

Premier Automotive Paint Plant Selects EnviroGear Pumps for Water-Born White Dispersion Paint and Saves \$42,282 in Maintenance Costs

Premier Automotive Paint Manufacturer

A premier automotive paint plant selects EnviroGear pumps for water-born white dispersion paint and saves \$42,282 in maintenance costs with a 4-month payback and 269% ROI.

Challenge

A premier automotive paint plant needed to change pump systems on a challenging water-borne white dispersion transfer service. The fluid contains titanium dioxide and is abrasive, especially for stainless steel pumps.

The mechanically sealed pump used in the service had high maintenance, housekeeping and downtime costs. Frequent seal and pump failures of a mechanically sealed lobe pump caused the primary problem. The seal failures caused disruption to the production process and environmental and safety hazards. The mechanically sealed lobe pumps in the white dispersion service averaged four maintenance incidents a year. Seal leaks frequently caused housekeeping problems. Also, often after only six months of service, when the pump seal would start leaking, the pump would “seize up” and fail. Maintenance crews did not replace the seal as the pump itself was worn out at that time. Such incidents cost \$18,459 in parts and \$4,562 in labor annually. Frequent failures of the sealed lobe pump also had high downtime costs. It caused disruptions to the production process as the pump was in a continuous service.

Solution

In order to solve maintenance and environmental problems caused by seal failures and improve overall reliability of the service, the project team installed an EnviroGear S1-24-SS seal-less gear pump.

Results

The pump was in service for nearly 2 years without any seal leakage incidents or maintenance costs. Realized maintenance cost savings for this time period were \$40,282. The payback period for the pump was four months, and the IRR of the project was 269%. After nearly two years, the pump began to wear out. A new replacement pump was ordered and manufactured / shipped by EnviroGear Pump in two days to ensure uptime. EnviroGear Pump reconditioned the original pump for use as a spare. The customer has placed multiple subsequent orders replacing existing mechanically sealed pumps with EnviroGear seal-less pumps.

“EnviroGear lasted three times longer than the previous pump without any maintenance incidents. When it did fail, the EnviroGear Pump’s support team was able to investigate the cause, and suggest recommendations to further improve the useful life of the pump.”

- Process Engineer