



FERRETTO[®]
S T O R A G E G O E S V E R T I C A L

VERTICAL STORAGE SYSTEMS





Vertical Lift Modules Vertimag



Vertical Lift Modules for bars and plates Steel Tower



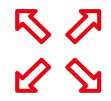
Vertical carousels Eurot



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.



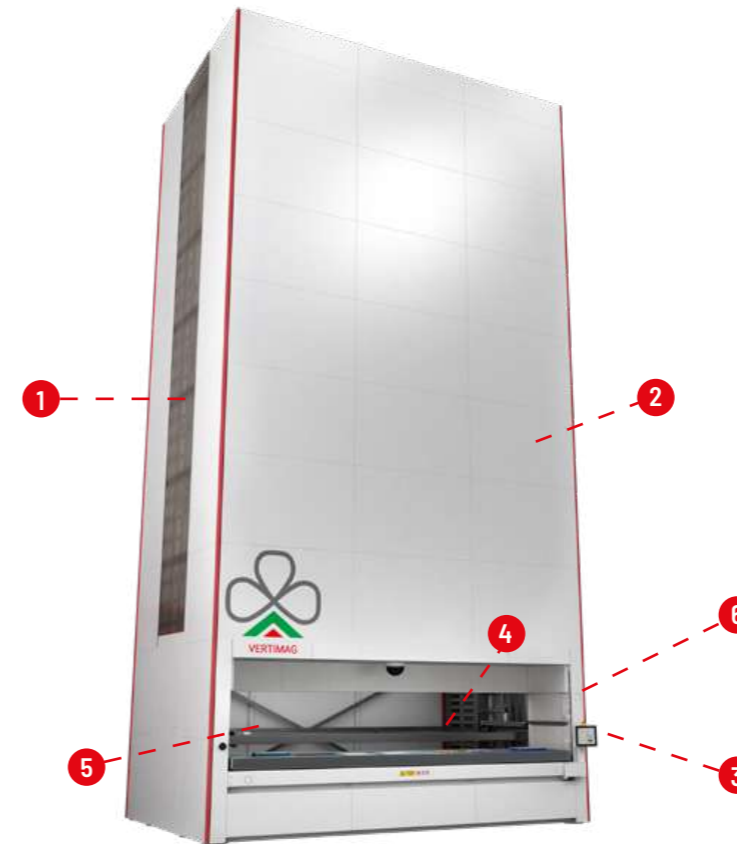
TRADITIONAL STORAGE



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

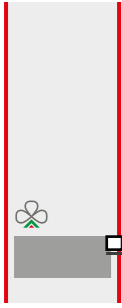
Technical data

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

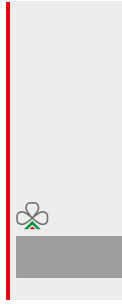
HEIGHT (m)	from 3,2 to 12 (every 200mm)
GROSS CAPACITY MAX (kg)	70.000
MATERIAL HEIGHT MAX (mm)	695
TRAY PAYLOAD FOR THE ENTIRE RANGE (kg)	300 - 550 - 800 - 990
TRAY SIDE HEIGHT (mm)	70 - 95 - 120 - 145 - 170
FLEXIBLE PITCH (mm)	25
PICKING BAYS	Internal Single Bay / Internal Double Bay / Ergo -Tech / External Single Bay / External Double Bay / Extractable Bay

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

— XS-BI / XS-BE



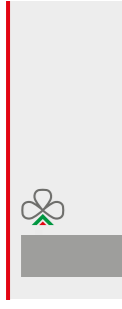
— S-BI / S-BE



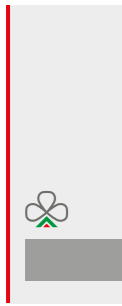
— M-BI / M-BE



— L-BI / L-BE



— XL-BI / XL-BE



MODEL	TRAY WIDTH (mm)	TRAY DEPTH (mm)	TRAY SIDE HEIGHT (mm)	TRAY NET PAYLOAD (kg)	FOOTPRINT INTERNAL BAY (WxD mm)	FOOTPRINT EXTERNAL BAY (WxD mm)
65XS	1.950	650	70 + 120	300 - 550	2.452 x 2.521	2.452 x 3.347
				800 - 990		
84XS	1.950	840	70 + 120	300 - 550	2.452 x 3.091	2.452 x 4.107
				800 - 990		
103XS	1.950	1.030	95 + 145	300 - 550	2.452 x 3.661	2.452 x 4.867
				800 - 990		

MODEL	TRAY WIDTH (mm)	TRAY DEPTH (mm)	TRAY SIDE HEIGHT (mm)	TRAY NET PAYLOAD (kg)	FOOTPRINT INTERNAL BAY (WxD mm)	FOOTPRINT EXTERNAL BAY (WxD mm)
65S	2.450	650	70 + 120	300 - 550	2.952 x 2.521	2.952 x 3.347
				800 - 990		
84S	2.450	840	70 + 120	300 - 550	2.952 x 3.091	2.952 x 4.107
				800 - 990		
103S	2.450	1.030	95 + 145	300 - 550	2.952 x 3.661	2.952 x 4.867
				800 - 990		

MODEL	TRAY WIDTH (mm)	TRAY DEPTH (mm)	TRAY SIDE HEIGHT (mm)	TRAY NET PAYLOAD (kg)	FOOTPRINT INTERNAL BAY (WxD mm)	FOOTPRINT EXTERNAL BAY (WxD mm)
65M	3.050	650	70 + 120	300 - 550	3.552 x 2.521	3.552 x 3.347
				800 - 990		
84M	3.050	840	70 + 120	300 - 550	3.552 x 3.091	3.552 x 4.107
				800 - 990		
103M	3.050	1.030	95 + 145	300 - 550	3.552 x 3.661	3.552 x 4.867
				800 - 990		

MODEL	TRAY WIDTH (mm)	TRAY DEPTH (mm)	TRAY SIDE HEIGHT (mm)	TRAY NET PAYLOAD (kg)	FOOTPRINT INTERNAL BAY (WxD mm)	FOOTPRINT EXTERNAL BAY (WxD mm)
65L	3.650	650	70 + 145	300 - 550	4.152 x 2.521	4.152 x 3.347
				800 - 990		
84L	3.650	840	70 + 145	300 - 550	4.152 x 3.091	4.152 x 4.107
				800 - 990		
103L	3.650	1.030	95 + 170	300 - 550	4.152 x 3.661	4.152 x 4.867
				800 - 990		

MODEL	TRAY WIDTH (mm)	TRAY DEPTH (mm)	TRAY SIDE HEIGHT (mm)	TRAY NET PAYLOAD (kg)	FOOTPRINT INTERNAL BAY (WxD mm)	FOOTPRINT EXTERNAL BAY (WxD mm)
65XL	4.250	650	95 + 145	300 - 550	4.752 x 2.521	4.752 x 3.347
				800 - 990		
84XL	4.250	840	95 + 145	300 - 550	4.752 x 3.091	4.752 x 4.107
				800 - 990		
103XL	4.250	1.030	95 + 170	300 - 550	4.752 x 3.661	4.752 x 4.867
				800 - 990		



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 **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 **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 **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



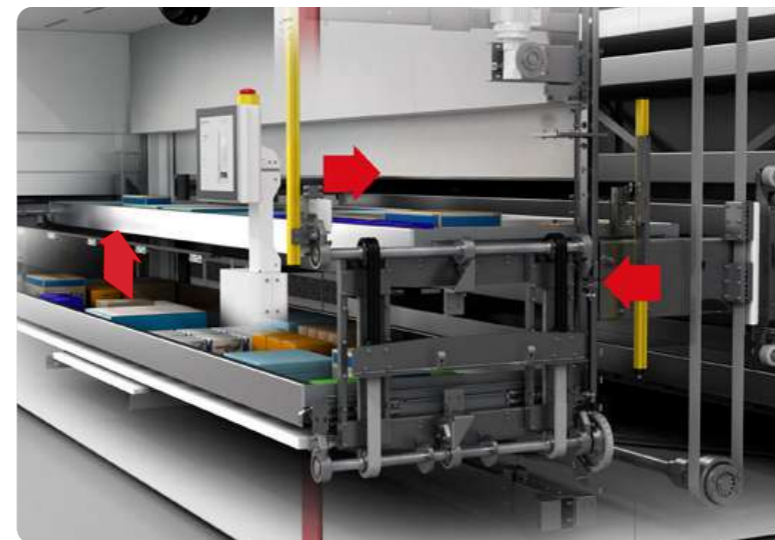
WEIGHT HANDLING/ZERO-SETTING DEVICES



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



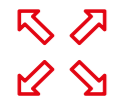
FIRE - FIGHTING SYSTEM (AVAILABLE ON REQUEST)



ELECTROSTATIC DISCHARGE SYSTEM



Why an Eurot vertical carousel?



Space and time optimization



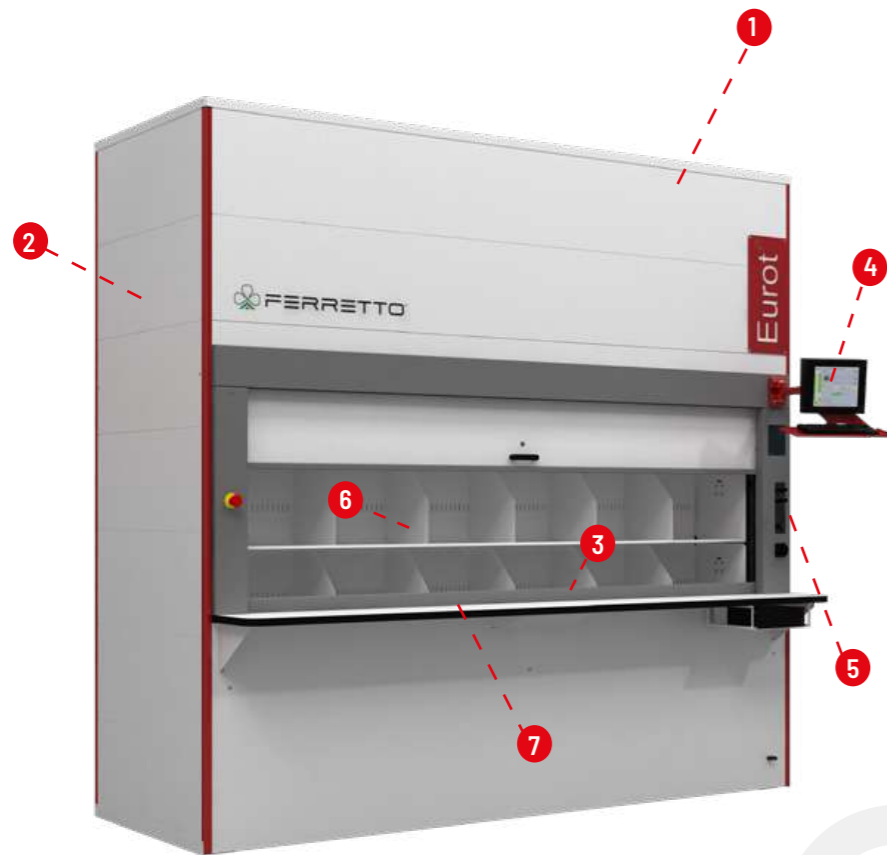
Remote access to and consultation of records



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 (mm)	2.740	3.190	3.364	
DEPTH (mm)	1.103		1.315	1.715
HEIGHT (mm)	From 2.330	to 3.770	From 2.780	From 2.870
			to 6.560	to 6.530
SHELF WIDTH (mm)	2.340	2.790	2.850	
MAX CAPACITY (kg)	2.800		7.000	
MAX SHELF CAPACITY (kg)	130		300	
SHELF DEPTH (mm)	365		415	615



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



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



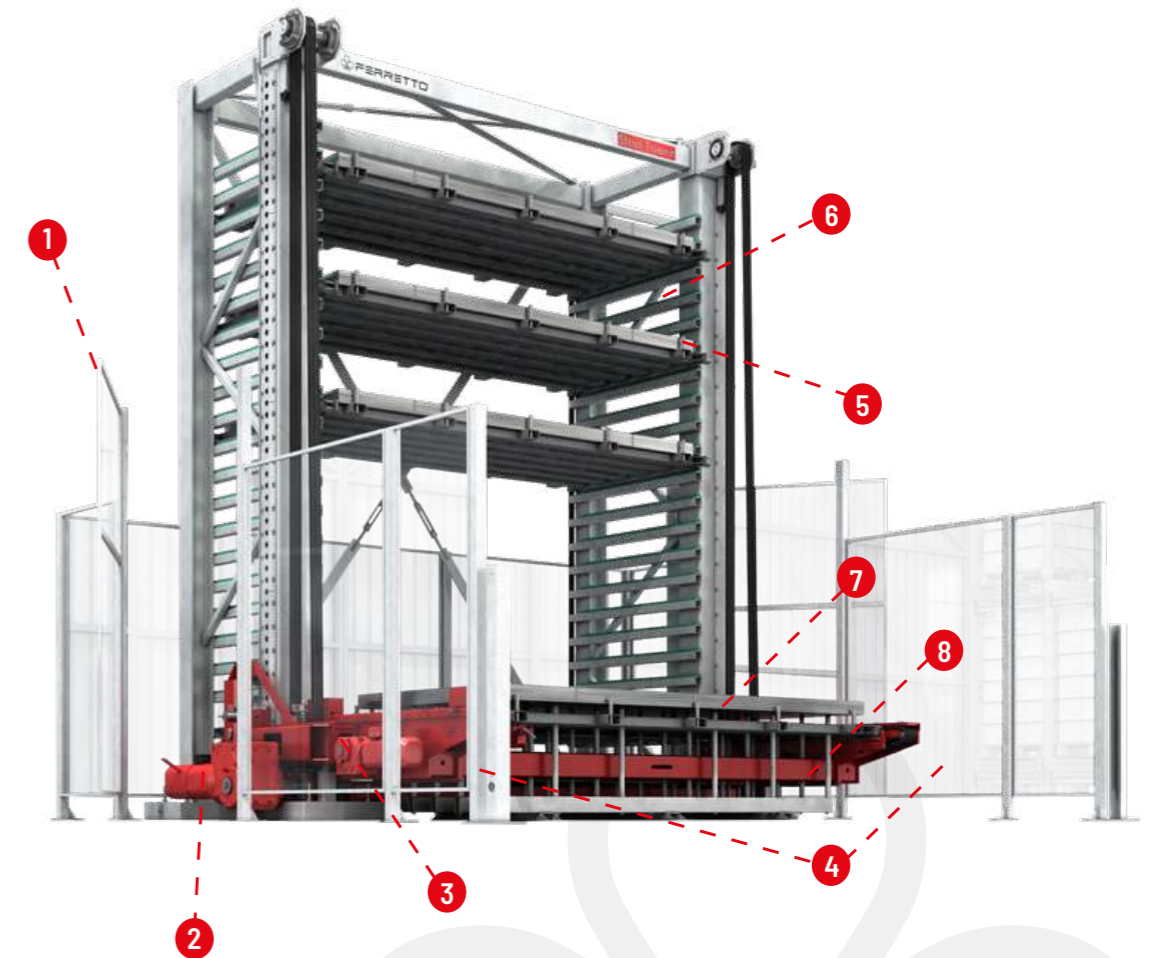
Temperature-controlled rotating storage systems (Hospital Sector)



Rotating storage systems for integrated circuit components

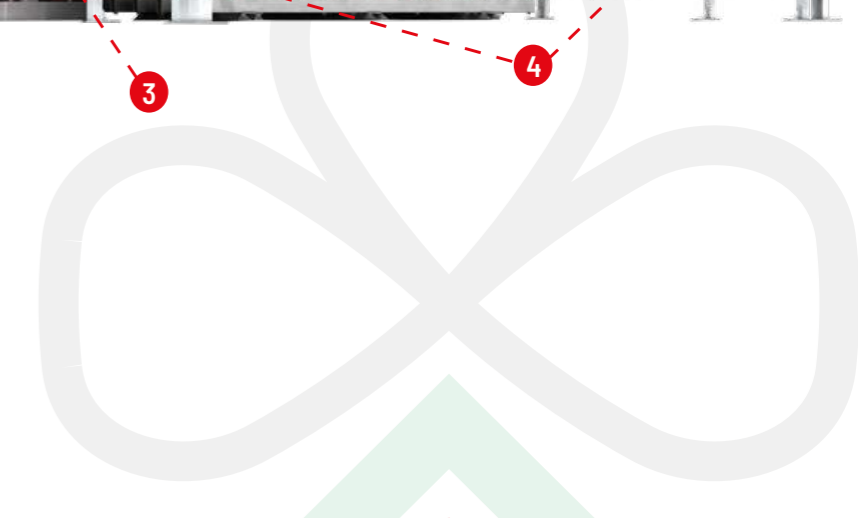


Rotating storage systems for manufacturing facilities (footwear industry)



Specifications

1. Access door
2. Lift motor
3. Tray drive motor
4. Safety barriers
5. Trays
6. Shelves
7. Elevator
8. Support frame for metal sheets





Vertical Lift Modules for bars and plates 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. A special frame is provided in order to allow the material to be stacked on and removed from the trays. All operations, including maintenance, are performed in complete safety thanks to the mechanical structure, the sensors and the safety devices.



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/MBS300	MMS/MBS4000	MMHS/MBHS3000	MMHS/MBHS4000	MBMB6000
UL	Plates, metal sheets, slabs	Plates, metal sheets, slabs	Plates, metal sheets, slabs	Plates, metal sheets, slabs	Bars and profiles
MAX HEIGHT (mm)	5.075	5.475	7.880	7.880	9.880
MAX NUMBER OF LEVEL PER TOWER (n)	20	20	32	32	25
UL MAX SIZE (mm)	3.048 x 1.524	4.064 x 1.524	3.045 x 1.524	4.064 x 1.524	6.260 x 720*
UL MAX WEIGHT (kg)	3.000	3.000	3.000	3.000	3.000
UL MAX HEIGHT (mm)	90	90	90	90	300
PITCH BETWEEN LEVELS (mm)	190	210	210	210	360
PICKING DEVICE	Dragging	Dragging	Dragging	Dragging	Dragging

* available space inside the tray



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.

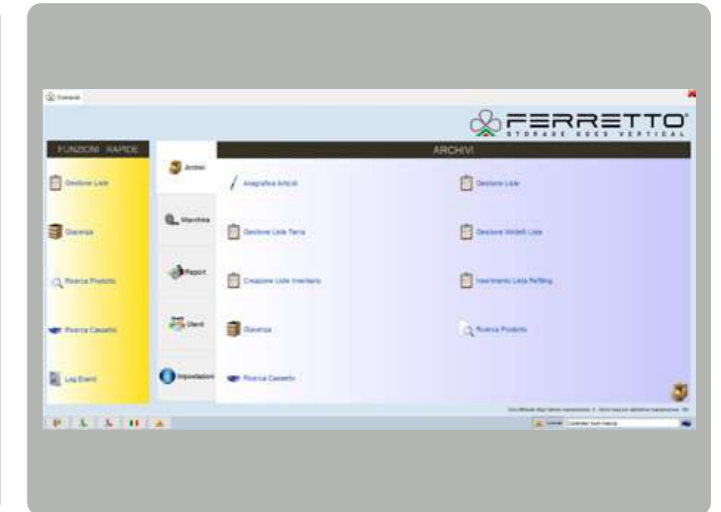
Thanks to its intuitive graphic layout and user-friendly interface, EjLog is the ideal software for managing all types of automatic storage solutions, traditional racking systems as well as the storage areas at ground level.

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.



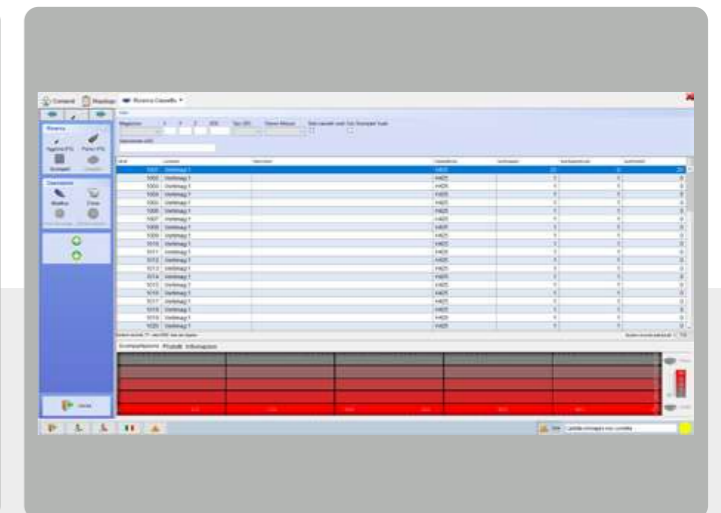
Login page



Home page



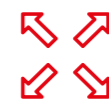
Summary of warehouse statistics



Tray search page



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

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 system
- 7 User management and authorization for the available functions
- 8 Reports



Service Desk



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
 DURİ AGRISERVICE
 CIMA S.P.A.
 RIMA S.P.A.
 EUROCAB


AVIONICS AND DEFENCE

LEONARDO
 EUROPEA MICROFUSIONI AEROSPAZIALI S.P.A.
 PIAGGIO AERO INDUSTRIES
 VITROCiset


BUILDING CONSTRUCTION

BMP
 WIENERBERGER
 CORRADI E GHISOLFI S.R.L.


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 JGL D.D. JADRAN GALENSKI LABORATORIJ DD
 B.KOLORMAKEUP & SKINCARE S.P.A.
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 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 S.P.A.
 SMAT NORD
 KG KARTING S.A.S.
 SIMPRO - SISTEMI INTEGRATI E AUTOMAZIONE
 PER L'INDUSTRIA AUTOMOBILISTICA E FERROVIARIA


BIKE

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


CERAMIC

CERAMICHE ATLAS CONCORDE S.P.A.
 CERAMICHE REFIN S.P.A. GRUPPO CONCORDE S.P.A.


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 GOTTARDO
 GOTHA COSMETICS
 TIRELLI
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 INDUSTRIA SALUMI SIMONINI S.P.A.
 ZUCCATO F.LLI S.R.L.
 FRATELLI IBBA
 OLEIFICIO FRATELLI RUATA
 DRINK INTERNATIONAL


FOOTWEAR

CALZATURIFICIO ZAMBERLAN S.R.L.
 CALZATURIFICIO NERI
 FENDI DIV. CALZATURE
 RENE CAOVIALLA
 CALZATURIFICIO NERI
 GIANVITO ROSSI (EX GRR)
 FALC


HYDRAULIC

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


NAUTICAL

OSCOLATI S.R.L.
 ORIZZONTE SISTEMI NAVALI
 RIMORCHIATORI NAPOLETANI
 REX NAVI


PLASTICS

BTICINO
 NEWPLASTIC
 PLASTEX


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 GIANVITO ROSSI
 ITEMA
 LORO PIANA
 MANUFACTURE DE SOULIERS
 LOUIS VUITTON S.R.L.
 MARELLA
 MAX MARA
 MIROGLIO GROUP
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 PELLINI
 CRESTANI 2000 S.R.L.
 LAM S.P.A.
 PIEMME ARREDAMENTI


INDUSTRIAL PLANTS

CIBITEX
 KONE INDUSTRIAL
 CEFLA SC
 MTM HYDRO
 CAREL


OLEODYNAMIC

BORGHİ IMPIANTI OLEODINAMICI
 S.P.A.
 OLEODINAMICA GAMBINI S.R.L.
 OLEODINAMICA GASPARINI S.R.L.
 EMPORIO OLEODINAMICO S.R.L.
 HYDRONIT


PUBLIC ADMINISTRATION

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


HARDWARE/IRONWARE

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


MECHANICAL

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 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 S.R.L.
 ESCELSIOR LAMIERATI S.R.L.
 AFV ACCIAIERIE BELTRAME S.P.A.
 ITALMETAL
 SCALA S.P.A.
 PEDROTTI NORMALIZZATI


THIRD-PARTY LOGISTICS

DEIMA
 ASENDIA



FERRETTO[®]
STORAGE GOES VERTICAL

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