

Modula for the automotive sector

The intelligent solution for any warehouse needs



RECOVER SPACE



INCREASE SECURITY



SAVE TIME



IMPROVE EFFICIENCY



REDUCE RISKS



BOOST INVENTORY MANAGEMENT





What can you do with a vertical warehouse in the automotive industry?

Optimized spare parts and materials stock management for production and supply chains.

With Modula automatic vertical warehouses you can:

- Manage inventory for dealerships, service centers and workshops, saving up to 85% of floor space compared to traditional warehouse systems.
- Store materials in one physical location, where everything is tracked so knowing your stock levels or doing reorders is quick and easy.
- Supply production lines.

You can stock any kind of product in an automatic vertical warehouse; from spare parts to accessories, from tools to mechanical components, from nuts and bolts all the way to very large/heavy items. Everything is stored ergonomically and within easy reach of your operators, without racks, shelves, mezzanines or footstools. Modula offers various types of vertical warehouses, with different sizes, heights, volumes, options, bay types and tray configurations.

IMPROVES EFFICIENCY

OF your parts and production departments

INCREASES SECURITY

Choose storage that keeps your spare parts secure

REDUCES RISKS

No more climbing stairs, mezzanines or footstools to retrieve your goods

SAVES TIME

Locate the parts and products you need instantly

RECOVERS SPACE

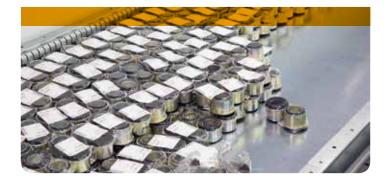
Drastically reduce the space taken up in your parts and production departments

MANAGES YOUR INVENTORY

Control stock levels and inventory movements with just one click











Your parts are here!



What volume of orders can your After Sales Department generate?

How important is throughput when locating components? An efficient warehouse definitely increases performance and profitability!

Spare parts are stored in a single clean, secure and easy-to-access location. This is reflected in better product quality, faster delivery times and service flexibility.

WMS, which is Modula's own warehouse software, allows you to manage all stock levels, availability and stocked items, alerting you to any out-of-stock items so you can best manage your reorders.

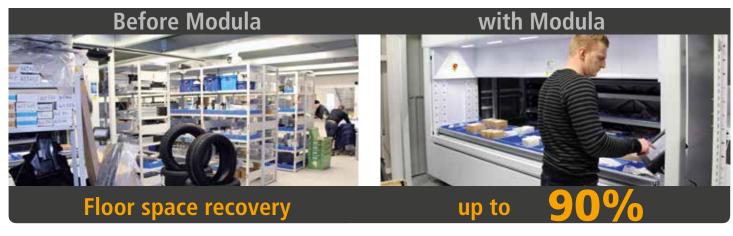
Spare parts footprint reduced by 90%

With a Modula system, you can get rid of dozens of racks and store the same number of parts in a footprint about the same as a parking space.

The space you will save from your stock storage can be put to other uses...

- A bigger service department
- A waiting area
- A new office or something else....





INTELLIGENT STORAGE

Spare parts will no longer be limited to one fixed area and this will provide greater flexibility in your materials management

MONITORED ACCESS

Direct control over who is accessing which trays and particular stock items

LESS PAPERWORK, MORE EFFICIENCY

Fewer paper picking lists, less printing, digital documentation

INVOICES AND INVENTORY WITH ONE CLICK

Extremely simple invoicing linked directly to picked orders, inventory and storage always under your control

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Spare parts within easy reach

A Modula warehouse allows you to maximise your operators' productivity and ergonomics by bringing parts to within easy reach.

All our warehouses are designed to improve workplace ergonomics and safety.

No more bending down, climbing stairs or moving heavy objects!

With one click, the required product arrives directly in front of the operator, reducing supply lead times and **improving picking times** which are directly connected to order despatch times.

You can store groups of similar parts used for maintenance in the same tray, further reducing the time it takes to obtain the necessary parts and complete repairs or carry out replacements more quickly.



Even more accurate picking

To make your picking activities even more accurate and reduce picking and refilling times, Modula offers visual aids and automatic barcode reader devices for completely wireless goods tracking.

With tools like our LED or alphanumeric bar or laser pointer, the product is pinpointed unambiguously and the operator is guided straight to it.









Robots and production lines



They actually contribute to achieving high levels of automation particularly in combination with robotic systems.

Possible uses

Buffer storage for parts or components needing to be stored for a certain amount of time before being moved on to subsequent production phases.

Once stored, the items are then retrieved by operators or by **anthropomorphous robots which** place them back into the production line.

Emergency buffer storage: should a production phase upstream of the Modula come to a halt, materials are pulled directly from the warehouse to keep the production process flowing. If the problem is downstream, what has been produced so far can be stored and the Modula system gets filled with semi-finished products.

Dual front and rear loading with opposed bays: logistics operators load ready materials on one side and assembly or production technicians unload them from the opposed bay.









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What is Modula WMS?



■■■ Modula WMS is a warehouse management software system which was created to operate the Modula units.

WMS It interfaces easily with many DMS and ERP systems, making administration, invoicing, production orders, customer orders and picking operations much easier and quicker.

Integration with these systems provides various advantages; immediate detection of any human errors, reduc-

tion in paperwork, and real-time control over warehouse operations and despatching. Using ABC cycle analysis, it's even easier to identify an item's rotation factor. The result of combining a series of parameters will help determine each product's ideal location, significantly increasing efficiency during the picking phase.



Fewer than 1% errors and DMS integration

Modula vertical warehouses can interface with any DMS Dealer Management System (DMS)

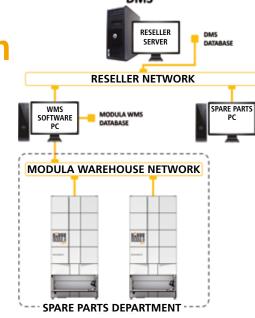
INTEGRATION BETWEEN MODULA WMS AND DEALER MANAGEMENT SYSTEMS (DMS)



INTEGRATED ORDER PROCESS

The advantages of integration with DMS

- Interfacing a Modula WMS with your DMS, allows you to process orders in real time.
- No items are modified or created in DMS, avoiding any problems of data reliability, security and integrity.
- DMS integration allows you to save time and increase accuracy.
- Modula receives advance warnings about changes made to DMS and ensures many fewer production stoppages.









The Copilot Console is a robust operator interface which includes a 10.5" touch screen colour display and an extremely easy and user-friendly environment.

The graphic visualization of the tray layout shows the user clearly where and what to select, and displays all requested information relating to picking or refilling operations, such as item code, quantity, item notes, etc...

Display of item code and description

Item location clearly visible to operators

Easy picking confirmation



Display of sales order number

Display of picking or refilling quantity

Order display:

- Resulting quantity
- Order description
- Lines remaining





Automotive sector customers

AUTOMOBILE MANUFACTURERS

APRILIA ALIDI

LAMBORGHINI

BMW

DAIMLER AG

DAIMLER MERCEDES-BENZ

DUCATI MOTOR

FIAT AUTOMOBILES

FIAT CHRYSLER AUTOMOBILES (FCA) FIAT CHRYSLER AUTOMOBILES (FCA) FIAT CHRYSLER AUTOMOBILES (FCA)

FORD MOTOR CO.

HARLEY DAVIDSON MOTOR CO.

HONDA MASERATI OPEL

PAGANI AUTOMOBILES

PEUGEOT CITROËN

PORSCHE RENAULT SUZUKI VOLKSWAGEN

AUTOMOBILE DEALERS

AIRPORT MARINA FORD

AUDI BRUSSELS

AUTOVEGA VOLKSWAGEN

BMW GINION

DOWNTOWN AUTO GROUP (DAG) EARNHARDT LEXUS OF PHOENIX

FABICK CATERPILLAR
GRENIER RMW

JAGUAR BRUSSELS EAST ZAVENTEM

OTTO'S BMW

PORSCHE - CENTRO ROMA NORD SUBARU OF NEW ENGLAND - USA WALSER BMW/MINI OF WICHITA

WENDLE NISSAN

AUTOMOTIVE COMPONENT SUPPLIERS

AMFRICAN AXI F

AXLETECH INTERNATIONAL

BETA MOTOR ROBERT BOSCH BOSCH AUTOMOTIVE

BREMBC

CHARTER AUTOMOTIVE

CONTINENTAL
CONTITECH
CUMMIS
GKN DRIVELINE

GOODYEAR

GOODYEAR DUNLOP

HONEYWELL

MAGNA INTERNATIONAL

MICHELIN

MUBEA AUTOMOTIVE COMPONENTS

TENNECO AUTOMOTIVE

SPARE PARTS SUPPLIERS

AP LOGISTICS ATHENA AUDI BALDUINA BETA MOTOR

BRANDOLI CARROZZERIA

DAF

GRUPPO AUTORAMA CASTELNUOVO

LEMA MIRAGLIO PELLONI NISSAN PIERBURG ROCHLING

SGR SOCIETA GENERALI RICAMBI

SUPER RICAMBI

INDUSTRIAL VEHICLE MANUFACTURERS

BOMAG AMERICAS CATERPILLAR CNH INDUSTRIAL JOHN DEERE HAUI MAX AUSTRAI

IVECO KOMATSU MACK TRUCKS

NEW HOLLAND TRACTOR

SCANIA VLI DIESEL

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