

Angular Glazing with a standard vacuum lifting device



A major German furniture company has found a new look for its outlets! Including an extensive and colored overhead glass curtain wall. 5000m² colored laminated glass panes per construction object will be mounted into the steel curtain wall, that is tilted outward.

The SL-2ESG-VSG pane is produced by Steindl of Itter, Austria and is 5950 mm x 2500 mm large. The pane will be glazed by the company Kuball Glaserei und Glashandel GmbH of Hamburg.



Kuball will use Pannhoke Flachglastechnik GmbH of Lübeck's know-how to select the right devices for the project. However, instead of a simple vacuum lifting device, the company wants a multi-use device for the task, such as the battery-operated vacuum lifting device Kombi 7211-DS3.

The Kombi 7211-DS3 vacuum device can turn up to 1000kg up to +/- 360° and tilt up to an angle of 90°. Although the vacuum lifting device is designed for 1000kg, it has a very flat structure, which is well-suited for glazing between scaffolding and the structure. The six extensions enable an individual adjustment to the demands at the construction site. The vacuum lifting device naturally meets the standard requirements of EN 13155.





One of the major challenges of standard EN 13155 is the redundant vacuum system for vacuum lifting devices, meaning a vacuum lifting device with two independent vacuum circuits and corresponding monitoring function for the vacuum. Each vacuum circuit must be capable of maintaining the nominal load with a safety factor of 2. Not many manufacturers create 2-circuit devices that meet these requirements. Pannkoke Flachglastechnik GmbH of Lübeck (<http://www.pannkoke.de>) is one of the manufacturers who does offer such a vacuum lifting device and has studied the issue of "redundant vacuum lifting devices" from early on.



The combination with the counterweight unit Balance5 enables the vacuum lifting device to handle the outward-tilted steel curtain walling.

The Balance counterweight unit has been used many times, and in this combination becomes a form of universal device that can be used for almost any problem at a construction site.



The Balance counterweight unit has a non-fixed counterweight. To ensure the device is suitable for a construction site, the moving motion is controlled by a battery-operated DC drive. The drive is equipped with a speed control mechanism for micro-controlling the inclination movement and can also be set from a operating switch. The work was greatly simplified by the micro-level setting of the inclination angle and the non-fixed counterweight. This also minimized the safety risk and enabled the glazing to be accomplished quickly.



Thanks to the great solution by Pannkoke, Kuball was able to maintain the tight schedule with minimum personnel.

The investment in the new device technology from Pannkoke Flachglastechnik GmbH is another important step toward ensuring the future of their company for Kuball, the specialist company from Hamburg.

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