

HIGH-SPEED TURBO DOOR, type “EFA-STT®-L”

Manufacture, delivery and installation of:

High-speed turbo door, type “EFA-STT®-L”, with electro-mechanical high-performance door drive for permanent industrial applications

The door system primarily consists of:

Self-supporting steel side frames, steel parts (which are generally galvanised) and spiral-shaped door-leaf attachments

The force is applied on both sides: To achieve this, a synchronised drive is installed. Ball-bearing precision rolling units have to be used for the precise, smooth and low-noise guidance of the hinge strips. A sufficiently dimensioned tension spring mechanism, ensuring the weight balancing of the door leaf and manual opening of the door (e.g. in the case of a power failure), is installed in the door frames, in accordance with DIN EN 12604.

The door leaf consists of laths with a frame made of anodised aluminium as well as transparent infill made of single-walled acrylic glass. The visible surface of the door leaf must be at least 70%, and optical clarity must be ensured permanently.

The SPIRAL BODY is designed to guide the laths of the door leaf entirely without contact, and therefore without wear, and with best noise reduction possible.

Spiral form: Round spiral

The DOOR is driven by a gear brake motor, which must be designed as high-frequency motor. The door positions are detected by means of non-wearing, inductive proximity switches, whereby the limits are determined electronically. Electro-mechanical limit switches are not permissible here.

OPENING SPEED: up to approx. 2.5 m/s
Max. DOOR LEAF SPEED: up to approx. 3.0 m/s
(depending on the door size)
CLOSING SPEED: up to approx. 1.0 m/s

The **MICROPROCESSOR CONTROL** is installed along with the integrated frequency converter in a separate plastic switch cabinet, protection class IP 65. Connection to 230V -50 Hz power supply on site.

The scope of delivery includes an electric safety edge, which is self-monitoring in accordance with DIN EN 12453: The connection cable must be guided and protected within the door frame by an energy chain.

Regulations pursuant to DIN EN 13241-1 are complied with;

Resistance to wind load in accordance with DIN EN 12424, up to class 4

Heat insulation in accordance with DIN EN 12428, up to 6.5 W/m²K

Airborne sound insulation in accordance with DIN EN 7171, up to 20 dB(A)

(values dependant on the door size and equipment)

for clear passage opening dimensions

Width = mm x Height = mm

OPTIONS for high-speed turbo door “EFA-STT®-L”:

Surface

Powder coating of all visible, galvanised steel parts in RAL _____ (metallic colours are not

available)

Powder coating of the lath posts in a colour according to RAL _____

If steel parts as well as lath parts are coated in the same RAL shade, minor deviations in colour, which cannot be fully avoided, may occur due to the different surface structures of the materials. However, the supplier will do their best to keep deviations in colour to a minimum by altering the amount of gloss.

Door blade design:

Surcharge for door leaf filling of single-walled, non-transparent plastic (colour: aluminium-grey).

Surcharge for transparent fillings made from scratch-proof coated polycarbonate

Surcharge for ventilation laths made from single-pane aluminium

Burglary protection:

Surcharge for mechanical locking mechanism. Operated by an interior hand lever.

Alternative safety system:

Surcharge for a self-monitoring, TÜV-certified DOOR LIGHT CURTAIN (EFA-TLG®), completely safely integrated into the side frame of the door. The light curtain is directly active at the door closing level and generates an infrared light curtain which covers almost the entire surface, up to a height of 2.5 metres. Obstacles are detected without contact. This immediately stops the closing movement of the door. Thus, enabling the reversing opening to be initiated at a significantly earlier point in time. Contact bars and/or light barrier(s) are not necessary.