

IN BRIEF:

SITE/LOCATION:

Greenville, SC

Chemical wash process for the grease and lubricant industry.

PROBLEM:

Tiarco Chemical Division of Textile Rubber & Chemical Company, Inc. needed to install a new chemical wash process and required a pump that was resistant to chemicals, provided a constant low flow rate, and provided very low pulsations to prevent damage to the cleaning system.

SOLUTION:

Liquid Handling Equipment, a Crane Pumps & Systems' channel partner, proposed a stainless steel Burks Vertical Multi Stage pump with an orifice on the discharge side of pump to control the flow. Two model BPVF size 2-110B were installed.

The stainless steel housing, diffuser and double flat face shaft provide resistance to corrosive chemicals and the multi-vane impellers provide smooth, near pulsation free flow.

"Phil Underwood provided an economical solution to our process needs with a reliable pump that serves our unique purpose."

**- Sasha Block,
Tiarco Chemical Division**

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Burks[®] Vertical Multi-stage Pump Handles Tough Chemical Usage

Burks[®] Vertical Multi-stage BPV Pump

Tiarco Chemical is a division of Textile Rubber & Chemical Company, Inc. in Greenville, SC. Tiarco's main focus is on developing and providing specialty chemicals to assist in the formulations of natural and synthetic latexes, polyurethanes, fabric coatings, grease and lubricants and many other polymer formulations.

In 2011, Tiarco Chemical Division was looking to install a new wash process system. They needed a pump that was resistant to chemicals and provided a constant low flow rate despite changes in system pressure. Additionally, the pump needed to provide very low pulsations to protect the cleaning system from being damaged. A VFD (variable frequency drive) would be used to drive the pump.



BURKS VERTICAL MULTI-STAGE BPVF

Typically, when a constant flow is required a positive displacement pump is often the common solution. However in this application, the pulsations delivered by positive displacement pumps would damage the cleaning system. Additionally, to control the system a considerable amount of costly instrumentation and controls would be required.

Phil Underwood from Liquid Handling Equipment, CP&S channel partner, in Charlotte, NC provided a unique solution. He proposed the use of a Burks all stainless Vertical Multi-stage pump with an orifice on the discharge side of the pump to control the flow. The flow through an orifice of a given size is dictated by the pressure drop across the orifice. This solution eliminated expensive instrumentation and the multi-vane impellers provided smooth, near pulsation free flow.

Two model BPVF size 2-110B Burks Vertical Multi-stage pumps were installed.

The performance of the pumps has been as expected with a constant flow and low pulsations over a range of system pressures. The overall new wash process is a success and the system capacity is currently under expansion to allow for additional production.