THE CHALLENGE

Our customer in the thermal oil production sector used Magnesium Oxide (MgO) in their water treatment process. When MgO mixes with water, it becomes an abrasive slurry which poses similar challenges as any other slurry. The customer had to replace centrifugal pumps passing magnesium oxide slurries every few months because they were wearing out quickly, and the replacements cost were over $30,000.

The customer required relatively high pressure (over 100 psi) for their systems to operate correctly, and their original pump-a Slurry duty centrifugal pump-couldn't handle the service conditions without quickly wearing out. They approached John Brooks Company to consider an alternative pump options to notably increase runtimes while reducing costs.

THE SOLUTION

Our pump application expert offered SEEPEX SCT Progressive Cavity Pumps to replace the customer's slurry duty centrifugal pumps.

There was a massive reduction in velocities within the pump, resulting in a significant decrease in wear and tear for the pump components. The capacity to tighten the stator in the Seepex SCT design when the customer notes a drop in efficiency significantly increases the stator life and acts as advance notice that they'll need to replace parts soon (the customer can be proactive with maintenacne and decreased downtime). The Seepex SCT design also grants the ability to easily remove the top half of the stator to inspect the rotor and stator for signs of wear, eliminating the need to remove pipework and making maintenance simpler.

THE RESULTS

- Reducing Maintenance Downtime
- Increased Efficiency
- Reduced Costs

Case Study

Progressive Cavity Pumps With SCT Help Reduce Maintenance Costs and Increase System Efficiency in Magnesium Oxide Pumping

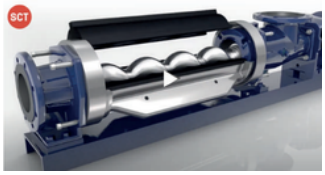
Progressive cavity pumps save over $30,000 in replacement costs and reduce maintenance time by 85%.

Technology Utilized

SEEPEX BN-Range Progressive Cavity Pumps with SCT (Smart Conveying Technology) convey low to highly viscous media with or without solids. SCT means quick maintenance, significantly reduced life cycle costs, and the shortest possible downtime.

- **Conveying Capacity: 0.3 - 134 m3/h (1.3-590 GPM)**
- **Max. Discharge Pressure: 120 psi (8 bar)**
- **For Low to Highly Viscous Media with or without Solids**
- **Rotor and Stator's Life Extended by up to 200%**
- **Reduces Maintenance Time by up to 85%**
- **Small Footprint for All Services Activities**

How Smart Conveying Technology Works



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