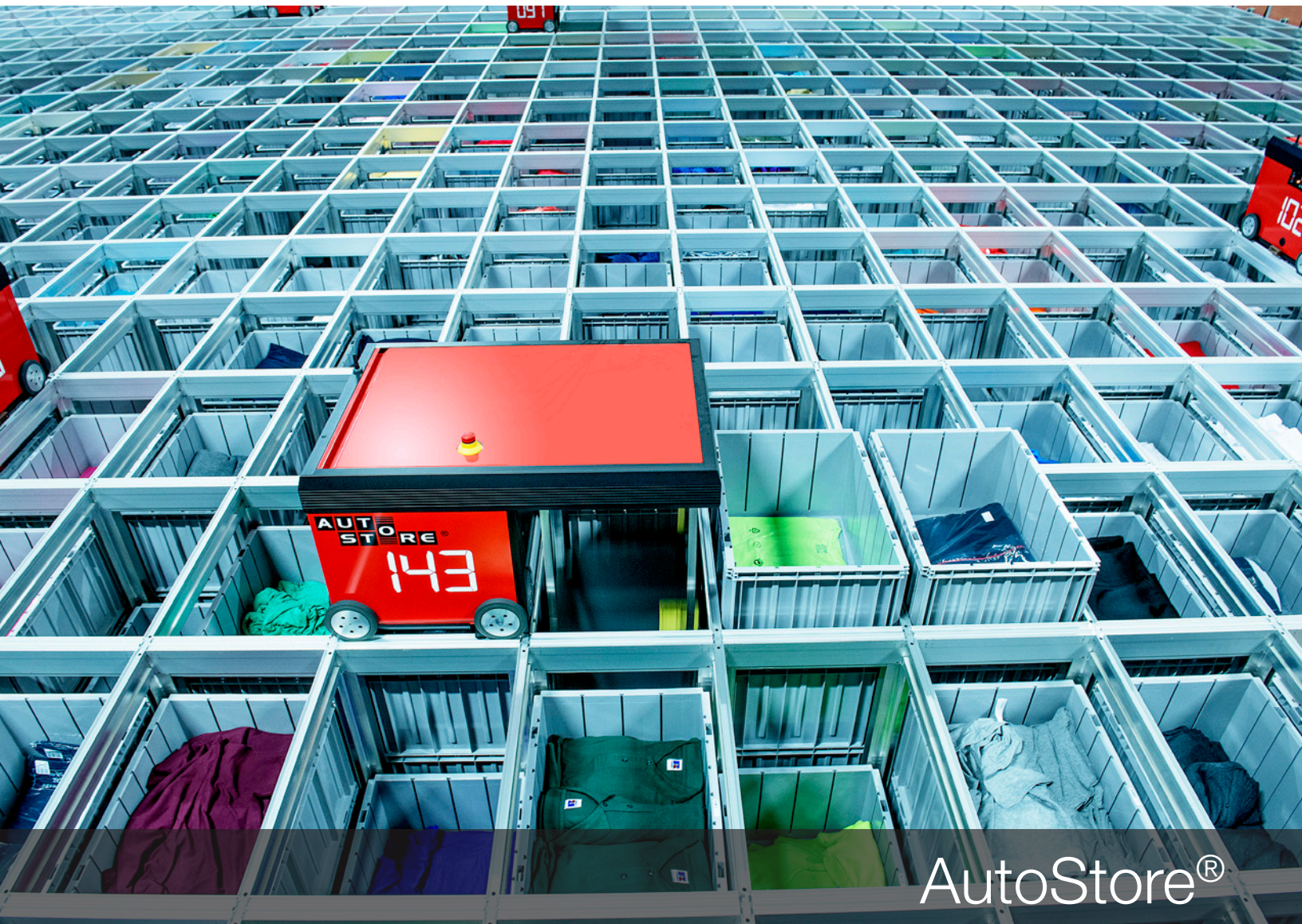


We Optimize Your Supply Chain

DEMATIC



AutoStore®

**GOODS-TO-PERSON PIECE PICK SUBSYSTEM**



# AutoStore

## GOODS-TO-PERSON PIECE PICK SUBSYSTEM

### STANDARDIZED USING MODULAR COMPONENTS

The AutoStore subsystem consists of five standard modules: robot, port or workstation, grid, bin and controller. There are no dedicated access aisles so the entire cube can be used to store product.

The bin storage cube can be configured up to a height of 6 meters (approximately 20 feet). Higher storage heights are possible by building AutoStore subsystem structures on mezzanine platforms.

The robots drive on the top of the grid to access inventory stored in the bins below. The bins are put-away, retrieved, and delivered to the ports or workstations as required. The mechanical system design omits a single point of failure that could stop the entire system material flow.

Two types of ports are available:

- Conveyor ports
- Carousel ports carrying three bins simultaneously

The system footprint layout is custom for each application. An installation can consist of 200 robots or just 3 robots, with 2,000 bins or 200,000 bins.



The AutoStore subsystem is standardized using modular components. For example, each robot, bin and workstation is pre-engineered and manufactured as a standard component.

The AutoStore controller is the module that provides machine control, directing the robots. It features put-away location management that optimize storage location for efficient access — bins with SKUs that used most often are stored near the top of the grid. The controller interfaces with the Dematic Warehouse Execution Software (WES).



## BENEFITS

The AutoStore subsystem is built around the “goods-to-person” principle. The key benefits of goods-to-person include: eliminating worker travel time to pick locations, picking productivity, omitting dedicated pick faces (no slotting, re-slotting, manual replenishment), product security/inventory accuracy, order processing speed, and order accuracy. In addition, the worker environment is ideal. AutoStore technology supports a quiet, clean environment with reduced fatigue factors. Workstations are designed for ergonomic operation.

The AutoStore subsystem is an eco-friendly solution. Overall power consumption is low — energy recovery occurs during bin lowering and robot braking and lighting is not needed. Its compact structure requires less space.

When compared to conventional storage density, the AutoStore subsystem can store up to 2–3 times more inventory in the same space. The system can be installed in oddly shaped buildings, around pillars, or on several levels to fill out warehouse space to its maximum potential.

The AutoStore infrastructure is independent of the building structure — disassembly and re-location is feasible and cost effective. The system does not require in-rack fire suppression, thereby reducing construction costs.



## APPLICATIONS

The AutoStore subsystem is ideal for applications that handle smaller items. Bin size is 600 x 400 mm with two height options: 200 or 310 mm. It is more efficient to accommodate multiple pieces per bin. The maximum weight of the inventory in each bin is 30 kg (65 pounds).

The system is most often used as an order fulfillment solution for distribution logistics. Market sectors include:

- Internet retailers
- Apparel
- Sporting goods
- Electronic component distribution
- Industrial supplies
- Aftermarket parts
- Healthcare
- Pharma
- Personal care

### Characteristics of Operational Environments

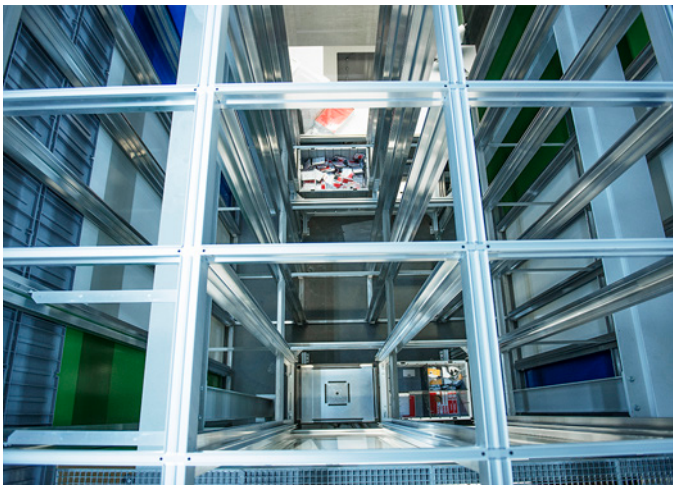
- High number of SKUs (many thousands vs hundreds)
- Split case items
- Small piece sizes, small cases
- Small order size (1–12 lines per order)
- Low/mid velocity SKU storage and picking
- High value merchandise
- Goods-to-person attributes positively impact operations
- Limited warehouse space
- Need for compact footprint and high storage density
- Oddly shaped facilities not suitable for traditional mini-load or multishuttle
- Accommodate expected volume increases and SKU growth
- Ability to modify system during ongoing operations
- Need for use as a reusable asset (ability to relocate system to new site if needed)



# THE FIVE MODULES OF AN AUTOSTORE SUBSYSTEM



Robot



Grid



Controller



Bin



Workstation Port