

SWEETENERS & BULK FOOD TRANSPORT

Equipment

Waukesha Universal 1 Series Circumferential Piston Pump



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

Industry / Application

A bulk food transport operation* handles viscous products including liquid sugar, corn syrup, other sweeteners and citrus concentrates.

The pumps are installed on transport vehicles and driven by truck-mounted power-take-off (PTO) systems. This creates demanding operating conditions involving high starting torque, frequent start-stop cycles and changing loads.

Reliable pump and seal performance is essential because equipment failures can directly delay deliveries.

Problem

Previously installed sanitary lobe pumps experienced repeated rotor timing and shaft seal failures.

High starting torque from the PTO transmission placed considerable stress on the rotor timing mechanism and shaft components, resulting in recurring breakdowns.

Mechanical seals used in the previous pumps were also relatively expensive and sensitive, further increasing maintenance requirements and operating costs.

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

Solution

A Waukesha Universal 1 Series pump equipped with External Circumferential Piston (ECP) rotors was selected for the transport application.

The robust ECP rotor design, with larger crossover clearances, withstands the high starting torque generated by the truck PTO and avoids the rotor timing problems experienced with the previous lobe pumps.

Simple single O-ring shaft seals provide a more economical and straightforward sealing arrangement, while an internal by-pass relief cover provides additional operational protection.



Result

Following conversion to the Waukesha U1, the previous rotor timing and shaft seal failures were eliminated. The pump provides dependable operation during high-torque PTO starts and reliable transfer of viscous sweeteners and concentrates.

Reduced maintenance intervention improves vehicle availability and helps prevent delivery disruption, while the simpler sealing arrangement reduces spare-parts expenditure and supports predictable servicing.

Overall, the U1 provides a robust, low-maintenance pumping solution for demanding bulk food transport applications.



+353 (0) 1 8829864



info@axflow.ie



Unit 3, 10B Stadium Business Park, Ballycoolin Road, Dublin 11,
D11 WE88, Ireland

