

## Distribution centres maximise productivity through switching to Dexion's Mini-Load ASRS



Across the globe, distribution centres are catching on to the benefits of an integrated automated storage and picking strategy, seeing a significant increase in business efficiency and productivity.

In making the switch from the conventional method to a simple and automated material flow approach, distribution centres are increasingly adopting the Mini-Load Automated Storage and Retrieval System (ASRS).

Specialist intralogistics systems integrator, Dexion is meeting the demand from distribution centres for this automated distribution system through combining the Mini-Load ASRS solution with ergonomic picking solutions.

ASRS solutions garnered an expensive reputation when first released to the market, however the technologies have come a long way and now offer a much faster Return On Investment (ROI).

Dexion Global Systems Solutions Development Manager, Mike Dowd explained how worthwhile the initial financial outlay for ASRS is, with significant advantages to be gained over settling for the more traditional strategy.

“There are many cost savings to be had once a distribution centre adopts ASRS, in addition to significant increases in business efficiencies and productivity,” said Mr Dowd.

“One of the major advances achieved over recent years is the ability to handle cartons directly. This ability to handle a wide range of shipper cartons in the store automatically without using totes provides a simple and cost effective material flow.”

“Implementing ASRS delivers numerous benefits – less floor space, reduced labour and energy needs, increased inventory and order accuracy, improved safety and security – just to name a few. The boost to business operations will ensure ROI on ASRS can be achieved within two years or less when compared to alternative methods,” Mr Dowd concluded.

### **Year-round efficiency and increased productivity**

No matter what SKUs the season demands, the mini-load crane handles the retrieval of product from anywhere in the store while improving productivity at the workstation or replenished pick face. The Storage and Retrieval Machines (SRMs) can work off-shift to relocate product based on upcoming demand, ensuring optimised movement during pick hours. Further, ASRS can continue work 24/7 and in cold storage environments.

### **Reduced labour costs**

With the cost of labour continually on the rise, automated storage can reduce or eliminate manual handling while greatly improving picking productivity.

### **Significant space savings**

ASRS removes “dead space” using high density storage to fully utilise the vertical space in a distribution centre, drastically decreasing the footprint needed for storage by as much as 40%. Storage configurations – up to three cartons deep with direct handling capabilities – also provide an efficient material flow.

### **No need for mobile material handling**

ASRS performs all of the “travel” required to put away and retrieve products, eliminating the need for mobile material handling equipment such as fork trucks, greatly reducing costs while increasing worker safety.

### **Increased inventory accuracy**

Less touch points with workers decreases the chance of error within replenishment operations and order filling. The system always knows exactly where each item is.

### **Improved order accuracy**

The chance of inaccurate picks is reduced by only presenting the SKU in either a tote or source carton to the picker and operator when there is a requirement for that particular SKU with picks able to be verified via an optional hand-held scanner, pick to light or voice system.

### **Superior worker safety**

Purpose designed picking stations ensure product is always in the “golden zone” – the ideal ergonomic pick height to reduce overall stress to the worker.

**Product is safe, secure and tracked**

With ASRS, product is stored in a secure, fenced-in area, only delivered via pick commands through a WMS/WCS solution. The SKU cartons are automatically tracked during the entire process giving 99% or more traceability in the solution. Risk of product damage is minimised through reduced need for fork trucks and less touch points.

**Less worker training and turnover**

Due to the automation of most work, ASRS reduces the need for manual labour while minimising the time needed to train new workers, with required tasks becoming much simpler.

**Achieve redundancy and work balance**

Through placing the same unique SKU into multiple totes across aisles of the ASRS, a highly redundant solution is created allowing the WCS/WMS to choose the required tote from multiple locations, minimising congestion while ensuring a constant stream of availability to provide a balanced workload during the picking cycle.

**Valuable environmental outcomes**

ASRS reduces the facility's footprint requiring less materials and less energy, while reduced labour means fewer cars and less parking space is needed.

As more distribution centres move to adopt ASRS, significant improvements in efficiencies will be felt across the entire supply chain. With significant ROI achievable, the benefits of ASRS considerably outweigh the initial costs incurred and will continue to provide payback for many years to come.

**Contact**

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