

Each tile matches the next:

Structure in 1-piece production ensures efficiency

Anyone who wants to install a sophisticated 1-piece production system needs state-of-the-art machinery and good software solutions, of this Jochen Gründer is sure. The HOLZMA sales manager for Germany, Austria and Switzerland takes the example of Andexlinger to explain why logistics plays such a key role in this kind of company in particular.

"Structured through and through" – following the replacement of several machines and the introduction of industry software, production at Andexlinger GmbH is now state-of-the-art. Rightly so, thinks Jochen Gründer: "Anyone who wants to produce high-quality items quickly in quantities of 1 can't do without modern machinery". Production to order demands a high level of organisation and efficiency – starting with work preparation and then through the entire production process.

Structure through correct data handling

It begins with proper data preparation. Jochen Gründer: "If you get this right, you lay the foundations for efficient production. Unfortunately, many businesses are still neglectful of this subject."

At Andexlinger, however, preparation is performed properly using Hausleitner industry software. From there, the data is imported into the HOLZMA Cut Rite optimisation software where the cutting patterns are created – optimised for overall costs. The data is then sent online to the storage system and saw. The BARGSTEDT storage system performs preparatory work (pre-sorting, self-organisation, etc.) and transports the panels as required to the HOLZMA HPP 380 profilLine single saw.

Saving time

"Using the example of storage, it is easy to explain why modern machinery is so important for 1-piece production," says Jochen Gründer. "Previously, Andexlinger had a saw with lift table and therefore had to prepare and temporarily store panels in order to get the parts to the next processing stations on time. There were ongoing time losses in the feed area – due to manual feeding of the saw, pre-storage, continuous colour and material changes and also due to searching for and fetching the material. I believe that the saw-storage combination alone can result in a 100% increase in cutting. You have immediate material availability, no waiting times at the saw; you don't have to search for material and there are short distances." Besides that, there is also targeted offcut return and management.

Cutting is performed by a HOLZMA HPP 380 profiLine. The saw, which is well utilised today, has extensive equipment, including the Power Concept. "I estimate," says Jochen Gründer, "that the HOLZMA Power Concept brings a performance increase of around 20% here. Up to even 40% is generally possible."

Andexlinger was finally won over to HOLZMA by further features, such as the cutting gap closers or the Soft Touch package for pressure-sensitive material and, last but not least, the fully-automatic labelling option.

The heart of the matter: the label

The installation of a fully-automatic label printer was a fundamental condition for Andexlinger. Ultimately, labels are the logistical heart of the matter, for they guide the parts through the complete production process after cutting. Corresponding emphasis was placed on this process step. Jochen Gründer remembers: "For

Andexlinger, we developed a printer that works in the area of the pressure beam and labels the parts immediately after they have been cut."

This design offers many advantages – even in comparison with a solution with an extra slide in the rear machine area, i.e. labelling before cutting. "You can label panels fully automatically even if the parts are supplied to the saw from the front," explains Jochen Gründer. "This offers much more flexibility. And: the entire solution is even more cost effective to boot." Another requirement was the label layout, with turned parts having a turned layout applied to them. Other plus points are the easy maintenance and visual inspection – for the printer is easily accessible.

From customer requirement to series production: the Domino System

"By the way, this printer is a great example," says Gründer, "of how you can create a customer-oriented series product from a specific need." For it was with this printer that the idea for the HOLZMA Domino System was born – a modular system comprising this very printer, the corresponding software and, optionally, the parts buffer and destacking carriage. In the meantime, it has reached series production and is sold worldwide. Gründer continues: "With the Domino System we are thinking beyond pure cutting. In our opinion, system competence is the key to the future – that is, laying (Domino) tile by tile and creating individual solutions from data preparation to delivery of the finished part. Continuous, highly efficient production – without gaps or unnecessary performance peaks."

Giving direction: the barcode

For all new machines at Andexlinger there was one important rule: the barcode had to become the direction sign for production. Now the information at the CNC-controlled ABD drilling and dowel-driving machine by WEEKE and at the HOMAG processing centre is read via a handheld scanner. The HOMAG edge-gluing machine even has fully automatic barcode recognition. This guarantees automatic program starting on all crucial machines.

Following successive installation of the machines – during ongoing operation – it is now the turn of the continuous barcode control to be installed. This step is due for completion in the coming weeks.

"We believe that the barcode is definitely going to be the way forward," summarises Jochen Gründer. "Even the smallest of joineries has a saw and a CNC processing centre. At the saw, there is a label printer with barcode. The label is then scanned at the CNC and the program starts fully automatically." Gründer sees this as the only way of guaranteeing structured transfer of the material in future too. "Although, of course, you can also dispense labels without barcodes or even use order slips. But we don't recommend this last option any more. Anyone who buys a new machine should stop working with slips."

A one-stop system

The installation of a 1-piece production system is a complex requirement. "It's extremely helpful if you can get everything from one source," says Jochen Gründer. "Customers always worry about a conversion of production, no matter how big. This is understandable and it's quite normal to want the greatest possible certainty. The HOMAG Group offers this – through central planning, project support and implementation as well as interface compatibility and component consistency."

Competitive advantages

Anyone who is thinking about 1-piece production with fast throughput times and high quality needs the shortest possible flow of parts, for this means short delivery times and therefore also fast response times, which is an important competitive advantage in every case.

Jochen Gründer: "The overall concept is not purely an 'Andexlinger concept' but can be transferred in part or in whole to comparable companies with comparable tasks. Even small businesses benefit from this kind of development, for sooner or later they too will discover groundbreaking components in their smaller saws. In short: Not everyone drives a formula 1 car, but many people drive a Mercedes because they want to benefit from part of the formula 1 concept."

Information on Andexlinger

The Andexlinger GmbH joinery is one of the leading Austrian companies in the field of furnishings as well as parts production for the trade and craft sector and for industry. The company, based in Haslach an der Mühl, Austria, produces exclusively individual parts in "1-piece production".

The company is constantly growing and, as a result, replaced all key machines in 2009 with modern production systems. Andexlinger decided on the HOMAG Group as a partner and was supported by the sales partner HOMAG Austria. Also on board were management consultant Hans Peter Graf and Torschitz & Schanes GmbH. The new production systems include the fields of panel storage and feed, panel cutting, the entire CNC technology including edging at the processing centres as well as the edge-processing area in continuous operation.

For cutting, Andexlinger decided on the HOLZMA HPP 380 profiLine panel-sizing saw with Power Concept and also obtained a BARGSTEDT TLF 410 horizontal storage system. This ensemble enables semi-automated production, with cutting of complete, in part complex cutting patterns and automatic labelling of components in the pressure beam area. The HOLZMA HPP 380 is supplied with optimised cutting patterns directly from work preparation through the HOLZMA Cut Rite optimisation software.

Andexlinger has achieved the following:

- Processing that is gentle on material
- Reduction in manual handling – a big advantage in particular for large panels
- Fast, high-quality 1-piece production
- Improved organisation
- Automatic component labelling throughout the entire production process

- Clear increase in performance on a smaller production area

Information on cutting:

Panel materials:	Various wooden materials with different surfaces, material sensitive to scratches and pressure
Panel format max.:	4150 x 2070 mm (5000 x 2200 turned)
Panel format min.:	2000 x 800 mm
Panel thickness max.:	38 mm
Panel thickness min.:	0.8 mm (laminated)
Machine model:	HPP 380/43/43 with TLF 410/30/12
Saw blade projection:	95 mm
Cutting length:	4300 mm