

Case Study:

# Transforming End of Line Productivity with Robotic Palletisation



## ⚙️ The Highlights:

Lubrex FZC is a leading manufacturer of high-end lubricants, based in Sharjah, UAE. Having already adopted automation for different fabrication processes, manual palletisation became a bottle-neck, limiting their overall capacity.

Lubrex required a solution that could improve their handling speed and handle their wide range of products with care.

Acme's solution: a robotic palletisation with customised universal grippers.



## ⚙️ The Customer Challenge:

Lubrex produces close to 200 types of products each packaged uniquely due to their specific handling requirements.

Product, worker safety and ergonomic handling were important factors to consider. Any damage or leakage of product needed to be avoided.

Operating with multiple production lines, an automated end of line system had to be designed to seamlessly integrate with the existing systems.

The complexity of managing the diverse product categories alongside stringent quality standards emphasised the need for a solution that could amplify efficiency, precision, and pace in palletisation.



## ⚙️ The Custom Solution:

Acme designed and implemented a robotic palletisation system that has significantly improved efficiency and accuracy. The system includes:

- High-speed roller conveyors with intelligent steering by sensors
- Zero pressure accumulation zones prior to the robot picking range to avoid product damage
- Robots with customised universal grippers
  - preparing empty pallets on the outbound lines
  - lifting products in different sizes and shapes

**60-80 pallets / h**  
System Throughput

**10 seconds**  
Cycle Time

**180 kg**  
Payload

## ⚙️ The Benefits for the customer:

- ☑️ End of line productivity increase by 210%
- ☑️ Enhanced production capacity as end of line handling went up to 4,800 cartons per hour
- ☑️ Seamless integration into existing systems
- ☑️ Significantly improved product & worker safety
- ☑️ Elimination of disruptions during production line changes & when a pallet is filled and ready for shipping
- ☑️ Fast installation & maintenance support



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