



# Greenhouse

## Bio-Logic Comfort Mini

OF GALVANIZED PIPE WITH  
SLIDING CELLULAR POLYCARBONATE SECTIONS

### DATASHEET



Find us on the website:  
[www.biotuinkassen.nl](http://www.biotuinkassen.nl)

**Dear Customer!**

*Thank you for purchasing our products. Bio-Logic Comfort Mini Greenhouse with a sliding roof is designed specifically for the most demanding summer residents and is characterized by its simplicity and strength of the construction, while it has several advantages over conventional greenhouses:*

- light movement of the sections that can be made by adults and children;*
- natural moisturizing and pollination of plants;*
- in a hot season, plants grow in conditions of an open ground.*

*We wish fruitful harvest for you and hope that our products will fully meet your expectations.*

*[www.biotuinkassen.nl](http://www.biotuinkassen.nl)*

## **PRODUCT DESCRIPTION**

Bio-Logic Comfort Mini Greenhouse (hereinafter Comfort Mini) is designed to create an optimal climate for plants.

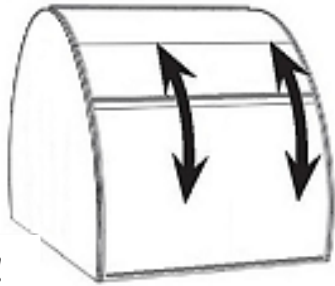
The greenhouse is a precast construction made of galvanized pipe of 20x20, covered with cellular polycarbonate. Polycarbonate sections that are located on the arches can move (up and down).

Arcs are integral without joints to ensure maximum rigidity. Cellular polycarbonate is not necessary to remove for the winter.

Greenhouse size: width - 1 m; height - 1.1 m; length - 2, 4, 6, 8, 10 m.

## SAFETY REQUIREMENTS DURING OPERATION

**Move only  
along the arc!**



**Do not pull  
towards oneself!**

1. Before installing the greenhouse, please carefully read the instructions. Incorrect assembly can damage the frame.

**2. The greenhouse has a large windage. When wind gusts exceed 15 m/s, the sliding sections must be closed.**

3. Depending on the location of the greenhouse, the Customer oneself must evaluate the possible snow load and, if necessary, open the roof or remove the snow from the greenhouse.

4. Do not install the greenhouse close (less than 2 m) to structures, walls and fences.

5. When installing the greenhouse, a rigid attachment to the soil surface is necessary.

6. Do not expose the frame of the greenhouse to mechanical influences.

7. Do not change the product design.

8. In order not to degrade the translucence of the cellular polycarbonate, we recommend using dishwashing liquid and soft sponge for cleaning. **DO NOT** use solvents or abrasives.

9. The polycarbonate greenhouse does not require dismantling for the winter. If more than half a meter of snow accumulates around the greenhouse, it is desirable to remove it.

10. Installation of the cellular polycarbonate should be performed at a temperature of not less than 5°C above zero.

### **Installation of the greenhouse includes the following steps:**

- site preparation;
- cutting and assembling of the cellular polycarbonate on the end faces;
- frame installation;
- profiles installation;
- sliding sections assembly;
- sliding sections installation;
- grousers installation.

### **To assemble the greenhouse you will need:**

1. screwdriver with drive socket for an 8 mm hexagon; 2. 10 mm wrench; 3. cross screwdriver; 4. cotton gloves; 5. utility knife with a retractable blade; 6. tape-measure; 7. level instrument.

## GREENHOUSE EQUIPMENT

No.	Details name	2 m	4 m	6 m	8 m	10 m	Extension 2 m
1	Medium arc	1	2	3	4	5	1
2	End face arc	2	3	4	5	6	1
3	Jumper 2000 mm	3	3	3	3	3	-
3.1	Adapter-jumper 1980 mm	-	3	6	9	12	3
4	Handle-plank 915 mm	6	12	18	24	30	6
5	Grouser-plank 100-150 mm	6	10	14	18	22	4
6	Cellular polycarbonate 1000x1100 mm	2	2	2	2	2	-
7	Cellular polycarbonate 972x1450 mm	4	8	12	16	20	4
8	Medium profile with lock on both sides	3	5	7	9	11	2
9	External profile with one lock	6	10	14	18	22	4
10	Bolt M6x30 (furniture)	24	48	72	96	120	24
11	Bolt M6x50 (furniture)	6	10	14	18	22	4
12	Nut M6	18	34	50	66	82	16
13	Acorn nut M6	12	24	36	48	60	12
14	Fender washer Ø 6 mm	36	70	104	138	172	34
15	Fender washer Ø 8 mm	12	24	36	48	60	12
16	Roofing self-tapping screw 5.5x25	26	26	26	26	26	-
17	Self-tapping screw 3.5x9,5 (drill)	30	50	70	90	110	20
18	Self-tapping screw 4.2x19 (drill)	33	61	89	117	145	28
19	Staple	16	32	48	64	80	16
20	Stitching awl	1	1	1	1	1	-
21	Plug 20x20	16	32	48	64	80	16
22	Oiler	1	1	1	1	1	-

### GENERAL RULES FOR CELLULAR POLYCARBONATE ASSEMBLY

Cellular polycarbonate panels are installed in such a way that **the surface with UV protection (front side) is always located outside the greenhouse. The front side of the polycarbonate is the side with the marked film.**

Before installation, the sheets must be stored in their original packaging, protected from direct sunlight.

**Polycarbonate cells should be placed vertically!**

## 1. SITE PREPARATION

1.1 To install the greenhouse, choose a sunny open space.

1.2 Thoroughly level the greenhouse area. The site must be flat, without any changes in the ground level.

## 2. CUTTING AND ASSEMBLING OF CELLULAR POLYCARBONATE ON THE END FACES

2.1 Place the cellular polycarbonate with a size of 1000x1100 mm on the end face so that the cells are placed vertically, after removing the protective film from both sides.

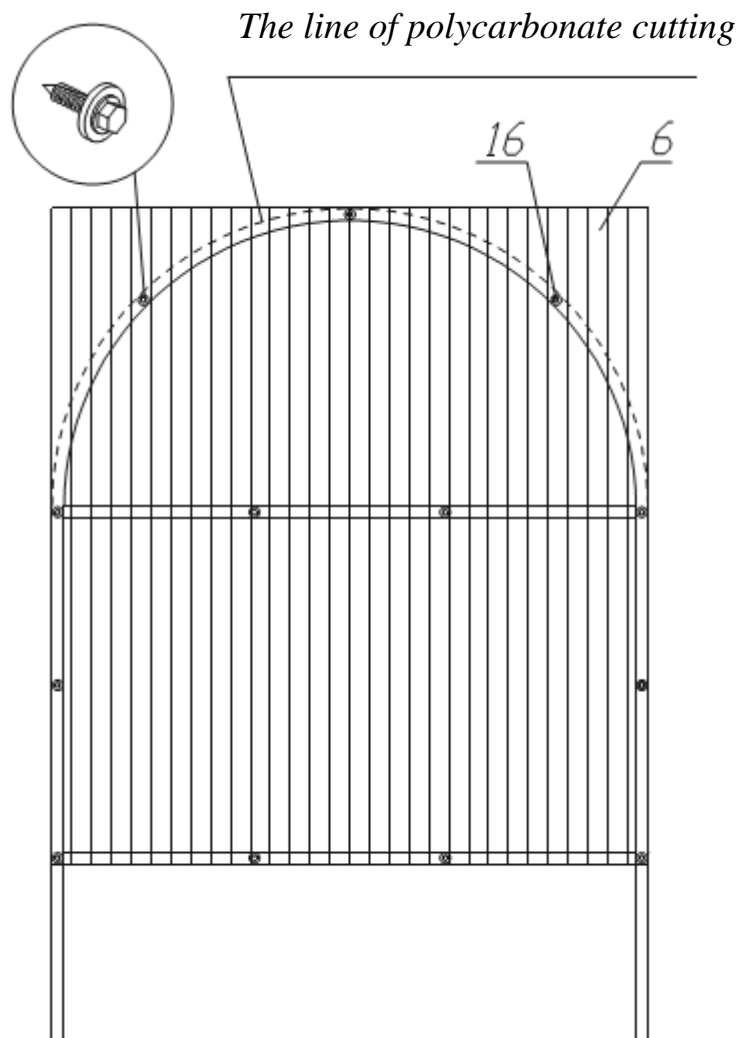


Fig. 1

2.2 Fix the polycarbonate with self-tapping screws of **5.5x25** (Position 16) (Figure 1). Cut the polycarbonate exactly along the arc. Cover the second end face in the same way. Cellular polycarbonate cutting is carried out by means of a utility knife with a retractable blade.

### 3. FRAME INSTALLATION

3.1 Take the medium arc (Position 1) and connect it to the jumpers (Position 3). The jumper that is located at the center upper point is screwed from the inside of the arc (the bolts are inserted from the jumper side). Similarly, the jumpers that are located on two sides are screwed from the outside of the arc (Figure 2).

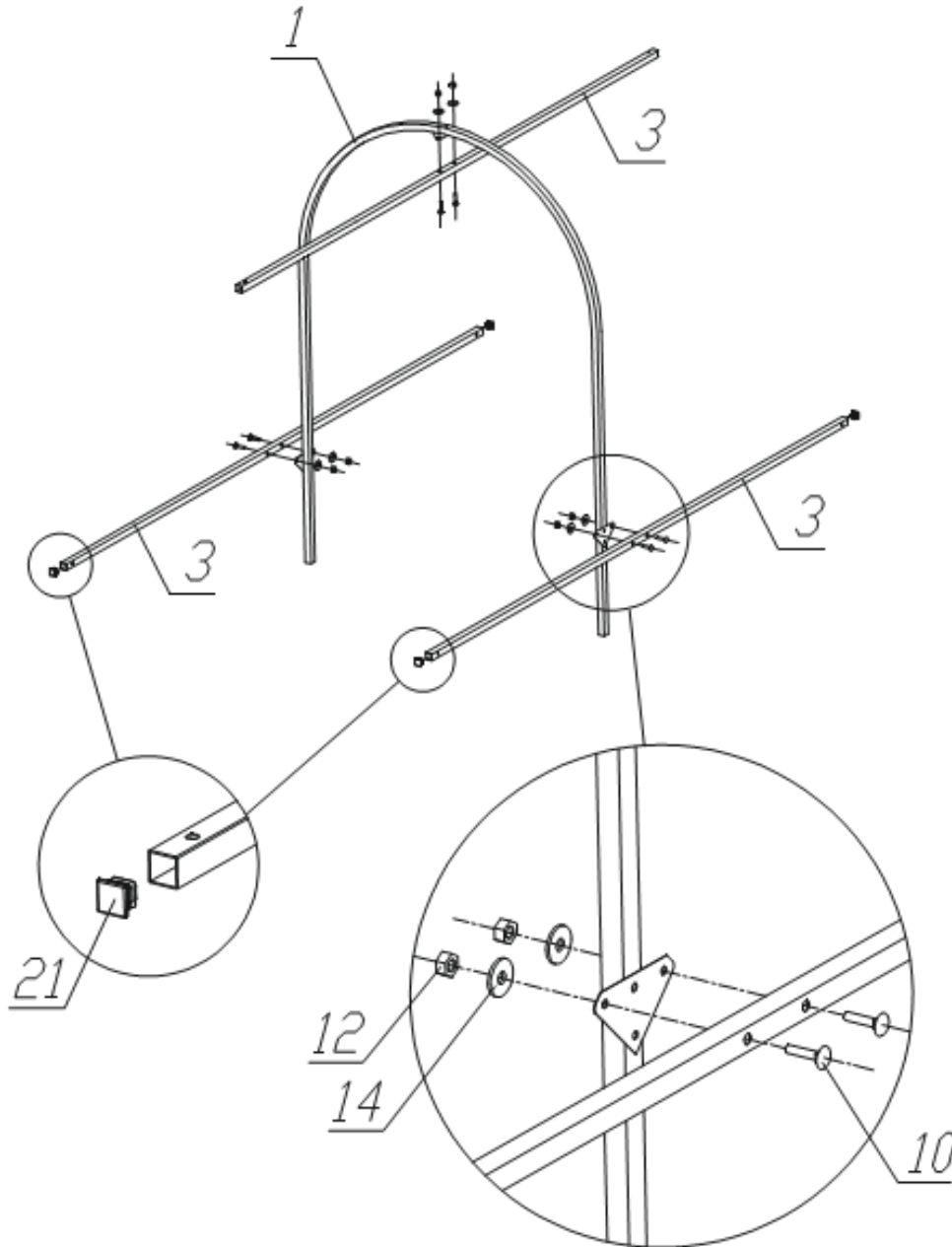


Fig. 2

### 3.2 Screw up the end faces

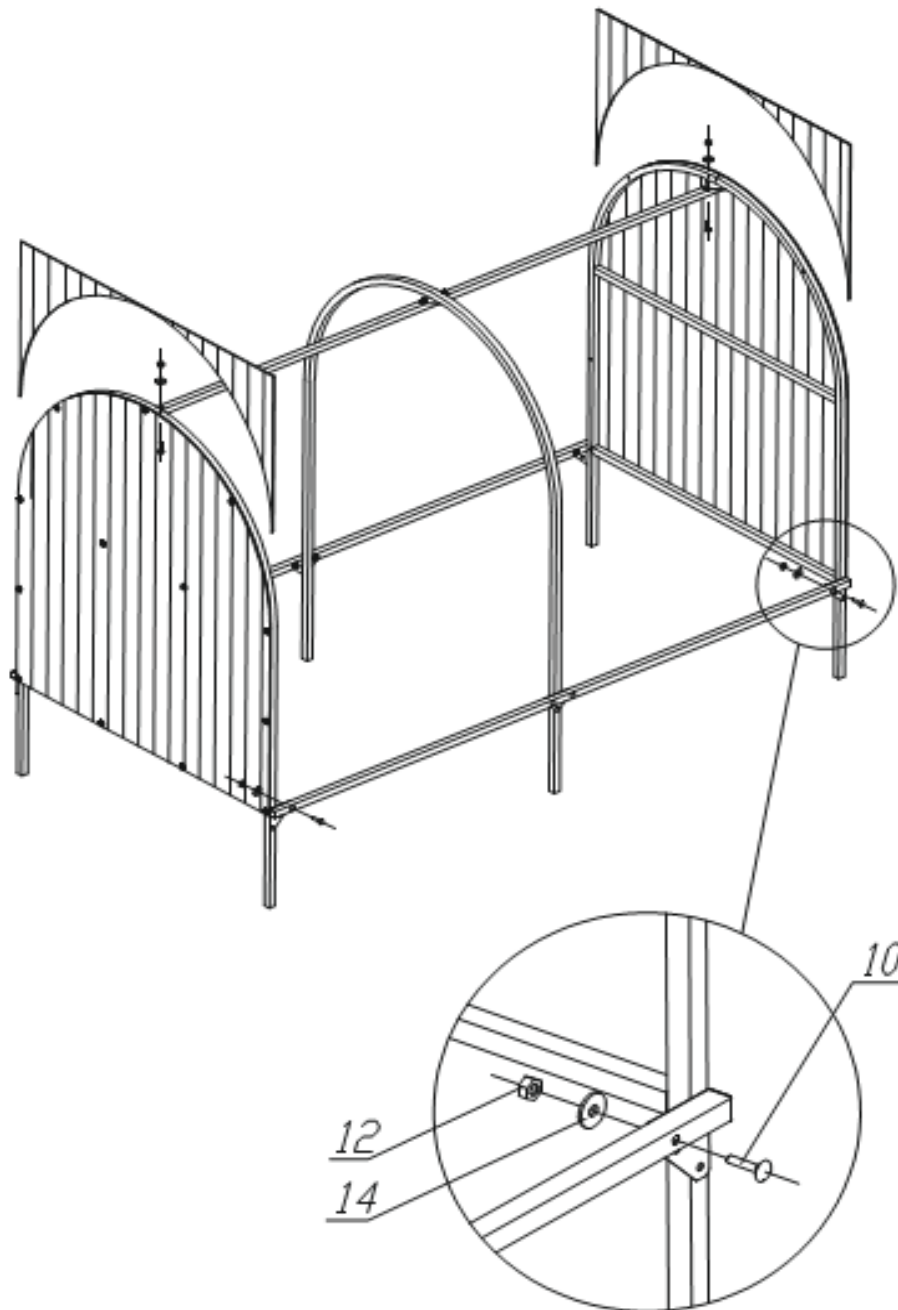


Fig. 3

### 3.3 Set the frame base on level.

To make the greenhouse bigger use the extension of 2 m and the adapter-jumper (Position 3.1).

## 4. PROFILES INSTALLATION

4.1 Take the external profile with one lock (Position 9), place it on the arc of the end face with the lock facing upwards (Figure 4), fix with the self-tapping screw (Position 17) (Figure 5).

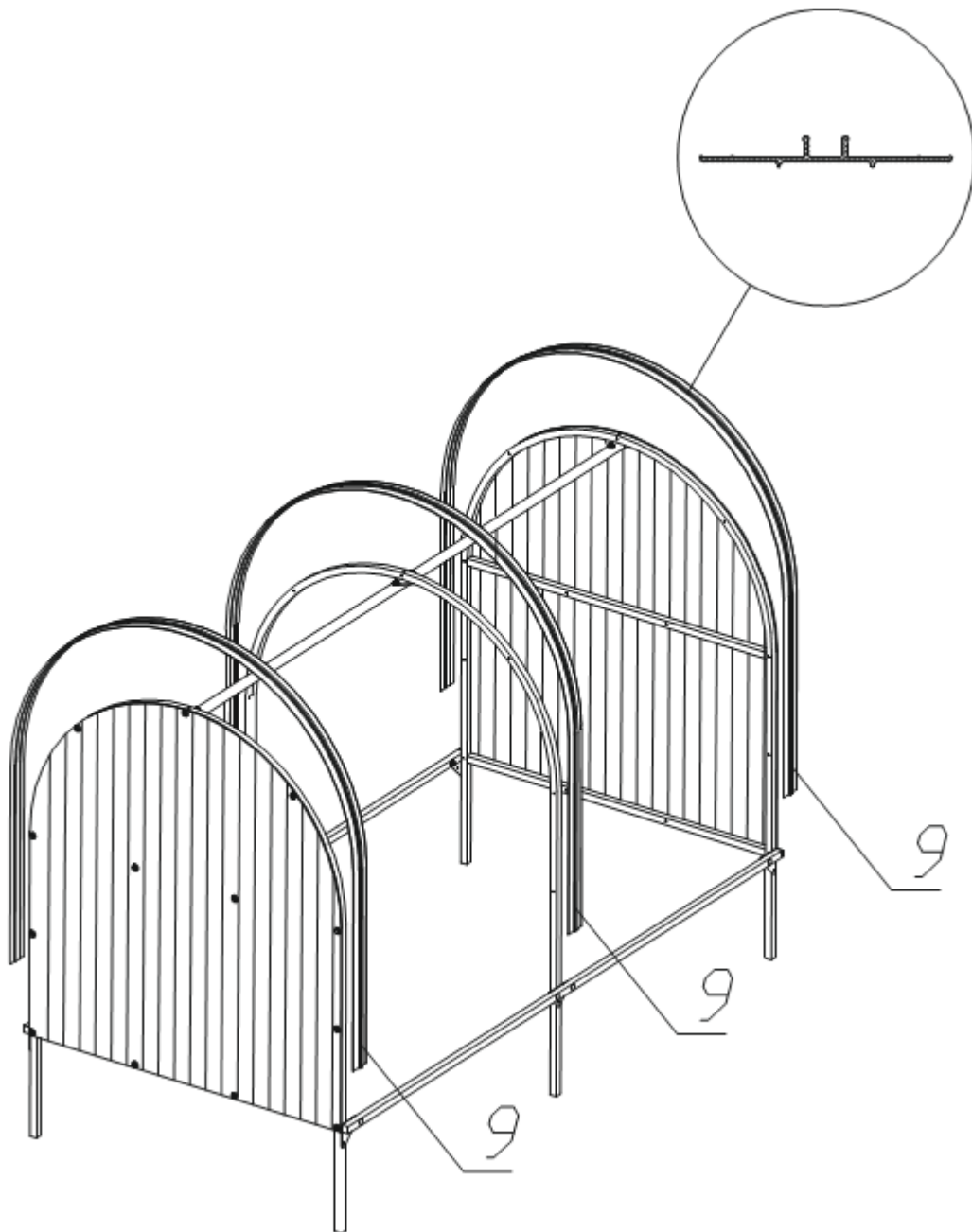


Fig. 4



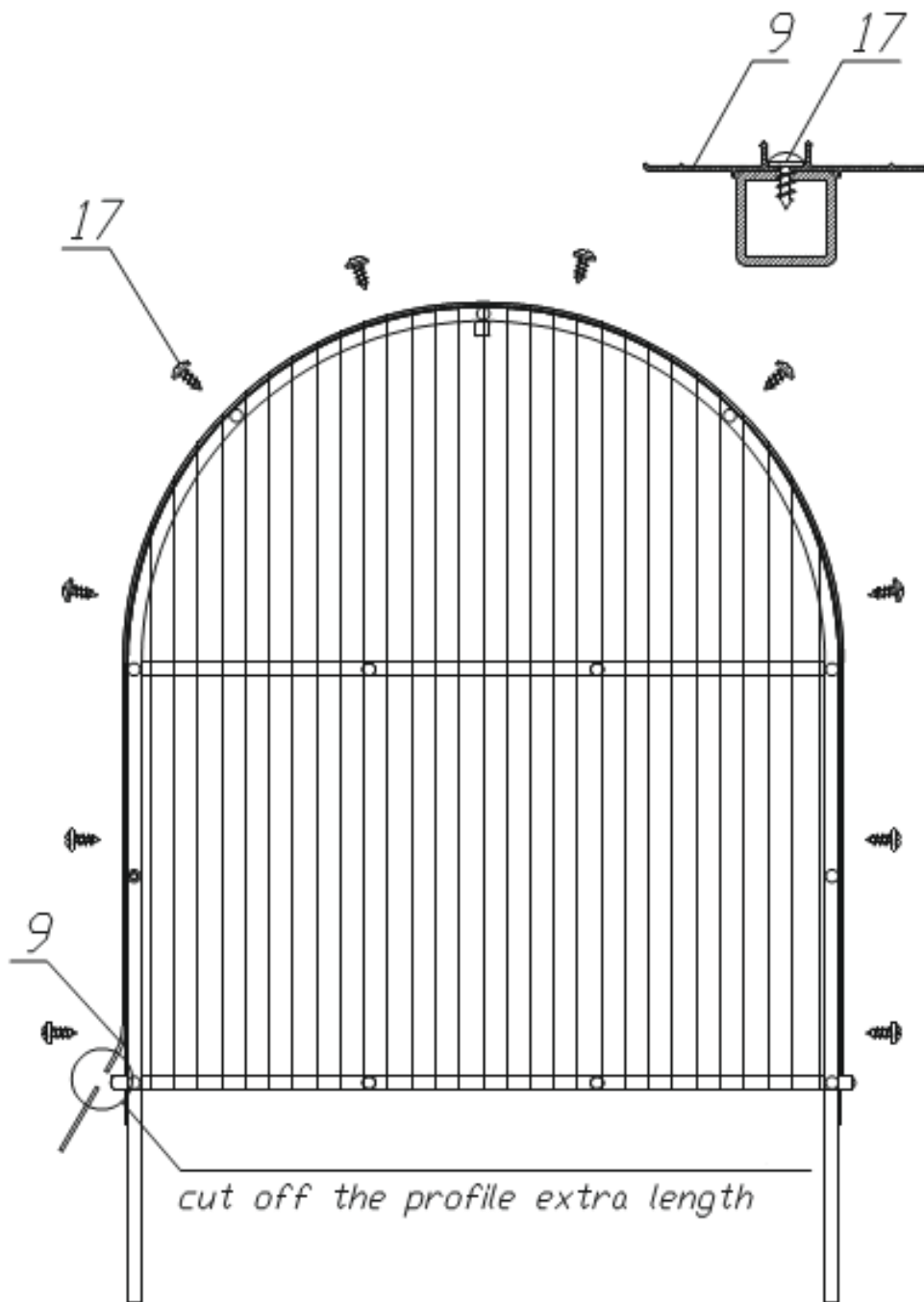


Fig. 5

4.2 The profile extra length should be cut (Fig. 5).

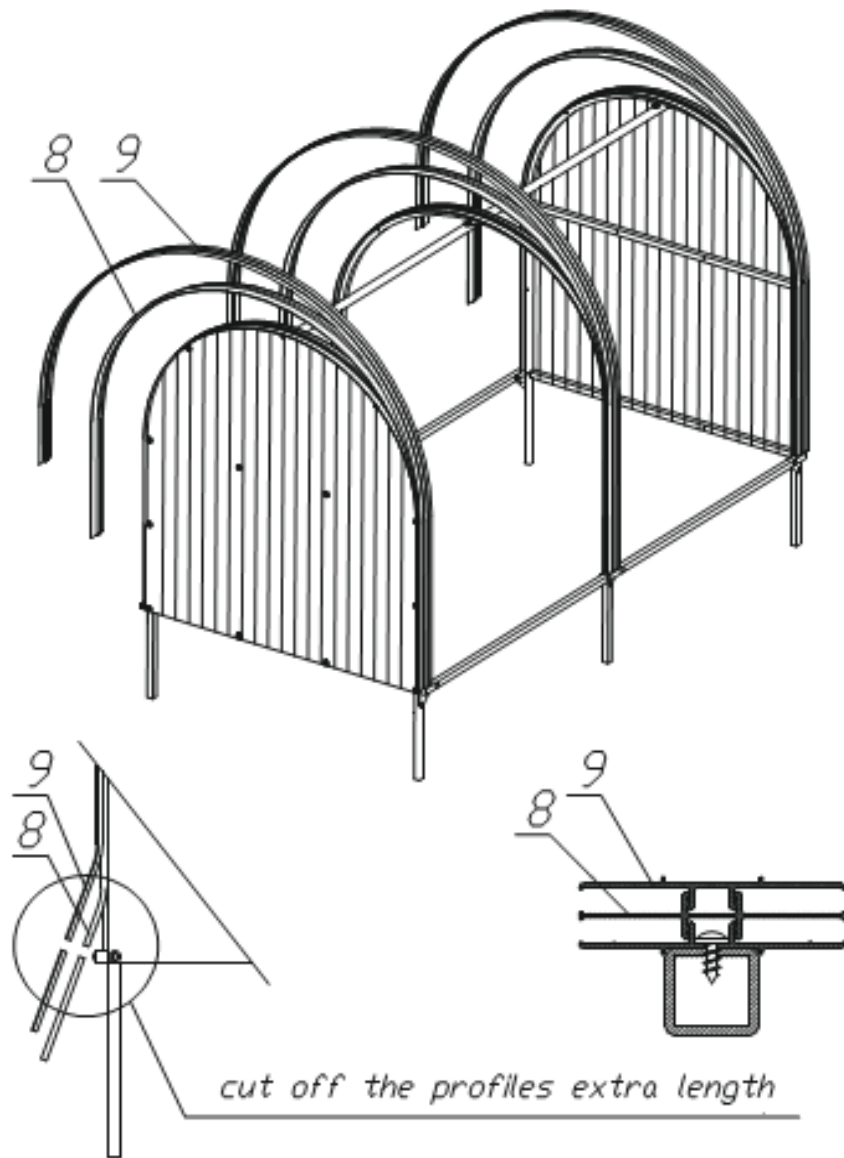


Fig. 6

4.3 Take the medium profile with the lock on both sides (Position 8) and snap it along the entire length with fixed profile. Cut the extra length.

4.4 Take the next external profile with the lock on one side (Position 9) and snap it along the entire length with fixed medium profile. Cut the extra length.

Eventually, you should have a three-layer profile with two grooves for polycarbonate (Figure 6).

## 5. SLIDING SECTIONS ASSEMBLY

Before installation, the sheets must be stored in their original packaging, protected from direct sunlight.

5.1 Take the cellular polycarbonate with a size of 972x1450 mm (Position 7), remove the protective film by 10 cm from both edges with open cells. Place the sheet front side down on the handles-planks (Position 4). Set according to the size (Fig. 7).

### 5.2. Handles-planks installation.

All handles-planks are fixed on the front side of the polycarbonate.

5.2.1 Screw the polycarbonate to the handle-plank (Position 4) with 3 self-tapping screws of 4.2×19 (Position 18), while putting the washer (Position 14) (Figure 7). Plug the edges of the handle-plank (Position 21).

Please note that one sheet of the cellular polycarbonate with 2 handles-planks and one sheet with one handle-plank should be installed for each opening.

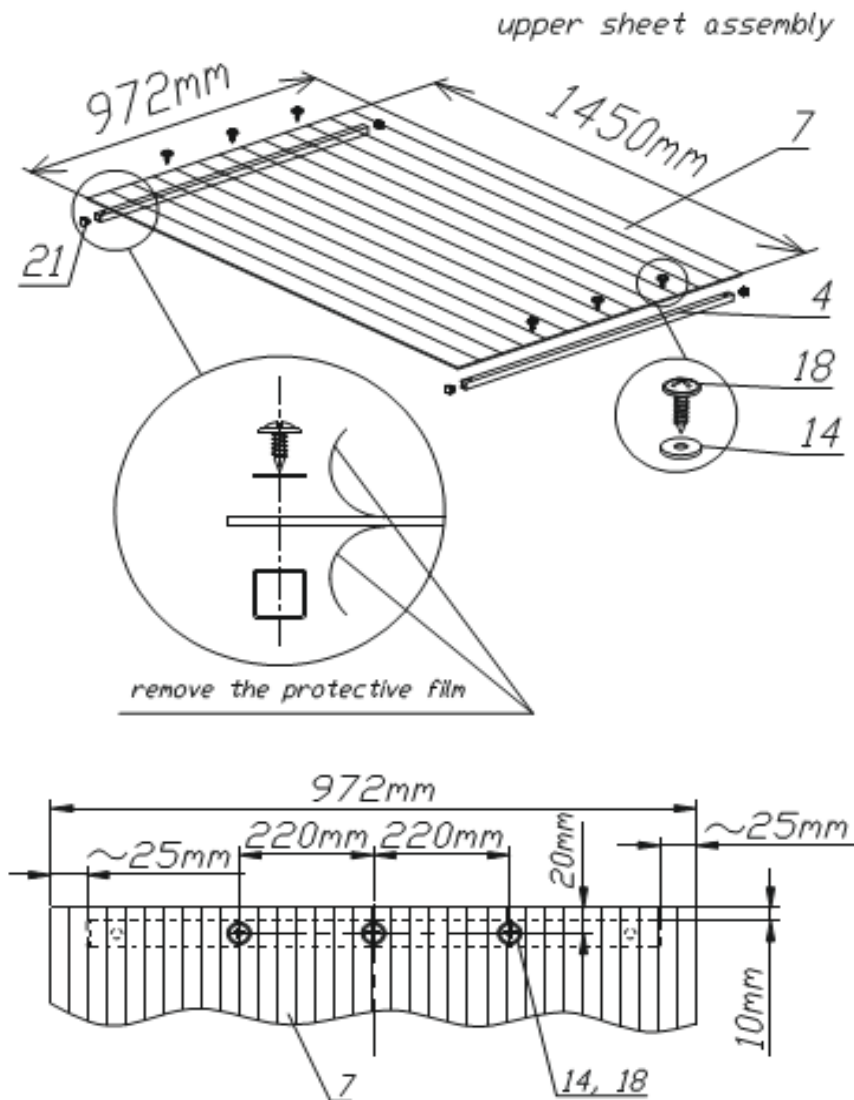


Fig. 7 Two handles-planks

bottom sheet assembly

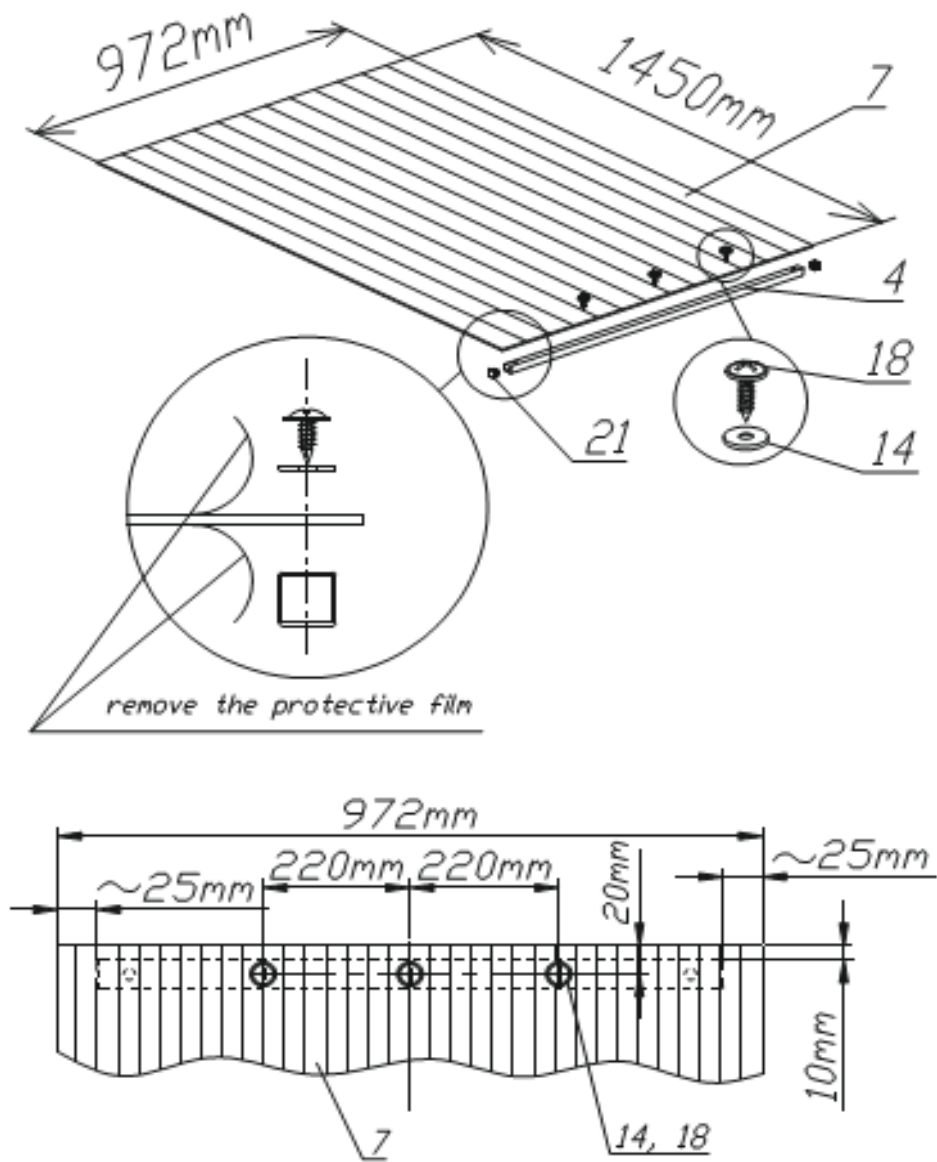


Fig. 8 One handle-plank

5.2.2 Take the stitching awl (Position 20), pierce the polycarbonate as shown in Fig. 9.

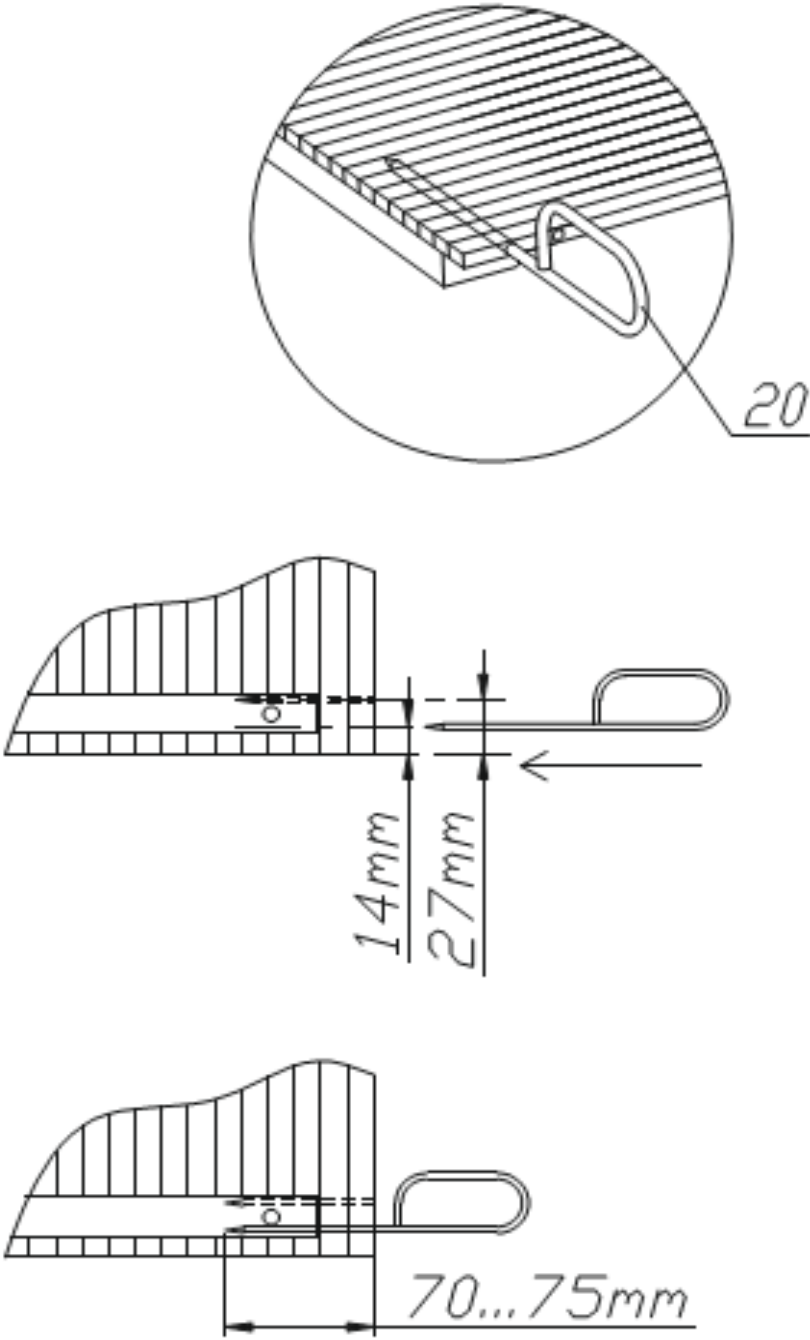


Fig. 9

Insert the staples into these holes (Position 19) (Figure 10).

5.2.3 Fix the bolt (Position 10) with the washer (Position 15) into the free holes at the edges of the handle-plank, after marking it with the stitching awl (Fig. 10).

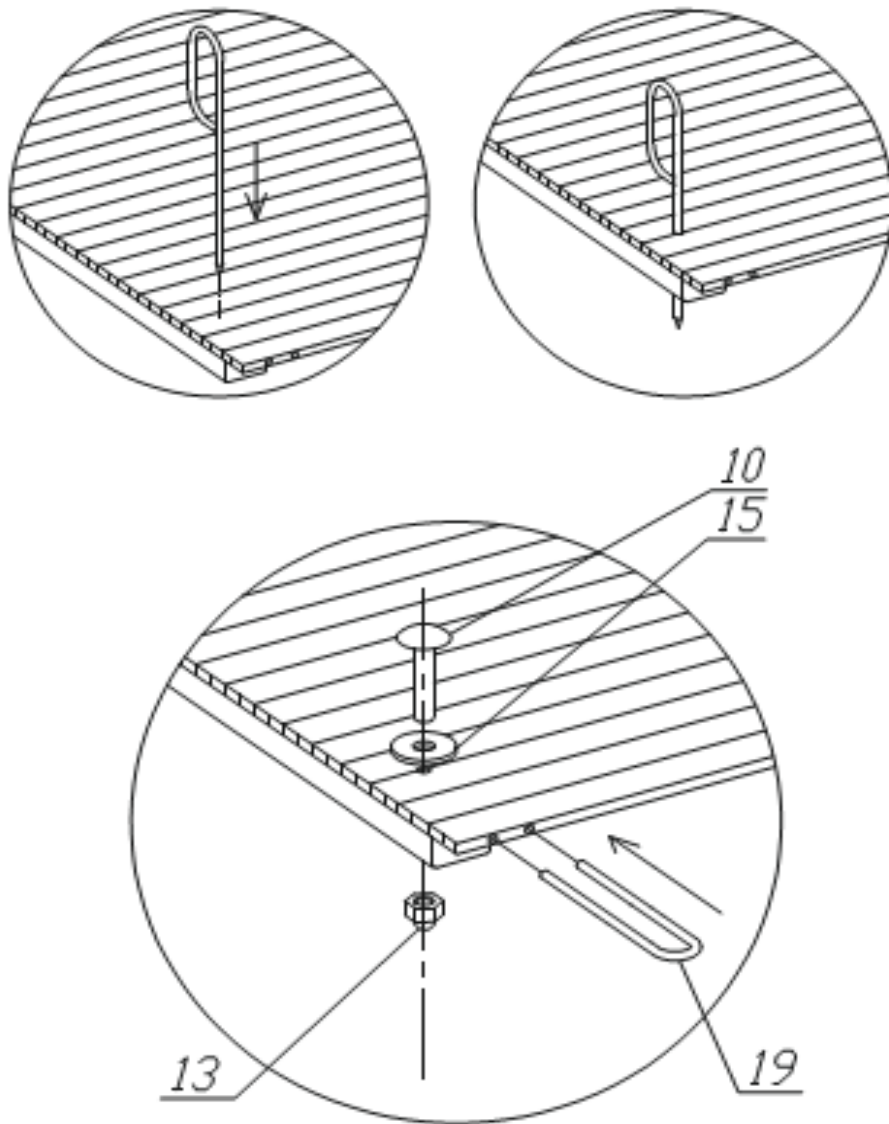


Fig. 10

Tighten the acorn nut from the outside of the handle-plank (Position 13). Eventually, the sliding sections should look like in Fig. 11, 12.

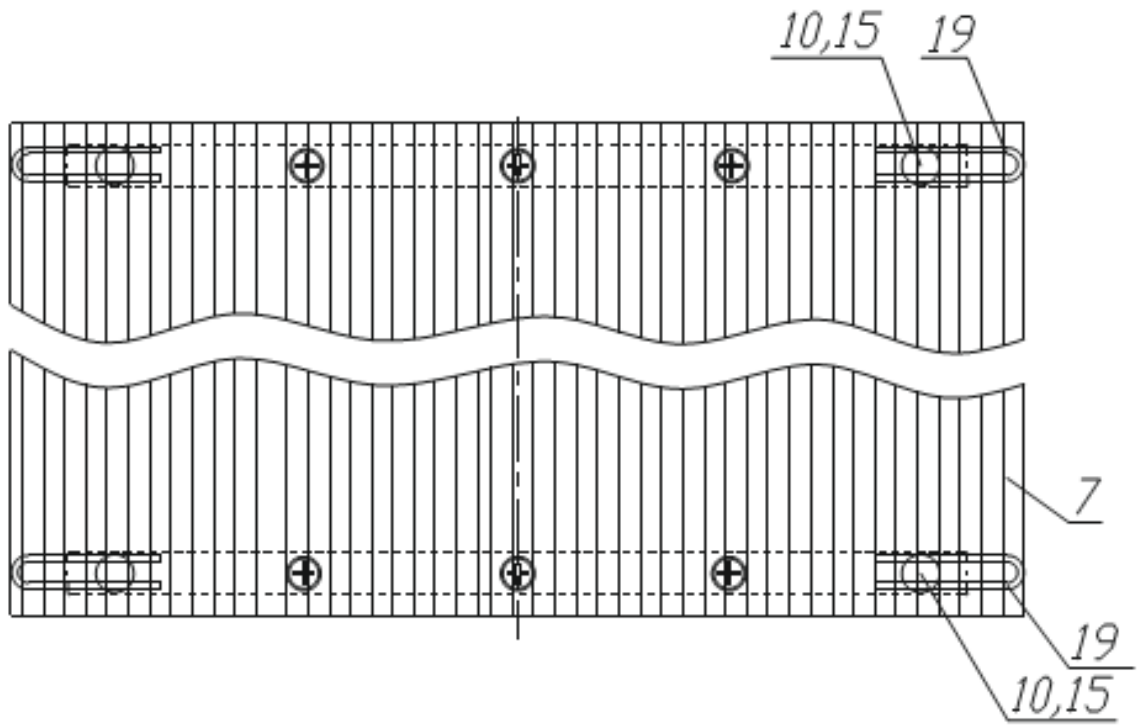


Fig. 11 Two handles-planks

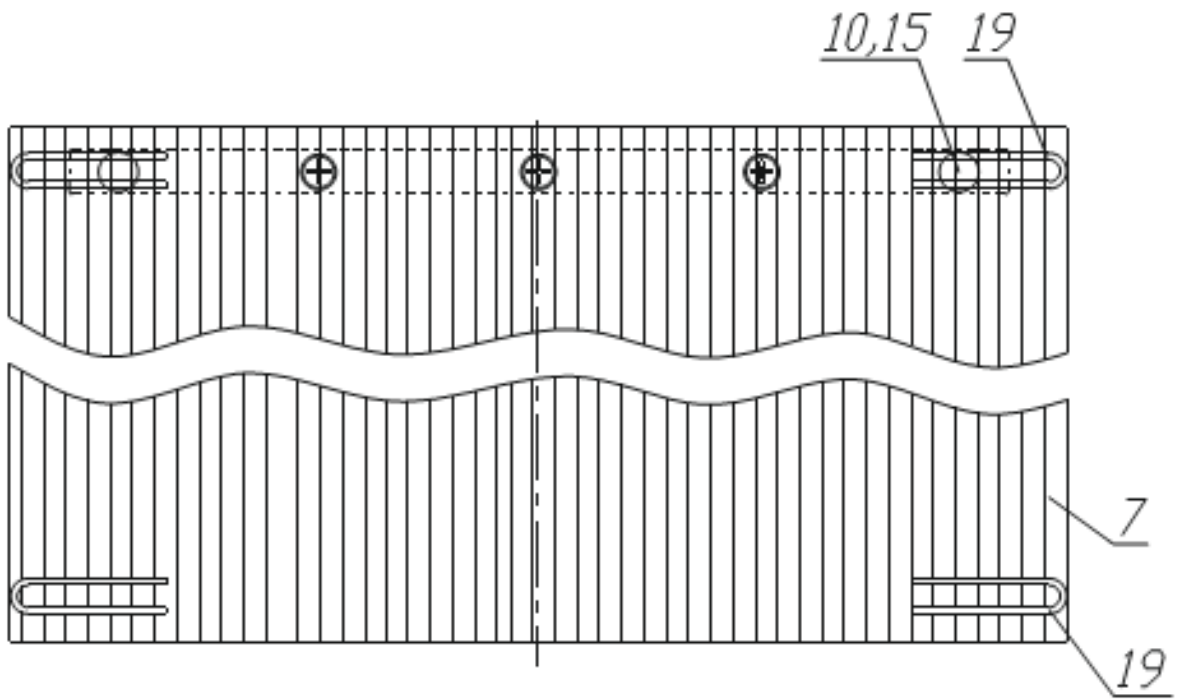


Fig. 12 One handle-plank

## 6. SLIDING SECTIONS INSTALLATION

6.1. The polycarbonate sheet with two handles-planks is inserted into the upper groove of the profile (Fig. 13, 14).

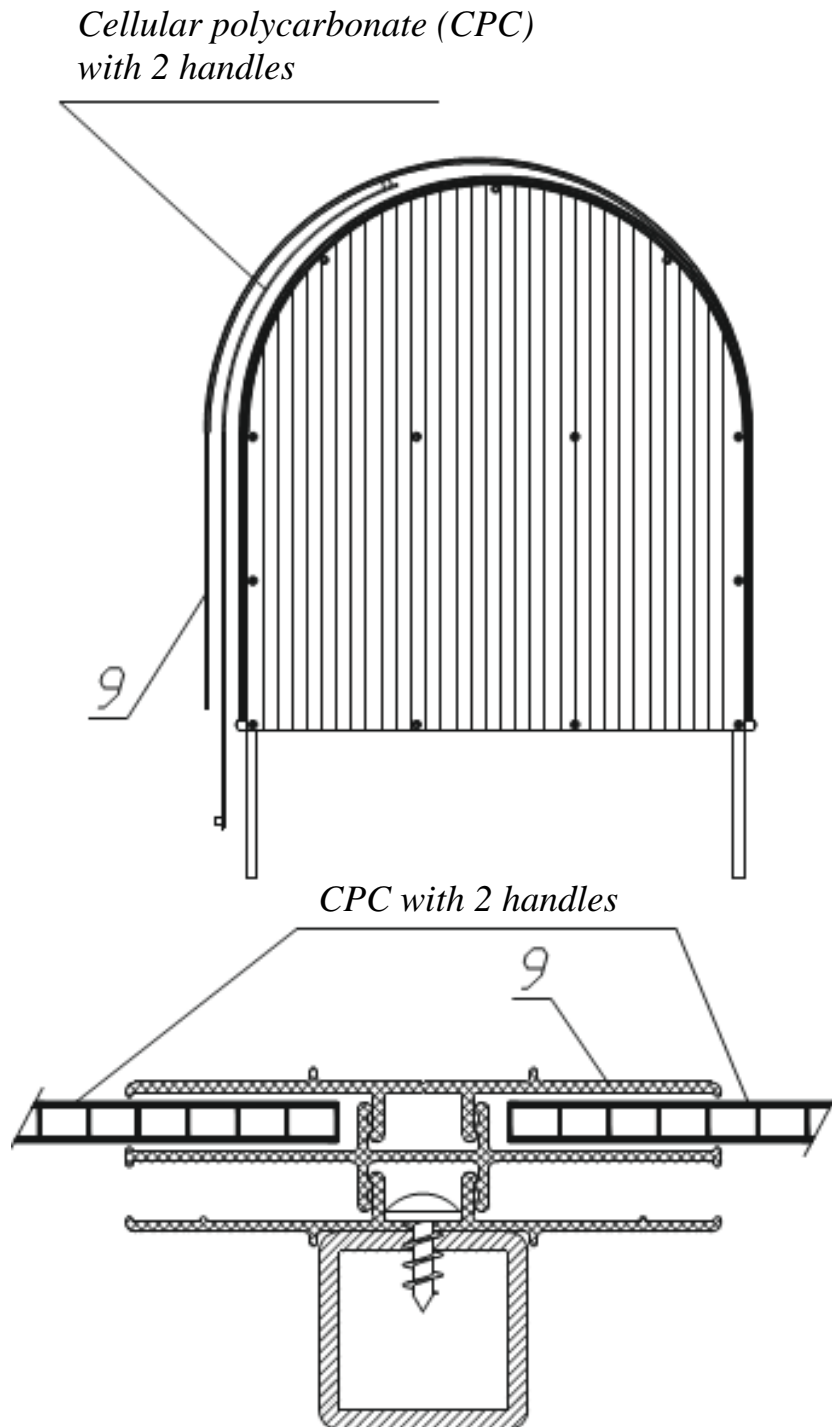


Fig. 13



*CPC with 2 handles*

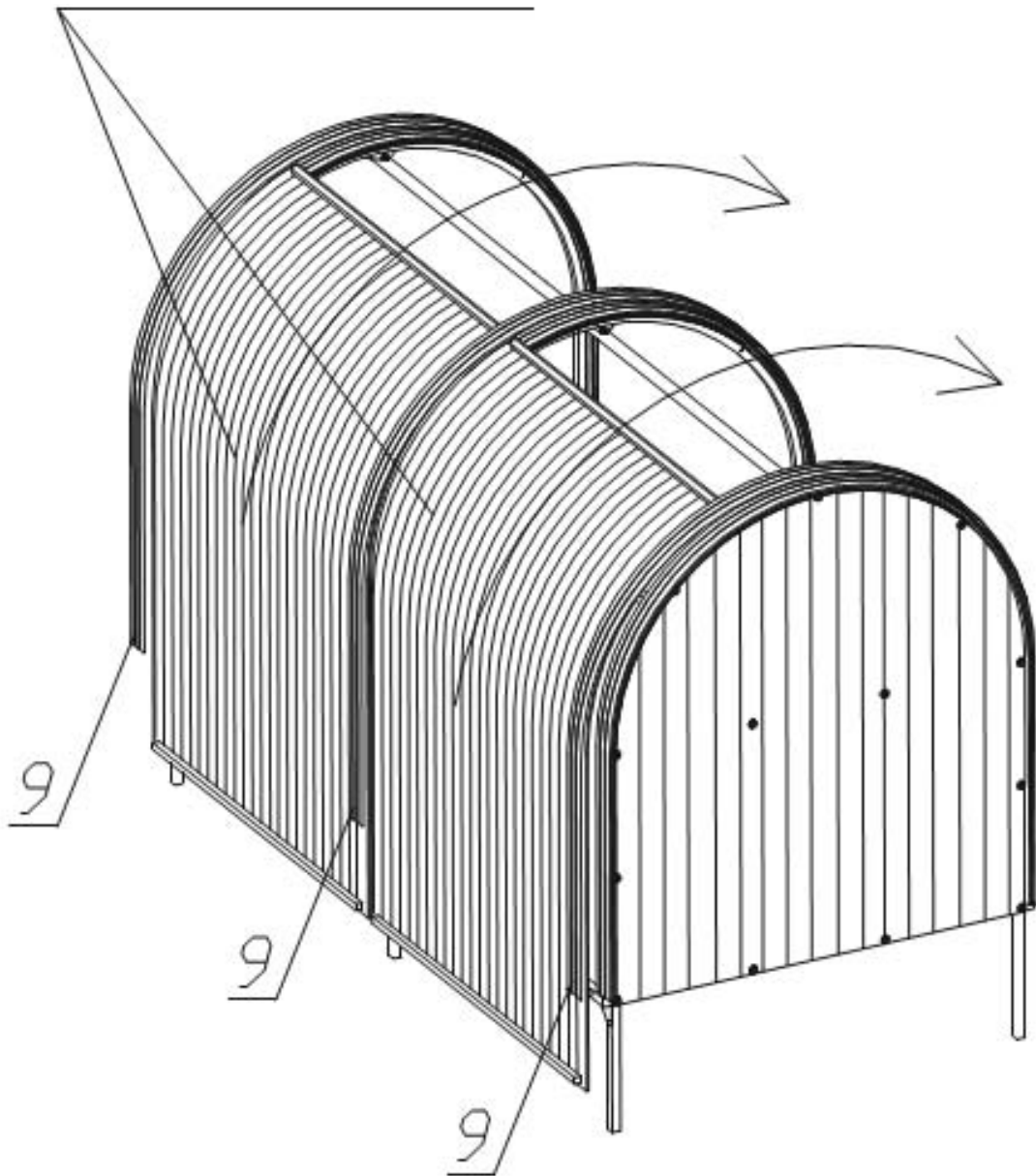


Fig. 14

6.2 The polycarbonate sheet with one handle-plank is inserted into the lower groove of the profile (Fig. 15, 16).

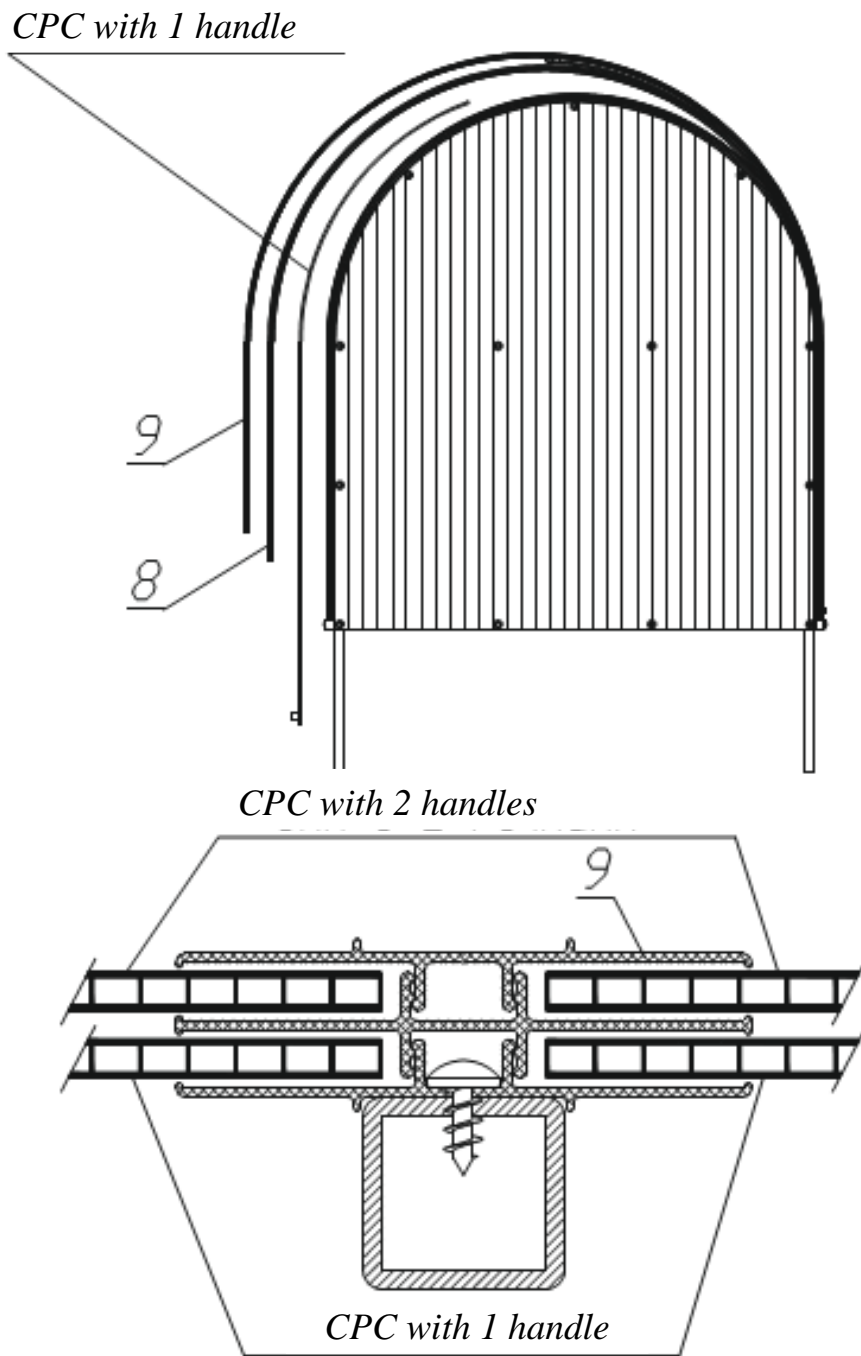


Fig. 15

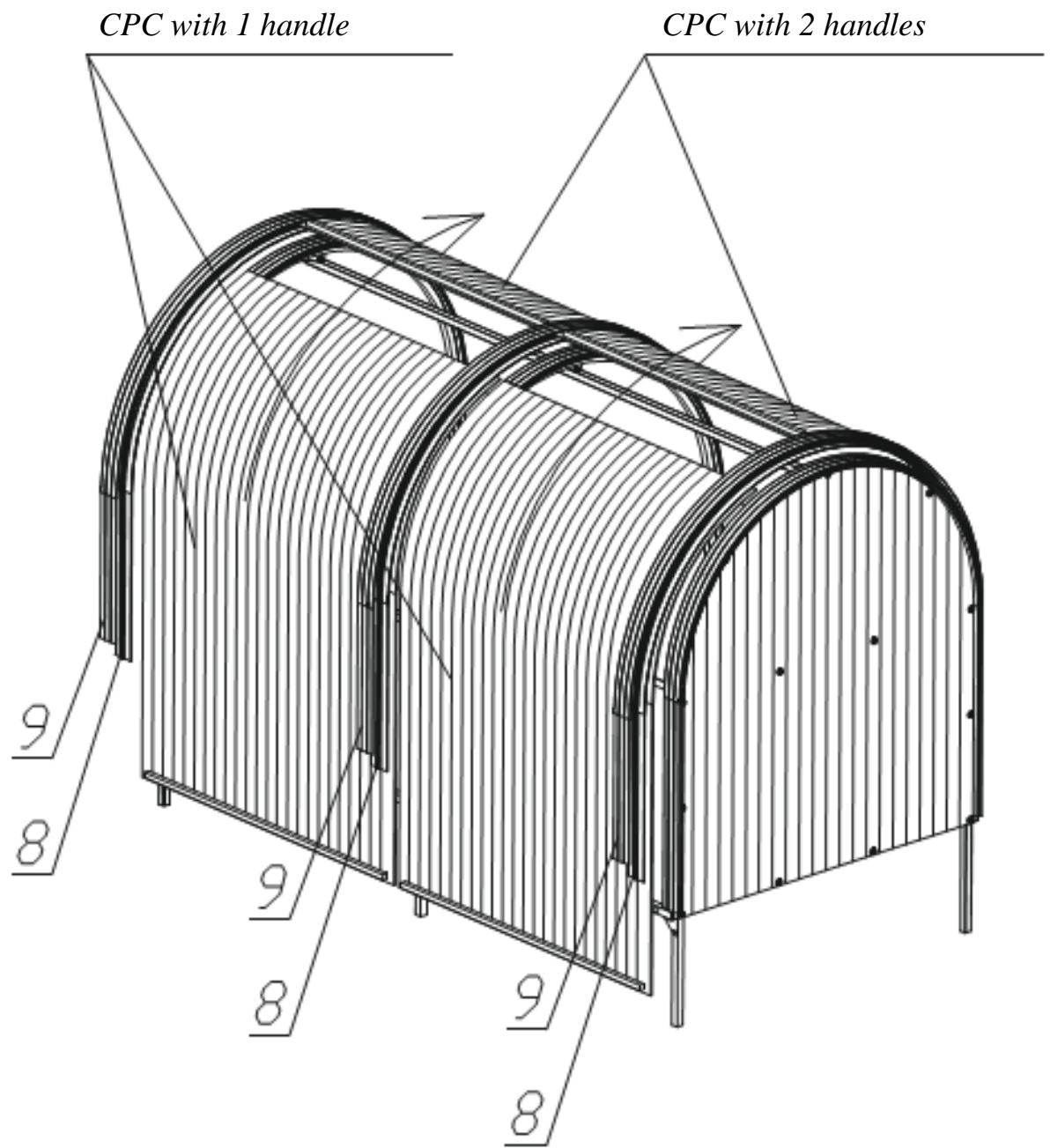


Fig. 16

6.3 Fasten the profiles with the 4.2x19 self-tapping screw (Position 18) at the points indicated in Fig. 17.

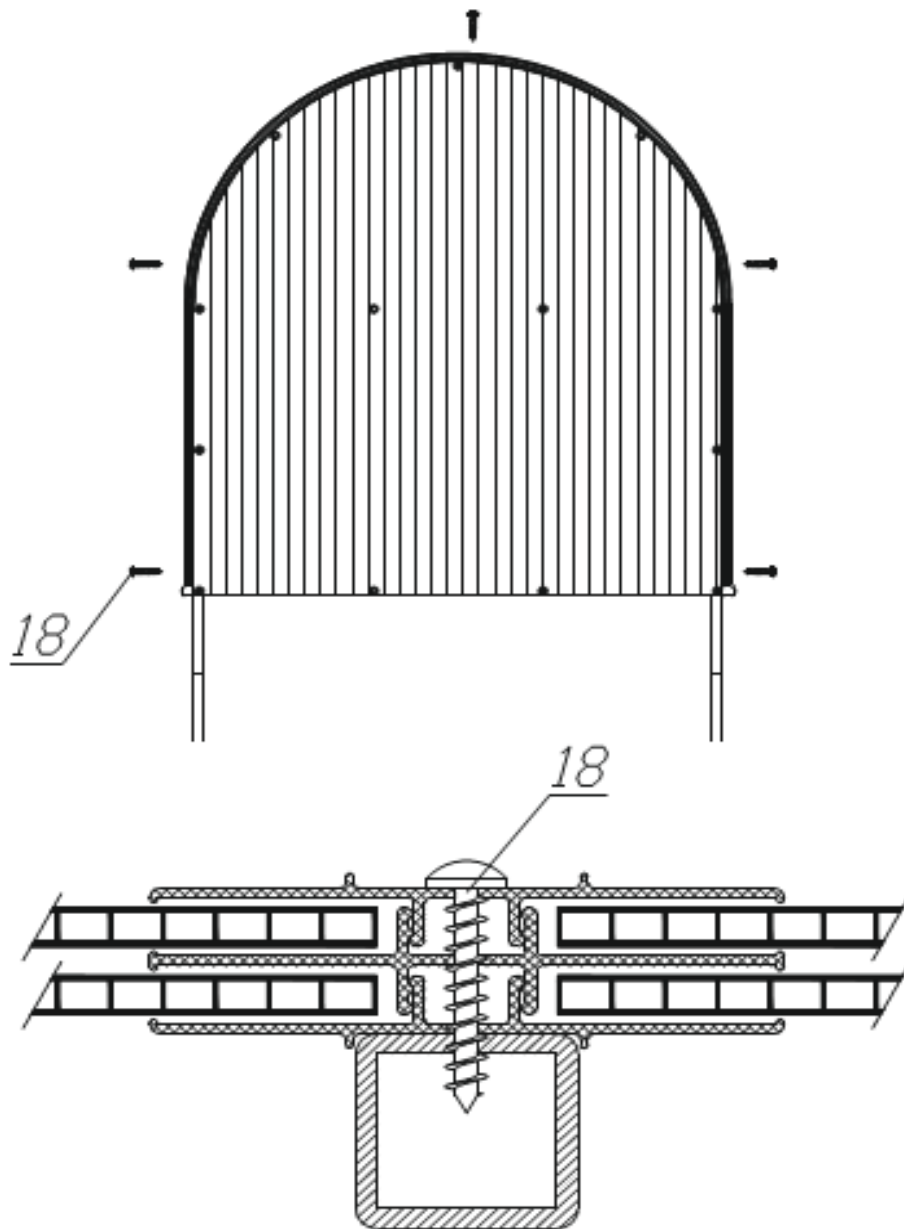


Fig. 17

6.4 In order that the polycarbonate moves easily along the profiles, it is recommended dripping some oil from the oiler into the profiles grooves (Position 22) (Figure 18).

## 7. GROUSERS INSTALLATION

7.1 Take the grouser-plank (Position 5), screw it to the arc base in the drilled holes using the M6x50 bolt (Position 11) with the washer and nut (Position 12, 14) (Figure 18).

7.2 Dig the holes under each arc of ~ 30 cm deep. Put the greenhouse into the holes to the ground level, cover with soil and firm the ground.

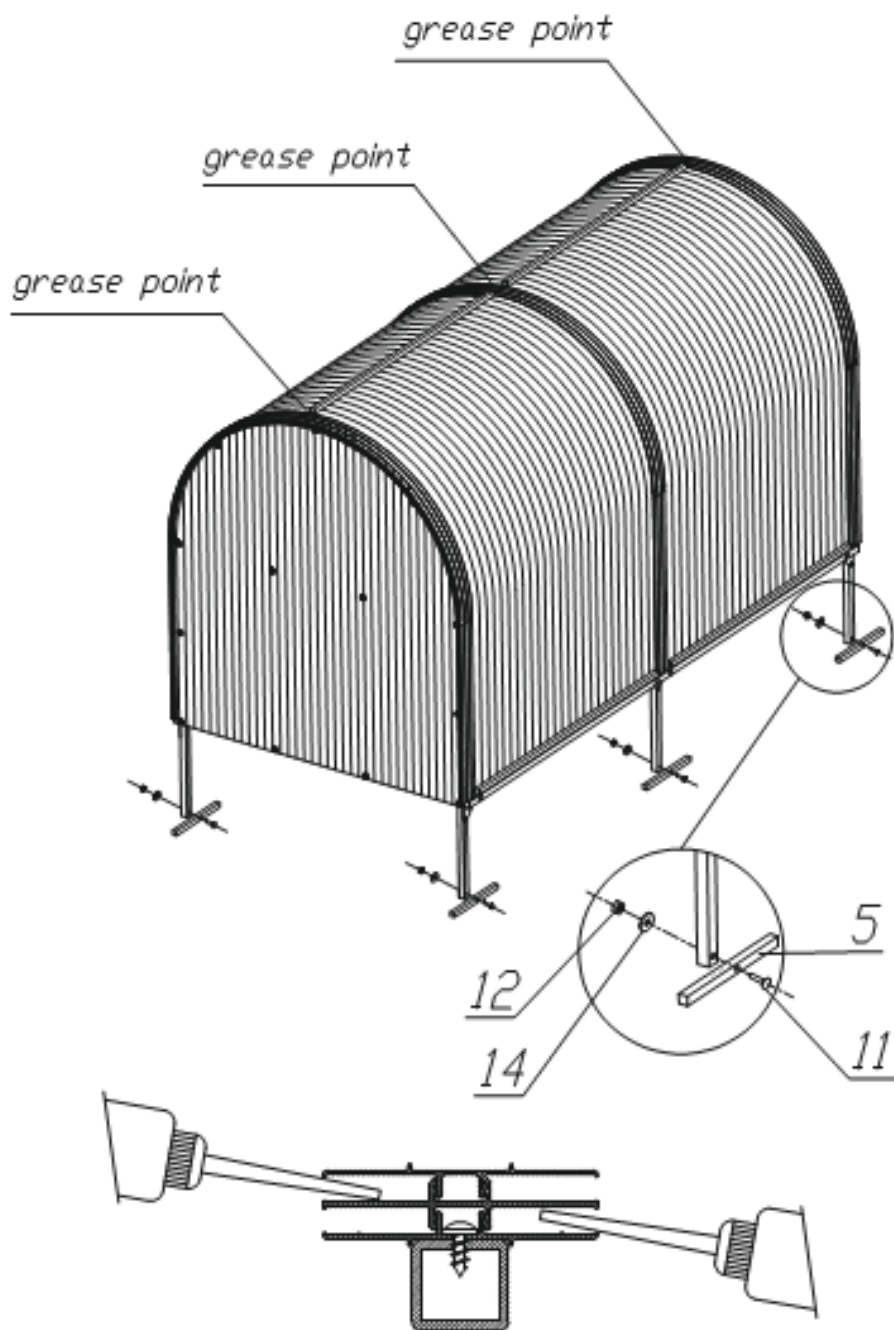


Fig. 18