

## **USING AN AUTOMATED WAREHOUSE**

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In the world of logistics, time and efficiency are crucial. The faster goods can be received, processed, and shipped, the better. With the rise of e-commerce, the demand for faster delivery times has increased exponentially. This has led to the development of automated warehouses, which have revolutionized the way goods are stored and shipped.

An automated warehouse is a facility where most of the tasks are performed by machines and software systems. These systems include automated storage and retrieval systems (ASRS), conveyors, robots, and other technologies that work together to streamline the process of receiving, storing, and shipping goods. Automated warehouses are designed to maximize space utilization and reduce labor costs while increasing efficiency and accuracy.

One of the main advantages of an automated warehouse is that it can operate 24/7 without human intervention. This means that goods can be received, processed, and shipped at any time of the day or night, increasing productivity and reducing turnaround times. Automated warehouses also have a higher accuracy rate than traditional warehouses, as machines are less prone to errors than humans.

Another advantage of an automated warehouse is that it can store more goods in a smaller space. ASRS systems use vertical space to store goods, allowing for more storage capacity than traditional horizontal shelving. This means that automated warehouses can store more goods in a smaller footprint, reducing real estate costs and increasing profitability.

Automated warehouses also have environmental benefits. Since they are designed to maximize space utilization, they require less energy to operate than traditional warehouses. Additionally, since they are fully automated, they require fewer personnel to operate, reducing the carbon footprint associated with human labor [1].

However, there are some challenges associated with automated warehouses. The initial investment required to set up an automated warehouse can be significant. Additionally, maintenance and repair costs can be higher than for traditional warehouses due to the complexity of the systems involved. Finally, there is the risk of system failure, which can lead to significant downtime and lost productivity.

Despite these challenges, the benefits of automated warehouses far outweigh the drawbacks. As e-commerce continues to grow, the demand for faster delivery times and more efficient logistics operations will only increase. Automated warehouses are the future of logistics, and companies that invest in this technology now will be at a significant advantage in the years to come.

In conclusion, an automated warehouse is a facility where most of the tasks are performed by machines and software systems. Automated warehouses are designed to maximize space utilization, reduce labor costs, and increase efficiency and accuracy. While there are some challenges associated with automated warehouses, the benefits far outweigh the drawbacks. Companies investing in this technology are at a significant advantage in the years to come.

## **References**

1. Mecalux [Electronic resource]. – Mode of access: <https://www.mecalux.com/blog/fully-automated-warehouse>. – Date of access: 31.03.2023.