

# BENCHMARK BRIEFINGS

## kardex remstar

### SITE

Bauer Compressors  
Norfolk, VA

### APPLICATION

Batch Picking Part Orders for On Site Manufacturing & Spare Parts Distribution

### EQUIPMENT

3 Shuttle® VLM's and Pick-to-Light with FastPic® Software interfaced with an existing ERP System

### SUMMARY

Bauer Compressors Adds Work Cells and Part Numbers Using Less Space



*Using three Shuttle VLM's to free 91% of previously occupied floor space Bauer Compressors was able to add more work cells and increase the number of parts in inventory.*

## Bauer Compressors Regains 91% Floor Space and Increases Parts Inventory by 50%!

Bauer Compressors is in their fourth year of double-digit growth, something every company strives for. To top it all off, they did it with only 9% of the parts storage space they originally had. How did they do it? Innovation, foresight and a little help from their friends at Kardex Remstar.

Bauer Compressors has been manufacturing high pressure compressors inter-nationally for over 50 years and more locally in Norfolk, VA for over 30 years. They are considered specialists in markets such as high pressure breathing air, industrial air, plastics technology, natural gas and inert gas compression.

### Adding Part Numbers...& Work Cells!

With nearly all of their parts stored in shelving, the parts department at Bauer Compressors was utilizing over 100 sections of shelving, occupying a 50' x 90' area. With parts consuming 4,500 square feet of warehouse space Bauer Compressors had no room to grow the manufacturing part of their business. "At the rate our business was growing our inventory count was increasing daily and we were running out of places to put parts," said Joseph Stark, operations manager of Bauer Compressors.

By installing three Shuttle Vertical Lift Modules (VLMs) from Kardex Remstar along with a batch picking area, Bauer Compressors was able to reduce their parts department floor space and add more parts. Reducing the size of their parts

department from 4,500 square feet to 395 square feet, they were able to recover 91% of their previously used floor space. With this reclaimed floor space, Bauer Compressors was able to add more work cells and increase the number of parts in inventory. "Moving our parts inventory into a smaller area was a benefit, but the ability to add more manufacturing work cells in the reclaimed area was really the selling point," said Stark.

By utilizing overhead space, Bauer Compressors was able to increase the number of parts in inventory by 50%. "To keep up with our increasing manufacturing demands it was necessary for us to increase the number of parts we had on hand," said Stark. Bauer Compressors was able to add 1,500 parts to their inventory; growing from 3,000 SKU's located in the shelving to 4,500 SKU's located in the VLMs.

In addition to the space savings and increase in inventory, man-hours were cut in half. Picking out of the old shelving system required two people, each picking only one order at a time. Using an integrated software system with the automated Shuttle VLMs, only one person is needed to do all of the order picking.

### Refining the Parts Process

As in many companies, the parts department at Bauer Compressors has two types of customers; external customers who need spare parts shipped to their location and internal



"We purchased the Shuttle VLMs for higher storage density, increased picking speed and tighter inventory control," said Stark, "They've given us all of that plus improved accuracy and better employee ergonomics."

customers on the manufacturing floor who need parts to build the compressors. Meeting the needs of both types of customers can be challenging.

The order entry department enters spare parts orders and job orders into the host ERP system (Made2Manage®). Which is integrated with FastPic software which manages the Shuttle VLMs' workzone.

The operator selects up to eight orders to be picked simultaneously, creating a batch. "Picking multiple orders at one time has increased our pick efficiency tremendously," said Gunter Rennhofer, planning manager.

The batch station has a put light indicator in front of eight positions (one for each order). The operator places a tote in front of each put light and the FastPic software automatically looks for SKU commonality within the batch and associates each tote with an order.

The software directs the Shuttle VLMs to retrieve the trays required. As each tray is presented in the pick window, a pick light indicates which SKU to pick and the quantity is displayed on the unit's display screen. The operator picks the required quantity out of the VLM and turns around to the batch station to distribute the product among the orders. Put lights direct the operator as to what quantity to put in each tote. This process is repeated until all orders are complete.

If there is an immediate need for a part on the floor during batch pick, the operator simply does a hot pick. Hot pick is a pause button in the FastPic software that will suspend the batch picking process and allow the operator to pull a part, or multiple parts, from the Shuttle VLMs.

Bauer Compressors has also incorporated a "bagging and tagging" picking process to handle quantities of small parts such as bolts, screws, washers, etc. When parts are picked from the VLM tray, a

label is automatically printed with the part name and SKU number. Each part is counted, sealed in a plastic bag and labeled before placed in the order bin on the batch station.

"Before this system, we had part numbers handwritten on some parts and not at all on others. It made it difficult to find parts when picking an order and it was a nightmare for restocking unused or returned parts," said Stark, "Now each part is individually labeled and bagged giving our customers clean and clearly labeled parts and giving us a more professional look."

## Adding and Organizing Parts

Replenishment is just as easy as order picking. FastPic manages the process. Pick-to-light technology directs the worker to where a new part number or overstock product should be stored. With over \$1.5 million of inventory in the three Shuttle VLMs, having accurate inventory levels is important. Using the Shuttle VLMs to store inventory has also provided more inventory security. "To operate the Shuttle VLMs, a security code is required, allowing us to limit the number of people that can access our parts inventory," said Rennhofer.

## Picking Product Instead of Climbing Ladders

With over 10,000 parts in inventory training new employees was no small task. Now pick lights direct the picker to the exact location of the part so there is no guessing involved. "Our accuracy level is over 99% and training new employees is much easier. After two days someone can work by themselves; no product knowledge is necessary," said Rennhofer.

"Workers were constantly in search of ladders to reach product," said Rennhofer. "We needed them to spend their time picking parts, not finding ways to reach the part." With the Shuttle VLMs, parts are automatically delivered to the worker at an ergonomic level. There is no reaching, bending or stooping when retrieving the part.

"Our main reasons for purchasing the Shuttle VLMs were storage density, improved picking speed and greater inventory control," said Stark. "The Shuttle VLM's have given us all of that plus improved accuracy and better employee ergonomics."



Items are brought to the operator and batch picked increasing throughput and eliminating 10 miles of walking per day.