

From Frequent Failures to Seamless Operations

A Success Story with Cognito's EODD Pump in Oily Sludge Transfer



Overview on Oil Sludge Transfer Application

Oily sludge transfer is a critical process in many industries, involving the movement of viscous, abrasive, and often hazardous materials. Efficient and reliable pumping solutions are essential to ensure smooth operations, minimize downtime, and reduce maintenance costs.

The Need

A leading customer required a robust and reliable pump for their oil sludge transfer application. They were experiencing frequent breakdowns and severe leakage issues with their existing Progressive Cavity (PC) pumps, leading to high maintenance costs and significant downtime. They also have tested various PD pump technologies to solve this issue but not able to get rid of breakdowns. MTTR and MTBF are always on higher side which hampered their process and production capacity.



Customer Challenges

The customer faced several challenges with their PC pumps:

Frequent Failure of Stator and Rotor

The PC pumps' stator and rotor components were prone to frequent failures in highly viscous oil sludge, caused process and efficiency losses.

Increased Maintenance Costs

Frequent breakdowns led to higher maintenance expenses, increased inventory costs, and reduced reliability of the current system.

Significant Downtime

The need for constant repairs led to substantial operational downtime, affecting overall productivity.

Process Details

Fluid Oil Sludge	Flow Rate 160 LPM	Discharge Pressure 3 barg	Viscosity 5000 Cp	Specific Gravity 0.95
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The Right Solution

The Cognito team approached the customer to understand their process requirements and pain points and offered Cognito™ EODD pump as a solution. The EODD pump is specially designed to handle challenging applications like abrasive fluids and oil sludge transfer. It has proven to be an effective and low-maintenance option, highly recommended for critical fluid transfer applications.



Customer Experience

After replacing their PC pumps with Cognito's EODD pumps, the customer experienced several benefits:

Approx. 76% reduction in maintenance expenses	Reduced breakdown	Improved Performance & Reliability	Quick ROI within 1.5 years	Improved total cost of ownership	Extended pump lifespan
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Before



After replacing with COGNITO™ Pump



Energy Consumption	PC Pump	Cognito™ EODD Pump
No. of Working Hours/Day	8 hrs	8 hrs
Energy Consume at Duty Point (estimated)	1.5 KW	1.3 KW
Electricity Consumption/ Month	360 KWh	312 KWh
Electricity Consumption/ Year	4320 KWh	3744 KWh

Maintenance	PC Pump	Cognito™ EODD Pump
	Consumption of minimum 3 sets of stators, rotors & packing glands in a year	Operated smoothly with consumption of only one set of diaphragms, gear box & check balls in a year

The implementation of Cognito's EODD pumps in the oil sludge transfer application has proven to be a game-changer for the customer. The pumps' reliability, low maintenance requirements, and overall performance have not only met but exceeded the customer's expectations, leading to enhanced operational efficiency and cost savings.