

Positive Reinforcement

■ *Waukesha Cherry-Burrell's positive displacement pump slashes maintenance costs, downtime.*

If you were having friends over to watch a football game and wanted to serve cream cheese with your snacks, you'd probably make a choice from the dairy case. If the in-laws were coming over for a holiday celebration, you might choose a cream cheese that was a little more special, something from the deli case.

The latter is the niche that Fleur de Lait, New Holland, Pa., targets with its specialty cream cheese products. The lion's share of the 75 tons of cream cheese Fleur de Lait produces daily is for retail sales. Its product comes in a variety of curds for dipping or spreading and a variety of flavors.

For years, Fleur de Lait used rubber rotor positive displacement pumps in its production lines. But when the pump manufacturer changed the construction of the rotors, rubber wear increased and rotor life was significantly reduced.

"Instead of our typical life of a rotor being three months, or perhaps longer, depending on the application, our rotor life was reduced to anywhere from three months to a couple of weeks if we were lucky," recalls Dave Wilson, maintenance manager.

Wilson started searching for a solution and found it in a Waukesha Cherry-Burrell positive displacement pump.

Fleur de Lait tested other manufacturers' pumps as well as the WCB Lobe Pump before settling on the WCB External Circumferential Pump (ECP). "Cream cheese tends to shear when



you pump it," says Wilson. "The ECP pump provides a longer slip path than the lobe pump and, therefore, performed better with our high-viscosity products."

Wilson wanted to be certain that the pumps also worked well with low-viscosity products. "We first installed these pumps to run our high-viscosity products, which tend to help a non-contact positive displacement pump. The thicker the product, the less slip you have. When we ran the pump on a low-viscosity product, it performed almost as well."

WCB PD pumps feature rotors cast from exclusive Waukesha "88" non-galling alloy. Rotors are also available in 316 and 316L stainless steel. This solid construction overcame Fleur de Lait's high-rotor replacement costs.

A new set of rubber rotors costs about \$900. Wilson estimates that his parts budget more than doubled, an increase of \$30,000 annually. "And that's just the hard cost of the rotors," Wilson explains. "It does not include downtime on your line. That's where you really start losing money."

In addition to putting a plug in the parts replacement drain, the Waukesha Cherry-Burrell pumps saved Fleur de Lait labor costs. The rubber rotor pumps were taken apart at the end of

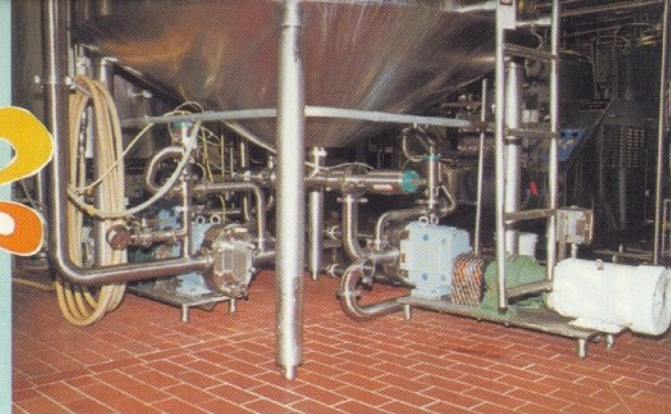
every processing day for hand clean-

ing. The WCB pumps are cleaned in place, which saves eight man-hours per day. Additionally, some lines can be in production up to an extra 2 hours per day. This increase in capacity alone is worth more than \$27,000 for each of the 20 Waukesha pumps now installed in the plant for an annual savings of \$540,000.

Product loss was also reduced. Wilson reports that the lines with the WCB pumps have not suffered any pump-related, unscheduled downtime. These savings add up to more than \$2,000 per pump, or \$40,000 annually.

Wilson is ready in case one of his lines goes down. Replacement rotors for the three different sizes of pumps installed at Fleur de Lait are in stock and ready for an emergency. "It is critical to us that we can take a set of rotors out quickly and put another set in and get running." In fact, the plant has a spare pump, in each size, if the problem goes beyond replacing parts.

As a further safety net against downtime, all Fleur de Lait employees responsible for pump maintenance attended several in-house, WCB-sponsored maintenance-training sessions. They were coached on the construc-



tion, assembly and disassembly, operation and maintenance of the pumps. Several maintenance employees further advanced their skills and knowledge by attending WCB factory training classes at the company's facility in Delavan, Wis. Wilson believes that this training has helped avoid serious damage to the pumps or rotors.

Fleur de Lait has also replaced plate heat exchangers in its cream cheese lines with WCB Corruflow™ Tubular Heat Exchangers. Wilson installed the heat exchangers on a trial basis through WCB's Rental Program. The program allowed Fleur de Lait to tweak production of a new product without making a large capital investment up front.

The cream cheese lines utilize the triple-tube design and Wilson reports that production has increased because the heat exchangers can handle a higher flow rate than the plate heat exchangers. One line runs 5,000 pounds of product per hour and another line, which runs a much thicker product, pumps out 2,500 pounds per hour. — **Waukesha Cherry-Burrell, 611 Sugar Creek Road, Delavan, Wis., 53115, (800) 252-5200.**