

Elpex AG: From jigsaws to automatic enclosure machining

CUSTOMER REFERENCES

Electrical engineering & automation



Customer: Elpex AG
Industry: Panel builder for food, automotive and construction industries
Company size: 40 employees
Established: 1989
Headquarters: Kirchberg, Switzerland

The possibilities for engineering software and automated machines to achieve significantly enhanced efficiency in control and switchgear manufacturing are demonstrated impressively in the projects realised by Elpex AG from Kirchberg in the Swiss canton of Berne. With its 40 employees, the company plans, builds and supports the users of complex switchgear solutions for the food, automobile and construction industries, as well for machine manufacturers and automation providers. Many of the systems which are equipped with Elpex controllers are in use worldwide. In conjunction with the move to new premises in Kirchberg, the production facilities were also modernised. First of all, the engineering was brought up to date. The electrical planning and enclosure

layout are now handled with Eplan Electric P8 and Eplan Pro Panel respectively. This software enables the planners to implement their concepts and designs for control enclosures, switchgear and flexible power distribution systems in 3D. To further automate its workshop processes, Elpex now uses a Perforex machining centre and a Secarex AC 15 cutting centre from Rittal Automation Systems.



“We are very satisfied with the Perforex and our employees enjoy working with it. The fact that they no longer have to do the drilling themselves is greatly appreciated.”

Sandro Müller,
Project Manager

THE PROJECT

The Challenge

- Boosting efficiency and innovation and cutting costs

The Solution

- Eplan Electric P8 for engineering and Eplan Pro Panel for construction planning
- Automation of processes with Perforex processing center and Secarex cutting centre
- Optimised cutting waste and lower costs
- Higher-quality enclosures
- Winning new customers



Workshop automation

The modernisation plans at Elpex cover not only the engineering, but also enclosure machining. The challenges for control and switchgear manufacturers are actually quite straightforward: On the one hand increase efficiency and innovation, but at the same time reduce costs. That succeeds best through optimisation of the different production processes. In the past, control and switchgear manufacturers had rarely automated their workshop processes – drills and jigsaws were the standard tools for the modification of panel parts.

Faster work processes

Elpex has expanded its production facilities with a Perforex machining centre and a Secarex AC 15 cutting centre from Rittal Automation Systems. The workers used to measure and cut the cable ducts and rails by hand – a very time-consuming work process. That has now all changed with the Secarex cutting centre. It is extremely simple to use and cuts wiring ducts, duct covers and support rails to the desired lengths quickly, exactly and reliably. An integrated printer enables project-specific labelling of the various rails and ducts. At the end of the day, the cutting centre contributes to further improved quality, minimised cutting waste, lower costs and a faster overall process.

Your partners of choice for state-of-the-art panel building and switchgear manufacturing.

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Elpex has been able to take these benefits one step further with the purchase of a Perforex BC 1001 HS machining centre. All mechanical machining tasks required during assembly of an enclosure – such as drilling, tapping and the milling of cut-outs – can be realised in a single step, which speeds work up considerably. Panel parts up to 2,450 mm x 1,600 mm and cubic parts up to 1,600 mm x 1,400 mm x 1,600 mm can be clamped and machined on the Perforex, which is moreover prepared to handle all the materials which are typically encountered in control manufacture, such as steel, stainless steel, aluminium, copper and even plastics. The CNC machine is programmed with data supplied directly from the 3D planning with Eplan Pro Panel. Through this optimised interaction of engineering and automatic enclosure machining, Elpex has been able to accelerate its processes by up to 50%. At the same time, quality is also enhanced: The enclosures look so much better than when they have been drilled and cut by hand.

Punctual deliveries

Thanks to the Perforex and Secarex, several hours of production time are saved, and many a night shift is also no longer necessary: After all, the customer has always demanded punctual delivery of the final control solution – with or without Perforex. Furthermore, the modernisation of Elpex's planning and manufacturing activities has opened up new fields of business. With optimised equipment in engineering and in the workshop, the company is able to stay abreast of the competition, and has already received orders from numerous new customers.

