

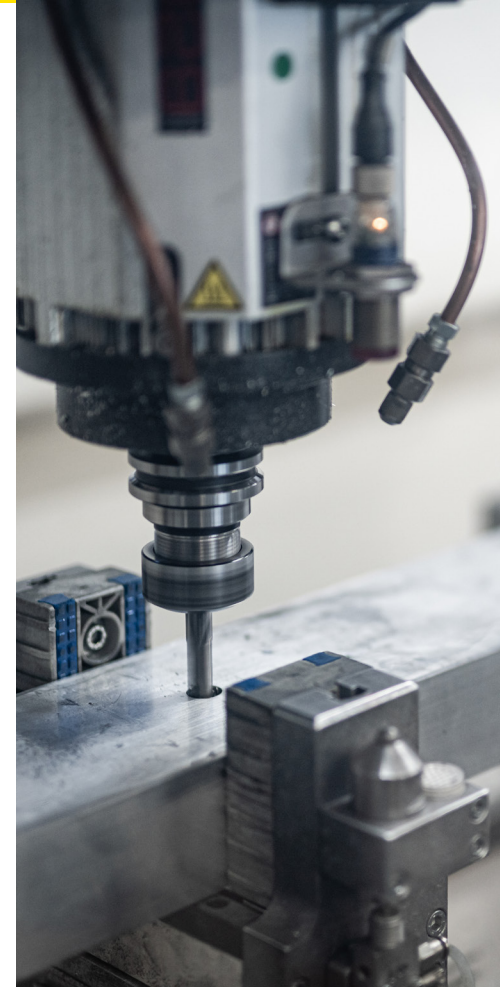


Case Study Klaus Backes GmbH

More efficient series production in machine and tool construction

Savings:

- 82.200 € per year
- Time and frustration for employees and customers
- 50 % processing time

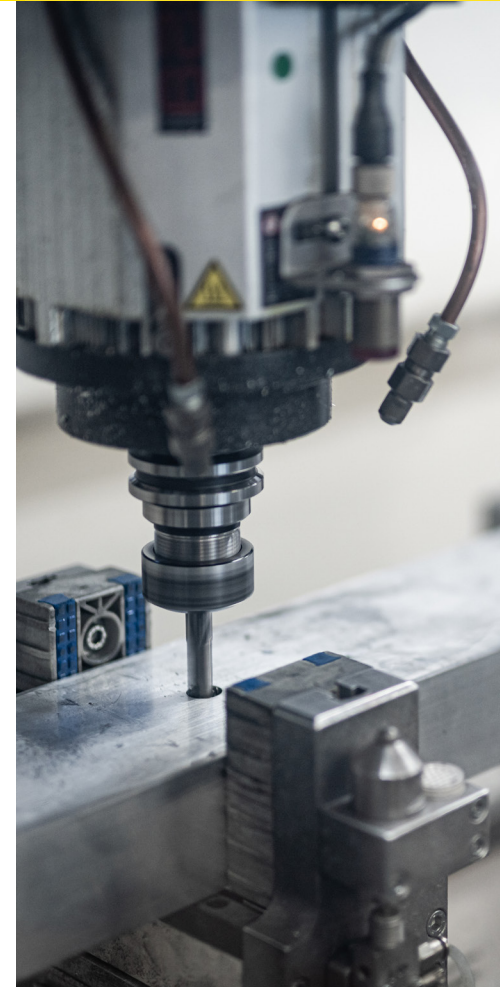


An innovative tool strategy to reduce costs, time and frustration in batch production

As a contract manufacturer of machine components and tool parts, Klaus Backes GmbH produces both, individual components as well as entire batches for its customers.

The company decided to cooperate with Gühring KG in order to eliminate regularly occurring sources of error from the production process and to ensure corresponding delivery reliability for its own customers.

The success can be seen in the significant cost savings and in shorter machining time per component. As a result, the delivery time has also been improved. This more than satisfies the customers of Klaus Backes GmbH.



The way to an efficient metalworking

Before: Challenges and opportunities

- Avoidance of previous sources of error caused by the shift change when setting the spindle tool
- Reduction of machine downtime
- Compliance with delivery times to end customers
- Cost savings for staff training and tool wear

Why did you choose Gühring KG?

- Gühring had already been a strong strategic partner in another business area for a long time
- Proactive contacting regarding recurring problems with an individual solution proposal
- The new GE100 tooling strategy showed a significant reduction in costs and time in production during the design and pre-calculation phase
- Reduction of complexity to a minimum, so that all employees can operate the tool without any problems

Afterwards: results

- Cost savings of 82,200€ per year
- Reduction of costs per component from 0.38€ to € 0.21€
- Increase in employee productivity
- More orders and long-term customer loyalty due to strong delivery performance

82.200 €

cost savings per year

50 %

less machining time

< 1 week

cost amortisation
tool strategy

Shift change complications

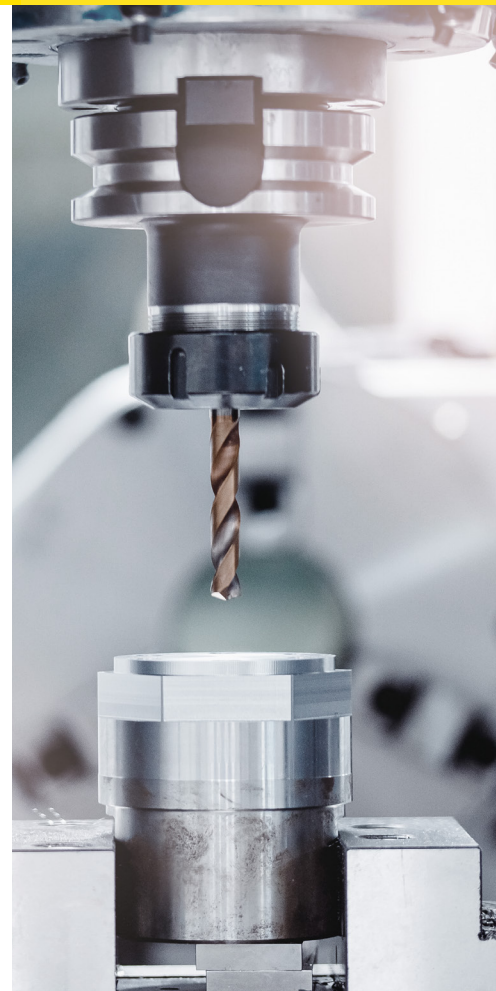
Klaus Backes has been an expert in the production of machine components and tools in individual and large batches for almost 50 years. 24 hours a day, five days a week, the contract manufacturer produces fixtures, clamping devices, metal and cast steel for various industries.

To maintain the supply chain, 130 employees work a three-shift system in the plant in Bruchmühlbach-Miesau. Problems regularly occurred in handling the tool systems, since employees with different technical know-how had to manage the tool handling. Thus, the double-fluted adjustable spindle tool was adjusted repeatedly from shift to shift. As a result, the component dimension was not optimised and the insert was positioned incorrectly.

In addition, the tool wore very quickly. The adjustability of the complicated tool head repeatedly led to problems that entailed high costs and resulted in losses due to long downtimes and machining times. Despite mandatory ISO-training to avoid such incidents in the future, the problem could not be solved. The regular training of the staff also turned out to be very time-consuming and cost-intensive.

As a result, no lead time could be created by Klaus Backes GmbH. At that time, Gühring KG had already been a strategic business partner of the company for many years and carried out process optimisations in the grinding shop of Klaus Backes GmbH.

When the problem of the adjustable spindle tool reached Gühring KG, the company proactively approached Klaus Backes GmbH in order to be able to identify a strategic solution that promised both, time and cost savings.



Through innovation and strategy to achieve new results

Klaus Backes GmbH was initially concerned that the costs would be too high and would not be amortised quickly.

To alleviate the concerns of Klaus Backes GmbH, Gühring KG first put up a rough calculation.

A new tool design was to solve the problem of the adjustability of the spindle tool. As an optimisation, eight cutting edges were to be used in the tool head instead of a four-flute system.

After the tool drawing was made, the quotation was prepared.

The result was a consistently stable tool system that replaced and improved the old tool solution with the right individual design.



Proactive problem solving by a strategic business partner

All the problems caused by the adjustability, such as high machine downtimes, long machining times and the resulting costs from production have been massively reduced.

Overall, a cost saving of 45 % was achieved. The costs per component are now 0.21€, whereas before the optimisation, it was 0.38€ per component.

Thus, the conversion of the tool head could be amortised after only one week. With 150,000 parts per year, the company saves 82,200€ with the new spindle tools. These are broken down into 51,000€ component costs and 31,200€ costs due to the reduction in machine running time.

In addition, the adjustability led to high wear of the tool. Due to the eight-flute system, this is now no longer necessary, and the wear of the tool is reduced accordingly. Less wear leads to a longer tool life of the cutting edge.

Low machine downtimes result in significant time savings per component batch.



Less resource consumption and staff absence

The shorter machine downtimes also resulted in a significant increase in the tool life from 17.11m to 61.6m. As a result, the use of resources on the tool could be reduced.

Since fewer errors now occur in the production process thanks to the new tooling system, employees also have to attend fewer ISO-trainings for quality management purposes. The Klaus Backes company thus saves the expensive costs for employee training. And at the same time, employees are no longer absent from the production process.

The company's customers are pleased with the strong delivery performance, which significantly strengthens the relationship between the customer and Klaus Backes GmbH. Less effort in customer service and more follow-up orders are the result.

A single change in the production process has an effect on almost every sub-area. At Klaus Backes GmbH e.g., it was possible to optimise the entire production process with a new tool system instead of the outdated spindle tool.



With the GE100 tooling system, we were able to increase our productivity

„The GE100 team and the Gühring sales representatives provided us with all-round support and advice right from the start of our tool enquiry.

The customised design of the tool through to the selection of the appropriate insert reflects the quality of this team 100 % in the results. Cutting data recommendations as well as personal support during the running-in process were self-evident. With an increase in the tool life of 1.3 times and 100% increase in the feed rate, our expectations were more than exceeded.

We are looking forward to further cooperation and we can fully recommend GE100!”

Daniel Backes
Production manager
Klaus Backes GmbH Machine building and tool manufacturing



Your way to reduce costs in batch production

Would you also like to optimise your batch production through a new tool strategy like Klaus Backes GmbH?

Then, the GE100 team of Gühring KG is at your disposal.

From advice on tool design to profitability calculations. Everything is completely free of charge for you.

Contact us now and you may be able to benefit from cost savings in your production in just a few weeks.

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