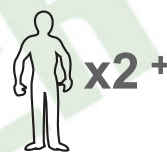


±4:00





## TITAN

### Greenhouse assembly manual

Greenhouse "TITAN" is designed to create an optimum climate for planting sprouts, flowers and vegetables in your backyard.

The frame of the "TITAN" is made of galvanized 40x20 mm and 20x20 mm steel pipes and is covered by cellular polycarbonate. To ensure maximum rigidity of the construction, the end-walls of the greenhouse are made all-welded, without any interconnections.

No.	Part name	Quantity, pcs.			
		4 m	6 m	8 m	10 m
1.	All-welded end wall with a door and vent	2	2	2	2
2.	Arc	5	8	11	14
3.	Straight end-profile 	5	5	5	5
4.	Straight profile 	5	10	15	20
5.	Latches (for doors and vents)	4	4	4	4
6.	Hinges	8	8	8	8

No.	Part name	Quantity, pcs.			
		4 m	6 m	8 m	10 m
7.	M6x70 mm bolt with washer	35	50	65	80
8.	M6x50 mm bolt (for supports)	6	8	10	12
9.	Nut M6	41	58	72	92
10.	Screws 4.2x16 mm (for hinges and latches)	48	48	48	48
11.	Screws 4.2x25 mm with a washer and a rubber gasket (for polycarbonate)	132	156	180	204
12.	Door hook (to fix the door in an open state)	2	2	2	2
13.	Supports	6	8	10	12
14.	Cellular polycarbonate (Sheet size 2.1 x 6 m)	3	4	5	6

#### REQUIREMENTS FOR CONDITIONS OF USE

1. Read the manual prior to installation of the greenhouse. Incorrect assembly may lead to frame damage.
2. Depending on the location of the greenhouse, the customer must evaluate the possible snow load and, if necessary, install additional supports or remove snow from the greenhouse. The greenhouse is designed for snow load of 180 kg/m<sup>2</sup> and wind speed of up to 20 m/s. The snow load corresponds to 40 cm of stale snow or 80 cm of fresh snow.
3. Do not install the greenhouse in direct vicinity (less than 2m) to buildings, fences and constructions.
4. When installing the greenhouse in a windy area, an additional anchoring to the ground is required.
5. Do not subject the frame of the greenhouse to mechanical effects.
6. Do not try to change the construction of the product.

7. To avoid losing transparency of the cellular polycarbonate it is recommended to clean the sheets by using a cotton cloth, water and detergents that do not contain ammonia and solvents. Do not use chemical detergents with abrasive particles.

### General provisions on cellular polycarbonate installation

The polycarbonate sheets are attached to the frame by use of 4.2x25 mm screws with a washer and a rubber gasket. The frame already has drilled holes for attaching cellular polycarbonate sheets.

Drill holes in the polycarbonate sheets, while taking into account the thermal expansion characteristics, must be approximately 2 mm wider than the diameter of the screw. Do not over-tighten the screws; leave a small amount of "wiggle room".

Sheets from cellular polycarbonate must be installed with the side with UV-protection on the outside (towards the sun). Appropriate markings are placed on the packing film. Prior to assembly, the polycarbonate sheets must be stored in the storage packaging and protected from sunlight.

A utility knife with an extendible blade or a power jigsaw must be used for cutting polycarbonate sheets. During cutting of the sheet, the protective film must be left intact to avoid scratches.

Remove the protective film from the polycarbonate sheet immediately after installation.

Take into account that the best approach is to position polycarbonate channels in a vertical position.

- Greenhouse has a wide windage area. Do not leave an assembled greenhouse without anchoring.

- When installing the greenhouse in windy areas, you must anchor the frame to the ground with additional materials (fittings, etc.).



- Do not install the greenhouse in direct vicinity (less than 3m) to buildings, fences and constructions.

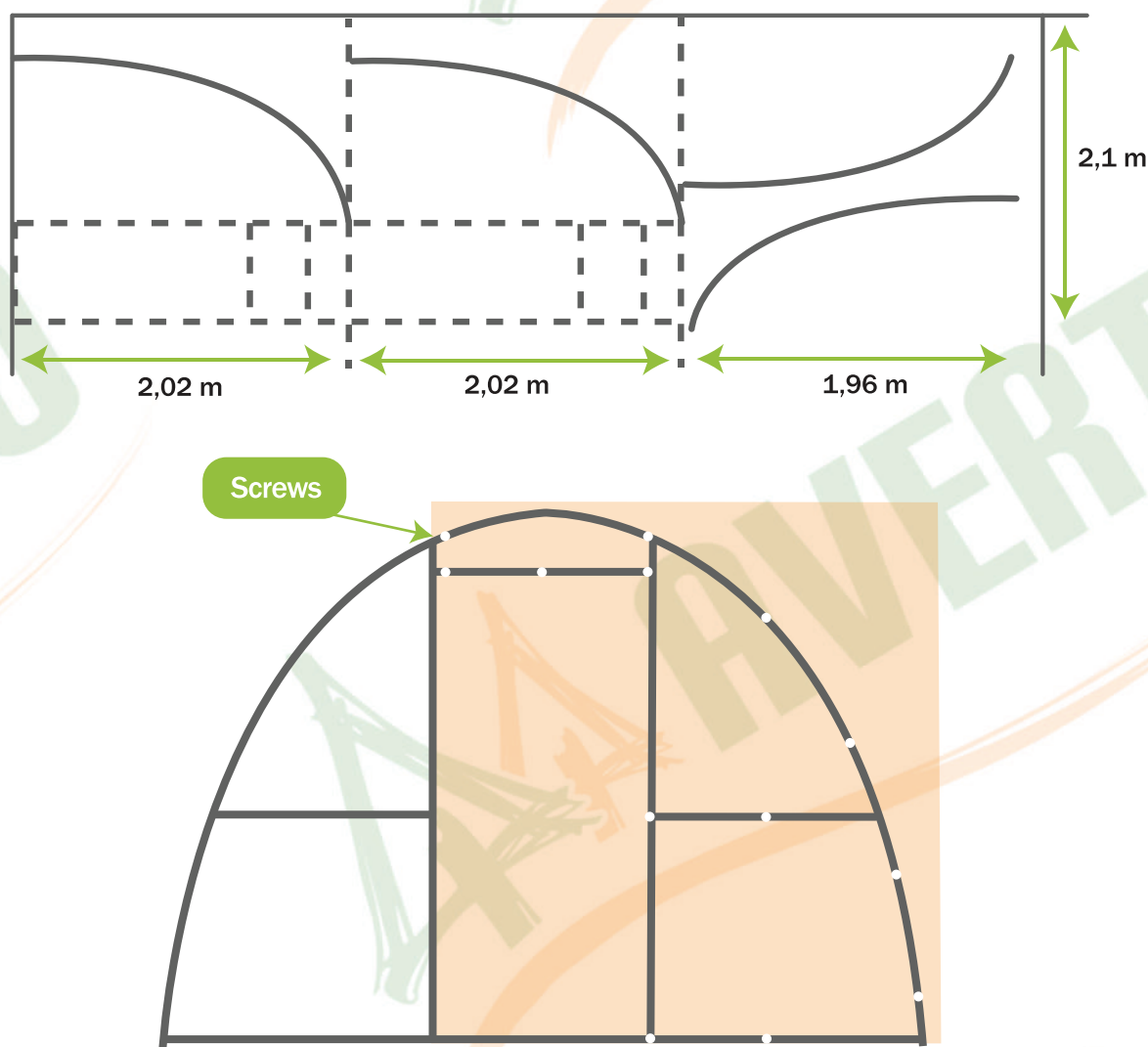
- The area, where the greenhouse will be installed, must be flat, without any significant changes of the surface level.

- During strong winds the doors and vents of the greenhouse must be closed.

## 4. Order of assembly

### 4.1. Covering end-wall sides with polycarbonate.

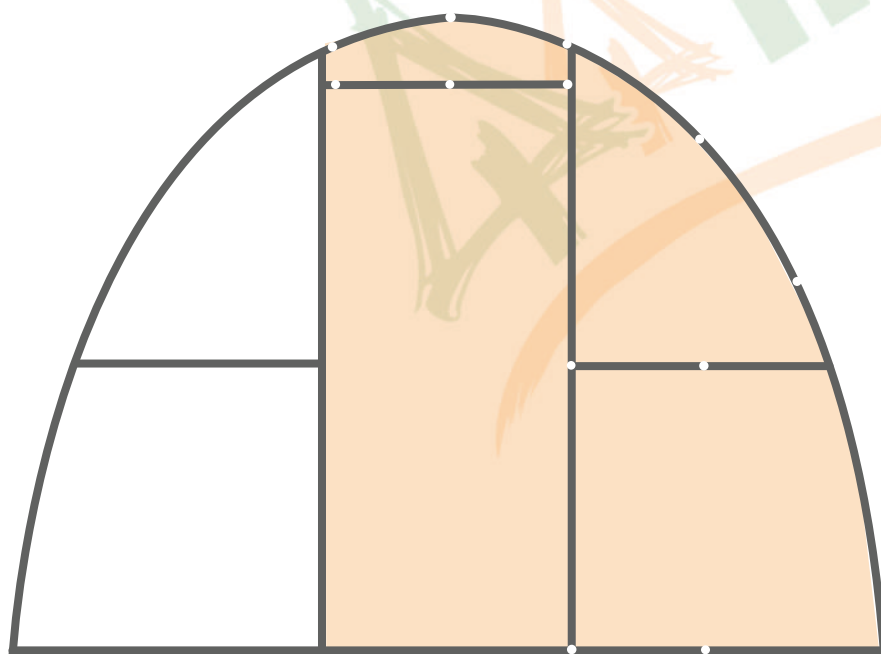
Polycarbonate sheet (6x2.1m) cutting schematics to cover end-wall sides with polycarbonate.



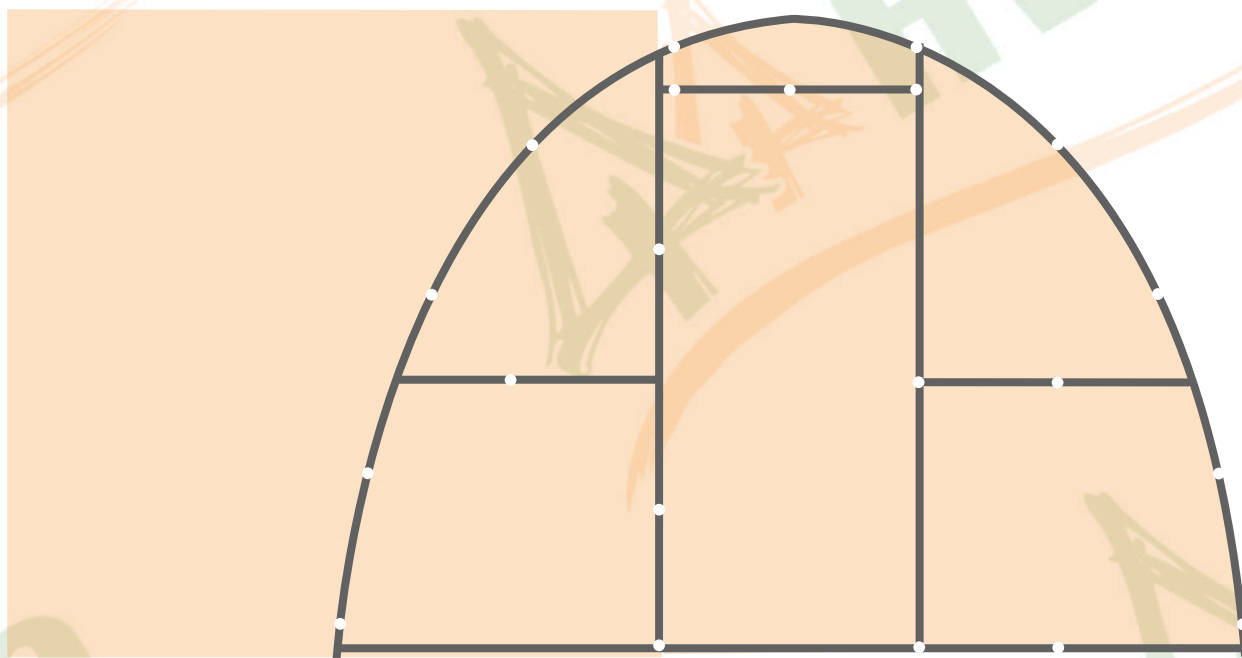
4.1.1. Cut the polycarbonate sheet (size 6x2.10m) in three parts (as shown in the cut schematics). Use a utility knife or a power jigsaw to cut polycarbonate sheets.

4.1.2. Place one of the polycarbonate sheet parts (2,02x2.1m) on the greenhouse end-wall as show in the picture below. Polycarbonate cells must be placed vertically.

Level polycarbonate from all sides and use screws to fasten it along the end-wall parts, according to the drilled holes. Cut the polycarbonate precisely along the arc.



4.1.3. Use the second part of the polycarbonate sheet (2x2.1 m) to cover the remaining part of the end-wall. Fasten with screws and cut along the arc. Use the remaining amount of polycarbonate to cover the other end-wall of the greenhouse

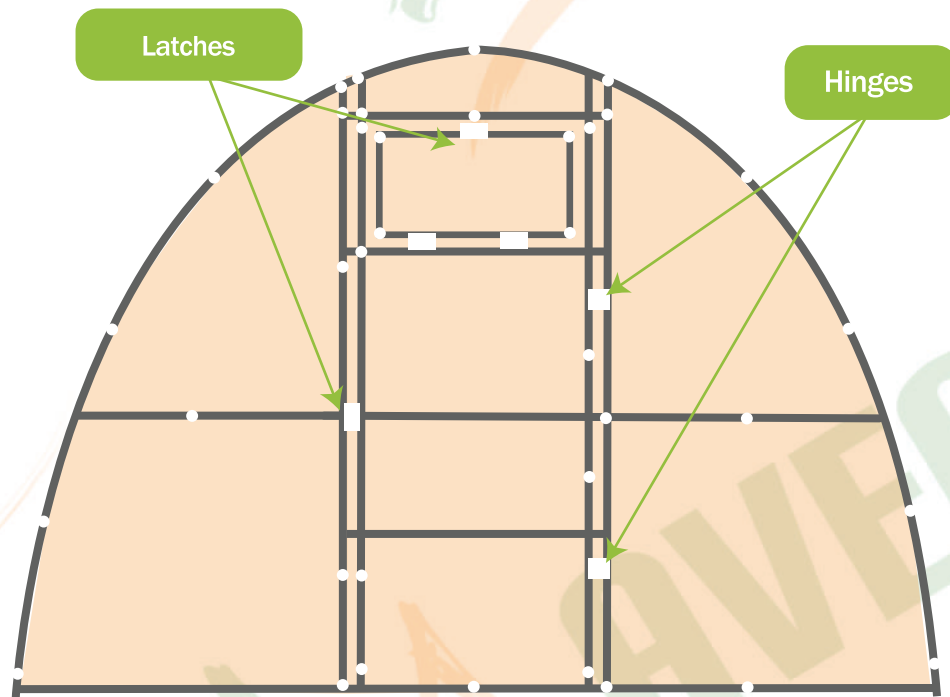


4.1.4. Use screws to install hinges on the door and vent. All hinges must be placed outside of the polycarbonate cover. Use screws to attach latches to doors and vents. Afterwards, according to the placement of drill-holes, attach doors.

4.1.5. Make cuts on horizontal and vertical edges of the vents and doors to allow them to open.

4.1.6. Assemble the second end-wall and cover it with polycarbonate as described previously.

4.1.7. Place door hooks in accordance with the drilled holes on the doors and end-wall.



## 4.2. Frame assembly

4.2.1. Use 6x70 mm the assembled end-wall and straight end profiles in accordance with the positions of drilled holes.

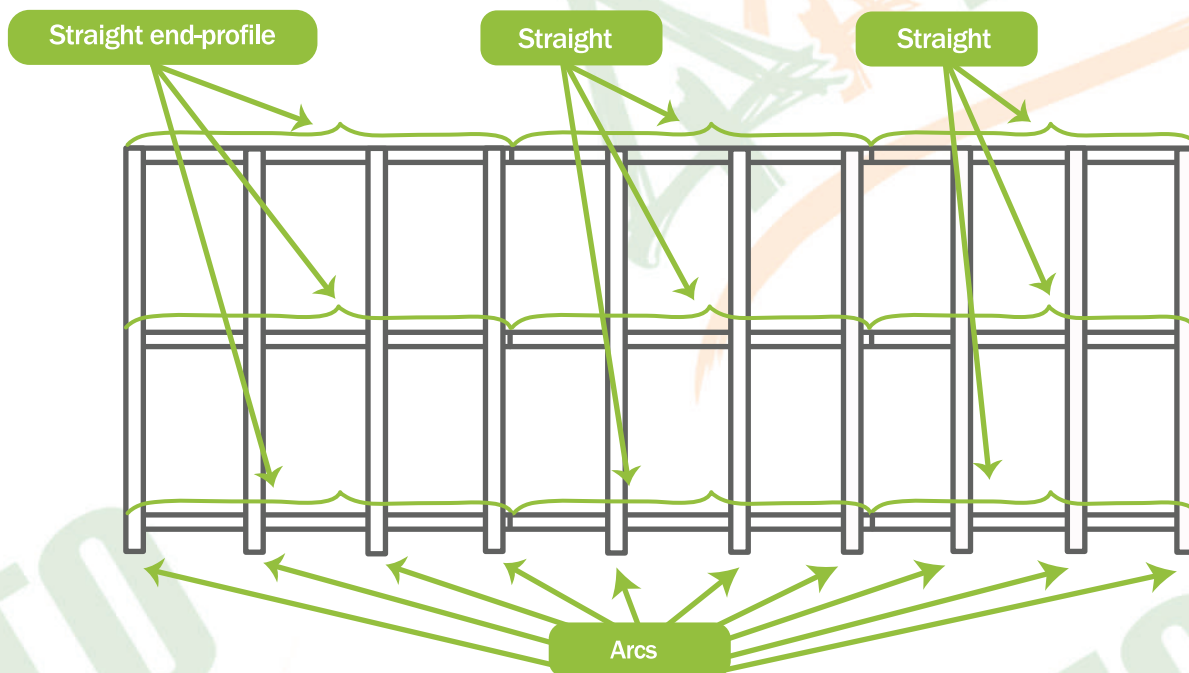
4.2.2. Attach 2 arcs to end profiles (from the outside).

4.2.3. Connect the straight end profiles with the straight profiles.

4.2.4. Attach the arcs to the assembled parts in accordance with the drilled holes.

4.2.5. Attach the second end-wall (for 4-m long greenhouse option). Use inserts to extend the greenhouse by 2 m

Schematic illustration of straight profile (strainers) and arcs placement (Side-view of "Agrosfera TITAN" greenhouse, TC-67, 40x20, 6m long).



#### 4.3. Covering frame with cellular polycarbonate

Sides of the greenhouse should be covered first, afterwards the middle part of the greenhouse must be covered, and the sheet must be placed in such a way that the bend is made only along the channel line.

Polycarbonate sheets must be installed in such a way that the side of the sheet must protrude for no more than 5 cm beyond the arc. The polycarbonate sheets must be placed with an overlap. Polycarbonate sheets must be carefully levelled and attached with a screw, and, first of all, screws must be fastened at the lower end, then arcs, and in accordance with the drilled holes.

#### 4.4. Greenhouse installation

Prior to installation of the greenhouse, you must thoroughly level the ground of the area where the greenhouse will be placed. Use a single bolt to attach straight profile parts to form a T shaped support. Remove the bolt that connects the arc with the straight profile, afterwards attach the support to the arc and fix the support with a bolt. Install the remaining supports the same way (with a 2-arc distance between them). Dig holes near the arcs, which are equipped with the supports, to place the supports in the ground. Install the assembled greenhouse in such a way that the lowest straight part is on the ground level, and the supports are in the ground. Afterwards cover the holes with the ground and tamper it down. You can also install the greenhouse on a wooden frame or concrete foundation.



The greenhouse is subject to influence of the winds due to the windage area. Do not leave the greenhouse un-anchored in the ground.



LV: Siltumnīcas, garāžas un auto nojumes, noliktavas un nojumes, dārza instrumenti, mēbeles dārzam un pasākumiem, teltis un virszemes baseini.

LT: Šiltnamiai, kilnojamieji garažai, garažai palapinės, tentinis sandelis, palapinės paviljonai, sodo įrankiai, sulankstomų baldų baldai, palapinės, baseinas.

EE: Kasvuhooned, teisaldatavad garaažid, telk varjualused, peotelgid & paviljonid, aiandustööriistad, õllemööbel, aiämööbe, telgid, basseinid.

RU: Теплицы и парники, портативный гараж, тентовые сараи, беседки, шатры и павильоны, садовые инструменты, мебели для сада и события, палатки, наземные бассейны.

ENG: Greenhouses, portable garage and storage sheds, party tents and shelters, garden tools, furniture, tents and accessories, swimming pools.

DE: Gewächshäuser, foliengarage, zelthallen, pavillions, gartenwerkzeugen, möbel - klappmöbel, campingzelt & zubehör, schwimmbecken.