Segment: Electronics

BENCHMARKBRIEFINGS

kardexremstar

SITE
FlightSafety International
Broken Arrow, OK

APPLICATION
Manufacture Flight Simulators

EQUIPMENT
Four Shuttle® Vertical Lift Modules with Pick to Light Technology and Software

SUMMARY
Four Shuttle Vertical Lift Modules Increase Inventory Control, Reduce Labor and Increase Accuracy

"Accuracy is at 99.9% - up from the mid 90%'s," says Harvey.

FlightSafety International Keeps Parts Secure To Ensure A Smooth Flight

FlightSafety International is the world's leading provider of aviation training and manufacturer of full flight simulators, visual systems and displays. With more than 40 Learning Centers, worldwide, 1,800 instructors, 3,000 courses on 135 aircraft types, FlightSafety International provides over a million hours of training each year on a wide variety of aircraft types.

With demand on the rise, the stockroom needed a more efficient and controlled environment. "Component parts and kits were stored in cardboard boxes on shelving, making order fulfillment a time consuming, labor intensive process and inventory susceptible to shrinkage," says Mike Halsey, Director of Manufacturing and Material Management.

An Automated Solution

The installation of four, 36' tall Shuttle XP Vertical Lift Modules (VLMs) reduced the footprint of the component and kitting areas in the new facility from roughly 6,454 square feet to 960 square feet, an 85% floor space savings!

Inventory Control Reaches New Heights

Previously with the shelving system, there was unlimited access to inventory. This area was not secure and without inventory personnel available after hours to monitor parts movement, inventory parts would come up missing, creating an untraceable loss in inventory. "After implementing the Shuttle VLMs, inventory is much more accurate," says Halsey, "The VLM operators are given access to the machine, but each transaction is now monitored and recorded electronically in the inventory management software."

Less Labor

The old shelving system required seven people in the components area and seven people in the kitting area. Since installing the Shuttle VLMs, only one person is required in the components area and one person in the kitting area. With labor reduced by 86%, other workers have been reassigned to different areas of the warehouse to increase efficiencies. "Time spent walking and searching

"There is now a continuous flow from the component parts to kitting and down to production," says Halsey.

for parts and kits has been eliminated, allowing our staff to spend time on other important tasks such as replenishment," says Gene Harvey, Inventory Control Supervisor.

Accuracy Takes Off

A primary catalyst for implementing the Shuttle VLMs was the ability to increase accuracy. "The opportunity for human error was affecting our pick accuracy and impacting manufacturing," says Harvey. In the event of a mispicked part, not only did the incorrect part make it to the manufacturing floor in the first place, that part needed to be received back into the shelving area while the new part was picked and delivered to the production line. "When the wrong part makes it to manufacturing, it used to cause a shutdown – with the VLMs that doesn't happen now," says Harvey.

With the Shuttle VLMs, there is limited to no opportunity for error. Integrated with pick to light technology, the Transaction Information Center (TIC) directs the operator throughout the picking processing. "Accuracy is at 99.9% - up from the mid 90%'s," says Harvey.

VLMs Speed Processes

Components Zone

There is a 10 position batch station located next to the Shuttle VLMs allowing the operator to pick up to 10 orders at a time. The operator selects up to 10 orders and assigns a tote on the batch station to each individual order, and then with the touch of a button the picking process starts. Delivered to an ergonomic height, the TIC lights direct the operator to the appropriate part location, displays the part number and the quantity to pick. Once the first part in the order is picked, the operator confirms the pick with a task complete button, or with the VLM confirmation bar. A bar coded label is printed and the operator bags and tags the part for movement down the conveyor to the kitting VLMs.

Each position on the batch station is fitted with a put light that directs the operator in which orders to put the parts picked from the VLM. While the operator distributes the parts among the orders in the batch, the VLM is delivering the next part to the access opening, eliminating wait time and maximizing productivity. As orders are completed they are sent to kitting via conveyor.

Kitting Zone

Upon arrival at kitting, the operator bar code scans each tote, placed at one of the ten batch light positions, and the VLMs presents a tray and uses the TIC to direct the operator to the exact location on the tray to store the kit. The kit can remain in the VLM buffer storage for up to 60-90 days. The production floor sends a request to kitting to pull the appropriate kit number and the operator retrieves the kit requested from the Shuttle VLM and delivers it to manufacturing.

"When the wrong part makes it to manufacturing, it used to cause a shut-down – with the VLMs that doesn't happen now," says Harvey.

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