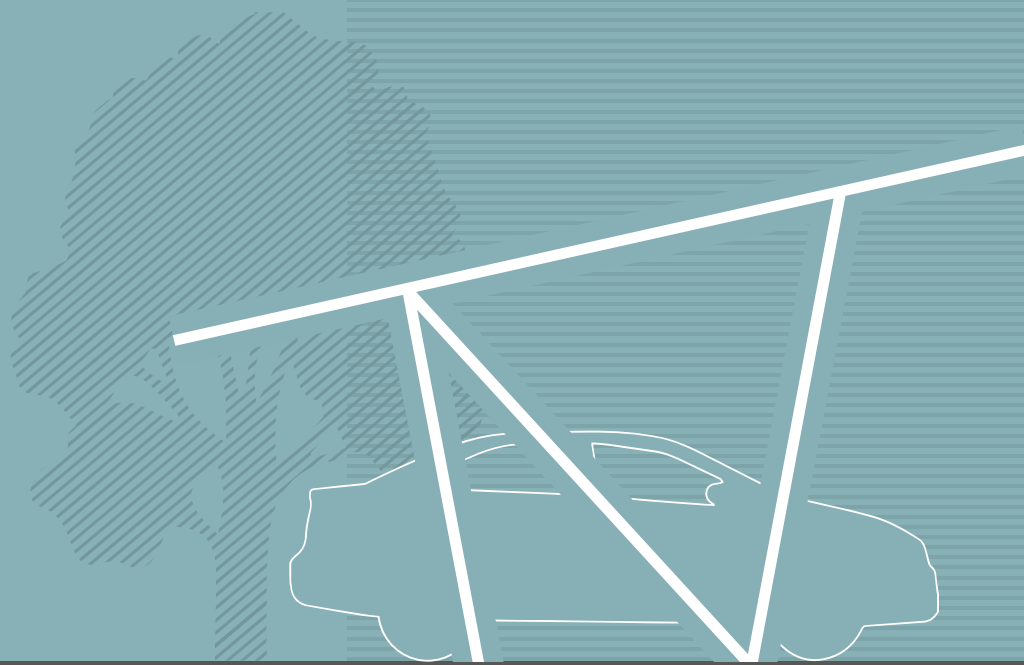


# CARPORT CATALOG





## VISION

With our range of products, we are specifically focusing on the ecological aspects connected to a new lifestyle, where the outdoors symbolize being in touch with nature, where boundaries disappear and change. Our systems, working with renewable energy sources, are a valid answer to the need to preserve the world that we share with all living beings, to respect it and to keep it untouched.

## MISSION

The legacy we have been carrying on for over thirty years is a centuries-old tradition, strongly connected to the Earth and its bounty. Our mission is loyal to the spirit of cultivating, ploughing, manuring, watering, and harvesting. Faithful to our model, we cultivate human relationships and coordinate production with harvest seasons – just as it happens in nature. This modus operandi helped us to create a design tailored to evolving markets, and consolidating an organic, consistent set of corporate ethics that creates value and opportunity.

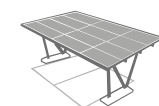
P E N S I L S O L E





P H O T O V O L T A I C C A R P O R T

P E N S I L S O L E



The **Pensilsole** carport can be equipped with photovoltaic panels. It is an extremely versatile structure that can accommodate the client's desired panels. The design of Pensilsole respects a precise optimized static scheme that allows the carport to achieve **high performance standards** by using profiles of small cross section, achieving an elegant and optically minimal aesthetic result. Anchoring to the ground can be done through above-ground concrete **ballasts** that do not require the preparation of foundations, significantly decreasing the time and cost required for installation. Upon request, however, it is possible to install the structure through plates to be anchored to a foundation.

**Pensilsole** is also available with single **cantilever** type support, with the cantilever roof supported by steel pillars, attached to a foundation. Upon request, the aluminum carport can be customized by choosing from a wide range of colors and finishes. In particular, the warm-tone range and matt finish give Pensilsole a more refined look in **harmony with natural elements**, while the oven-treated thermoset polyester powder coating increases product **quality** and **resistance** to the wear and tear of time.







## 5 REASONS TO CHOOSE GIULIO BARBIERI PENSILSOLE

### 1 COMPATIBILITY WITH ANY PHOTOVOLTAIC PANEL

Pensilsole is a carport adaptable to photovoltaic panels of any type and size on the market.

### 2 ADAPTABILITY

The structures are easily adaptable to new needs that may arise over time: since they are modular, it is always possible to attach and join a new canopy through a special system of gutters and downspouts; in addition, it is always possible to replace the photovoltaic panels with higher-performance models, even if they have different dimensions.

### 3 SNOW LOAD

The Pensilsole canopy is capable of supporting a snow load on the roof of 150 daN/m<sup>2</sup> in the maxi version and 120 daN/m<sup>2</sup> in the middle and cantilever versions.

### 4 LIMITED MAINTENANCE

Maintenance of shelters and carports is limited to tightening screws and general cleaning on an annual basis, as the structure is made of anodized or thermosetting polyester powder coated aluminum profiles. Joints and structural nodes are made of surface-treated steel using a hot-dip galvanizing process and subsequent polyester powder surface coating.

Aluminum structures are a technological added value, which gives the structural deck strength, elasticity and durability: aluminum does not oxidize, and it is therefore possible to install sunroofs and carports even in dust-saturated atmospheres such as industrial ones or near wetlands or marine areas. At the end of its life, the product allows the transformation of profiles into scrap that will be melted down and processed into new products or profiles for industrial use.

### 5 QUICK INSTALLATION TIME

Pensilsole and pensilauto are installed quickly, as the structural components are delivered pre-assembled. Quick attachment of PV panels on pensilsole is ensured by specific accessories that are included in the delivery. The load-bearing structures have reinforced concrete bases with a grit finish, so they do not require foundations: this means opening a construction site that is easy to set up and manage, a simplified permitting process, and no need for soil remediation work at the end of the system's life. Versions with steel plates to be attached to an existing or prepared foundation with appropriate excavation at the installation site are also available.















36 LOCATION  
San Giorgio di Piano, Bologna,  
Italy

CUSTOMER  
Fornitek S.r.l.

MODEL  
Pensilsole Maxi

37









40 LOCATION  
Krems an der Donau,  
Austria

CUSTOMER  
Enecon Corporation

MODEL  
Pensilsole Middle









44      LOCATION  
Pistoia, Italy

CUSTOMER  
Private house

MODEL  
Pensilsole Middle



LOCATION  
Pistoia, Italy

CUSTOMER  
Indios Shoes S.r.l.

MODEL  
Pensilsole Middle



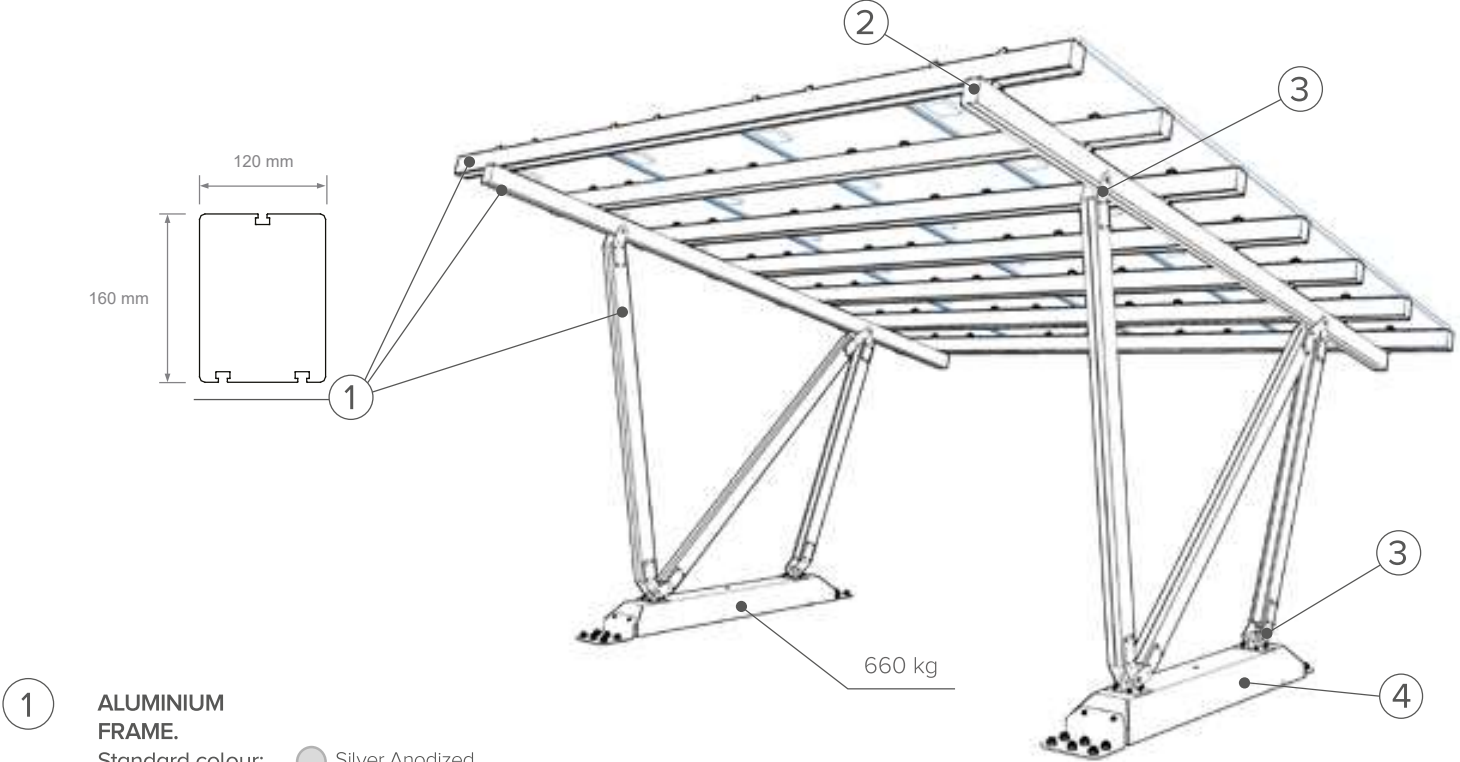








PENSILSOLE MAXI - TECHNICAL DETAILS



- 1 **ALUMINIUM FRAME.**  
Standard colour:  Silver Anodized
- Non standard colours:  
Matt with rough finish - polyester powder coating
- White  Dove-Grey  Dark-Brown
- Further RAL colours available in both matt and glossy smooth finish.

- 2 **ALUMINIUM CAPS SUBJECTED TO POLYESTER POWDER COATING**
- Standard colour:  RAL 7044

- 3 **STEEL PLATES SUBJECTED TO HOT-DIP GALVANIZING AND POLYESTER POWDER COATING**
- Standard colour:  RAL 7044

- 4 **CONCRETE BALLASTS WITH SANDBLASTED WHITE GRANITE FINISH**

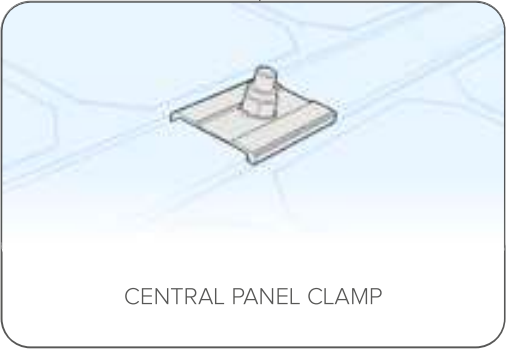
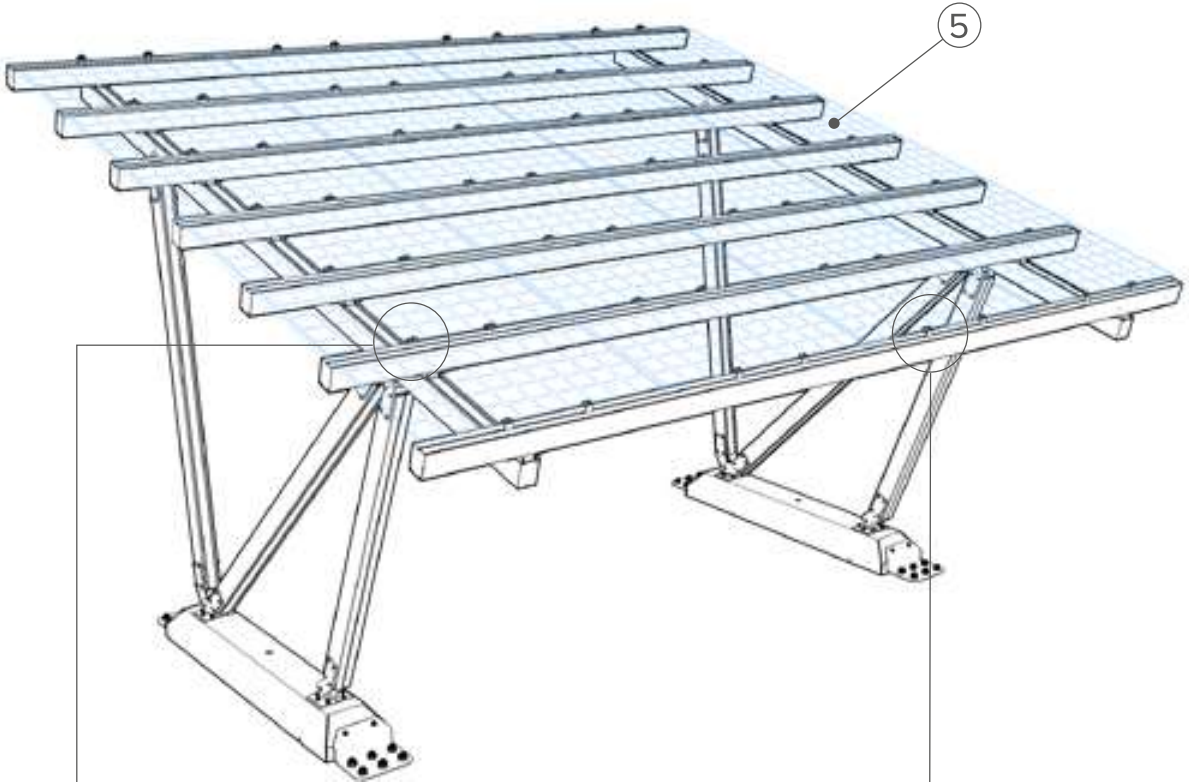


OPTIONAL  
PROTECTIVE CASING FOR STAKES  
OR ANCHORS

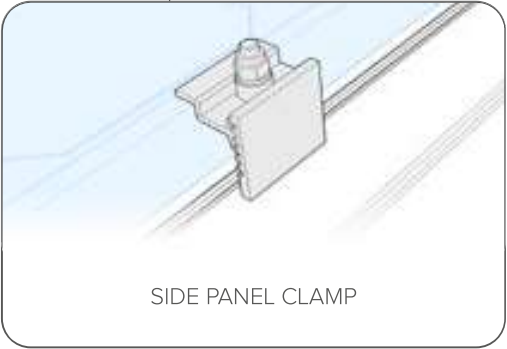
Standard colour:  RAL 7044

**VERSION WITH HOT-DIP GALVANIZED AND POLYESTER POWDER COATED STEEL ANCHOR PLATES FOR CONCRETE PLINTH OR SLAB**

Standard colour:  RAL 7044



CENTRAL PANEL CLAMP



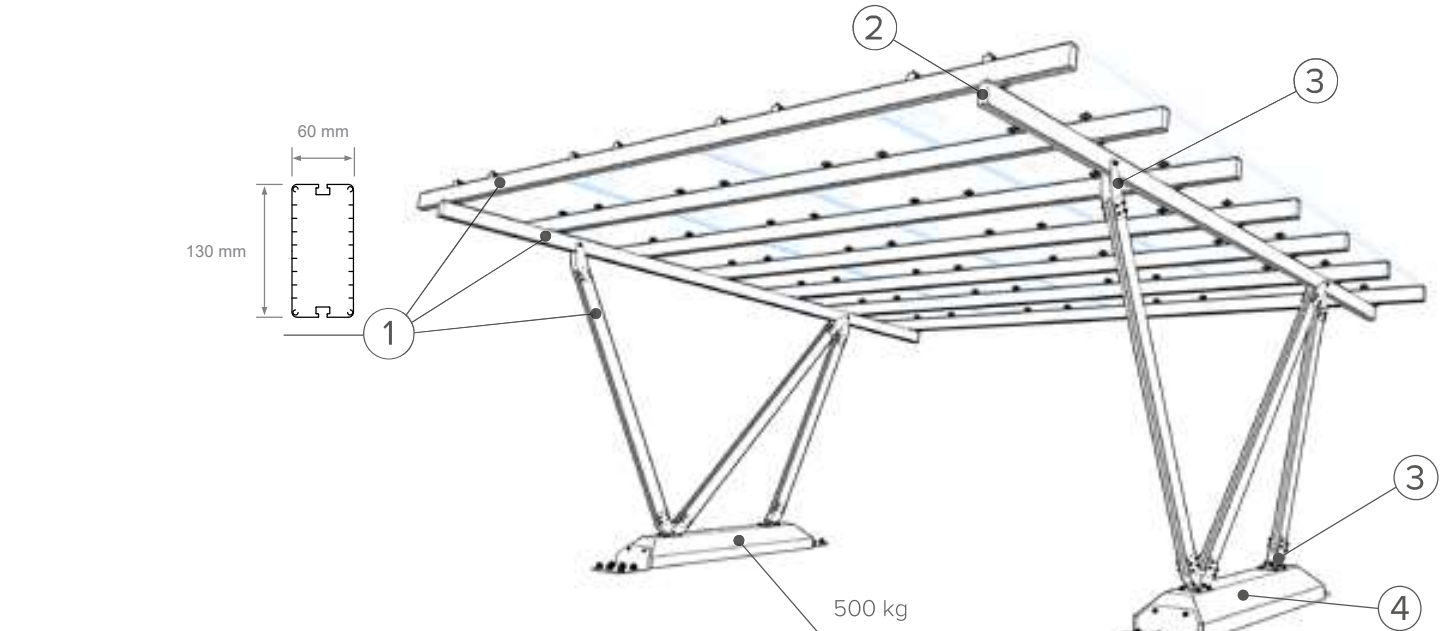
SIDE PANEL CLAMP

THE RAPID PANEL FASTENING SYSTEM IS INCLUDED IN THE PRICE. THE QUANTITY AND ARRANGEMENT OF CLAMPS DEPEND ON THE SIZE OF THE STRUCTURE.

- 5 **THE STRUCTURE SUPPORTS ANY MODEL AND SIZE OF SOLAR PANEL DUE TO ITS INTEGRATED QUICK FIXING SYSTEM. THE COMPANY DOES NOT SUPPLY SOLAR PANELS.**



PENSILSOLE MIDDLE - TECHNICAL DETAILS



- 1 **ALUMINIUM FRAME.**  
Standard colour:  Silver Anodized
- Non standard colours:  
Matt with rough finish - polyester powder coating
- White  Dove-Grey  Dark-Brown
- Further RAL colours available in both matt and glossy smooth finish.

- 2 **ALUMINUM CAPS SUBJECTED TO POLYESTER POWDER COATING**
- Standard colour:  RAL 7044

- 3 **STEEL PLATES SUBJECTED TO HOT-DIP GALVANIZING AND POLYESTER POWDER COATING**
- Standard colour:  RAL 7044

- 4 **CONCRETE BALLASTS WITH SANDBLASTED WHITE GRANITE FINISH**

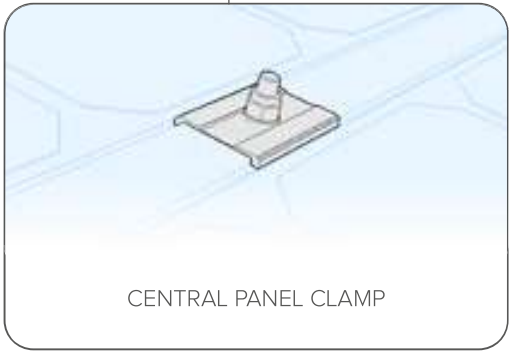
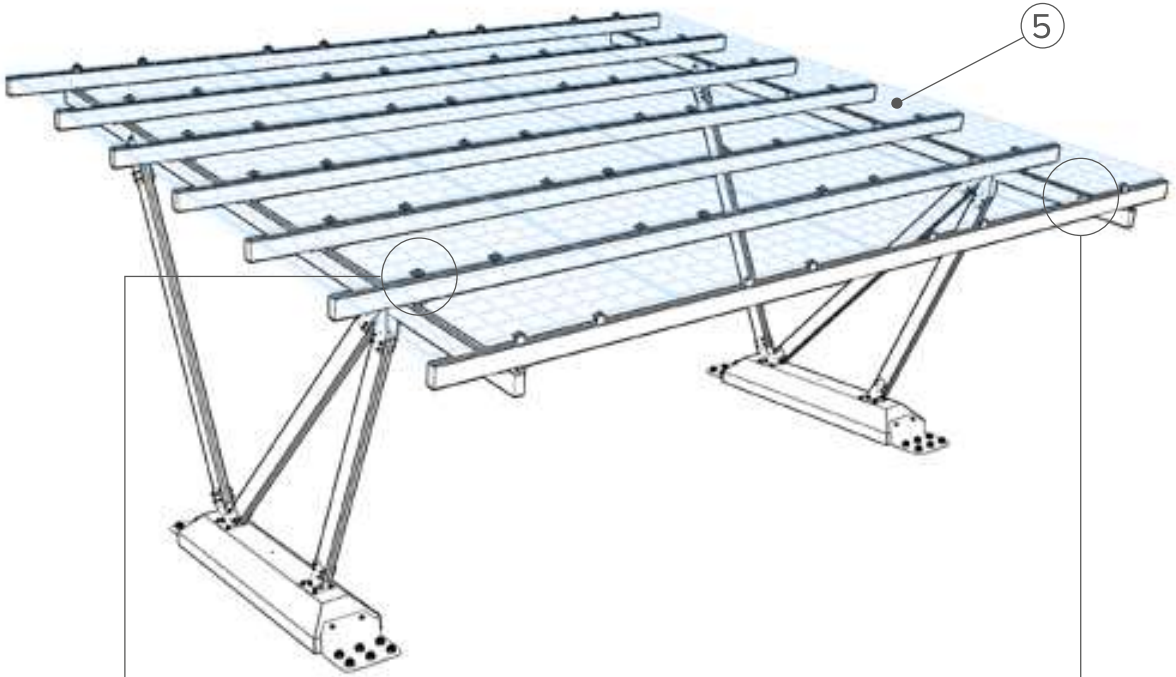
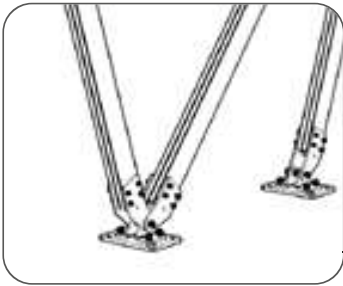


OPTIONAL  
PROTECTIVE CASING FOR STAKES  
OR ANCHORS

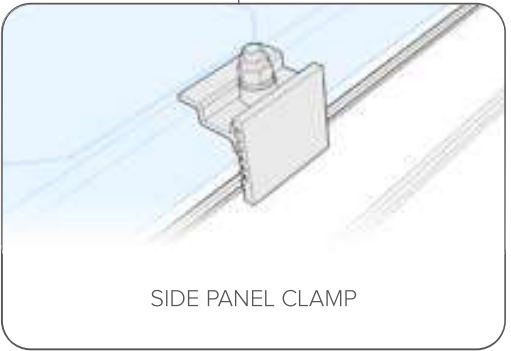
Standard colour:  RAL 7044

**VERSION WITH HOT-DIP GALVANIZED AND POLYESTER POWDER COATED STEEL ANCHOR PLATES FOR CONCRETE PLINTH OR SLAB**

Standard colour:  RAL 7044



CENTRAL PANEL CLAMP



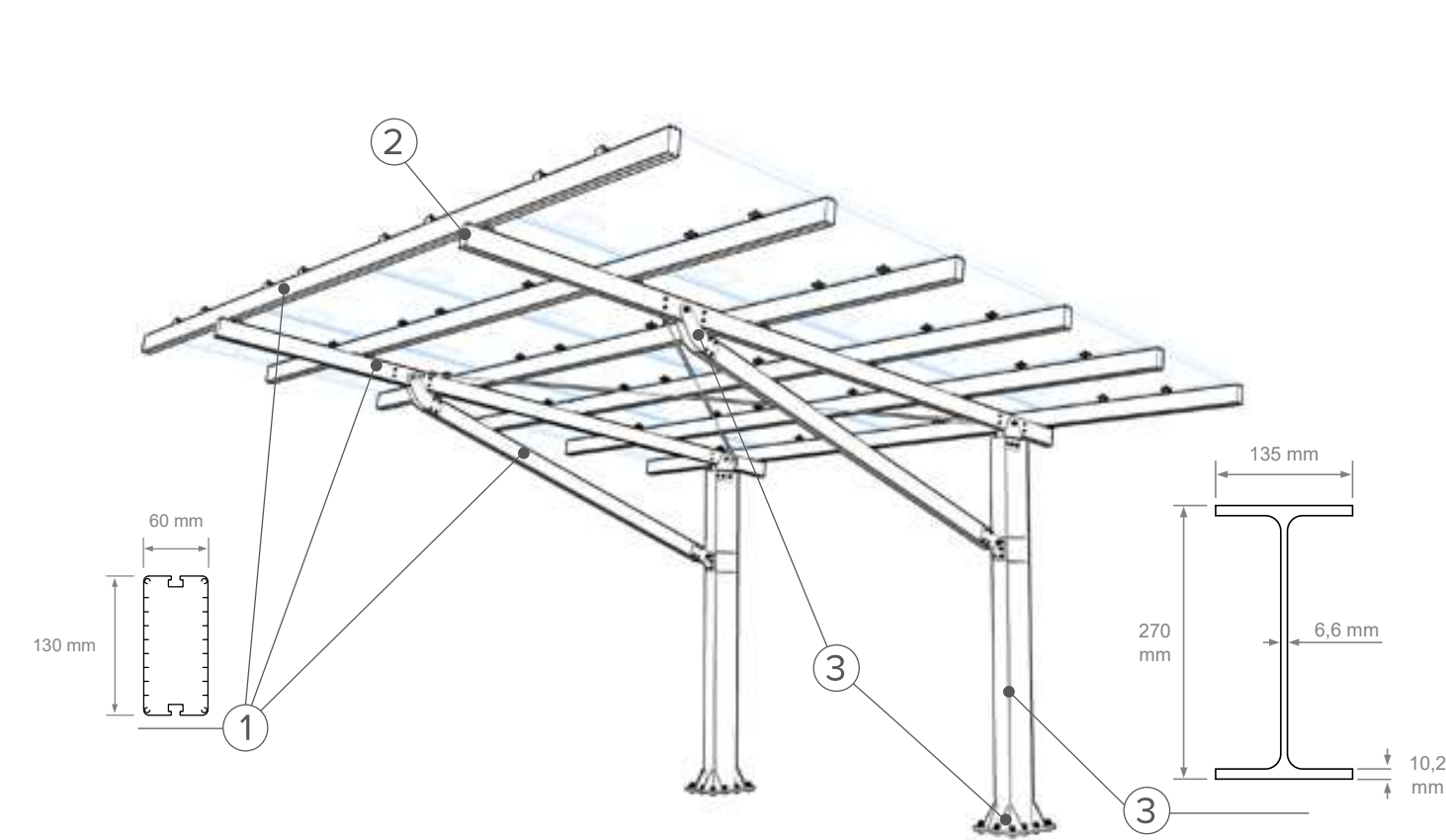
SIDE PANEL CLAMP







THE RAPID PANEL FASTENING SYSTEM IS INCLUDED IN THE PRICE. THE QUANTITY AND ARRANGEMENT OF CLAMPS DEPEND ON THE SIZE OF THE STRUCTURE.

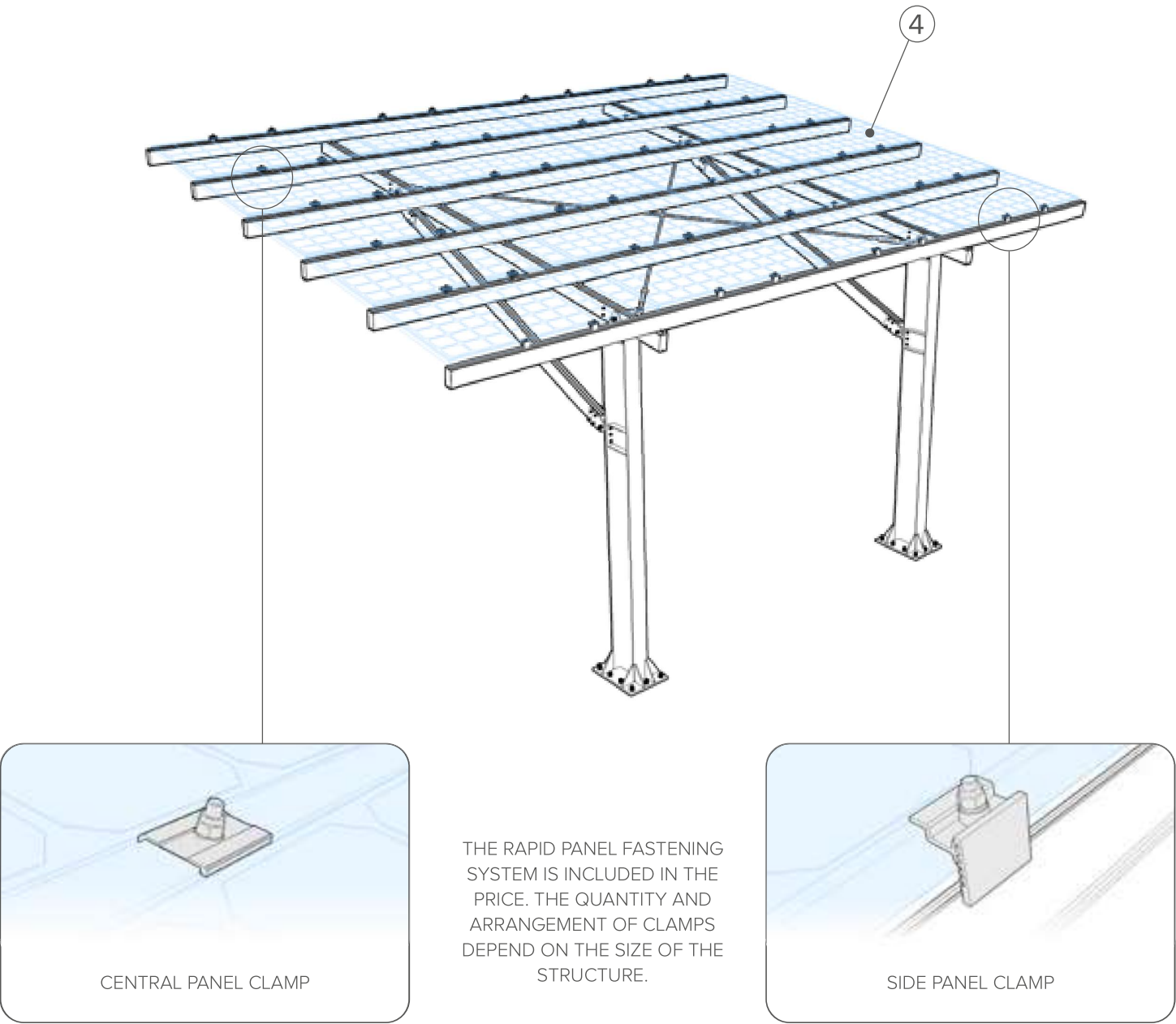
- 5 **THE STRUCTURE SUPPORTS ANY MODEL AND SIZE OF SOLAR PANEL DUE TO ITS INTEGRATED QUICK FIXING SYSTEM. THE COMPANY DOES NOT SUPPLY SOLAR PANELS.**



PENSILSOLE CANTILEVER - TECHNICAL DETAILS



- 1 **ALUMINIUM FRAME.**  
Standard colour:  Silver Anodized  
Non standard colours:  
Matt with rough finish - polyester powder coating  
 White  Dove-Grey  Dark-Brown  
Further RAL colours available in both matt and glossy smooth finish.
- 2 **ALUMINUM CAPS SUBJECTED TO POLYESTER POWDER COATING**  
Standard colour:  RAL 7044
- 3 **STEEL PLATES SUBJECTED TO HOT-DIP GALVANIZING AND POLYESTER POWDER COATING**  
Standard colour:  RAL 7044



- 4 **THE STRUCTURE SUPPORTS ANY MODEL AND SIZE OF SOLAR PANEL DUE TO THE INTEGRATED QUICK FIXING SYSTEM.**  
**THE COMPANY DOES NOT SUPPLY THE SOLAR PANELS.**



PENSILSOLE MAXI  
STRUCTURE DIMENSIONS



150 Kg/m<sup>2</sup>

SNOW LOAD  
Snow action on the roof  
(Eurocode 1-3)



150 Km/h

WIND RESISTANCE  
Terrain category III (Eurocode 1-4)

PENSILSOLE MAXI WITH BALLASTS					
<div><div><div>Concrete ballast and sandblasted white granite finish</div><div><div><div>27 cm</div><div>50 cm</div><div>245 cm</div></div></div></div><div><div><div>A</div><div>max 588 cm</div><div>max 550 cm</div></div><div><div>B</div><div>max 15°</div><div>250 cm</div></div></div><div>parking space = max 275 cm</div></div>					
MAX DIMENSIONS					
	2 PARKING LOTS	3 PARKING LOTS	4 PARKING LOTS	5 PARKING LOTS	6 PARKING LOTS
	2 Ballasts	2 Ballasts	2 Ballasts	3 Ballasts	3 Ballasts
	20 Solar panels	25 Solar panels	30 Solar panels	40 Solar panels	45 Solar panels
SIDE A (cm)	695	868	1042	1390	1564
SIDE B (cm)	598	598	598	598	598

PENSILSOLE MIDDLE  
STRUCTURE DIMENSIONS



120 Kg/m<sup>2</sup>

SNOW LOAD  
Snow action on the roof  
(Eurocode 1-3)



100 Km/h

WIND RESISTANCE  
Terrain category III (Eurocode 1-4)


PENSILSOLE MIDDLE WITH BALLASTS					
<div><div><div>Concrete ballast and sandblasted white granite finish</div><div><div><div>25,5 cm</div><div>50 cm</div><div>210 cm</div></div></div></div><div><div><div>A</div><div>max 560 cm</div><div>max 516 cm</div></div><div><div>B</div><div>max 7°</div><div>230 cm</div></div></div><div>parking space = max 258 cm</div></div>					
MAX DIMENSIONS					
	2 PARKING LOTS	3 PARKING LOTS	4 PARKING LOTS	5 PARKING LOTS	6 PARKING LOTS
	2 Ballasts	2 Ballasts	2 Ballasts	3 Ballasts	3 Ballasts
	20 Solar panels	25 Solar panels	30 Solar panels	40 Solar panels	45 Solar panels
SIDE A (cm)	695	868	1042	1390	1564
SIDE B (cm)	592	592	592	592	592

PENSILSOLE MAXI WITH ANCHOR PLATES					
<div><div><div>Hot-dip galvanized and painted steel plate on reinforced concrete foundation</div><div><div><div>17 cm</div><div>12 cm</div><div>36 cm</div><div>36 cm</div></div></div></div><div><div><div>A</div><div>max 588 cm</div><div>max 564 cm</div></div><div><div>B</div><div>max 15°</div><div>250 cm</div></div></div><div>parking space = max 282 cm</div></div>					
MAX DIMENSIONS					
	2 PARKING LOTS	3 PARKING LOTS	4 PARKING LOTS	5 PARKING LOTS	6 PARKING LOTS
	4 Anchor plates	4 Anchor plates	4 Anchor plates	6 Anchor plates	6 Anchor plates
	20 Solar panels	25 Solar panels	30 Solar panels	40 Solar panels	45 Solar panels
SIDE A (cm)	695	868	1042	1390	1564
SIDE B (cm)	598	598	598	598	598

PENSILSOLE MIDDLE WITH ANCHOR PLATES					
<div><div><div>Hot-dip galvanized and painted steel plate on reinforced concrete foundation</div><div><div><div>11 cm</div><div>6 cm</div><div>22 cm</div><div>29 cm</div></div></div></div><div><div><div>A</div><div>max 560 cm</div><div>max 537 cm</div></div><div><div>B</div><div>max 7°</div><div>230 cm</div></div></div><div>parking space = max 268 cm</div></div>					
MAX DIMENSIONS					
	2 PARKING LOTS	3 PARKING LOTS	4 PARKING LOTS	5 PARKING LOTS	6 PARKING LOTS
	4 Anchor plates	4 Anchor plates	4 Anchor plates	6 Anchor plates	6 Anchor plates
	20 Solar panels	25 Solar panels	30 Solar panels	40 Solar panels	45 Solar panels
SIDE A (cm)	695	868	1042	1390	1564
SIDE B (cm)	592	592	592	592	592




PENSILSOLE CANTILEVER  
STRUCTURE DIMENSIONS



120 Kg/m<sup>2</sup>

SNOW LOAD

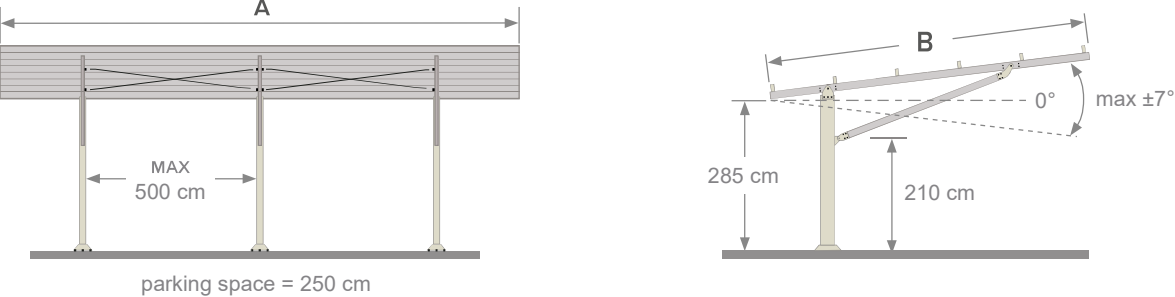
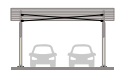
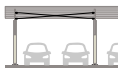
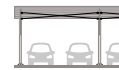


Snow action on the roof  
(Eurocode 1-3)



100 Km/h

WIND RESISTANCE

Terrain category III (Eurocode 1-4)

PENSILSOLE CANTILEVER					
<div><div></div></div>					
MAX DIMENSIONS					
	2 PARKING LOTS	3 PARKING LOTS	4 PARKING LOTS	5 PARKING LOTS	6 PARKING LOTS
	2 Uprights	2 Uprights	3 Uprights	3 Uprights	4 Uprights
	20 Solar panels	25 Solar panels	30 Solar panels	40 Solar panels	45 Solar panels
SIDE A (cm)	695	868	1042	1390	1564
SIDE B (cm)	592	592	592	592	592

The dimensions of the structure can be tailored to meet customer’s needs. The sizes on the table are based on a panel measuring 1722 mm × 1134 mm.. The structure with anchor plates requires a foundation system for anchoring to the ground.



1-300-1-22-B



GIULIO BARBIERI

[giuliobarbieri.it](http://giuliobarbieri.it)