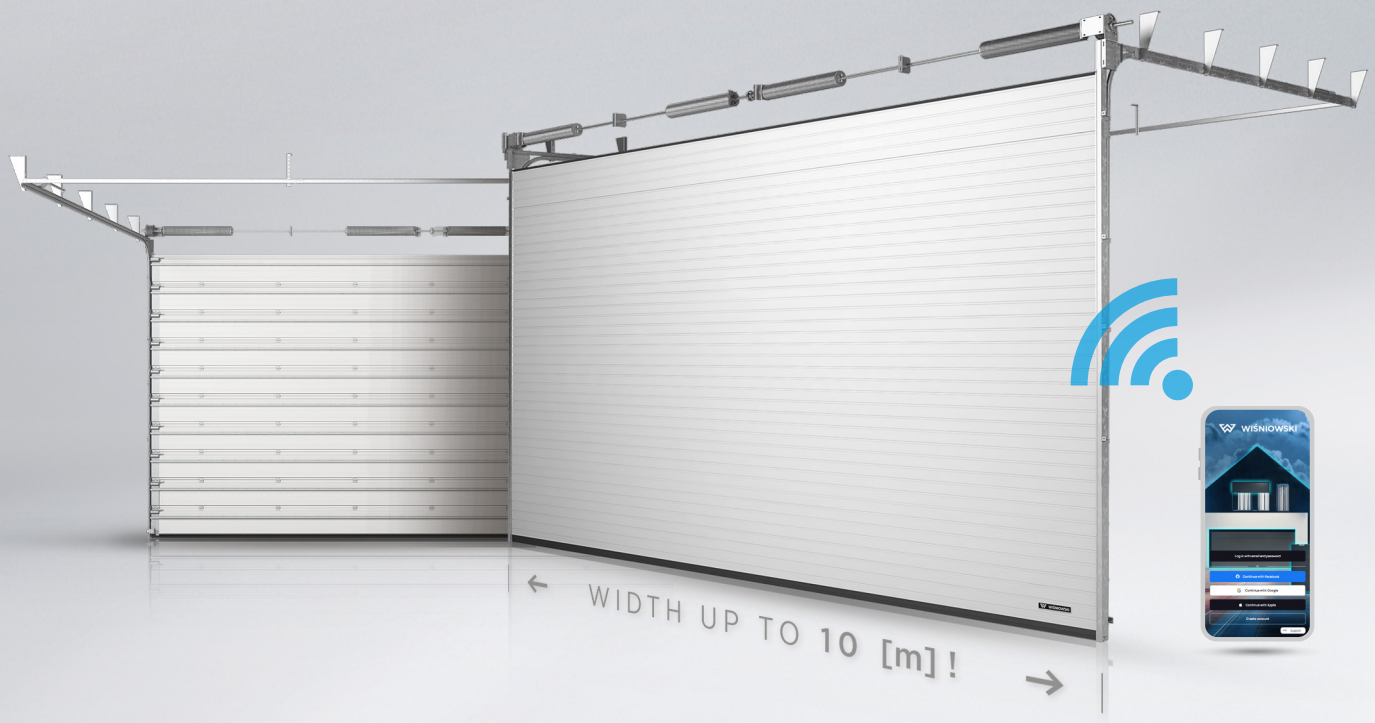
INDUSTRIAL DOORS



WIŚNIOWSKI
GATES | WINDOWS | DOORS | FENCES

SECTIONAL DOORS
MakroTherm XXL

Intended use: The large-size industrial sectional door is intended to be used in industrial facilities, including the food industry (without direct food contact). The door includes vertical and/or horizontal ceiling-mounted tracks and a leaf made of steel panels infilled with freon-free polyurethane foam. The structure is made of galvanized elements. The door is sealed around the entire circumference. To balance the leaf weight, a safe torsion spring system is used. As standard, the door is fitted with an electric actuator with an inverter and a light curtain.

THERMAL INSULATION

Steel panels are made of galvanized sheet, filled with freon-free, hardened polyurethane foam and coated with polyester paint on both sides. This ensures very good thermal insulation and acoustic properties. Each door features a system of flexible and robust gaskets both along the entire circumference and between the panels.

SAFETY

The safety systems involve above all the minimization of all traces of risk. Regardless of the method of the WIŚNIOWSKI door operation, our doors ensure comfort and safety. Our products are fully compliant with the PN-EN 13241-1 standard.

FUNCTIONAL

The MakroTherm XXL large-size industrial door is an innovative product which combines the tried and tested sectional door structure with a state-of-the-art curtain made of the 60 [mm] thick panels. The structure of the MakroTherm XXL door makes it possible to manufacture doors with the maximum dimensions of 10,000 x 5,000 [mm] [width x height].

STRUCTURE

The sectional door is installed behind the opening, it opens vertically upwards and does not take up any space on the forecourt. Sectional doors let you use the space available in front of the door and inside the building to its maximum potential. Thanks to our broad range of track systems, WIŚNIOWSKI industrial doors can be matched with all types of buildings, even non-standard ones. Our solutions enable the door to operate without disturbing the operations inside the industrial hall. Thanks to numerous safety systems, our doors are safe at every stage of opening and closing.

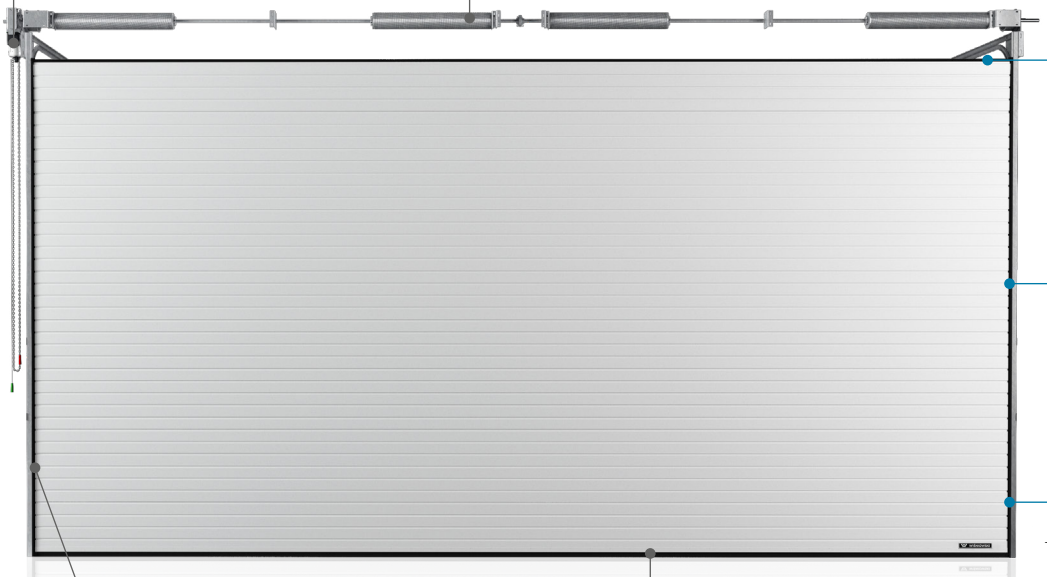
The leaf weight is perfectly balanced thanks to the use of a torsion spring system seated on the drive shaft. Springs are preselected with computer precision and guarantee the best balancing of the door, maximum comfort and safety of use. The doors are made of panels with a special profile that protects fingers against being crushed. All the steel elements are galvanized (tracks, frames, fastening elements). The door is fitted with guiding sliding rollers with bearings ensuring proper running of the door curtain. Tracks featuring a special double profile prevent it from derailing. Convenient operation of the door is ensured by an electric drive unit equipped with a frequency inverter to ensure a soft start and stop of the door.

The MakroTherm XXL door is additionally reinforced with special elements that increase the rigidity of the entire structure. Door panels are coated with high quality polyester paints. This provides optimum protection against the weather conditions and ensures many years of operation. WIŚNIOWSKI doors are an investment that stands the test of time.

Due to the corrosion protection of the doors, they can be used in line with their intended use in atmospheric corrosion class environments C1, C2, C3 in accordance with PN-EN ISO 12944-2 and PN-EN ISO 14713.

Automatic operating units
Fully automated – the SE 25.24 FU series GfA drive unit with an inverter (soft start and stop).

Springs
Torsion springs are made using the shot peening technology that increases their life. The guaranteed minimum number of cycles: 15,000.



The **MakroTherm XXL doors** are fitted as standard with the most effective clear opening protection device – a light curtain 2,668 [mm] in height. A densely packed photocell web prevents the clear door opening from being closed when an obstacle is present in the clear passage.

Bottom gasket
High-quality EPDM gaskets perfectly adapt to the surface.

THERMOSET ™ PACKAGE AS STANDARD:

Double-lip top gasket
The warm, elongated, two-lip gasket ensures double sealing in the top section of the door.

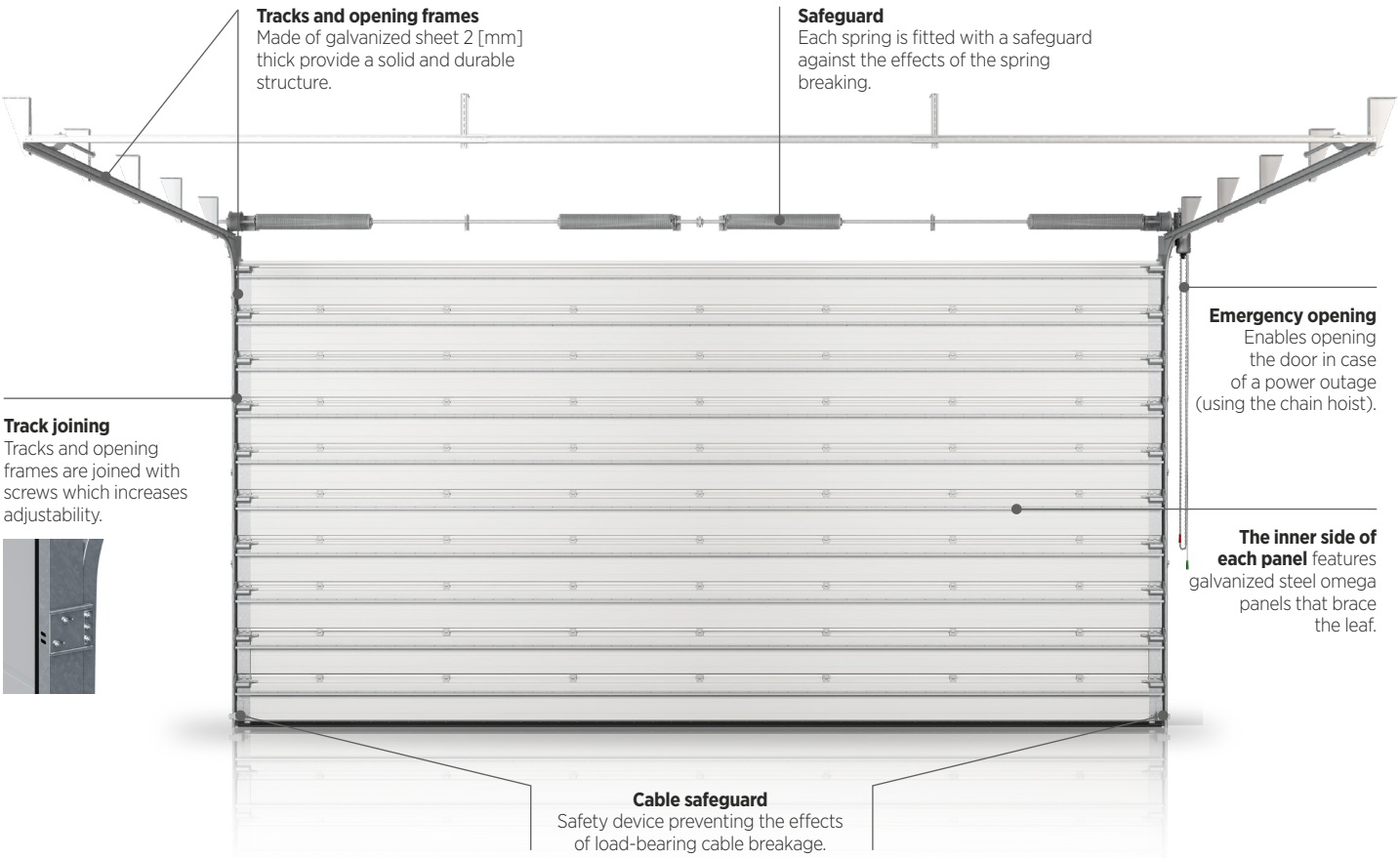


Corner gasket
Corner gasket maximum sealing of the corner of the door.



Double-lip side gasket
The warm, three-chamber, two-lip, hard and soft side gasket is the most efficient solution for eliminating thermal bridges, while at the same time providing a safe distance between the lintel and the door curtain.



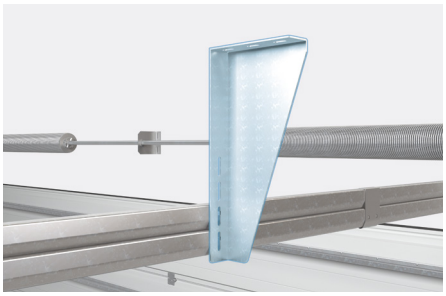




As standard, the door is fitted with the GfA electric drive unit powered by 1x230 [V] or 3x400 [V]. The drive unit provides infinitely adjustable rotational speed, as well as the soft start and soft stop features.



Reinforced double guiding rollers support the increased door leaf weight and ensure quiet and smooth operation.



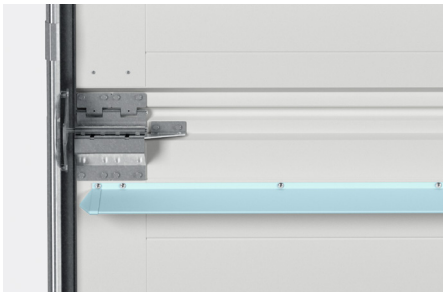
The conventional suspension system of the horizontal door tracks was replaced with special galvanized sheets adapted to the door dimensions.



Double guiding roller holders are reinforced with additional sheets.



The MakroTherm XXL doors are fitted as standard with the most effective clear opening protection device – a light curtain 2,668 [mm] in height. A densely packed photocell web prevents the clear door opening from being closed when an obstacle is present in the clear passage.



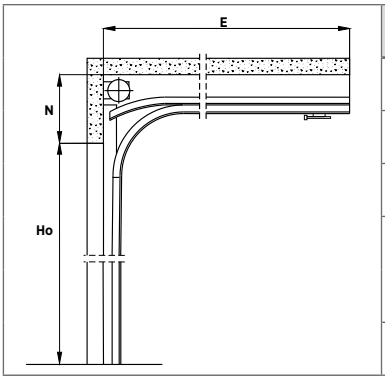
The inner side of each panel features galvanized steel omega panels that brace the leaf.

TRACKS



STL – Standard guides.
Track system for buildings with a standard lintel Nmin = 650 [mm].
For buildings where horizontal ceiling tracks can be used.

The required installation parameters for the STL tracks



		STL	MakroTherm XXL
Sj			So
Hj			Ho – 100 [mm]
N_{min}			= 650 [mm]
W_{1min} or W_{2min}	On the free end		= 330 [mm]
	For side-mounted drives		= 530 [mm]
E_{min}			Ho + 800 [mm]

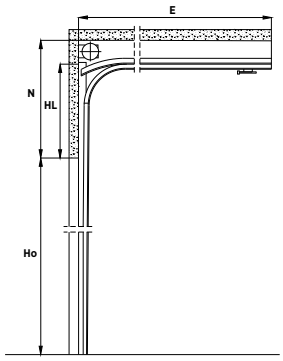
Dimensional range for MakroTherm XXL doors with STL tracks

Opening heightu (Ho), [mm] up to:	**Opening width** (So), [mm] up to:												
	7,000	7,250	7,500	7,750	8,000	8,250	8,500	8,750	9,000	9,250	9,500	9,750	10,000
2,875													
3,000													
3,125													
3,250													
3,375													
3,500													
3,625													
3,750													
3,875													
4,000													
4,125													
4,250													
4,375													
4,500													
4,625													
4,750													
4,875													
5,000													



HL – High guides.
Track system for buildings with a high lintel Nmin > 710 [mm].
Frequently used in industrial hall type buildings.

The required installation parameters for the HL tracks

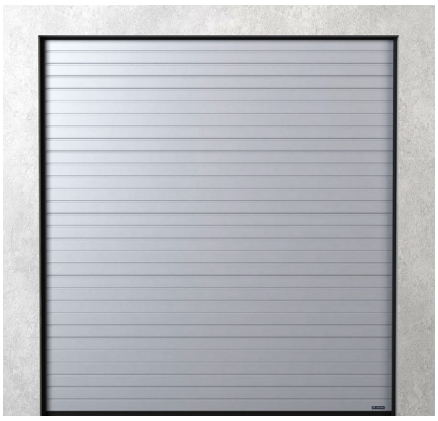


HL		MakroTherm XXL
Sj		So
Hj		Ho
N_{min}		> 710 [mm]
W_{1min} or W_{2min}	On the free end	= 330 [mm]
	For side-mounted drives	= 530 [mm]
E_{min}		Ho – N + 1,470 [mm]

Dimensional range for MakroTherm XXL doors with HL tracks and maximum headroom

Opening heightu (Ho), [mm] up to:	**Opening width** (So), [mm] up to:												
	7,000	7,250	7,500	7,750	8,000	8,250	8,500	8,750	9,000	9,250	9,500	9,750	10000
2,875	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3,125	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3,250	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3,375	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3,500	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3,625	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3,750	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3,875	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
4,000	3,000	3,000	3,000	3,000	2,600	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
4,125	2,000	2,400	2,500	2,500	2,700	2,900	3,000	3,000	3,000	3,000	3,000	3,000	3,000
4,250	2,200	2,200	2,500	2,600	2,800	2,800	3,000	3,000	3,000	3,000	3,000	3,000	3,000
4,375	2,200	2,200	2,500	2,600	2,800	2,800	3,000	2,700	3,000	3,000	3,000	3,000	3,000
4,500	2,200	2,200	2,500	2,600	2,800	2,400	2,700	2,800	3,000	2,700	3,000	3,000	3,000
4,625	2,000	2,000	2,200	2,300	2,600	2,300	2,800	2,800	2,900	2,600	3,000	3,000	3,000
4,750	1,900	1,900	2,100	2,200	2,500	2,200	2,600	2,900	2,700	2,700	2,900	3,000	3,000
4,875	1,900	1,900	2,100	2,200	2,300	2,200	2,400	2,900	2,500	2,700	2,700	3,000	2,800
5,000	1,700	1,700	1,800	1,900	2,000	2,100	2,400	2,000	2,400	2,700	2,600	2,200	1,900

RIB DESIGNS



N – Low ribs

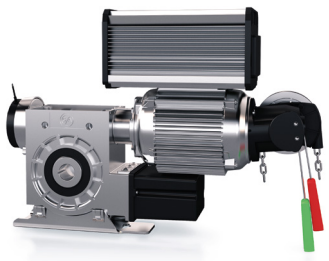
COLOUR
STANDARD COLOUR



White – RAL 9016
structure: woodgrain

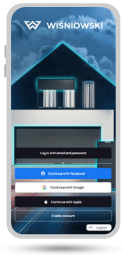
AUTOMATIC OPERATION UNITS

The Elektromat SE: Automatik FU drive units are intended for the MakroTherm XXL sectional industrial doors. The drive unit is mounted on a steel shaft on which winding drums are mounted. The drive unit moves the door by putting the steel shaft in motion.



		MakroTherm XXL
Drive type		Elektromat SE
		Automatik FU
		SE 25.24 FU
Accessories	Standard	• TS 970 control unit: Up – Stop – Down (continuous signal). • Power supply: 1 x 230 [V] or 3 x 400 [V]. • Electronic limit switch, accessible at the operator's position. • SG 2668 safety light barrier. • Upgradeable. • Smooth RPM speed control.
	Option	• TS 981 central control unit: Up – Stop – Down (with impulse maintenance). • Signal light control available. • Smoke extraction function (RWA)(1).
Design		• Self-locking speed reducer gear transmission with electromagnetic brake. • Electric motor. • Drive chain hoist, for emergency door opening, complete with the chain length adapted to the door guide type; when the drive is purchased separately, the chain length is ca. 4 [m]. • Restricted installation orientation. The actuator is installed in the vertical orientation. • Overtemperature protection installed in the drive windings. • Automatic control with an integrated push-button control pad: Up – Stop – Down and an integrated automatic door closing functionality and connectivity with additional devices; complete with a legible display for available function programming and an operating cycle counter. • Power cord, 800 [mm] long, 16 [A] power plug (the socket should be installed next to the central control unit); the control wiring length is adapted to the door guide type, or if the drive unit is purchased separately, the wiring length is 5,000 [mm]; control unit, sized 155 x 386 x 90 [mm] (W x H x D); spiral cable, 3 [m] long when straight.

(1) – The function can be enabled provided that a connection to the smoke extraction system is made and emergency power supply of the door, operating independently of the main power supply switch of the building, is ensured.



WIŚNIOWSKI **CONNECTED**

WIŚNIOWSKI Connected is a modern and free app that lets you control your doors remotely – no matter where you are. The app is available both for mobile devices (Android, iOS) and in a web version for desktop use at: https://smart.wisniowski.pl.



GATE CONTROLLER

Enables remote control of automatic operating units for garage doors and entrance gates, ensuring full control over access to the building. For proper operation, the device must be connected to a stable 2.4 GHz home Wi-Fi network. No additional gateways or access points are required. The device is available with a built-in antenna or with an external antenna recommended in locations with external interference. Device control is carried out via the WIŚNIOWSKI Connected app.

OPTIONAL ACCESSORIES



Code keypad
Operates the door after an individual access code is provided. Can be installed indoors or outdoors.



Proximity card reader
Can be controlled with proximity cards or fobs. Just place the card/fob against the reader to operate the door drive.



Warning lamp
Warning function. Orange blinking light indicates that the door is operating.



LED signal lights
Facilitates traffic management around the door. Set includes two lights: green and red indicating that the door is open or closed.



External key switch
The switch requires a key for the door to operate. Recommended where access must always be controlled.



Microwave motion sensor
The sensor automatically opens the door when a vehicle or a person is in front of the entrance.



Acoustic signal
Warning function. Acoustic signals indicate when the door operates.



Transmitter
Works with the radio receiver and enables control of the drive unit via the WIŚNIOWSKI 868 radio transmission. A single remote control can be used to open four different garage doors.



Photocells
If an obstacle appears in the clear passage, the infrared beam is interrupted, the door stops and returns to the open position.



Pull switch
Sequential door control without using a transmitter.

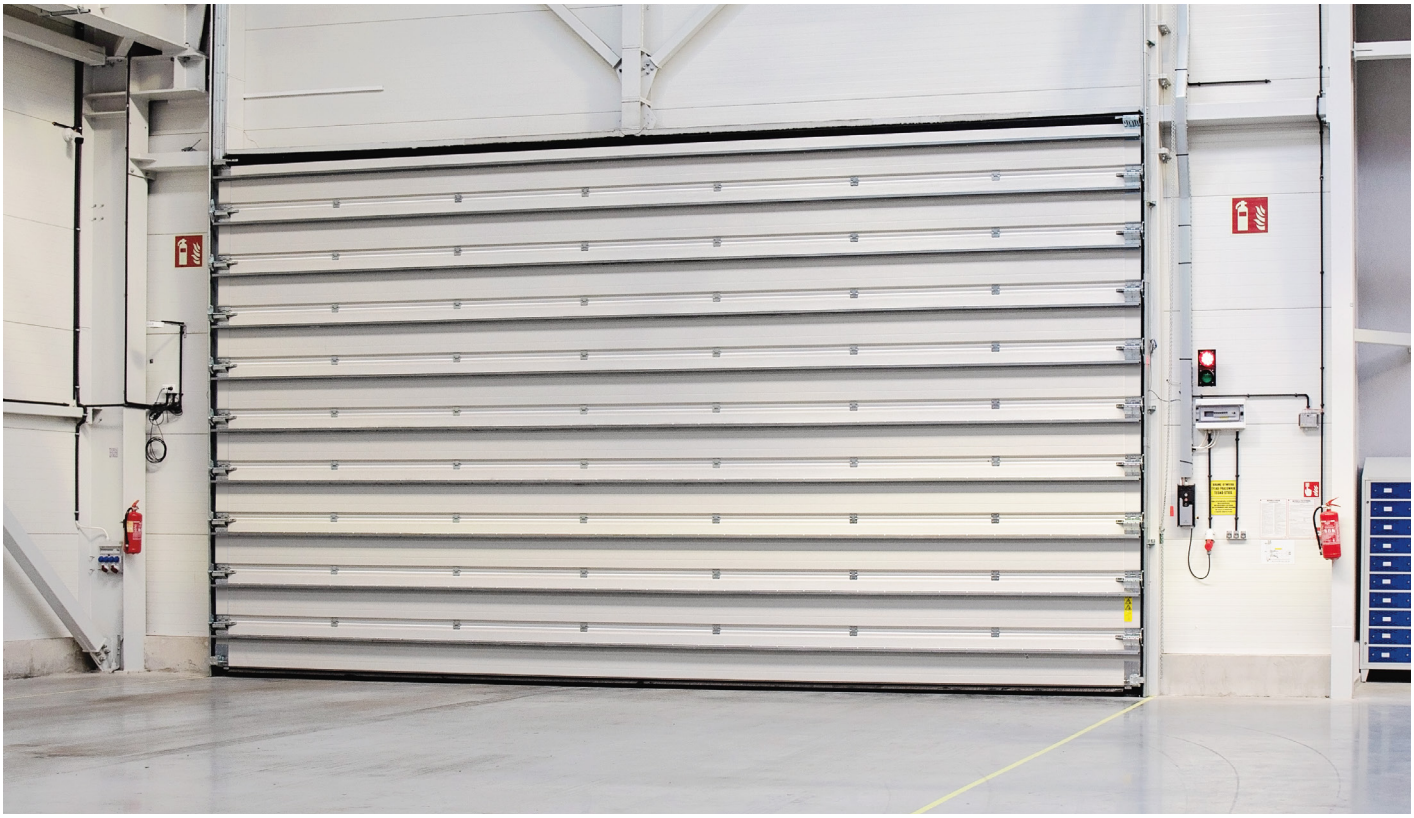


Safety barrier
Secures clear passage in case of accidental door curtain movement.

GALLERY



MakroTherm XXL doors.



MakroTherm XXL doors (as seen from the inside).

TECHNICAL DATA

	MakroTherm XXL
Leaf	Panel, 60 [mm] thick, made of galvanized steel sheet with two-side polyester coating, galvanized and painted on both sides, infilled with high density PU foam g=42 kg/m³ without HCFC
Minimum number of cycles	15,000
Thermal transmittance factor of the panel U [W/m²xK]	0.33
Watertightness class	class 2 in accordance with PN-EN 13241-1 section 4.4.2
Wind load resistance class	class 4 in accordance with PN-EN 13241-1 section 4.4.3
Air permeability class	class 5 in accordance with PN-EN 13241-1 section 4.4.6
Reaction to fire NFP	Fire properties B Smoke production s2 Flaming droplets d0 In accordance with EN 13501-1+A1:2010
Sound reduction index Rw [dB]	24 in accordance with PN-EN ISO 717-1: 1999
Drive type / power supply type	SE 25.24 FU with an inverter (soft start and stop)
Safeguards	Special panel shape preventing fingers from getting crushed, protection against the breaking of load-bearing cables, spring break safety device (on each spring), light curtain.
Optional accessories	50,000 cycle springs, code lock, motion sensor, signal light, LED signal light (red – green), transmitter, acoustic signal, magnetic card reader, pull switch.
Maximum width / height of the door [mm]	10,000 / 5,000
Available panel rib designs	N – Low ribs
Available panel structures	woodgrain
Standard RAL colours	RAL 9016
Custom colours	other RAL colours, special colours, including wood imitating colours, (film coated panels)
Track type	STL, HL

WIŚNIOWSKI

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