

## Glazing of Dresden Main Railway Station



The Dresden mail railway station is to be renovated in the design of Sir Norman Foster as almost the last large German railway stations of Deutsche Bahn AG.

Although the area above the platforms contains a new extremely tear-proof membrane roof (Teflon roof made from fibreglass) instead of a glass roof, a part of the roof in the station concourse is made of glass.

Insulating panes of glass of 4.47 x 2.00 m from ESG12 with SZR16 and VSG 20 TVG glass protection with screen prints, weighing around 700 kg and 48 mm thick had to be assembled in the station concourse. 90 of these large glass panes had to be produced and then installed.

The specialist company Glas Zange (<http://glas-zange.de>) from Weiden has the necessary technical knowledge and the required stock of machinery to produce the insulating glass of 6 m x 3.21 m.

Even unusual requirements do not present a problem for this specialist.

For this work, the building trade association, Bayern & Sachsen required a vacuum lifting device that meets the EU standard EN 13155.



An essential requirement of the standard EN 13155 is a redundant vacuum system for vacuum lifting equipment, i.e. a vacuum lifting device with two independent vacuum circuits and the associated functionality to control the vacuum. Each vacuum circuit must be able to support twice the nominal load easily. Only a handful of manufacturers are able to offer 2-circuit devices that can meet these requirements. Pannkoke Flachglastechnik GmbH from Lübeck (<http://www.pannkoke.de>) is one of the manufacturers to offer such vacuum lifting devices and completely got to grips with the issue of "redundant vacuum-lifting devices" early on.



For the glazing to the roof of Dresden's main station and for other projects, Glas Zange extended the machinery required for such glazing work to include the **battery-powered vacuum lifting device KOMBI 7211-DS3**.

The **battery-powered KOMBI 7211-DS3** device with a maximum load bearing capacity of 1000 kg was ordered to turn through  $\pm 360^\circ$  and to pivot through  $90^\circ$ . The device is built very flat for the considerable weight of the panes. Six extensions made it possible to adapt the tool specifically to the challenges of the building. The device's properties played a decisive role in awarding the contract.

The experienced staff from Glas Zange in Weiden was able to glaze the roof of Dresden's main station quickly, easily and effectively. The actual glazing of a glass pane only took around 10 minutes. Besides the **battery-powered KOMBI 7211-DS3** there was a construction site crane available for this work.

Thanks to the technically sound solution offered by the pivot mechanism, it was possible to manoeuvre the large panes easily from a vertical position into the required slope of the roof. The possibility of being able to stop the pane every  $3^\circ$  with the locking mechanism eased glazing specialists' work considerably.

The investment in the new equipment technology from Pannkoke Flachglastechnik GmbH is for the Weiden specialists a further important step towards securing their future.

