



Agner Holz – Success Story

Automation with style. How a repetitive and physically demanding task turned into pushing a button.

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Agner Holz AG is a second-generation family-owned business based in rural Schötz, near Lucerne. As a small company, it employs around 12 people and also trains apprentices. The company has enjoyed rapid growth in recent years. The new company headquarters opened in 2010 and an extension is currently in the construction phase.

Agner Holz AG supplies raw material for the further processing of a wide range of products. Some of them require the processing of special types of wood, which are complex in processing. However, the core business of the company is supplying raw material for window construction. Orders received for this core business have increased steadily over the years. Adding cutting machines

and employees was enough to keep up with demand – for a while. However, it quickly became clear that the production of these rather standardized products would have to be automated, to be able to allocate more production capacity to the increasing number of special orders.

Enough raw material is cut per line in a single workday to fill 35 pallets. That's



about 15 tons of material that three employees have to manually remove from the cutting machine, inspect, and then load onto the correct pallet. This is a very physical and repetitive job.

“After years of searching for an automated solution, visiting numerous trade fairs, and contacting with various machine manufacturers throughout Europe, we are extremely pleased to have found the solution less than 20km away, from a Swiss manufacturer.”

– Bernhard Agner (Managing Director of Agner Holz AG)

The new automation, based around the Gudel ZP gantry, enables the machine to be operated fully automatically. The cut raw material is pushed from the cutting machine onto a slowly moving cross conveyor. An employee performs quality control while the raw material is on this conveyor. Once the raw material has passed inspection, it is then automatically picked up by the Gudel ZP gantry and stacked on the different pallets in the optimum order.

To prevent a stack from becoming unstable as it grows taller, the individual pieces are rotated slightly in the C axis so that the bars interlock with each other. The gantry automatically places an intermediate plate on the pallet when the stack reaches a certain height, optimizing stability further. LED strips attached to the

Gudel gantry visually display the status of the loading process for each pallet. Now, the entire process – from removal from the cutting machine to the fully loaded pallet – only requires the attention of a single employee and is much less physically demanding. This way, the worker can do high-quality work for a longer period of time. In addition, the two workers who were needed previously for loading can now concentrate on additional tasks.

The control unit for the system was developed by Manuel Agner himself. The backend system used for order entry and processing is linked directly to the machine. This backend system was also developed in-house, by Manuel’s brother, Stefan Agner.

However, a solid amount of creativity and flexibility was needed from everyone involved so that the automation could be set up in the desired shop space in the first place. Gudel ZP gantries are usually anchored to the floor. However, the shop floor here does not provide the desired rigidity to ensure proper functioning. To solve this problem, Agner Holz and Gudel worked together with a timber engineer to design a solution that had never before been implemented with a Gudel automation system. Instead of being attached to the floor, the gantry was attached to an existing solid wooden beam. This solution is a striking example of the cooperation between Agner Holz

and Gudel and of what a little creativity can do.

“Thanks to the straightforward communication with Gudel, an ideal solution was found for us in next to no time.” – Manuel Agner (automation project manager at Agner Holz AG)

The automation is being put to successful use today. This makes it possible to use the machines more efficiently and to increase the capacity of the production facility. It has also become apparent that this automation has a high level of process reliability, a finding that naturally pleased both the customer and the supplier.

2-axis module – ZP-4	Y axis	Z axis
Travel	22,732 mm	1,300 mm
Working load	max. 80 kg	
Speed	220 m/min	95 m/min
Acceleration	5 m/s ²	3 m/s ²
Gearbox	HPG 060	HPG 060

Including options:

- Option 52a: Synchronization mark: Güdel
- Option 60a: Automatic lubrication system, 24 VDC. FlexxPump external control system
- Option 80: Güdel rack with hardened and ground teeth Q6
- Option 91: Independent multiple carriages, each with a drive
- Option 100: Reinforced Z-Axis mounting
- Option 140: Mounting plates for legs
- Option 145a: Beam leveling kit including leveling screws

Güdel Group AG

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