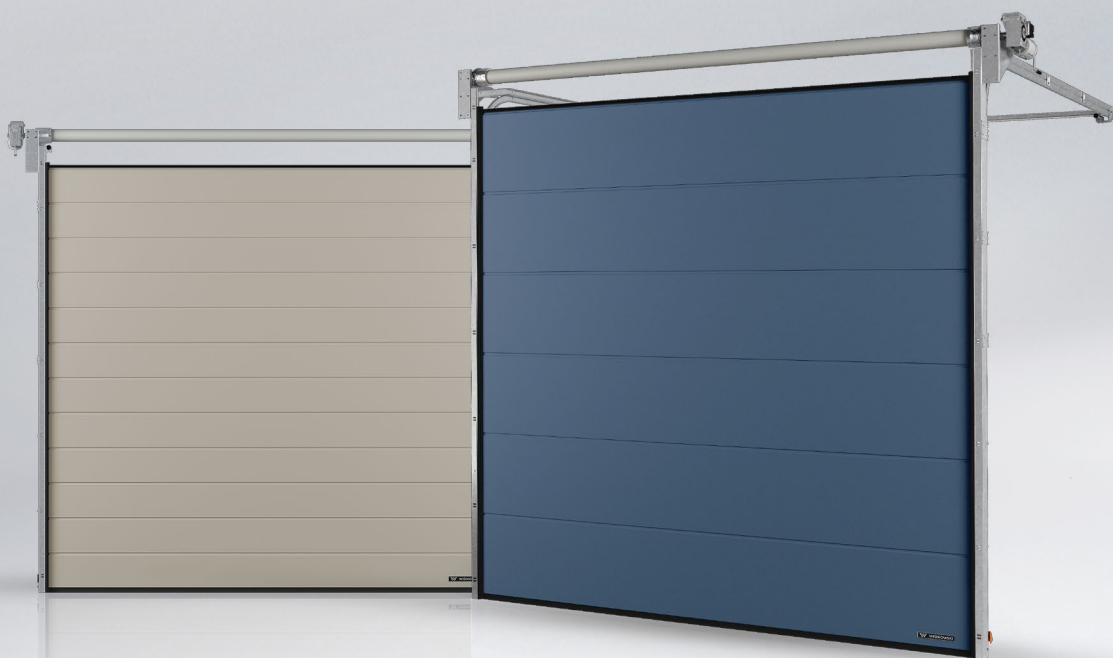


# INDUSTRIAL DOORS



## WIŚNIEWSKI

GATES | WINDOWS | DOORS | FENCES

## SECTIONAL DOORS MakroPro 100 2.0

**Intended use:** Industrial sectional doors are intended to be used in residential buildings, public utility buildings, industrial facilities, including the food industry (without direct food contact), and in indoor car parks. The door includes vertical and/or horizontal ceiling-mounted tracks, a leaf made of steel panels infilled with freon-free polyurethane foam or glazed aluminium panels. 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. Because we replaced traditional springs with a modern drive unit, our sectional **doors can perform an increased number of cycles – at least 100,000**. The drive unit ensures long life and comfort of use.

Panel 40 [mm]



### 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, which considerably contributes to the insulating qualities of the door.



### SAFETY

The safety systems foremostly consist in minimizing 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.



### FUNCTIONALITY

Thanks to our broad range of track systems, WIŚNIEWSKI industrial doors can be matched with all types of industrial halls. A well selected track type enables you to take advantage of all the benefits that our doors have to offer no matter if the door is installed in newly built or in refurbished buildings.



## STRUCTURE

The sectional door is installed behind the opening, it opens vertically upwards and does not take any space on the forecourt. Sectional doors let you use the space available in front of the gate and inside the building to its maximum potential. Thanks to our broad range of track systems, WISNIOWSKI industrial doors can be matched with all types of buildings, even non-typical 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 in each phase of opening and closing, regardless of the method of operation: manual or automatic.

The leaf weight is perfectly balanced thanks to the use of a torsion spring system which is seated on the drive shaft. Thanks to the use of a special three-phase actuator integrated with the door. Because we replaced traditional springs with a modern drive unit, our doors can perform an increased number of cycles - **at least 100,000**. The doors are made of panels with a special profile that prevents crushing fingers. All the steel elements are galvanized (tracks, frames, fastening elements). The door is fitted with guiding sliding

rollers with bearings providing appropriate running of the door curtain, while the tracks featuring a special profile prevent derailing. The modular control system can be connected to many devices compatible with the door.

Large dimension gates are 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. Thanks to the vast range of colours, WISNIOWSKI industrial doors can be easily matched with the building's façade. WISNIOWSKI doors are an investment that stands the test of time.

Due to the corrosion protection of the doors, they can be used according to 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**  
Proven and reliable automatic operating units by GfA ELEKTROMATEN.

**Smooth operation**  
Thanks to the use of purpose-built stabilizers fixing the electric drive unit, the door operates quietly, smoothly and the drive unit does not transfer vibrations.

**100,000 cycles**  
Because we replaced traditional springs with a modern drive unit, our door can perform an increased number of cycles. With 10 cycles per day, this amounts to **27 years of use!**

**Tracks and opening frames**  
Made of galvanized sheet 2 [mm] thick provide a solid and durable structure.

**THERMOSET™ PACKAGE AS STANDARD:**

**Quiet guiding rollers**  
Larger roller holders were fitted with special bushes made of self-lubricating plastic.

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

**Track joining**  
Tracks and opening frames are joined with screws which increases adjustability.

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

**Safety solution for tracks**  
Double safety solution for tracks preventing guiding rollers from derailing.

**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.

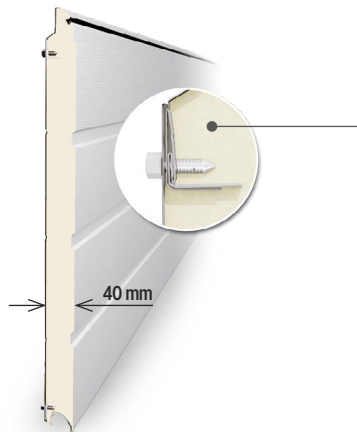
**Cable safeguard**  
Safeguard counteracting the effects of the break of load bearing cables with length adjustment from the floor level. This type of brake shortens the time required for levelling the door during service works. Due to safety considerations, the moving part is located under a plastic cover.

**Safeguard**  
The safeguard that prevents prising of the door is a simple method that prevents the door from being opened from the outside.

**Bottom gasket**  
High quality EPDM gaskets perfectly adapt to the shape of the ground and prevent water from penetrating inside under the door.



## PANEL STRUCTURE



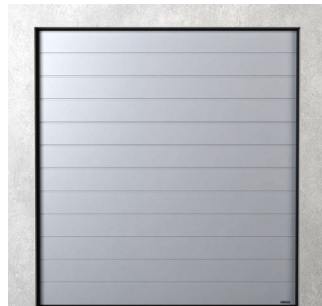
### Robust and reliable design.

Our whole range of industrial sectional doors follows identical design principles. Thanks to our robust and reliable design, you can rest assured that the door will meet even the most extreme requirements and operating conditions. Special solutions, such as the original panel built using the **5-ply** sheet bending system ensures stable fastening of elements, which further contributes to the strength of the structure. The top section is fitted with a lip gasket. The internal side of the panel in RAL 9002.

## RIB DESIGNS



G - No ribs



W - High ribs



N - Low ribs



V - V ribs

## TEXTURES



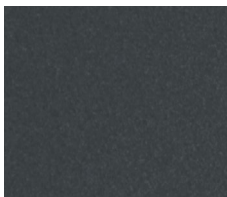
Woodgrain



Smoothgrain

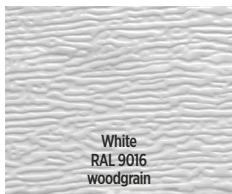
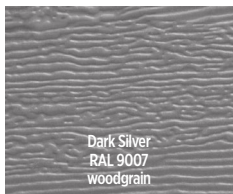
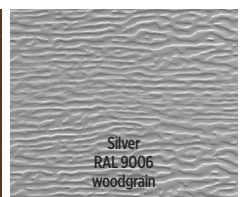
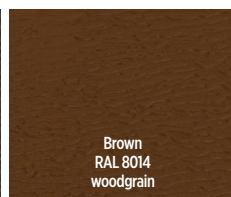
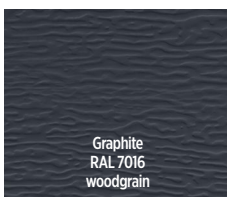
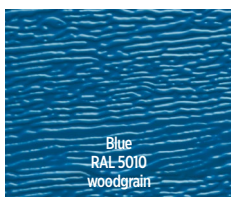
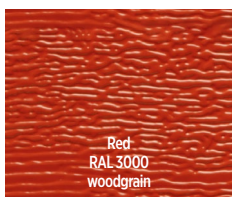
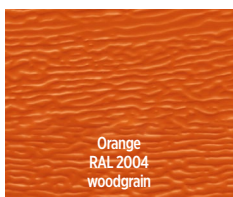


Sandgrain



Silkline

## COLOURS | STANDARD COLOURS





COLOURS | SPECIAL COLOURS

Graphite RAL 7016 silklime	Silver RAL 9006 silklime	White RAL 9016 silklime	Anthracite sandgrain	Golden Oak woodgrain	Golden Oak smoothgrain
Nut Brown woodgrain	Nut Brown smoothgrain	Anthracite Grey 701605-167 smoothgrain	Cream White 137905-167 smoothgrain	Dark Green 612505-167 smoothgrain	Metbrush Silver F436-1002 smoothgrain
Silbergrau 116700 smoothgrain	White 915205-168 smoothgrain	Chocolate Brown 887505-167 smoothgrain	Anthracite Quartz 436-1014 smoothgrain	AnTEAK 3241002-195 smoothgrain	Dark Oak 2052089-167 smoothgrain
Swamp Oak 3167004-167 smoothgrain	Soft Cherry 3214009-195 smoothgrain	Macore 3162002-167 smoothgrain	Oregon 1192001-167 smoothgrain	Sapeli 2065021-167 smoothgrain	Siena Noce 49237 PN smoothgrain
Siena PL 49254-015 smoothgrain	Siena Rosso 49233 PR smoothgrain	Winchester 49240 XA smoothgrain	Black Cherry 320201-167 smoothgrain	Natural Oak 3118076-1168 smoothgrain	Daglesia 3152009-1167 smoothgrain
Rustic Oak 3149008-167 smoothgrain	Sheffield Oak Brown F 436-3087 smoothgrain	Sheffield Oak Light F 456-3081 smoothgrain	Sheffield Oak Grey F 436-3086 smoothgrain	Brusch Schwarzbraun F436-1023 smoothgrain	Earl Platin 119500 smoothgrain
Black Ulti-mat PX47097 smoothgrain	Woodec Turner Oak Malt F4703001 smoothgrain	Woodec Sheffield Oak Alpine F4703002 smoothgrain	Woodec Sheffield Oak Concrete F4703003 smoothgrain	Woodec Turner Oak Toffee F470-3004 smoothgrain	Anthracite Quartz Mat F470-1014 smoothgrain
Umbragrau F436-60657 smoothgrain	Fenstergrau F436-6066 smoothgrain	Cremeweiss F456-6001 smoothgrain	Anthrazitgrau F436-6003 smoothgrain	Dark Grey Silk 4367003 smoothgrain	



WISNIEWSKI sectional doors are available in a wide range of colours. You can match the door to the individual character of the building and your needs so that the door not only closes off the building, but constitutes its integral part that perfectly matches the company colours, façade or the surrounding environment.



## TRACKS

### STL – Standard guides.

The track is intended for buildings with lintel  $N_{min} = 490, 560, 650$  [mm].  
For buildings where horizontal ceiling tracks can be used.



### Dimensional range for MakroPro 100 2.0 doors with STL tracks

Opening height (Ho) [mm] up to	Opening width (So) in [mm] up to																						
	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500	5750	6000	6250	6500	6750	7000	7250	7500	7750	8000
2250																							
2500																							
÷																							
3750																							
4000																							
4250																							
4500																							
4750																							
5000																							
5250																							
5500																							
5750																							
6000																							
6250																							
6500																							
6750																							
7000																							
7250																							
7500																							

$N_{min} = 490$  [mm]

$N_{min} = 560$  [mm]

$N_{min} = 650$  [mm]



**HL – High guides.**

Track system for buildings with a high lintel  $N_{min} > 600$  [mm] and  $N_{min} > 750-1350$  [mm]. Frequently used in industrial hall type buildings.



**Dimensional range for MakroPro 100 2.0 doors with HL tracks**

Opening height (Ho) [mm] up to	Opening width (So) in [mm] up to																						
	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500	5750	6000	6250	6500	6750	7000	7250	7500	7750	8000
2250																							
÷																							
4250																							
4500																							
4750																							
5000																							
5250																							
5500																							
5750																							
6000																							

**HLO – High guides with lowered shaft.**

With the shaft located by the lintel, access for servicing and maintenance works is facilitated and makes the process of installation easier  $N_{min} = 2,000$  [mm].



**Dimensional range for MakroPro 100 2.0 doors with HLO tracks**

Opening height (Ho) in [mm] up to	Opening width (So) in [mm] up to													
	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250
2000														
2250														
2500														
2750														
3000														
3250														
3500														
3750														
4000														
4250														
4500														
4750														
5000														
5250														



**VL – Vertical guides.**

Track system for buildings with a very high lintel  $N_{min} = H_o + 600$  [mm] or  $N_{min} = H_o + 680$  [mm]. Frequently used in industrial hall type buildings, mostly in buildings where horizontal or diagonal ceiling tracks cannot be used as they would otherwise interfere with indoor systems or gantry operation.



**Dimensional range for MakroPro 100 2.0 doors with VL tracks**

Opening height (Ho) [mm] up to	Opening width (So) in [mm] up to																							
	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500	5750	6000	6250	6500	6750	7000	7250	7500	7750	8000	
2250																								
2500																								
2750																								
3000																								
3250																								
3500																								
3750																								
4000																								
4250																								
4500																								
4750																								
5000																								
5250																								
5500																								
5750																								
6000																								

$N_{min} = H_o + 600$  [mm]

$N_{min} = H_o + 680$  [mm]



**VLO – Vertical guides with lowered shaft.**

With the shaft located by the lintel, access for servicing and maintenance works is facilitated and makes the process of installation easier  $N_{min} = H_o + 370$  [mm].



**Dimensional range for MakroPro 100 2.0 doors with VLO tracks**

Opening height (Ho) in [mm] up to	Opening width (So) in [mm] up to													
	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250
2000														
2250														
2500														
2750														
3000														
3250														
3500							<b><math>N_{min} = H_o + 370</math> [mm]</b>							
3750														
4000														
4250														
4500														
4750														
5000														
5250														





## OPTIONAL ACCESSORIES

### WICKET DOOR

- Minimum dimensions for sectional door where wicket door can be fitted are 2,000 x 2,100 [mm] (So x Ho).
- Standard entrance clear opening width is 850 [mm], entrance clear opening height can range from 1,800 [mm] to 1,980 [mm] depending on the sectional door height and the panels used.
- The maximum entrance clear opening dimensions are 950 x 2,000 [mm].
- Doors fitted with wicket door and an electric drive unit also feature the wicket door opening sensor.
- Doors are left-hand or right-hand outswing.
- Door hardware comes in natural aluminium colour by default. Optionally, hardware can come in any colour you choose.
- The wicket door is installed in the centre of the door leaf width by default. The wicket door can be moved in relation to the sectional door centre.
- Sectional doors are fitted with a wicket door opening limiter. It allows the wicket door to be opened at a 105 degree angle.
- Optionally, the wicket door can be fitted with an additional lock, door closer, electric lock with a wireless code keypad, class C lock cylinder or an anti-panic lock.



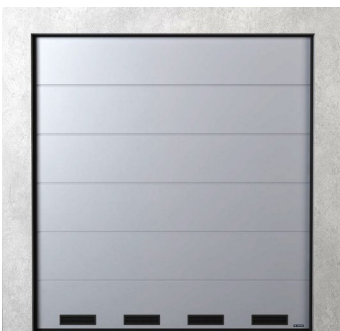
#### Wicket door.

By default, the door features a -100 [mm] threshold (including the gasket -40 [mm]). Optionally, a low threshold 21 [mm] with a gasket can be ordered. Available with gates So x Ho ≤ 5,500 x 6,000 [mm].

#### Low threshold in wicket door.

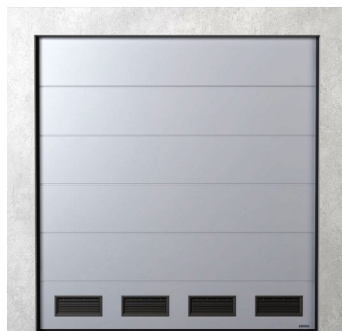
Low threshold is made of an aluminium section 21 [mm] high and minimizes obstacles in the passageway. Available with gates So x Ho ≤ 4,500 x 6,000 [mm].

### VENTILATION GRILLES



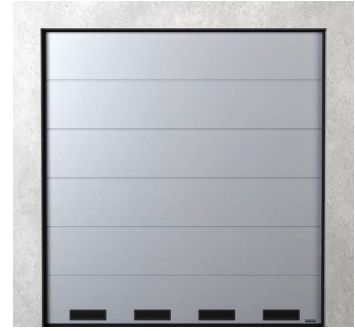
#### Ventilation grille K-1.

Dimensions 426x89 [mm] (clear dimensions).  
Air flow for grille type "K-1": 464 [m<sup>3</sup>/h]  
in accordance with PN-EN 12427.  
Actual ventilation area - 0.02 [m<sup>2</sup>].



#### Ventilation grille K-2.

Dimensions 525x195 [mm] (clear dimensions).  
Air flow for grille "K-2": 746 [m<sup>3</sup>/h]  
in accordance with PN-EN 12427.  
Actual ventilation area - 0.05 [m<sup>2</sup>].



#### Ventilation grille K-3.

Dimensions 308x103 [mm] (clear dimensions).  
Grille with a double mosquito screen  
and air flow adjustment. Air flow: 159 [m<sup>3</sup>/h]  
in accordance with PN-EN 12427.  
Actual ventilation area - 0.015 [m<sup>2</sup>].



## GLASS PANES

Intended use: for double glazing of glazed aluminium panels and VISUAL glazing.



### No-Scratch.

Glass pane with a special coating improving its strength, very good resistance to scratching and sunlight compared with standard glass.



### Satin.

Opaque glass pane. Double glazed pane opaque from the outside and clear from the inside. Light transmission 78%.



### Glass pane R.

Opaque (or frosted) double glazed pane clear from the inside. Light transmission (77-79%).



### Grey.

Clear glass with a slight brown hue. Double glazed pane clear from the inside, non-coloured from the inside. Light transmission (51%).

## WINDOWS



### Type B-3 oval.

Made of double, clear acrylic glass, smooth frame surface. Black external and internal frame. Internal/external frame made of ABS. External dimensions of the frame 667x347 [mm]. Light transmission 86%.



### Type A-3.

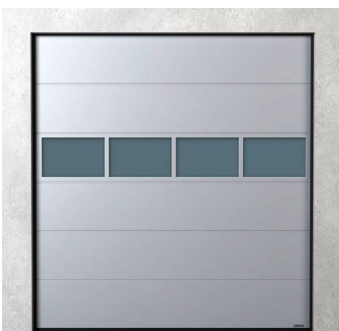
Made of a double transparent acrylic pane; the frame surface is smooth. The outer and inner frames are black. The outer/inner frame is made of ABS. Frame outside dimensions: 643x337 [mm]. Transmittance of light: 86%.



### Type B-1.

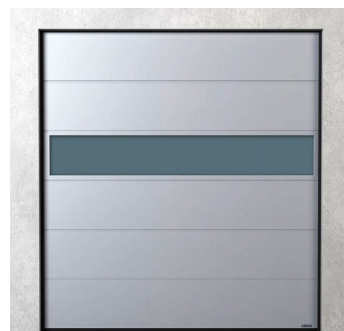
Made of double, clear acrylic glass. Black external and internal frame. Internal/external frame made of ABS. External dimensions of the frame 610x200 [mm]. Light transmission 86%.

## GLAZED PANELS



MakroPro 100 2.0 doors can be glazed up to 50% of the aluminium panel with glazing bars in relation to the total number of panels. The panel is painted on both sides in the external door colour. Available with doors  $S_o \leq 7000$  [mm] and  $H_o \leq 5500$  [mm] with glazing units: No-Scratch, "R", Satin, and Grey.

## GLAZED PANEL



Aluminium panel with a clear acrylic glass without glazing bars – VISUAL. The panel is painted on both sides in the external door colour. Available with MakroPro 100 2.0 doors  $S_o \leq 4000$  [mm] and  $H_o \leq 4000$  [mm] with glazing units: No-Scratch, "R", Satin, and Grey for  $S_o \leq 3000$  [mm].

## VENTILATED PANEL



Aluminium panel infilled with a single layer of galvanized expanded steel mesh or double layer of galvanized perforated steel sheet. The panel is painted on both sides in the external door colour.

The air flow for the expanded mesh panel is 7,504 [m<sup>3</sup>/h] per 1 [m<sup>2</sup>] of mesh surface area in accordance with PN-EN 12427 (~70 % panel surface area).

The air flow for the panel with double perforated sheet is 3,051 [m<sup>3</sup>/h] per 1 [m<sup>2</sup>] of perforated sheet in accordance with PN-EN 12427 (~70% panel surface area).



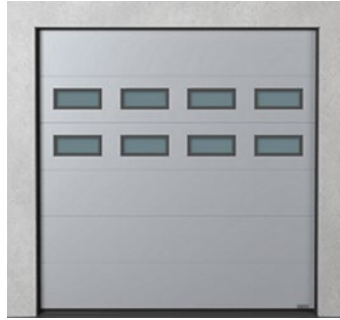
## EXAMPLE MakroPro 100 2.0 DOOR DESIGNS



Door with window B-1.



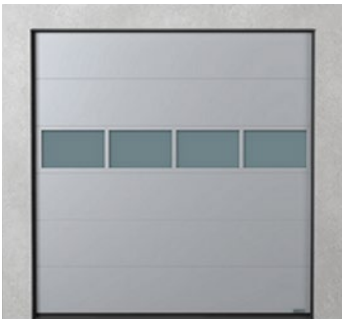
Door with window A-3.



Door with window B-1 (two panels).



Door with window A-3 (two panels).



Door with a glazed panel.



Door with a glazed panel (two panels).



Door with a glazed Visual panel.



Door with wicket door (central position).



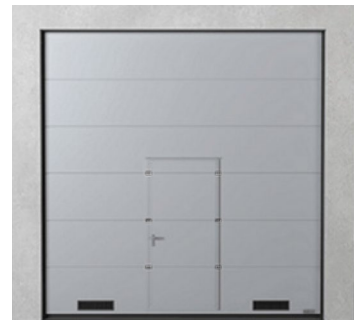
Door with wicket door (side position).



Door with ventilation grilles K-1.



Door with ventilation grilles K-2.



Door with wicket door (central position) and ventilation grilles K-1.



Door with wicket door (central position) and windows B-1.



Door with wicket door (central position) and windows A-3.



Door with a ventilated panel (expanded mesh).

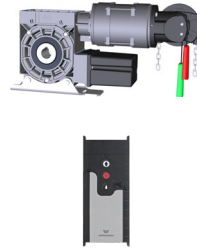
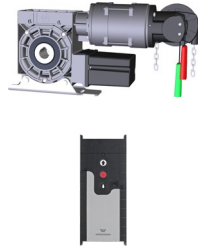


Door with a ventilated panel (double perforated sheet).



## AUTOMATIC OPERATING UNIT KITS

Automatic operating units supplied with WISNIOWSKI industrial doors are configured for the maximum comfort of use and extended service life.



Technical data	Totmann	Automatik			Automatik S
Control system	TS-959	TS-970	TS-971	TS-981	
Mains	3x400 [V]; 50-60 [Hz]	3x400 [V]; 50-60 [Hz]	3x400 [V]; 50-60 [Hz]	3x400 [V]; 50-60 [Hz]	
Motor supply	3x400 [V]; 50 [Hz]	3x400 [V]; 50 [Hz]	3x400 [V]; 50 [Hz]	3x400 [V]; 50 [Hz]	
Limit switch	Electronic, available from operator level	Electronic, available from operator level	Electronic, available from operator level	Electronic, available from operator level	
Display	yes	yes	yes	yes	
Emergency opening	yes	yes	yes	yes	
Rotational speed	15 [RPM]; fixed	15 [RPM]; fixed	15 [RPM]; fixed	15 [RPM]; fixed	
Motor power	0,4 / 1,1 [kW] <sup>(1)</sup>	0,4 / 1,1 [kW] <sup>(1)</sup>	0,4 / 1,1 [kW] <sup>(1)</sup>	0,4 / 1,1 [kW] <sup>(1)</sup>	
Rated current	2,2 - 4,7 [A] <sup>(1)</sup>	2,2 - 4,7 [A] <sup>(1)</sup>	2,2 - 4,7 [A] <sup>(1)</sup>	2,2 - 4,7 [A] <sup>(1)</sup>	

Funkcje	Totmann	Automatik			Automatik S
Quick programming	yes	yes	yes	yes	
Obstacle detection	no	yes; safety edge	yes; safety edge	yes; safety edge	
Automatic closing	no	yes; from 1 ÷ 240 [s]	yes; from 1 ÷ 240 [s]	yes; from 1 ÷ 240 [s]	
Release in end position	no	no	no	no	
RWA - heat and smoke extraction	no	no	no	yes	
Traffic control	no	no	no	yes	
Exterior lighting control	yes	yes	yes	yes	
Partial opening of the door	no	yes	yes	yes	
Cycle counter	yes	yes	yes	yes	
Recent fault logging	yes	yes	yes	yes	

Możliwość rozbudowy	Totmann	Automatik			Automatik S
Signal light	no	yes	yes	yes	
LED signal lights (red - green)	no	yes	yes	yes	
Compatible with photocells	no	yes	yes	yes	
Drive unit in the IP65 version	no	yes	yes	yes	
WSD module - wireless signal transmission from the optical strip	no	no	yes	no	
Safety barrier	no	yes	yes	yes	
Exterior lighting control	no	yes	yes	yes	
Motion sensor	no	yes	yes	yes	
Induction loop detector	no	yes	yes	yes	
Safety photocells	no	yes	yes	yes	
Acoustic signal	no	yes	yes	yes	

<sup>(1)</sup> - depends on the drive type.



## 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. 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.



### Safety photocells.

Optical protection of the edge of the closing door. Installed with doors with a low threshold.



## GALLERY



MakroPro 100 2.0 doors.



MakroPro 100 2.0 doors with small windows.



MakroPro 100 2.0 doors with aluminium glazings brightening up the interior.



MakroPro 100 2.0 doors with aluminium glazings brightening up the interior.



## TECHNICAL DATA

	MakroPro 100 2.0
Curtain	Panel made of galvanized steel sheet with two-side polyester coating, galvanized and painted on both sides, infilled with high density PU foam $g=42 \text{ kg/m}^2$ without HCFC
Minimum number of cycles	100 000
Heat transfer coefficient U panel [ $\text{W/m}^2\text{xK}$ ]	0,48
Watertightness (class)	class 2 in accordance with 13241-1 section 4.4.2
Wind load resistance class	class 3 in accordance with 13241-1 section 4.4.3
Air permeability class	class 4 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
Acoustic absorption coefficient Rw [dB] without wicket door / with wicket door	23 / 24 in accordance with PN-EN ISO 717-1: 1999
Drive type / power supply type	GfA series SI / 3x400 V
Safeguards	Special shape of the panel prevents crushing of fingers, safeguards against breaking of load-bearing cables, safeguard against breaking of springs (on each spring), wicket door sensor – used in doors with an electric drive and wicket door, lock/latch opening sensor, safety edge (in doors with electric drive type Automatik). Options: photocells, light barrier, safeguard against prising.
Optional accessories	Various types of tracks, electric drive, chain hoist, rope hoist, ventilated panel, aluminium panel glazing, VISUAL glazing without glazing bars, windows, glass panes: No-Scratch, Satin, Glass pane R, Grey, ventilation grilles, wicket door (low threshold wicket door), anti-panic lock, additional lock, springs 50,000 cycles, 100,000 cycles, fume extractor, steel fascia, aluminium fascia, handle for lead sealing of the door/wicket door, photocells, leading photocells, light barrier, code keypad, motion sensor, signal light, LED signal light (red – green), transmitter, acoustic signal, magnetic card reader, pull switch, safety edge wireless transmission system, drive for continuous operation.
Maximum width / height of the door [mm]	8000 / 7500
Available panel rib designs	G – No ribs, W – High ribs, N – Low ribs, V – V ribs
Available panel structures	woodgrain, smoothgrain, sandgrain, silkline
Standard RAL colours	RAL 2004, RAL 3000, RAL 5010, RAL 7016, RAL 8014, RAL 9006, RAL 9007, RAL 9016
Custom colours	other RAL colours, special colours, including wood imitating colours, (film coated panels)
Track type	STL, HL, HLO, VL, VLO



# WIŚNIOWSKI

WIŚNIOWSKI Sp. z o.o. S.K.A.  
PL 33-311 Wielogłowy 153  
Tel. +48 18 44 77 111  
Fax +48 18 44 77 110  
[www.wisniowski.eu](http://www.wisniowski.eu)

Let us inspire you!  
See other solutions from WIŚNIOWSKI!



The products shown in the pictures often feature special accessories and do not always correspond to their standard versions • The technical data sheet does not constitute an offer within the meaning of the Polish Civil Code • The manufacturer reserves the right to introduce changes without notice • NOTE: The colours shown in the technical data sheet are for reference only • All rights reserved • Copying and use, in part or in full, is prohibited without the consent of WIŚNIOWSKI Sp. z o.o. S.K.A. • MakroPro100 2.0/01.22/EN.