CASE STUDY

LOGISTICAL CHALLENGE

FULFILMENT AND DISTRIBUTION

HOW SWITCHING FROM MANUAL TO SEMI-AUTOMATED PALLET WRAPPING HAS IMPROVED HEALTH & SAFETY AND REDUCED COSTS BY OVER 60%

THE CLIENT
A UK-based DIY distribution company.

PROJECT CLASSIFICATION
- Efficiency
- Health and safety

PROJECT OVERVIEW
Introduction of semi-automatic pallet wrapping machines to reduce health and safety risk, improve efficiency, and cut the cost per wrap.

THE CHALLENGE

The customer was using heat shrink to contain loads onto pallets. This involved a shrink hood being placed over a pallet and use of a flame gun to shrink the film and contain the load. 1,200 pallets were being wrapped per day, at an average speed of 4/5 minutes per pallet.

The customer was experiencing three key issues with this method:

1. The pallet shrink gun presented a fire hazard and other health and safety implications from employees bending down and occasionally burning themselves.
2. The client perceived the cost of the shrink hood to be expensive and, with only one size available, wastage was also high.
3. The customer was also experiencing high labour cost per pallet.

THE ANTALIS SOLUTION

Lantech S300XT Semi-Automatic Pallet Wrapper a power pre-stetch straddle semi-automatic pallet wrapper with a production speed of up to 40 pallets per hour. The S300XT allows the pallet to remain stationary during the wrapping cycle. The S300XT provides power pre-stretch of up to 300%. Standard wrap height up to 2030mm.

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THE PROCESS

Using a clear framework, the Antalis machinery team worked to develop a solution to the client's challenge.

1. Explore The Antalis team visited the client's site to gain a clear understanding of the packaging operation and the specific issues to be addressed.

2. Propose Using the information gathered, Antalis recommended the installation of four Lantech S-300 XT semi-automatic pallet wrappers.

3. Test Following the proposal, a Lantech S-300 XT semi-automatic pallet wrapper was supplied to the client for a trial period of several weeks so its suitability could be assessed on site. Visits were also arranged for the client to see the machine in action at other Antalis customer sites. A film audit and trial was carried out in order to provide the client with accurate information regarding cost savings and packaging waste reduction, ensuring that the most appropriate stretch film was selected to complement the pallet wrapper and the products being stacked and wrapped.

4. Implement Following the extensive trial period, the client installed four Lantech S300 XT semi-automatic pallet wrappers as recommended.

THE SUMMARY

CHALLENGE	GOAL	SOLUTION	BENEFIT
Health and safety	Eliminate hazards associated with use of pallet shrink gun, including burning, twisting and bending	Lantech S-300XT semi-automatic pallet wrapper Pallets taken to a dedicated wrapping zone where a pre-perforated top sheet is placed on top of the pallet to protect from dust and moisture. Wrapping of the pallets is then instigated remotely	Health and safety risks removed Improved load containment
Cost saving	Reduction of packaging waste Faster wrapping times Reduction in cost per wrap	Trials to test and select most appropriate film. Pre-stretch helps to maximise film yield Wrap arm speed of up to 12 RPM	75% reduction in waste 70% faster wrapping times

ADVANTAGES OF THE SOLUTION

HEALTH AND SAFETY

Remote wrapping of pallets minimises risk to workers. Improves ability to work while maintaining social distancing.

COST-SAVING

Overall cost saving of over 60%.

TIME-SAVING

70% faster pallet wrapping time.

ENVIRONMENTAL

75% reduction in waste.

Stuart Bates,
Head of Automation and Systems

"The client's existing solution was giving them significant cause for concern from both a worker safety and financial standpoint. The trial and audit were key in us being able to put forward the best solution to tackle both of these issues. The savings we have helped them to achieve are huge and, more importantly, they are doing so while protecting their staff from harm."

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