

Industry: Chemical

Product: Larox Flowsys Peristaltic Pump (LPP)

Process Application: Aluminum Trihydrate Solids carried by Aluminum Chloride and by Aluminum Sulphate

Process Conditions	
Flow Rate	65 - 132 l/min
Temperature	max 49°C
Operation Pressure	5.5 bar
Medium	Crystallizing

Larox Pumps and Valves Benefit CPI in the USA

In 2005 Larox Flowsys supplied two Larox peristaltic pumps (LPP40) and a Larox PVEG/C valve to Delta Chemicals, which is a leading chemicals manufacturer, located in Baltimore, Maryland. The LPPs pump water based aluminum trihydrate solids carried by aluminum chloride and aluminum trihydrate solids carried by aluminum sulphate. A 50 mm Larox PVEG/C valve is utilized for pump isolation.

Larox Flowsys in the Process

Since the installation, Delta Chemicals has experienced higher availability due to longer hose life and no additional glycerine use compared to traditional peristaltic pumps. Further, the advanced rolling design of the LPP allowed for a smaller pump motor and less frictional wear on the hose resulting in lower maintenance costs and electrical consumption. The duty had previously been handled by traditional hose pumps with hose lifetime of just 1 to 3 months. Because of their unsatisfying performance, Delta Chemicals turned to Larox Flowsys peristaltic pumps.



So far the first pump (pictured here) has offered 100% availability with no hose

Both pumps are equipped with downstream pulsation dampeners. One of the pumps also has hastelloy C flanges for chemical resistance. The pumps are equipped with a 3.7 kW motor and a 3 hp motor. The flow rates of the pumps are 65-132 l/min at 5.5 bar and 65 l/min at 5.5 bar. They are regulated by variable speed drives. The process temperature is maximum 49°C.

A 50 mm **Larox PVEG/C valve** is installed downstream of the pump and utilized for pump isolation. The PVEG/C is especially designed for use in chemical process industry applications. It is very light, durable and corrosion resistant. The valve is equipped with an EPDM sleeve, a non-corroding bushing and a corrosion-resistant hand wheel. The service life of the Larox PVEG/C valve is long and it does not require any special maintenance.

Flowsheet

