

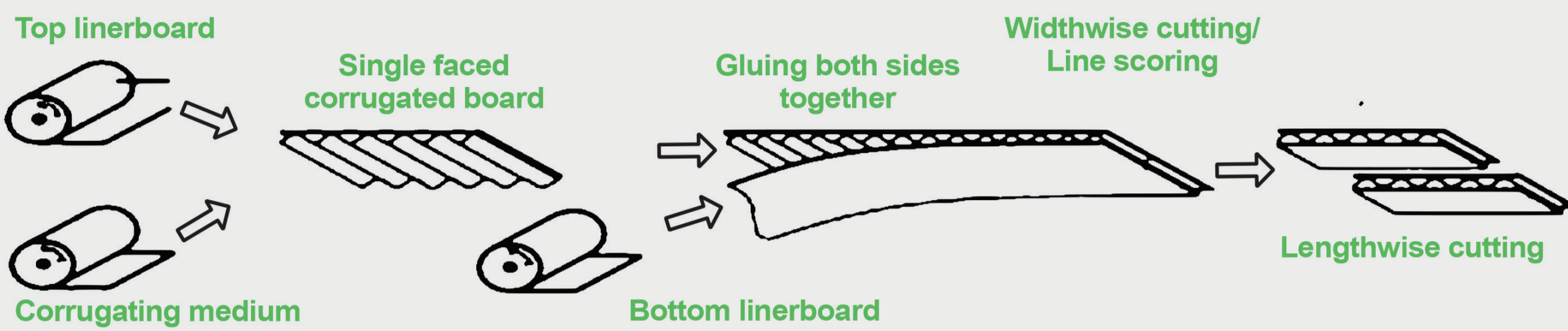
COGNITO™ EODD PUMPS

In the corrugated packaging industry, pneumatic pumps used for glue transfer consume a significant amount of energy, resulting in higher operational costs. This case study explores how the Cognito™ EODD pump was implemented to tackle the energy consumption & safety challenges faced by a customer using an AODD pump.



APPLICATION

Glue Transfer Application in Corrugated Packaging Industry



CUSTOMER NEED

A leading manufacturer in the corrugated packaging sector relied on an AODD pump for glue transfer. Despite its widespread use, the AODD pump posed several challenges like –



Higher Energy Consumption

The process demanded continuous operation for 22-23 hours daily, resulting in substantial energy costs due to the need for a constant continuous supply of pneumatic air.



Safety Concerns

Inadequate safety measures led to undetected leakages from diaphragm ruptures, resulting in significant safety hazards and operational disruptions.



The high energy consumption and safety concerns associated with AODD pumps required a more effective solution. The customer was looking for a pump that could reduce energy consumption and enhance operational safety.

PROCESS DETAILS



- Fluid : Glue
- Flow Rate : 100 LPM
- Discharge pressure: 2barg
- Viscosity : 400 – 600 Cp
- Specific Gravity.: 1.2

THE RIGHT SOLUTION

EODD pumps are designed to be more efficient, consuming less energy while delivering superior performance over other pneumatic pump technology.

Unlike the AODD pump, the EODD pump 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. When integrated with IoT solution, it provides real time monitoring and analysis remotely. Provides real time updates, preventive maintenance alerts, remote health monitoring to improve overall process efficiency.

Our Cognito team conducted thorough assessment of the customer's existing setup and requirements. ROI calculation was done based on the operation duration. Highlighted the significant reduction in energy costs with EODD pump. Provided a detailed comparisons showing how much they can save on their electricity bill over time.

We proposed 2" EODD pump with VFD, leak detection sensor & IoT solution.

Initially, customer agreed to replace 2 nos. of AODD pump with our EODD pump. The pump was installed with minimal disruption to the ongoing production processes.

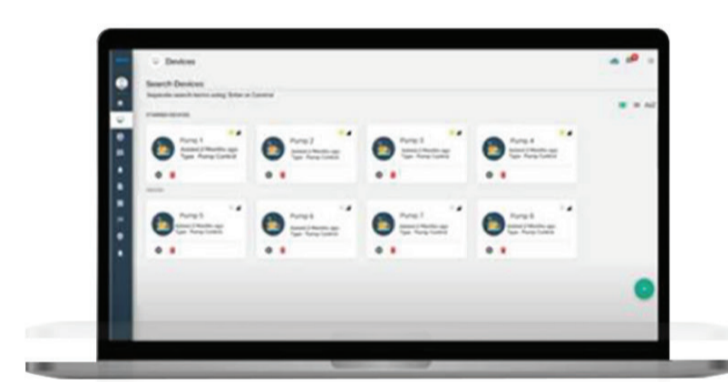
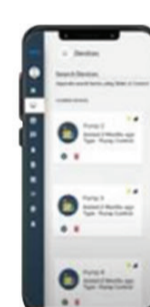
PRODUCT OFFERING



VFD



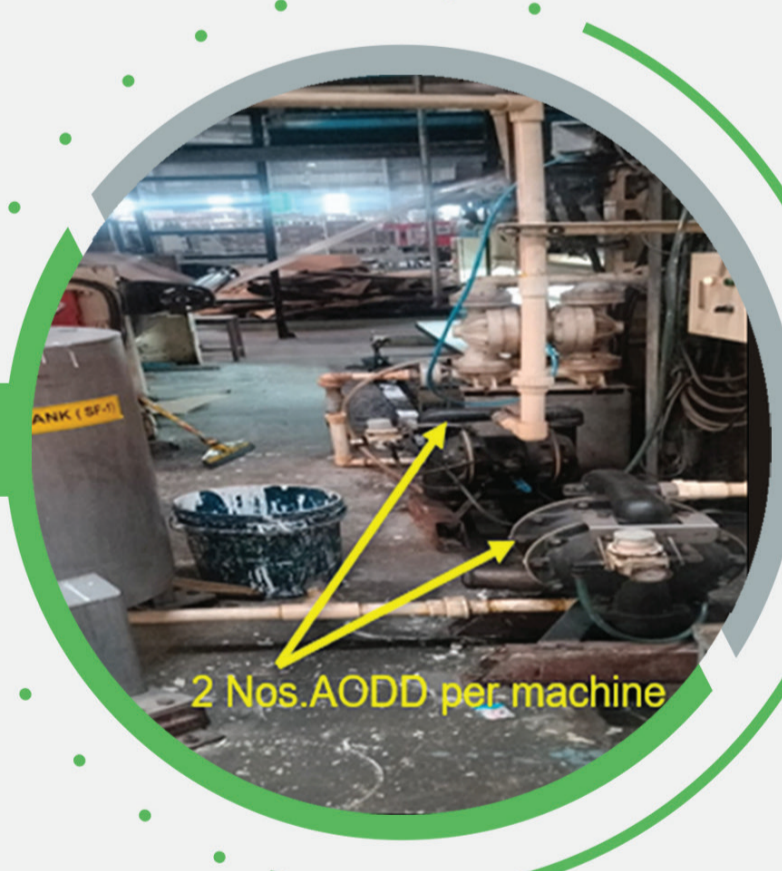
2" EODD Pump



IoT Software

SITE PICTURES

BEFORE



2 Nos.AODD per machine

AFTER



Customer Experience

The customer was delighted with the outstanding performance of the Cognito™ EODD pumps, which not only resulted in substantial energy cost savings but also achieved impressive performance.

Phenomenal energy savings

Leakages eliminated

Improved safety and monitoring

Achieved ROI within 1 year

Improved total cost of ownership

The integration of IoT helped customer for remote monitoring of pump performance, predictive maintenance, and report generation. This ensured that any issues were addressed promptly, enhancing the overall safety and reliability of the glue transfer process.

Energy consumption	AODD Pump	Cognito™ EODD Pump
No. of Working Hours/Day	23 hrs	23 hrs
Energy Consume at Duty Point (estimated)	4.5 KW	0.2 KW
Electricity Consumption/Month	3105 KWh	138 KWh
Total Electricity Consumption/Month	37260 KWh	1656 KWh

Maintenance	AODD Pump	Cognito™ EODD Pump
	Consumption of minimum one set diaphragm & Air valve assembly in a year	Operated smoothly with zero maintenance and zero downtime, resulting in efficient operations.

In conclusion, the implementation of Cognito™ EODD pumps has transformed the customer's operations, delivering exceptional performance and remarkable energy savings. The customer has expressed high levels of satisfaction, highlighting the significant reduction in energy costs and the reliability of the new system. Customer's plan is to gradually replace all existing AODD pumps with our EODD pumps in a phased approach.