

Case Study

ASRS for Automated Manufacturing





Making the Cut

Customer and task

USNR aimed to upgrade the manufacturing plant by installing a Fastems Flexible Manufacturing System (FMS) to organize and schedule projects, reduce idle time and maximize productivity. To do this, they first needed to find space to add this new automated manufacturing system.

Warehouse parts were stored on shelving under a mezzanine. Tooling and raw materials were stored in cabinets and shelving throughout the facility, which was time inefficient. "Adding more shelving to increase capacity within the facility would only take up more space," said Mike Smothers, Operations Manager, "I had to go up, not out."

Solution

Phase one of the redesign integrated two Kardex Shuttle with the Kardex Power Pick System inventory management software to consolidate warehouse parts storage, eliminating the mezzanine. The Kardex Shuttle store roughly 2,500 SKUs for customer orders, spares orders and transfer orders. Consolidating parts inventory into these two units, saved the plant 92% floor space, making room for the new FMS system.

To increase efficiencies, Smothers added another Kardex Shuttle as a standalone tool-room. The entire toolroom is now stored vertically floor to ceiling within a VLM located next to the FMS system.

To feed the production line, a fourth Kardex Shuttle was added to store raw materials and fixtures. A manual extraction table makes it easy to store and retrieve these raw materials and fixtures. In addition, a bridge crane is positioned in front of the unit to lift heavy materials.

Saved
92% floor space

Reduced
labor by 53%

Improved
worker ergonomics

Case at a glance

How we took our customer from task to solution

USNR, in Woodland, Washington, USA, is an OEM manufacturer supplying wood processing companies around the globe. In addition to manufacturing equipment, they provide replacement parts and support around the clock. As business grew, USNR sought to implement a more efficient, automated manufacturing process. Four Vertical Lift Module Kardex Shuttle saved 92% floor space, reduced labor by 53% and improved worker ergonomics.



Scope of delivery



Four Kardex Shuttle each 30 feet tall. Two managing 2,500 small parts, one storing tooling & one storing raw materials and fixtures



Kardex Power Pick System inventory management software



Manual tray extraction