



SERFILCO® A STROLL DOWN MEMORY LANE

SCRAPBOOK SNAPSHOTS

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Plating solutions withstood by plastic sump pumps

Problem

Cutronics, Inc., headquartered in Nashua, NH, needed pumps that could withstand the corrosive action of the various solutions used in its plating operation.

The company makes printed circuit boards and multi-layer boards for the electronics industry. In addition to the Nashua facility, the company has a plant in Atlanta, GA, and two in Timonia, MD. The Nashua facility has 100 employees and about 15,000 sq. ft. of space.

The plating operation is critical to the manufacturing process. Because of this, the plant needed reliable and rugged pumps that could provide continuous service 24 hours per day, seven days per week, without failure.

Solution

After considerable research, maintenance selected plastic sump pumps designed for non-metallic solution contact. The motor is mounted vertically above the pump, and they can be used in both in-tank and out-of-tank operations.

The pumps are constructed of chlorinated polyvinyl chloride (CPVC) with CPVC-sleeved stainless steel shaft, Kynar® casing, CPVC casing bolts and ethylene propylene O-rings. The impeller is semi-enclosed and is of compound design for high efficiency. The complete assembly provides non-metallic solution contact.

The pumps feature a cantilevered shaft which eliminates pump bearings and seals, resulting in a pump that can be run dry without damage. Compound impeller design prevents the liquid from rising in the pump shaft column even at maximum total dynamic head, while the semi-enclosed bottom

impeller provides efficient flow performance at low horsepower.

A unique characteristic of these pumps is their ability to perform on continuous duty with or without pumping a liquid. When the liquid reaches the impeller level, the pump self-primers automatically. This design permits the pump to be used for automatic liquid level control. With an appropriate suction extension pipe installed, the liquid level is maintained between the level of the impeller and the end of the suction pipe extension.

TEFC chemical-duty motors are painted with two-part epoxy gray enamel.

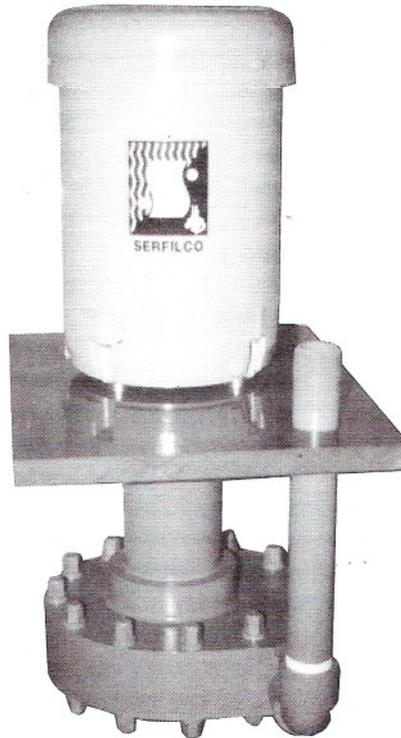
Results

Cutronics purchased the first plastic sump pump in 1980. It has been in almost continuous operation since then, without failure.

Maintenance has been so satisfied with the operation of the pumps that an additional six were purchased for the Nashua facility, with the latest two acquired in April 1984. These added pumps were purchased because of increased production operations. The pumps satisfy the stringent requirement for the reliable recirculation of plating solutions.

Jeffery M. Davis
Maintenance Supervisor
Cutronics, Inc.
Nashua, NH
John Molnar, P.E.
Editor - East

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High-efficiency plastic sump pump



SERFILCO®, LTD.

1777 Shermer Road 847-559-1777
Northbrook, IL 60062-5360 U.S.A. 800-323-5431
Email: sales@serfilco.com FAX: 847-559-1995
Web: <http://www.serfilco.com>