

OLD MADE NEW: COMPANY LUXHOLM UPGRADES WITH NEW MACHINES AND SOFTWARE UPDATE

The company Luxholm Bauelemente Werk GmbH from Germany has been producing customized staircases and handrails, as well as affordable standard space-saver stairs, which, on request, can also be customized to customer wishes, for more than 40 years. Next to all common staircase types, Luxholm also produces special stringer-stairs that have replaceable treads. If a tread is damaged the builder can remove the individual tread and Luxholm will fix it free of charge. The special programming required for this feature, was developed for the stair builder by Compass Software. In early 2019 the company purchased two new SCM machines, which were also connected by Compass Software. As part of the 2019 upgrade, Luxholm also implemented the Software provider's plate optimization and table arrangement solutions, which have resulted in significant savings in time and material during CNC processing.

Complete Update of Machines and Software

Luxholm Stairs from Germany employs a staff just short of 50, with 35 employees working in the production department alone. The company started using the staircase construction software from Compass Software as far back as 1996. Before the purchase of the new processing centers in 2019, Luxholm achieved an annual revenue of approx. 5 million with two old MAKAC machines. The company handles about 2,500 orders annually, 2,000 of which are staircases



CEO Dirk Elsner: "I am convinced that the combination "Staircase-Compass" is currently the best available option on the market. We are and always have been very satisfied with our cooperation. Whether it was installations and the control of machines, or special programming for separate work processes – everything has always run smoothly. I am familiar with comparable providers and their possibilities to some extent, but Compass Software offers the most effective and most efficient applications for staircase construction in my opinion. We highly appreciate that they always keep their commitments and they reply fast to inquiries."

that are sold through hardware stores, construction businesses, such as carpenters, locksmiths, or building contractors, as well as directly through the internet.

In early 2019, Luxholm replaced their two old processing centers with two new SCM Accord 25 CNC machines. As a part of the upgrade, the company invested in a comprehensive update to the current Compass Software version, which also included several new processing options. CEO Dirk Elsner explains: "The two MAKAC machines were already about 23 years old. The CAD/CAM Software had not been updated in a long time. It was time for something new. The new SCM machines are faster and offer more precision. The software update gives us a wide range of new and versatile processing possibilities."



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Enormous Savings of Time with New Machine and Table Arrangement

Both SCM machines have 5 axes and can be used for the processing of all staircase parts, including wreaths. During a normal work day, one of the Accord 25 FXs is utilized for the processing of individual parts. The other machine, which is equipped with automated vacuum cups, has been configured for plate optimization and table arrangement. “We are milling all 4 stringers of a staircase at the same time on the new machine. This procedure saves us a ton of time, since we do not have to load material onto the machine and take it off again constantly. We have also seen a significant reduction in time for tool changes through this change.” says CEO Dirk Elsner. With the new system it only takes the stair builder approx. 40 minutes to mill a staircase with 4 stringers, which includes the time it takes to set up the machine. Before, the same amount of work would have taken ca. 90 minutes and the finished parts would still have required manual post-processing. A work step that is now a thing of the past. Thus, the company is now able to produce many staircase parts more than 50% faster. The maximum capacity on the machine is 8 stringers at a time. A possibility that promises future potential timesaving.

Next to the stringers, Luxholm also manufactures posts on the machine. It is possible to process up to 4 posts at once. Since the processing of posts generally requires many tool changes, the stair builder saves even more time by utilizing tool optimization and



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With the new equipment, the stair builder can produce a staircase with four stringers more than 50% faster.



producing several posts simultaneously. Only when the machine has finished all steps with one tool on all posts, the tool is changed and the machine proceeds to the next step with the new tool. The processing of 4 posts now takes about the same amount of time than 2 posts required before Luxholm made the change.

Compass Software's Solutions Save Time and Up To 20% of Material

Another big advantage of the new machine-software combination is the significant saving of material. The stair design mandates which material and what size of plate are required for the milling of the staircase. Luxholm uses Compass Software's Plate Optimization 2.0 module for the processing of stringers. The module makes it possible to optimally plan stringers on plates on the computer, which leaves the least possible amount of left-over waste material. The plates are then positioned on the vacuum cups of the machine and the contour of the stringers is laser-projected onto the wood for processing.

This method of production reduced the amount of waste Luxholm fabricates from ca. 40% to 20–25% for most staircase types.



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Compass Software: A Reliable Partner

Luxholm CEO Dirk Elsner concludes: “Due to the software update and the new machines we are achieving significant savings in milling times. On top of that, we are saving material: For space-saver stairs for example approx. 20%. That makes a big difference in the day to day business! Also, the planning process has become easier and faster and I expect that once the designers have learned the ropes, we will save even more time in this department.” On top of sharing these positive experiences, the Luxholm CEO can only recommend Compass to his peers: “I am convinced that the combination “Staircase-Compass” is currently the best available option on the market. We are and always have been very satisfied with our cooperation. Whether it was installations and the control of machines, or special programming for separate work processes – everything has always run smoothly. I am familiar with comparable providers and their possibilities to some extent, but Compass Software offers the most effective and most efficient applications for staircase construction in my opinion. We highly appreciate that they always keep their commitments and they reply fast to inquiries.”

Compass Software’s staircase construction software is constantly being developed further and the software provider always finds solutions to address practical challenges users face during everyday operations.

In the future, Luxholm is looking to further expand and optimize their production with Compass. The next project will be the optimization of data flow between the job preparation, production, and shipping departments. A challenge to which Compass Software already offers several possible solutions.

From 1 ½ Shifts with Overtime to 1 Shift and Increasing Production

Since the company is now able to machine several parts at once, they require fewer machine operators. Luxholm has been able to reduce the runtime of their CNC machines from 1 ½ work shifts to 1 shift while keeping production output at the same level. That saves money, time, and power.

While the machine is working on several staircase parts at the same time, the machine operators are freed up to prepare material for the next order and to cut left-over materials. One employee, who previously assisted the machine operators with their work, can now be utilized for post-processing work steps. Everything is more relaxed and organized. Once everyone has gotten used to the new system, the stair builder estimates that he will save approx. 8 hours of machine run time per day.

Straightforward Operation and Better Features for Job Preparation

The update to the newest Compass Software staircase construction software version also includes additional advantages for the job preparation side of business. Version 10 of the program is considerably more user friendly and making changes in CAD is much easier. Furthermore, the recording of drilling patterns and predefinitions has become more straightforward. Predefinitions make the drawing of standard staircases faster. In this mode, it is possible to pre-record specific properties of staircases for the initial calculation of the stair. These settings are then used as standard properties for selected staircases. When utilizing the predefinitions, the stair design oftentimes only requires a few minor changes before it can be sent to production. Once the staircase has been constructed, it is now also easier to create realistic representations for sales. The integrated 3D tool makes it possible to visualize the room situation and materials of the stair in a photo-realistic 3D image, which is inserted in an already finished order form that can be sent to the customer right away. The result is more orders and less last-minute change requests.