

# Spiral Door



## Helix

The superfast and space-saving Spiral-door

### Properties

- max. W x H = 5000 x 5000 mm, max. surface area (WxH) = 25 m<sup>2</sup>
- U-value at 5000x5000 mm ISO panels: 1,5 W/m<sup>2</sup>K
- high opening speed up to 1,1 m/s
- wind load resistance class 2- 3 according to EN 12424, or up to 10 - 12 Beaufort (89 - 133 km/h)
- low maintenance (200.000 cycles) springless system
- quick and simple installation because of pre-assembled track and drive-system
- EN13241-1 compliant

# Helix

Our research & development department has succeeded in developing an unprecedentedly fast spiral-door with exceptional insulation values. A revolutionary spiral system with specially designed rollers has an uninterrupted chain-/steel-cable system with direct drive. This patented system also contributes to the sleek design of the Alpha Helix. The powerful electric drive has a frequency converter. There is a choice of finishes and controls.

Dimensions	
max. width (W)	5000 mm
max. height (H)	5000 mm
max. surface area	25 m <sup>2</sup> (350 kg)
openingspeed	1,1 m/s
closingspeed	0,5 m/s
section thickness	40 mm
section joint	Finger-pinch-protection
ALU-sections possible	yes
μ value at 5.000 x 5.000 mm	1,5 W/m <sup>2</sup> K (complete ISO)

## Components and construction

The Helix is a high speed spiral door which consists of Microline sections with a working height of 366 mm. During the opening of the door the sections run along a spiral-shaped rail. A powerful drive allows the door to quickly and silently run along the unique rail system.

## Materials

- horizontal sandwich-sections consisting of an outer and inner shell of galvanized steel with a CFC-free polyurethane (PUR) core with finger-pinch-protection
- standard section height 366 mm
- panel thickness 40 mm
- rails made of sendzimir galvanized steel
- vibration-free rollers with ball bearings
- middle hinges in galvanized version
- mounting of door fittings with electrolytically galvanized parkers with serrated fixed ring
- specially developed top and bottom sealing
- unique side seal
- seal between the panels of insulating material

## Surface treatment

- the outside of the sections has a polyester-coating in RAL9002 (Off-white) or RAL9006 (aluminium silver)
- the inside of the sections has a polyester-coating in RAL9002 (Off-white)

## Window options

The Helix is also available with one or more sections made of anodized aluminum profiles, filled with insulating double glazing.

## Drive

The door is powered by an electric motor with gear unit. Drive side on the right or left.

## Technical details electric drive

- power..... 400V 3 ph / N + PE / 50Hz / 16A
- degree of protection ..... IP 65

## Protection

- EN13241-1 compliant
- safety light curtain (IP65 and to max. height 2500 mm). If this curtain is interrupted by an obstacle the door will automatically fully open until the screen is freed again. This does not apply to the door in closed position.
- the door can be manually opened in the case of a power loss
- finger-pinch-protection

## Control and operation

The control system has 3 buttons (open-stop-close) and regulates a multitude of functions such as:

- adjustable open time
- service and run mode
- 7-segment display for controlling the various functions
- choice of permanently open or permanently shut

## Other forms of operation that can be connected to the standard control box:

- push-button, electronic keypad, pull switch, key-operated switch, photocell, radar, induction loop detection or remote control



Available controls:

TS971, TS981

## Structural provisions and connection (by others)

- separate technical data sheets detailing dimensional and structural requirements are available on request
- for both the electric drive and control box a wall socket (400V 3 ph / N + PE / 50Hz / 16A) must be present within 0.5 m at 1500 mm height to the left or right next to the door

## Options / accessories <sup>1)</sup>

### Control and operation

- operation by push-button, electronic keypad, pull switch, key-operated switch, photocell, radar, induction loop detection, remote control etc.
- control box in IP65

### Protection

- leading photocell instead of a lightcurtain <sup>2)</sup> (no wiring on the door leaf)
- connection of traffic lights (red/green or red and green)
- Warning flash light (orange or red)
- electrical system complete in IP65

### Construction

- customer-specified RAL coating on inside and/or outside of the sections (with the exception of fluorescent and traffic colours)
- separate 'wicket door', next to the Helix door (custom made, with fixed panels above or next to the Helix door)

<sup>1)</sup> subject to surcharge

<sup>2)</sup> subject to price reduction

