

Reducing design time to boost capacity at Burnell Switchgear & Control

CUSTOMER REFERENCES Switchgear & Control Panels



Customer: Burnell Switchgear and Control
Branch: Switchgear
Foundation: 1972
Headquarter: Dartford, UK

When power distribution specialist Burnell Switchgear and Control needed help with increasing productivity to cope with its fast-growing order book, the company approached EPLAN for advice.

The EPLAN engineers soon discovered that not only would EPLAN Pro Panel CAE software deliver big savings

in engineering and design time, but a Rittal Perforex fully automated machining centre would bring equally significant time savings for production operations.



THE PROJECT

The Challenge

- They had a design and manufacturing bottleneck.
- Burnell Switchgear and Control had waste of materials.

The Solution

- With Perforex and EPLAN Pro Panel their problems could be solved.



Burnell Switchgear and Control offers mission-critical power distribution solutions based on fully certified and accredited systems. The company operates from production facilities in Dartford and Gravesend, and the majority of its products are customised to meet individual client requirements. Strong and sustained growth in demand for its products meant that the company needed to reduce design and manufacturing time to boost capacity. The Burnell Switchgear and Controls management team decided that implementing a CAE system would help, and asked EPLAN to advise.

Control cabinet switchgear in 3D

“We realised that we needed a design solution that would overhaul our engineering operations and help us to streamline our manufacturing processes,” explained Piotr Wozniak, Project Manager at Burnell. “So it was an easy decision to get in touch with EPLAN, as the company is the leader in the CAE field. After looking at our requirements, the EPLAN engineers suggested that we should visit the Rittal Innovation Centre in Germany, so that we could see first hand the benefits of EPLAN Pro Panel, and also the Rittal Perforex machining centre.” EPLAN Pro Panel enables engineers to design and lay out switchgear and control panels. It handles

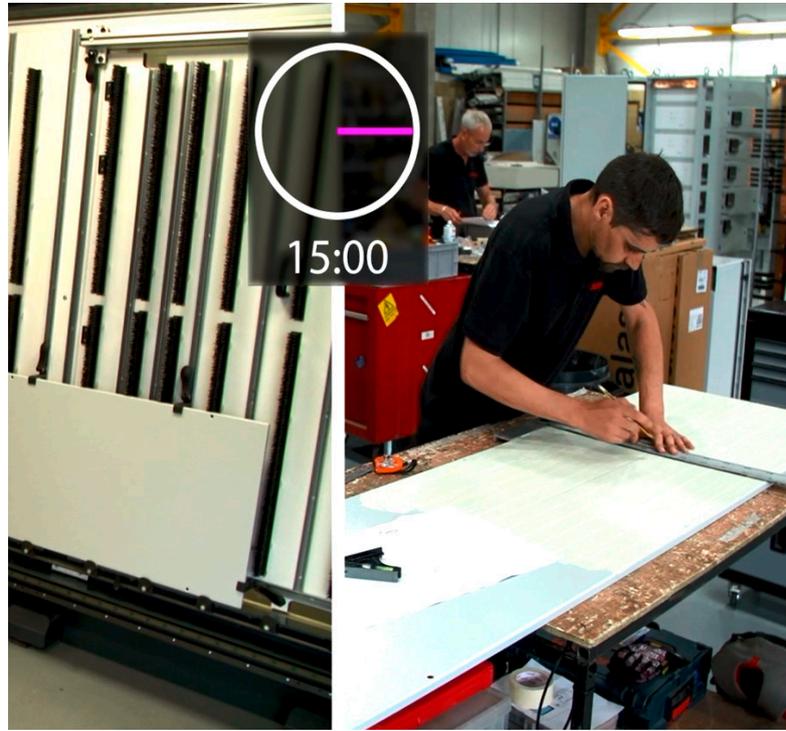
all wiring, component mounting and busbar configuration details, and produces 3D views so that engineers and customers can see exactly what the finished panels will look like, even before work begins on building them.

The virtual 3D model of the control cabinet switchgear system helps designers make best use of the valuable control panel space. Integrated planning aids such as collision testing, adherence to manufacturer installation guidelines, minimum clearances and bending radii, allow quick and optimum positioning and installation.

Designed with flexibility in mind, EPLAN Pro Panel allows the user to choose their preferred approach, whether it is based on equipment lists, connection lists, or circuit diagrams. All necessary components can be easily entered and positioned on the 3D layout, thanks to the innovative eTouch technology.

“While we were at the Rittal Innovation Centre in Germany, we checked out the Rittal Perforex machining centre, which automatically drills holes and cuts apertures in enclosures, doors and mounting plates, using data generated by EPLAN Pro Panel,” said Piotr, “and, having seen the machine in action, it wasn’t difficult to decide that we needed one. So,





in the end, we purchased licenses for EPLAN Pro Panel, and a Rittal Perforex machine!”

8 hours with manual tools, takes only 15 minutes on the Perforex machine.”

CNC Machining

Perforex is a CNC machine tailored to the challenges of switchgear manufacturing. It is ideal for the automated production of holes and cutouts in sheet metal, and can also tap holes to facilitate component mounting. Rittal Perforex machines are suitable for all materials typically found in switchgear and control panels, including steel, aluminium, copper and plastics. Moreover, an automatic tool changer allows multiple tasks to be performed in a single operation, without the need for operator intervention. Importing the design data directly from EPLAN Pro Panel design software further enhances productivity.

“For use alongside EPLAN Pro Panel, Rittal Perforex was a natural option for Burnell Switchgear and Control,” said Jarett Lathey, EPLAN Regional Sales Manager. “Compared with traditional manual methods, Rittal Perforex delivers vastly improved efficiency and productivity when manufacturing switchgear and control panels. In fact, the company has told us that preparing a door which used to take at least

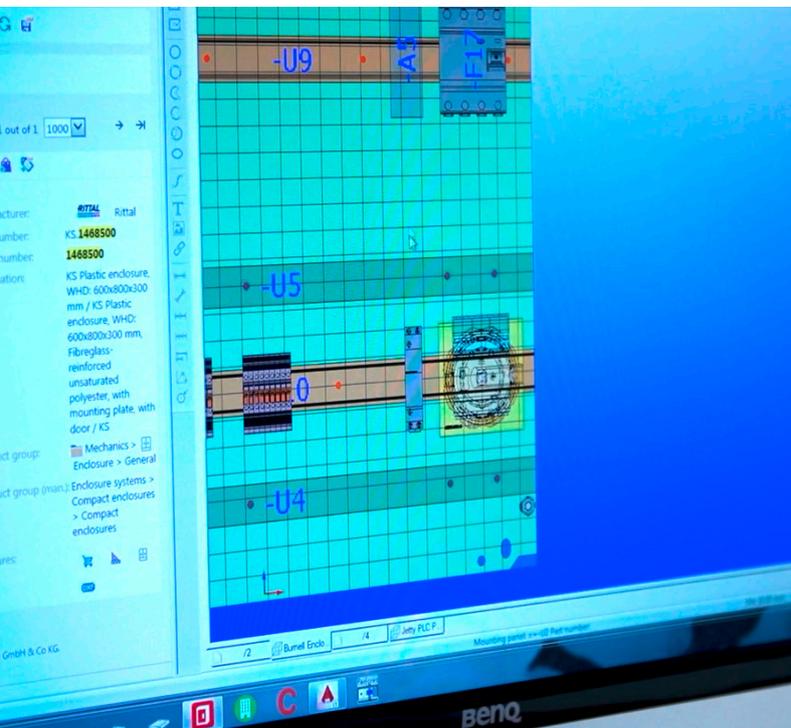
EPLAN Data Portal

In addition to EPLAN Pro Panel and Rittal Perforex, Burnell Switchgear and Control also use the EPLAN Data Portal, a web-based platform with information from major suppliers of electrical, mechanical, fluidic and pneumatic products. This provides Burnell’s engineers with instant access to accurate and up-to-date information for almost all of the components they use in their systems, in a format that is directly usable in EPLAN Pro Panel.

The EPLAN Data Portal is expanding constantly, but at the time of writing it contains more than 800,000 components from over 220 manufacturers.

At present, Burnell Switchgear and Control has three trained engineers using EPLAN full time. The company expects that by the end of the year it will have six fully trained EPLAN specialists, and has already purchased an extra 20 days of training for future use.





What the customer needed: EPLAN

“With EPLAN Pro Panel and the Perforex machine we have greatly increased our productivity and capacity,” enthused Piotr. “More and more customers are asking what software package we’re using and we’re finding that EPLAN is becoming the gold standard for our industry sector. Thanks to this winning combination - EPLAN Pro Panel, Rittal Perforex and the EPLAN Data Portal - we are now increasing our lead over competitors, and going from strength to strength.”

A video testimony for this case study is available on YouTube:

<https://www.youtube.com/watch?v=E5jAmEe5wl&feature=youtu.be>

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