

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 Shuttles with the Kardex Power Pick System inventory management software to consolidate warehouse parts storage, eliminating the mezzanine. The Kardex Shuttles 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 toolroom. 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.

## Case at a glance

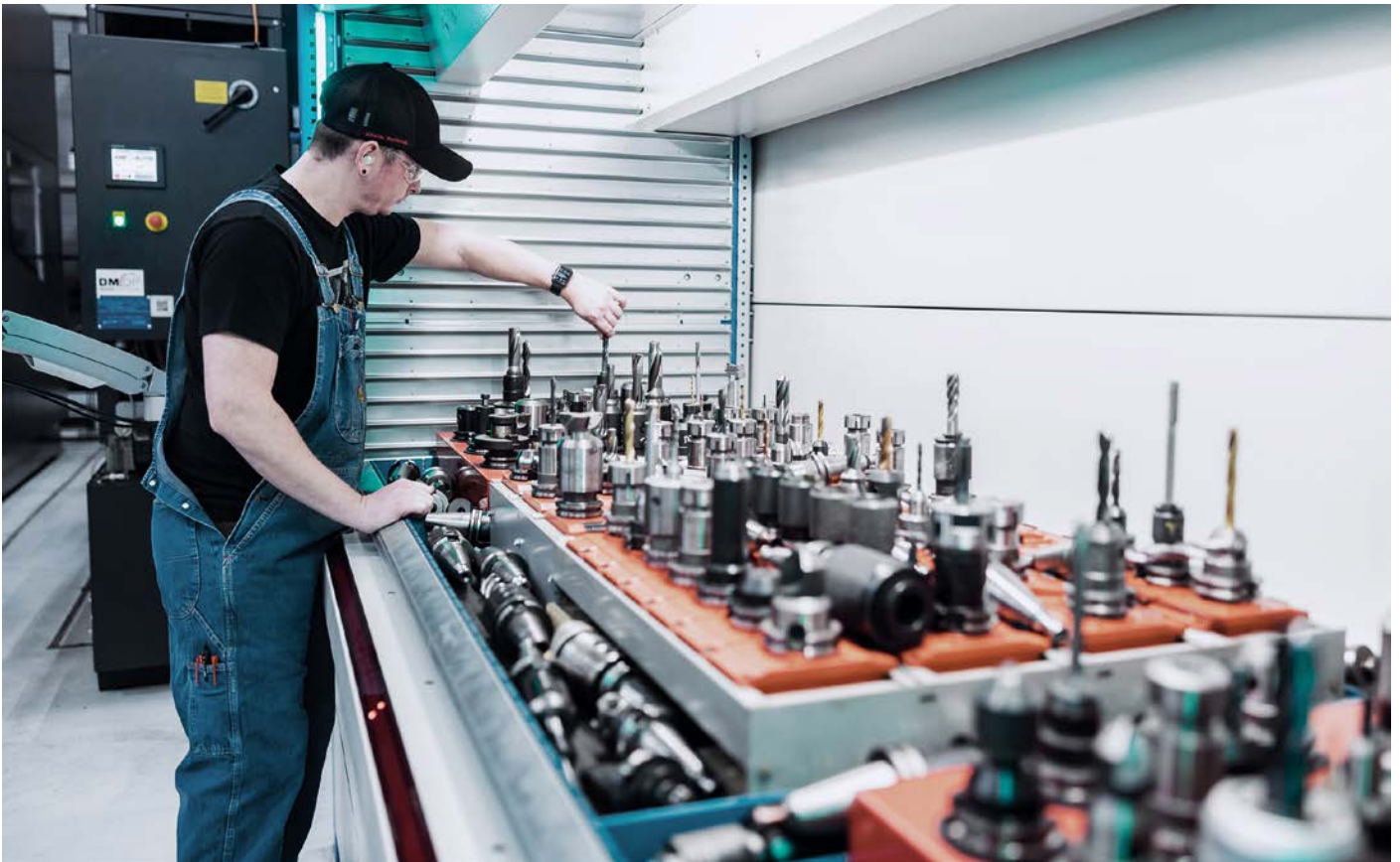
### How we took our customer from task to solution

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 Shuttles recovered 92% floor space, saved 53% labor and improved ergonomics.

**Recovered**  
92% floor space

**Saved**  
53% labor

**Improved**  
worker  
ergonomics



### Scope of delivery



Four Kardex Shuttles 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

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