

A sliding lift door with 8.0 m clear width and 5.0 m clear height? This is now reality, not just wishful thinking. At the beginning of 2019, Meiller Aufzugtüren GmbH, the innovative lift door manufacturer from Munich, introduced the new oversized sliding door Zenit® Xtreme onto the market.

As the name says, everything in this door is extreme: door widths from 2,400 mm up to 8,000 mm as a six-panel center-opening sliding door and from 1,600 mm up to 5,300 mm as a four-panel center-opening door. In each case, the maximum door height can be up to 5,000 mm.

The extremely robust door concept is designed especially for tough industrial conditions. The sophisticated technology guarantees operators a high availability of the lift system.

The transoms are sturdy welded constructions with additional jambs with which the door is fastened.

An impact profile is fitted to protect the door panels and lateral frames; when open, the door panels are 50 mm behind this profile and are therefore protected. The impact profiles, sills, the upper and lateral frame can all be replaced individually in the event of damage.

Product features of the Zenit® Xtreme in detail

The landing and the car doors are driven individually by innovative MiDrive® door drive system. The doors are synchro-

nised via the optical coupling, instead of by mechanical skates in combination with hook locks, which are usually used. This means that door malfunctions caused by movements or load shifts of the car are no longer possible. In addition, even the smallest sill gaps can be navigated. The door function is thus independent of the onsite holding device as well.

The drive, telescoping and return are carried out exclusively with a chain drive. This is extremely robust, has a high load-bearing capacity and means much less setting effort in comparison with ropes.

With all door widths, the transom, upper frame, sill bracket, sill and toe-guard are divided in the middle, which makes the individual assemblies easier to handle and install.

The new heavy-load door is characterised not least by its easy assembly: the transom is attached to the masonry by means of the mounting bracket on the transom and its height is aligned by means of a setting aid. It is adjusted in a vertical direction using jacking screws.

The high load bearing steel sill is always in two parts. The guide grooves are lasered only as far as this is necessary for the travel of the door panels. This means that guide grooves are not visible when the door panels are closed. The sill's maximum wheel load is 5.0 t.

Thanks to its drive system, the landing door of the Zenit® Xtreme has a power-



Replaceable impact protection for the door panels

assisted emergency rescue function. The door drive system detects an emergency rescue through the triangle in the door frame. This opens the door automatically by 50 mm and it stays in this position. The personnel now have an opportunity to move to the middle to the closing edge, and to take hold of the door at the best point for applying force. If there is no manual door movement within 10 s, the door closes and locks automatically, and the lift installation can restart normal operations.

The door controller detects a force applied to the door panel as long as the door drive system is in rescue mode. The drive supports this electrically, similar to power steering in a car. In this way, even the heaviest doors can be moved with little effort.

A conventional closing weight was deliberately done without here, in order to increase safety during maintenance. A closing weight that is able to close a door weighing 1,600 kg leads to an unintended high door speed. The risk of injury to persons in the area of the door would be too high. For this reason, the drive system has an electrical closing device that closes and locks the landing door in a controlled manner.

If a landing door is unlocked by means of a triangular key and opened, a closing weight is simulated electrically after 5 seconds standstill. The difference to a conventional closing weight is that the door closes in a controlled manner at nudging speed. The kinetic energy that is caused is restricted in this way to 4J, and the risk of injury is minimised considerably.



Zenit® Xtreme – the heavy-duty door with extreme dimensions

Because this door concept works without a skate and hook bolt, different door heights are possible in a system without any problems, and a ramp drive is also conceivable.

The rollers and the kicking rollers are produced from a cast polyamide composite and then pressed together with encapsulated ball bearings. The roller contour is adapted optimally to the tracking rail. Each of the two rollers has a diameter of 120 mm.

The side of the emergency release at the landing door is freely selectable on site, so that this can be adapted, for example, to the existing shaft pit ladder.

All sheet metal parts are made as standard from zinc-magnesium coated or hot galvanised sheets.

The frame and the sill with the substructure can also be made completely of V2A. The door panels are available with stainless steel cladding, but can also be made completely of V2A.

Zenit® Xtreme is supplied in designs in accordance with EN 81-20 and EN 81-50 with an additional type examination. A fire tested version in accordance with EN 81-58 for specific dimensional ranges for these doors will supplement the offer in the second half of 2019.

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