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Tennis-Point manages growth with AutoStore from AM Logistic Solutions

Fast picking, flexible use and easy to expand on a short notice – with an AutoStore small parts warehouse, Tennis-Point has grown dynamically in e-commerce.

With its logistic centrum in Herzebrock Clarholz, online retailer Tennis-Point is one of the pioneers of AutoStore users in Germany. Awarded for its online store, the company's founder got to know AutoStore distributor AM Logistic Solutions directly at the award ceremony - and since then has jointly shaped a constant growth process. The first section of the fully automated small parts warehouse was one of the very first installations realized in Germany. Since then, Tennis-Point has successively expanded its AutoStore capacities and has already scheduled the next expansion stage for the first quarter of 2022.

Extremely low pick costs

The expansion is being carried out in a very well-planned manner on the basis of meaningful figures. This is because Tennis-Point has achieved exceptionally low pick costs with the system. Since 2017, Tennis-Point has been part of the internationally active SIGNA Group and can now evaluate its costs in an internal comparison with other companies of the group. Therefore, Logistics Manager Olaf Koch knows how well he and his colleagues perform:

"Although all companies in our group have automation, we record only half the costs, compared to operations without AutoStore."

The small parts warehouse implemented by AM Logistic Solutions is the heart of the sporting goods retailer's logistics and the leading system in its shipping process. The majority of the product range is stored here in over 70.000 bins. Articles of which

at least five fit into each container. Products with larger dimensions are picked manually by Tennis-Point in a two-stage process. "We decided on this procedure even though, with tennis rackets, one of our most common products is not system-compatible. This shows how convinced we are of AutoStore," emphasizes Olaf Koch.

Up to 10.000 parcels daily during peak season

The throughput of the warehouse is significant: around 19.200 items leave the facility every day in an average of 4.400 packages, while around 16.000 items or around 40 pallets are replenished. An average of around 360 orders are processed per hour. At peak times, however, such as during ATP tournaments, the retailer can handle up to 550 orders per hour, enabling it to ship up to 10.000 parcels per day. The e-commerce business also generates around 3.200 items that have to be replenished daily. AM Logistic Solutions has designed the Tennis-Point facility to be flexible. At each of the AutoStore ports, employees can both receive and pick goods.

Availability of at least 98,6 %

One of the particular strengths of AutoStore automated small parts warehouses (AS/RS) is the reliability of the systems. According to the manufacturer, they are available at least 98,6% of the time - in practice at Tennis-Point, it is even over 99 percent. This is because picking is carried out by decentralized robots that move independently above the grid, i.e. the outer AutoStore cage, and

bring the bins to the picking stations. They are connected to the AutoStore central computer, operate in an extremely energy-saving manner and independently recharge at charging stations. If one of them does fail, the picking performance of the system hardly notices. They only require maintenance three or four times a year for two hours each. This robust technology has also convinced Olaf Koch: "The maintenance effort is extremely low and can be carried out during ongoing operation."

Orders for two hours are pre-planned

In its warehouse, Tennis-Point operates in two shifts with work ending at 10 PM every day. For the online retailer, it means that the warehouse's control software can make optimal use of the break in operations to process orders received in the meantime. For example, the robots fetch 4.000 bins to the top level of the grid, which are needed for the next 1.000 orders. In the current configuration of the system, a maximum of 1.700 orders can be prepared. Frequently needed bins remain available at the top grid level according to the self-learning organization system. In this way, orders are prepared for up to three operating hours in advance and order picking runs with optimal serving times even when the number of orders is high. Even towards the end of the working day, when the order supply decreases, orders can still be processed within minutes, as sufficient robots are available for each task. In the configuration proposed by AM Logistic Solutions, Tennis-Point employees can pick orders at each of the ports according to the pick-to-pack principle. To do this, the user interfaces are connected to the company's warehouse management system. They display the size of the required packaging, print out the required accompanying documents and automatically prepare the individual bins with the order items. On average, an order processed at Tennis-Point contains four to five items. When a package is packed, the next order follows automatically.

An important advantage of the compact small parts warehouse for the e-commerce provider is the small amount of space it requires. It can now accommodate more than 70.000 bins on 3.200 square meters and thus store twice as many items in the same space. "With a total area of 8.000 square meters, our warehouse is relatively small for its sales volume" reports Olaf Koch. At the same time, the sporting goods business with clear seasonal periods is a rather pre-order-heavy model, where a lot of goods procured in advance are sold off during the course of the year.

Next expansion stage planned

In order to keep the shipping location, fit for the future and to be able to develop it in step with the successful online store, Olaf Koch and AM Logistic Solutions are already planning the next expansion of the AutoStore facility. The general contractor from Offenau in Swabia has already found some special solutions for Tennis-Point in the previous expansion stages. These include the rebuilding of columns, the continuation of the warehouse in a second fire section and an upgrade of the picking stations with storage space. The next step is now to provide for growth reserves. Here, AM Logistic Solutions and Tennis-Point are primarily considering expanding the number of bins to 114.000. They are also looking into whether Tennis-Point will switch to the new AutoStore Router software along with the expansion, which continuously optimizes the robots' travel paths on the grid. Alternatively, an expansion to a fleet of 110 robots is being considered as well. The pros and cons of both solutions are discussed by the negotiating partners on an equal footing. "The cooperation between us and AM Logistic Solutions is proceeding in the most positive sense exactly as one would imagine," praises Olaf Koch.

