



The future of modular construction: today

Fascinating process expertise at Güdel

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Whole construction elements for buildings are produced fully automatically. With Güdel's multi-functional WoodFlex 56 gantry robot, all doors are open for builders – both literally and figuratively – to make their construction ideas a reality. The open machine concept makes this possible. It is highly flexible and the variations it offers for processing are almost limitless. Machining, installation and handling can be easily performed directly from the CAD data.

During fully automatic wood processing, the system performs its task reliably and cuts, positions, and nails three-dimensional arched ceiling beams made from 50 mm thick rectangular timbers of different widths.

The flexibility of the multi-functional gantry robot is reflected in the flexibility of its processing steps. More specifically:

- Sawing and drilling on a fixed undertable saw.
- Lath process: Picking up and precisely positioning laths, nailing, sawing excess ends, measuring the height, and photo documentation.
- Wall process: Trimming the height (l x w), gripping and calibrating plates, securing plates with clamps or nails, trimming, helical drilling, sawing cut-outs, measuring the height for precise trimming, and making a mark or drawing a line with a pen.
- Flexible zone mode enables mixed operation with manual zones (1/3, 2/1, 3/0)



The gantry robot for wood processing at Erne moves along a stretch of over 50 meters. For even more efficiency, it carries its tool magazine and two spindles with it. The tool change between the gripper and saw is carried out smoothly. Waste, such as splinters and dust, is disposed of using an automatic extractor in the container provided. The change/calibration stations are positioned directly opposite the two system operators for optimum visibility.

The same process steps can be applied when processing other materials and additional process steps can be added at any time.

Güdel Group AG

The Güdel Group is a manufacturer of high-precision machine components and provider of sophisticated automation solutions. Its spectrum of products ranges from linear guideways, racks, pinions and drives right through to linear axes and gantry robots. Güdel assembles its products into systems with a high degree of control intelligence and complete plant installations, which can be used in the automotive, tire, metal, rail, intra-logistics, pharmaceutical, renewable energy, wood, and aerospace industries. Güdel's technology is characterized by its innovation, quality and modularity. The Güdel Group has a workforce of approximately 1,100 employees worldwide in over 30 locations. The Group has been owned by the same family since its foundation more than 60 years ago. The Güdel Group has its headquarters in Switzerland.

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