

VERTICAL STORAGE SYSTEMS





Vertical Lift Modules Vertimag



Vertical Lift Modules for plates and bars Steel Tower



Vertical carousels Eurot



Warehouse Management System



Why a Vertimag vertical lift module?



Up to 90% of space saved



Quicker order preparation



An ergonomic solution offering absolute safety



Higher productivity



Improved stock management



Safe storage of goods

THEY CAN BE TAILORED AND CONFIGURED
ACCORDING TO THE NEEDS

Flexibility is the strength of **Vertimag**, one of Ferretto's most successful products for more than 20 years, which can manage small and medium-sized items in any shape and weight, thus meeting the logistics needs of companies in the most different industrial sectors. Vertimag is available in 15 models, each with 4 different tray capacities. This storage solution can be equipped with the Ergo-Tech system, which can manage the same flows as a double bay while always offering perfect ergonomics.



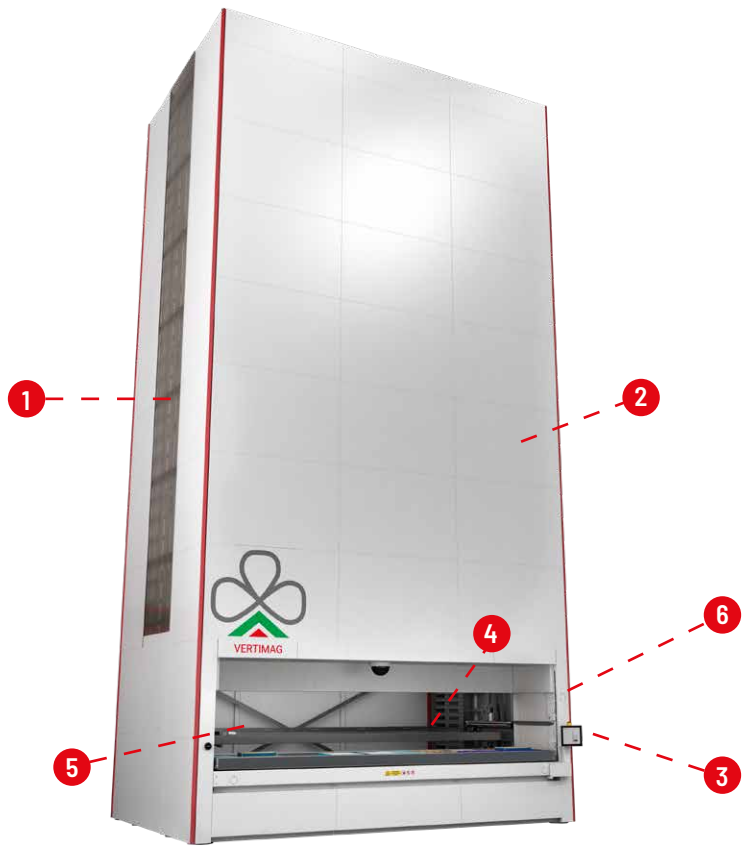
TRADITIONAL STORAGE



STORAGE WITH VERTIMAG



Automatic Vertical Lift Modules Vertimag



Exclusive

- Ergo-Tech picking bay
- 15 models (5 widths and 3 depths - footprint)
- 120 tray combinations
- Possibility of outdoor installation without additional cladding structure
- WMS designed and developed by Ferretto Spa

Plus

- Decreased footprint up to 1/10
- Increased productivity up to 7 times*
- Ideal for materials of different types, weight and size
- Elimination of errors
- Storage control
- Reduction of risks and loss of goods
- Ergonomics
- Improved efficiency
- Increased safety for operators

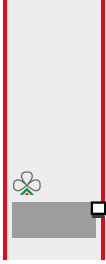
Technical data

1. High-strength tubular structure
2. High-durability pre-painted sheet paneling
3. Touch Panel screen 12" with sockets for external devices and user-friendly graphics
4. Different picking bays suitable for all needs
5. Check for incoming goods height - Pitch 25mm
6. Safety barriers for the operators

HEIGHT (in)	from 126.0 to 472.4 (every 7.87)
GROSS CAPACITY MAX (lb)	154,324
MATERIAL HEIGHT MAX (in)	27.4
TRAY PAYLOAD FOR THE ENTIRE RANGE (lb)	661.4 - 1,212.5 - 1,763.7 - 2,182.6
TRAY SIDE HEIGHT (in)	2.8 - 3.7 - 4.7 - 5.7 - 6.7
FLEXIBLE PITCH (in)	1.0
PICKING BAYS	Internal Single Bay / Internal Double Bay / Ergo -Tech / External Single Bay / External Double Bay / Extractable Bay

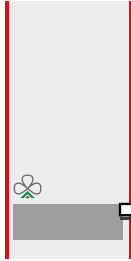
* Data verified and confirmed on a sample basis of historical customers

— XS-BI / XS-BE



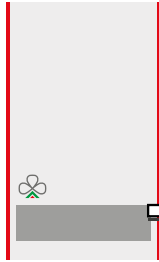
MODEL	TRAY WIDTH (in / ft)	TRAY DEPTH (in / ft)	TRAY SIDE HEIGHT (in)	TRAY PAYLOAD (lb)	INTERNAL BAY FOOTPRINT (W×D ft)	EXTERNAL BAY FOOTPRINT (W×D ft)
65XS	76.8 / 6.40	25.6 / 2.13	2.8 ÷ 4.7	661-1,213 1,764-2,183	8.04 x 8.27	8.04 x 10.98
84XS		33.1 / 2.76			8.04 x 10.14	8.04 x 13.47
103XS		40.6 / 3.38	3.7 ÷ 5.7		8.04 x 12.01	8.04 x 15.97

— S-BI / S-BE



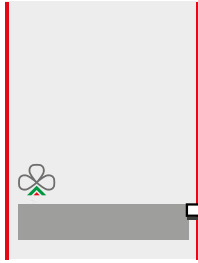
MODEL	TRAY WIDTH (in / ft)	TRAY DEPTH (in / ft)	TRAY SIDE HEIGHT (in)	TRAY PAYLOAD (lb)	INTERNAL BAY FOOTPRINT (W×D ft)	EXTERNAL BAY FOOTPRINT (W×D ft)
65S	96.5 / 8.04	25.6 / 2.13	2.8 ÷ 4.7	661-1,213 1,764-2,183	9.69 x 8.27	9.69 x 10.98
84S		33.1 / 2.76			9.69 x 10.14	9.69 x 13.47
103S		40.6 / 3.38	3.7 ÷ 5.7		9.69 x 12.01	9.69 x 15.97

— M-BI / M-BE



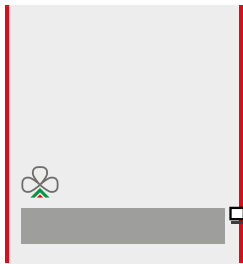
MODEL	TRAY WIDTH (in / ft)	TRAY DEPTH (in / ft)	TRAY SIDE HEIGHT (in)	TRAY PAYLOAD (lb)	INTERNAL BAY FOOTPRINT (W×D ft)	EXTERNAL BAY FOOTPRINT (W×D ft)
65M	120.1 / 10.01	25.6 / 2.13	2.8 ÷ 4.7	661-1,213 1,764-2,183	11.65 x 8.27	11.65 x 10.98
84M		33.1 / 2.76			11.65 x 10.14	11.65 x 13.47
103M		40.6 / 3.38	3.7 ÷ 5.7		11.65 x 12.01	11.65 x 15.97

— L-BI / L-BE



MODEL	TRAY WIDTH (in / ft)	TRAY DEPTH (in / ft)	TRAY SIDE HEIGHT (in)	TRAY PAYLOAD (lb)	INTERNAL BAY FOOTPRINT (W×D ft)	EXTERNAL BAY FOOTPRINT (W×D ft)
65L	143.7 / 11.98	25.6 / 2.13	2.8 ÷ 5.7	661-1,213 1,764-2,183	13.62 x 8.27	13.62 x 10.98
84L		33.1 / 2.76			13.62 x 10.14	13.62 x 13.47
103L		40.6 / 3.38	3.7 ÷ 6.7		13.62 x 12.01	13.62 x 15.97

— XL-BI / XL-BE



MODEL	TRAY WIDTH (in / ft)	TRAY DEPTH (in / ft)	TRAY SIDE HEIGHT (in)	TRAY PAYLOAD (lb)	INTERNAL BAY FOOTPRINT (W×D ft)	EXTERNAL BAY FOOTPRINT (W×D ft)
65XL	167.3 / 13.94	25.6 / 2.13	3.7 ÷ 5.7	661-1,213 1,764-2,183	15.59 x 8.27	15.59 x 10.98
84XL		33.1 / 2.76	3.7 ÷ 6.7		15.59 x 10.14	15.59 x 13.47
103XL		40.6 / 3.38			15.59 x 12.01	15.59 x 15.97



Our wide range of bays

During the design stage, Ferretto supports the customer with professional advice in the choice of the type of bay that most suits their needs.

The **Single Internal Bay (BIS)** is recommended when the priority is guaranteeing ergonomic and safe working conditions to the operators when handling the products in the trays. It can be easily transformed into a **Double Internal Bay (BID)** to improve warehouse performance.

The **Ergo-Tech Bay (BIG)**, instead, is the best solution for very deep trays, when ergonomic working conditions and the speed of a double bay are required but there are space issues.

The **Single External Bay (BES)** or the **Double External Bay (BED)** is the right choice when it comes to safely handling goods by means of external equipment or to handling heavy and bulky goods that must be accessed without hindrances.

The **Extractable Bay** allows the operator to manually extract the trays from the machine and handle heavy materials in total safety. It occupies the same space as an internal bay.



ERGO-TECH BAY



INTERNAL SINGLE BAY



INTERNAL DOUBLE BAY



EXTERNAL SINGLE BAY



EXTERNAL DOUBLE BAY



EXTRACTABLE BAY



How can a Vertimag lift module be organized?

The trays can be equipped with dividers and separators that can be chosen according to the needs and added/removed at any moment, thus ensuring maximum flexibility.

- Plastic boxes
- Tray slots
- Kit clips and flat dividers
- Clip kits and grooved dividers
- Flat dividers
- Cardboard boxes

ORDER AND PRECISION IN YOUR WAREHOUSE

The many accessories available make it possible to handle items in various shapes, sizes and weights in a more orderly and efficient way, speeding up order preparation and reducing errors.



PLASTIC BOXES



TRAY SLOTS



KIT CLIPS AND FLAT DIVIDERS



CLIP KITS AND GROOVED DIVIDERS



FLAT DIVIDERS



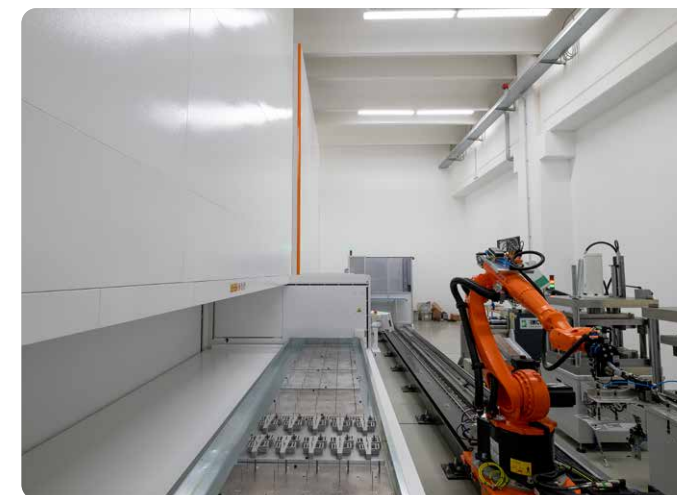
CARDBOARD BOXES



Vertimag and integrated technology

When it comes to integrating different technologies, Vertimag represents a state-of-the-art product and ensures flawless interaction with the company's ERP system and the most innovative technological solutions such as:

- Anthropomorphic robots
- Put to Light systems
- Jib cranes
- Conveyor belts and roller units
- Weight handling/zero-setting devices



ANTHROPOMORPHIC ROBOTS



PUT TO LIGHT SYSTEMS



JIB CRANES



CONVEYOR BELTS AND ROLLER UNITS



WEIGHT HANDLING/ZERO-SETTING DEVICES



Many accessories for a more efficient warehouse

Ferretto's solutions can boast high efficiency and productivity also thanks to the numerous accessories that have been designed and manufactured to meet the picking and placing needs of each individual customer.

- Laser Pointer
- Alphanumeric LED bar
- Barcode/QR Code reader
- Sliding console
- Shutter door
- Counting scale
- Trolley for tray extraction
- Put & Go – Order preparation cart



LASER POINTER



ALPHANUMERIC LED BAR



BARCODE/QR CODE READER



SLIDING CONSOLE



SHUTTER DOOR



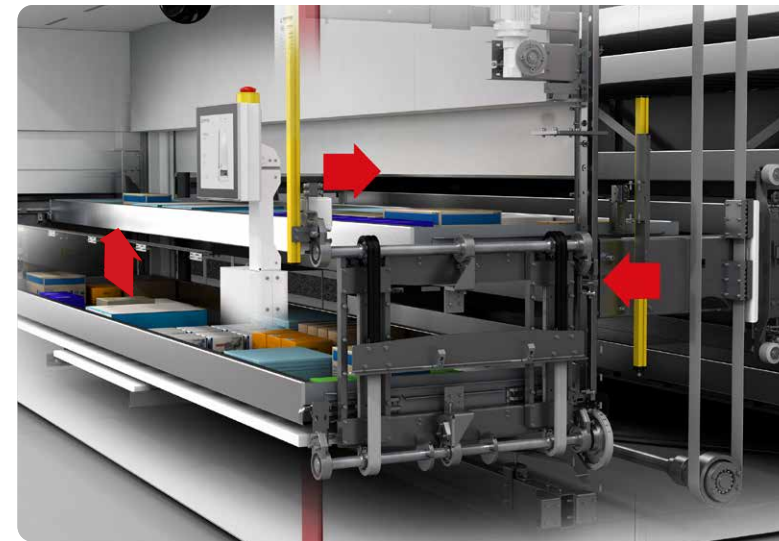
COUNTING SCALE



TROLLEY FOR TRAY EXTRACTION



PUT & GO – ORDER PREPARATION CART



EXCLUSIVE ERGO-TECH SYSTEM

Thanks to its operating principle, the Ergo-Tech dual-level picking bay manages the same flows as a double bay while offering more flexibility as to the material to be stored. Unlike other systems available on the market, it does not have, for example, the product height limitations that can be found in a traditional dual-level bay.



INSULATED SELF-SUPPORTING SOLUTION FOR OUTDOOR APPLICATIONS



REINFORCED EARTHQUAKE-RESISTANT STRUCTURE



FIRE - FIGHTING SYSTEM (AVAILABLE ON REQUEST)



ELECTROSTATIC DISCHARGE SYSTEM



Why an Eurot vertical carousel?

- 

Space and time optimization
- 

Remote access to and consultation of records
- 

Traceability of materials and operations
- 

Safe storage of goods



Specifications

- 1. Steel structure
- 2. Tray rotation carousel
- 3. Picking bay
- 4. Operator interface
- 5. Electrical cabinet
- 6. Shelf configuration differentiated by unit load
- 7. Work counter

Features

- Optimisation of space and working times
- Traceability of materials and operations
- Remote archive access and consultation
- Protection of goods



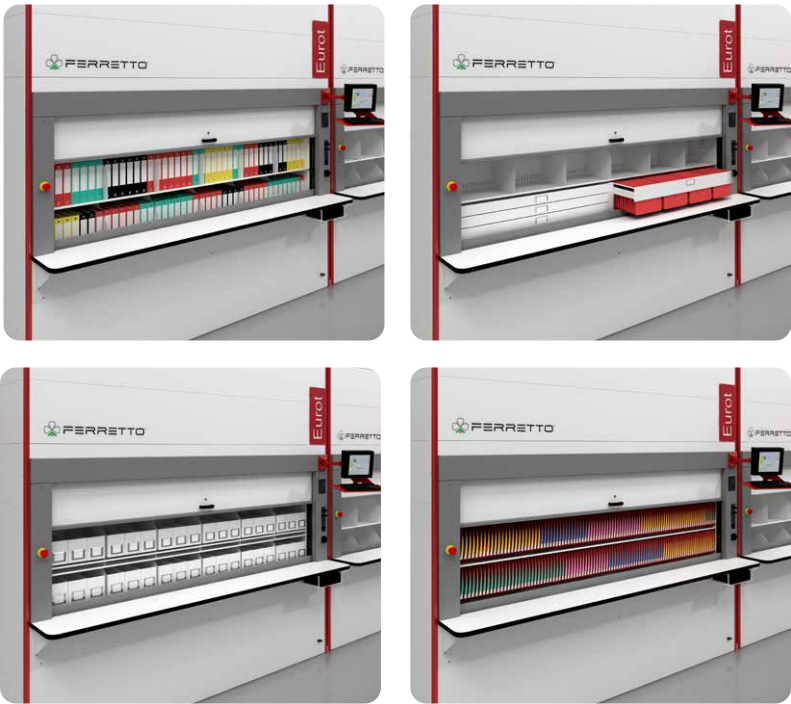
Vertical carousels Eurot



Automatic vertical carousel for storage and picking

Eurot is an automatic storage system with rotating shelves; it is the ideal solution when the available space is limited and the ceiling height does not exceed 4 m, the items to be stored are light and have uniform size and weight, and the material can be handled safely even without lifting equipment.

The rotating shelves always follow the shortest route while guaranteeing maximum picking and placing speed. Thanks to its versatility, Eurot is the ideal automatic storage system for both offices and manufacturing facilities.

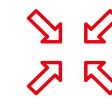


Technical specifications

USE	OFFICE		INDUSTRY	
	5400	5500	70-415	70-615
MODEL	5400	5500	70-415	70-615
WIDTH (in)	108.5	126.2	133.3	
DEPTH (in)	44,1		52.7	68.7
HEIGHT RANGE (in)	from 92.7 to 149.4		from 109.9 to 258.7	from 113.5 to 257.5
SHELF WIDTH (in)	92.1	109.8	112.2	
MAX LOAD CAPACITY (lb)	6,173		15,432	
MAX SHELF LOAD (lb)	287		661	
SHELF DEPTH (in)	14.4		16.3	24.2



Why a Steel Tower vertical lift module for plates and bars?



More space saving in the warehouse



Reduced risks for operators



Storage monitoring



Improved efficiency



Fewer errors



Automatic stacking and separation of metal sheets on/from the trays



Rotating filing system with standing ring binders and documents



Temperature-controlled rotating storage systems (Hospital Sector)

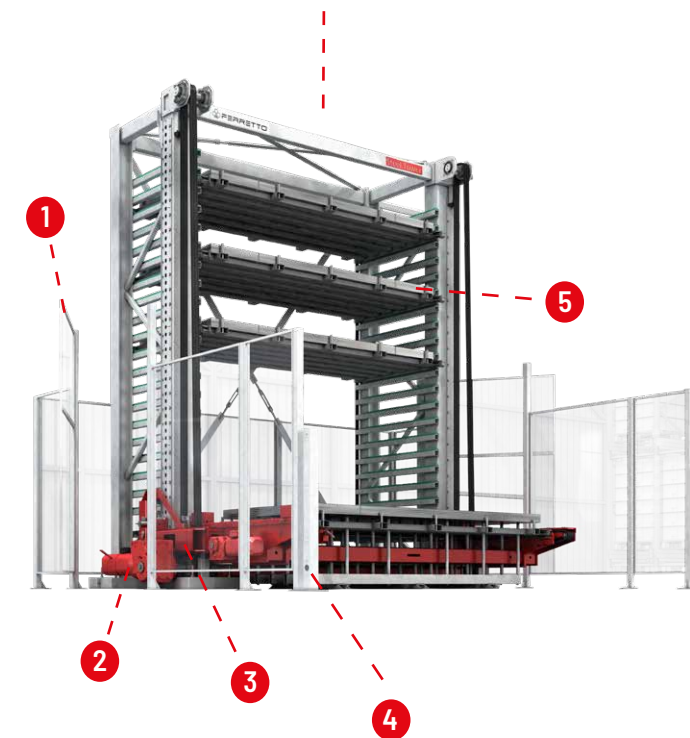


Rotating storage systems for integrated circuit components

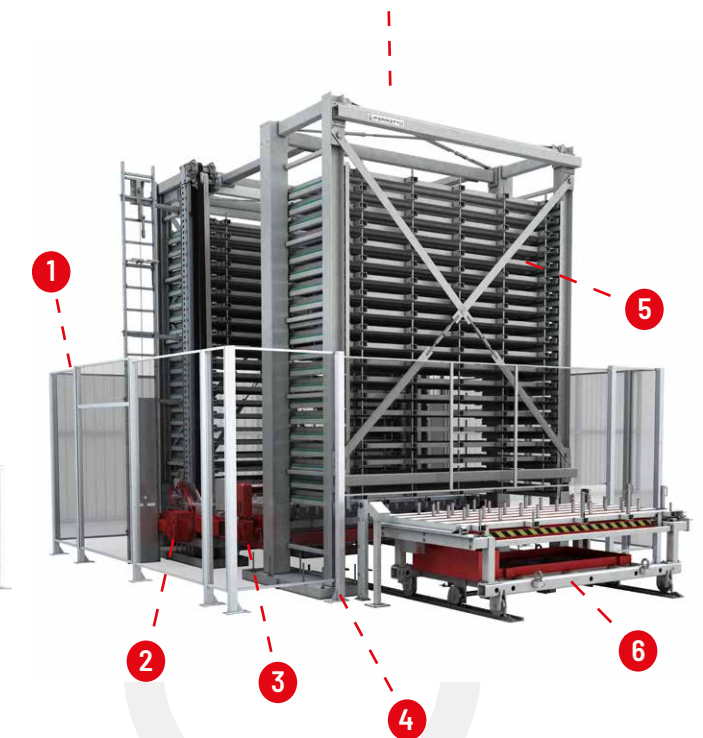


Rotating storage systems for manufacturing facilities (footwear industry)

VERTICAL LIFT MODULE FOR PLATES AND BARS
STEEL TOWER WITH SINGLE TOWER



VERTICAL LIFT MODULE FOR PLATES AND BARS
STEEL TOWER WITH DOUBLE TOWER



Specifications

1. Access door
2. Lift motor
3. Elevator

4. Safety barriers
5. Trays
6. Semi-automatic shuttle with optional pantograph



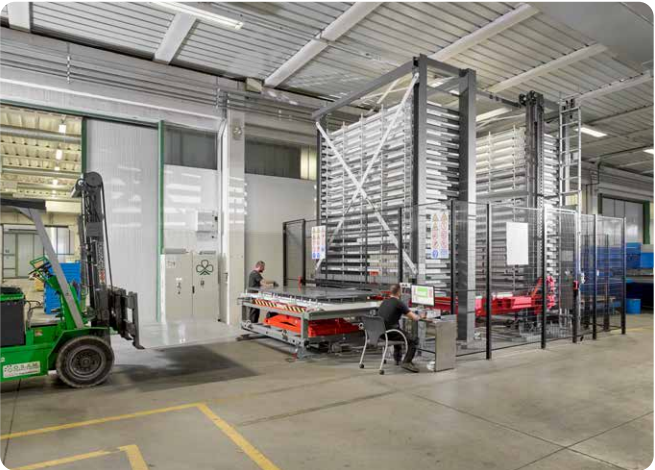
Vertical Lift Modules for plates and bars Steel Tower



Automatic vertical system for the storage and picking of bars, section bars, plates and metal sheets.

Steel Tower is a high-density automatic storage system with single tower (MM models) or double tower (MB models) modules for bars, section bars, plates and metal sheets.

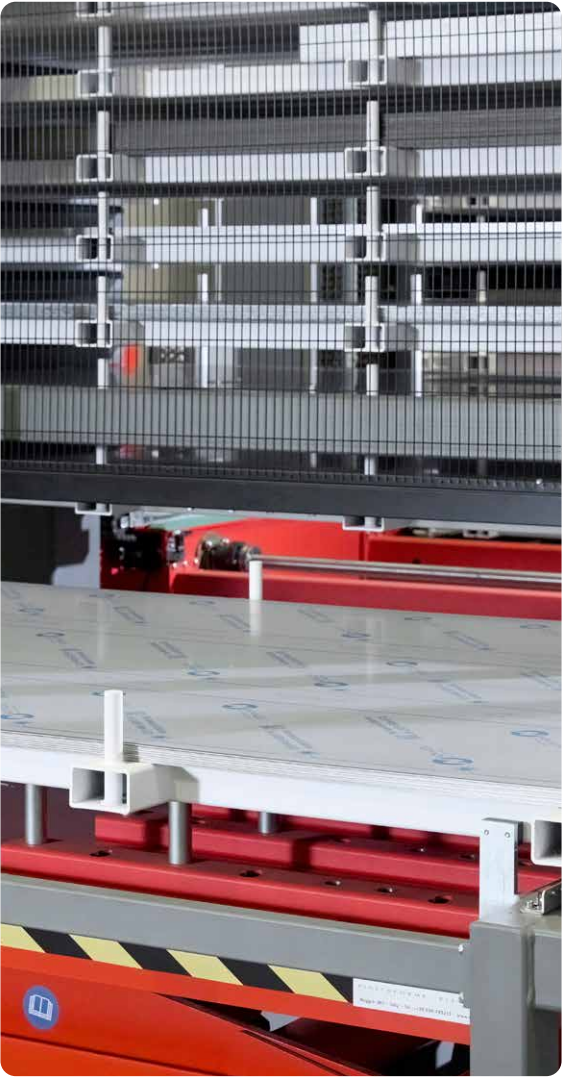
Material loading and unloading operations are performed by means of a lift. Various coupling (decoupling) devices - between tray and product - are provided, so that storage without pallets is possible. Every operation, including maintenance, is carried out according to the highest safety standards.



Steel Tower vertical lift module for sheet metal (steel industry)



UL detail - for bars and section bars



UL detail - for packs of metal sheets



Technical specifications

MODEL*	MMS/MBS3000	MMS/MBS4000	MBB6200	MBB6700
TRAY	Plates, sheets, slabs	Plates, sheets, slabs	Bars and profiles	Bars and profiles
MAX HEIGHT (in)	472,4 (in relation to the maximum capacity)			
MAX USEFUL TRAY SIZE (in)	118,1 × 59,1 118,1 × 78,7	157,5 × 59,1 157,5 × 78,7	246,8 × 28,5	266,5 × 28,5
MAX TRAY WEIGHT (lb)			6.614	
MAX STORAGE CAPACITY (lb)			330.700	
MAX USEFUL TRAY HEIGHT (in)		3,5		10,9
PITCH BETWEEN LEVELS (in)	7,5	8,3	14,2	14,2
PICKING DEVICE		Dragging		

* **MMS**: single-tower machine for sheet metal
MBS: double-tower machine for sheet metal
MBB: double-tower machine for bars



Automated storage system for metal sheets stacked on trays (mechanical sector)



Automated storage system for metal sheets on trays

Warehouse Management System

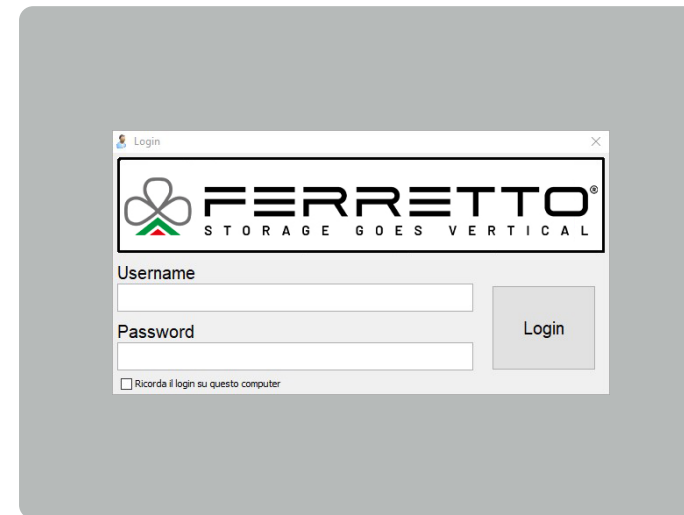


The EjLog Warehouse Management System designed by Ferretto can be seamlessly integrated with the customer's ERP.

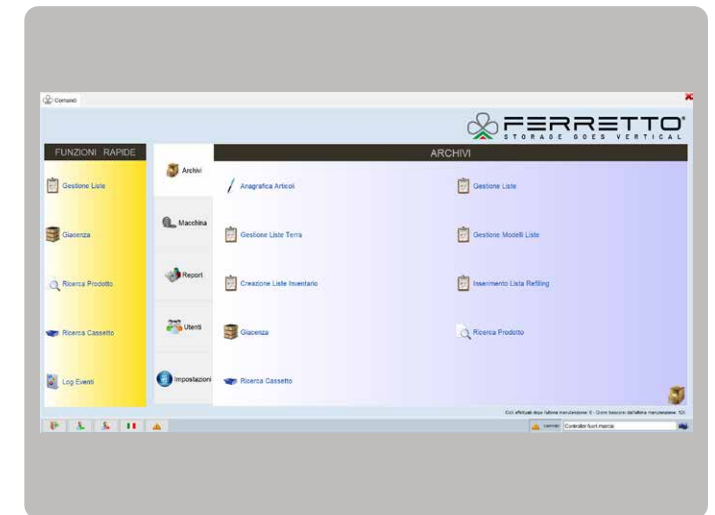
Thanks to its intuitive graphic layout and user-friendly interface, EjLog is the ideal software for managing all types of automatic storage solutions, traditional racking systems as well as the storage areas at ground level.

EjLog enables real-time warehouse management through a regular computer interface on PC or radio frequency terminals, in the case of traditional storage systems and storage areas at ground level, and at the same time allows remote monitoring and intervention.

Its "open" architecture facilitates dialogue with the company's ERP, ensuring increased productivity and space optimization through correct data management.



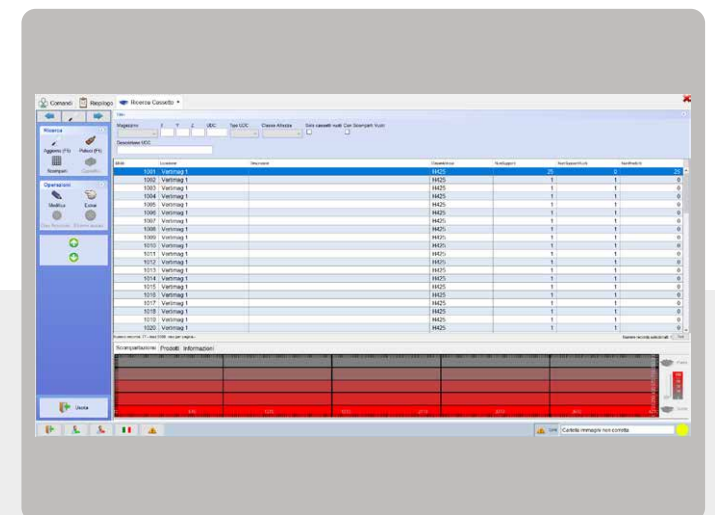
Login page



Home page



Summary of warehouse statistics



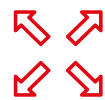
Tray search page

Main functions of EjLog for the management of automatic storage systems and storage areas at ground level:

- 1 Identification of inbound products
- 2 Storage within the storage system
- 3 Consultation of data concerning the products stored in the system
- 4 Retrieval of goods/products from the system
- 5 List execution with optimized logic
- 6 Connection to company host
- 7 User management and authorization for the available functions
- 8 Reports



Goods and stock management and control



Optimization of space and flow management



Increased efficiency



Fewer errors



Preventive maintenance



Remote control



Simultaneous management of all storage and handling systems



Our customers

Service Desk is a detailed reporting system which Ferretto offers to its customers for better management of Vertimag storage systems. Through a web portal, customers can access all data related to their machines in real time, for example:

- Data of the storage systems (in the case of more than one system distributed in different company premises)
- Diagnostic data (alarms, errors)
- Mission log
- Storage system technical sheet
- Statistics on the use of trays
- Maintenance



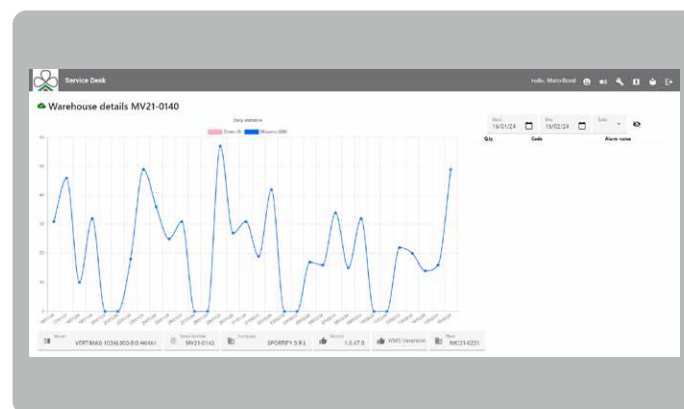
Better system control



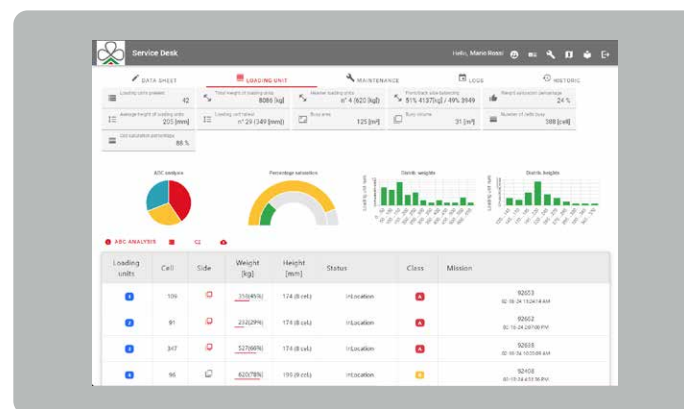
Statistic data and reports in real time



Preventive maintenance



Number of missions carried out



Detail of trays

**AGRICULTURAL AND
EARTH-MOVING MACHINERY**

TREEMME MERLO GROUP
AGRICOLA CANAVESANA
RECMAC
DURI' AGRISERVICE
CIMA
RIMA
EUROCAB

AVIONICS AND DEFENCE

LEONARDO
EUROPEA MICROFUSIONI AEROSPAZIALI
PIAGGIO AERO INDUSTRIES
VITROCiset

BUILDING CONSTRUCTION

BMP
WIENERBERGER
CORRADI E GHISOLFI

CHEMICAL AND PHARMACEUTICAL

CARGILL PECTINE ITALY
JGL D.D. JADRAN GALENSKI LABORATORIJ DD
B.KOLORMAKEUP & SKINCARE
IGENA
HYGIEN TECH
GUARNIMED
CENTO FIORI
BOHERINGER
FABBRICA ITALIANA SINTETICI
COPAN
ROCHE DIAGNOSTIC

ELECTRONICS

ELECTROLUX
SIEMENS
SPEA
NORD ELETTRONICA
XPRES

AUTOMOTIVE

DENSO
MARELLI MOTORI
MERCEDES BENZ
VOLKSWAGEN AG
CNH INDUSTRIAL
SMAT NORD
KG KARTING
SIMPRO

BIKE

BRN
F.S.A. FULL SPEED AHEAD
BEMMEX
DUCATI MOTOR HOLDING

CERAMIC

CERAMICHE ATLAS CONCORDE
CERAMICHE REFIN

COSMETICS

DELLE PIANE
GOTTARDO
GOTHA COSMETICS
TIRELLI
ATELIER FRAGRANZE MILANO

FOOD & BEVERAGE

CANDIA
CARREFOUR
SANMARTIN
BIRRIFICIO BALADIN
CANTINE PRODUTTORI VALDOBBIADENE
DOLCIARIA GADESCHI
ITALIANA CONFETTI
ACQUA MINERALE SAN BENEDETTO
INDUSTRIA SALUMI SIMONINI
ZUCCATO F.LLI
FRATELLI IBBA
OLEIFICIO FRATELLI RUATA
DRINK INTERNATIONAL

FOOTWEAR

CALZATURIFICIO ZAMBERLAN
CALZATURIFICIO NERI
FENDI DIV. CALZATURE
RENE CAOILLA
GIANVITO ROSSI
FALC

HYDRAULIC

NEVE RUBINETTERIE
RUBINETTERIE SAN MARCO
ACQUA BREVETTI
GESSI
IDEAL STANDARD
RUBINETTERIA GST
RUBINETTERIA TREEMME

NAUTICAL

OSCOLATI
ORIZZONTE SISTEMI NAVALI
RIMORCHIATORI NAPOLETANI
REX NAVI

PLASTICS

BTICINO
NEWPLASTIC
PLASTEX

TEXTILES AND CLOTHING

BOTTEGA VENETA
ITEMA
LORO PIANA
MANUFACTURE DE SOULIERS
LOUIS VUITTON
MARELLA
MAX MARA
MIROGLIO GROUP
3 C - LAVORAZIONE PELLI

FURNITURE AND FURNISHINGS

POLTRONA FRAU
PELLINI
CRESTANI 2000
LAM
PIEMME ARREDAMENTI

INDUSTRIAL PLANTS

CIBITEX
KONE INDUSTRIAL
CEFLA SC
MTM HYDRO
CAREL

OLEODYNAMIC

BORGHİ IMPIANTI OLEODINAMICI
OLEODINAMICA GAMBINI
OLEODINAMICA GASPARINI
EMPORIO OLEODINAMICO
HYDRONIT

PUBLIC ADMINISTRATION

ISTITUTO POLIGRAFICO ZECCA DI STATO
UNIVERSITÀ DI UDINE
REGIONE FRIULI VENEZIA GIULIA
RFI - RETE FERROVIARIA ITALIANA
SELEX GALILEO
BCC PORDENESE
BCC VICENTINO
CARIFERMO
CORTE APPELLO BARI

HARDWARE/IRONWARE

BOSSONG
C.M.T. UTENSILI
DEWALT
BATTISTI FRANCESCO SNC
MOLEMAB

MECHANICAL

SELMİ
BECO
EUROFORK
CENTRO TRASMISSIONI MECCANICHE
FB BALZANELLI
COSTRUZIONI MECCANICHE FERRARI
OMS-OFFICINA-MECCANICA-SESTESE
OMT
DAL LAGO
FADIS
LOMBARDINI KOHLER

PAPER

EUROSTAMPA
TESI 24
SKILLPRESS

STEEL

WEALTH
ESCELSIOR LAMIERATI
AFV ACCIAIERIE BELTRAME
ITALMETAL
SCALA
PEDROTTI NORMALIZZATI

THIRD-PARTY LOGISTICS

DEIMA
ASENDIA



FERRETTO®
STORAGE GOES VERTICAL

Ferretto USA Inc

212 W Center St
Lexington, NC 27292
USA

info.usa@ferretto.com
www.usa.ferretto.com

