

Case Study

Century Yuasa.

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With its head office, national manufacturing and national distribution centre in Carole Park, Queensland, Century Yuasa distributes batteries to 34 depots and agencies throughout the country, including major centres and regional areas.

Century Yuasa relocated to the current site in 1987 and inherited a warehouse that stores finished products as well as raw material and componentry for the manufacturing facility.

According to National Warehouse and Distribution Manager, Clyde Howard, the warehouse configuration was not conducive to the Century Yuasa product line.

“We inherited a Drive-In racking system that was three pallets deep and four pallets high,” said Howard. “This may suit high volume product with no shelf life limitations but it doesn’t suit our product range which is shelf life sensitive and requires multiple picks of the same product.”

The Drive-In racking occupied 67% of the floor space but provided low accessibility

to product, with immediate access to only 25% of product stored.

This led to poor stock rotation, insufficient picking locations, multiple handling of pallets, and restrictions in the flow of operations and precluded the introduction of productivity improvements.

“We had known for some time that we had a problem,” said Howard. “So we began a process of examining our options. These included the extension of the existing building, the acquisition of a more suitable building, construction of a purpose built facility or the reconfiguration of the existing storage system. After some deliberation we concluded that reconfiguring the existing system made the most commercial sense,” he said.

For many years, Century Yuasa has utilised the services of one of Brisbane’s local Dexion Supply Centres in Acacia Ridge. According to Ross Beaton from Dexion Acacia Ridge there were a number of options for the reconfiguration.



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“We examined a number of options including Double Deep Selective Racking - providing 50% access, Narrow Aisle Racking- providing 100% access, High Rise – providing 100% access and high density storage, and Selective Pallet Racking - providing 100% access,” said Beaton. “Given the application and the products stored we suggested Selective Pallet racking would be the best option.”

Peter Brown, Century Yuasa National Warehouse Manager agrees, “Selective Pallet Racking allows random storage, so product is now put away in the closest storage location to the dedicated pick location,” he said. “So now the movement of stock between storage and picking is minimised. Selective Pallet Racking also enables the maximum utilisation of available locations. Simple stock rotation is now achievable and individual access to all pallets is now possible.”

The Dexion design has increased the number of pallet positions by almost 50% by reducing aisle widths from 4.2m to 2.9m,

and increased the height from 4 pallets to 5 and in some places 6 pallets high. In turn, this has greatly increased the utilisation of floor space, increased the number of picking locations with spare locations for new products, and ultimately increased productivity.

According to Howard, further enhancements to processes and procedures will improve productivity.

“With the new racking system we can introduce a range of new, improved procedures that will enhance the overall productivity to the facility. Order picking will be from dedicated picking locations at the two lowest levels. Previously we had to pick pallets from the highest positions to pick the order,” he said. “We are just about to roll out a paperless warehousing system utilising radio frequency controlled terminals so we can allocate multiple pickers to an order and the system will generate reports controlling stock replenishment and ‘first in, first out’ storage. Plus the necessity for overtime has been greatly reduced,” he



said. “Overall we believe the gains will save between 5 -10 cents per unit dispatched and we will have retrieved the investment within two years.”

An interesting element of the new design is the inclusion of the raised bottom pallet position which follows a directive from the shareholders in Japan. This enables easy access to the bottom section of the rack for cleaning and maintenance purposes.

According to Brown, the reconfiguration caused minimal impact on the operation.

“Dexion started to pull down the Drive In Rack and construct the Selective racking towards the end of September as we really wanted everything in place for the Christmas rush,” said Brown. “They were working Monday through to Friday and we would move the product over the weekend. They made every deadline without fail, and were able to re-use most of the uprights from the Drive In system which was an added benefit,” he said.