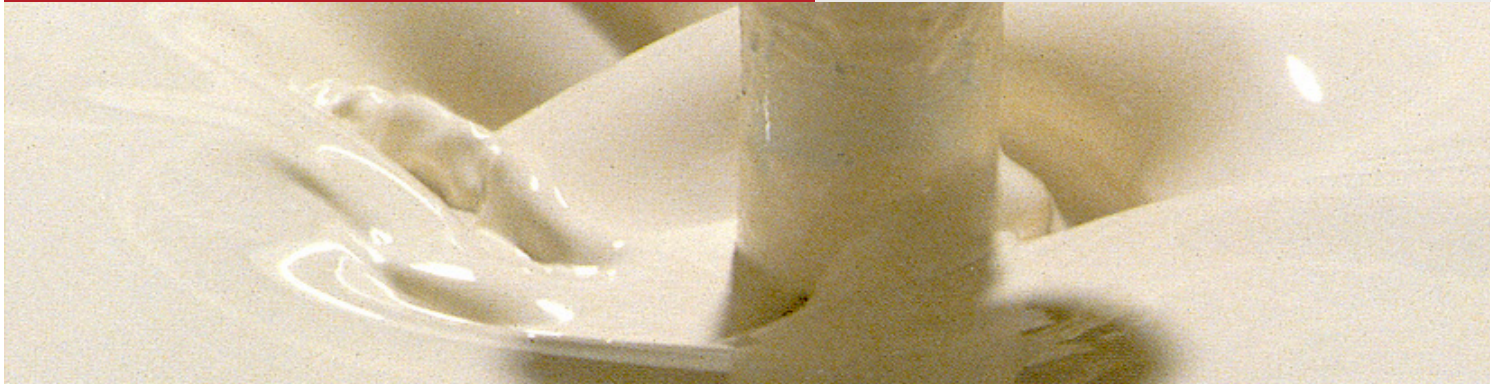


PH CONTROL OF WASTEWATER WITH LIME SLURRY

Wilfley Solid Lock seal system for reduced maintenance on abrasive Lime Slurry application

WILFLEY®

DURABLE. WATERLESS SEALING. INDUSTRIAL PUMPS.



Market:
Lime Slurry

Application:
**pH Control of
Wastewater**

Equipment:
**Wilfley Model 1" Kpro with
Solid Lock Seal**

Location:
OH, USA



BACKGROUND

With acidic pickle liquors of 16-18% HCL, used to pickle their rod and bar, their wastewater needs to be pH controlled prior to discharge, to meet local Public Owned Treatment Works regulations. Both Lime, or calcium carbonate, or caustic, referring to a family of hydroxide based alkalis, can be used, but lime is typical in this application due to its lower bulk chemical cost.

CHALLENGES

Lime handling as a strong base, is not chemically difficult to handle, but Limes abrasive nature poses particular concern not only for pump materials but seal life. Both concerns are engineered out of the equation by the use of hard irons, in this case White Iron, a Eutectic Alloy with a hardness range of 400-460 HBN, and the use of Wilfley's unique Solid Lock seal system, which seals the pump on shutdown without allowing seal faces to contact while operating, and utilizing a unique expeller system to seal the pump while operating. Previously, the customer had used both diaphragm and peristaltic hose pumps, but had problems with 4 - 6 week diaphragm life and hose failures, as blockages were encountered which allowed pressure to build in the hoses.

THE SOLUTION

In 2014, Maintenance Supervisor installed a Wilfley Model 1" Kpro for his 37% Lime Slurry operating at 8 GPM @ 58' TDH through a 1" discharge line.



THE RESULTS

He has replaced one seal, a bearing, and coupling in 6 years and **in his own words, the Wilfley Model Kpro is “fantastic” and he “forgets it’s even there”.**

A duplicate pump was purchased for stand-by.

MODEL KPRO

Wilfley Model Kpro eliminates downtime and reduces maintenance to almost zero on this medium abrasive application.

KEY FEATURES/BENEFITS

- Waterless sealing technology
- A maintenance engineer’s delight
- Case can be easily removed without disturbing suction or discharge piping
- Wear resistance materials



Model 1” Kpro



Tel: +1-303-779-1777

Email: pumps@wilfley.com

www.wilfley.com

5870 E. 56th Avenue Commerce City, CO 80022 USA

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