BENCHMARK**BRIEFINGS**

kardex remstar

SITE Cameron Oklahoma City, OK

APPLICATION Manufacture Valves for Oil and Gas Industry

EQUIPMENT Three Shuttle[®] Vertical Lift Modules with Pick to Light Technology and Software

SUMMARY

Three Shuttle Vertical Lift Modules Increase Productivity by 86%, Improve Inventory Control and Product Organization

The Shuttle VLM requires inventory cycle counting, leading to increased accuracy. Misplaced inventory has been reduced by 70%, resulting in a \$58,000 savings annually.



Cameron Organizes Inventory to Keep Product Flowing

Cameron operates three business segments, Drilling & Production Systems, Valves & Measurement and Process & Compression Systems. One of the Cameron facilities in Oklahoma City, OK represents the Valves & Measurement group. Serving companies worldwide, Cameron - OKC manufactures approximately 800,000 valves per year.

Due to the large volume of valves being manufactured on the production floor, the amount of tools gauges and components used in the process can be overwhelming. "Tools were being stored in cabinets and drawers, but it wasn't very organized. It slows production down when you can't find the right tool," says Bobby Maxwell, Sr. Tool & Die Maker. With demand always on the rise, improving inventory control would result in increased productivity; therefore this was a top priority for Cameron.

Automation Consolidates Multiple Storage Locations

Hundreds of cabinets and drawers were spread throughout the facility, storing both CNC tooling and gauges. Two Shuttle XP Vertical Lift Modules (VLMs), one 12' tall and one 19' tall, integrated with inventory management software were installed to consolidate these storage locations. All inventories from the cabinets were moved into these two machines to create a more central and efficient work station. One Shuttle VLM is used for CNC tooling and the other manages gauge inventory.

Productivity Is Flowing

With the new Shuttle VLMs, the operators now walk to one central location and with the push of a button the extractor brings the appropriate tray with the necessary tools directly to the operator at an ergonomic workstation.

On average, an operator would spend 34 minutes picking tooling and gauges per day. In the VLM system, it only takes 5 minutes, to pick. With limited travel and no searching involved, Cameron has been able to reduce the time spent pulling tools and gauges and increase productivity by approximately 86% in both zones! In addition, a worker spent an average of 48 minutes per week searching for the lost



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items. The new VLMs have allowed Cameron to maintain better inventory control which has saved 42 hours per year of wasted search time.

Space Savings

After the successful implementation of the Shuttle VLMs for storing tooling and the gauges, the component parts zone consolidated its inventory into one 12' Shuttle VLM as well. The implementation of the shuttle VLM was able to reduce allocated floor space from 294 sq ft to 91 sq ft, a 69% reduction in floor space. "Space is always a constraint in our facility. Freeing up floor space allows other processes around the VLM to become more efficient." says Alca.

Inventory Is Under Control

The component parts were previously stored on racks, and parts went missing all too often. On a yearly basis, the parts zone would misplace \$83,000 in parts inventory. Now, the Shuttle VLM requires inventory cycle counting, leading to increased accuracy. Misplaced inventory has been reduced by 70%, resulting in a \$58,000 savings annually.

New Ways Keep Inventory Moving

The implementation of the Shuttle VLM in the components parts zone allowed the process to improve. Integrated with inventory management software and a Logicontrol machine control system, the operator can manipulate the location of the parts, and can access any tray stored in the VLM. Delivered to an ergonomic height, the tray is brought down to the access opening via an extractor that runs up and down the middle of the VLM. TiC (transaction information center) lights direct the operator to the appropriate part to be picked. Once the technician has picked the part and confirms the pick with the confirmation bar, the VLM will first put away the previous tray and deliver the next tray for the following pick.

The component parts zone has recently integrated SAP with the inventory management software to further improve picking processes. The main warehouse worker creates a transaction order, where a pick lists is generated. The pick list has the parts numbers, quantities, and the locations of the components needed for the order. The warehouse worker assigned to the VLM gets the same information via SAP to the inventory management software. Once the parts have been picked, they are brought to kitting for sub assembly. After sub assembly is complete, orders are placed on carts and are staged in a designated queue area located in front of each assembly lane. The appropriate orders will be pulled when they are needed for production.



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