



## PRODUCTION IN KARBEN

### DIGITAL TOOLS, AGILE METHODS – AND UTILISING THEM EFFECTIVELY

König + Neurath has been manufacturing office furniture since 1925. No area has changed as noticeably over the past almost 100 years as production. The carpentry workshop, where even the hardest jobs were done by hand, gradually transformed into a high-tech production centre with capacity to implement individual customer needs within a short timeframe. Some features have remained though: the location in Germany, the company's innovative character and employee enthusiasm – and the processes are state-of-the-art and forward-looking.

### Lean production – with all the advantages for customer and manufacturer

At König + Neurath they use lean principles in production: customer-oriented, optimised and synchronised. All components on every single assembly line are produced “just in time”, with the assembly sequence dictating the end-to-end material flow: customer order production is pull-based. We also use the Kanban system to ensure that all information is communicated quickly and effectively. As well as optimum use of resources, our outstandingly efficient production methods allow us to bring customers an appreciable time saving – and consistently excellent product quality.

Our production reflects the trend towards individualisation. To fulfil our customers' wishes., we can integrate series production or one-offs into the production process. This is summed up nicely by David Schuch, from the Operational Excellence at König + Neurath: “Our minimum production volume is one”. Using the digital twin principle, we already know which specific features are needed each time thanks to the OFML customer data at the warehouse stage. “The concept is unique. No other office furniture manufacturer has been able to implement it with this level of consistency before.”



## Production

# WHAT MAKES OUR DESKTOP WAREHOUSE SO SPECIAL

David Schuch presents our automated desktop warehouse, which is linked to two processing lines

## OUR PRODUCTION IN FIGURES

# 10

## FOOTBALL PITCHES

production floor area (approx.  
69,500 m<sup>2</sup>)

# 12

## THOUSAND ITEMS OF FURNITURE

per week

# 99

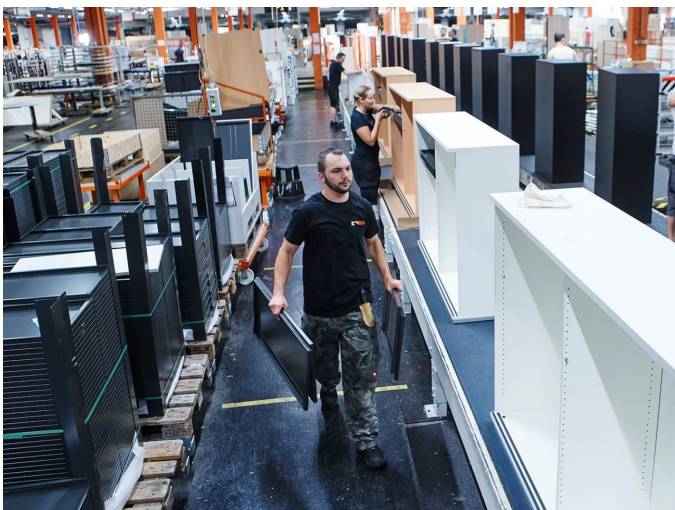
## PER CENT

compliance with delivery  
dates



## Vertical range of manufacture

Innovative product technologies and a wide range of parts allow us to offer a huge vertical range.



## Pre-production and assembly

The Karben site has dedicated pre-production areas for wood, aluminium, metal and chair mechanisms, as well as assembly areas for furniture, seating and room systems.



## Finishes and materials

Our production in Karben also includes facilities for powder coating, surface treatment, veneer production and fabric/leather processing.

**Individual product solutions? Customising isn't a problem thanks to state-of-the-art production equipment!**

Market requirements – and customer requirements – are changing. The space experiences we plan can be

implemented to suit specific needs. **Batch size 1** is another key principle of production technology here, and we are constantly optimising our processes to achieve this goal. We need our manufacturing process to be just as quality-oriented and efficiently synchronised for a one-off order as it would be for a series of several hundred desks.

With lean tools such as autonomous maintenance, we can guarantee a high level of line availability to deliver your furniture and solutions on time and in the quality you expect.

## How you can benefit from our production processes

- + many years of expertise combined with digital proficiency
- + process and planning reliability
- + process-optimised production times
- + ongoing quality improvement
- + Made in Germany production
- + extensive capability delivered by highly qualified employees

## The future of warehouse management: lean and innovative material flow processes

What some people considered a very futuristic scenario just a few years ago is gradually becoming reality at König + Neurath right now: warehouses that autonomously commission material at night for the following day. Storage, retrieval and reorganisation processes that run independently 24 hours a day. Fully automated internal transport. And it's all sustainable and energy-efficient. In the past few months we have been able to digitalise many communication and coordination processes, using digital tools to make them even more efficient and reliable.

König + Neurath is currently introducing a material flow concept that's "one of a kind in the office furniture industry," says Daniel Wenk, our warehouse manager. Thanks to SAP eWM on S4 Hana basis, the material flow is completely transparent, replenishment control is fully agile thanks to Kanban logic and retrieval control. This is the basis for us to introduce the intelligent automation strategy in the entire production.



## Production

# 24/7 IN USE

Daniel Wenk lets you take a look at our new fully automated warehouse.

### Thinking ahead: We produce furniture with the support of robots

Wenn Sie uns fragen, wie die Mlf you ask us what a furniture factory of the future would look like, we'd like to show you our cable tray production area. Here you can clearly see how using a cobot, a collaborative robot, supports people while they work and changes the individual work steps. Man and machine are working hand in hand: employees plan out the production process and the cobot does all the work. This takes the strain off the people. That's extremely helpful, especially with repetitive and physically strenuous work. The outcome? A smart factory.

Our teams are constantly working on making processes – and machines! – to become more and more digital. That's why we have our own plant engineering to manufacture our use cases ourselves. We always incorporate the cobots we need for ongoing processes and handle all the critical parts here in Karben. From programming to commissioning the use cases.



Production

## PRODUCING ACCORDING TO OUR REQUIREMENTS

Michael Claaßen on cobots, manufacturing our own tools – and toolmaking by König + Neurath

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