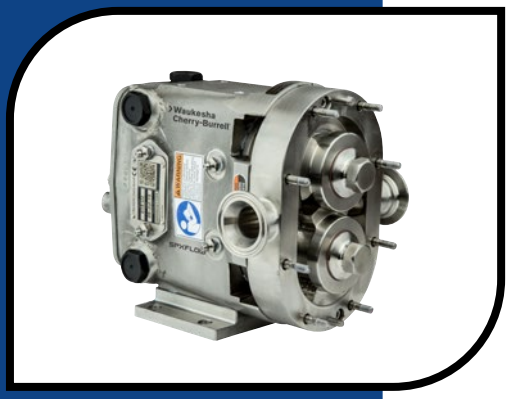
DELIVERING MEASURABLE RESULTS IN ABRASIVE DIATOMACEOUS EARTH APPLICATIONS

Universal® 2 (U2) Positive Displacement Pumps

Pumping abrasive materials presents a unique set of challenges for positive displacement pumps. Core components like rotors, pump bodies and seals often face early failure, forcing operators to choose between compromised throughput and high maintenance costs. When standard pumps struggle with abrasive media, Waukesha Cherry-Burrell® (WCB) delivers proven alternatives that protect performance and reduce downtime.



Challenge

A customer working with diatomaceous earth—a naturally abrasive filtration media—relied on a progressive cavity pump to handle the transfer. Within weeks, performance dropped as rotor and stator wear accelerated. Frequent maintenance, production delays and recurring component replacements became the norm.

Solution

To address these challenges, WCB solution makers proposed a two-week field trial using the Waukesha Cherry-Burrell Model 320 Universal 2 (U2) Positive Displacement Pump—equipped with gas diffusion heat-treated rotors, covers and pump bodies. This proprietary surface treatment reinforces components from within, creating a hardened barrier capable of resisting high wear without affecting internal tolerances or pump efficiency.

Result

After two weeks of handling the abrasive slurry, the pump was disassembled and inspected. The rotors were still within all critical tolerances and clearances remained within original specifications. Flow rates matched factory performance, confirming minimal impact from material abrasion. No component replacements were required, reducing expected downtime and extending service intervals.



This trial reinforced the value of gas diffusion hardened components in high-wear environments. With proper sizing and smart material upgrades, the U2 pump delivered consistent flow and operational stability without compromising efficiency—helping the customer minimize service interruptions and reduce long-term maintenance costs.

www.spxflow.com/waukesha-cherry-burrell

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