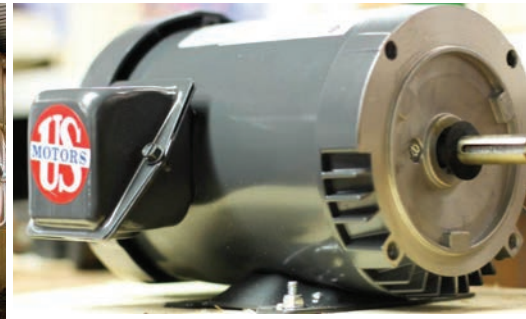




TOO GOOD TO FAIL

Nidec's durable U.S. MOTORS® brand motors help Braum's Family Farm improve maintenance staff productivity



THE CHALLENGE:

To reduce the high stockyard fan motor failure rate at one of the world's largest dairy operations.

When a stockyard fan motor fails at an ordinary family farm, it is an aggravation. But the Braum's Family Farm in Tuttle, Oklahoma, is no ordinary farm.

This 10,000-acre (that's more than 15 square miles) working farm is one of the largest dairy operations in the world. It is home to more than 38,000 head of dairy cows, along with massive milking barns and a 260,000-square-foot processing plant where Braum's makes and processes milk, ice cream, yogurt and other dairy products for distribution to stores spanning across five states. An industry showcase, the farm is equipped to milk about 1,200 cows an hour – around the clock – providing enough fresh raw milk for over one million glasses a day.

To provide the ventilation needed to keep the milk cows comfortable year-round, Braum's operates more than 1,100 stockyard fans. The motors in these large fans are exposed to the elements

and can become caked with a quarter inch or more of dirt and grime during daily operation. Unable to withstand this harsh operating environment, many motors were failing within a year of installation, with some requiring replacement up to twice a year.

For Braum's Farm Maintenance Manager Boyd Langford, the motors' abnormally high failure rate grew to become a significant, labor-intensive maintenance issue. As motors failed with greater frequency, he made the decision to replace them with a different brand of motor. But the problem persisted.

Concerned with the inordinate amount of time the farm's maintenance staff was devoting to fan motor maintenance and replacement, Langford again sought an alternative that would perform reliably in difficult environmental conditions.

The farm is equipped to milk about 1,200 cows an hour.



THE SOLUTION:

U.S. MOTORS® brand UNIMOUNT® totally enclosed fan cooled motors

After learning of the high motor failure rate, a Nidec distributor introduced Langford to the U.S. MOTORS brand totally enclosed fan cooled (TEFC) motor, a 1.5 HP, continuous-duty general purpose motor which is designed to have a five- to eight-year operating life. Unlike the open drip-proof motors that had been driving the fans, the steel frame corrosion-resistant TEFC motors are built for

applications where they will be in contact with water, dirt, grime and other contaminants.

Hoping that the “third time might be the charm,” Langford agreed to try the motors. “They were well within what we were already spending,” he said. “So I gave them a chance.”

As the old motors failed, they were replaced with the U.S. MOTORS brand TEFC motors.



THE RESULTS:

Braum's fan motor failure rate plummets, Braum's replaces washdown motors with Nidec products

Between July 7, 2013 and December 3, 2015, Braum's replaced 452 stockyard fan motors with the U.S. MOTORS brand UNIMOUNT TEFC product in a program that is ongoing. The fans run at half speed in the winter and full speed in the summer, 24 hours a day.

Over that time period, not a single one of the new motors failed, Langford reports. “If you take the motors apart, it is clear that they are better quality,” said Langford. “And because the motor is totally enclosed, we don't need to worry about dirt and grime getting inside.”

Pleased with the performance of the new stockyard fans and the service the company had received, Braum's leaders called in Nidec to discuss some of their company's other motor needs. Specifically, they were interested in finding a durable motor to replace the washdown duty motors in

their dairy processing facility, which also had a historically high failure rate. Nidec recommended U.S. MOTORS brand stainless steel washdown motors.

“The washdown area of the plant is much cleaner than our farm operations,” explained Braum's Plant Maintenance Manager Scotty Scott. “But it is still a challenging environment because the equipment is sprayed down daily with a high pressure water jet and, in some cases, a chemical wash.” Nidec's washdown motors are not only designed for durability in these applications, but made of polished stainless steel certified to meet food industry standards – and visually appealing to the many tour groups who pass through the plant each day.

“In our plant operations, reliability is important,” says Scott. “And these motors are reliable.”

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