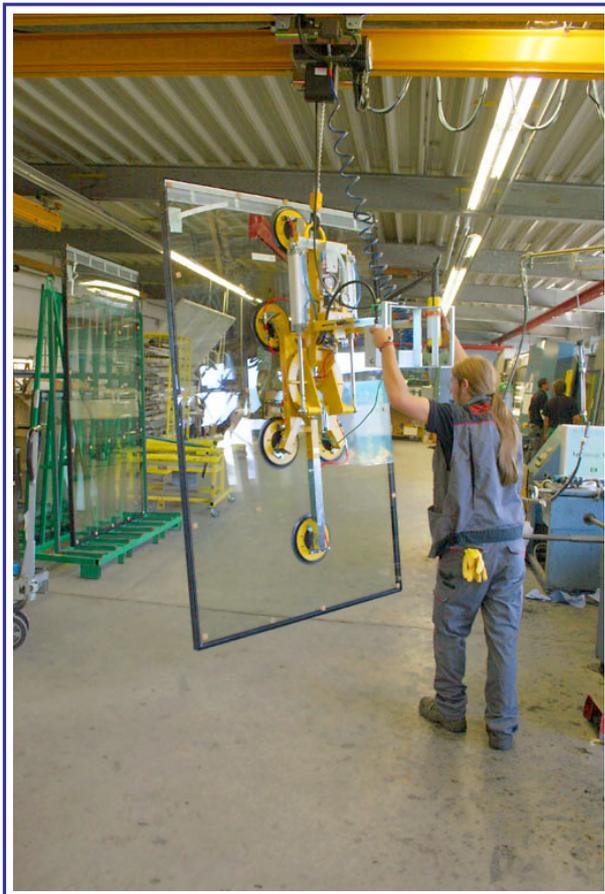


Easily operated vacuum lifting device for the production of isolettes



The Glas Schuler Company required a flexible vacuum lifting device for turning and tilting glass pane weights up to 500 kg, in order to achieve a more rational production of isolettes, an insulating glass pane with built in jalousie.

The Glas Schuler Company (www.isolette.de) has been already occupied for over 325 years with the manufacture of glass, to be more precise since the year 1679. At the beginning of the 70's, production of insulated glass panes was taken up and the first isolette was manufactured just 20 years ago. This is an insulated glass pane with a controllable jalousie built in between the panes, thereby enabling control of the light in the room. Today fourth generation isolettes are manufactured. An isolette is equipped with an electronically controlled electric motor, which is bus-compatible and can be externally programmed. The room lighting of complete faces of a building can be thereby controlled, e.g. via sunlight sensors and / or internal light sensors. There are several licensees for this technology world-wide.



The isolettes are sealed manually and must be moved from the horizontal sealing table vertically onto the transport carts or transport racks. The maximum size of isolettes manufactured by Glas Schuler is 2.6 x 3.0 m. Hand made custom versions are also possible up to a height of 4 m. The isolettes are turned in such a way that the internally built in jalousie is always the bearing area for transport to the customer. This ensures that the built mechanical system is hardly strained during transport.

For this reason not only the powerful swivelling movement but also the rotary motion was an important criterion for the vacuum lifting device. The device should be easily adaptable to the different dimensions due to the different sizes of the isolettes. It was at Pannkoke Flachglastechnik GmbH (www.pannkoke.de) from Lübeck that the Glas Schuler Company found the required vacuum lifting device, i.e. the manipulation device 7025-MDmS4/E.



The small frame with the four suction caps enables moving small panes and the four extensions, which can be mounted at six possible positions of the basic frame, also enables moving larger panes easily and safely.

The new model series of manipulation devices of the Lübeck specialists does not offer anything particularly new at first sight. Only when using the devices does the operator recognize the many small improvements in comparison to the earlier solutions. The safety standard EN 13155 is complied with due to the closed vacuum circuit and the associated monitoring systems.

A control vacuum meter displays the work and danger area of the vacuum in various colours. A vacuum sensor with an acoustic warning signal is additionally integrated, which warns of a too low vacuum. A compressed air monitoring system is installed with another acoustic signal, in order to monitor failure of the power supply. Operation is carried out by means of the guide handle of the device. The two-function release device can be operated with one hand. It is possible to transport the panes nearly vertically due to the special selection of the point of suspension.

In order to achieve the best solution for the space conditions and to thereby be able to produce the isolette rationally, the correct lightweight crane was used in the Glas Schuler factory apart from the optimal vacuum lifting device.

This investment has already paid off for Mr. Schuler, since the work can now be carried out by only one employee and much faster.

Author:
Dipl.-Ing. Bernd Pannkoke
Pannkoke Flachglastechnik GmbH



