

ICE CREAM MIX PROCESSING

Equipment

Waukesha Universal 1 Series
Circumferential piston pump



**WAUKESHA
CHERRY-BURRELL™**
An ITT Company

Industry / Application

A dairy processor* uses two positive displacement pumps within an ice cream mix production system.

One pump operates as the feed pump while a second serves as the pullout pump for a dry/liquid blender. Both positions require consistent volumetric performance and dependable operation in a hygienic, high-utilisation dairy environment.

Problem

The rotary lobe pumps previously installed in the system required complete rotor replacement approximately every six months.

Premature rotor and shaft component wear resulted in recurring maintenance expenditure and avoidable production downtime.

For a continuously operating dairy process, reducing these failures was important both for production reliability and for lowering total cost of ownership.

*) The company name is not disclosed due to confidentiality.

Solution

The existing pumps were replaced with two Waukesha Universal 1 Series pumps equipped with External Circumferential Piston (ECP) rotors.

The larger crossover clearances and efficient ECP rotor geometry enabled the pumps to meet the demanding operating requirements without the premature rotor failures experienced with the previous equipment.

The U1 pumps also use simple single O-ring shaft seals, providing a more economical and straightforward alternative to the mechanical seals fitted to the previous pumps.



Result

Following installation of the Waukesha U1 pumps, the recurring six-month rotor replacements were eliminated together with the associated pump downtime.

Reliable rotor performance provides stable feed and pullout operation within the ice cream mix system, while the simpler sealing arrangement reduces spare-parts and maintenance costs.

The combination of improved component durability and economical maintenance has reduced total cost of ownership while maintaining reliable hygienic dairy processing.



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