

COMPACT

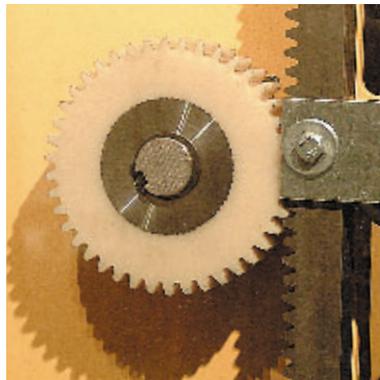
Vertical storage system



Space-saving



Safe



Fast

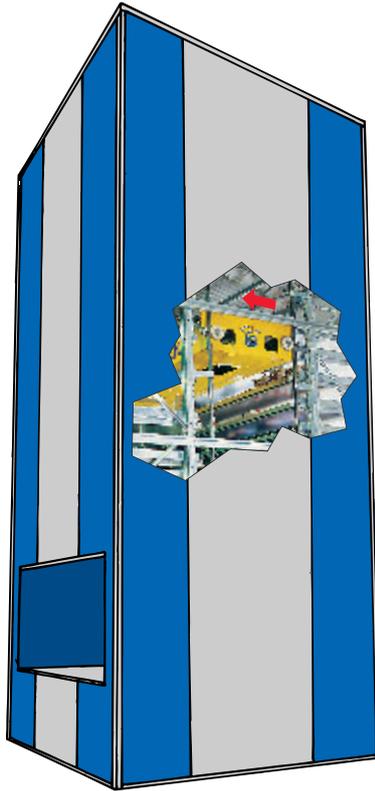


Dependable

RANDEX

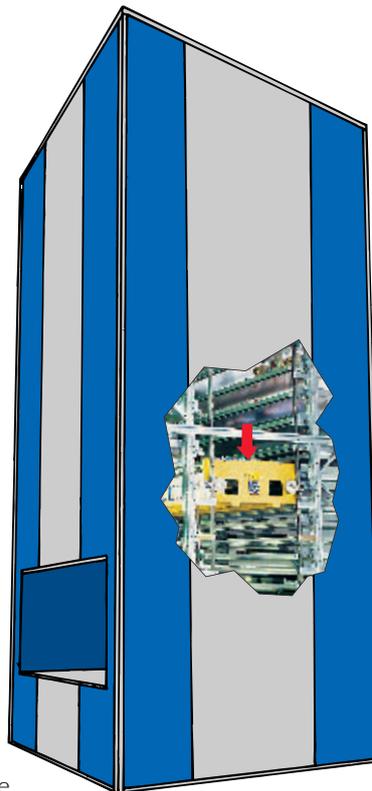
Materials management solutions

Automatic Lift



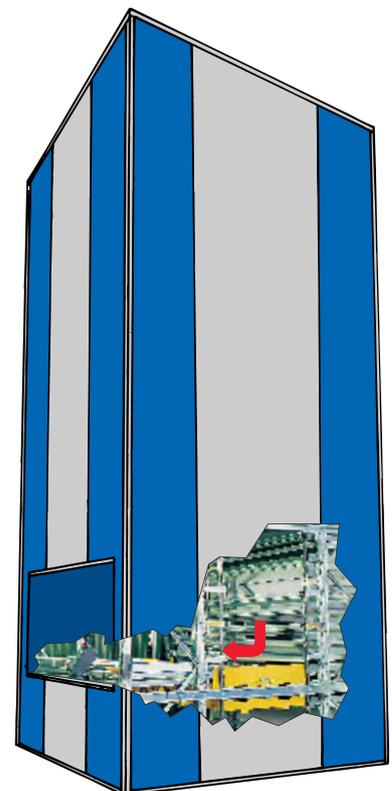
1. Storage tray with the selected item is fetched by the lift's computer controlled extractor unit.

2. The lift carries the storage tray to the delivery window.



Served on a tray!

Select the item you want and it arrives on a tray at the delivery window, all at a comfortable working height. Whilst you pick up the item, the next lift is already on its way to fetch the next item selected. The waiting time comes down to almost zero. A picking operator with three automatic lifts is capable of picking more than 200 orders per hour, in normal operation. This is 2-4 times faster than traditional stock handling systems. There is no bending, stretching or climbing. The job is done in a clean, safe and modern working environment. Consequently staff turnover and absenteeism is often found to reduce.

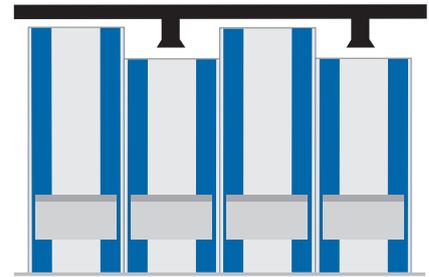
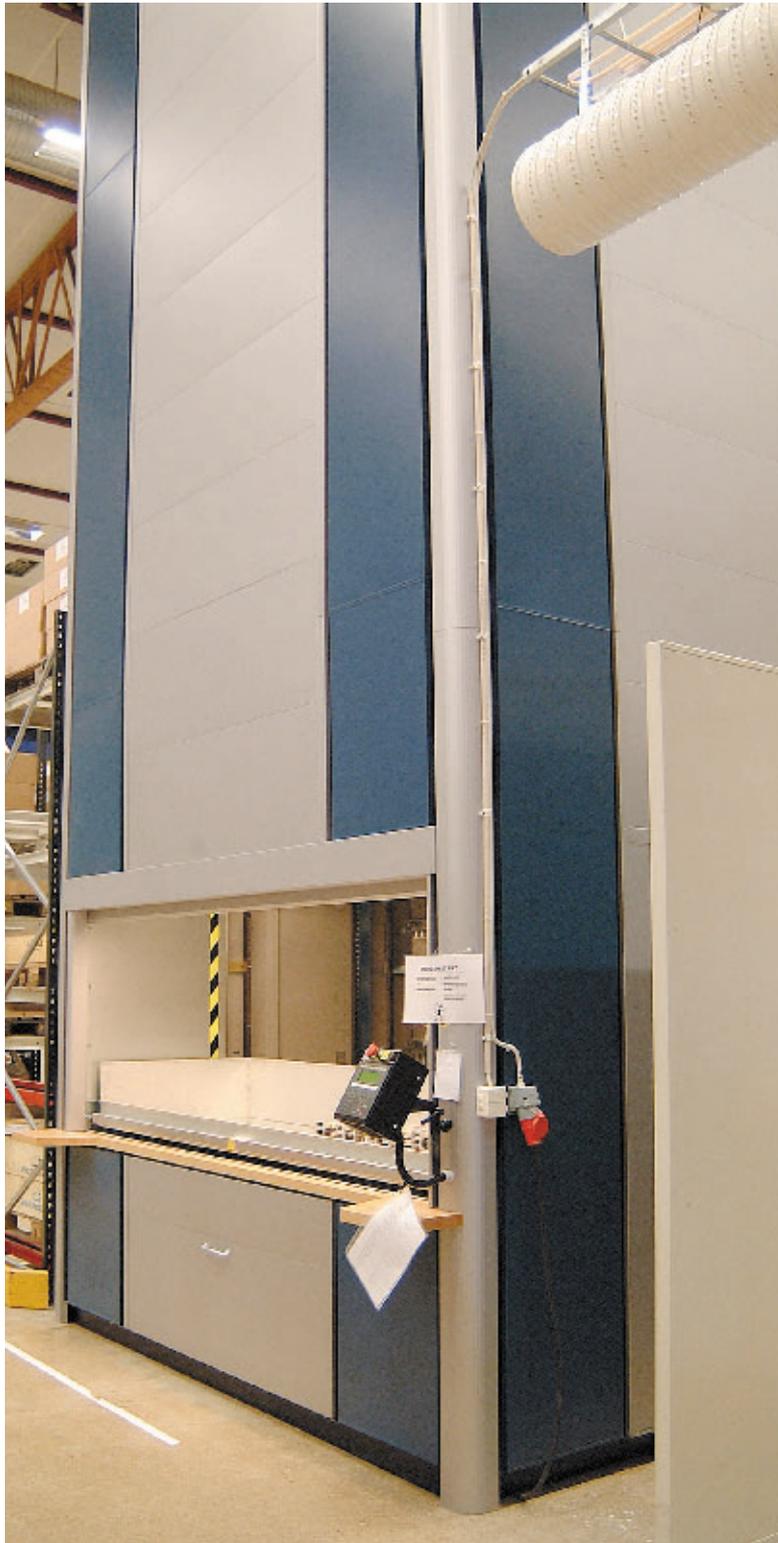


3. The lift delivers the storage tray to the picking position. A light beam points out the location of the selected item.

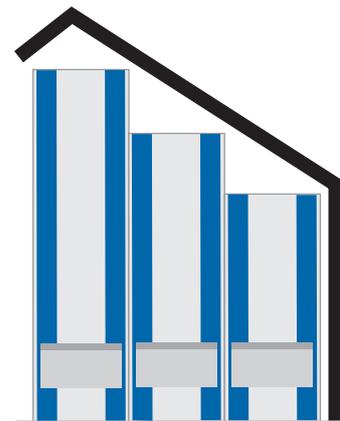
Automatic Lift

Space saved

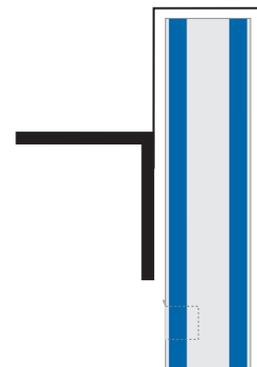
Compact automatic lifts save 70-90 % of floor space when compared to normal storage racks. This is important, not only when you just want to gain additional floor space but when you are planning a new building. Compact automatic lifts are designed with smaller spaces between the storage trays than other systems, thus you get even greater capacity. Remember, you not only achieve great space savings but massive efficiency gains too.



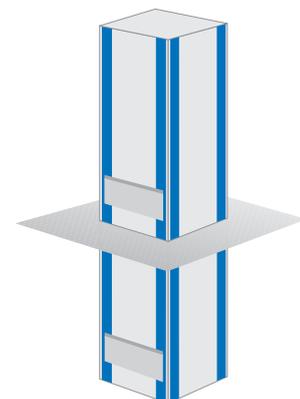
Lifts adapted to roof with beams.



Lifts adapted to inclined roof.



Lift placed outside an existing building.



Lift utilising two floors with access points on each level.

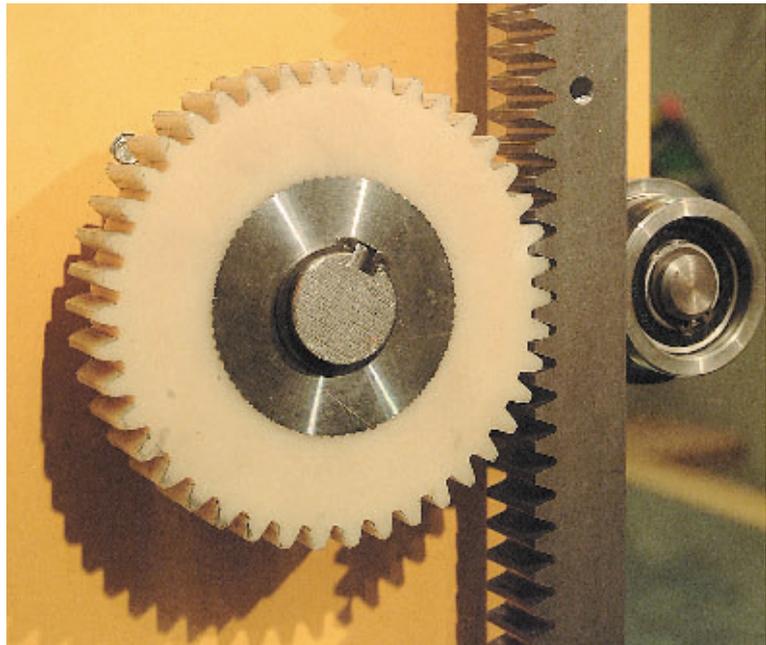
Automatic Lift

New and faster technique

- 4-wheel drive

Compact lifts are manufactured in Sweden and designed using the most modern techniques. The whole concept is based upon our unique lift principle - the lift moves both vertically and horizontally. The lift is not driven by means of chains or cables, but by means of 4 gear wheels which travel in four homogenous racks. This creates a robustly stable operation and an exact positioning of the storage tray is achieved, day after day, year after year. The smooth operation minimises wear and tear, maintenance is reduced and outstanding operational safety is achieved.

The storage trays are positioned on the unit's framework to the rear as well as above and below the delivery window. The design reduces friction to a minimum so the units run extremely quietly.



Safety

Horizontally working photocells at the rear of the delivery window control the height of goods, and a pressure-sensitive plate in the delivery window eliminates the risk of jamming.

An emergency stop button is positioned adjacent at the delivery window. Error codes are shown on the display, in normal language.

Electric Connection

For connection and operation 400 volt 3-phase 50 Hz. AC is required. For lighting 220 V.

Finish

Compact automatic lifts are supplied with a two-tone colour coating Gazell silver 71 and blue NCS 6030-B. Other colours are available upon request.

Ergonomics

Compact automatic lifts can be supplied with individually adapted picking heights and depths so that operators of different stature can be given an ergonomically optimum working position. The machine is equipped as standard with an ergonomically optimised working table.

Service

The machine is equipped with a cycle counter that indicates when a routine service is due. Consideration is given to the way the machine is run, not only to the calendar intervals. Routine Service Maintenance is normally carried out every 10000th working cycle, but at least once a year.



Faster still with

COMPACT TWIN

Compact Twin is a newly developed vertical lift that is redefining the vertical lift market. Compact Twin's unique way of handling the trays within the machine radically raises picking efficiency. Calculations show that the "Twin" system can increase picking speed per machine by up to 50%, an important feature in some applications where time is money.

Twin Function

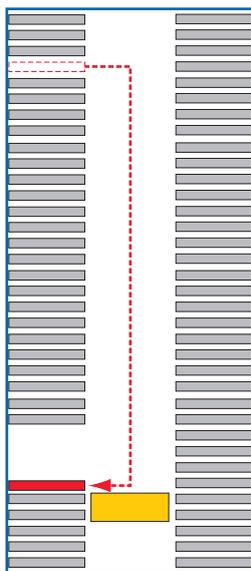
The advantage of the Compact Twin system is fully apparent when a pick list is comprised of numerous order lines. The picking sequence is carried out as follows:- When the operator starts working on a pick list the Compact Twin fetches the first ordered tray (item). Whilst picking is going on from this first tray, the Compact Twin fetches the next tray (item) specified on the picking list and places this tray in the waiting position on the extractor unit. When the first pick from the pick list has been completed (acknowledged), the tray is recovered by the extractor unit and the second tray is immediately presented from its waiting position. The first tray is repositioned within the unit and the third tray is now selected and in turn held in the waiting position. The process continues in this sequence until the order is complete.



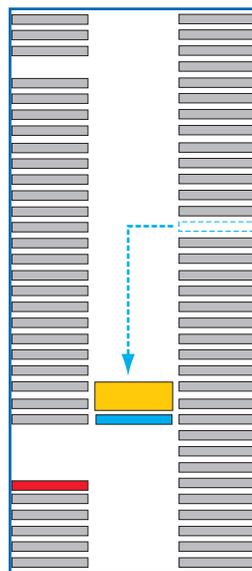
Advantages amongst others:

- Considerably faster picking
- More picks per picking cycle
- Increased tray capacity within unit

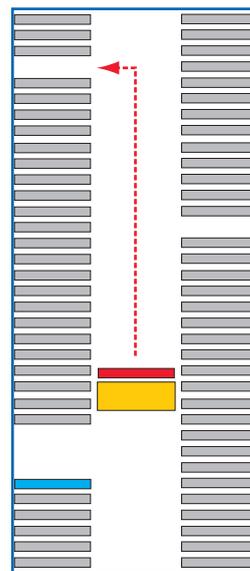
This is how the Compact Twin works:



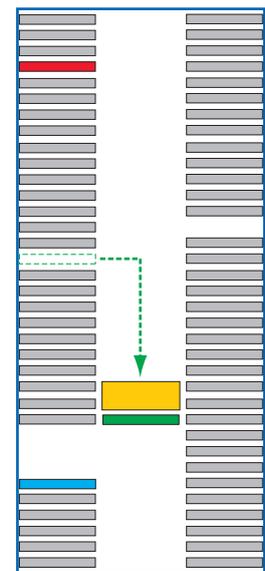
1. First box is fetched.



2. Whilst the item selected is picked from box no. 1, box no. 2 is brought to waiting position.



3. Fetches box no. 1 and places box no. 2 in picking position.



4. Brings back box no. 1 and fetches box no. 3 etc.

Control System

Controlled Handling of Material

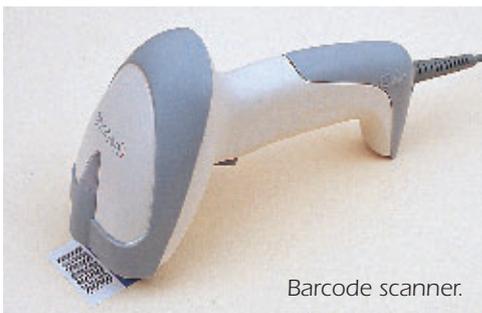
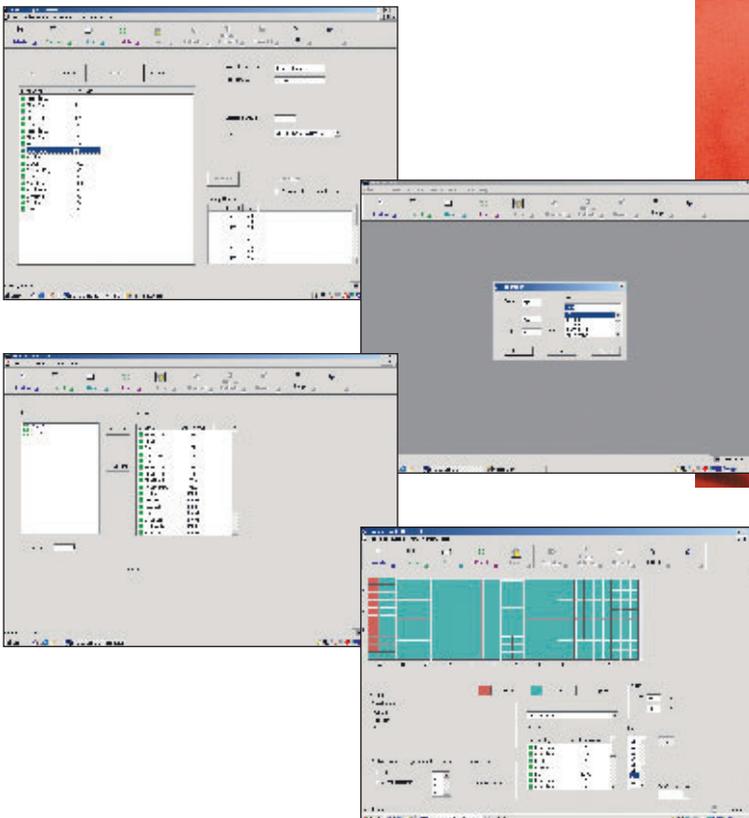
Compact Lift can be interfaced with your own stock management system on a local basis with max/min and FIFO functions, alternatively our own control system which has been specially developed for control of automatic lifts can operate the system, via a network if appropriate.

Compact Light/Bas contains all functions for achieving efficient and safe picking. The operator can process orders by using the integral screen, alternatively items can be picked and acknowledged against customer orders by using a barcode system. Order files can be processed into whatever readable format is required.

We can also equip each pick position with a label printer for what can effectively be a paperless pick routine.



Operator terminal



Barcode scanner.



Label printer

Control System

Compact Light/Bas

Stock handling System for Pick Optimisation

Existing manufacturing or operating systems/stock handling systems can generate orderfiles that can be sent via TCP/IP to Compact Bas. In Compact Light the operator can select a number of different orders to a picking cycle for batch picking. When the batch is released the pick sequence is automatically optimised and the lifts start their operation moving the trays to the delivery windows in the correct sequence. Where label printers have been installed the pick labels will be created automatically, otherwise picking is carried out from the operator's display terminal.

Communication between Compact Bas and the host business system/stock handling system by ODBC via TCP/IP. Compact Light/Bas is a solution for data connection in order to utilise Compact Lift to its maximum potential. Communication can be established between Compact Bas and the host system. There are different possibilities for connection, for instance a direct interface with the existing stock control system or the more simple Compact Light (local).

We offer fully custom-made turn-key solutions and apart from our own software solutions we can provide control systems from the likes of WM-data (Compact-Store), ABB (Satstore), Logimatic (Logia), Prevas (Astor), all fully integrated with our automatic lifts and your existing business system.

Compact Light can also be run "stand-alone" without being connected to a host business system/stock handling system. The system in this case works with a local MS Access database for creating an item directory. Frequently picked orders can be saved as batches and quickly be called up when required. Compact Light has a practical and easy to learn user's interface with functions that provide reports, different security access levels, FIFO and tools for graphic definition of fittings/layouts within the extractable trays.

The computer employed to run our automatic handling system is a standard network connected computer with a Windows NT operating system.

Compact Light/Bas has functions for:

- statistics
- communication with host MPS/ERP
- simple configuration av storage places/fittings
- operator's communication
- order optimisation
- stock take-out/stock take-in/stocktaking
- picking from picking list on display/label
- control/communication to stock automatic machines
- good ergonomics, short learning time
- simple configuration when adding more automatic machines / printers
- optimising of picking
- pre-selection of free locations
- codeword controlled authorisation levels for varying access to the machine.

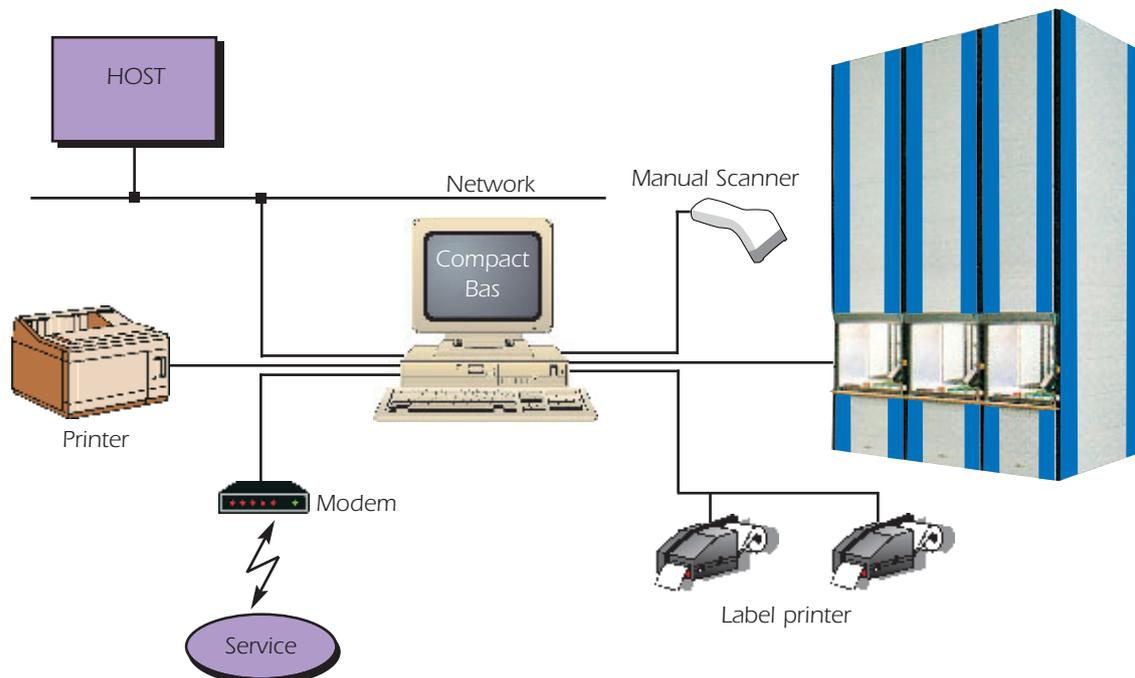
Optional functions Compact Light/Bas

- stock administration
- manual scanner connection for checking that correct item has been picked (scanner checks against operator's display)
- light pointer (picked by light)
- display picking in batches.



Picking information on display consists of:

- picking address
- item number
- name of item
- quantity of item
- picked number acknowledged



Technical specification

Technical specification

Compact Lift and Compact Twin

Module Height: From 3 metres up to 16 metres

Module Weight 40 tons standard

Tray dimensions

Type	1220	2440	2440 TWIN
Width mm	1212	2432	2432
Dept mm	820	820	820
Weight Load kg	300-500	400	400

Other dimensions and weight loads can be supplied

Basic Control: PLC type Mitsubishi FX2N

Motors: Vertical, type SEW 3 kW (5,5 kW)
Horizontal, type SEW 0,55 kW

Frequency converter: Mitsubishi type FR-E 540 EC 5,5 kW

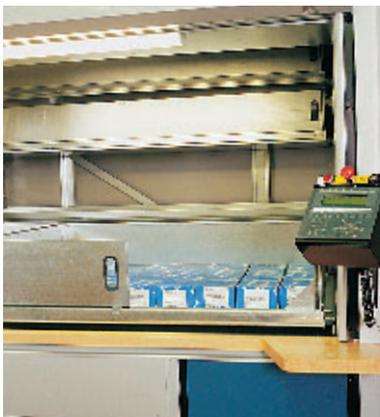
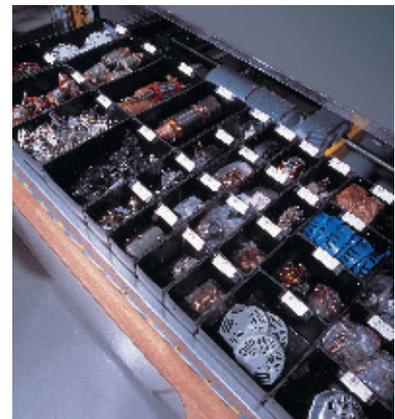
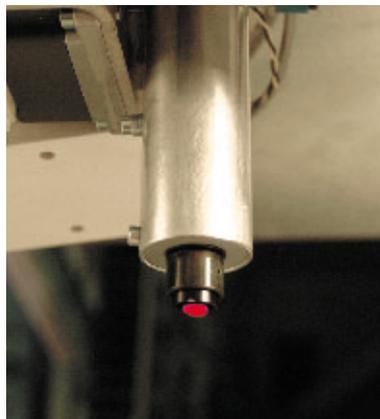
Electric current: 16 amp.

Voltage: 400 V 3-phase + neutral



Accessories / Special solutions

- Light pointer for highlighting position of items within trays
- additional delivery windows
- built-in sprinkler system
- barcode reader
- labelprinter
- twin function
- ESD type
- solutions for varying picking depth

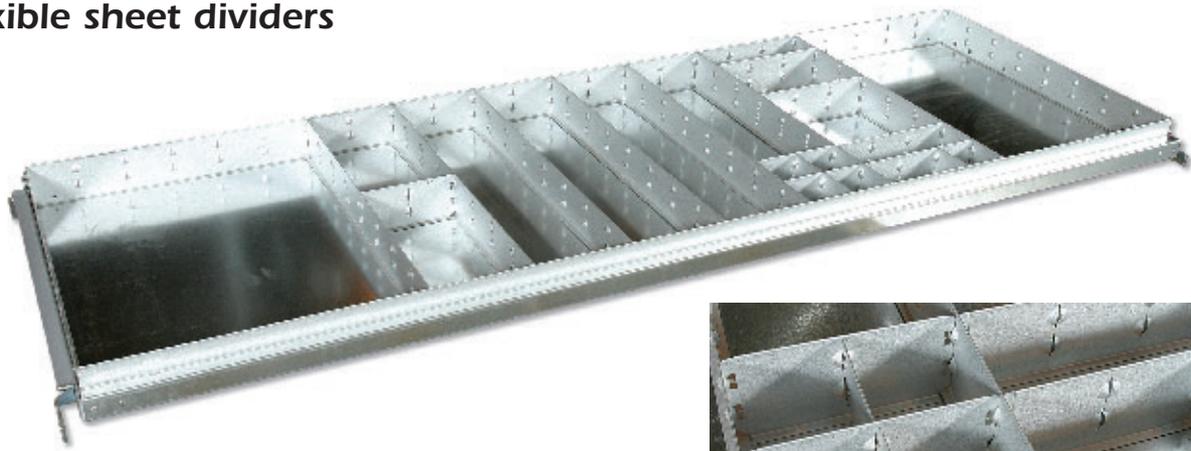


Interior fittings for trays

Sheet frame casing



Flexible sheet dividers

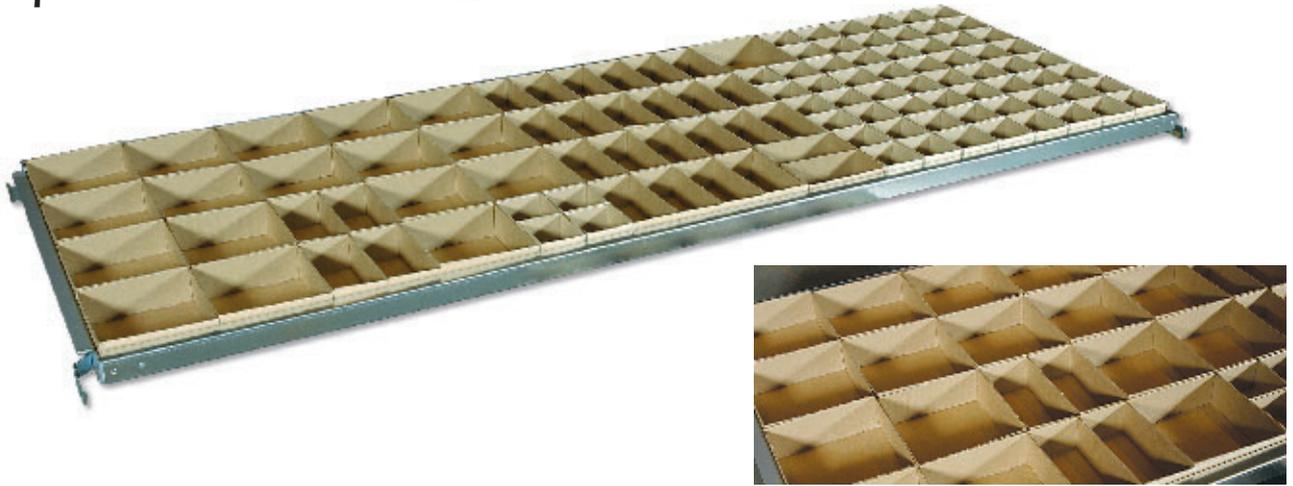


Frame casing with moveable front



Interior fittings for trays

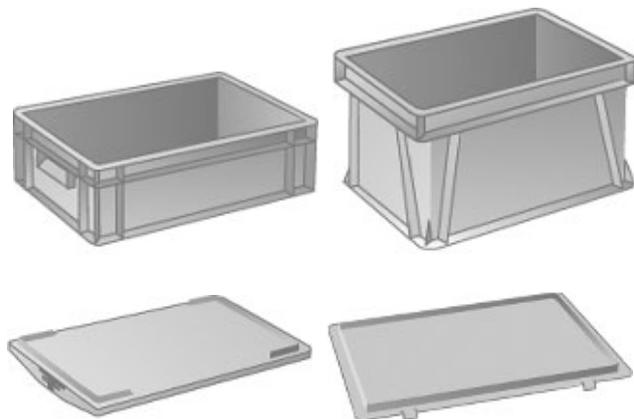
Paper boxes in different sizes



Plastic boxes in different sizes

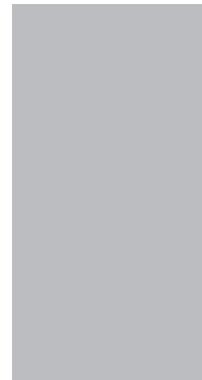
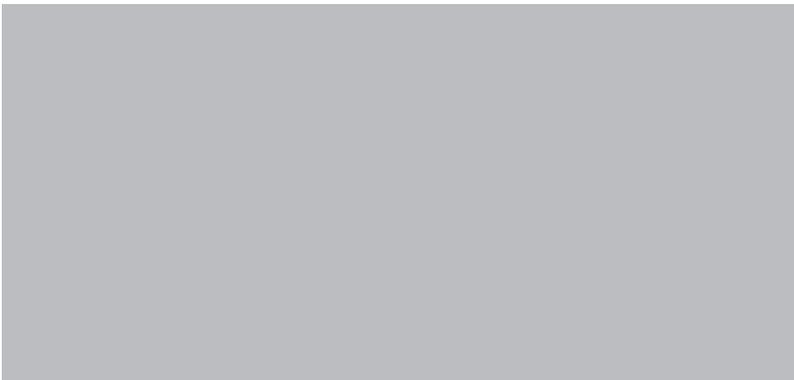
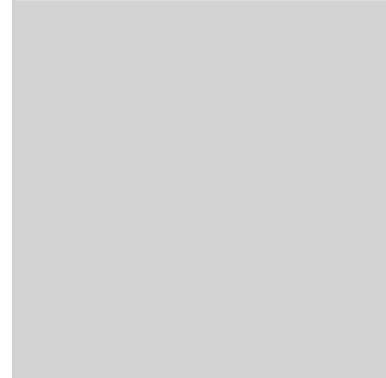
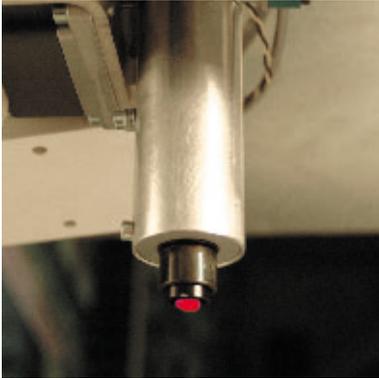


Euroboxes



Plastic dividers





London Office
 Randex Ltd
 Rowlandson House
 289-293 Ballards Lane
 Finchley
 London
 N12 8NP
 Phone: (+44) 0870 609 1965
 Fax: (+44) 020 8492 7718
www.randex.com
sales@randex.com

Scotland Office
 Randex Ltd.
 Geo-Logistics Building
 Burnbrae Drive
 Linwood Industrial Estate
 Renfrewshire
 PA3 3BW
 Phone: (+44) 0141 849 7522
 Fax: (+44) 0141 849 7525
www.randex.com
sales@randex.com

Manufacturer



www.welandlagersystem.se



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