



WHITE PAPER

Setting your standard:
Why customisation is
more than a novelty

Why the right tool is more than just a nice to have.

Custom-designed products often provide an elevated experience that, in some cases, can be more of a needless luxury or even a novelty than a targeted function. Seemingly frivolous customisation is common in consumer-facing industries, such as Porsche offering over [160 paint colours](#) to promote individualisation, and Samsung marketing its latest [bespoke appliances](#) on personal style and luxury. Back in 1999, Nike pioneered the concept of [mass customisation](#) with the NikeiD platform, which empowers customers to personalise their shoes for comfort, colour and style. With these examples in mind, it might seem difficult to reconcile customisation with the careful cost management and tight budgets typical of warehouses, distribution centers and other logistics facilities.

In reality, customisation can actually generate both upfront and long-term savings. One-size-fits-all solutions can lead operations to waste money by purchasing excess features or sacrificing productivity with a solution not optimised for the task at hand. At a basic level, customisation provides a hyper-specific tool, purpose built for a certain task, as illustrated by a standard wrench compared to a torque wrench meant to excel at a specific function. In logistics, customisation choices are driven by carefully studying workflows and selecting the best tools to support overall effectiveness and efficiency. Choosing only the standard options could do more harm than good if equipment is not properly equipped for the task at hand – risking premature wear, greater expense or limited productivity.



Customisation in logistics centres

Automated material handling solutions are multi-faceted, integrated systems that incorporate different technologies. Conveyors, sorters, mobile robots and picking technologies for example are all finely specified and timed to work in synchronisation. For these types of multi-part, integrated systems, there's no standard or off-the-shelf option available. Instead, a team of experts review facility workflows and productivity goals to identify specific needs. Then an automated system is designed, engineered and implemented based on precise operational requirements.

Just as there is no "one-size-fits-all" conveyor and sortation system, there is no such solution for a perfectly optimised lift truck fleet. An audit of truck usage and productivity reports can determine how unique operational requirements affect lift truck use. This helps identify which trucks are used the most and which are collecting dust, creating an opportunity to cut and replace the least used equipment while amplifying the use of trucks with features that achieve higher levels of productivity. Customisation opens the door for the collaborative relationship between sales and buyer to determine the exact, best truck for the application to achieve better efficiency and higher productivity.

Factors that drive customisation for businesses, big and small

Whether optimising big picture processes in a large distribution hub or a fleet of lift trucks, unique operational requirements are the guide for customisation. However, this type of customisation is not only reserved for larger companies with bigger budgets. Smaller, more cost-conscious businesses can and should take advantage of customisation to improve efficiency because they need to get the most out of their equipment. Customisation is a long-term cost-saving and productivity-enhancing strategy that benefits businesses of all sizes. It should not be dismissed or ignored, even in circumstances where the budget is tight because what might seem like immediate savings on the surface can result in higher operating costs and reduced profits over time.

Many different factors can indicate a need for customisation. For example, is the work environment indoor, outdoor or a mix of both? Are there tight spaces, low-hanging beams or hot and cold temperatures? What are the lighting conditions? What about utility grid capacity and fuel availability? These factors and more must be considered when designing the most effective and efficient lift truck fleet. Load type is also a determining factor. Unique or non-palletised loads common in certain industries can require specific attachments or features like raised cabins.





The overall quantity and types of items handled day-to-day must also be considered. Some facilities sort and distribute a high volume of diverse items that vary in size and shape and are carried on different size pallets. If lift trucks must frequently pick up different size pallets, specific tools like fork positioners can make it quicker and easier to switch from one size to another. Or for bulky yet lighter-weight loads, handling multiple pallets at a time can unlock greater efficiency. While for items that are meant to be handled directly – not transported on pallets, clamping attachments fit the bill. Labour availability is also putting pressure on operations, with over 80% of businesses reporting challenges hiring and retaining skilled workers – this is a difficult factor to ignore. Some choose to adopt or adapt advanced technology to optimise the efforts of their existing fleet and shrinking workforce. Advanced technology and specific features can improve working conditions and may help attract and retain workers. In lift trucks, heated cabins or air conditioning for harsher weather conditions are examples of such features.

UPLIFTING CUSTOM FINISHES COULD BOOST OPERATOR PRODUCTIVITY

Customisation isn't just about supporting operational needs. Sometimes the little things can add some value to someone's workday. Sunbelt Rentals ordered a batch of lift trucks with a custom paint job that featured the company's signature green. This Yale lift truck was painted to show support for the local sports team, connecting with operators who are also fans. Studies have shown that happier employees are 13% more productive, and the impact of something as simple as custom paint designs can be surprising.



Customising individual lift trucks

While it's not quite the sheer volume you might find on a luxury car options list, individual lift trucks can offer extensive customisation options beyond simply being equipped with a certain type of power source or attachment. The options can improve operator performance and comfort, increase productivity and efficiency, and optimise operational and situational awareness.

Enhancing the operator experience starts with visibility. This can be as simple as improving exhaust routing to avoid obstructing the operator's view and include clear view guards for improved upward visibility in indoor applications. But visibility is not the only consideration for overhead guards, as manufacturers can offer weather-proof cabin options to keep operators comfortable and sharp in outdoor applications. Inside the cabin, instruments can keep operators informed about travel speed and other information regarding truck status, and a fork-mounted laser for sighting loads at height can also keep operators informed. Comfort within the cabin can be improved with an operator fan, heating, air conditioning and USB ports to support technology-driven workplace demands, while air-ride suspension and full suspension seats can help stave off fatigue from shock and vibration.



Options can also support greater productivity and efficiency. For example, load backrest extensions increase stability for oversized loads and the addition of a hydraulic accumulator reduces shock and vibration for the load operator. This helps prevent productivity-halting issues with load integrity, while helping operators stave off fatigue. Hydraulic control options are also available from the factory, ready for specialised applications that use clamping attachments, attachment extension tubes and other specialised tools. Transmission options can support maximum operator control, for precise power delivery to smoothly transport loads and manoeuvre through busy logistics environments. On-demand hydraulics and fuel-efficient engines can make a big difference in consumption which can add up to big savings. In studies, Yale found that in some cases its trucks used 13% less diesel per hour than leading competitors.¹

Productivity can also be enhanced with integral sideshift and sideshift fork positioner carriages. A sideshift allows the load to be moved left or right and the carriage to be moved without moving the whole forklift. This helps improve manoeuvrability and position loads in tight spaces and during loading and unloading tasks, while also enables operators to more easily align forks with the pallets. Forklift positioners alter the spread of the forks avoiding the need to adjust the forks manually, saving time and reducing the risk of damage due to improperly aligned forks.



Pedestrian awareness lights and audible alarms are at the front lines of operational and situational awareness. Yet they are just one part of the evolving technologies that support application-specific needs and best practices. Many operations are turning to technology to gather and use data for greater efficiency, and yes, customise lift trucks – whether to improve operator performance or optimise equipment fleets. According to the 2022 MHI Annual Industry Report, adoption of the internet of things, wearable and mobile technology, predictive analytics, and inventory and network optimisation tools is expected to rise significantly – reaching or eclipsing 75% among survey respondents in the next five years.

Telemetry and lift truck operator assistance systems (OAS) are examples of those types of technologies. Telemetry systems capture and report lift truck status and usage, providing data to inform fleet management, equipment maintenance and operator behaviour management through a reactive approach. OAS is an umbrella term that encompasses a variety of products and technologies. These include both telemetry and other features like lights, audible alarms, pedestrian awareness systems and options to enforce driver best practices, designed to help operators, pedestrians and ultimately businesses improve productivity and work with fewer incidents.



A key feature of truck safety is stability. A Dynamic Stability System (DSS) is an optional system that sends audible and visual alerts to the operator and limits truck performance in certain conditions. DSS includes the Lateral Stability System which automatically reduces the amount the truck will lean when turning; while Corner Control will also limit the truck speed when turning. The High Lift Traction and Tilt controls limit truck speed when handling an elevated load that is higher than the carriage height. All these features are designed to reduce the likelihood of truck tip-overs.



THE YALE SERIES N OFFERS THE ABILITY TO CUSTOMISE



Visibility

Clear view overhead guards and weatherproof cabin options



Fuel efficiency

On-demand hydraulics and fuel-efficient engines



Advanced features

OAS technologies with automatic performance adjustments

Putting you in control

Control is at the heart of customisation, and businesses want to be sure they can configure systems and equipment on their terms. More specifically, they want the features they need without being required to pay for unnecessary enhancements along with them. Competing models for equipment design and manufacturing lend themselves to various levels of flexibility. Factory-driven, vertical integration models have top-down control throughout the process, supporting high levels of consistency and quality assurance. But since all development and manufacturing is done in-house, product offerings can be limited and, critically, technology evolution happens slowly. This business model does not afford much flexibility to customise solutions around the individual customer.

And as the pace of change keeps accelerating, you cannot afford to be stuck in a rigid, inflexible model. Smart design and flexible sourcing gets the latest technologies to market more quickly, ready to deploy on a versatile platform as part of a customised solution. This is the Yale approach. For the customer, this approach enables manufacturers to offer greater configurability from the beginning. In practice, this can mean the ability to pick and choose a custom configuration from an extensive options list, picking only what your business needs. As equipment becomes more technology-driven, this approach is well-suited to adapt quickly and equip logistics operations with the latest innovations.

As logistics operations face inflationary pressures and other threats that escalate costs while keeping up with a fast-evolving supply chain, they must be more efficient than ever. This is a balancing act – requiring them to put technology to work for greater performance, but also do so without incurring unnecessary expenses. In that paradigm, customisation that puts logistics operations in control is critical to success.

FOOTNOTE

1. *Note: According to standard test EN 16796, which is set out by the VDI. This compares all values of fuel consumption that have been published by each of the following European based manufacturers. (Linde, STILL, Jungheinrich, Toyota, Nissan, Komatsu) If the manufacturer is not in the list, then it is not stated in their spec sheets.*

For more information on the Series N visit [Yale.com](https://www.yale.com).