

# BENCHMARK BRIEFINGS

**kardex**remstar

## SITE

Plasser  
Chesapeake, VA

## APPLICATION

Parts distribution for manufacturing & spare parts

## EQUIPMENT

Eight Shuttle VLMs with FastPic Inventory Management Software

## SUMMARY

Eight Shuttle® VLMs Reduce Stockroom Footprint By 70%,  
Reduce Labor by 20% and Increase Pick Accuracy & Ergonomics



The new stockroom with 8 VLMs and a pick area now occupies only 1,440 square feet of floor space, a 70% floor space savings.

## Plasser Keeps The Stockroom On Track In Less Floor Space

Founded in 1961, Plasser American Corporation continues to serve the nation's freight railroads and the high speed intercity and commuter systems. Their product line includes an entire range of Plasser & Theurer machines designed to maintain, straighten and strengthen existing railroads and transit systems, keeping them running at top speed.

The facility in Chesapeake, VA focuses on manufacturing of new machinery, as well as overhauling and upgrading services to extend the useful working life of machines; providing customers the benefit of the latest technologies and developments without the new price tag. The 35,000 square foot stockroom inventories over \$16 million in spare parts.

With steady market growth and production operations at capacity, Plasser needed to expand production capacity to grow sales. With pressure on multiple areas of the facility to reduce their footprint, the stockroom replaced a sizable 2 story mezzanine bin system with 8 Shuttle VLMs integrated with pick to light technology and FastPic inventory management software.

### Space Savings

The original stockroom consisted of a 2 story mezzanine bin system with 19,000 square feet of shelving occupying 4,875 square feet of

floor space. With each VLM measuring just over 9 feet wide and 10 feet deep, the new stockroom with 8 VLMs and a pick area in the center now occupies only 1,440 square feet of floor space, a 70% floor space savings.

### Accuracy, Traceability and Counting

With 18,000 SKUs in inventory finding the right part can be challenging, but not at Plasser. The pick accuracy level has increased from 98% to 99.7%. "We attribute our increase in pick accuracy to the pick to light technology and our labeling process at receiving," says Daniel Boone, Quality Manager. As parts are received into the stockroom and put away, they are labeled with a barcode that identifies the part number and receipt number.

Upon retrieval, a pick to light TIC (transaction information center) directs the operator to the exact location of the part displaying the quantity and part number to be picked. "When the part is pulled from inventory we can easily identify it with the information on the barcode," says Boone.

Yearend inventory count was a tedious task in the mezzanine bin system. Now using the FastPic5 inventory management, software parts are presented to the operator for counting, eliminating time spent walking and searching for the part location. The stockroom



"We don't measure success by the number of shipments but by getting the right part to the right place at the right time in a usable condition" says Boone, "That's success!"

reported a \$500 Shuttle VLM inventory variance at the end of last year; only 0.01% in misplaced inventory! "Now cycle counting takes us half of the time," says Boone.

## Positive Pressure

"We don't measure success by the number of shipments but by getting the right part to the right place at the right time in a usable condition" says Boone, "That's success!" Each Shuttle VLM is fitted with a dehumidifying unit to keep the parts inside preserved and clean. The dehumidifier controls the air within each unit and adds positive pressure. When the shutter doors open to deliver a tray, clean air blows out of the unit preventing dirty air from entering the unit.

## Productivity

With order volume and SKU count remaining the same, Plasser is picking with 20% less labor. "Since the parts are delivered to the operator for picking, our pick time per part has decreased, allowing us to pick the same number of orders with less labor" says Boone. The manual stockroom required 10 people while the new automated stockroom requires only 8 people.

## Ergonomics

The previous mezzanine system required workers to travel up and down stairs to store and retrieve parts. Once at the location, workers were often required to bend down low or reach up high to access the part. If the parts were on the second level, workers had to hand carry them down to the first floor. "Certainly worker ergonomics was a concern for us when considering a new system" says Boone. Using the VLMs, all parts are delivered to the operator in an ergonomically positioned access opening providing improved worker ergonomics.

## Old System

In the old system the stockroom was split into two sections with the front section storing smaller parts and the back section storing larger parts. Using a list of printed labels a worker would travel through the mezzanine bin shelving to each part location collecting the parts required.

## New System

The new stockroom inventories 18,000 SKUs- 13,000 SKUs are stored in the VLM while the remaining 5,000 SKUs consisting mostly of large items stored in bulk shelving. Orders are still demand generated. Customer orders are created in the system by the parts department and production orders are created in the system by production planning. All orders are downloaded to the FastPic5 inventory management system for fulfillment.

On the VLM operators command, the order begins to process and the Shuttle VLMs move to retrieve the parts required for that order. Using a cart the operator travels from VLM to VLM picking the parts required for the order. Pick labels are attached to each part as it is picked and added to the order. When complete the order waits at the VLM area for additional parts from the bulk area and then is picked up by shipping or production. On average 60% of the picking activity is in the VLM area.

## Production Expands

Additional materials were consolidated into the recovered floor space previously occupied by the stockroom allowing production to expand and grow capacity. "A mandated floor space reduction for a production expansion turned out to improve the overall efficiency of the stockroom, it's a win - win!" says Boone.



"Since the parts are delivered to the operator for picking, our pick time per part has decreased, allowing us to pick the same number of orders with less labor" says Boone.