

Global Paints and Coatings Manufacturer Saves \$48,261 per Year in Maintenance Costs by Replacing Pumps with EnviroGear

Global Paints and Coating Manufacturer

Global paints and coatings manufacturer saves \$48,261 per year in maintenance costs by replacing 6 progressive cavity pumps with EnviroGear seal-less gear pumps. And the project payback period was 3 months with a project IIR of 312%.

Challenge

A leading automotive paint manufacturing facility was looking for a solution to replace a number of 6 progressive cavity transfer pumps. The pumps used at the time were being phased out by the manufacturer, and purchasing new pumps and spare parts became time-consuming and expensive.

In addition to obsolescence, the pumps used in transfer services presented two main reliability challenges: premature component wear and seal failures. On average, pump and seal failures happened twice a year. Each worn-out pump required a five-part repair kit that cost \$4,500. Pump and seal failures caused disruption to the production process and also constituted an environmental and safety hazard. Such incidents cost \$8,044* per pump just in maintenance costs every year. The project team set criteria on selecting pumps:

- Pumps must dramatically improve pump reliability and reduce or eliminate maintenance, downtime and environmental costs associated with seal leakage and premature wear.
- Lead time must be short and delivery must be timely.
- Pump manufacturer must provide outstanding technical support.
- Purchase price must be affordable.

Solution

In order to solve maintenance and environmental problems caused by seal failures and improve overall reliability of the service, the project team chose EnviroGear S1-32-SS seal-less gear pumps.

Results

The pumps have been in service since the winter of 2008, without any seal leakage incidents or failures due to premature wear. The pumps have required no routine maintenance. Realized total maintenance cost savings to-date are \$48,261**. The payback period for the pump was 0.24, and the IRR of the project is 312%. The customer has placed multiple subsequent orders replacing existing mechanically sealed pumps with EnviroGear seal-less pumps.

“Since EnviroGear Pump's solution has been implemented, we have not had to give the pumps a second thought. The pumps have performed without failure.”

- Project Engineer

*Annual Parts savings per pump: $\$39,016/6=\$6,503$. Annual Labor savings per pump: $\$9,245/6=\$1,541$. Annual Maintenance savings per pump:

$\$6,503+\$1,541=\$8,044$

**Total annual savings for 6 pumps: $\$39,016+9,245=\$48,261$