

Yale and Ellerhold Group: Making headlines with customised warehouse solution

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Yale® products have helped printing specialists Ellerhold Group to maximise efficiency in its Zirndorf warehouse with a made-to-measure solution developed by Nuremberg based Yale dealer M. + S. Bauer.

The Client: Ellerhold Group

Founded in 1987 in the town of Zirndorf, near Nuremberg, Ellerhold Group has developed in a short space of time into a well-known poster printing company, with a staff of 600 employees in Germany and a total turnover of around EUR 76 million in 2015.

From indoor posters to outdoor billboard advertising, Ellerhold Group has a versatile product portfolio with an offering that has evolved to meet ever-changing market demands. In 1999, the company opened its second location in Radebeul near Dresden – where it is currently headquartered – and purchased, modernised or expanded four other production sites in Wismar, Witten, Glücksburg and Berlin. The company also works closely with partner agencies to operate in a further eleven European countries.

Ellerhold prides itself on being close to its customers and the efficiency of its operations. The use of the most modern printing processes are essential to ensure the same high print quality, colour brilliance as well as short and stable production times at all sites.

Investing for the future: the intralogistics challenge

In 2014, production expanded to self-adhesive labels for the beverage industry, bringing with it a need for Ellerhold not only to buy new presses, but also to expand its production site in Zirndorf. With a total investment of 3 million Euros, Ellerhold Group built a new two-storey administrative and production building in 2015, including a warehouse on an area of about 1,500m².

The old printing premises were completely demolished and a new building was built that corresponded to the typical Ellerhold architectural style. One particular characteristic of the Ellerhold business is the curved roof in the storage area of the print shop, which presents the intralogistics supplier with major challenges, because

off-the-shelf storage technology solutions cannot be used. This is where Yale has played an integral role.

Yale: a modern, scalable solution

"In the market the name Ellerhold stands not only for high-quality printing products, but also for on-time delivery," says Bernd Schmidt, CEO of Ellerhold in Zirndorf. "For this reason we wanted to equip our warehouse with a modern intralogistics solution that even with continued growth offers a degree of scalability. Among the many proposed solutions, the Yale concept was the only one that convinced us immediately."

On average Ellerhold Zirndorf receives 40 orders a day, and about 100 picking orders are processed daily in two shifts. At about 50,000 individual daily orders, the printing specialist wanted to leave nothing to chance even with the internal logistics.

"The Yale dealer, M. + S. Bauer from Nuremberg offered the best overall concept by far," explains Bernd Schmidt, "consisting of a high-bay warehouse and a narrow aisle truck. It was important to us that the available space is used optimally, so that we have the largest possible number of pallet spaces available on the shelf. Sufficient area also had to be provided for ground-level parking spaces to pick fast-movers using a pallet truck."

That the intralogistics solution comes now from one source is an added bonus. "With M. + S. Bauer," he continues, "we now have a reliable contact who knows the project and all its components in detail and has been involved in the planning and implementation. With the Yale solution, not only was the desired number of pallet spaces achieved in the high-bay warehouse, but also the ground-level parking spaces. The existing warehouse space was thereby maximised perfectly up to the last centimetre."

"Due to the fact that the hall layout could not be modified any more, it was very difficult to meet the requirements with standard shelving systems," explains Martin Gärth, V.M.L. Consultant at M. + S. Bauer. "A customised shelf solution was necessary so that we were able to deliver perfectly with the PowerPal® pallet racking system, as the manufacturer provides custom dimensions. With the flexible PowerPal-shelf systems, Yale has utilised the available space optimally, to offer a high-bay warehouse for around 900 pallet spaces in an area of approximately 500m².

The new high-bay warehouse now includes a total of four aisles, each with seven levels to a length of 17m and a shelf height of 7.5m. In order to display the four aisles and thus 900 pallet bays, the aisle had to be designed to a width of 1.65m. Had Ellerhold opted for only three aisles, 100 pallet bays would have been omitted. "With four aisles it has, however, been a challenge to find a correspondingly narrow truck that could be inserted into the narrow aisle widths of 1.65mm less the overhang of the pallet and demanded a safety distance of 90mm on both sides," says Bernd Schmidt. "Only Yale could offer a suitable truck."

"With such a narrow aisle width, the materials handling vehicle had to be very compact, to still be able to operate safely in the aisle," adds Martin Gärth. "The Yale narrow aisle truck MTC 10 with swivel reach fork and integrated pantograph was the perfect truck for Ellerhold."

Real space saver in narrow aisles

The Yale narrow aisle truck MTC 10 was especially designed for applications where a maximum utilisation of storage space is important in the warehouse. The truck at Ellerhold has a lifting height up to 7,800mm with a capacity of one tonne. Through the use of a pantograph the width of the vehicle has been reduced to 1,420mm. "40mm was ultimately decisive at Ellerhold," says Martin Gärth. "With this measure, the goods remain still inside the cabin contour and a safe use in the aisle is ensured."

The pantograph that is integrated into the swivel reach fork also enables a faster and more precise storage of pallets on the shelves. In addition, the top and bottom mounted swivel reach fork ensures a perfect load handling at all times as well as a good view of the forks and pallet. Even in the lowered fork position, the operator has both forks in view. "For us, a simple and safe handling of the truck is very important, because the driver is not constantly sitting on the vehicle," says Bernd Schmidt.

With the new Yale MTC narrow aisle truck those requirements are satisfied. Another advantage is that the cabin of the vehicle moves up. Thus, the operator always has an excellent view of the pallet and can even execute picking tasks if required. By using the patented hydraulic system the operator can perform multiple functions. He can drive, turn and press the additional lifting functions while raising the cabin. In this way, the storage and retrieval of pallets is significantly faster. Disruptions are avoided and productivity is improved. For all Yale MTC trucks ratios of speed to height and weight will be monitored as standard. In practice this means that based on cabin height and load weight the fastest possible speed is calculated for the stacker.

Tailored to customer requirements

The narrow aisle truck at Ellerhold was adapted to the specific application in the high-bay racking. For instance the speed was limited when the vehicle leaves the high-bay racking and passes under the longitudinal beams of the shelf to receive the goods on the staging areas before the high-bay warehouse. Due to the limited space these spaces can only be operated when the vehicle is turning on the spot. Here, a safe distance must be respected so that vehicle and rack system are not damaged. To handle the slow-movers above the roof-mounted area safely and efficiently, the vehicle is guided inductively. In the aisle the vehicle can drive at 8km / h again. Thanks to these adjustments on the vehicle Yale could tune the truck to the shelving system and so take advantage of the space in the warehouse perfectly.

Yale and Ellerhold: a 25-year proven partnership

"In the past we have had a very good experience with Yale and the Yale dealer," says Bernd Schmidt. "This relates to the quality of the equipment, durability and especially the good service. If we need help, the response from M. + S. Bauer is always immediate and they have solved problems quickly, with minimum administration and competence for 25 years."

In addition to the new MTC 10 narrow aisle truck, Ellerhold owns a Yale GLP 20 SVX forklift, an MP16 rider pallet truck and a Yale MS 10C pedestrian stacker. "With the planning of our new warehouse and its intralogistics concept, M. + S. Bauer has once again underlined their special expertise in intralogistics. For any other proposed solution we would have had many fewer pallet bays", concludes Bernd Schmidt. "The Yale solution fully satisfied all of my demands: Yale has made the most of little space with the latest technology and at a fair price."

Source: Yale Europe Materials Handling