

## How Automated Storage & Retrieval Systems (AS/RS) Can Improve Material Handling Operations



It doesn't matter if the economy is good or bad. If your company is not successful in the following areas, it will have a harder time being profitable:

- Customer Service
- Facility Organization
- Expense Control
- Order Fulfillment
- Labor Management
- Growth Management

If your company is challenged in any of these areas, and if you store, move, or manufacture goods, the introduction of an Automated Storage & Retrieval System (AS/RS) could improve your operations.

AS/RS is a combination of equipment and controls that handles, stores, and retrieves materials with precision, accuracy and speed. Configurations include pallet and tote handling. An AS/RS enables companies to ensure inventory control, improve efficiency, and recapture floor space.

Applications range from order fulfillment of full pallets to consolidating rainbow pallets or boxes with mixed SKUs.

### **AS/RS Customer Examples:**

Company names have been withheld to protect the competitive advantage of Daifuku customers.

#### **CUSTOMER SERVICE**

Picking and shipping errors were increasing for a pharmaceutical and consumer goods distribution company. By replacing conventional rack and manual labor processes with a unit load AS/RS, high-speed sorting transfer vehicles, and warehouse management software, the company increased accuracy, doubled order processing volume, and tripled available floor space.

#### **FACILITY ORGANIZATION**

A transportation and warehousing company implemented a rack-supported building AS/RS to increase storage. In addition to regaining space, the AS/RS also helped streamline operations and eliminate load damage.

#### **EXPENSE CONTROL**

A mini load AS/RS solution tailored for a small parts company manages 3,000 small parts and enables a single worker to manage 300 orders per day. Combine with inventory management software that double checks accuracy, the company is confident that correct orders are shipped.

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### **ORDER FULFILMENT**

A mini load AS/RS and sorting transfer vehicles installed for an office equipment distribution company delivers a 30% reduction in time to ship.

### **LABOR MANAGEMENT**

A unit load AS/RS improves efficiency and decreases labor costs by automating input/output, storage, and inventory control at a cold-storage facility while removing employees from the harsh freezer environment.

### **GROWTH MANAGEMENT**

To meet growing product demand, a paint company updated its facility with a unit load AS/RS and sorting transfer vehicles. The result was a 30% increase in storage, decreased distribution cost and reduced hours of operation.

### **AS/RS Benefits:**

- 360/24/7 Operation (System uptime can be around the clock)
- Organized Facility (Goods are accounted for and easily accessible)
- Inventory Control (Errors reduced)
- Consistent Product Handling (Less product damage and spoilage)
- Space Optimization (Utilization of vertical space enables a smaller footprint)
- Energy Efficient (Many facilities can operate without lights)
- Comfortable Working Environment (Work is brought to employee work stations eliminating unnecessary and often uncomfortable movements)

### **Common Questions:**

Q. How long does it take to install and have an AS/RS system up and running?

A. It varies. Each company has to go through the discovery, design, implementation, and testing stages. However, a simple one aisle system may take 8 months once the design is approved. A multi-aisle integrated system will depend on its complexity, but average customer systems take about 9 to 14 months from design approval.

Q. What is the cost of an AS/RS system?

A. It varies based on system requirements, but most Automated Storage & Retrieval Systems have a pay back of 2 to 3 years. Contact Daifuku for a quick budget price based on your company's requirements.

Q. How do I determine if AS/RS is right for my company?

A. Daifuku America Corporation offers free facility evaluations. Many of our business partners also offer in-depth studies. Data from your facility will be used to determine the best solution for your company's optimal ROI.

### **About Daifuku**

With over 20,000 global crane installations, no one is more experienced than Daifuku at engineering high-performance automated material handling and warehouse management systems, specifically designed to meet and overcome any challenge.

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