

Sinius, the powered bi-fold door as a landing door

In many German automotive industry sites as well as in factories of the chemical factories and heavy industry facilities, there are a considerable number of powered landing doors, designed as four-panel folding doors.

These doors were manufactured, distributed and installed by two well-known German lift companies about 30 - 40 years ago. Both manufacturers are now integrated into corporate groups and no longer offer such doors in this form. These existing folding doors are now old and very prone to failure. In the event of them being damaged, they can only be repaired in a makeshift manner.

In the past, both lift owners and consultants have repeatedly initiated the search for a replacement product.

Replacing these special doors with swing doors or vertical lift doors has proven to be impractical for a variety of reasons. That is why Meiller decided to develop a completely new door that could replace

both of the folding landing doors previously used. The most important specification was that the construction space of the new door must be such that the existing door types can be replaced 1:1 without masonry work.

Furthermore, this new door must comply with all safety aspects specified in the standard. Although EN 81-20/50 does not mention powered landing folding doors, according to the current state of the art a folding door must in any case provide the prescribed impact force of 150 Nm, the 10J closing energy and the 4J forced-closing energy. The Munich manufacturer had the development of this door accompanied by TÜV Süd right from the start in order to keep safety at the highest possible level.

The result is the four-panel powered bi-fold door "Sinius". All required safety levels are achieved without the need for on-site measures, such as safety edges, entrance monitoring or similar. The di-

mensions range from 2000 mm to 4000 mm door widths and from 2000 mm to 3000 mm door heights. The door is always supplied powder-coated and fulfils protection class IP 54.

"SINIUS" is designed for use with cars without a car door, but can also be combined with the Genius Plus i roller shutter door as a car closure. Each side of the door is driven by a motor and a premium control unit from the MiDrive range controls the system.

As this is an extremely robust industrial door, a great deal of importance was attached to ensuring the longest possible availability even with dented door panels. Defective door panels can be replaced without much effort. Although the door still must be grouted on site, the replacement of the sill guide segments in the event of damage is very straightforward.

The "Sinius" door was primarily developed to replace the existing four-panel

"Sinus" automatic bi-fold landing door



folding doors of other manufacturers in a simple and uncomplicated way. The customer now obtains a modern, standard-compliant product that guarantees the function of the lift system for decades to come. It should be noted that all doors on one access side of the lift must always be replaced.

Such doors could also be used for industrial lifts or goods lifts that are equipped with large swing doors and that are to be modernised. We will have to wait and see whether new systems will be equipped with "Sinus", but this door is definitely suitable for this purpose.

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