

Overview of handling High Viscous Liquid in Coating Industry

The coating industry frequently handles high-viscosity liquids, which are essential in various industrial applications such as printing. These materials require specific handling solutions to ensure efficiency, precision, and quality control during production and application. High-viscosity fluids are challenging to pump due to their resistance to flow. They are typically thick and sticky, necessitating consistent pressure for smooth movement. In coating applications, it is crucial to maintain the fluids' consistency and texture without causing shearing or damage during transfer.



#### The Need

A leading manufacturer of high-viscosity liquids faced significant challenges in transferring these liquids from tanks to rollers manually. This manual process reduced productivity and increased operational costs. Despite the availability of positive displacement pumps, the customer lacked confidence in their effectiveness, prompting the need for advanced pump technology to enhance productivity.

## **Customer Challenges**



#### Manually Transfer

The customer was not using any pumping technology due to a lack of confidence in positive displacement pumps.



## High Operational Time

Manual transferring took approximately 25-30 minutes per transfer, leading to lower production rates.



# Manpower Cost & Dependency

The manual process required significant manpower, increasing operational costs and dependency, thereby reducing overall productivity.

## **Process Details**

FLUID
High Viscous Liquid

FLOW RATE 100 LPM DISCHARGE PRESSURE

2 Barg

VISCOSITY 10000 – 12000 Cp SPECIFIC GRAVITY
1.2





Cognito™ introduced the customer to the Electrically Operated Diaphragm (EODD) pump as a comprehensive solution. The manual unloading process, which took 25-30 minutes, was reduced to just 2-3 minutes with the EODD pump. This significant reduction in transfer time decreased manpower costs and dependency, while simultaneously increasing production rates. Additionally, the EODD pump consumes less energy due to its electric operation.

The EODD pump is equipped with advanced safety features that promptly detect and address leakages, preventing prolonged operational disruptions. Its unique patented diaphragm, seal-less design, and "Stopper Cage Design" provide exceptional durability, extending the lifespan of critical components by 2 to 3 times and offering significant energy savings.

The unique features and significant impact of process automation through the EODD pump convinced the customer to trial several units in their high-viscosity liquid applications.

## **Customer Experience**



After installing the Cognito™ EODD pump, the customer experienced several notable benefits:

Process
Automation

Minimized Manpower Involvement Improved
Process and
Manpower Safety

Higher Productivity with Reduced Operational Costs

Improved
Total Cost
of Ownership

After replacement

The transition to Cognito<sup>™</sup> EODD pumps has revolutionized the customer's handling of high-viscosity liquids in the coating industry. By effectively addressing critical pain points such as manual transferring, low productivity, and high operational time, Cognito<sup>™</sup> has delivered a solution that not only meets but exceeds the customer's expectations. This case study underscores the tangible benefits and superior performance of Cognito<sup>™</sup> EODD pumps, making them the ideal choice for businesses striving for efficiency, safety, and cost-effectiveness in their operations.