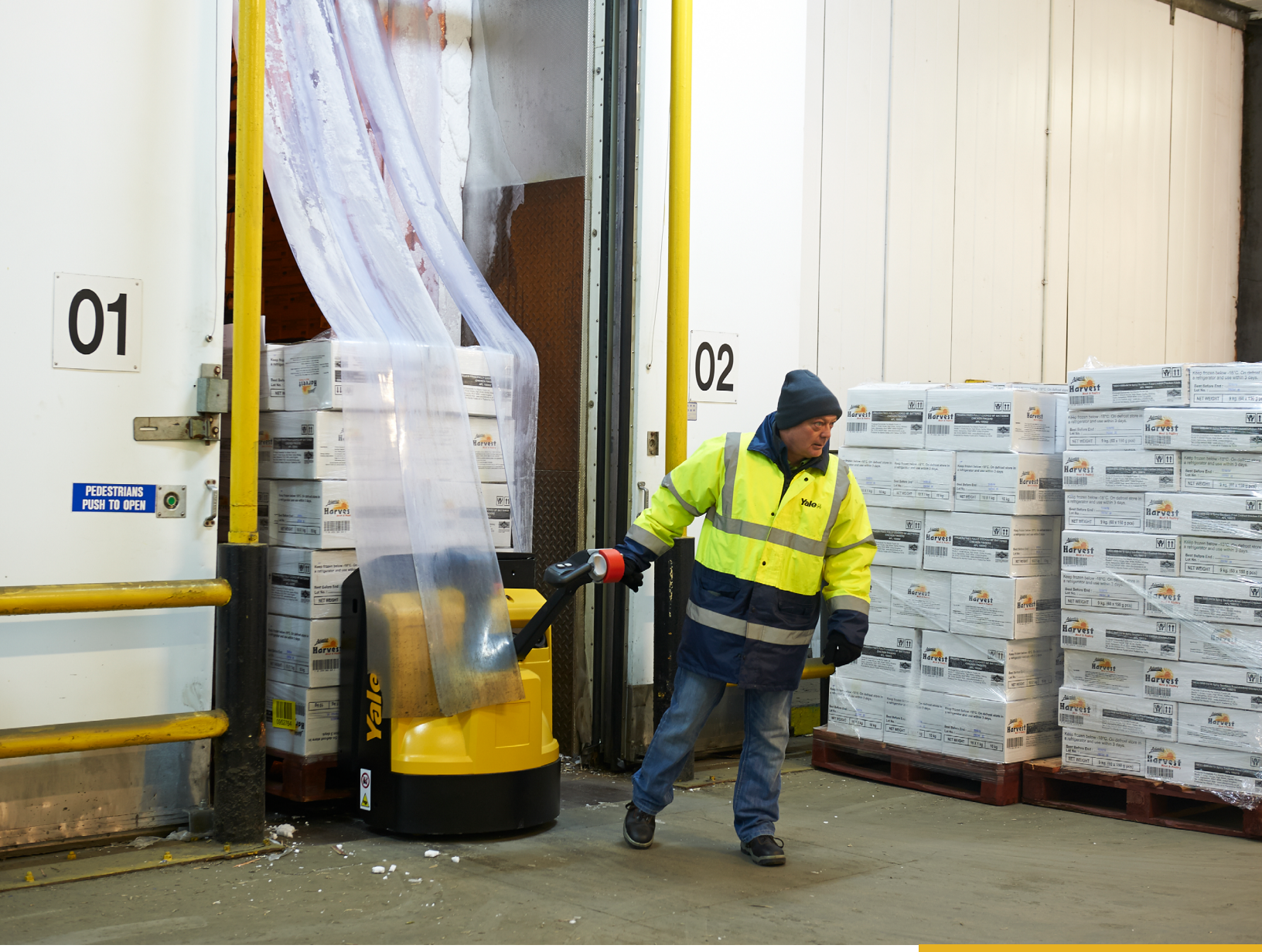


WHITE PAPER

Selecting the ingredients for materials handling success in food processing

Yale®
LIFT TRUCK TECHNOLOGIES

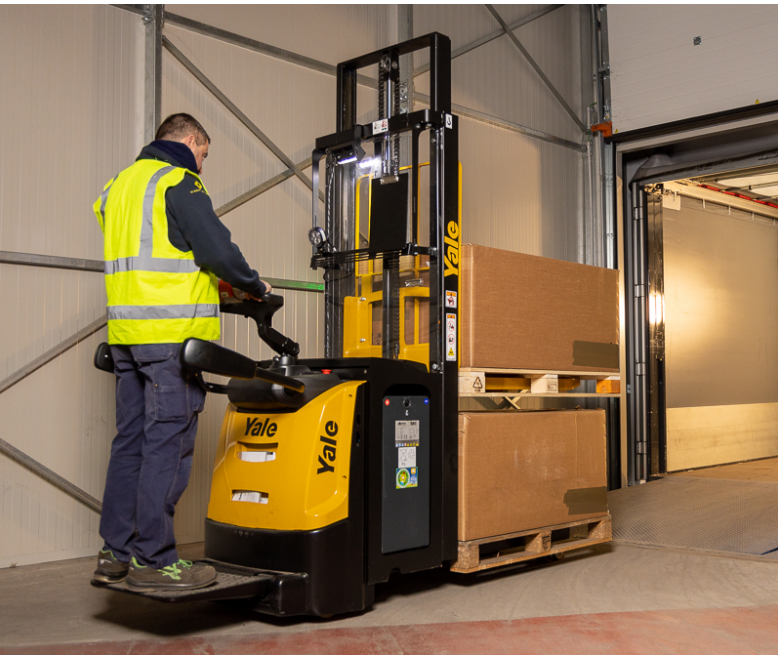
The food processing industry faces unique operational challenges when it comes to material handling and warehousing applications. There are multiple factors that can significantly impact both profitability and operational efficiency. However, the right solutions, strategies, and equipment can be a recipe for success in the face of varied pain points.

In this whitepaper, the experts from Yale Lift Truck Technologies explore key food processing industry challenges and insight to help companies navigate through them.

An industry of opportunity

In EMEA (Europe, Middle East, and Africa), food processing is a significant and vital sector, characterised by robust growth and a substantial market size. For example, the European food and drink industry alone generates a turnover of €1.1 trillion and contributes €222 billion in value added. This makes it one of the largest manufacturing sectors in the EU, employing 4.5 million people.

Globally, the food processing market continues to expand, driven by a variety of factors including increasing health consciousness among consumers, the rising demand for convenience foods, greater urbanisation, increasing disposable incomes, and changing dietary patterns. However, to take advantage of this market potential, food processing companies must overcome industry wide issues.



Raw materials costs are increasing

The food processing industry is heavily impacted by the volatility of raw material prices. The past decade has seen significant fluctuations, with costs increasing steadily. For example, a UK source stated that in 2023 raw materials costs had increased by 50% in the preceding 18 months. This reflects a worldwide challenge - in 2022, the Food and Agriculture Organization of the United Nations stated that globally food commodity prices were increasing by 40% year on year.

This rise puts pressure on already narrow profit margins. However, the right fleet management programme can help control costs in materials handling fleets within food processing. Fleet management programmes analyse applications and operational data to help right-size warehouse equipment fleets. This approach helps to minimise idle equipment, reducing unnecessary costs, and improving overall efficiency.

Maintenance also plays a key role in fleet management. It is a factor which can maximise equipment lifespan and performance. Preventative and predictive maintenance both also help limit equipment downtime, and therefore potentially costly operational disruption.

Maintaining equipment correctly can also help extend the useful life of equipment, delaying the need for new equipment acquisitions. In addition, maintenance may help trucks operate reliably for longer. These are both welcome factors in an industry where new equipment budgets are declining. As added benefit, this approach also helps reduce environmental impact by maximising the use of existing assets.

Sustainability ascends the agenda

The food industry accounts for over one-third of global greenhouse gas emissions. This makes it a primary target for emission reduction initiatives. As such, there has been a substantial increase in sustainability investments. About 55% of business leaders in the food, beverage, and agriculture sectors reported increased levels of investment in environmental sustainability in recent years.

Trends such as clean labelling, plant-based products, and 3D food printing are becoming more prevalent. These practices emphasise transparency, ethical sourcing, and waste reduction, addressing both environmental impact and consumer demand. And consumers continue to show a strong preference for sustainable products, with many willing to pay a premium for items that are environmentally friendly. For example, consumers may tolerate up to a 36% increase in the price point for sustainable goods compared to standard products

Yet while there is a desire to further integrate sustainability into the materials handling part of food processing operations, it presents challenges. Opting for electric equipment has often meant dealing with costly lead acid battery maintenance and replacements and relies upon robust and expensive charging infrastructure. However, lithium-ion power for lift trucks and warehouse equipment may present a solution. Lithium-ion batteries have a useful life up to three times longer than lead acid counterparts. They can often be charged quickly and efficiently, optimising energy use and associated costs.

As lithium-ion batteries can be opportunity charged in situ, this transition also eliminates the need for large battery storage and changing rooms, helping remove a barrier to zero-emission equipment adoption.

Strict standards are not an option

Strict food safety regulations, traceability, and temperature control standards are daily considerations for food processing applications. The EU Official Controls Regulation (OCR) requires enhanced visibility and traceability of food. Food business operators are required to keep detailed records that can demonstrate compliance with safety standards. This includes information on the suppliers of raw materials, production processes, and distribution channels.

Day in, day out, food processing sites must avoid food contamination as a bare minimum. When materials handling equipment is involved, this can become more complex. Operational environments with corrosive fluids can affect food safety, equipment, and productivity, causing downtime. Food contamination from non-grade food lubricants could be both dangerous and litigious for food producers.

Here, businesses can opt for materials handling equipment with food grade lubricants to help minimise risk around incidental contact causing food contamination and resultant product recalls. Lithium-ion also offers a clean technology for battery powered machines. It eliminates tailpipe emissions, and factors like fumes and acid are eliminated around food handling.

The OCR also encourages the use of modern technologies to enhance traceability and visibility. This includes digital record-keeping, electronic reporting systems, and other technological solutions to track and trace products throughout the supply chain. Here telematics, such as Yale Vision, help optimise traceability, all while driving greater fleet efficiency.

Telematics may also support operational safety in other ways. For example, Yale Vision only allows operators with the correct training credentials to access and operator equipment. It provides impact monitoring, alerts, and incident data, which may help with route optimisation and reinforcement of desired behaviour. It can also track training updates needed.

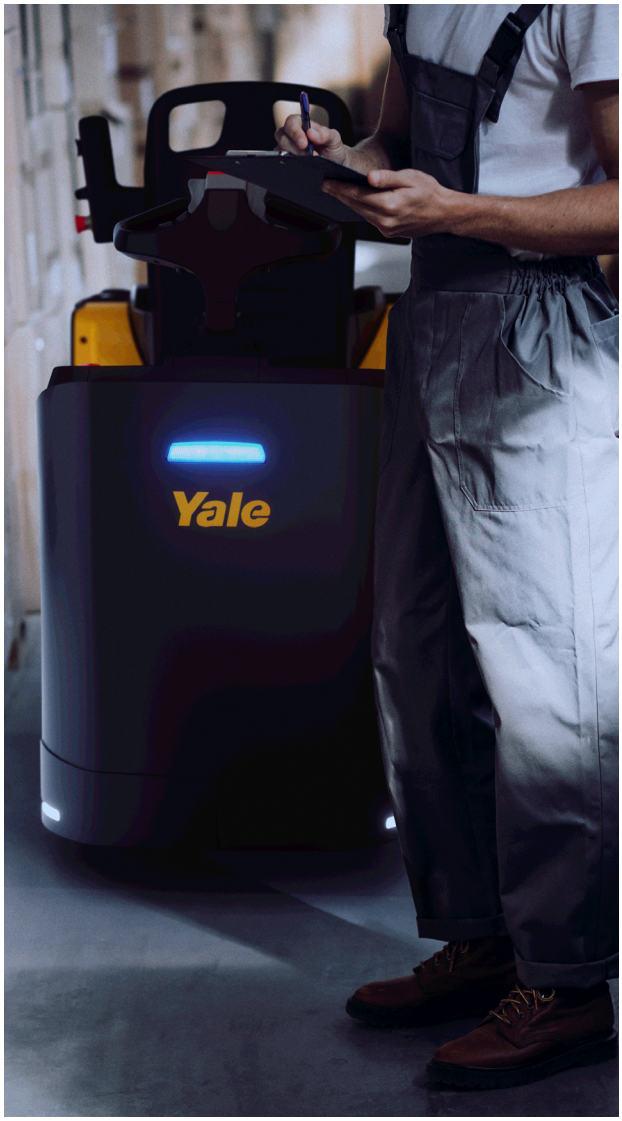
This is of particular importance in food processing where labour shortages abound for warehouse staff and materials handling equipment operators. Less experienced employees may lead to risks around damage or food safety. Physically difficult and fatiguing work can lead to recruitment challenges and high staff turnover. Which also makes catering to operator comfort more crucial.

At the same time, companies must adhere to local regulations around operational safety for employees. Such as supporting operators to avoid musculoskeletal injuries or physical injuries. Failure to do so could lead to incidents, fines, and unplanned downtime. Selecting equipment that optimises operator comfort is key. For example, the Yale Platform Pallet Truck, which offers 30% more floor space on the platform, plus an ultra cushion floor mat which decreases shock and vibration by 30%.

Unlock performance in food processing

In conclusion, the food processing industry is navigating a complex landscape of challenges. However, by adopting robust fleet management programs, integrating lithium-ion battery technology, and compliant practices within safety and traceability, companies can be empowered to thrive in a competitive industry.

Learn more at www.yale.com



www.yale.com

Yale Lift Truck Technologies
Centennial House, Frimley Business Park, Frimley, Surrey, GU16 7SG United Kingdom
Tel: +44 (0) 1276 538500 Fax: +44 (0) 1276 538559