

# **Modula Lift**

Think Vertical, Think Modula

Presented by







#### Modula Lift

Available in a range of sizes and capacities, the Modula Lift has become the go-to solution for businesses around the world as they seek to modernize their processes, reposition their spaces and drive efficiency.

### How does a Modula Lift work?

Modula's vertical lift modules (VLMs) are fully automated vertical storage systems that take up a minimum footprint by taking advantage of high ceilings, thus maximizing storage potential. Items can be stored up to 53 feet high in a safe and secure unit that automatically delivers them to an operator with a touch on the user-friendly Copilot controller or scan of a barcode.

No more time wasted searching for items. The right part is delivered to the right person at the optimum ergonomic retrieval height.



### Benefits at aGlance



#### **IMPROVES EFFICIENCY**

Fulfill orders efficiently without picking errors



#### MANAGES YOUR INVENTORY

Control stock levels and inventory movements with just one click



#### **RECOVERS SPACE**

Saves up to 90% of valuable floor space compared to traditional storage methods



#### **SAVES TIME**

Locate the parts and products you need instantly



#### **INCREASES SECURITY**

Choose storage that keeps your spare parts secure



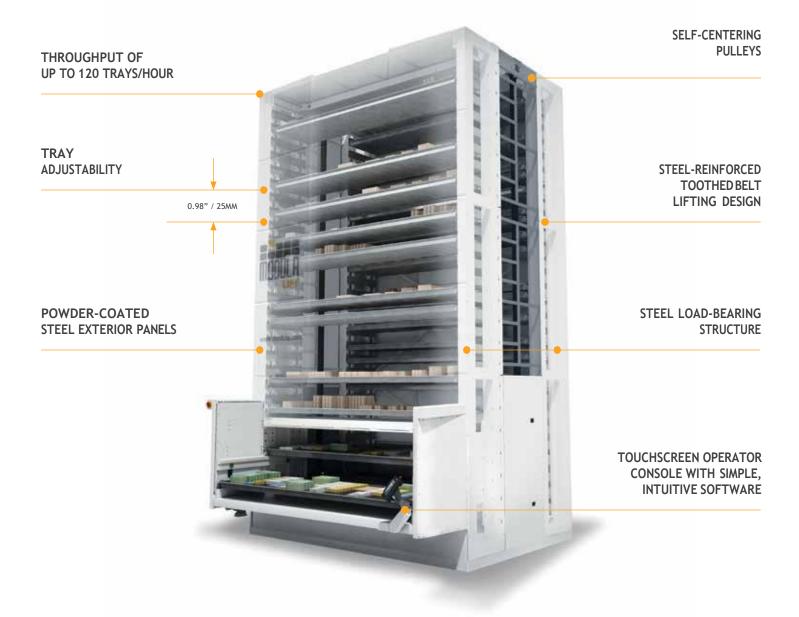
#### **REDUCES RISKS**

No more climbing stairs or mezzanines to retrieve your goods

Thinkit's a big investment?

100% ROI
12-18 months on average





Technical	Features
UNIT HEIGHTS from 10'10" (3,300 mm) to 52'10" (16,100 mm)	THROUGHPUT up to 120 trays/hr (depending on configuration)
UNIT HEIGHT INCREMENT 7.87" (200 mm)	OPERATOR INTERFACE industrial console with 10.4" touch screen (Copilot)
TRAY WIDTHS from 59.05" (1,500 mm) to 161.41" (4,100 mm)	NUMBER OF BAYS up to 3, front and rear of the units or on multiple floors
TRAY DEPTHS 25.75" (654 mm) & 33.74" (857 mm)	TYPES OF BAYS internal or external, single or dual tray delivery
NET TRAY PAYLOAD CAPACITIES 551lbs(250kg), 1,102lbs(500kg), 1,653lbs(750kg)&2,182lbs(990kg)	GROSS TOTAL PAYLOAD up to 200,000 lbs (90,000 kg) depending on the configuration

# Saves Space & Reduces Operations Cost

Saves up to 90% of valuable floor space compared to traditional storage methods and makes space available for future growth needs.



# **Increases Productivity and Accuracy**

Vertical lift modules automatically deliver items to the operator with a simple touch on the Copilot console or a scan of a barcode.

This feature drastically reduces handling times, both in picking and replenishing, as there is no walking back and forth to find and retrievegoods.





Thanks to the simple inventory management software and the visual picking aids, operators can quickly and easily identify the items needed, dramatically reducing picking errors.



### More Orders in Less Time

Operators can process even complex orders in the shortest possible time and with the highest quality level, even during peak workload times, as they don't have to wait between jobs when retrieving parts.

Industry studies have shown that vertical storage solutions can increase workforce productivity by up to 85% because one worker is able to handle the same volume of work previously performed by multiple operators.

**Automated vs Manual Picking: Percentage of Time Spent Picking** 



# **Stock Density Optimization**

A height-detection system determines vertical dimensions of items as the tray is put away, calculating adjustments in real time to maximize storage density within the unit.



# Designed with Worker Ergonomics and Safety in Mind

Following the parts to picker's principle, these automated storage systems deliver the items to the fixed operator's location where the picking operations take place. Walking time for parts retrieval is reduced up to 90% when compared to static shelving.

This feature significantly minimizes the risk of injury from motion and provides maximum safety for personnel in even the most demanding working conditions.





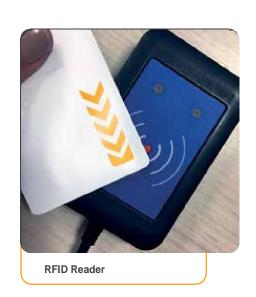
# Security & Inventory Control

A reliable locking and validation feature plays a key role in many industries. Every unit is password protected, allowing only authorized operators with a personal badge and/or access code entry to operate the machine. All picking operations are monitored and log-ins are tracked even down to specific trays, depending on the chosen level of security.

Tracking access to specific trays is also beneficial for inventory control, preventing operators from picking the same items or for highly valuable products to be stolen.







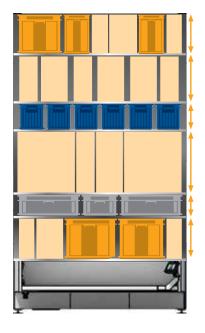


# Flexible Integration & Scalable Design

Trays can be organized for every type/size of stored item. Thanks to our partitions and dividers, you can create the exact number of storage locations required, and their configurations can be adjusted at any time to accommodate changes in the size or quantity of your stored items or seasonal demands.



The modular design of the VLM ensures almost unlimited flexibility. The height can be modified and adjusted to optimize the unit for the ceiling height by adding or removing modules. If you change locations or move to a different site, your Modula VLM can be quickly adapted to the new height requirements.





### Modula Lift APPLICATIONS

### What Can You Store in a Modula Lift?

The Modula Lift can store virtually any type of products or parts in different sizes, weights, heights and volumes Typically, companies stock:



















# **Bay Configurations for Every Operational Need**

Operators can process even complex orders in the shortest possible time. Modula Lifts can be ordered in a variety of bay delivery methods, including:

- Internal bayExternal bay
- Dual-delivery baySingle-delivery bay
- Opposite bays on the front and rear of the units
- Bays on multiple floors

The dual-delivery option allows one tray to present the parts to an operator while the other is retrieving additional parts. Trays can deliver on two sides of the machine or on different levels of your facility. External bays can be useful when employing mechanical aid such as forklifts, cranes or hoists.





Single external delivery





# Different Bay Models for Every Product Height



Modula Lift is offered in 3 sizes of bays (S/M/XL) to accommodate different products heights:

- Maximum product height for single delivery level
   27.36" / 35.24" / 50.98"
   (695 / 895 / 1,295 mm)
- Maximum product height for dual delivery level
   12.6"-12.6" / 12.6"-20.47" / 20.47"-36.22"
   (320-320 / 320-520 / 320-920 mm)

### Modula Lift APPLICATIONS

# **Unlimited Integrations**

The Modula Lift can integrate with other automated technologies to further enhance productivity and speed, including:

Robots

Roller conveyors

- Put-to-light systems
- Manipulators
- Zero-weight cranes

By connecting the WMS solution with existing ERP systems, the Lift can seamlessly blend into a company workflow.



Integration with anthropomorphic robots



Put-to-light systems connected to WMS





Flexible Installations

The Modula Lift can extend over different floors with access openings on the front and rear, allowing operations on multiple levels simultaneously. The units can also be installed outside of building to further expand storage space.





### Modula Warehouse Management System WMS





The Modula warehouse management system (WMS) is designed to operate automated storage equipment such as the Modula VLM, as well as conventional storage methods such as shelving and manual picking.

As one of the most intuitive and advanced software solutions on the market, Modula WMS seamlessly interfaces with almost all DMS and ERP systems, making processes such as receiving, picking, and putting away products faster and more accurate:

### Modula WMS Benefits

- Increased picking and replenishment accuracy and efficiency
- Complete inventory visibility and control to drive performance and reduce costs
- Reduced paperwork and the tedium and mistakes of manual processing
- ☐ Easy integration with existing ERP or DMS systems



# **Copilot Operator Console**

An easy-to-use 10.4" touchscreen color display makes it intuititive for operators to retrieve what they need. 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 and quantity.



# Visual Aids for Picking









# **Options to Improve Productivity**









### **User Authentication**



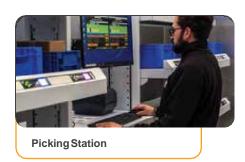




# **Picking Solutions**









# **Bay Options**



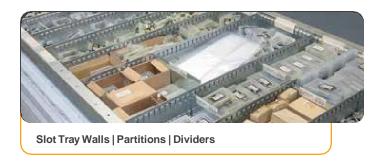


**Transportation Cart** 





# **Tray Accessories**





# Miscellaneous















### Modula Lift MODELS

### ME & ME-D



── 75.47" / 1,917 mm ──

Model	Tray Width (in/mm)	Tray Depth (in/mm)	Tray Wall Height (in/mm)	Maximum Tray Load Capacity (lbs/kg)	Unit Footprint INTERNAL BAY WidthxDepth (in/mm)	Unit Footprint EXTERNAL BAY WidthxDepth (in/mm)
ME25	59.05 / 1,500	25.75 / 654	1.77-2.75-4.72 / 45-70-120	551 / 250	75.47 x 100.63 / 1,917 x 2,556	75.47 x 127.8 / 1,917 x 3,246
ME25D	59.05 / 1,500	33.74 / 857	1.77-2.75-4.72 / 45-70-120	551 / 250	75.47 x 124.61 / 1,917 x 3,165	75.47 x 159.76 / 1,917 x 4,058
ME50	59.05 / 1,500	25.75 / 654	2.75-4.72 / 70-120	1,102 / 500	75.47 x 100.63 / 1,917 x 2,556	75.47 x 127.8 / 1,917 x 3,246
ME50D	59.05 / 1,500	33.74 / 857	2.75-4.72 / 70-120	1,102 / 500	75.47 x 124.61 / 1,917 x 3,165	75.47 x 159.76 / 1,917 x 4,058
ME75	59.05 / 1,500	25.75 / 654	2.75-4.72 / 70-120	1,653 / 750	75.47 x 100.63 / 1,917 x 2,556	75.47 x 127.8 / 1,917 x 3,246
ME75D	59.05 / 1,500	33.74 / 857	2.75-4.72 / 70-120	1,653 / 750	75.47 x 124.61 / 1,917 x 3,165	75.47 x 159.76 / 1,917 x 4,058
ME1000	57.48 / 1,460	25.75 / 654	2.75-4.72 / 70-120	2,200 / 990	75.47 x 100.63 / 1,917 x 2,556	75.47 x 127.8 / 1,917 x 3,246
ME1000D	57.48 / 1,460	33.74 / 857	2.75-4.72 / 70-120	2,200 / 990	75.47 x 124.61 / 1,917 x 3,165	75.47 x 159.76 / 1,917 x 4,058

### MA & MA-D



── 91.22" / 2,317 mm —<sub>—</sub>

Model	Tray Width (in/mm)	Tray Depth (in/mm)	Tray Wall Height (in/mm)	Maximum Tray Load Capacity (lbs/kg)	Unit Footprint INTERNAL BAY WidthxDepth (in/mm)	Unit Footprint EXTERNAL BAY Widthx Depth (in/mm)
MA25	74.80 / 1,900	25.75 / 654	1.77-2.75-4.72 / 45-70-120	551 / 250	91.22 x 100.63 / 2,317 x 2,556	91.22 x 127.8 / 2,317 x 3,246
MA25D	74.80 / 1,900	33.74 / 857	1.77-2.75-4.72 / 45-70-120	551 / 250	91.22 x 124.61 / 2,317 x 3,165	91.22 x 159.76 / 2,317 x 4,058
MA50	74.80 / 1,900	25.75 / 654	2.75-4.72 / 70-120	1,102 / 500	91.22 x 100.63 / 2,317 x 2,556	91.22 x 127.8 / 2,317 x 3,246
MA50D	74.80 / 1,900	33.74 / 857	2.75-4.72 / 70-120	1,102 / 500	91.22 x 124.61 / 2,317 x 3,165	91.22 x 159.76 / 2,317 x 4,058
MA75	74.80 / 1,900	25.75 / 654	2.75-4.72 / 70-120	1,653 / 750	91.22 x 100.63 / 2,317 x 2,556	91.22 x 127.8 / 2,317 x 3,246
MA75D	74.80 / 1,900	33.74 / 857	2.75-4.72 / 70-120	1,653 / 750	91.22 x 124.61 / 2,317 x 3,165	91.22 x 159.76 / 2,317 x 4,058
MA1000	73.23 / 1,860	25.75 / 654	4.72 / 120	2,200 / 990	91.22 x 100.63 / 2,317 x 2,556	91.22 x 127.8 / 2,317 x 3,246
MA1000D	73.23 / 1,860	33.74 / 857	4.72 / 120	2,200 / 990	91.22 x 124.61 / 2,317 x 3,165	91.22 x 159.76 / 2,317 x 4,058

# MC & MC-D

MIT .	

──114.84" / 2,917 mm ──

Model	Tray Width (in/mm)	Tray Depth (in/mm)	Tray Wall Height (in/mm)	Maximum Tray Load Capacity (lbs/kg)	Unit Footprint INTERNAL BAY WidthxDepth (in/mm)	Unit Footprint EXTERNAL BAY WidthxDepth (in/mm)
MC25	98.42 / 2,500	25.75 / 654	1.77-2.75-4.72 / 45-70-120	551 / 250	114.84x100.63/2,917x2,556	114.84x127.8/2,917x3,246
MC25D	98.42 / 2,500	33.74 / 857	1.77-2.75-4.72 / 45-70-120	551 / 250	114.84x124.61/2,917x3,165	114.84×159.76/2,917×4,058
MC50	98.42 / 2,500	25.75 / 654	2.75-4.72 / 70-120	1,102 / 500	114.84×100.63/2,917×2,556	114.84×127.8/2,917×3,246
MC50D	98.42 / 2,500	33.74 / 857	2.75-4.72 / 70-120	1,102 / 500	114.84x124.61/2,917x3,165	114.84×159.76/2,917×4,058
MC75	98.42 / 2,500	25.75 / 654	2.75-4.72 / 70-120	1,653 / 750	114.84×100.63/2,917×2,556	114.84x127.8/2,917x3,246
MC75D	98.42 / 2,500	33.74 / 857	2.75-4.72 / 70-120	1,653 / 750	114.84x124.61/2,917x3,165	114.84x159.76/2,917x4,058
MC1000	96.85 / 2,460	25.75 / 654	4.72 / 120	2,200 / 990	114.84×100.63/2,917×2,556	114.84x127.8/2,917x3,246
MC1000D	96.85 / 2,460	33.74 / 857	4.72 / 120	2,200 / 990	114.84×124.61/2,917×3,165	114.84x159.76/2,917x4,058



### MX & MX-D



──138.46" / 3,517 mm ──

Model	Tray Width (in/mm)	Tray Depth (in/mm)	Tray Wall Height (in/mm)	Maximum Tray Load Capacity (lbs/kg)	Unit Footprint INTERNAL BAY WidthxDepth (in/mm)	Unit Footprint EXTERNAL BAY WidthxDepth (in/mm)
MX25	122.05 / 3,100	25.75 / 654	1.77-2.75-4.72 / 45-70-120	551 / 250	138.46×100.63/3,517×2,556	138.46 x 127.8 / 3,517 x 3,246
MX25D	122.05 / 3,100	33.74 / 857	1.77-2.75-4.72 / 45-70-120	551 / 250	138.46x124.61/3,517x3,165	138.46×159.76/3,517×4,058
MX50	122.05 / 3,100	25.75 / 654	2.75-4.72 / 70-120	1,102 / 500	138.46×100.63/3,517×2,556	138.46 x 127.8 / 3,517 x 3,246
MX50D	122.05 / 3,100	33.74 / 857	2.75-4.72 / 70-120	1,102 / 500	138.46x124.61/3,517x3,165	138.46×159.76/3,517×4,058
MX75	122.05 / 3,100	25.75 / 654	2.75-4.72 / 70-120	1,653 / 750	138.46×100.63/3,517×2,556	138.46 x 127.8/3,517 x 3,246
MX75D	122.05 / 3,100	33.74 / 857	4.72 / 120	1,653 / 750	138.46x124.61/3,517x3,165	138.46×159.76/3,517×4,058
MX1000	120.47 / 3,060	25.75 / 654	4.72 / 120	2,200 / 990	138.46×100.63/3,517×2,556	138.46 x 127.8 / 3,517 x 3,246
MX1000D	120.47 / 3,060	33.74 / 857	4.72 / 120	2,200 / 990	138.46x124.61/3,517x3,165	138.46×159.76/3,517×4,058

### ML & ML-D

		-63
MIT		
	_	4

──177.83" / 4,517 mm ──

Model	Tray Width (in/mm)	Tray Depth (in/mm)	Tray Wall Height (in/mm)	Maximum Tray Load Capacity (lbs/kg)	Unit Footprint INTERNAL BAY WidthxDepth (in/mm)	Unit Footprint EXTERNAL BAY Widthx Depth (in/mm)
ML25	161.41 / 4,100	25.75 / 654	2.75 / 4.72 - 70 / 120	551 / 250	177.83×100.63/4,517×2,556	177.83 x 127.8 / 4,517 x 3,246
ML25D	161.41 / 4,100	33.74 / 857	2.75 / 4.72 - 70 / 120	551 / 250	177.83x124.61/4,517x3,165	177.83x159.76/4,517x4,058
ML50	161.41 / 4,100	25.75 / 654	4.72 /120	1,102 / 500	177.83×100.63/4,517×2,556	177.83 x 127.8 / 4,517 x 3,246
ML50D	161.41 / 4,100	33.74 / 857	4.72 / 120	1,102 / 500	177.83x124.61/4,517x3,165	177.83x159.76/4,517x4,058
ML75	161.41 / 4,100	25.75 / 654	4.72 / 120	1,653 / 750	177.83×100.63/4,517×2,556	177.83 x 127.8 / 4,517 x 3,246
ML75D	161.41 / 4,100	33.74 / 857	4.72 /120	1,653 / 750	177.83x124.61/4,517x3,165	177.83×159.76/4,517×4,058
ML1000	159.84 / 4,060	25.75 / 654	5.71 / 145	2,200 / 990	177.83×100.63/4,517×2,556	177.83 x 127.8 / 4,517 x 3,246
ML1000D	159.84 / 4,060	33.74 / 857	5.71 / 145	2,200 / 990	177.83x124.61/4,517x3,165	177.83×159.76/4,517×4,058





COPILOT CONSOLE: 10.4-INCH TOUCHSCREEN



SOFTWARE: EVERYTHING UNDER CONTROL

**MODULA WMS** 



OPERATOR SAFETY:
ERGONOMIC

#### Modula Lift ABOUT US

# **Modula Services**

Whether you are planning to purchase or currently own a Modula product, our customer service team is here for you every step of the way. With support from both our in-house experts and our 70-plus dealers across North America, we're ready to assist throughout the lifecycle of your automated storage systems. Our services include installation, training, maintenance, emergencies, moves to new locations, and more.



### Made in the USA

Modula products are made in the United States of America, which allows for speedier shipping times and quicker installation times for our North American customers.





Modula Headquarters and Plant - Lewiston, Maine



### **About Modula**

Modula designs and produces automated storage and retrieval systems that dramatically boost productivity and accuracy, reduce storage space requirements, and enhance worker safety and job satisfaction. The only U.S. manufacturer of vertical lift modules, Modula also offers horizontal carousels, warehouse management systems, and a host of accessories that make order picking quick and easy. Established in 1987, Modula has nine branches worldwide, a network of 100 distributors, and factories in the United States, Italy, and China.

#### Modula Lift OUR CUSTOMERS



Black & DeckerUSACristian LaySpainMaria GallandGermanyOsramMexico/Italy

#### Commercial

Costan Italy
Deny Security France
DeWalt USA
GGB USA
Incold Italy

#### Government/Public/Defense

A.O.U. Ospedali Riuniti Di Trieste Italy
US Army / Air Force / Navy USA
GOZ Obukhov State Plant Russia
Guardia di Finanza Italy
National Institutes of STDS USA
NHS National Services Scotland Great Britain

#### Aviation/Aerospace

Barry Controls Aerospace USA Germany **Bombardier** Dassault Aviation France **Embraer** Brazil Eurocopter France Israel Aerospace Industries Israel .IPR France Krasny Oktyabr Russia Lufthansa China TFI France

#### Automotive

Italv Automobili Lamborghini Axletech France Betamotor Italy Italy/Poland/China Brembo Caterpillar USA Mexico Chrysler CNH Industrial (FIAT) Spain/Belgium Continental Germany/Romania/Serbia Daimler Germany Ferrari FIAT Italy/Serbia Ford Spain Goodvear Germany Iveco (FIAT) Spain John Deere USA France Renault NewHollandTractor(FIAT) Holland Pagani Automobili Italy Porsche Germany Volkswagen Germany/China

#### Biomechanical / Biomedical

Biotec Italy Fatro SPA Italy Korea Medison co. Merit Medical Systems USA Brazil Neodent **Steris Corporation** USA USA Symrise USA Synthes

#### Construction

AluplastItalyI.K.O.CanadaSaint GobainUSAWilo SEGermany

#### Ceramic

Cooperativa Ceramicadi Imola Italy Euroceramique Spain **Kajaria** Ceramics India Pamesa Ceramica Spain Porcelanosa Group USA Italy/Mexico Sacmi Serenissima Ceramiche Italy Tecnografica Italy

#### Chemica

Akzo Nobel Italy
BASF Spain
DuPont USA
Firmenich Switzerland
Grupo AC Marca Spain
Infracor Gmbh Germany
Wacker Chemie Germany

#### Electronics

ABB Estonia Disano Illuminazione Italy Fmerson Industrial Automation Brazil Slovenia Johnson Controls Germany Kemet Mexico Moog Italy Rexroth Bosch Group Germany/Russia Siemens USA/Germany/Mexico Staubli France TycoElectronics Mexico

#### Food & Beverage

Acetaia di Modena Italy Beam Global Spain Contri Spumanti Italy Damm Spain Marchesi Antinori Italy USA Mars Nestle **Great Britain** Pepsi Corporation USA Spendrups Sweden Vonpar Refrescos Brazil Yoplait (General Mills) France

#### Home Improvement

Alexandria Mouldings USA
Edilkamin Hungary
Franke Italy
Immergas Italy

#### Hydraulics/Oledynamics/Pneumatics

Dicsa Spain Festo Pneumatics Mexico Hawe Hydraulics USA/China HP Hydraulics Italy MM Hydraulics Italy/Great Britain Mono Pumps Great Britain Sag/Sagom Tubi Italy

#### Mechanical/Manufacturing

Bonfiglioli Riduttori Italy Comau Italy/Romania Fanue Robotics Italy Germany Fliegl Honevwell Garrett Italy/Romania **IMA Industries** Italy KBA Konig&Bauer Germany Marchesini Group Italy Otis Italy Rodo-Ketten Germany SecoTools France Su-matic Italy Thyssenkrupp Brazil/China Vesuvius Germany

#### Paper/Publishing

 Crane & Co
 USA

 Irving Tissue
 USA

 MPO
 France

 Rocktenn Preprint
 Canada

 SICPA
 Brazil

 Sofidel
 Italy/France

#### Life Science & Pharmaceutical

Abbott France USA Amgen Mexico Bayer Colgate Palmolive Company USA CooperVision USA Fresenius Kabi Italy USA GlaxoSmithKline Janssen Pharmaceutical Belgium Johnson & Johnson USA Roche Italy

#### Plastics

Lavel GommaItalySchwartz GmbhGermanyTrelleborgGreatBritain/ChinaVision ExtrusionCanada

#### Energy

Babcock & Wilcox USA British Petroleum Great Britain Conoco Phillips USA Dow-Kokam USA **Duke Energy** USA Nordex Energy Gmbh Germany Petrobras Brazil Schlumberger Mexico

#### Logistics/Transport Industry

AVTOLOGISTIKA Russia
CSXTransportation USA
DB Service Gmbh Germany
Infrabel Railway Belgium
Kuhne+Nagel Spain/France
MTAMetro North Railroad USA

#### Textiles/Apparel Industry

Cotton Republic Mexico
Giorgio Armani Operations Italy
Jeans Knit PVT Ltd India
Max Mara Group Italy
Valentino Italy

### Modula Lift



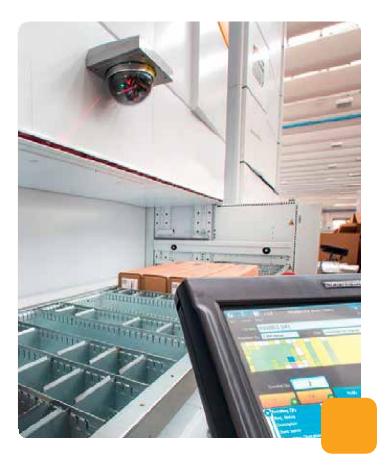
















Greenspace Industrial has production facilities in Italy, China and two in the US - Lewiston, ME and Franklin, OH. Our branches (shown in bold on the map above) can be found in nine countries. Our extensive network of affiliated dealers expands our presence to 50 more countries across the Americas, EMEA and Asia.

### **Greenspace Industrial**

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