

Discover how a Leading API Pharmaceutical Company in India Enhanced Energy Efficiency, Reduced Maintenance Costs and Achieved Seamless Recirculation of Challenging Solvents using COGNITO™ EODD PUMP

MARKET OVERVIEW

The pharmaceutical industry is evolving rapidly, and the integration of positive displacement pumps in solvent recirculation is a key factor in enhancing operation efficiency, sustainability, and product quality in API production.

Many solvents used in API production are viscous and corrosive. The pumps should be designed to handle such challenging materials without compromising performance and should reduce the risk of leaks or spills, which can pose safety hazards in the production environment. Their role is vital in maintaining high standards of quality and safety in the pharmaceutical industry.



THE NEED

A prominent customer sought a robust and dependable pump for their solvent recirculation application. They faced persistent breakdowns and significant leakage issues with their existing AODD pumps. The aggressive nature of the solvent, combined with back pressure from continuous recirculation, led to frequent diaphragm ruptures, wear and tear on the discharge manifold & air valve assembly failures. As a result, the customer was looking for a more reliable pumping solution in this application.

CUSTOMER CHALLENGES WITH AODD PUMP

Higher Energy Costs

The pumps operated over 20 hours daily, leading to increased energy consumption of pneumatic air

Safety Issues

Diaphragm rupture posed a leak risk due to the absence of a leak detection system, creating safety hazards in the production environment

Significant Downtime

Frequent diaphragm ruptures, wear and tear on the discharge manifolds & air valve assembly failures

Noise

AODD pumps were quite noisy during operation, which was a concern for the pharmaceutical industry, as they preferred quieter pumping solutions

Increased Maintenance Cost

Frequent breakdowns resulted in higher maintenance and inventory costs

THE RIGHT SOLUTION

Unlike the pneumatic pumps, the EODD pumps consumes less energy due to its electric operation. The EODD pump is equipped with advanced safety features that detect and address leakages promptly, preventing prolonged operational disruption.

Unique patented diaphragm, Seal-less design & the unique "Stopper Cage Design" exceptional durability extend the lifespan of critical components by 2 to 3 times apart from the significant energy savings.

The unique features and significant energy-saving potential of the EODD pump convinced the customer to trial few units of 1.5" - PP Cognito pump, in their solvent recirculation application.



CUSTOMER EXPERIENCE

Since its installation, the Cognito™ EODD pump has functioned seamlessly, showcasing its reliability and efficiency. Here are some key benefits that customers have experienced with this pump:

Energy Savings:
Up to 90%

Improved Safety
Mechanism

Maintenance Cost Reduction:
Up to 65%

Decreased Unplanned
Downtime

ROI:
Within 1.3 years

Improved Total Cost
of Ownership

Energy Consumption	2" AODD Pump	1.5" Cognito™ EODD Pump
No. of Working Hours/ Day	20 hrs	20 hrs
Energy Consume at Duty Point (estimated)	8.2 KW	1 KW
Electricity Consumption/ Month	4896 KWh	500 KWh
Electricity Consumption/ Year	58748 KWh	6000 KWh

Maintenance	2" AODD Pump	1.5" Cognito™ EODD Pump
Total Maintenance cost per year per pump	Consumption of minimum 1-2 sets of Diaphragms & one set of Air valve assembly in a year	Operated smoothly with very minimum maintenance and zero downtime, resulting in efficient operations

The customer is happy with the performance of the Cognito™ EODD pump. They highlighted the savings and improved operational efficiency. This success story emphasizes the critical role of choosing the right pumping solution to tackle specific challenges in the pharmaceutical industry.