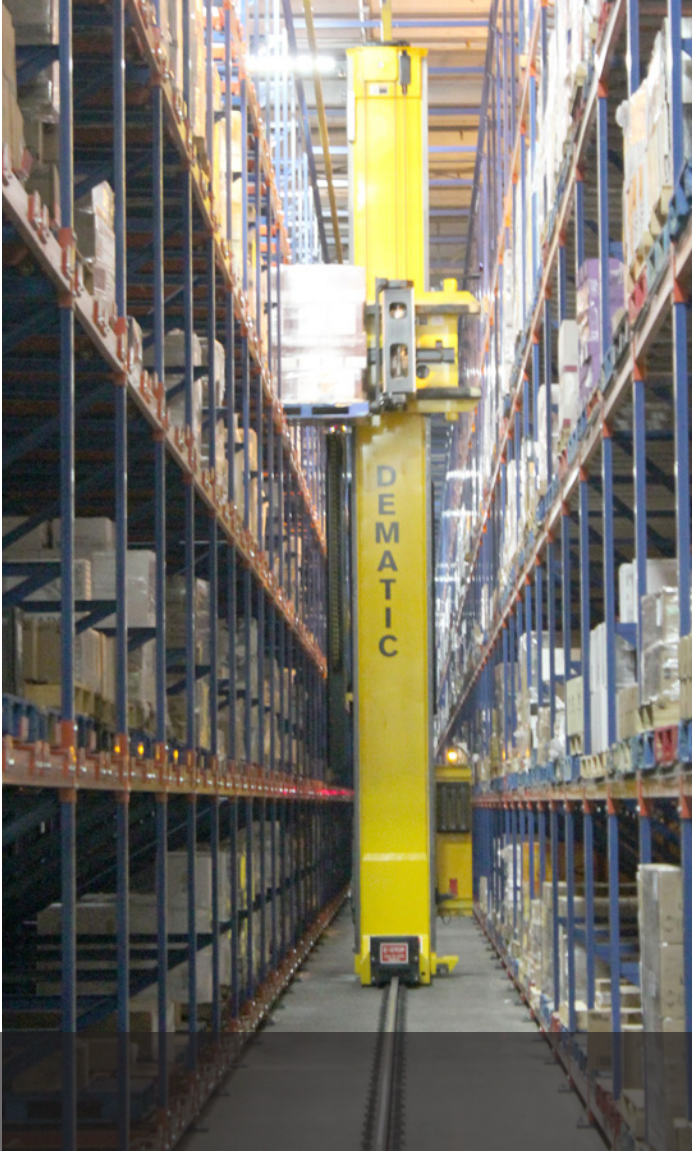


We Optimize Your Supply Chain

DEMATIC



RapidStore™ UL1400

Rotating Fork Storage & Retrieval Machine

EFFICIENT, ACCURATE, QUIET, AND RELIABLE.

IDematic RapidStore™ heavy duty pallet Automated Storage and Retrieval Systems (AS/RS) machines automatically handle pallet loads, rolls or containers. Pallet handling machines use lifting carriages with telescopic forks and cabs. Single or double deep loads can be accommodated. Alternative, pre-engineered extraction/insertion devices are available to suit your product type and size. Large products are handled gently and consistently.

MATERIAL HANDLING EQUIPMENT

Fork-type Storage and Retrieval Machine (SRM) that is compatible with most every conventional warehouse design. Intended to provide highly economical automation for new facilities as well as to retrofit existing manual warehouses with automation, the RapidStore UL1400 has effectively morphed the AS/RS and post-and-beam conventional warehouse.

OPERATION

The RapidStore UL1400 is designed to move pallets between an end-of-aisle stand, rack, load platform, floor location or device and a rack or shelving structure. Sensors or a host computer system such as your inhouse WMS or Dematic's Equipment Management System (EMS) alerts the RapidStore UL1400 controller that a load is ready to be picked up. The machine aligns it's forks with the pockets or openings in the pallet and brings the load on board, centering the forks in the aisle.

The SRM then takes the load to a storage location, pick location or another pickup/deposit location. Upon completion, the SRM alerts the host computer that the move is complete and it is ready for another instruction. The RapidStore UL1400 works 24 hours per day, takes no breaks, almost never gets sick and requires no vacation.

APPLICATIONS

The RapidStore UL1400 is intended to provide a high Return on Investment in facilities normally serviced by manual material handling equipment such as narrow-aisle (VNA), operator-up and swing-reach fork trucks. With one machine per aisle, the RapidStore UL1400 is a direct replacement for such operator-intensive situations.

For picking applications, the RapidStore UL1400 can be used to replenish pick locations for pickers on the floor or mezzanines to pick cases or pieces to a belt, box, tote or pallet. As a medium speed, medium height machine, the RapidStore UL1400 is perfect for automating large, high volume facilities and backup storage in distribution centers.



This machine was specifically designed with the retrofit in mind. If you currently are investing in labor, batteries and depreciating machines in a manual warehouse, the RapidStore UL1400 is worth considering as a direct replacement and a low cost step up to automation.

FEATURES & BENEFITS

Following are some of the advanced technologies applied in the design of this machine, intended to extend the operational life and provide a very low cost of ownership.

- Rotating fork turret allows pick-up and delivery from either side of the SRM aisle.
- Fork interface allows use of shop pallets and standard storage shelving or rack.
- Synthetic lubricants in all bearings and gear boxes for low maintenance.
- Plastic Filled Valley hoisting cable for quiet smooth operation and no lubrication.
- Helical bevel gear boxes are quiet and 97% efficient, lowering energy consumption.
- AC motors and variable speed motor controllers for smooth operation.
- Infrared communications with the control computer for reliable non-mechanical interface.
- Laser electronic distance meters for fast and deliberate positioning of horizontal and vertical axis.
- Incremental encoders for positioning of fork rotate and fork
- Fork Turret has a Z axis side shift to accommodate various aisle widths.
- Each rack location is uniquely mapped to assure access in the event of a non-plumb rack.
- Allen-Bradley SLC control for ease of diagnostics.
- Device Net sensor network with plug-in interface blocks provide quick assembly, trouble shooting and are easily expandable.
- Mast ladder with safety climb rail to access upper loads or perform maintenance.
- Optically linked Fork-tip sensors to stop the fork extension if an obstruction is encountered.

OPTIONS

The RapidStore UL1400 is a highly configurable platform that can be adapted to a number of applications.

- Load height sensing option to automatically determine the vertical dimension of the pallet and select/verify the location.
- Laser-bumper aisle obstacle detection to safely stop the machine if something is in its path.
- Full bin sensing scanner array option will scan a prospective deposit location to insure that there is no pallet or something in the path of the deposit location.
- End-of-aisle PC based operator interface program to change performance parameters, revise rack addresses, exercise equipment, and perform diagnostics.

SPECIFICATIONS

LOAD PROFILE

Maximum Weight	3000 lb
Width (CA)	48"
Length (DP)	40"
Height Maximum	90"

SYSTEM PROFILE

Minimum	12'
Maximum	40'
Height from base of floor rail to top of lowest shelf	8"

PERFORMANCE

Horizontal Speed	350 fpm
Vertical Speed (Empty)	55 fpm
Vertical Speed (with Load)	35 fpm



