



TECHNICAL MANUAL

# ARTOSI CARPORT



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Products in this assortment group are always measured from the exterior.

## ISOTRA *Quality*

A mark symbolising long tradition, inestimable investment into development, the use of quality materials, state-of the-art technologies, reliable work from hundreds of employees and numerous other parameters, contributing one entity - the final product of ISOTRA.

## DECLARATION OF PERFORMANCE No. 01/2023

<b>Product – type identification code</b>	Artosi Carport
<b>Type designation</b>	2-01819-XXXX-A
<b>Intended use</b>	Shelter
<b>Manufacturer</b>	ISOTRA a.s.
<b>Bílovecká 2411/1</b>	ISOTRA a.s. Bílovecká 2411/1, CZ-74601 Opava, Czech Republic ID No.: 47679191
<b>Authorised representative</b>	Not appointed
<b>System of assessment and verification of constancy of performance</b>	2+
<b>Notified body</b>	Technický a zkušební ústav stavební Praha, s. p., (Technical and Test Institute for Construction Prague, SOE) Prosecká 811/76a, CZ-19000 Prague, Czech Republic, No. OS 1020 FPSC Certificate No. 1020-CPR-305/2011

## Properties listed in the Declaration: (in accordance with Table ZA.1 EN 1090-1:2009+A1:2011)

Basic properties	Property value	Harmonised technical specification
Tolerances and geometric data	in accordance with EN 1090-2, -3 and production documentation	4.2 and 5.3 EN 1090-1:2009+A1:2011
Weldability	steel EN 10025-2 - S235JRC+N steel EN 10219-1 - S235JR steel EN 10111 - DD11	4.3 and 5.4 EN 1090-1:2009+A1:2011
Fracture toughness Impact resistance	JR = 27J at +20 °C	4.4 and 5.5 4.8 and 5.10 EN 1090-1:2009+A1:2011
Reaction-to-fire performance	Class A1	4.6 and 5.8 EN 1090-1:2009+A1:2011
Release of cadmium	NPD	4.7 and 5.9 EN 1090-1:2009+A1:2011
Radioactivity	NPD	4.7 and 5.9 EN 1090-1:2009+A1:2011
Durability	NPD	4.9 and 5.11 EN 1090-1:2009+A1:2011
Ultimate load		4.5.1, 4.5.2 and 5.6.2 EN 1090-1:2009+A1:2011
Deformation in serviceability limit state	Static calculation 2211-09 000 001 of 1/2023	4.5.5 EN 1090-1:2009+A1:2011
Fatigue strength		4.5.1, 4.5.3 and 5.6.2 EN 1090-1:2009+A1:2011

Product properties conform to the properties introduced in the table.

This Declaration of Performance (conformity with the supplied part specification) is issued under the sole responsibility of the manufacturer.

On behalf of the manufacturer: ISOTRA a.s. Ostrava, 15.11.2023 Signature:

 OS 1020 <b>ISOTRA a.s.</b> <b>Head office: CZ, Opava, Bílovecká 2411/1   Manufacturing plant: CZ, Opava, Bílovecká 2411/1</b> ID No.: 47679191   1020-CPR-070063765 23 <b>EN 1090-1:2009+A1:2011</b> Artosi Carport – 2-01819-XXXX-A <b>DECLARATION OF PERFORMANCE No. 01/2023</b>	
Tolerances and geometric data Svařitelnost Fracture toughness Reaction-to-fire performance Release of cadmium Radioactivity Durability	
in accordance with EN 1090-2, -3 and production documentation steel EN 10025-2 - S235JRC+N steel EN 10219-1 - S235JR steel EN 10111 - DD11 JR = 27J at +20 °C Class A1 NPD NPD NPD	
Design characteristics: <b>Design:</b> drawing No. 2-01819-XXXX-0 <b>Manufacture:</b> according to drawing No. 2-01819-XXXX-0 – ARTOSI CARPORT, execution class EXC 2	

## CARPORT ARTOSI



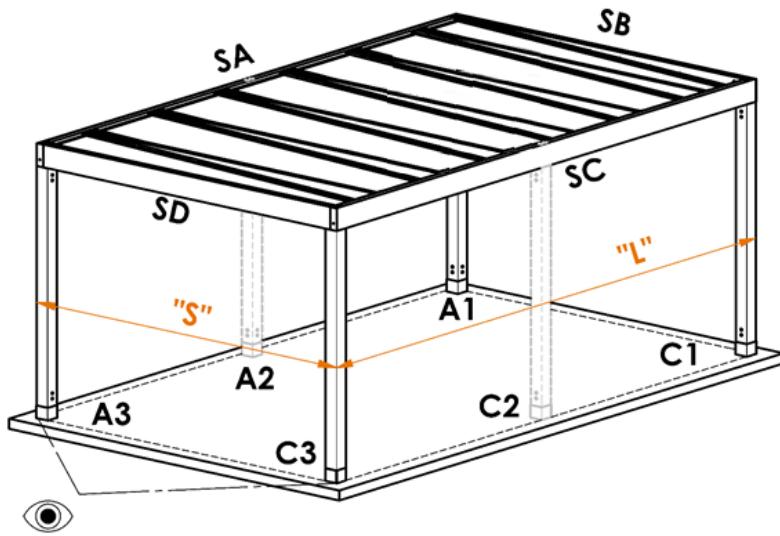
- ▲ Own development and manufacture
- ▲ Clean, elegant design
- ▲ The carport is manufactured with high precision
- ▲ Possibility to place the poles outside the carport corners
- ▲ Three types of roofs – polycarbonate sheet, trapezoidal sheets, roofless frame
- ▲ Possibility of LED lighting along the entire carport perimeter
- ▲ Possibility of installing screen roller shutters or sliding glass panels
- ▲ Weather resistance – Class 6

**ISOTRA** *Quality*

## CARPORT ARTOSI

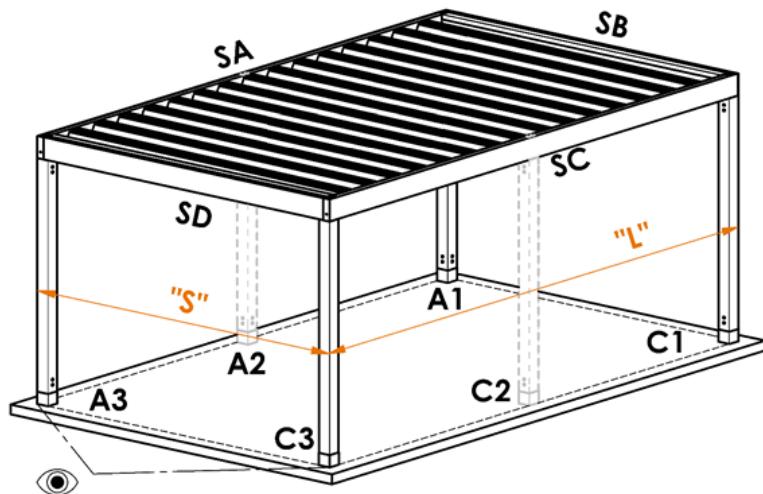
### Basic specification

Frame with a polycarbonate roof



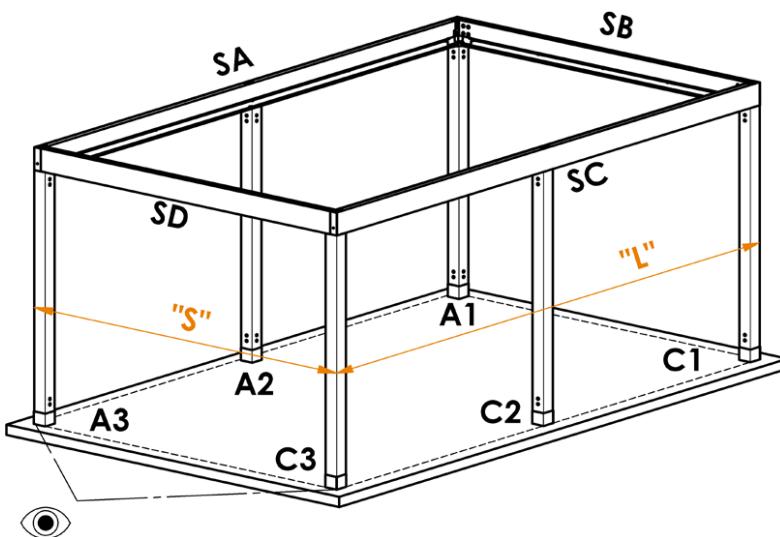
- SA, SC – Perimeter frame – Length
- SB, SD – Perimeter frame – Width
- A1, A3, C1, C3 – Corner poles
- A2, C2 – Additional poles
- „S“ – Maximum Carport width
- „L“ – Maximum Carport length
- Eye – Viewing direction of the Carport

Frame with a trapezoidal roof



- SA, SC – Perimeter frame – Length
- SB, SD – Perimeter frame – Width
- A1, A3, C1, C3 – Corner poles
- A2, C2 – Additional poles
- „S“ – Maximum Carport width
- „L“ – Maximum Carport length
- Eye – Viewing direction of the Carport

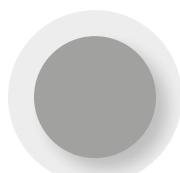
Roofless frame



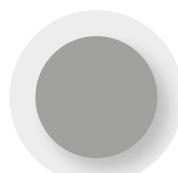
- SA, SC – Perimeter frame – Length
- SB, SD – Perimeter frame – Width
- A1, A3, C1, C3 – Corner poles
- A2, C2 – Additional poles
- „S“ – Maximum Carport width
- „L“ – Maximum Carport length
- Eye – Viewing direction of the Carport

## Colour variants

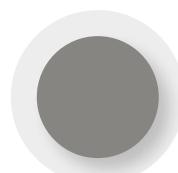
### Carport frame



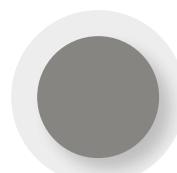
RAL 9006



RAL 9006 S



RAL 9007



RAL 9007 S



RAL 9010 M



RAL 9010 S



RAL 7016 M



RAL 7016 S



RAL 8014 M



RAL 8014 S



DB 702



DB 703

RAL 9006 White aluminium

RAL 9006S White aluminium structure

RAL 9007 Grey aluminium

RAL 9007S Grey aluminium structure

RAL 9010M Pure white matt

RAL 9010S Pure white structure

RAL 7016M Anthracite grey matt

RAL 7016S Anthracite grey structure

RAL 8014M Sepia brown matt

RAL 8014S Sepia brown structure

DB 702 Pearl light grey

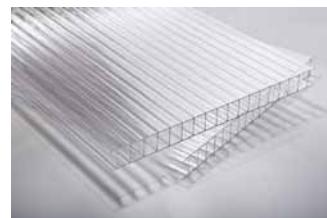
DB 703 Pearl dark grey

Note: Other RAL colours upon request for an extra charge.

### Polycarbonate roof



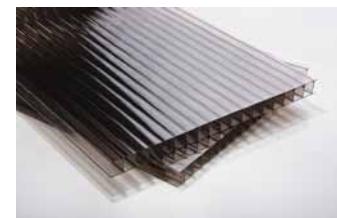
16 mm thickness, 2 walls, anthracite



16 mm thickness, 2 walls, clear



16 mm thickness, 7 walls, opal



16 mm thickness, 2 walls, bronze

### Trapezoidal roof

Steel sheet of 1 mm thickness. Galvanised on both sides. Double-sided surface finish in RAL 9006, RAL 7016, RAL 9010.

NOTE: The shade and surface structure of the trapezoidal sheet varnish may differ from the shade and surface structure of the Carport structure varnish, and is therefore not grounds for complaint.



## Definition

The Carport Artosi is a shelter with fixed roof. The Carport is an open outdoor structure, and cannot be therefore compared to an enclosed, completely heat-, water-, and wind-tight structure. This fact must be especially considered when screen shutters or sliding panels are to be added to the Carport sides. Any and all equipment sheltered under the Carport must be suitable for outdoor use.

Local conditions may specify that a carport be considered a building, and in such cases, local laws and requirements for such buildings must be respected.

The manufacturer shall bear no responsibility for unsuitable placement or configuration of the Carport for the given location.

The manufacturer shall bear no responsibility for consequences associated with incorporation to other building elements.

## Water resistance

The Carport is slightly sloped. The Carport is equipped with a gutter along the perimeter of the roof. The water drains are inside the Carport poles.

The Carport is capable of draining rain water in the quantities specified in the table below, given that all the drains are located at the catchment side of the roof.

Carport area [m <sup>2</sup> ]	Number of drains [pcs]	Quantity of water drained [l per m <sup>2</sup> per 1 hr]
12	1	50
24	2	50
36	3	50
49	3	30

The Carport is an open outdoor structure and is not completely water-tight.

In the rain, water drops dripping in the Carport gutter are likely to splash into the areas under the Carport (this always depends on the rain intensity and weather conditions).

It should be noted that higher rain intensity is likely to cause overflow of the drain, which is located inside the Carport.

Due to the fact that temperatures above and beyond the Carport will differ, it is likely that water will condensate on the lower side and inside the Carport structure.

In case the Carport is installed in close vicinity of other structures, ingress of water may be observed between the Carport and the neighbouring structure. Sealing of this joint is not part of the product. therefore, the manufacturer shall not be held responsible for the method and implementation of this seal.

If used in salty environments and in case of intense effects of salt mists or chemical vapours (e.g., pools, whirlpools), incrustation and bubbles may appear on the surface or in the aluminium profile joints, as well as surface oxidation of stainless-steel parts of the Carport.

## Wind resistance

The carport is capable of withstanding wind exceeding Class 6 acc. to ČSN 13561 (more than 88 km/h).

The Carport is an open outdoor structure and is not completely wind-tight.

## Snow resistance

The Carport is manufactured in several roof load capacities:

- Polycarbonate: 150 kg/m<sup>2</sup>, 110 kg/m<sup>2</sup>
- Trapezoidal: 200 kg/m<sup>2</sup>, 150 kg/m<sup>2</sup>, 110 kg/m<sup>2</sup>

The required load capacity affects the max. achievable dimensions and pole positions, see technical specifications.

The roof load capacity is calculated with even snow distribution over the whole roof. Pay attention to snowdrifts and fall of snow from nearby structures.

Local roof overload may lead to the refusal to recognise a warranty.

The Carport is an open outdoor structure and is not completely snow-tight.

## Standard dimensions

Roof version	Length L [mm]		Width S [mm]		Passing height H [mm]		Guaranteed surface [m <sup>2</sup> ]
	min.	max.	min.	max.	min.	max.	max.
Polycarbonate	1440	7000	1000	5500	500	3000	38,5
Trapezoidal	1440	7000	1000	6500	500	3000	45,5
Roofless (ROOFLESS)	1440	7000	1000	6500	500	3000	45,5

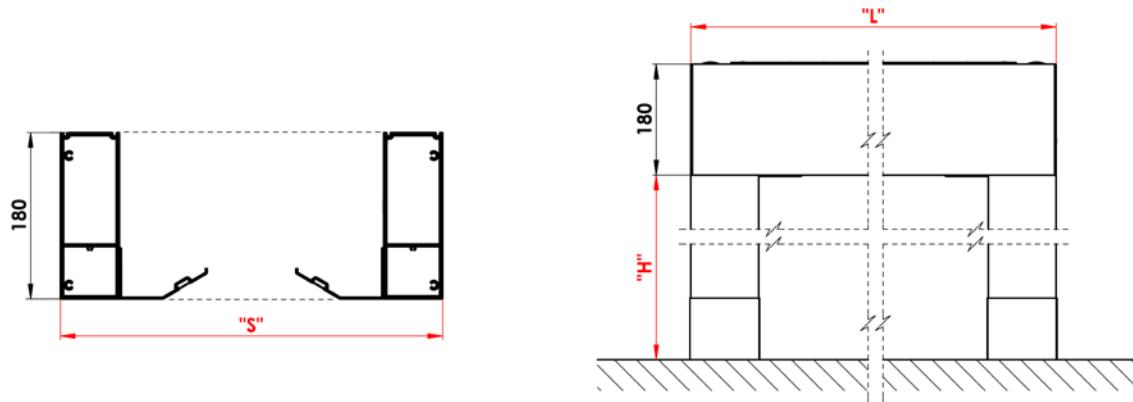
Further information about the achievable dimensions is shown in technical specifications.

## Installation dimensions

"S" – Carport width

"L" – Carport length

"H" – Passing height of a specific pole



## Linear expansion

When the temperature of aluminium increases, the metal will expand; this phenomenon is called thermal expansion. The coefficient of thermal expansion of aluminium alloy is  $23.5 \mu\text{m}/(\text{m}^* \text{K})$ .

Example:

At  $20^\circ\text{C}$ , an aluminium profile measures 7,000 mm. When heated to  $50^\circ\text{C}$  – during a sunny day – it will measure 7005 mm due to thermal expansion. The length will increase by +5 mm as a result of the change in aluminium temperature.

When incorporating the Carport to surrounding structures, it is important to consider change in the Carport dimensions due to ambient temperature.

When taking measurements of screen roller shutters and installing them in the Carport, it is necessary to consider thermal expansion of the aluminium profile in relation to ambient temperature. We recommend that measurements be taken at ambient temperatures of  $23 \pm 5^\circ\text{C}$ .

## Dimensional tolerances

Length	Tolerance	Width	Tolerance	Passing height	Tolerance
up to 2000 mm	$\pm 2,4$	up to 2000 mm	$\pm 2,4$	from 500 mm to 3000 mm	
up to 3000 mm	$\pm 2,6$	up to 3000 mm	$\pm 2,6$		+20/-10 - adjustable
up to 4000 mm	$\pm 2,8$	up to 4000 mm	$\pm 2,8$		
up to 5000 mm	$\pm 3$	up to 4500 mm	$\pm 3$		
up to 6000 mm	$\pm 3,2$				
up to 7000 mm	$\pm 3,4$				

## Approximate Carport weight

Values in the table are in [kg].

"S" – Carport width

"L" – Carport length

### Trapezoidal

L/S	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500
<b>1004</b>	71	85	99	113	127	141	155	169	182	196
<b>1341</b>	85	101	117	132	148	164	180	196	212	228
<b>1678</b>	98	116	134	152	170	188	205	223	241	259
<b>2015</b>	112	131	151	171	191	211	231	251	271	290
<b>2352</b>	125	147	169	191	212	234	256	278	300	322
<b>2689</b>	138	162	186	210	234	258	282	305	329	353
<b>3026</b>	152	178	203	229	255	281	307	333	359	385
<b>3363</b>	165	193	221	249	277	304	332	360	388	416
<b>3700</b>	178	208	238	268	298	328	358	388	417	447
<b>4037</b>	192	224	256	287	319	351	383	415	447	479
<b>4374</b>	205	239	273	307	341	375	408	442	476	510
<b>4711</b>	219	254	290	326	362	398	434	470	506	541
<b>5048</b>	232	270	308	346	383	421	459	497	535	573
<b>5385</b>	245	285	325	365	405	445	485	524	564	604
<b>5722</b>	259	301	342	384	426	468	510	552	594	635
<b>6059</b>	272	316	360	404	448	491	535	579	623	667
<b>6396</b>	285	331	377	423	469	515	561	606	652	698
<b>6733</b>	299	347	394	442	490	538	586	634	682	730
<b>7000</b>	303	351	399	447	494	542	590	638	686	734

### Polycarbonate

L/S	2000	2500	3000	3500	4000	4500	5000	5500
<b>864</b>	58	69	81	93	105	116	128	140
<b>1659</b>	81	96	111	126	142	157	172	187
<b>2454</b>	105	123	142	160	178	197	215	234
<b>3249</b>	128	150	172	194	215	237	259	281
<b>4044</b>	152	177	202	227	252	277	303	328
<b>4839</b>	175	204	232	261	289	318	346	375
<b>5634</b>	198	230	262	294	326	358	390	422
<b>6429</b>	222	257	292	328	363	398	434	469
<b>7000</b>	232	268	304	340	376	412	448	484

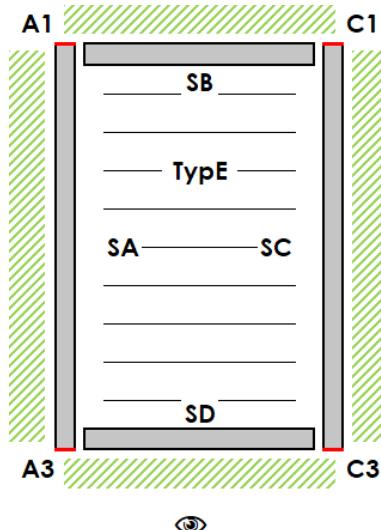
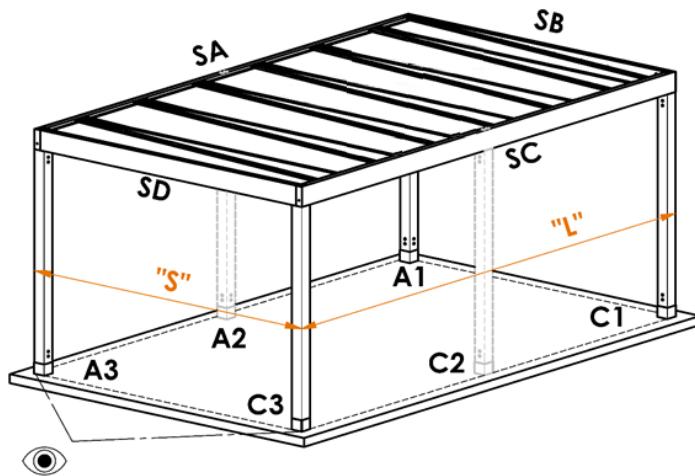
## CARPORT ARTOSI

### Technical specification

#### Polycarbonate

##### Types of installation

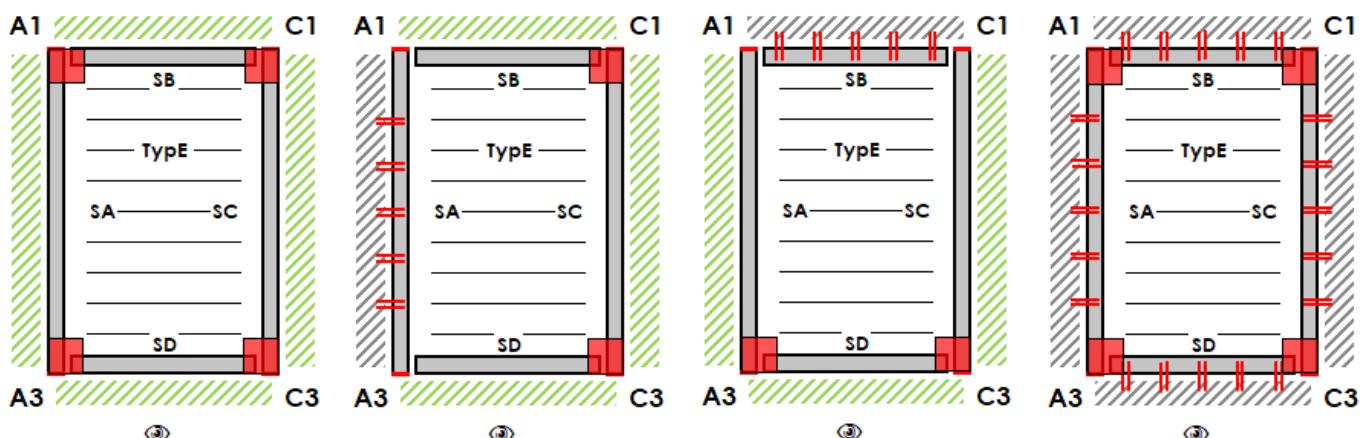
- Free-standing (supported by 4 to 6 poles)
- Possibility of anchoring to the adjacent building using the SA / SB / SC / SD perimeter frame, without having to use poles at the anchored side
- The SA / SB / SC / SD sides may be built up



SA, SC – Perimeter frame – Length  
 SB, SD – Perimeter frame – Width  
 A1, A3, C1, C3 – Corner poles  
 A2, C2 – Additional poles

„S“ – Maximum Carport width  
 „L“ – Maximum Carport length  
 Eye – Viewing direction of the Carport

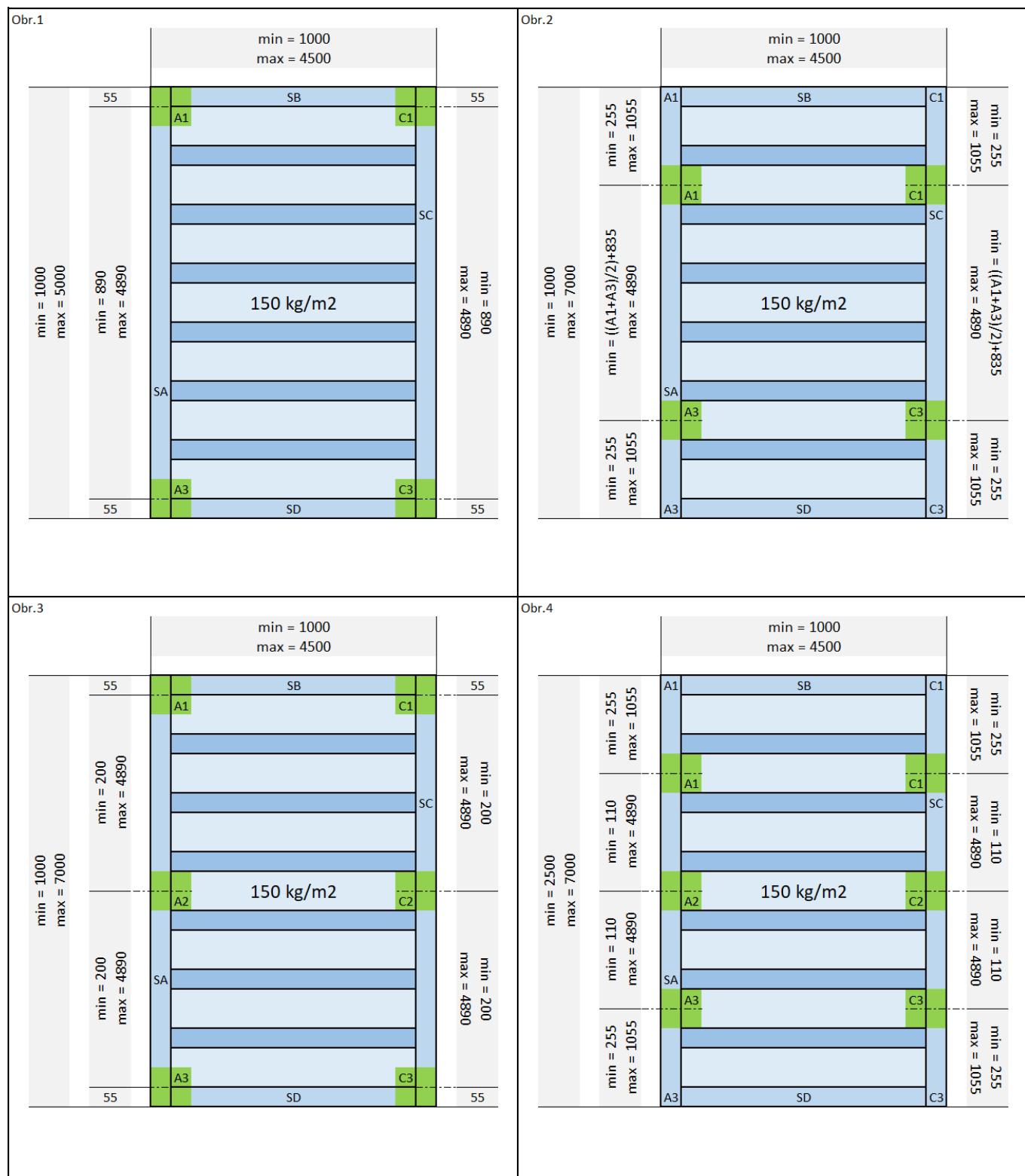
Příklady možných zástaveb carportu s trapézem s ohledem na okolí



- Anchored side:  
-
- Compulsory pole:  
A1 / A3 / C1 / C3
- Optional pole:  
A2 / C2
- Anchored side:  
SA
- Compulsory pole:  
C1 / C3
- Optional pole:  
A1 / A2 / A3 / C2
- Anchored side:  
SB
- Compulsory pole:  
A3 / C3
- Optional pole:  
A1 / A2 / C1 / C2
- Anchored side:  
SA / SB / SC / SD
- Compulsory pole:  
-
- Optional pole:  
A1 / A2 / A3 / C1 / C2 / C3

## Polycarbonate – Conditions for 150 kg/m<sup>2</sup> load capacity

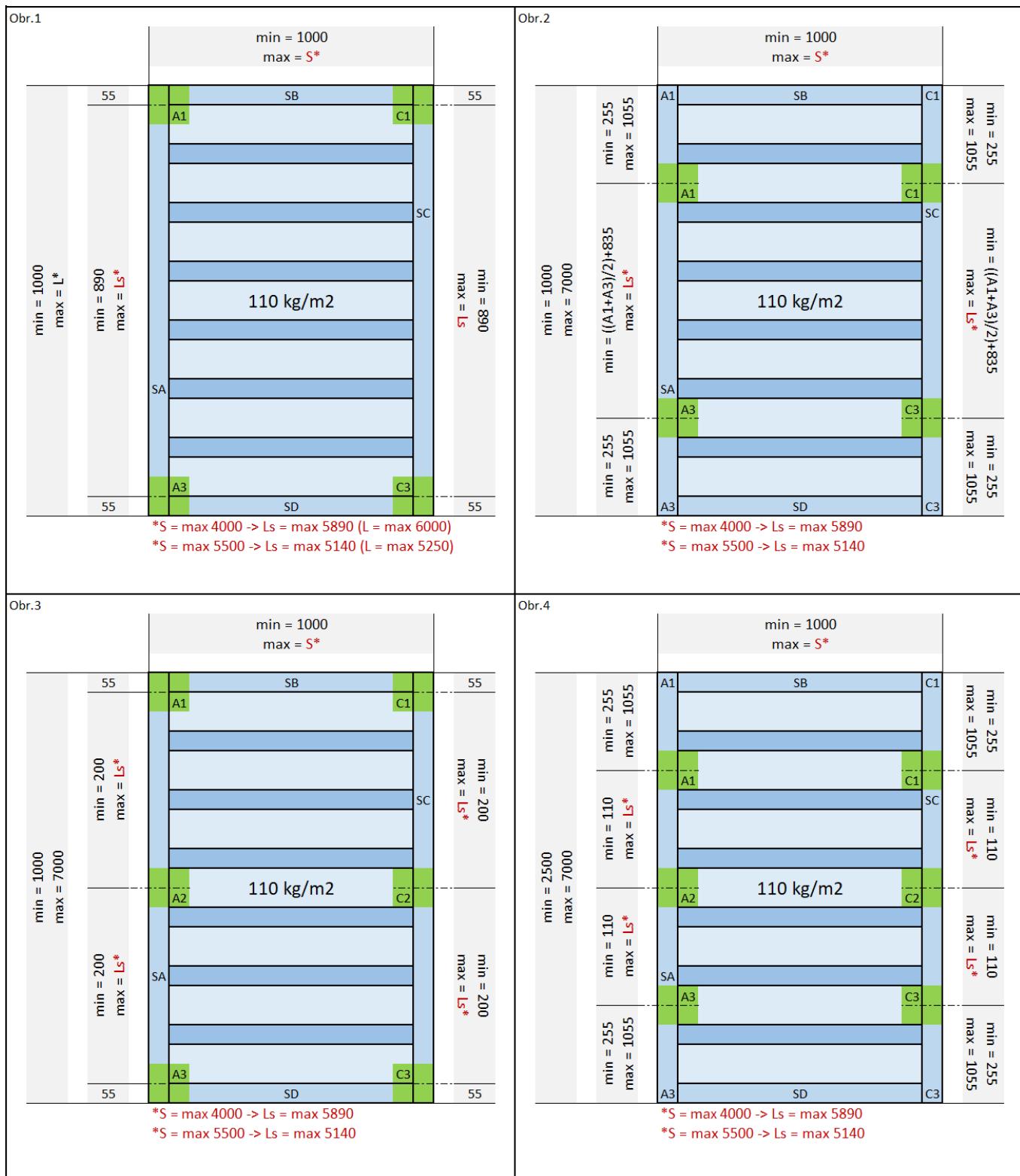
The Carport load capacity depends on the Carport external dimensions and pole positions. These dependencies are shown below. It is possible to combine the conditions, i.e., poles may be placed to side SA acc. to Fig. 1 and to side SC acc. to Fig. 4.



- Pole A1 – May be replaced by anchoring of side SA or side SB
- Pole A2 – May be replaced by anchoring of side SA
- Pole A3 – May be replaced by anchoring of side SA or side SD
- Pole C1 – May be replaced by anchoring of side SC or side SB
- Pole C2 – May be replaced by anchoring of side SC
- Pole C3 – May be replaced by anchoring of side SC or side SD

## Polycarbonate – Conditions for 110 kg/m<sup>2</sup> load capacity

The Carport load capacity depends on the Carport external dimensions and pole positions. These dependencies are shown below. It is possible to combine the conditions, i.e., poles may be placed to side SA acc. to Fig. 1 and to side SC acc. to Fig. 4.



- Pole A1 – May be replaced by anchoring of side SA or side SB
- Pole A2 – May be replaced by anchoring of side SA
- Pole A3 – May be replaced by anchoring of side SA or side SD
- Pole C1 – May be replaced by anchoring of side SC or side SB
- Pole C2 – May be replaced by anchoring of side SC
- Pole C3 – May be replaced by anchoring of side SC or side SD

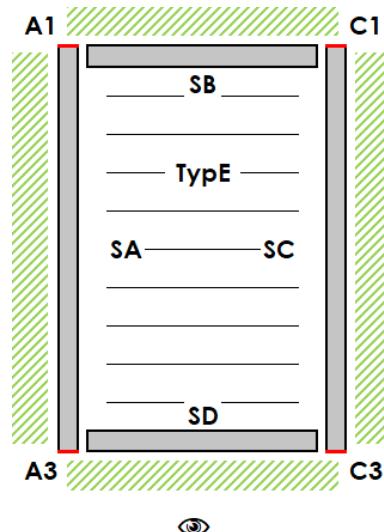
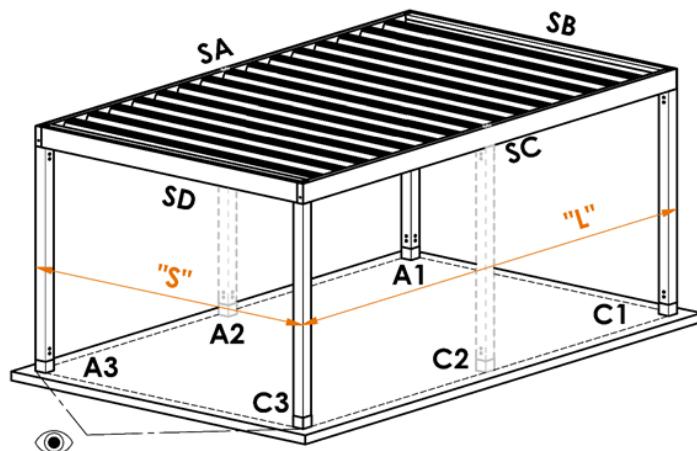
## CARPORT ARTOSI

### Technical specification

#### Trapezoidal roof

##### Types of installation

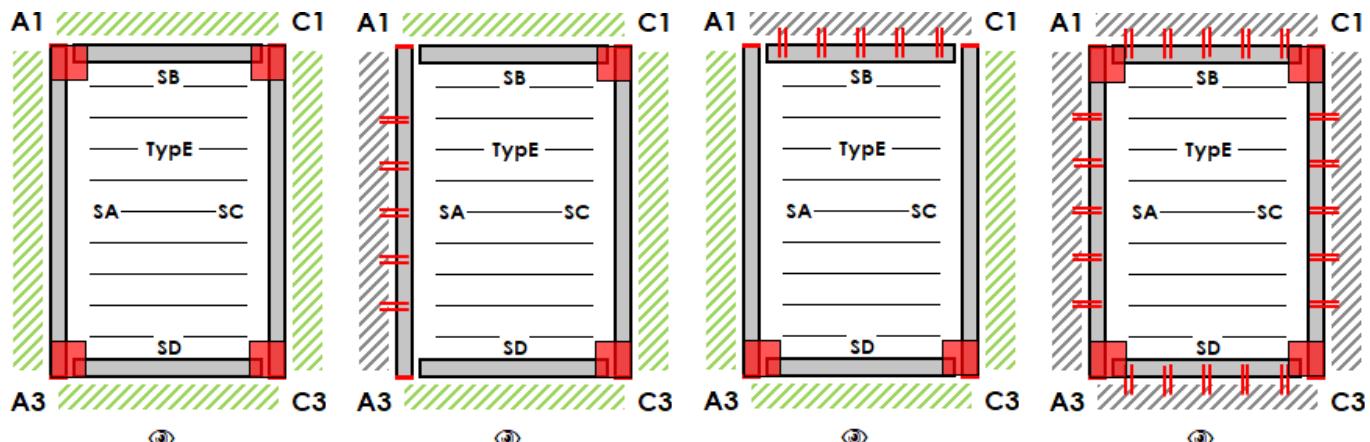
- Free-standing (supported by 4 to 6 poles)
- Possibility of anchoring to the adjacent building using the SA / SB / SC / SD perimeter frame, without having to use poles at the anchored side
- The SA / SB / SC / SD sides may be built up



SA, SC – Perimeter frame – Length  
 SB, SD – Perimeter frame – Width  
 A1, A3, C1, C3 – Corner poles  
 A2, C2 – Additional poles

„S“ – Maximum Carport width  
 „L“ – Maximum Carport length  
 - Viewing direction of the Carport

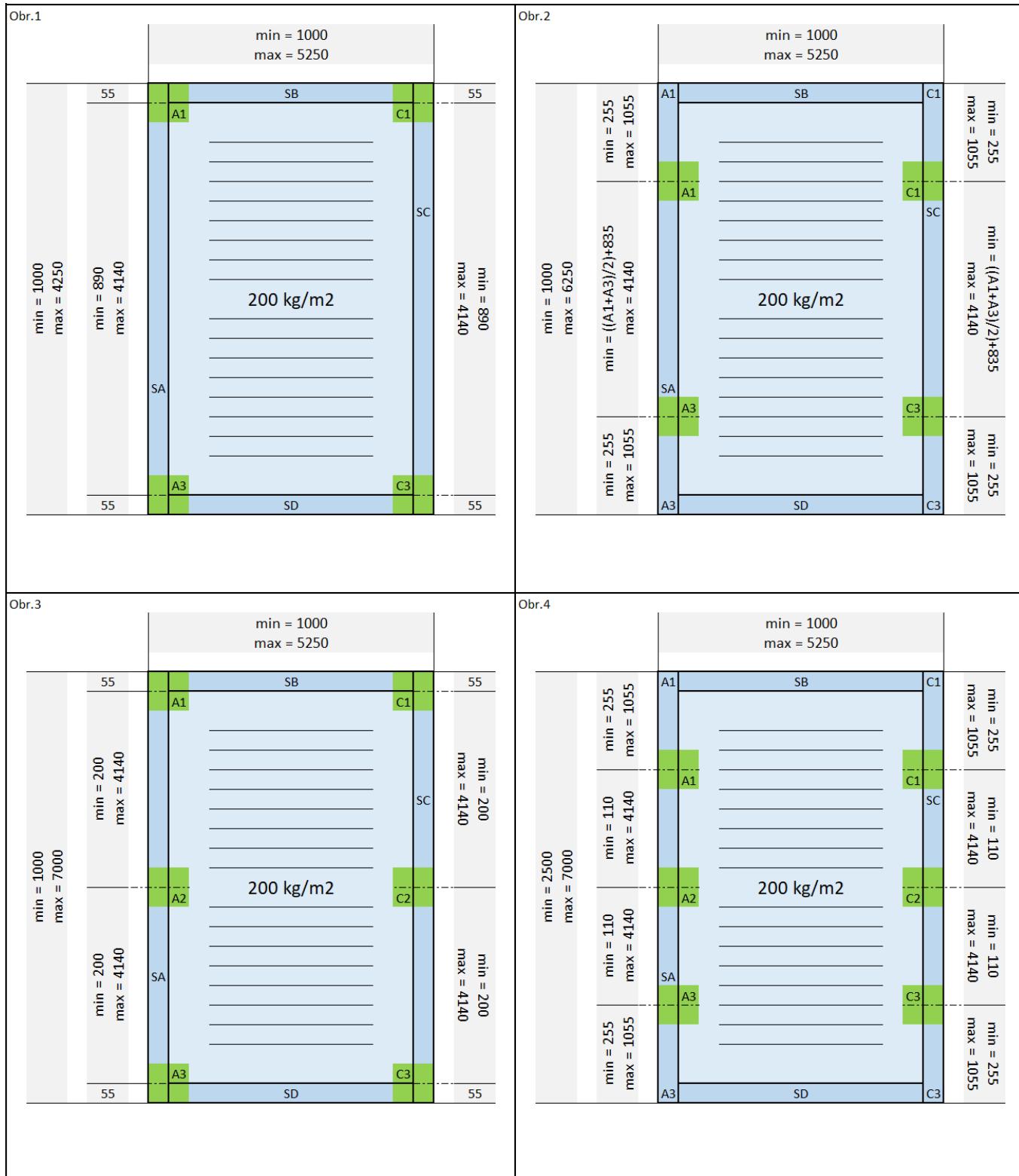
Examples of possible Carport installation options with trapezoidal roof, with respect to the surroundings



- Anchored side:
  -
- Compulsory pole:
  - A1 / A3 / C1 / C3
- Optional pole:
  - A2 / C2
- Anchored side:
  - SA
- Compulsory pole:
  - C1 / C3
- Optional pole:
  - A1 / A2 / A3 / C1 / C2 / C3
- Anchored side:
  - SB
- Compulsory pole:
  - A3 / C3
- Optional pole:
  - A1 / A2 / C1 / C2
- Anchored side:
  - SA / SB / SC / SD
- Compulsory pole:
  -
- Optional pole:
  - A1 / A2 / A3 / C1 / C2 / C3

## Trapezoidal – Conditions for 200 kg/m<sup>2</sup> load capacity

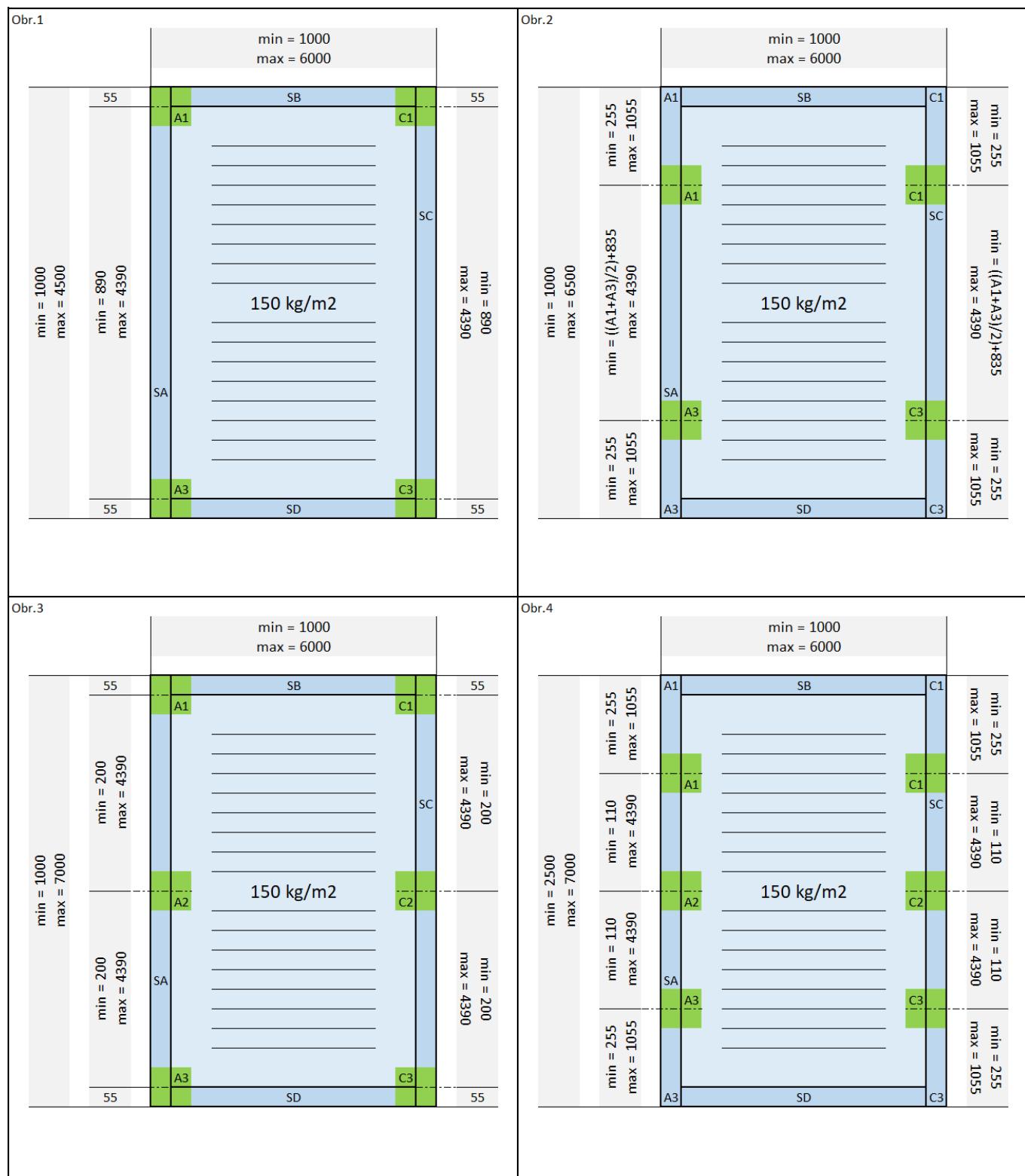
The Carport load capacity depends on the Carport external dimensions and pole positions. These dependencies are shown below. It is possible to combine the conditions, i.e. poles may be placed to side SA acc. to Fig. 1 and to side SC acc. to Fig. 4.



- Pole A1 – May be replaced by anchoring of side SA or side SB
- Pole A2 – May be replaced by anchoring of side SA
- Pole A3 – May be replaced by anchoring of side SA or side SD
- Pole C1 – May be replaced by anchoring of side SC or side SB
- Pole C2 – May be replaced by anchoring of side SC
- Pole C3 – May be replaced by anchoring of side SC or side SD

## Trapezoidal – Conditions for 150 kg/m<sup>2</sup> load capacity

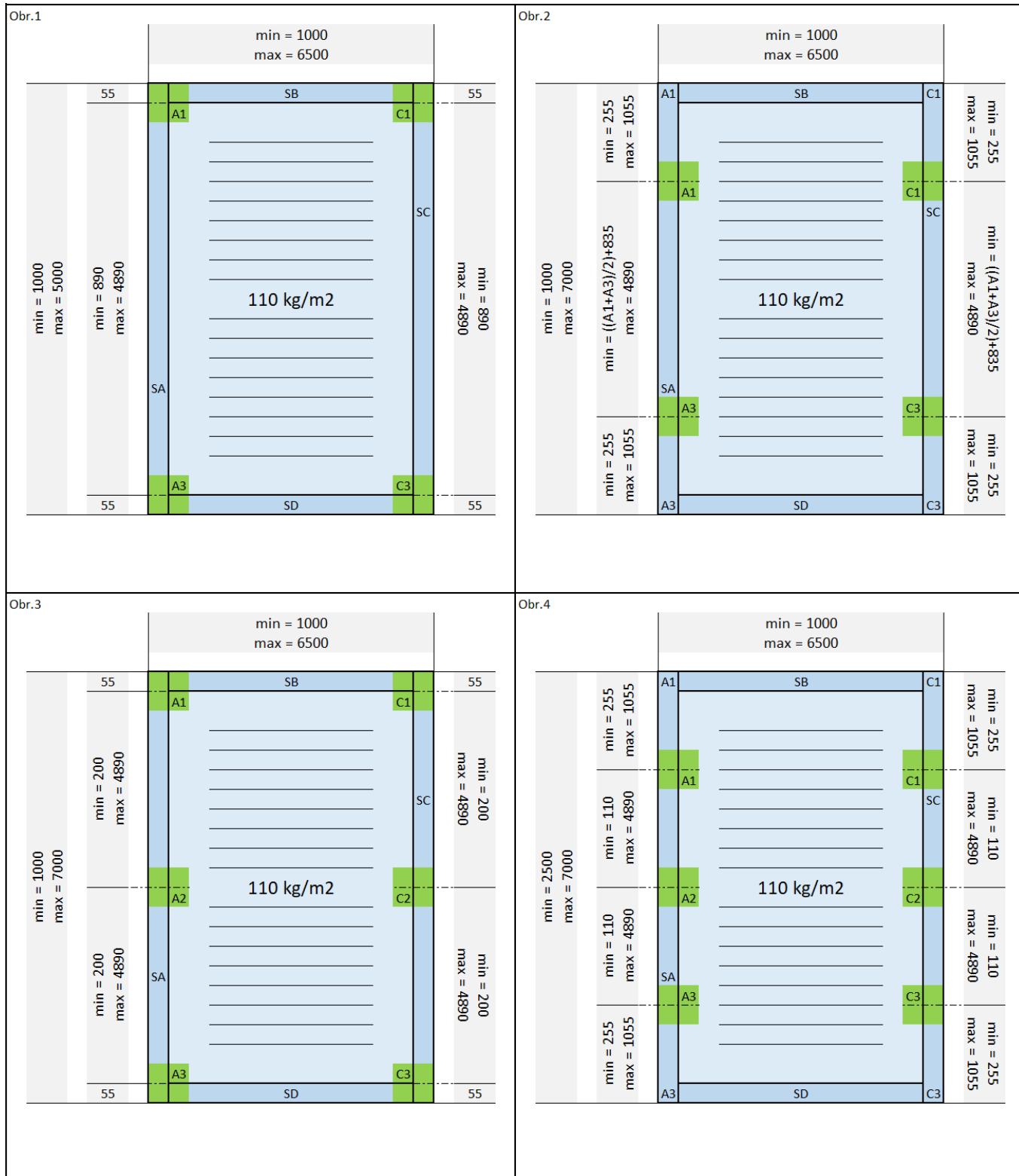
The Carport load capacity depends on the Carport external dimensions and pole positions. These dependencies are shown below. It is possible to combine the conditions, i.e., poles may be placed to side SA acc. to Fig. 1 and to side SC acc. to Fig. 4.



- Pole A1 – May be replaced by anchoring of side SA or side SB
- Pole A2 – May be replaced by anchoring of side SA
- Pole A3 – May be replaced by anchoring of side SA or side SD
- Pole C1 – May be replaced by anchoring of side SC or side SB
- Pole C2 – May be replaced by anchoring of side SC
- Pole C3 – May be replaced by anchoring of side SC or side SD

## Trapezoidal – Conditions for 110 kg/m<sup>2</sup> load capacity

The Carport load capacity depends on the Carport external dimensions and pole positions. These dependencies are shown below. It is possible to combine the conditions, i.e. poles may be placed to side SA acc. to Fig. 1 and to side SC acc. to Fig. 4.



- Pole A1 – May be replaced by anchoring of side SA or side SB
- Pole A2 – May be replaced by anchoring of side SA
- Pole A3 – May be replaced by anchoring of side SA or side SD
- Pole C1 – May be replaced by anchoring of side SC or side SB
- Pole C2 – May be replaced by anchoring of side SC
- Pole C3 – May be replaced by anchoring of side SC or side SD

## Frame anchoring

Frame anchoring is the load-bearing attachment of the Carport frame to the surrounding supporting structures through anchoring holes. If required, the Carport may be supplied with pre-drilled anchoring holes.

Load-bearing Carport frame anchoring must be done using fasteners suitable for supporting structures, having suitable dimensions and rating for transferring the loads.

The fasteners must be protected against corrosion. The method of protection must be adequate to the climatic conditions of the installation location.

The minimum number of the anchoring holes is 5. If necessary, it is possible to provide more holes.

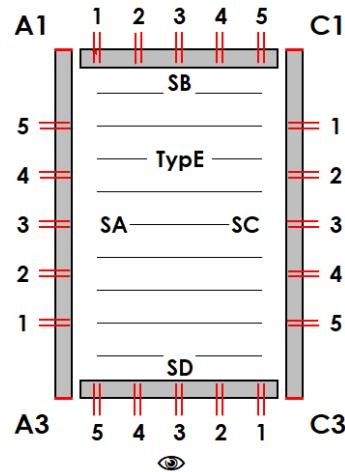
The manufacturer shall not be held responsible for consequences due to unsuitable or insufficient anchoring to the surrounding supporting structures.

Due to the wide variety of surrounding structures, the fasteners are not part of the delivery and the manufacturer shall not be held responsible for incorrectly selected fasteners.

If needed or if in doubt, contact a project engineer or structural engineer.

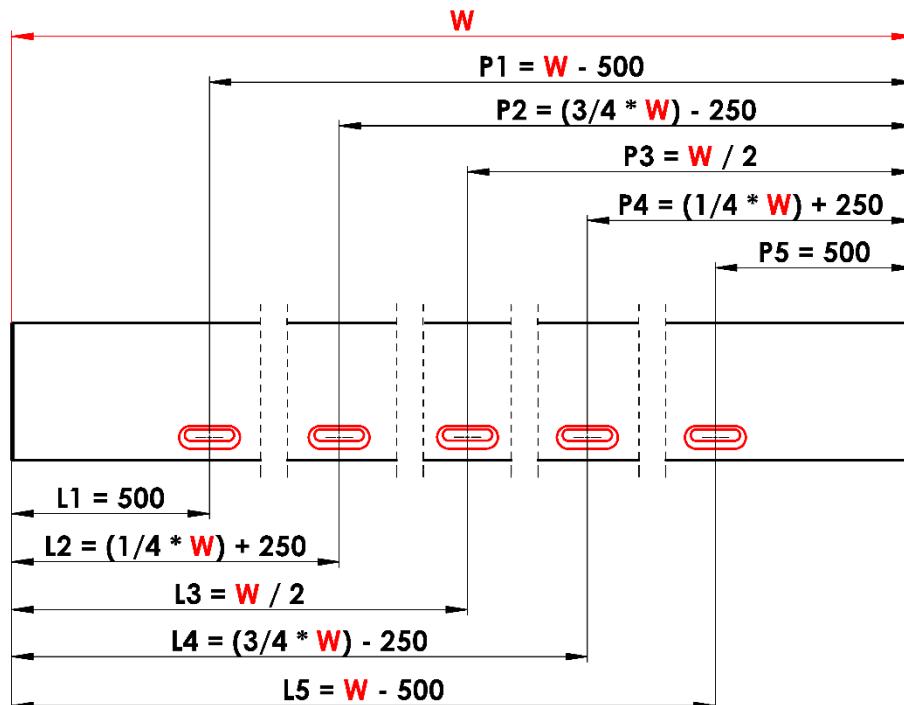
### Anchored sides

Possibility of anchoring at the sides SA / SB / SC / SD



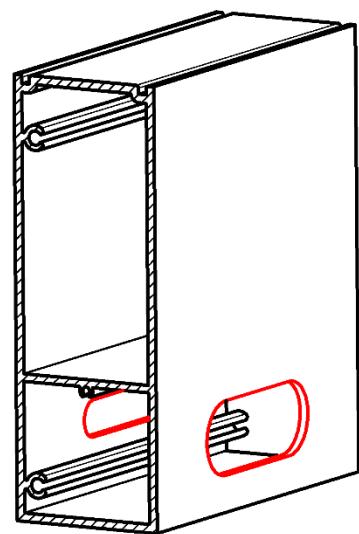
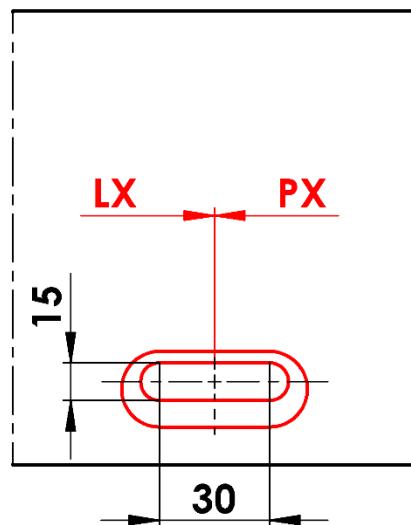
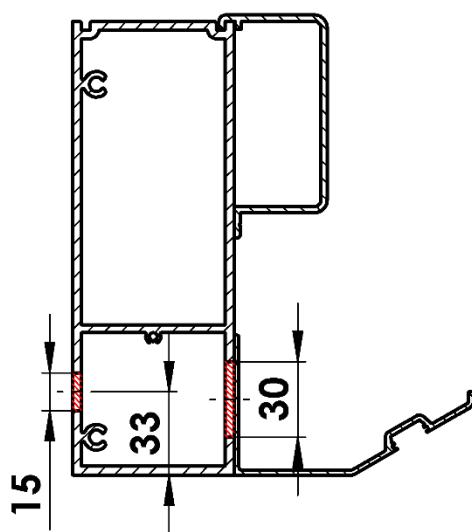
### Layout of the basic arrangement of anchoring holes in the perimeter frame

This layout applies to all sides of the Carport



W – Carport width or length

## Anchoring hole detail



## Poles – basic information

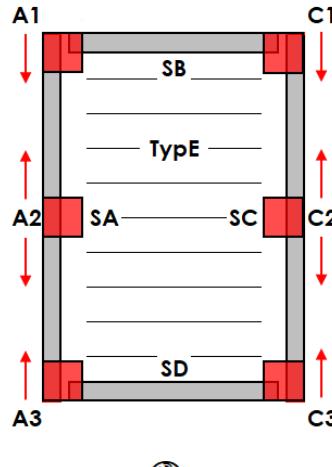
The pole is the basic supporting element of the Carport. It transfers the roof load to the anchoring point through a foot. The anchoring point must be sufficiently load-bearing in order to withstand all loads transferred by the pole foot. Fasteners connecting the pole foot and the anchoring point must have strength sufficient to withstand and transfer all load forces

The fasteners must be protected against corrosion. The method of protection must be adequate to the climatic conditions of the installation location.

Due to the wide variety of anchoring places, the fasteners are not part of the delivery and the manufacturer shall not be held responsible for incorrectly selected fasteners.

Only guide rails of screen roller shutters or sliding panels supplied by the Carport manufacturer can be anchored in the poles.

## Position and displacement of poles



Lengthwise displacement of the "Z" corner poles

- type of installation A, B, D: poles A1 / A3 / C1 / C3: min. 255 mm / max. 1055 mm

Lengthwise displacement of the "Y" middle poles:

- from the end of SB side: poles A2 / C2 acc. to load-bearing diagrams
- from the end of SD side: poles A2 / C2 acc. to load-bearing diagrams

Passing height "H"

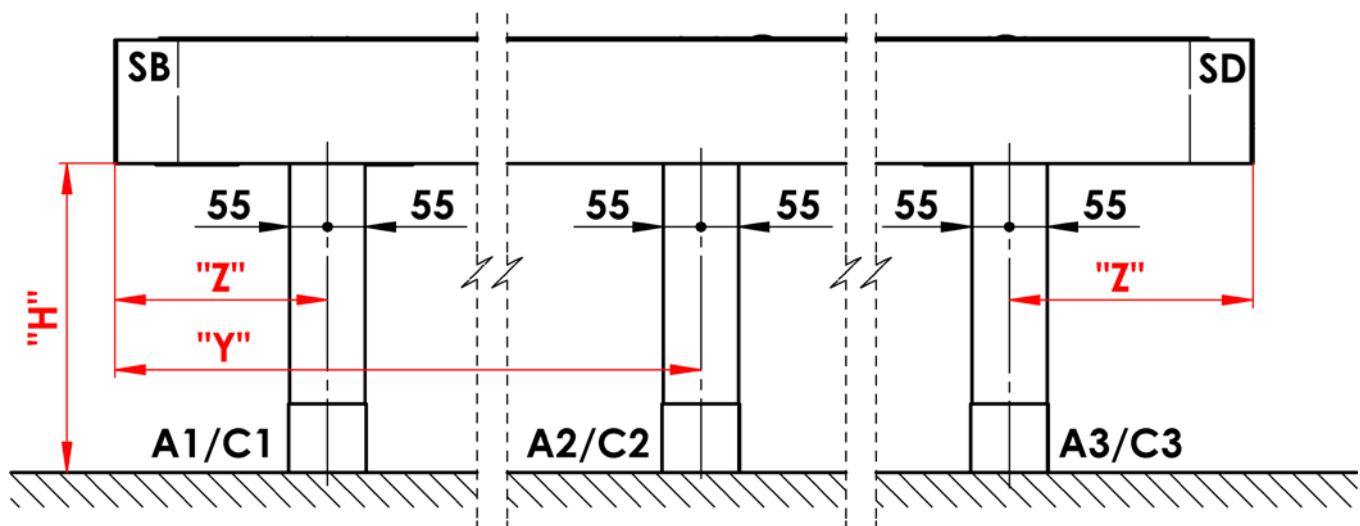
- type of installation A, B, D: poles A1 / A2 / A3 / C1 / C2 / C3 min. 500 mm / max. 3000 mm

The displacement of the "Z" corner poles is always specified from the pergola's outer edge to the pole's axis.

The displacement of the "Y" middle pole A2 is always specified from the SB side's outer edge to the axis of this pole.

The displacement of the "Y" middle pole C2 is always specified from the SB side's outer edge to the axis of this pole.

The passing height "H" of the poles is always specified from the lower edge of the perimeter frame to the anchor point plane.



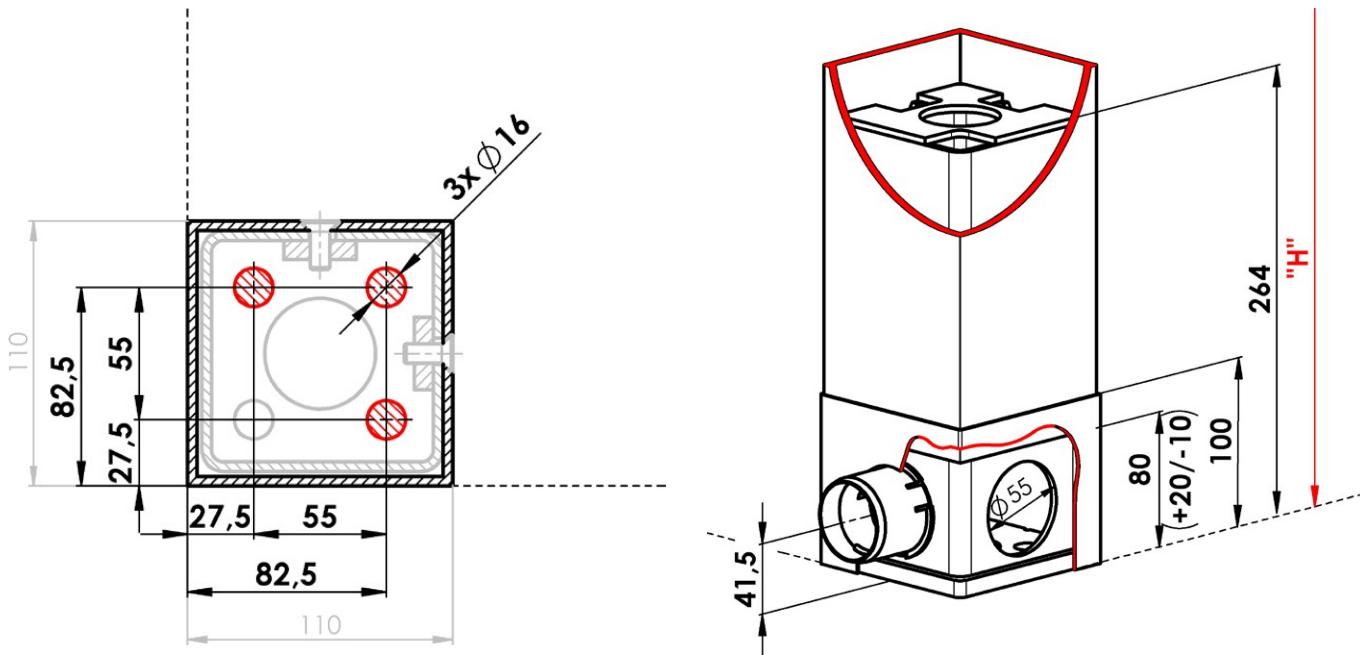
## Poles – feet

### CONCEALED FOOT

The anchoring holes for the fasteners are hidden in the foot.

The lower end of the foot with access to the anchoring holes is covered by a sheet-metal trim. The foot allows additional adjustment of the passing height "H" by +20/-10 mm.

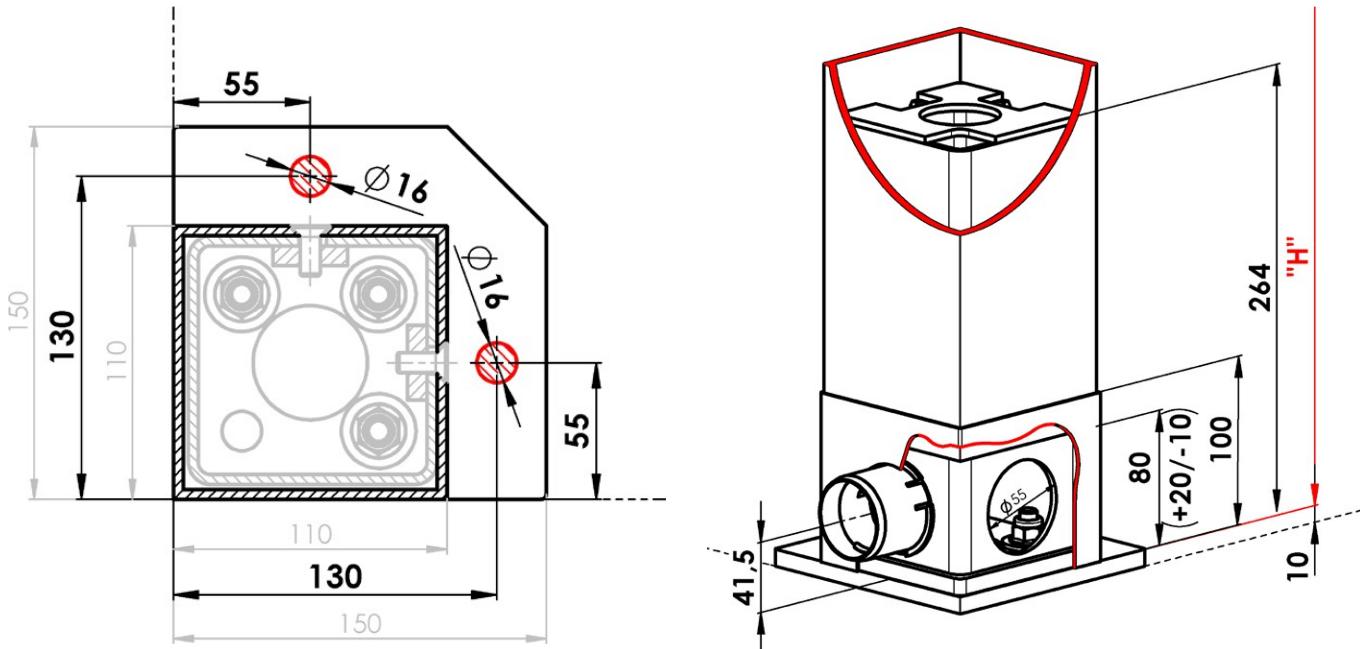
The foundation for the foot anchoring is not part of the quotation. The foundation must be constructed by each owner individually with respect to the site conditions and in cooperation with an authorised body (architect, contractor, etc.).



### EXTENDED FOOT

The anchoring holes for the fasteners are visible on the foot. The lower end of the foot is covered by a sheet-metal trim. The foot allows additional adjustment of the passing height "H" by +20/-10 mm.

The foundation for the foot anchoring is not part of the quotation. The foundation must be constructed by each owner individually with respect to the site conditions and in cooperation with an authorised body (architect, contractor, etc.).



## Draining system

### Basic information

The Carport is equipped with a system for the draining of rain water. From the roof, water flows to gutters installed inside the Carport around the perimeter frame, and then to poles intended for this purpose. Water leaves the pole foot via a drain hole (see below).

The Carport is an open outdoor structure with limited rain protection. For detailed information, see Basic specification – Water resistance.

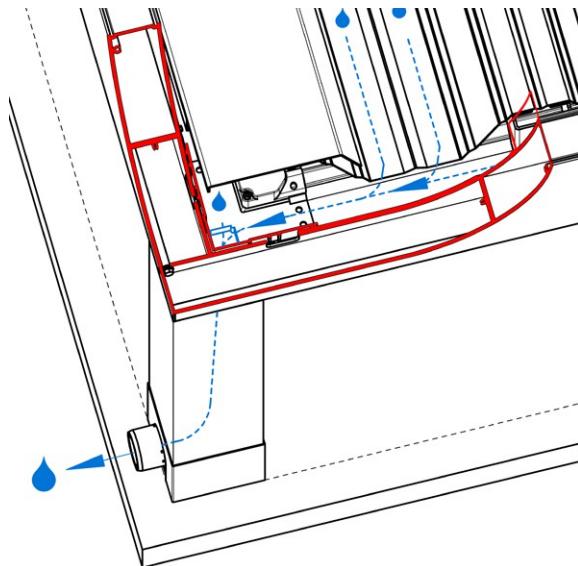
The Carport roof is sloped.

The minimum number of drains located at the catchment side:

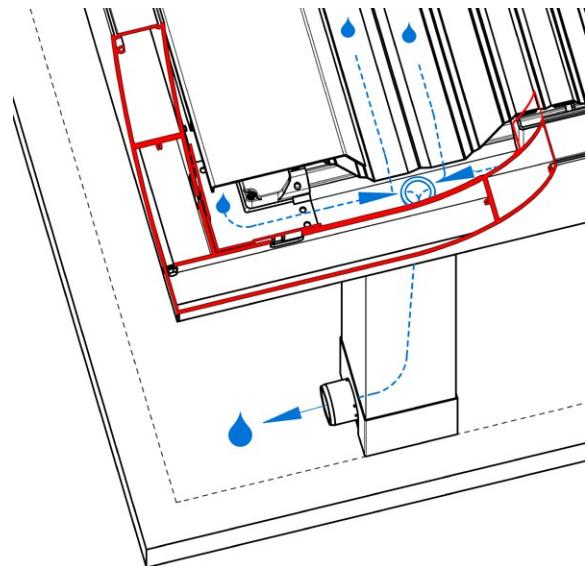
Carport area	Number of drains
up to 12 m <sup>2</sup>	1
up to 24 m <sup>2</sup>	2
up to 36 m <sup>2</sup>	3
up to 49 m <sup>2</sup>	3

Each carport pole can include a drain. The maximum number of drains is only limited by the number of poles.

### Direction of water flow in the Carport structure



Water flow direction to the pole with a drain located outside the carport corner

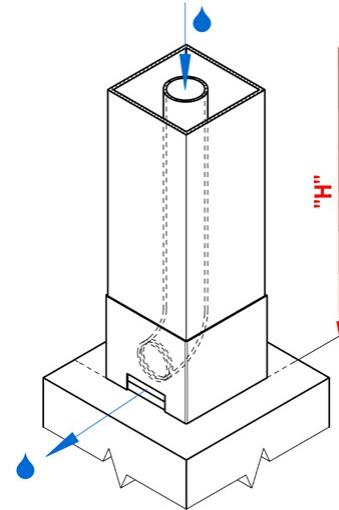


Water flow direction to the pole with a drain located in the carport corner

## Pole drains

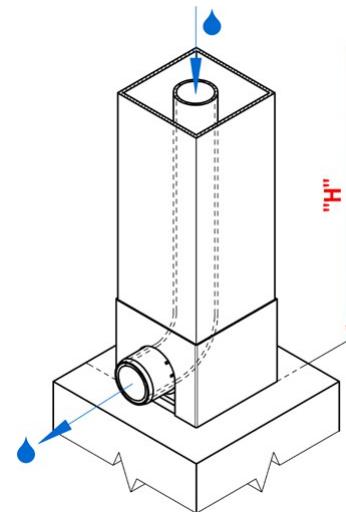
### Uncontrolled draining (rectangular opening)

- The spout hose outfall is directed outside the Carport.
- The hose has a loose end.
- The hose ends just after the sheet-metal trim inside the pole.
- Water flows freely through the rectangular opening in the trim.
- Hose length = "H" + min. 300 mm.



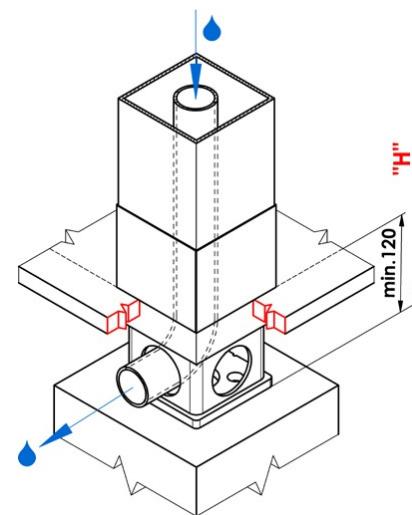
### Controlled draining (half-round opening)

- The spout hose outfall is directed outside the Carport.
- The hose has a plastic socket.
- The hose with the socket ends outside the sheet-metal trim.
- Water flows freely through the plastic socket.
- DN50 drain pipe may be connected to the plastic socket (not part of delivery).
- Hose length = "H" + min. 300 mm.



### Draining outside the trim (full trim)

- This type of draining is primarily intended for cases where the foot is anchored under the final terrain level and further connection of the spout hose is under the final terrain level.
- The spout hose outfall is directed outside the Carport.
- The hose has a loose end.
- Hose length = "H" + min. 300 mm.



## Lighting

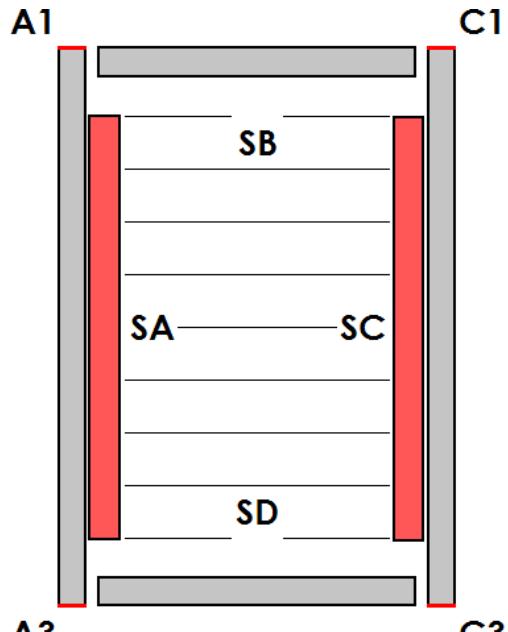
The Carport may be illuminated from the inside by a LED lighting system, which is to be installed in the groove of the gutter profile and covered by a light diffuser.

### Light colour:

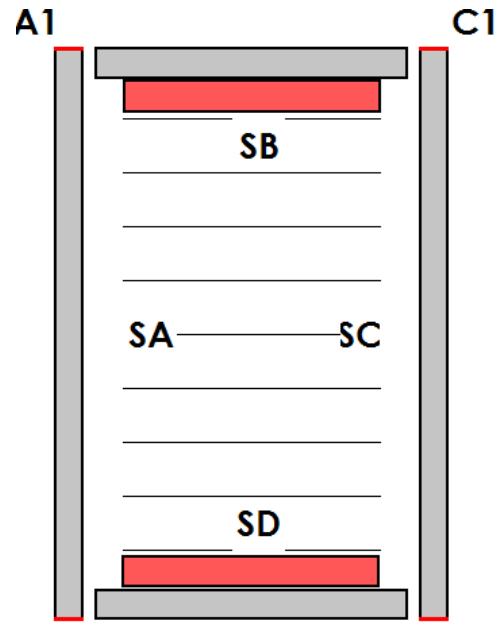
- Day white

### Lighting placement:

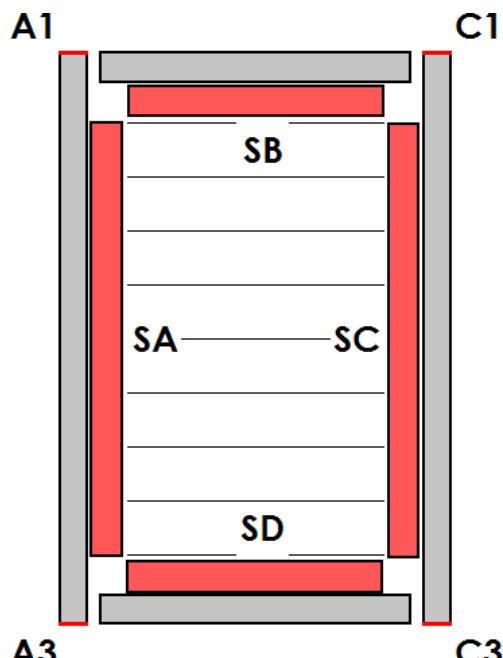
1) Lengthwise



2) Widthwise



3) Lengthwise and widthwise

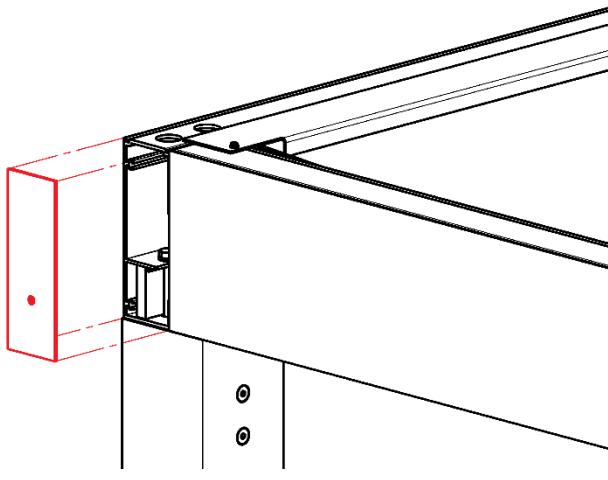


## Access point

The access point serves for accessing the Carport electrical installations. This point also serves for service works on the pergola drive and electrical installation.

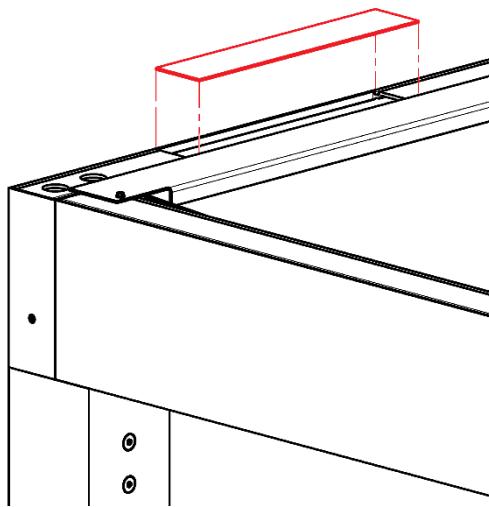
### Front access point

- Access via a cover on the front side of the profile on the selected side.
- Handling area of at least 700 mm must be allowed in front of the cover.
- This area must remain accessible after the installation.



### Auxiliary access point

- Access via a cover and opening on the upper side of the profile on the selected side.
- Handling area of at least 700 mm must be allowed in front of the cover.
- This area must remain accessible after the installation.



## Optional accessories

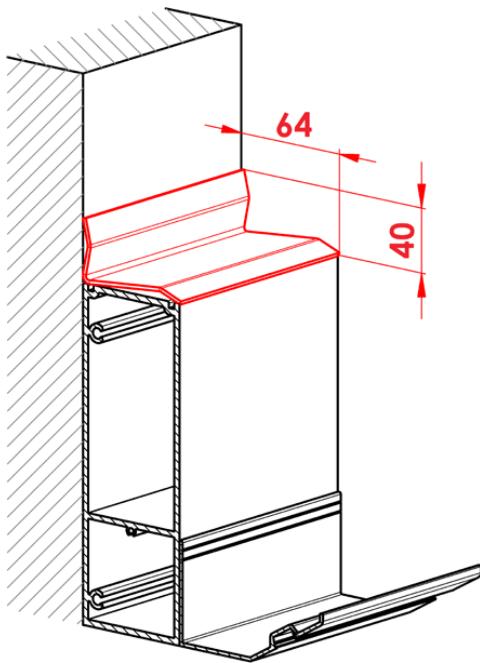
### Cover sheets

This fitting element is intended to cover the gaps between the Carport and the adjacent structure. The sheets are manufactured to length, with max. length of one sheet being 4,000 mm; material: AL.

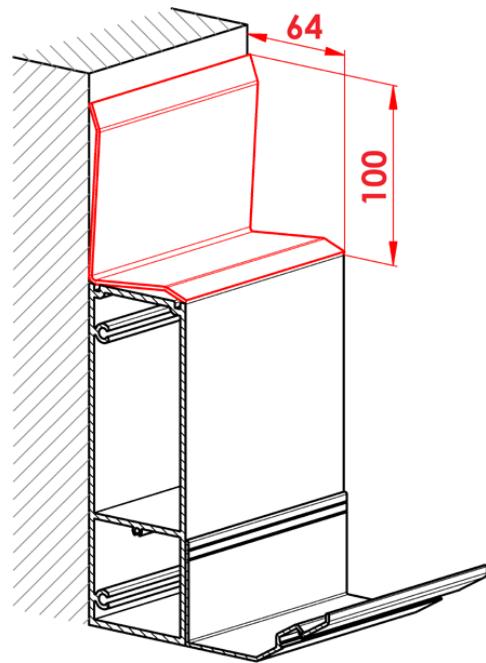
Surface treatment of the sheet may be selected from the standard ARTOSI colour card; other RAL colours are upon request for an extra charge. The sheets are not part of the Carport; they are optional accessories and must be ordered separately.

The manufacturer shall not be held responsible for failures and defects caused by incorrect incorporation of the Carport to adjacent structures.

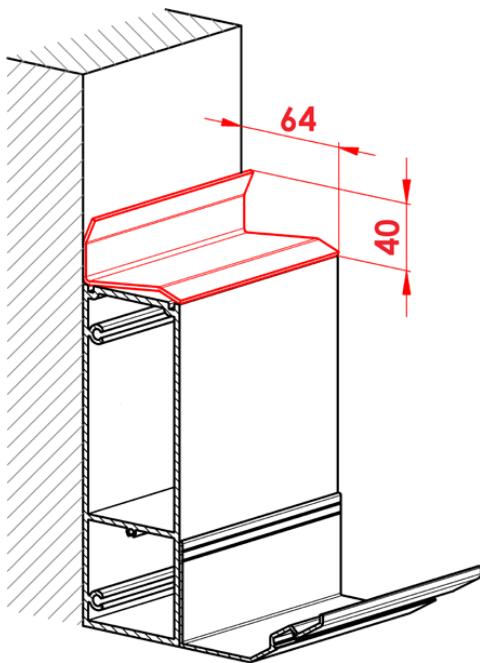
**Sheet PG PK\_01**



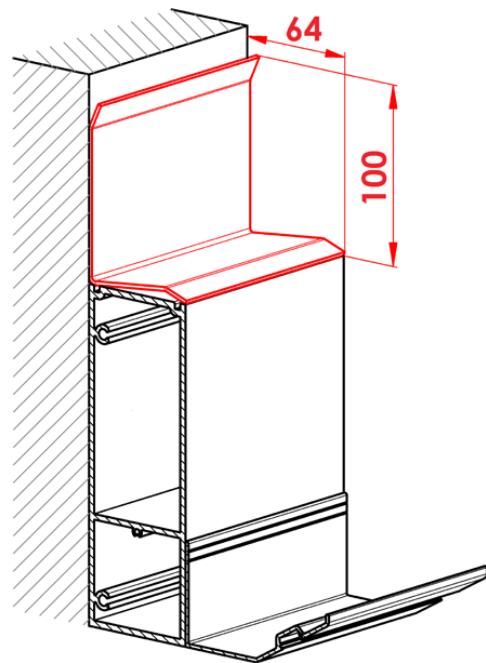
**Sheet PG PK\_01/1**



**Sheet PG PK\_02**



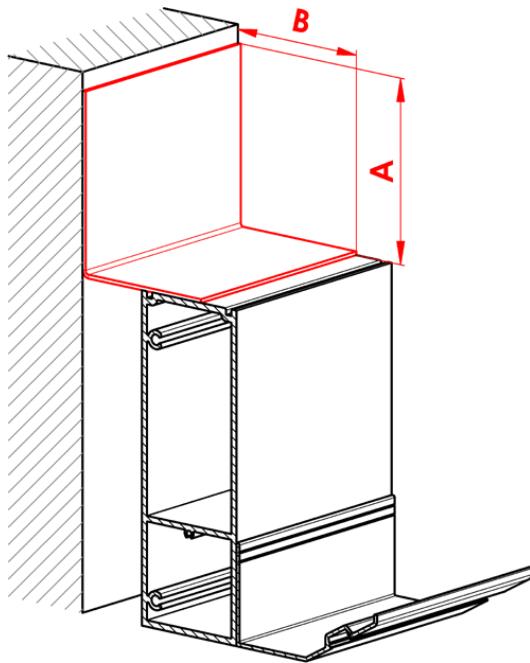
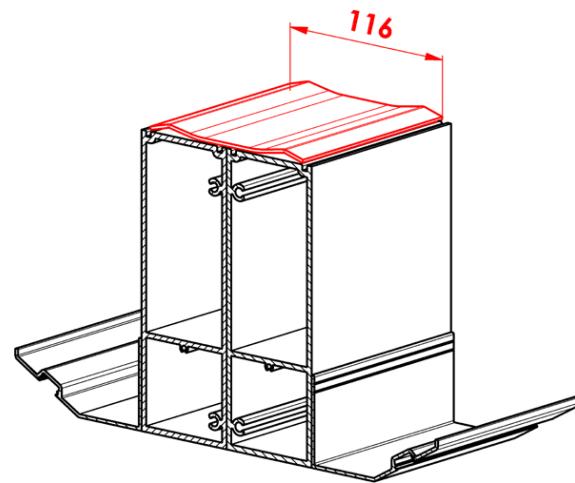
**Sheet PG PK\_02/1**



**Sheet PG PK\_03**

Dimension A is optional  
Min. 25 mm, max. 300 mm

Dimension B is optional  
Min. 25 mm, max. 300 mm

**Sheet PG PK\_04****Maintenance and safety instructions****Maintenance**

In order to maintain perfect operating and safety conditions of the product, proceed as follows:

- Check the supporting structure visually at least twice a year (in the spring and before the winter). If necessary, clean the surface of aluminium profiles, removing dirt, dust, and smog. Clean using a soft, damp cloth. Heavily soiled areas may be cleaned using common cleaning agents for painted surfaces of automobiles. Do not clean structural elements by aggressive cleaning agents like organic solvents, dilutants, cleaning pastes and scouring powders, and strong alkaline cleaning agents.
- Check tightening of all bolts and fasteners at least twice a year (in the spring and before the winter).
- Regularly remove gross impurities like branches from the Carport roof.
- Regularly check and clean the draining channels (especially remove leaves) to prevent clogging.

**Safety instructions**

- If the Carport is equipped with shading elements, pull them up in adverse weather conditions.
- If the Carport is equipped with shading elements, do not let children play with the control device.
- Regularly check the Carport for damage.
- If a defect or failure is detected, contact your system supplier!
- Due to continuous improvement of the product, technical information introduced in this manual may not correspond to the actual condition of the Carport supplied.





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