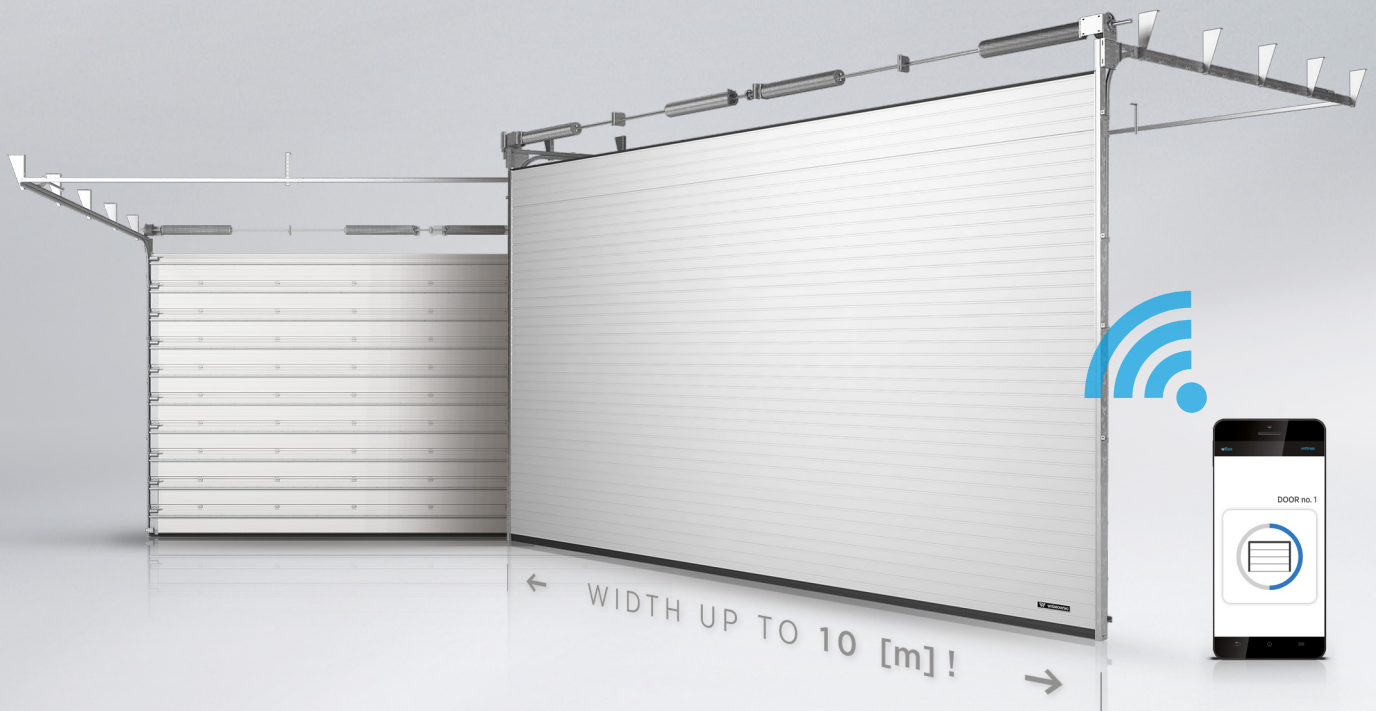


# INDUSTRIAL DOORS



## WIŚNIEWSKI

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 WIŚNIEWSKI 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].



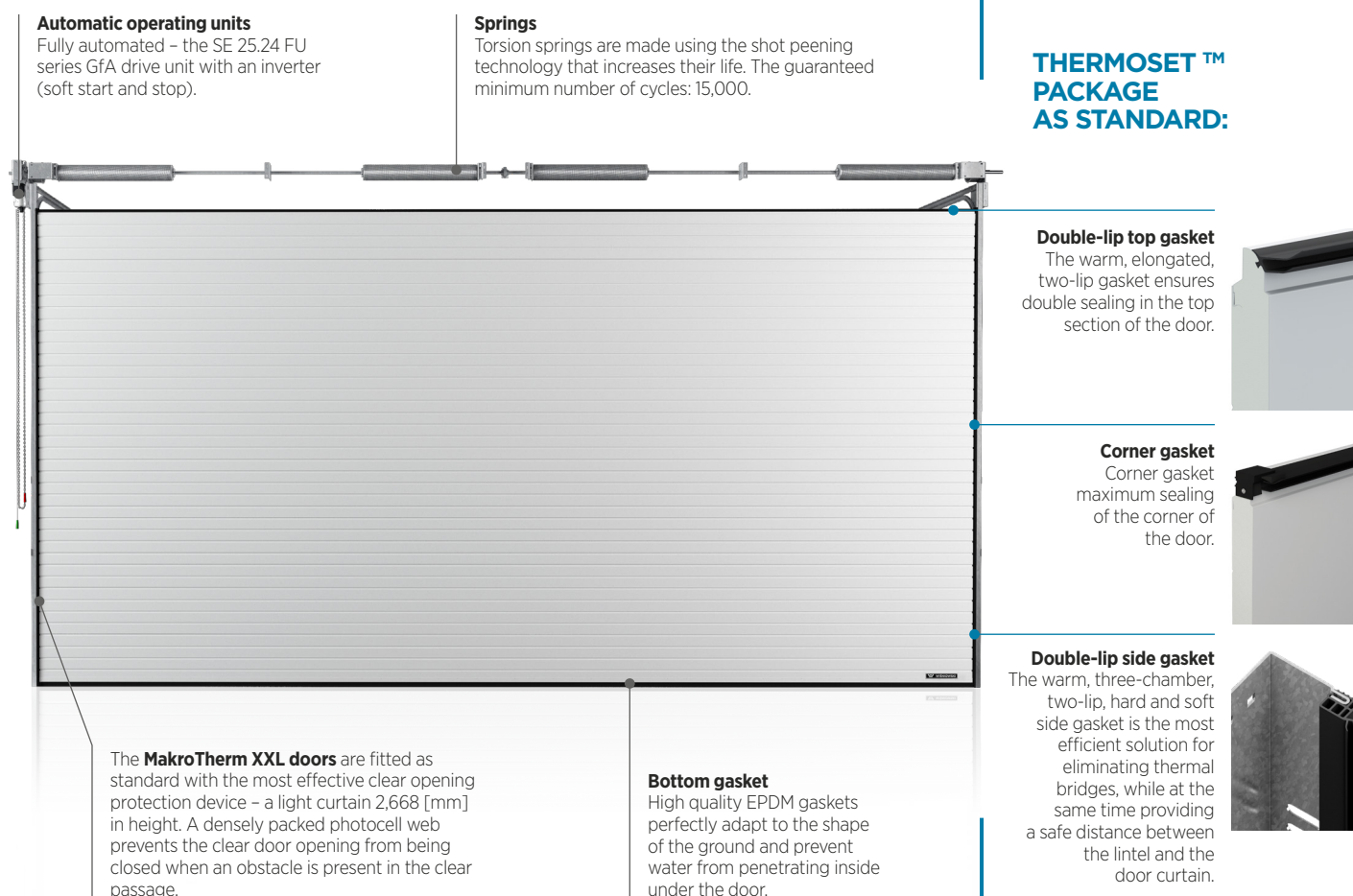
## STRUCTURE

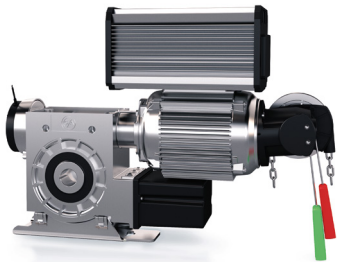
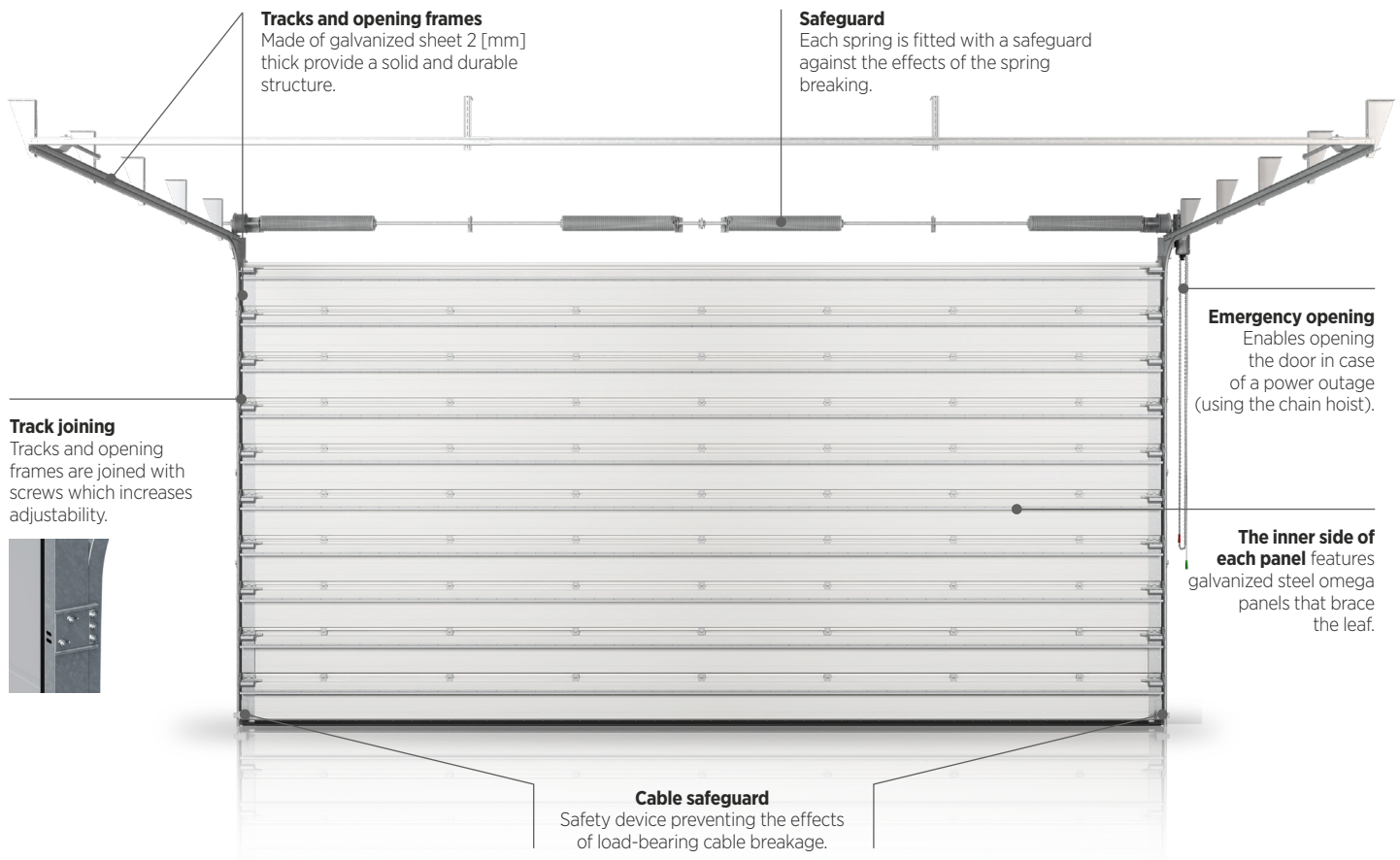
The sectional door is installed behind the opening, it opens vertically upwards and does not take up any space on the forecourt. Sectional doors let you use the space available in front of the door and inside the building to its maximum potential. Thanks to our broad range of track systems, WIŚNIEWSKI 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. WIŚNIEWSKI 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.

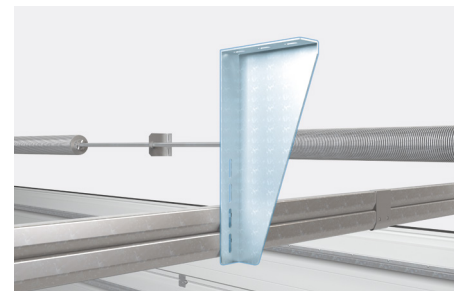




As standard, the door is fitted with the GfA electric drive unit powered by 1x230 [V] or 3x400 [V]. The drive unit provides infinitely adjustable rotational speed, as well as the soft start and soft stop features.



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



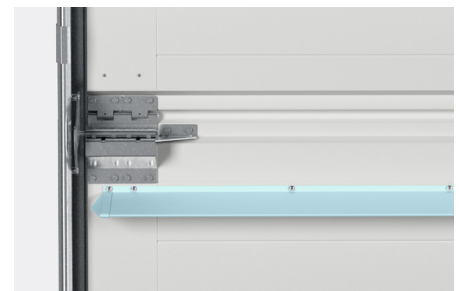
The conventional suspension system of the horizontal door tracks was replaced with special galvanized sheets adapted to the door dimensions.



**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  $N_{min} = 650$  [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 <sub>1min</sub> or W <sub>2min</sub>	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

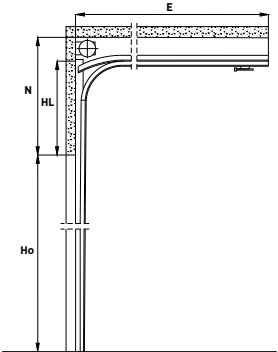
Opening height (Ho), [mm] up to:	Opening width (So), [mm] up to:												
	7000	7250	7500	7750	8000	8250	8500	8750	9000	9250	9500	9750	10000
2875													
3000													
3125													
3250													
3375													
3500													
3625													
3750													
3875													
4000													
4125													
4250													
4375													
4500													
4625													
4750													
4875													
5000													



**HL – High guides.**

Track system for buildings with a high lintel  $N_{min} > 710$  [mm].  
Frequently used in industrial hall type buildings.

**The required installation parameters for the HL tracks**

		
HL		MakroTherm XXL
Sj		So
Hj		Ho
Nmin		> 710 [mm]
W1min or W2min	On the free end	= 330 [mm]
	For side-mounted drives	= 530 [mm]
Emin		Ho - N + 1470 [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:												
	7000	7250	7500	7750	8000	8250	8500	8750	9000	9250	9500	9750	10000
2875	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3125	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3250	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3375	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3500	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3625	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3750	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3875	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
4000	3000	3000	3000	3000	2600	3000	3000	3000	3000	3000	3000	3000	3000
4125	2000	2400	2500	2500	2700	2900	3000	3000	3000	3000	3000	3000	3000
4250	2200	2200	2500	2600	2800	2800	3000	3000	3000	3000	3000	3000	3000
4375	2200	2200	2500	2600	2800	2800	3000	2700	3000	3000	3000	3000	3000
4500	2200	2200	2500	2600	2800	2400	2700	2800	3000	2700	3000	3000	3000
4625	2000	2000	2200	2300	2600	2300	2800	2800	2900	2600	3000	3000	3000
4750	1900	1900	2100	2200	2500	2200	2600	2900	2700	2700	2900	3000	3000
4875	1900	1900	2100	2200	2300	2200	2400	2900	2500	2700	2700	3000	2800
5000	1700	1700	1800	1900	2000	2100	2400	2000	2400	2700	2600	2200	1900



## RIB DESIGNS



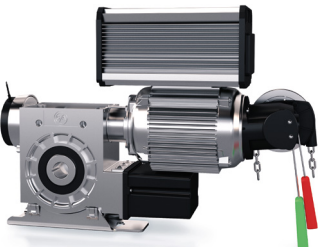
N - Low ribs

## 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				
	<b>Drive type</b>			
	Elektromat SE			
	Automatik FU			
<b>Accessories</b>	SE 25.24 FU			
	<table border="1"> <tr> <td>Standard</td> <td> <ul style="list-style-type: none"> <li>TS 970 control unit: Up – Stop – Down (continuous signal).</li> <li>Power supply: 1 x 230 [V] or 3 x 400 [V].</li> <li>Electronic limit switch, accessible at the operator's position.</li> <li>SG 2668 safety light barrier.</li> <li>Upgradeable.</li> <li>Smooth RPM speed control.</li> </ul> </td> </tr> <tr> <td>Option</td> <td> <ul style="list-style-type: none"> <li>TS 981 central control unit: Up – Stop – Down (with impulse maintenance).</li> <li>Signal light control available.</li> <li>Smoke extraction function (RWA)<sup>(1)</sup>.</li> </ul> </td> </tr> </table>	Standard	<ul style="list-style-type: none"> <li>TS 970 control unit: Up – Stop – Down (continuous signal).</li> <li>Power supply: 1 x 230 [V] or 3 x 400 [V].</li> <li>Electronic limit switch, accessible at the operator's position.</li> <li>SG 2668 safety light barrier.</li> <li>Upgradeable.</li> <li>Smooth RPM speed control.</li> </ul>	Option
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<b>Design</b>	<ul style="list-style-type: none"> <li>Self-locking speed reducer gear transmission with electromagnetic brake.</li> <li>Electric motor.</li> <li>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].</li> <li>Restricted installation orientation. The actuator is installed in the vertical orientation.</li> <li>Overtemperature protection installed in the drive windings.</li> <li>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.</li> <li>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.</li> </ul>			

<sup>(1)</sup> – 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.



## CONTROL YOUR DOOR WITH YOUR SMARTPHONE!

The Ri-Co controller means safety and control. Use your smartphone to control WISNIEWSKI doors from any place in the world. Just activate the wBox app available in Google Play and App Store to control your power operated door.



## Ri-Co CONTROLLERS

With Ri-Co versions you can choose the level of control you need. The basic Ri-Co controller can only open or close the door.



## 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 controls the drive unit through radio waves WIŚNIEWSKI. One remote control can operate four individual 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.

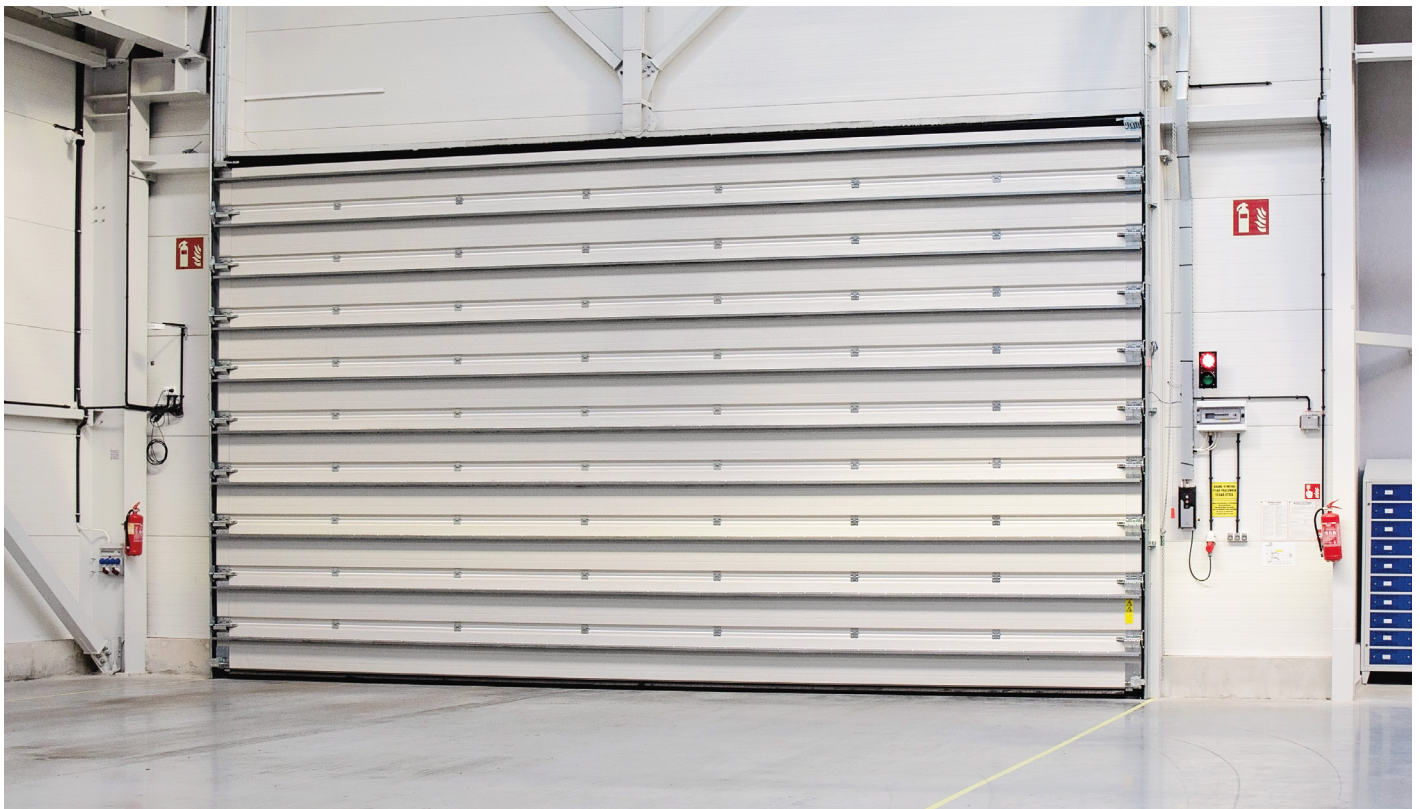




## GALLERY



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 $\rho=42 \text{ kg/m}^3$ without HCFC
Minimum number of cycles	15,000
Thermal transmittance factor of the panel U [ $\text{W/m}^2\text{xK}$ ]	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


**WIŚNIEWSKI**

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[www.wisniowski.eu](http://www.wisniowski.eu)

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See other solutions from WIŚNIEWSKI!



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