division of Rite-Hite Corp.

In the summer of 2007, Pogleasa representative Eric Rich and McMillan Facility Maintenance Supervisor Floyd Ankrum discussed ways to save energy at the company's seven loading docks. The dock area, which encompasses a total of approximately 8,000 square feet, is heated and cooled. The space is also pressurized.

It didn't take long for Rich and Ankrum's inspection of the dock to reveal a significant opportunity for energy savings. Close examination of the docks revealed significant gaps underneath and around the dock levelers. All told, the gaps amounted to nearly five feet of open, unsealed space. It was clearly an issue that needed to be addressed, according to Ankrum.

"There were several inches of white space around the bottom area of the leveler and leveler pit," Ankrum said. "When you can see that kind of daylight, it doesn't take a rocket scientist to realize that you're losing a lot of expensive heated and cooled air."

Rich recommended that McMillan install the Frommelt® PitMaster™ Under-leveler Seal on each dock. The PitMaster shelters to close off the fourth side of the dock opening—beneath and around the dock leveler. Specifically, it closes up the pit and seals air gaps where the leveler, the truck, and the dock seal or shelter all meet. To do so, the PitMaster uses a compressible sealing curtain made of durable black vinyl. The curtain is held in place by spring-loaded arms and flexible stays that keep the seal engaged against the leveler and pit sides throughout leveler operation. A separate header curtain constantly maintains the seal, even when the leveler is in an above-dock position, and lip corner seals close gaps at the leveler corners. The PitMaster components work together to prevent energy loss by both blocking airflow through open gaps, and reducing heat transfer through the steel leveler deck.

Ankrum next turned to independent consultant group Focus on Energy to definitively assess the potential for energy savings made possible with the seals. Focus on Energy helps Wisconsin businesses earn cash-back rewards and financial incentives from the state government for installing cost-effective energy efficiency solutions and embarking on renewable energy projects. Ankrum had previously worked with Focus on Energy for a number of years to take advantage of available government funds.

"The Focus on Energy report said the payback on the seals was so good that we didn't qualify for financial incentives," he said. "In other words, we all agreed it would almost be a mistake not to install the seals as part of our energy-savings goals since they pay for themselves so quickly. And the analysis conducted by Focus on Energy



doesn't even include energy savings related to the summer cooling months, which means the savings are even greater than the initial report."

McMillan installed the PitMaster seals in the fall of 2007. Almost immediately, the seals proved their worth in the form of improved employee comfort. "Like other areas of the country, we had a severe winter in Wisconsin," Ankrum said. "With the PitMaster seals, however, the loading dock was much warmer and that much more comfortable for our employees. In fact, it was nice to see we no longer had snowflakes come in through leveler gaps during some of the worst winter days."

In keeping with McMillan's plan for continuous improvement in the area of environmental conservation, Ankrum plans to tighten up leveler gaps even further by installing a number of dock leveler weather seals to close off even smaller gaps between the dock leveler and the concrete loading dock wall.

In the months and years ahead, Ankrum also plans to implement more ways to cut down on energy consumption. "Our philosophy is that a lot of little things done right can really change things," he said. **IMPO**



**McMillan Electric realized big energy efficiency gains after attacking gaps around the dock levelers in its 8,000 square foot dock area.**