

## Applications

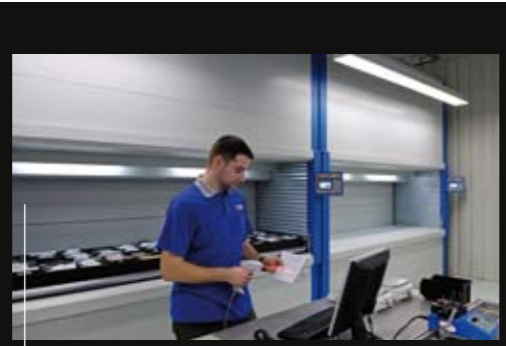
This high density large volume storage and retrieval system is perfect for manufacturing, distribution, retail and warehouse applications including:

◆ **Spare parts, tools, dies, fixtures, fasteners, maintenance and repair parts, finished goods, raw materials, test equipment, samples, reels, ESD storage, work in progress, buffer storage.**

## Accessories

Kardex Shuttle XPcrane VLM offers a wide range of standard options and accessories to meet the requirements of almost every storage and retrieval application including:

- ◆ Pre and post installation of up to six access windows.
- ◆ OptiFlex technology for 25 mm incremental storage.
- ◆ Change the units height before or after installation.
- ◆ TiC (Transaction Information Center) light directed picking and putting.
- ◆ Easy tray extraction.
- ◆ Wide range of partitions, dividers and boxes for the trays ESD protection.
- ◆ Flexible tray and unit widths and depths.
- ◆ Ergonomic hoist, crane and gripper interface.
- ◆ Transport cart.
- ◆ Painted any RAL color.
- ◆ Bar code scanner and printer interface.
- ◆ Full inventory management and warehouse management software integration.
- ◆ Ergonomic tray height delivery.
- ◆ Weigh scale integration.
- ◆ Robotic or conveyor interface.
- ◆ Heights up to 14.000 mm.



Fast and easy integration of bar code scanners for order identification, picking and verification.



An optional position indicator displays the description, location and quantity of goods to be picked.



Easy to use partitions, dividers or boxes for migration-free high density storage. An optional light pointer (pick-to-light, put-to-light) device provides increased accuracy and productivity.



Easy integration with various types of manipulation and lifting devices.



STORAGE TECHNIQUE

## Technical Specifications

Unit height	up to 14 000 mm
Unit width	up to 23 000 mm
Unit depth	2 972 to 3 125 mm
Vertical transport speed	adjustable to 2,00 m / s
Storage / retrieval speed	adjustable to 0,62 m/s
Payload	up to 500 kg per tray
Max. total loading capacity	360 tons

## Your benefits at a glance



**Specialist support**



**Turnkey installation**



**Remote diagnostics by KARDEX online services**



**Customer service**



**Optional 24-hour service**



**Storage technologies and office**

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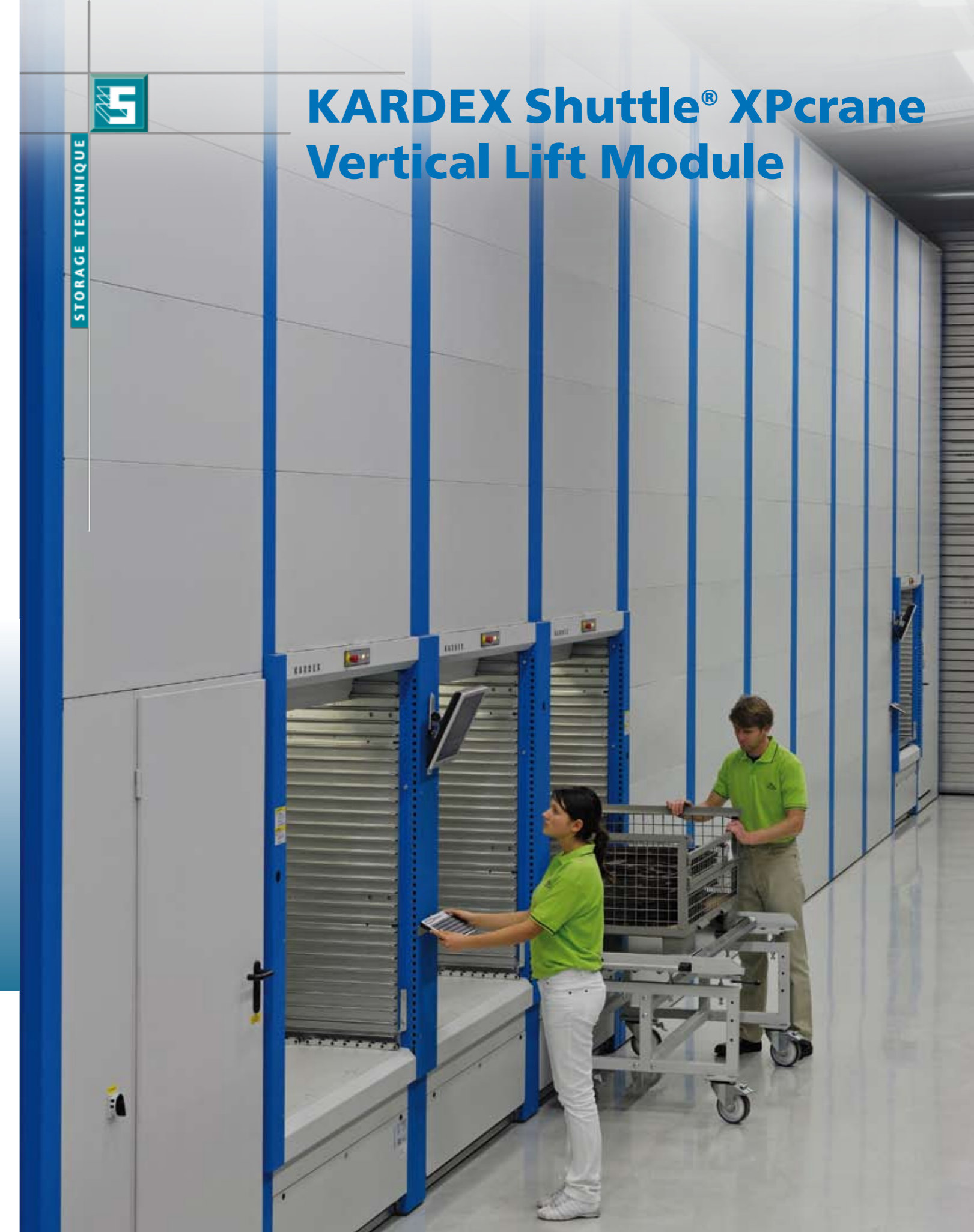
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STORAGE TECHNIQUE

# KARDEX Shuttle® XPcrane Vertical Lift Module



# KARDEX

Call us to find out more about KARDEX storage technologies.

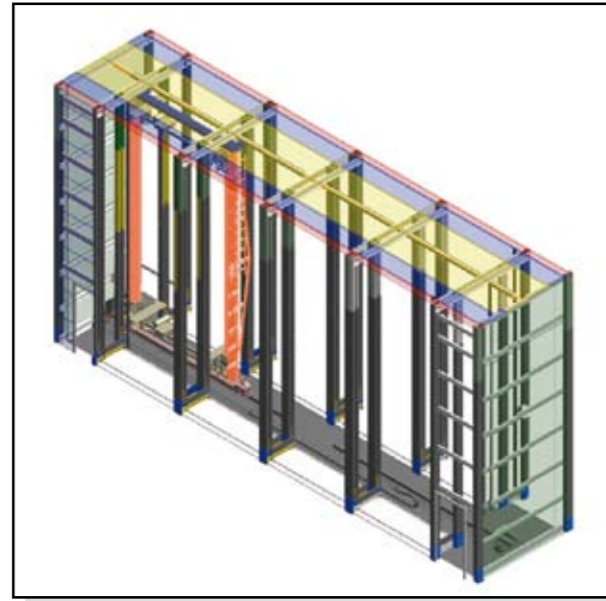
# KARDEX



# Millions of stock items at your fingertips

## Principle

The Kardex Shuttle XPcrane Vertical Lift Module (VLM) is an enclosed system consisting of a series of vertically arranged trays, an extraction platform and a computerized control that allows the operator to stay in one location whilst millions of items can be delivered automatically to the pick face.



## Function

Multiple orders can be entered into the system and the software will automatically optimize the picking sequence to minimize operator inactivity time. The VLM automatically pre-positions the next tray for picking. This allows the operator to pick from the active tray ensuring high productivity levels. This is ideal for batch picking, replenishment and hot picks.

## Construction

This system is made up of up to 12 vertical modules integrated into the one single unit. Incorporated in the unit is a central crane which delivers items to an ergonomically positioned workstation or to the most appropriate free storage space within the unit.

## Operations

The unique design and features of the Shuttle XPcrane VLM provides two distinct methods of operations fulfilling two facility requirements.

### Slow to medium moving items

The Shuttle XPcrane VLM provides even higher levels of density than any other automated and manual storage technology. By combining multiple Shuttle modules with only the minimum number of pick windows and the OptiFlex technology, which requires only 25 mm between vertical storage locations, you can create even more storage capacity. This is perfect for slow and medium velocity items in which space, security and inventory control are the higher priorities.

### Medium to fast moving items

By integrating inventory management software, pick-to-light technology and configuring the workstation into a batch picking configuration, a Shuttle XPcrane VLM handles medium and fast moving items efficiently. Using a mini load concept, multiple pick windows are configured to allow operators to pick from one active window while the unit pre-positions the next pick in another window. This allows the operator to move from one active pick window to another virtually eliminating walking, searching and waiting time for high productivity and throughput levels.

Multiple modules use one multi-axis inserter-extractor device to deliver to one or more access openings. Can be used to connect multiple workstations or floors with the same inventory simultaneously.

An integrated workstation of Shuttle XP, XPlus and XPcrane VLMs combine high speed picking with a tremendous amount of inventory at one operator's fingertips. By matching inventory velocity with each VLM system's throughput, this one workstation is perfect for slow, medium and fast moving items. A single operator can pick multiple orders in one batch, eliminating the need for a costly consolidation system.

# Benefits

- ◆ Saves up to 85% of your floor space – converts otherwise wasted ceiling height into profit. Providing a storage capacity of 5200 m<sup>2</sup> in a footprint of only 74 m<sup>2</sup>.
- ◆ Reduces labour up to 67% - all items are automatically brought to the operator within seconds, eliminating unproductive walking and searching times.
- ◆ 100% secure and clean storage – items are stored within the steel enclosed system.
- ◆ Automatically stores trays in 25 mm increments – OptiFlex technology combines hardware and controls to dynamically store trays in the smallest space possible.
- ◆ Easily stores variable height items – from loose pieces to KTL containers to Euro pallets with maximum storage density in one system.
- ◆ 99.99% accuracy levels – integrated pick-to-light technology (option) automatically informs the operator of the location, description and quantity to pick.
- ◆ Personalized ergonomic operation – the trays can be delivered to each operator's ideal working height.



Device used for effective production supply.



Tray with antistatic finish (ESD) for storage of the sensitive electronic material.



Used for storing of samples for the pharmaceutical industry.

