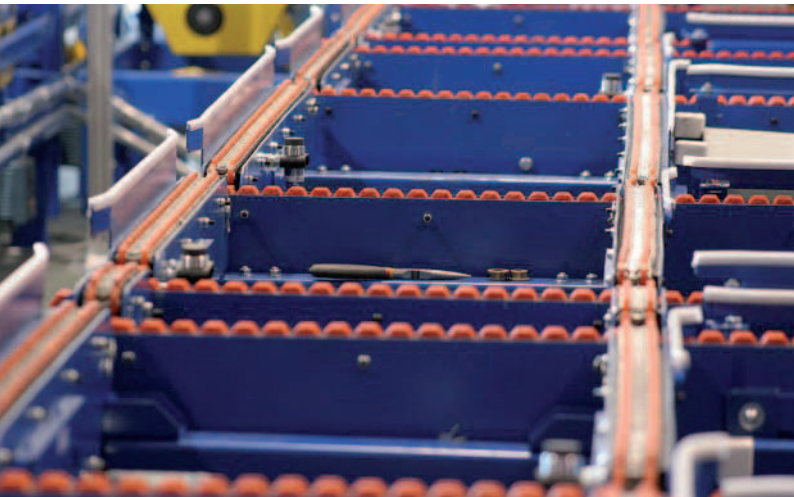


AS/RS to provide high-volume kitting system Lockheed Martin Missiles and Fire Control Orlando, Florida

References

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Three Aisle Mini-Load AS/RS

Initial Situation

When Lockheed Martin was developing and designing their new kitting facility in the Orlando, Florida Missiles and Fire Control Factory, they implemented lean Kaizen techniques. These techniques allowed the new materials center to be 30,000 square feet instead of the 75,000 square feet it was currently operating in. To reduce the system's footprint, Lockheed Martin relocated the facility to be next to the factory. Each step of the receiving and storing materials process was evaluated, and material handling technologies were implemented to support a new and more efficient process.



System Solution

The three (3) **viaspeed** S/R machine systems store approximately 5,900 trays of product to support manufacturing and assembly. The front-end conveyor system transports the trays from any of the three (3) aisles of storage to the six (6) workstations. At the workstations, the trays are tilted toward the operator to enable ergonomic picking and replenishment.

Quiet system operation was extremely important to Lockheed Martin. Using 50 Series steel chain fitted with urethane pads, **viastore** designed a unique padded chain conveyor that allowed the system to maintain noise levels under 70db during full operation.

The controls for the system include PLC controls for the conveyor system, the IPC control for the S/R machines, and the **viad@t MFC** (Material Flow Control) software package. This package includes an interface to Lockheed Martin's existing warehouse management system (WMS).

The system is designed to handle more than 270 dual cycles per hour and 2,500 order lines per day.

The Result

Following the installation, the overall system transaction time was reduced by 24%, resulting in a ten (10) month pay back.

Scope of Supply:

Automated Storage/Retrieval System
S/R machines
Mechanical/Electrical aisle hardware
AS/RS rack structure
Conveyor system
Padded Chain Conveyor
viad@t MFC (Material Flow Control) software

Essential Features:

AS/RS approximate size:

Length: 95 ft. (28.9 m)

Width: 45 ft. (13.6 m)

Height: 26 ft. (7.9 m)

(3) **viaspeed** S/R machines, with custom pin extractor load-handling devices servicing (5,900) storage locations for metal trays
Product stored:

mechanical and electronic components to support manufacturing and assembly of missile and fire control products

Product weight:

250 lb. (114 kg)

Input/Output conveyor system with six (6) workstations and padded chain conveyor for quiet operation