Körber Supply Chain

A 3D solution inspired by nature to overcome supply chain challenges



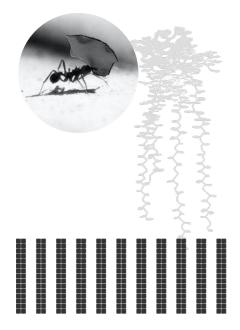




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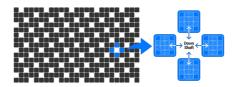
Companies with fulfillment operations face increasingly complex challenges. As businesses rapidly grow, customers' requirements are also getting more and more difficult to match. On top of that, there is a prevalent labor shortage, common to most industries. Körber Supply Chain Automation partnered with Attabotics to provide a cutting-edge order fulfillment solution for your operations.





Inspired by Nature

The Attabotics solution is based on a unique vertical grid structure that copies nature. "I had this crazy idea of reconfiguring warehouse space after watching a documentary about how leaf cutter ants access their colonies vertically. A 3D system just makes sense", says Scott Gravelle, CEO and founder of Attabotics.



Attabots

Attabots can travel the grid in all **3 dimensions**

Each robot has **access** to **every bin** and to **every workstation**

Speeds up top 2,7m/s

Playload max **45 kg** per bin

The robots are **powered by long-life ultra capacitors** and are **charged** each cycle, **whilst climbing**



A truly unique solution for single-item order fulfillment

The innovative vertical grid structure has allowed Attabotics to create a solution that is the perfect fit for single-item fulfillment.

Attabotics' robots can travel in all 3 dimensions of the grid, moving on top of it, below it or vertically. This allows robots to have direct access to each bin without the need for re-slotting, making the system's performance independent of the order structure. There is also no need to have a specific ABC curve in your assortment. Furthermore, the Attabotics solution can handle rush orders and short order-lead times with ease, since bins arrive at the workstation within 90 seconds of the request. Sequencing is a task often required in fulfillment operations, whenever orders are small or items need to be packed into cartons in a specific sequence to prevent damage. The Attabotics solution provides sequencing by leveraging short retrieval times in combination with intelligent use of the space below the storage area.



Class-leading storage density

With growing assortments, warehouse space can definitely be an issue. Attabotics grid can be built up to 9m high, optimally utilizing the available space in the warehouse. And whilst the solution allows direct access to every bin, the vertical structure ensures a class-leading storage density.

Compared to a manual pick-from-shelf solution, it represents a reduction in space up to 85%.

85% space reduction

Efficient order picking

With labor shortages being a recurrent challenge in the industry there is an increasing need for efficient and ergonomic order picking. Standard Attabotics workstations can deliver more than 300 bins per hour to the operator and with the new dual-bin port this can be even more. All the processes are integrated into the grid structure and workstations can be replaced anywhere on the perimeter of the system. No conveyors are used to bring storage bins to workstations, and each one can be reached by every robot, providing ultimate flexibility.





As each operation is unique and faces unique challenges, Körber specialists analyze each process and design the best way of working around the Attabotics port. Options include putt-walls operated by pick-to-light, automated empty cartons supply and conveying picked cartons to packing, shipping or other warehouse areas.

A solution adapted to your needs

Now more than ever consumers' demands and supply chains change at a lightning speed and in unexpected ways. Warehouses need to be flexible to adapt to these changes in a timely manner.

The Attabotics solution offers optimal flexibility and scalability. If more storage is needed, the grid can be expanded in any direction. At the same time, if more throughput is required, all that is necessary is to add more robots and workstations. All without significantly disrupting operations.

Due to the integrated workstations and sequencing capabilities, the Attabotics solution needs significantly fewer conveyors, making it easier to adapt. As an experienced integrator with a complete portfolio, Körber can also combine the Attabotics system with AMRs for an even more scalable solution.

Key benefits



Direct access to every bin No digging, no re-slotting



Integrated ports No need for conveyors (or significantly less)



Integrated sequencing By using the space below

the storage locations



Flexible and scalable Add robots or ports, or extend the grid



No single point of failure Every robot can reach every bin and every port

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High storage density Market leading density when between 10 and 12 meters height

Wherever your business takes you, the Attabotics solution can make it possible.

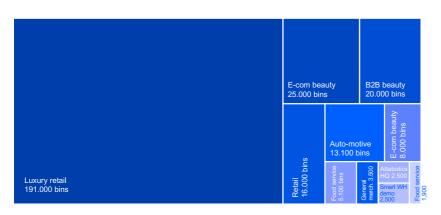
2 bin types are possible

Outer dimensions (l x b x h)	Medium High	614x614x275 mm 614x614x435 mm	
Interior dimensions (l x b x h)	Medium High	571x571x259 mm 571x571x405 mm	
Empty weight		Approx. 4.4kg (medium bin)	
Maximum playload		45 Kg (including bin weight	
Material		Polypropylene, UNIPOL 2135	- mail
Dividers		Multiple configurations possible with removable dividers. Up to 16 compartments per bin	

Innovative yet proven

Attabotics has successfully deployed its system in North America and Canda, from systems with less than 5,000 bins, to high end solutions with over 190,000 stored bins.

See it moving



"Flexibility, responsiveness and performance are essential for today's fullfillment operations. We believe that the Attabotics solution offers an especially strong combination of characteristics that was not yet available on the European market. With Attabotics technology, Körber can now offer our costumers the next step in automation"

Michiel Veenman, VP K. Fulfillment Solutions

Partnership

The Körber Business Area Supply Chain Automation is not only a technological pioneer itself, but it is also permanently on the lookout for innovative partners. One of these was found with Attabotics, a Canadian company founded in 2016.

Both parties look to jointly support e-commerce companies to overcome the challenges of order fulfillment. Körber will be the reseller, integrator, and implementation partner for the Attabotics solution in most of Europe, as well as in other selected countries. With our strong expertise, we can correctly assess if the Attabotics solution is the right one for your operation. And, if necessary, Körber offers and integrates a complete range of other technologies to complement the solution, such as conveyor systems, autonomous mobile robots (AMR's) or packing machines.

With Körber you get a trusted partner for design, implementation and support.

About Körber Business Area Supply Chain

Körber Supply Chain is a Business Area of Körber, an international technology group with around 10,000 employees and more than 100 locations worldwide. At Körber Supply Chain, we have a broad range of proven supply chain solutions that fit our customers' size, business strategies and appetite for growth.

Our customers conquer supply chain complexity thanks to our portfolio that includes software, automation, voice solutions, robotics, and material handling - plus the systems integration expertise to tie it all together. Körber helps to manage supply chains as a competitive advantage.

We are a global partner not just for today, but also for tomorrow as the needs of supply chains continue to evolve.

Conquer supply chain complexity with Körber!

The Business Area Supply Chain is part of the global technology group Körber.

Find out more at www.koerbersupplychain.com

Find out more

About Attabotics

Attabotics is the world's first 3D robotics supply chain system for modern commerce. Inspired by the framework of ant colonies, Attabotics replaces the rows and aisles of traditional fulfillment centers with a patented storage structure and robotics shuttles that utilize both horizontal and vertical space, reducing companies' warehouse needs by 85%.

By empowering retailers to place fulfillment centers near high-density urban areas, Attabotics helps to create jobs and decrease carbon emissions by closing the last-mile delivery gap. Attabotics has been adopted by major retailer brands across apparel, food & beverage, and home goods.

Attabotics is based in Calgary, Alberta, Canada with fulfillment centers across the United States and Canada.

For more information visit www.attabotics. com

Visit us

Want to know more?

Contact us

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