Tarasola®

Tarasola Technic

User Manual and Operating Instructions for Tarasola Roofing Systems and Components

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1. SUBJECT OF DOCUMENTATION

The purpose of this documentation is to familiarize the user with the intended use of the structure, maintanace and operation rules of the Tarasola brand product. The guide also includes instructions for proper usage and service procedures.

2. PRODUCT IDENTIFICATION

The description provided refers to the roofing system with the trade name Technic and the technical model name Technic New. The load-bearing frame of the structure is made of extruded aluminium profiles, while the roof consists of:

a) a set of chamber profiles rotating around their own axis, allowing ventilation and daylight access, which, when closed, forms a sealed structure capable of withstanding high wind and snow loads;

and, as an additional module:

b) rafters made of aluminium profiles and laminated tempered glass panes.

In light of the strength testing performed, the product meets the standards' criteria for building structures.

Tarasola Technic New was designed according to the following standards:

- Eurocode 0: EN 1990: Basis of structural design.
- Eurocode 1: EN 1991: Actions on structures.
  - EN 1991–1–1: General actions. Densites, self-weight, imposed loads for buildings.
  - EN 1991–1–3: General actions. Snow loads.
  - EN 1991–1–4: General actions. Wind actions.
  - EN 1991–1–5: General actions. Thermal actions.
- Eurocode 3: EN 1993: Design of steel structures.
- Eurocode 8: EN 1998: Design of structures for earthquake resistance.
- Eurocode 9: EN 1999: Design of aluminum structures.
- Eurocode of the corresponding National Annexes.
- EN 1090: Execution of steel and aluminum structures.
- 2006/42/EC: Machinery Directive.
- PN – EN 13561 + A.1:2009 EXTERNAL BLINDS – w performance requirements including safety.

The structure's strength allows it to withstand a maximum snow load of up to 120 kg/m² and simultaneous wind pressure up to 80 km/h for projections up to 5 metres. For projections exceeding 5 metres, the maximum permissible snow load is 40 kg/m², with simultaneous wind pressure up to 80 km/h. The structure has a wind load resistance of 650 N/m² (without snow load), which corresponds to a wind speed of 120 km/h. The maximum permissible snow load, without wind pressure, is 120–620 kg/m² for the louvered roof or 100–175 kg/m² for the laminated tempered glass roof. Permissible loads for specific dimensions are provided in the corresponding table.

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		Width (cm)						
Projection (cm)	**Number of louvres**	**220**	**270**	**295**	**330**	**365**	**400**	**450**
200	9	620	490	350	290	180	150	120
300	14	590	450	310	190	160	150	120
400	19	450	430	290	180	170	140	120
500	24	420	340	250	165	160	120	120
600	29	240	220	165	130	130	120	120
700	34	220	160	140	120	120	120	120

Snow load table without wind pressure for a louvred roof with 4 supporting profiles (kg/m²)

		Width (cm)					
		SZKŁO VSG 10mm for structures up to 350 cm wide				GLASS VSG 12mm	
		220	**270**	**300**	**330**	**365**	**400**
PROJECTION							
	number of beams	2	2	2	2	2	3
	number of panels	3	3	3	3	3	4
252		175	175	175	145	115	110
	number of beams	3	3	3	3	3	4
	number of panels	4	4	4	4	4	5
332		175	175	175	145	115	110
	number of beams	4	4	4	4	4	6
	number of panels	5	5	5	5	5	7
412		175	175	175	145	135	130
	number of beams	5	5	5	5	5	7
	number of panels	6	6	6	6	6	8
492		175	175	175	145	130	120
	number of beams	6	6	6	6	6	8
	number of panels	7	7	7	7	7	9
572		175	175	165	145	120	110
	number of beams	7	7	7	7	7	9
	number of panels	8	8	8	8	8	10
592		175	175	145	130	110	100

	number of beams	7	7	7	7	7	9
	number of panels	8	8	8	8	8	10
652		175	125	175	135	120	110
	number of beams	8	8	8	8	8	10
	number of panels	9	9	9	9	9	11
692		135	100	145	130	110	100

Deflection limit load for a maximum deflection of f = L/200

Additional support required under the guide rail

Snow load table without wind pressure for a glaas roof with 4 supporting profiles (kg/m²)

The roofing system has been designed to provide wind, rain, and sun protection for commercial clients, as well as for residential and private buildings. The roof is operated via electric drives.

Tarasola can be enhanced with additional features such as: infrared heaters, glazing, roller screeners, integrated LED lighting, and weather sensors (additional products are described in a separate guide), All the above creates a comprehensive terrace roofing solution.

Familiarizing yourself with the user manual ensures the correct operation of the product. Following the guidelines provided will guarantees the durability of the roofing system.

3. TECHNICAL SPECIFICATION

3.1. Structure

The structure of the roofing system consists of an aluminum substructure. The structural elements are thick-walled extruded profiles, coated with a thermally hardened powder coating.

The load-bearing structure includes the following elements:

- Aluminium guides (1) – number and spacing of guides depends on module width and projection.
- Front beams (2) – structural aluminium profile.
- Pre-gutter (3) and main gutter (4) – profiles collecting and draining water.
- Supporting pillars (5) – aluminium supporting profile with integrated water drainage system. The number of supporting profiles depends on the width of the module. The supporting profiles are ended with brackets for anchoring to the ground.
- Closing profile (6) – complementary profile.
- Led profile (7) – designed for mounting strip lighting.
- Aluminium roofing (8) – consisting of rotating louvers, aluminium chambered louvers.
- Aluminium profile (9) – conecting the roofing elements.
- Wall mounting bracket (gardena/tende version).

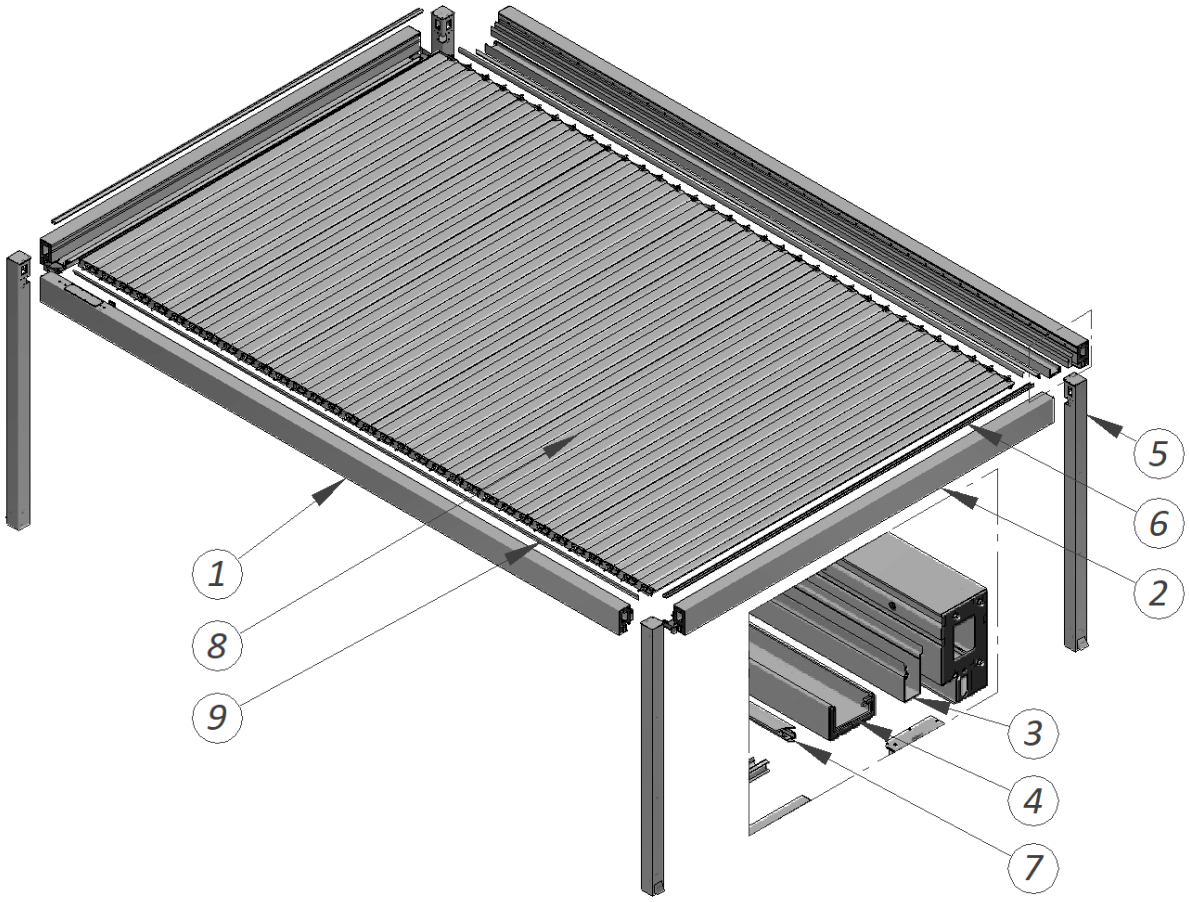

Fig.1 Graphical representation of the Tarasola Technic structure.

Additional roof module with Glass Panels:

- Technic load-bearing structure (1) – the number and spacing of the guide rails depend on the width and projection of the module.
- Optional shading fabric (2)
- Glass panel pressure strips (3)
- Glass panel VSG (4)
- Glass roof load - bearing beams (5)
- Guide rail side cover (6) – a supplementary profile for the guide rail, providing access for the installation of Screener ZIP.

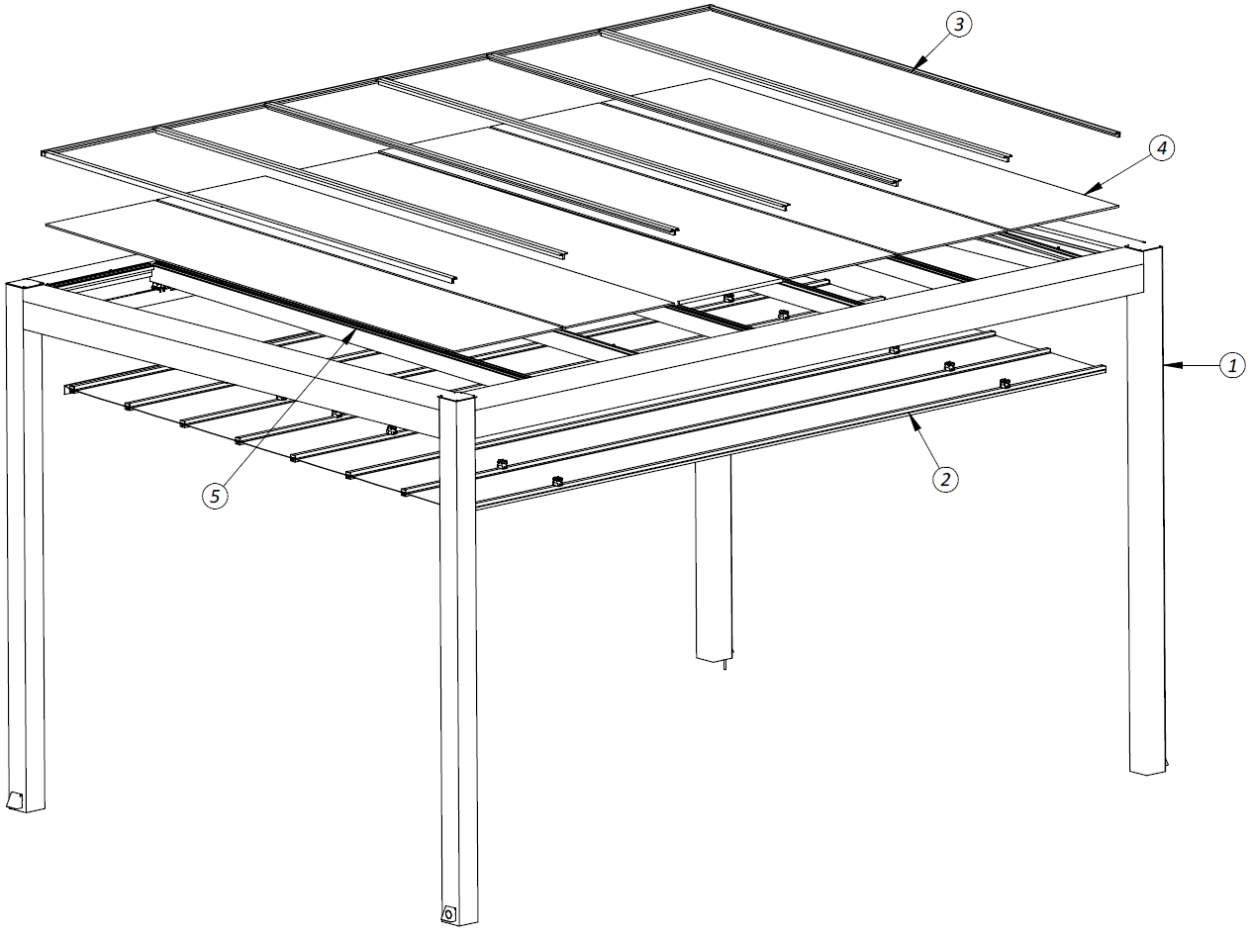

Fig.2 Graphic representation of the Tarasola Technic structure in the version with a glass roof.

Note: slight color differences may occur due to variations between different powder coating suppliers.

3.2. Electrical Components for Tarasola Technic.

To ensure the highest quality of the products offered, the Tarasola brand cooperates with the best suppliers on the market. Thanks to the electrical components used in our products, we are able to provide you with a comprehensive product that is among the best currently available on the market.

WARNING! Due to the complexity and specificity of the product, installation is carried out by qualified team. Any actions that do not comply with the guidelines may pose a potential hazard and result in the loss of warranty.

ELECTRIC MOTOR.
Motor with a built-in radio receiver and electrical limiter. Secure coding system. Simple programming and operation. All movements are motor-driven, operating at low speed. Control via remote or local controller.

The motor connection diagram – LINAK LA 23 LINEAR ACTUATOR – is presented below.

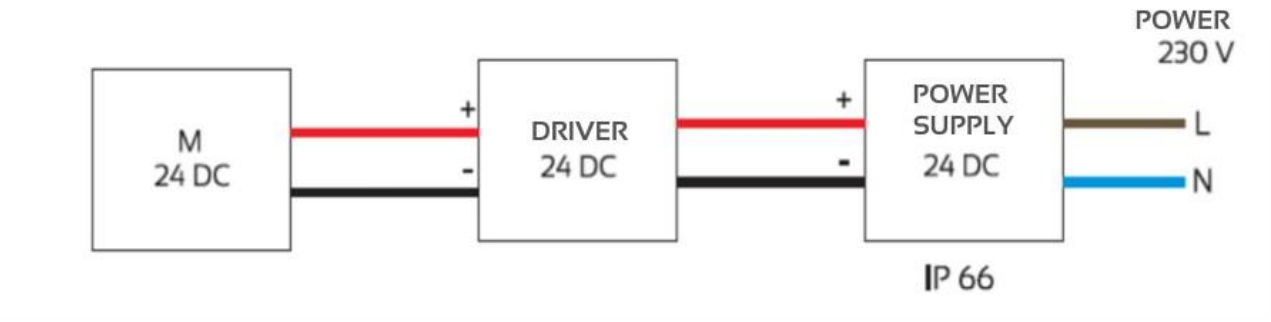

Fig.3 Motor connection diagram.

TECHNICAL SPECIFICATION: ACTUATOR LINEAR ACTUATOR

Properties and options:

- Push force: 1200N,
- Pull force: 1200N,
- Protection rating: IPX4, IPX6 or IP66 dynamic,
- Motor: 24V DC,
- Stroke length: 200mm,
- Noise level max. dB (A) 58,5, measuring method EN ISO 3743–1, with no load.

Terms of use:

- Duty cycle: 10%, 2 minutes continuous use followed by 18 minutes not in use,
- Usage temperature: from -30°C to +55°C (in accordance with the ISO7176–9 standard),
- Storage temperature: from -45°C to +70°C (in accordance with the ISO7176–9 standard),
- Compliance with standards: ICE60601–1:2005 (3rd edition), ANSI / AAMI ES60601–1:2005 (3rd edition), LA 23 non compliant with medical standards in combination with CBD4, C BD5, CBD6,
- Flammability rating: UL94–V0 enclosure.

It is not recommended to connect more than one motor to a single switch (and vice versa). The only exception is when a control unit is used.

Attention! All wiring diagrams must be followed; otherwise, the warranty will not be granted.

REMOTE CONTROLLER / HANDSET :

• Manual radio control of one or multiple drives and/or radio receivers or a group of drives and/or radio receivers.
• Possible operation of a single device or a group of devices.
• Can stop the roof and force movement using a convenient button.
• The remote is equipped with a function to adjust intensity, e.g., light power.

• A convenient LED indicator signals command transmission and allows easy channel selection on the remote (for multi-channel remotes).
• Wireless remote powered by a battery.
• Operating temperature: 0°C / +60°C.
• Protection rating: IP 30 / IP 40.
• Radio frequency: 433.42 MHz.

The electric components are easily operated via an integrated motor system. Wind and rain protection covers extend and retract fully or to the desired projection, adjusting shade and sunlight accordingly.

IN CASE OF ELECTRICAL SYSTEM FAILURE, THE MAIN POWER SUPPLY TO THE ROOF MUST BE IMMEDIATELY DISCONNECTED AND THE MALFUNCTION REPORTED TO THE MANUFACTURER. ONLY QUALIFIED TEAMS ARE AUTHORIZED TO REPAIR THE ELECTRICAL SYSTEM. ANY ATTEMPTS OF SELF-REPAIR AND THEIR NEGATIVE CONSEQUENCES MAY RESULT IN THE LOSS OF WARRANTY.

A detailed description of the operation of electrical components is provided in a separate manual.

4. USER MANUAL AND GENERAL SAFETY RULES

4.1. General Information and Usage.

4.1.1. Following the rules outlined below ensures proper functioning and prevents malfunctions caused by incorrect use.

4.1.2. It is prohibited to use the roofing system in conditions or for purposes other than those intended by the manufacturer. The roofing is designed to provide sun and rain protection.

4.1.3. The entire structure is subjected to loads that may cause oscillating movements. This motion is not an indication of structural weakening but is considered normal for a complex structure. Therefore, deviations and movement within the structure are acceptable.

4.1.4. It is forbidden to install any items on the structure, including additional fixtures, hooks or hangers, by third parties without the manufacturer's consent – this increases the risk of failure and voids the product warranty.

4.1.5. Repeated opening and closing of the roof may cause the electric drive to overheat, triggering a thermal switch that disconnects the power supply. The motor will not operate until the temperature is regulated.

4.1.6. In the event of malfunction or failure of the roofing system, contact the Seller. Any attempts at self-repair of the faulty roof system are strictly prohibited. For structures equipped with a rain sensor, the controller will prevent the louvers from opening more than 45° for 6 hours after the rainfall has stopped.

4.2. Safety

4.2.1. Be careful when opening and closing the roofing system; it is strictly prohibited to touch the structure while it is in operation due to the risk of hand injury.

4.2.2. Before opening or closing the roof—especially during low temperatures, check for the ice formation on the roof profiles or for any objects that may have become lodged between the louvres (e.g., branches, balls, etc.). Activating the roof when it is iced over or obstructed may cause damage to the louvre-connecting profiles, guide rails or drive components and such damage will not be covered by the manufacturer's warranty.

4.2.3. In the event of a risk of sudden snow sliding from the building roof onto the roofing, the roof must be set to the fully open position. Snow sliding from the roof onto a structure with a closed roof may cause serious damage or destruction and may pose a hazard to people nearby.

4.3. Weather Conditions

4.3.1. In the event of strong winds exceeding the permissible limits for the specific structure size, the roof must be opened immediately, i.e. the louvers must be set to the 90° open position. Failure to follow this recommendation increases the risk of damage to or destruction of the roof structure, may result in accidents, and will void the warranty.

4.3.2. Weather sensors (if included in the structure's control system) will trigger a weather alarm and perform the corresponding action to ensure user safety or comfort. WARNING! If the power supply is interrupted (e.g. due to a power outage during a storm), the system will not respond. In such cases, the manufacturer assumes no responsibility for the operation of the weather automation system.

4.3.3. In the case of heavy rainfall, overflow of the structure's gutters may occur, which can cause water to spill inside of the structure or leak between profiles. Due to the nature of unforseen events and unpredictable weather conditions, this is not considered as product defect.

4.3.4. To prevent water remaining on the louvers from entering the covered area immediately after rainfall, wait approximately 120 minutes after the rain has stopped before opening the louvers. To allow any residual water on the louvers to drain into the gutters, the first opening after this 120-minute waiting period should be performed in stages. In manual mode, rotate the louvers to approximately 20° and wait 20 seconds. Then open the louvers to approximately 45° and wait another 20 seconds. Finally, open the louvers to approximately 90° and wait 20 seconds.

4.3.5. During hail or freezing rain, it is recommended to fully open the roof to 90 degrees angle to reduce the surface area exposed to damage caused by precipitation or icing.

4.3.6. During heavy snowfall, when the accumulated snow layer may exceed the maximum permissible load (for a module with maximum dimensions this value is 120 kg/m²), the excess snow must be removed from the roof immediately.

4.4. Cleaning and Maintenance

4.4.1 The structure is not self-cleaning. Cleaning should be performed only after the power supply to the roof is turned off. It is recommended to use a soft cloth and water with a mild detergent. **WARNING!** Do not use abrasive or corrosive materials to clean the structure or fabrics. Their use may cause permanent damage to the powder coating or fabric, which is not covered by the warranty.

4.4.2 To maintain the efficiency of the water drainage system, it is necessary to check and remove scraps such as leaves, needles, and other residues from the gutters at least twice a year. This will ensure the proper flow in the gutters integrated into the supporting profies of the structure. The manufacturer recommends more frequent cleaning if the construction is installed near trees.

4.4.3 If Tarasola is installed in a location exposed to high levels of pollution, such as areas close to high-traffic roads, near airports, forests, trees that release resin, or industrial facilities emitting pollutants, and dirt is not removed regularly, permanent staining of the profiles may occur, which will be difficult to clean later.

4.5. Final Information

4.5.1. Due to temperature differences, condensation on profiles and steam condensation forming under the roof are permissible and do not constitute a product defect.

4.5.2. Color variations between powder-coated aluminum elements within a single batch, as well as between different product batches, are acceptable.

4.5.3. Deviations between profiles (louvres) and the spacing between tchem are acceptable due to profile deflections caused by temperaturę changes and prolonged loads, e.g. snow.

4.5.4. As a result of temperature variations, components of the structure made from different materials may slightly expand and contract, producing sounds similar to "cracking" or "popping."

4.5.5. The manufacturer is not liable for random events affecting the product, such as weather conditions that fall belowo r exceed the limits specified in the product datasheet. This also applies to electromagnetic interference, electrical discharges and power surges.

THE MANUFACTURER IS NOT LIABLE FOR IMPROPER USE OF THE ROOFING SYSTEM RESULTING FROM FAILURE TO FOLLOW THE USAGE AND SAFETY GUIDELINES PRESENTED IN THE ABOVE INSTRUCTIONS.

5. CERTIFICATES.

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Lublin, 10.01.2024

DECLARATION OF CONFORMITY UE

Nr 002/2024

Tarasola Sp z o.o., ul. Hugo Kołłątaja 5/2, 20-006 Lublin, NIP: 7123459478
hereby declares that the product:

Technic New

Trademark: Tarasola®

It is compatible with the following provisions of implementing provisions in the scope of its regulation implementation of the directives The European Parliament and of the Council (with all the subsequent amendments and supplements):

2006/42/WE – MACHINERY DIRECTIVE
2014/35/UE – LOW VOLTAGE DIRECTIVE

Demonstrating that the harmonized standards and / or technical specifications listed below have been applied:

PN-EN 1999-1-1:2011 – EUROKOD 9 – DESIGN OF ALUMINIUM STRUCTURES
PN-EN 13561:2015-07 – CURTAINS AND AWNINGS – PERFORMANCE REQUIREMENTS INCLUDING SAFETY
PN-EN 60335-1:2012 – HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY – PART 1: GENERAL REQUIREMENTS
PN-EN IEC 60335-2-97:2023-11 – HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY IN USE, PART 2-97: PARTICULAR REQUIREMENTS FOR DRIVES FOR ROLLING SHUTTERS, AWNINGS, BLINDS AND SIMILAR EQUIPMENT

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O ile jest poprawnie zainstalowany, użytkowany zgodnie z przeznaczeniem, obowiązującymi przepisami, normami, instrukcją obsługi oraz dobrą praktyką inżynierską.

Niniejsza deklaracja zgodności jest podstawą do oznakowania wyrobu znakiem CE

Deklaracja ta odnosi się do pergoli w stanie, w jakim została wprowadzona do obrotu i nie obejmuje części składowych dodanych przez użytkownika końcowego lub przeprowadzonych przez niego działań.

Niniejsza deklaracja zgodności wydana zostaje na wyłączną odpowiedzialność producenta.

W imieniu producenta podpisał:

Lublin, 04.08.2025

Prezes Zarządu
Piotr Garbacz

PREZES ZARZĄDU

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