INSTALLATION MANUAL

KLASIKA TUBE

greenhouse made of square tube with base frame

Galvanised 20 x 20 mm square tube · polycarbonate
Metal base frame · KRAB quick connectors · 2 m extension

KLASIKA GREENHOUSES

kiwa CERTIFIED
UAB „Kiwa Inspecta"

CE
EN 1090-1:2009+A1:2011



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General information

The frame of the KLASIKA TUBE greenhouse is made of **galvanised 20 x 20 mm square tube**, which is particularly strong and durable. The greenhouse has a simple design and is easy to assemble. It can be extended with accessories to suit your needs.

The manufacturer reserves the right to make technical changes and improvements to the design of the greenhouse, so the descriptions and drawings in this manual may differ slightly from the actual product.

Before assembly

> **Attention!** Always wear protective clothing and personal protective equipment when assembling the frame and handling the polycarbonate.

The following tools are needed for assembly:

- 8 mm socket wrench or spanner
- Phillips screwdriver or cordless drill
- spade for digging holes
- spirit level
- string or tape measure for measuring diagonals
- knife (or snap-off utility knife) for cutting the polycarbonate

Follow local building regulations where applicable. **Always keep doors and windows closed in strong winds.** If the ground at the installation site is very soft, we recommend anchoring the greenhouse additionally to the ground.

Read the manual at least once before assembly and familiarise yourself with all parts and profiles – this is very important for correct installation. Check the contents of the kit against the parts list. **If any part is missing, notify the seller immediately.**

> **Tip:** first tighten the bolts only lightly so that you can still adjust the position of the parts. Once the frame is assembled and level, tighten all bolts fully.

> **Attention!** Do not use sulphur smoke to disinfect the greenhouse – due to a chemical reaction, the metal parts will become covered with white powder.

Safety

- To avoid accidents, take care when assembling the frame and fitting the sheets.
- Always wear personal protective equipment and protective clothing.
- Do not modify the structure of the greenhouse.
- After assembly, check that the greenhouse stands firmly on its base and that there is no risk of injury during use.
- Be attentive and careful when working in the greenhouse.
- The landowner or user must comply with applicable legislation and must not harm the rights and interests of neighbours. If necessary, ask your local authority for further information.

Parts list

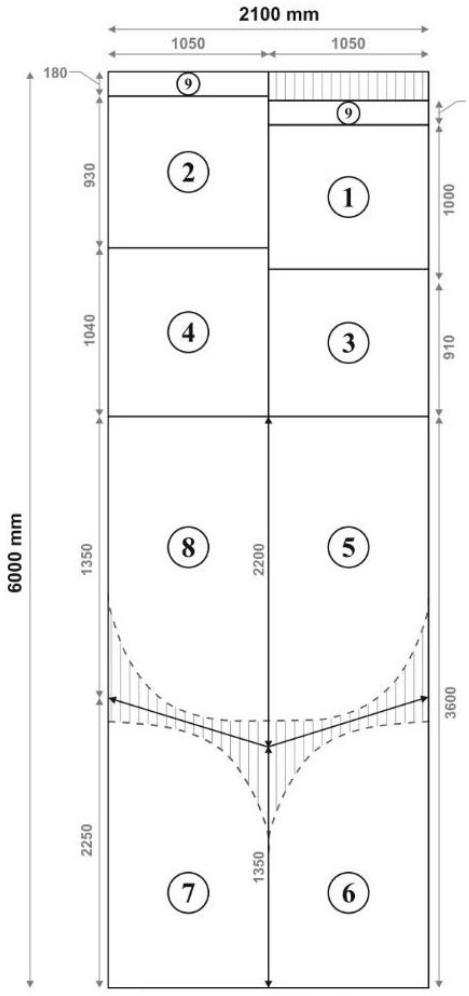
No.	Description	Length, mm	6 m²	12 m²	2 m extension
1	Arch (upper, middle)	2280	2	5	3
2	Arch (upper, middle), **with extra holes**	2280	2	2	–
3	Side arch (left, right)	1210	4	10	6
4	Side arch (left, right), **with extra holes**	1210	4	4	–
5	Lower support of side arch (left, right)	940	4	10	6
6	Lower support of side arch (left, right), **with extra holes**	940	4	4	–
7	Ground anchor	200	12	18	6
8	Cross bar connecting the arches	2000	4	8	4
9	Cross bar connecting the arches (upper, middle)	643	3	6	3
10	Door/window post	2210	2	2	–
11	Door/window post, **with extra holes**	2210	2	2	–
12	Side brace, front and rear	970	4	4	–
13	Door/window crossbeam (ends cut at 45°)	1320	2	2	–
14	Crossbeam below the window (rear of the greenhouse)	965	1	1	–
15	Base frame side profile	1990	–	2	2
16	Base frame side profile	2010	2	2	–
17	Base frame front and rear profile	1515	4	4	–
18	Base frame corner bracket		4	4	–
19	Base frame connecting plate		4	8	4
20	Bolt M5-16	16	132	192	60
21	Bolt M5-40	40	196	236	36
22	Bolt M5-45	45	12	18	6
23	Bolt M4-45	45	6	6	–
24	Self-drilling screws 4.2 x 19		4	4	–
25	Nut M5		340	446	102
26	Nut M4		6	6	–
27	Transparent washer		68	92	24
28	Transparent washer (half-moon)		56	56	–
29	Handle set with screws		3	3	–
30	Two-way connector		24	24	–
31	Three-way connector		52	52	–
32	Four-way connector		20	50	30
33	Polycarbonate fixing plate		5	5	–
34	Sealing tape for lower sheet	roll	1	1	–
35	S-hook		2	2	–
36	Eye bolt M5-40	40	4	4	–
37	Chain		2	2	–
Doors / windows					
Door 1	Door part with hinges	885	3	3	–
Door 2	Door part with handle	885	3	3	–
Door 3	Lower/upper door part (horizontal)	950	6	6	–
Door 4	Door crossbar (vertical)	885	3	3	–

Polycarbonate sheet dimensions

Part	Width x height, mm	6 m²	12 m²	2 m extension
1 Upper door section	1050 x 1000	1	1	–
2 Lower door section	1050 x 930	1	1	–
3 Section below the window	1050 x 910	1	1	–
4 Window	1050 x 1040	1	1	–
5–8 Side sections	1050 x 2000	4	4	–
9 Section above door and window	1050 x 170	2	2	–
10 Roof	2100 x 6000	1	2	1

CUTTING DEPENDS ON YOUR KIT! If you received only large 2100 x 6000 mm sheets (6 m²: 2 pcs, 12 m²: 3 pcs, etc.), all the parts above are cut from the 2100 x 6000 mm sheets according to the cutting diagram below. If you also received 1050 x 2000 mm sheets, the large sheet does not need to be cut: the large sheets are used for the roof and the 1050 x 2000 mm sheets for the end walls, doors and windows. Refer to the sheet dimensions table.

Polycarbonate cutting diagram



Parts in the diagram
1 Upper door section
2 Lower door section
3 Section below the window
4 Window
5–8 Side sections
9 Section above door and window

NOTE! Do not mix up the sides of the polycarbonate! The side with the UV-protective layer (the printed side) must face outwards; the other side is covered with a clear film and faces inwards. **Wear gloves when cutting the sheets!** We recommend cutting the sheets with an electric circular saw, a fine-toothed hand saw or a sharp knife. Remove the protective film before fixing the sheets to the frame.

Assembly

Prepare the site according to the dimensions of the greenhouse and level the ground. This manual describes the assembly of a 4 m long KLASIKA TUBE greenhouse. Dig or drill holes approx. 25 cm in diameter and approx. 40 cm deep along the entire perimeter of the prepared rectangle.

1 Take the metal profiles out of the packaging and check against the parts list that all parts are present and that their number and length are correct. Sort the different parts separately for convenience.

NOTE! The arches are not identical! The front and rear arches have more bolt holes.

2 **Base frame assembly.** Use profiles no. 17 (1515 mm) for the front and rear, profiles no. 16 (2010 mm) and no. 15 (1990 mm) for the sides, corner brackets no. 18, connecting plates no. 19, and bolts with nuts.

A) Join the two front profiles of the base frame (no. 17 + no. 17) on both sides with connecting plates (no. 19) and fix with M5-16 bolts and nuts. Do the same for the rear (figure 1).

B) Join the side profiles of the base frame (no. 16 and no. 15) on both sides with connecting plates (no. 19) and fix with M5-40 and M5-16 bolts and nuts. Do the same for the other side.

NOTE! To further secure the sides, use the lower supports of the side arches (940 mm, no. 5) with the ground anchors (200 mm, no. 7) already attached – see figure 2. Fix them with M5-40 bolts and M5 nuts to the base frame side profile at the connecting plate, so that the bolt passes through all three parts. Where the plate is fixed to the base frame, use M5-16 bolts with nuts (figure 3).

C) Assemble all the parts into a rectangle using corner brackets (no. 18), M5-40 and M5-16 bolts and nuts (figure 4).

NOTE! To further secure the corners, use the lower supports of the side arches with extra holes (940 mm, no. 6) with the ground anchors (200 mm, no. 7) already attached – see figure 2. Fix them with M5-40 bolts and M5 nuts through the base frame corner to the side profile, using two bolts through three parts. Do the same at the other three corners.

The side of the base frame of a 6 m greenhouse consists of profiles 2010 mm (no. 16) + 1990 mm (no. 15) + 1990 mm (no. 15); for an 8 m greenhouse 2010 mm (no. 16) + 1990 mm (no. 15) + 1990 mm (no. 15) + 1990 mm (no. 15). The profiles are joined in the same way as described in point C.

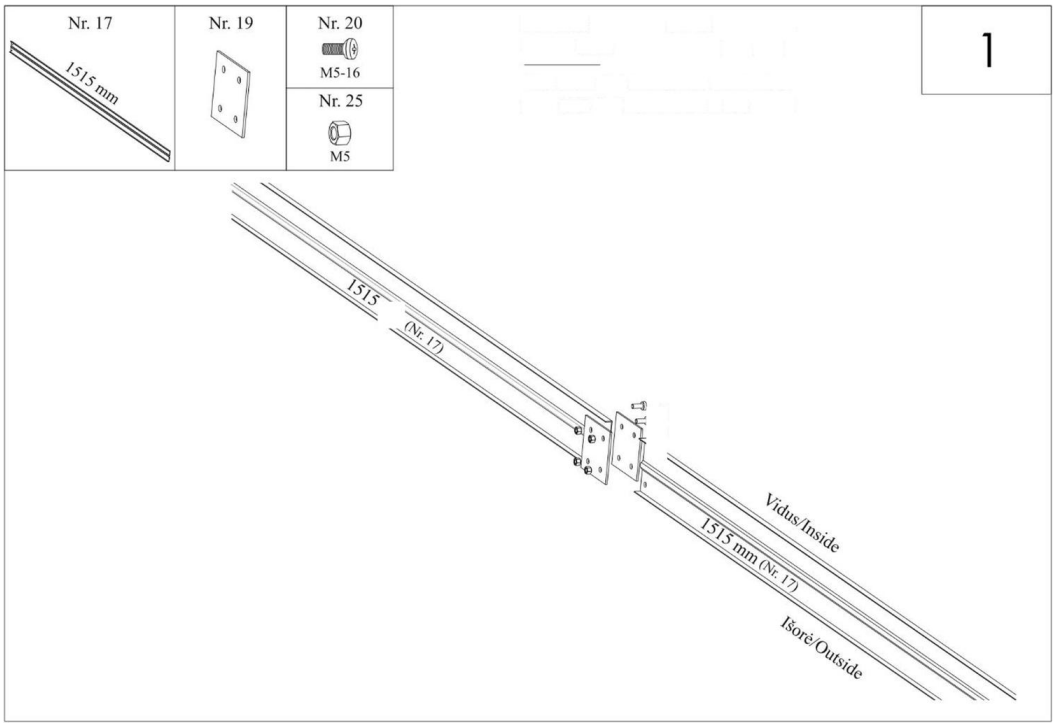


Figure 1

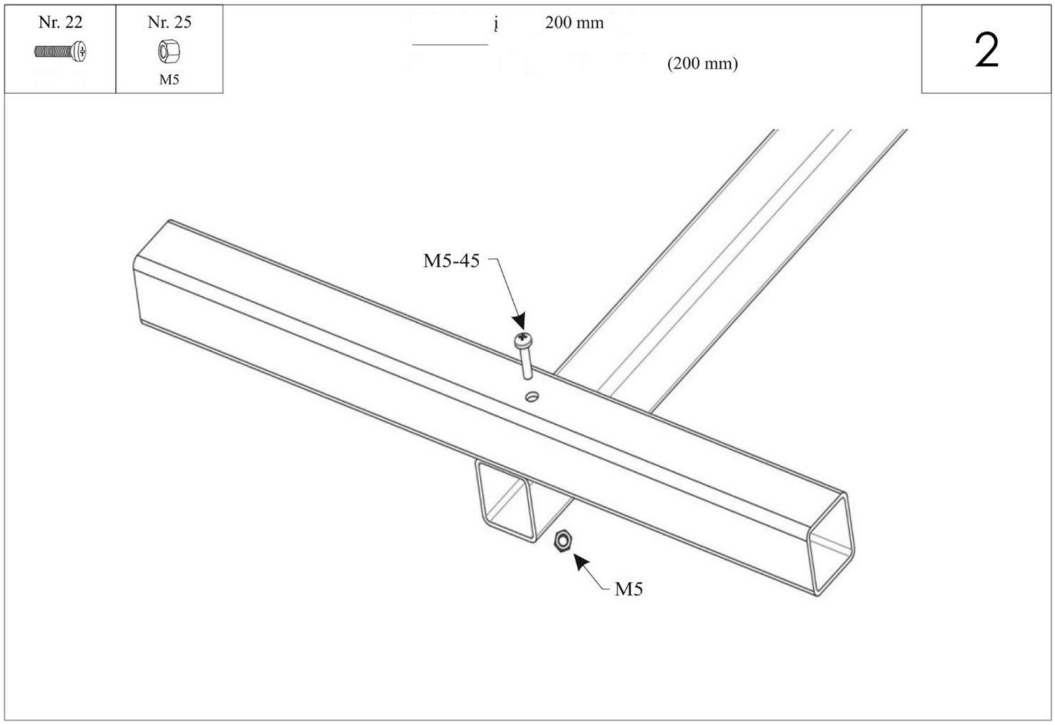


Figure 2

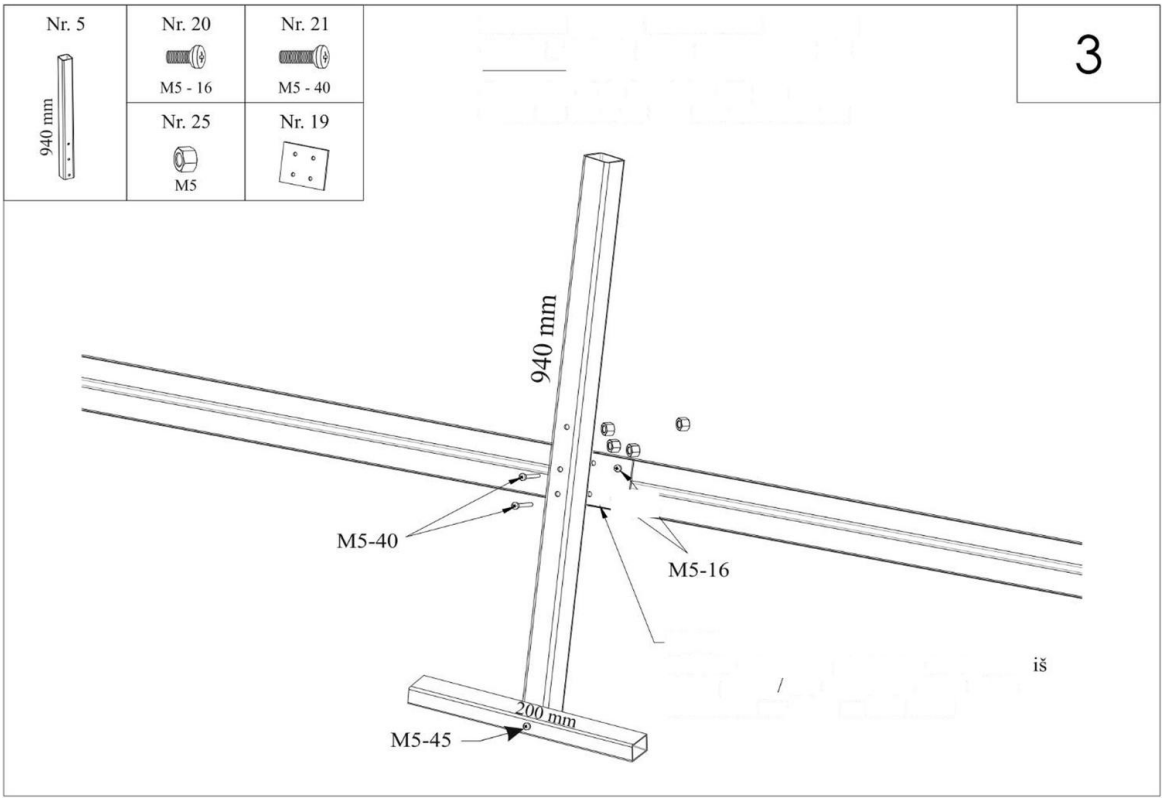


Figure 3

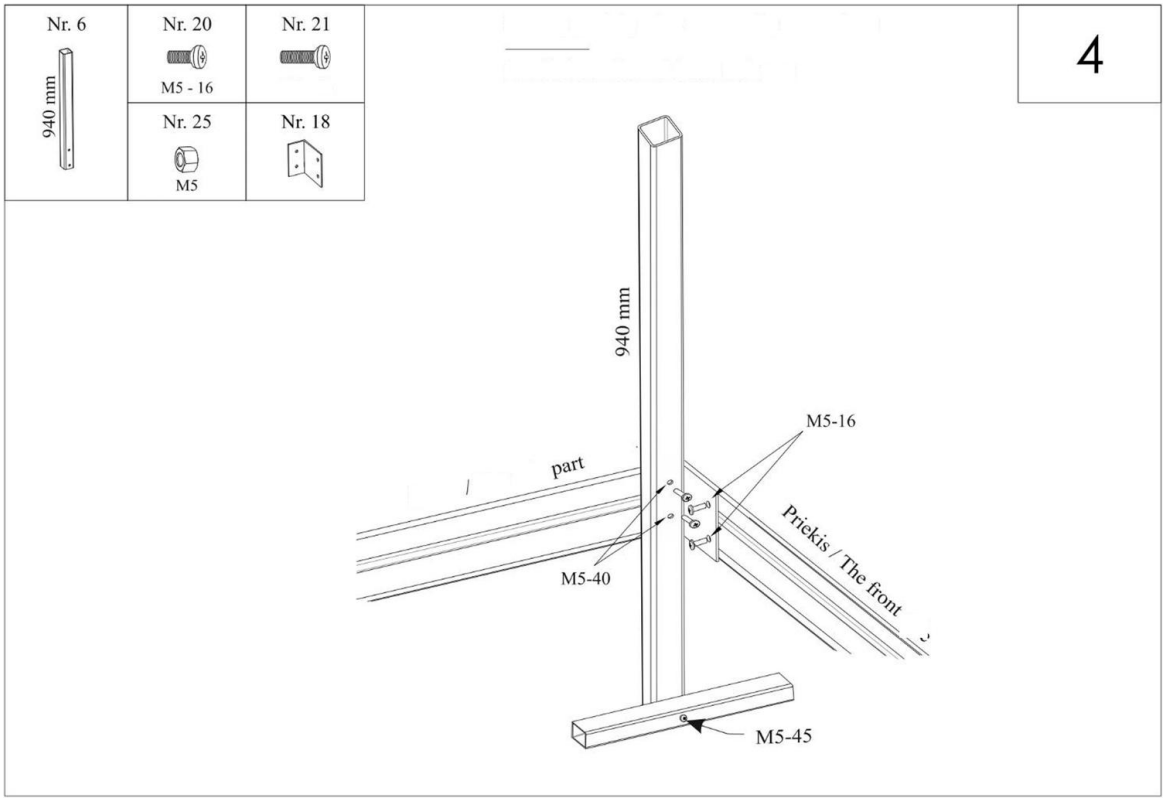


Figure 4

3 Measure the diagonals of the base frame – they must be equal. When the diagonals are equal, fully tighten the base frame bolts (figure 5).

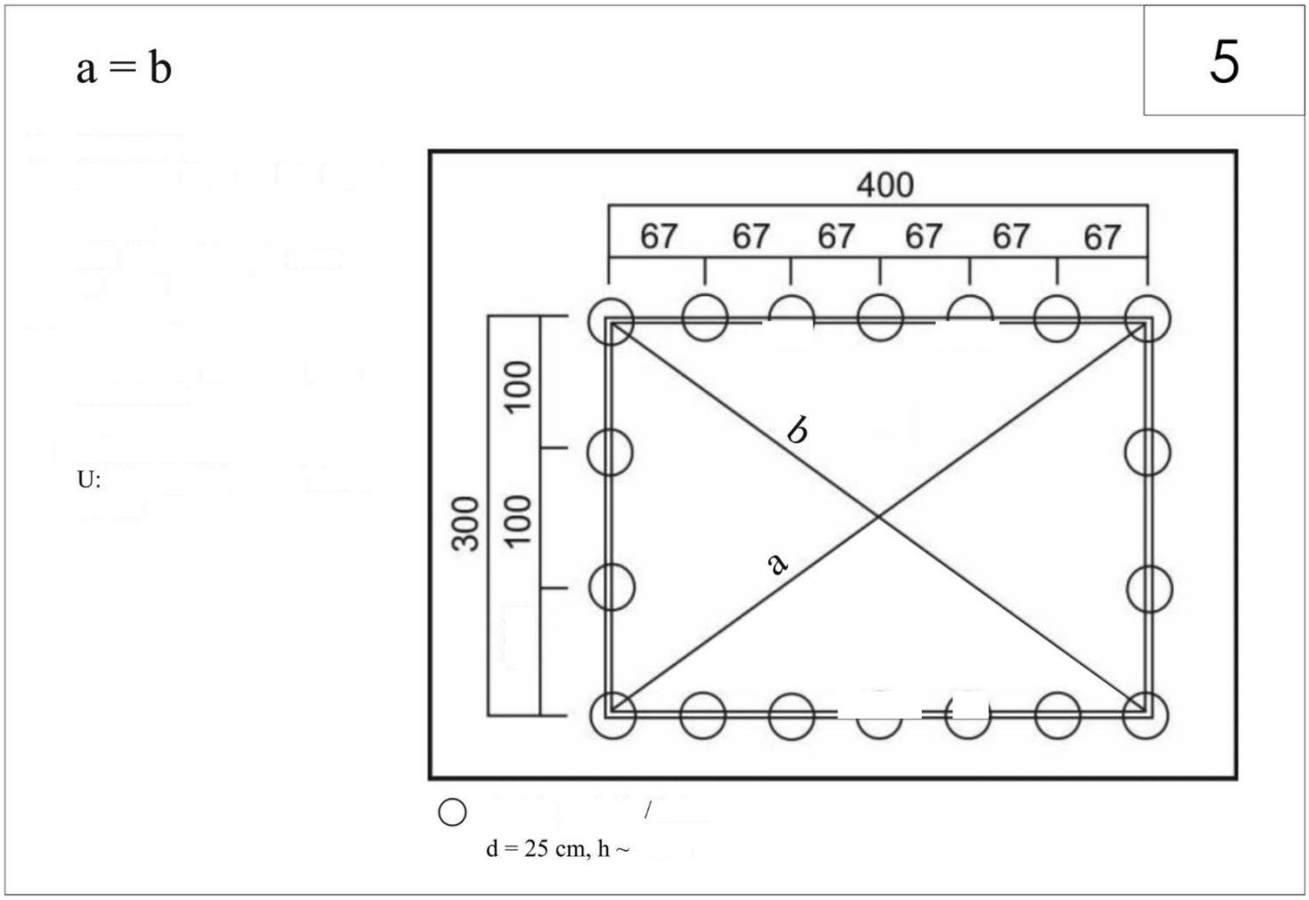


Figure 5 – diagonals a and b must be equal; holes d ≈ 25 cm, depth ≈ 40 cm

4 Attach the polycarbonate fixing plates (no. 33) to the upper side of the front and rear of the base frame with M5-16 bolts and nuts: two plates at the front and three at the rear (figure 6).

NOTE! If you purchased an additional door, no plate is needed in the middle of the rear.

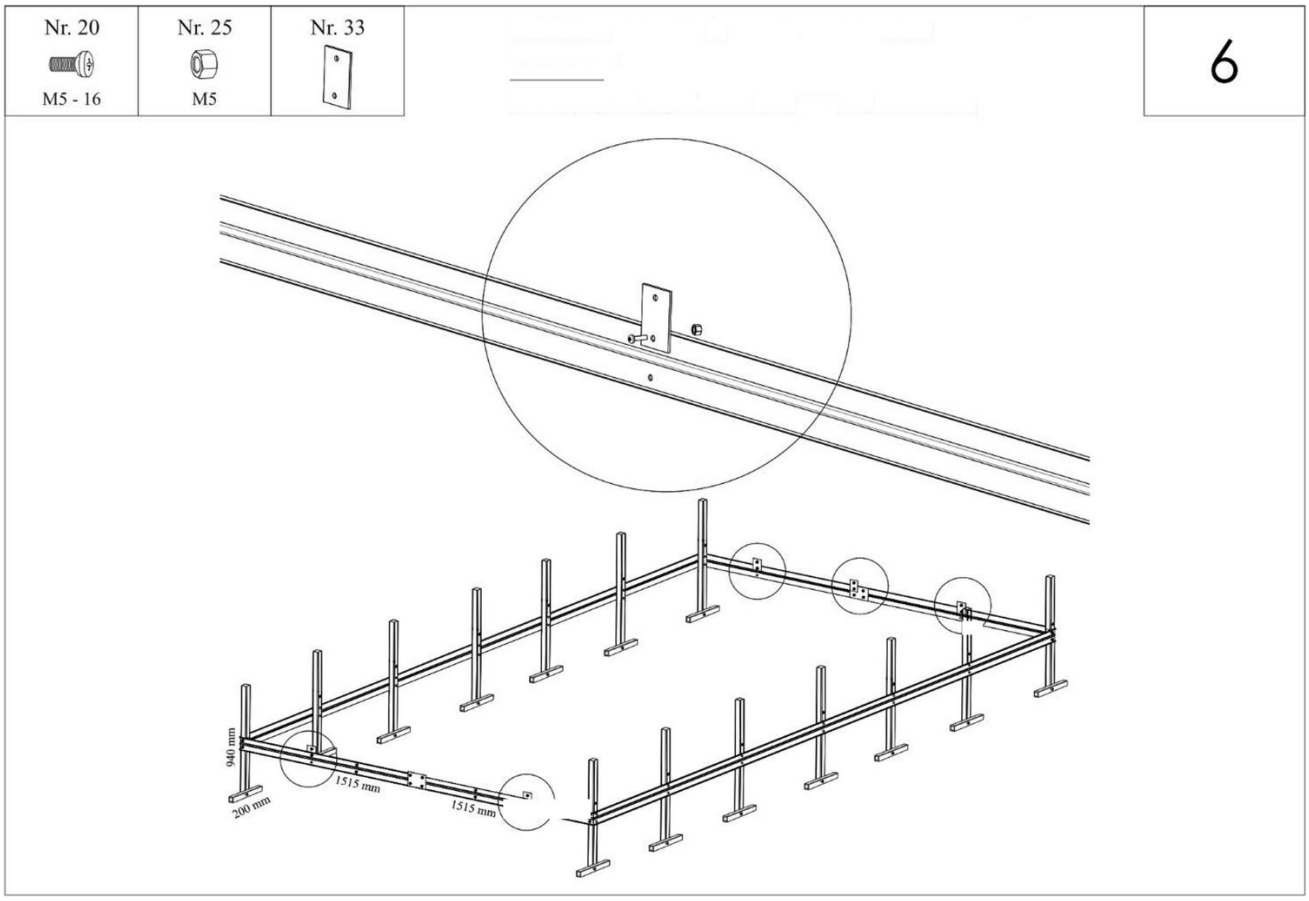


Figure 6

5 Attach the ground anchors (200 mm, no. 7) to the lower ends of the remaining lower supports of the side arches (940 mm, no. 5) with M5-45 bolts and M5 nuts (figure 2).

Fix the prepared lower supports to the sides of the base frame at the intended points, 643 mm apart. The distances between the arches must be equal – you can use the upper cross bar (643 mm, no. 9) to check the distance.

6 Before fitting the cross bars (2000 mm, no. 8), pre-assemble the three-way (no. 31) and four-way (no. 32) connectors using M5-16 bolts and nuts.

7 Slide one four-way connector onto the middle of each cross bar (2000 mm, no. 8) and three-way connectors onto the ends of the cross bars (front and rear).

8 Attach the assembled cross bars (no. 8) to the lower supports of the side arches fixed to the base frame, using the pre-assembled three- and four-way connectors and M5-16 bolts and nuts. The distances between the arches must be equal – you can use the upper cross bar (643 mm, no. 9) to check. Do the same on both sides (figure 7).

NOTE! Leave the upper parts of the three- and four-way connectors free and do not tighten their bolts.

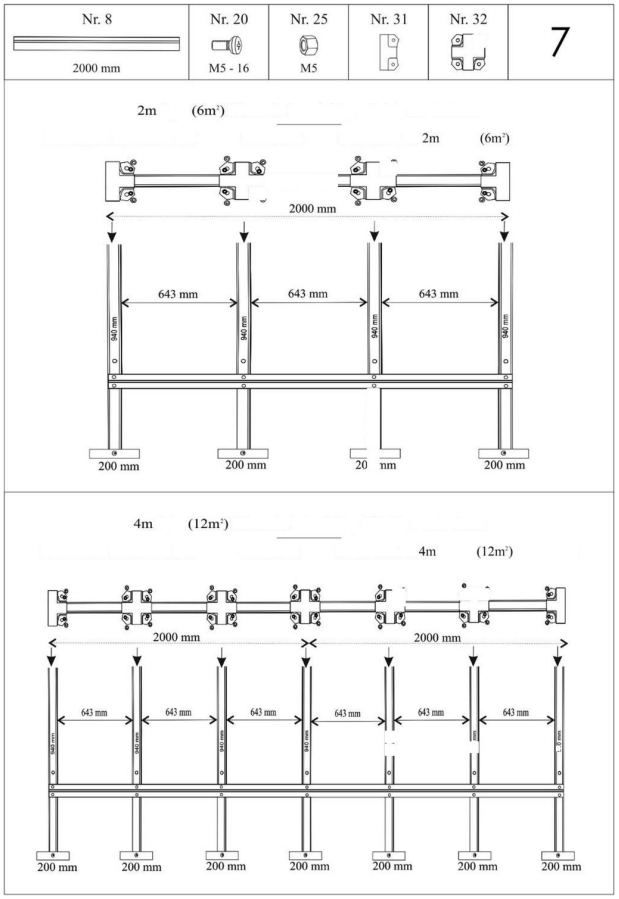


Figure 7 – fitting cross bars and connectors on a 4 m (top) and 6 m (bottom) greenhouse

9 Attach the side arches to the upper parts of the remaining free three- and four-way connectors: 1210 mm arches (no. 3) in the middle and 1210 mm arches with extra holes (no. 4) at the ends. The distances between the arches must be equal – you can use the upper cross bar (643 mm, no. 9) to check. Do the same on both sides (figure 8 A).

NOTE! For the front and rear arches of the greenhouse, use the 1210 mm parts with extra holes (no. 4).

10 Attach the assembled cross bar to the upper part of the installed arches (1210 mm, no. 4), using the pre-assembled three-way connectors and M5-16 bolts and nuts. The distances between the arches and four-way connectors must be equal – you can use the upper cross bar (643 mm, no. 9) to check. Do the same on both sides (figure 8 B).

NOTE! Leave the upper parts of the three- and four-way connectors free and do not fully tighten the bolts yet.

11 Attach the upper arches to the free upper ends of the three- and four-way connectors: 2280 mm (no. 1) and 2280 mm with extra holes (no. 2), and tighten their bolts. The distances between the arches must be equal – you can use the upper cross bar (643 mm, no. 9) to check.

NOTE! For the front and rear arches of the greenhouse, use the 2280 mm part with extra holes (no. 2) (figure 8 C).

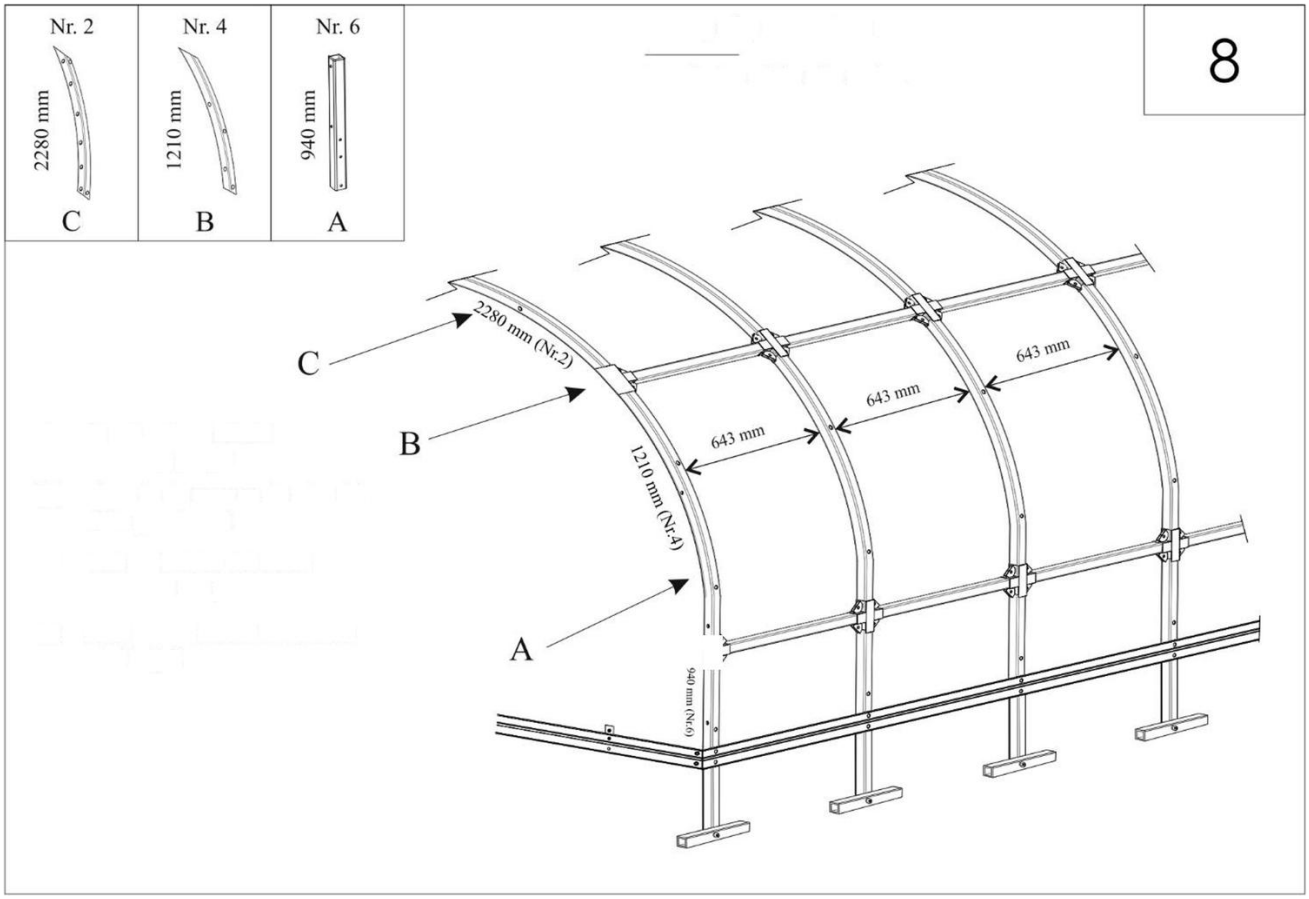


Figure 8

12 Attach the cross bars (643 mm, no. 9) to the installed upper arches using three- and four-way connectors, M5-16 bolts and nuts. Use three-way connectors at the first and last arch and four-way connectors at the others. We recommend fixing the front and rear parts first so that all others are at the same height. Align the profiles in the middle of the greenhouse by eye and tighten the connector bolts. We recommend using a string to check the height (figure 9).

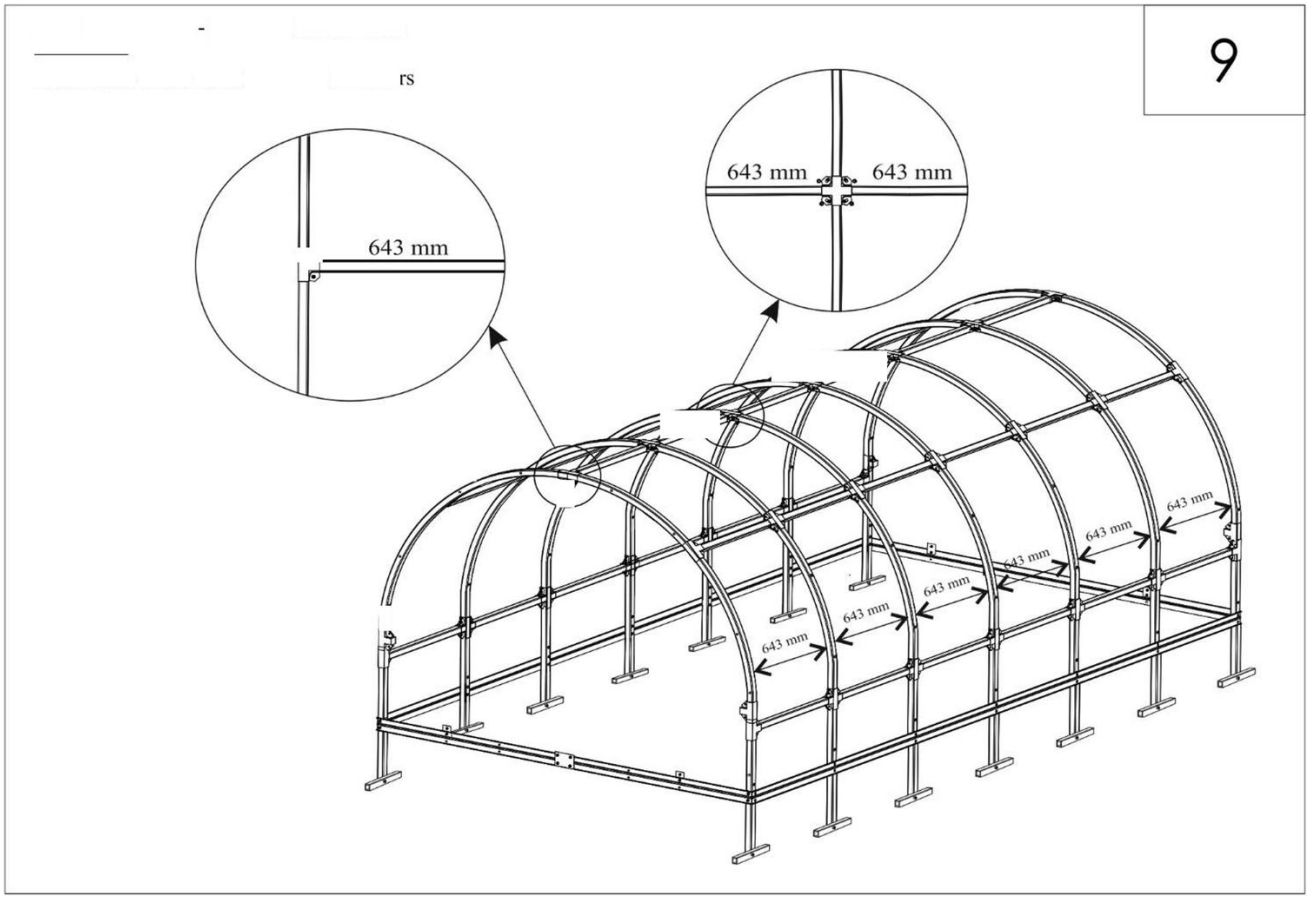


Figure 9

13 Slide two pre-assembled three-way connectors onto each door/window crossbeam (1320 mm, no. 13). Fix the prepared crossbeams at the intended points to the front and rear arches with 4.2 x 19 mm self-drilling screws (figure 10).

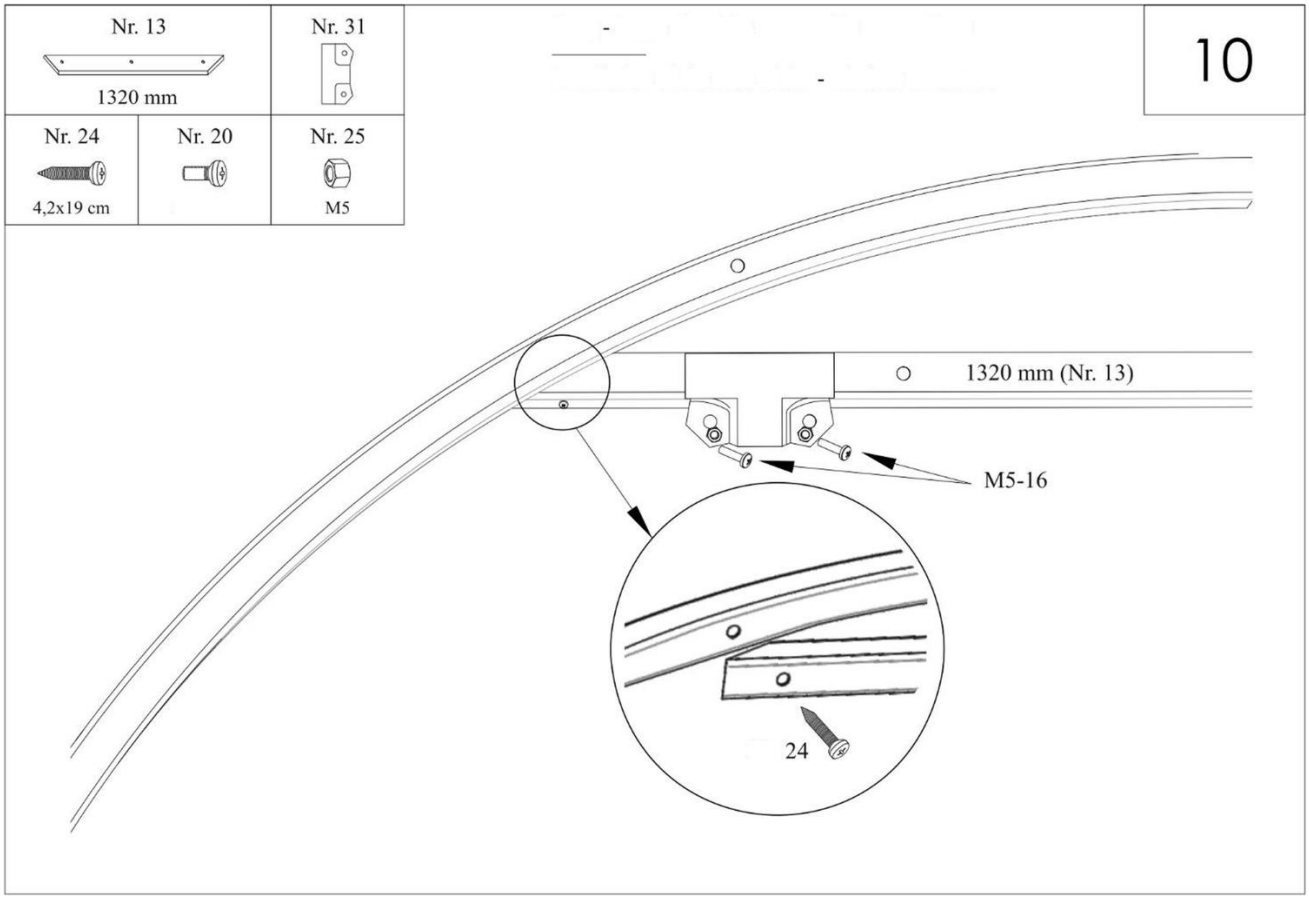


Figure 10

14 Attach the ground anchors (200 mm) to the lower ends of the door/window posts (2210 mm, no. 10 and no. 11) with M5-45 bolts and nuts (figure 2).

15 Attach the door/window posts 2210 mm (no. 10) and the posts with extra holes 2210 mm (no. 11) to the three-way connectors fixed to the crossbeam: at the top with M5-16 bolts and nuts, to the base frame with M5-40 bolts and nuts. Do the same at the rear of the greenhouse (figure 11).

NOTE! There are two types of door posts – with and without extra fixing holes. Decide before installation which way the door will open. For example, if you stand in front of the greenhouse and want the door to open to the right (right-hand door), install the door post with extra holes on the right.

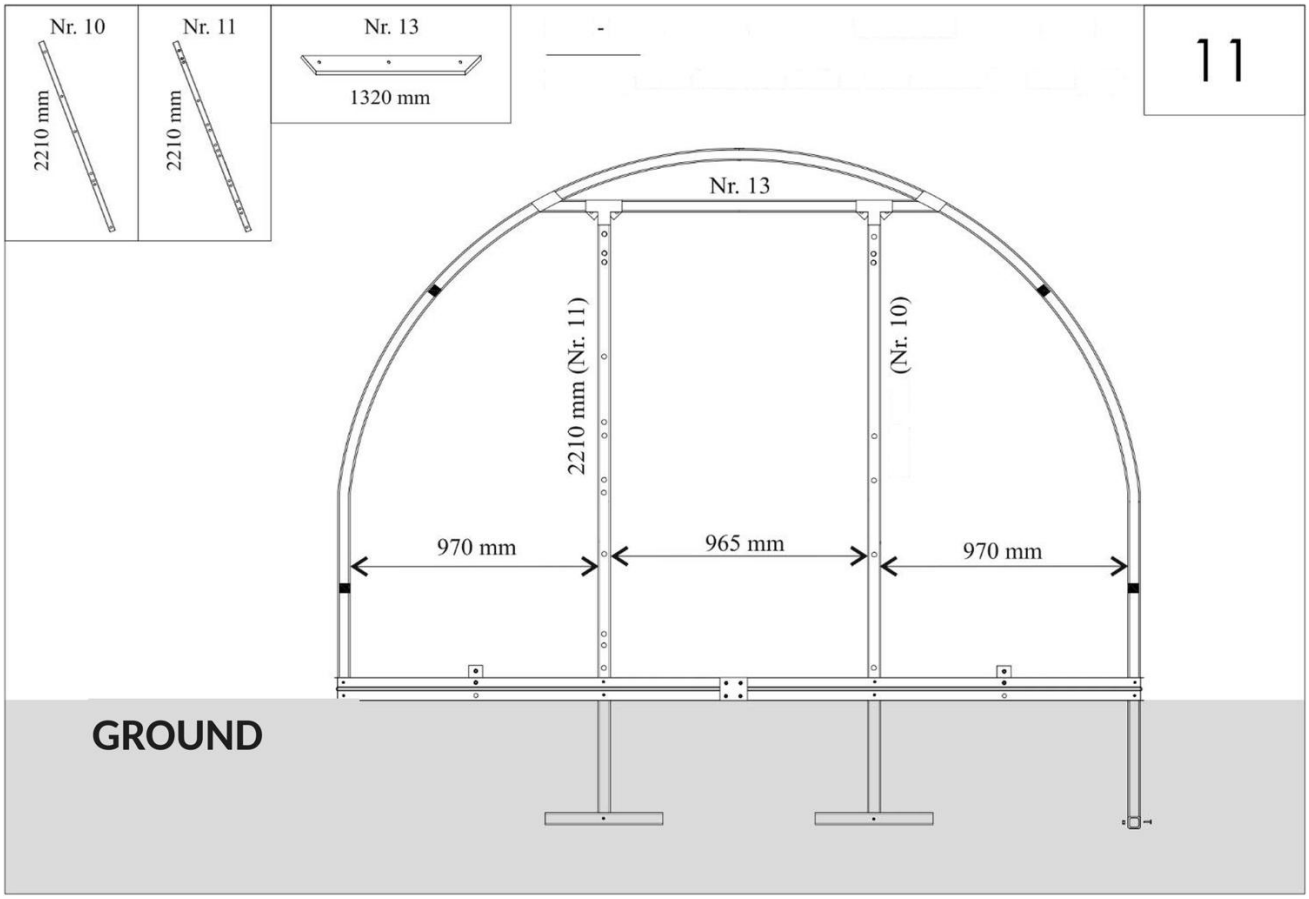


Figure 11

16 Attach the side braces of the front and rear (970 mm, no. 12) to the door posts. Fix them to the three-way connectors with M5-16 bolts and nuts at a height of 74 cm from the base frame (figure 12). Do the same symmetrically at the front and rear. The distance between the door posts must be 965 mm both at the top and at the bottom.

At the rear of the greenhouse, fix the crossbeam below the window (965 mm, no. 14) at a height of 900 mm from the top of the base frame (figure 13).

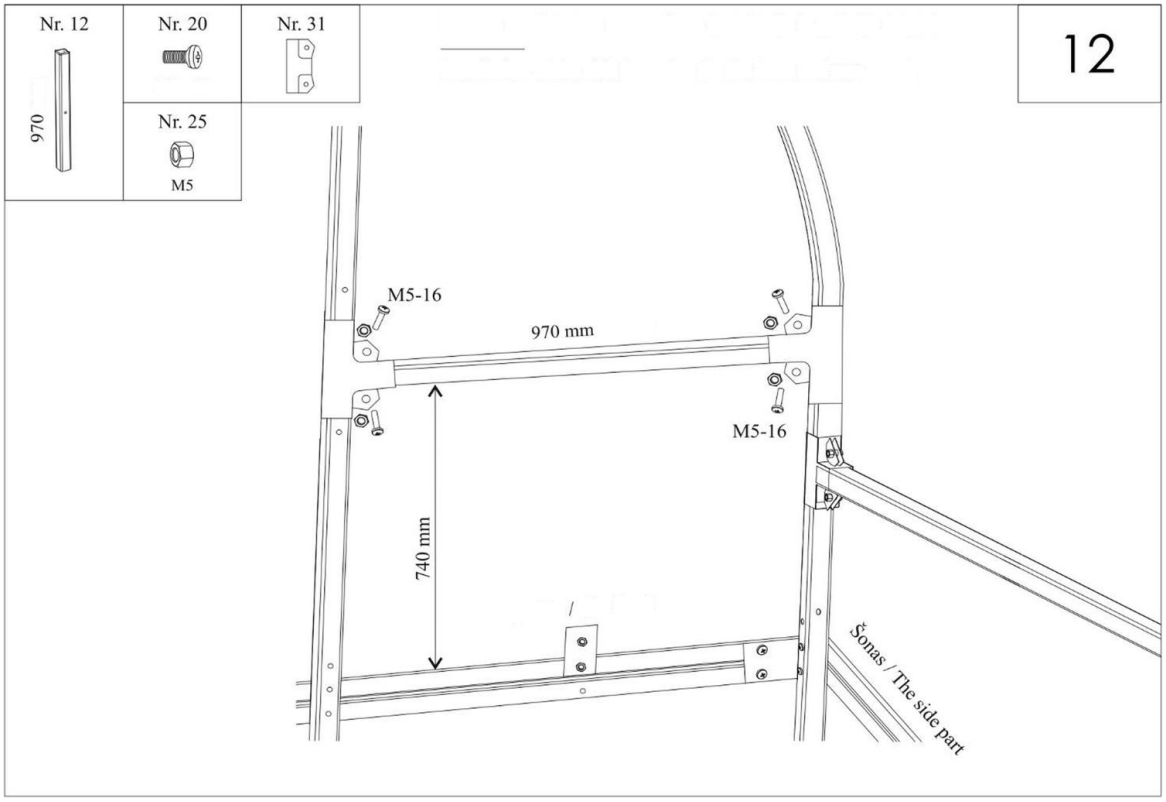


Figure 12

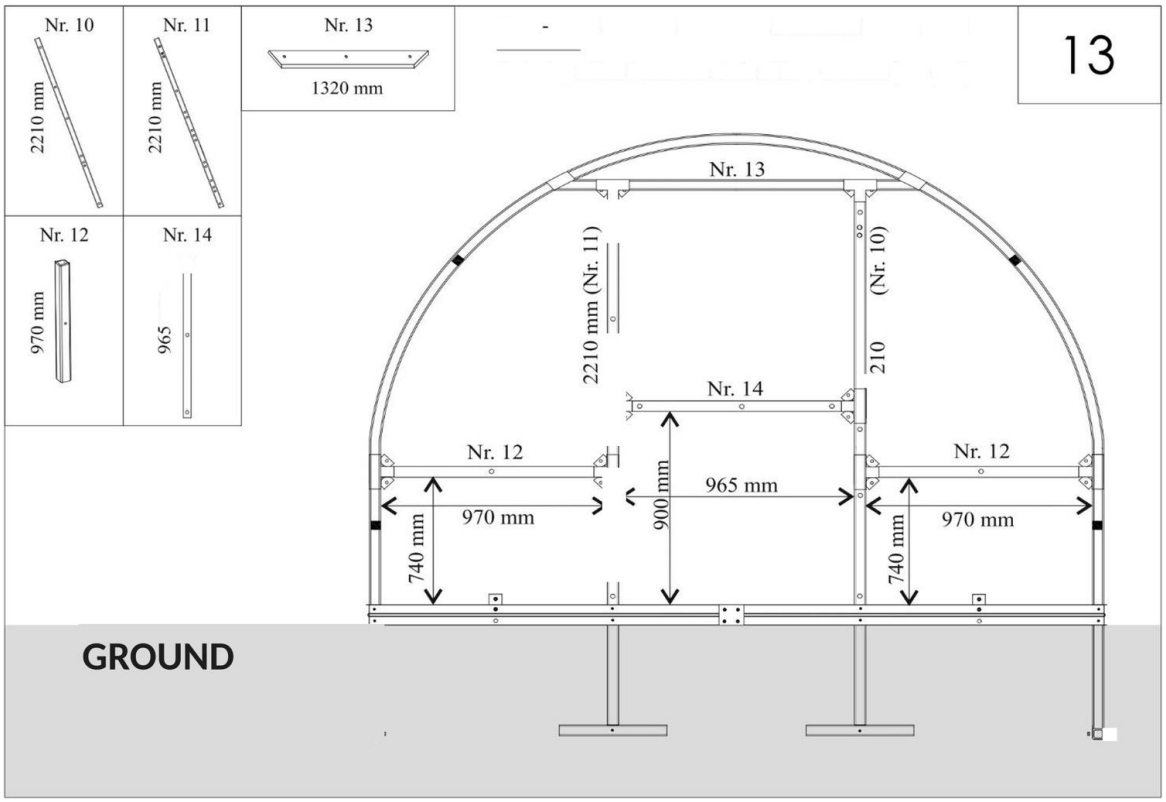


Figure 13

17 **Cutting the polycarbonate.** Cut one 2100 x 6000 mm sheet according to the dimensions in the cutting diagram; use the remaining sheets for the roof.

NOTE! If you received large 2.10 x 6.00 m sheets and also 1.05 x 2.00 m sheets, the large sheets do not need to be cut. The large sheets are used for the roof, the 1.05 x 2.00 m sheets for the front and rear (doors and windows). Refer to the polycarbonate dimensions table and the cutting diagram.

18 Fix the cut polycarbonate sheets – side sections (5, 6) and the section above the door (9) – to the frame with M5-40 bolts, nuts and washers, and to the fixing plates with M5-16 bolts and nuts (figure 14).

NOTE! At the door and window posts, use plastic half spacers to suit the curvature of the arches.

If parts of the polycarbonate protrude beyond the arches, trim them flush with the frame.

NOTE! Do not mix up the sides of the polycarbonate! The side with the UV-protective layer (the printed side) must face outwards; the other side is covered with a clear film and faces inwards. **Wear gloves when cutting the sheets!** We recommend cutting the sheets with an electric circular saw, a fine-toothed hand saw or a sharp knife.

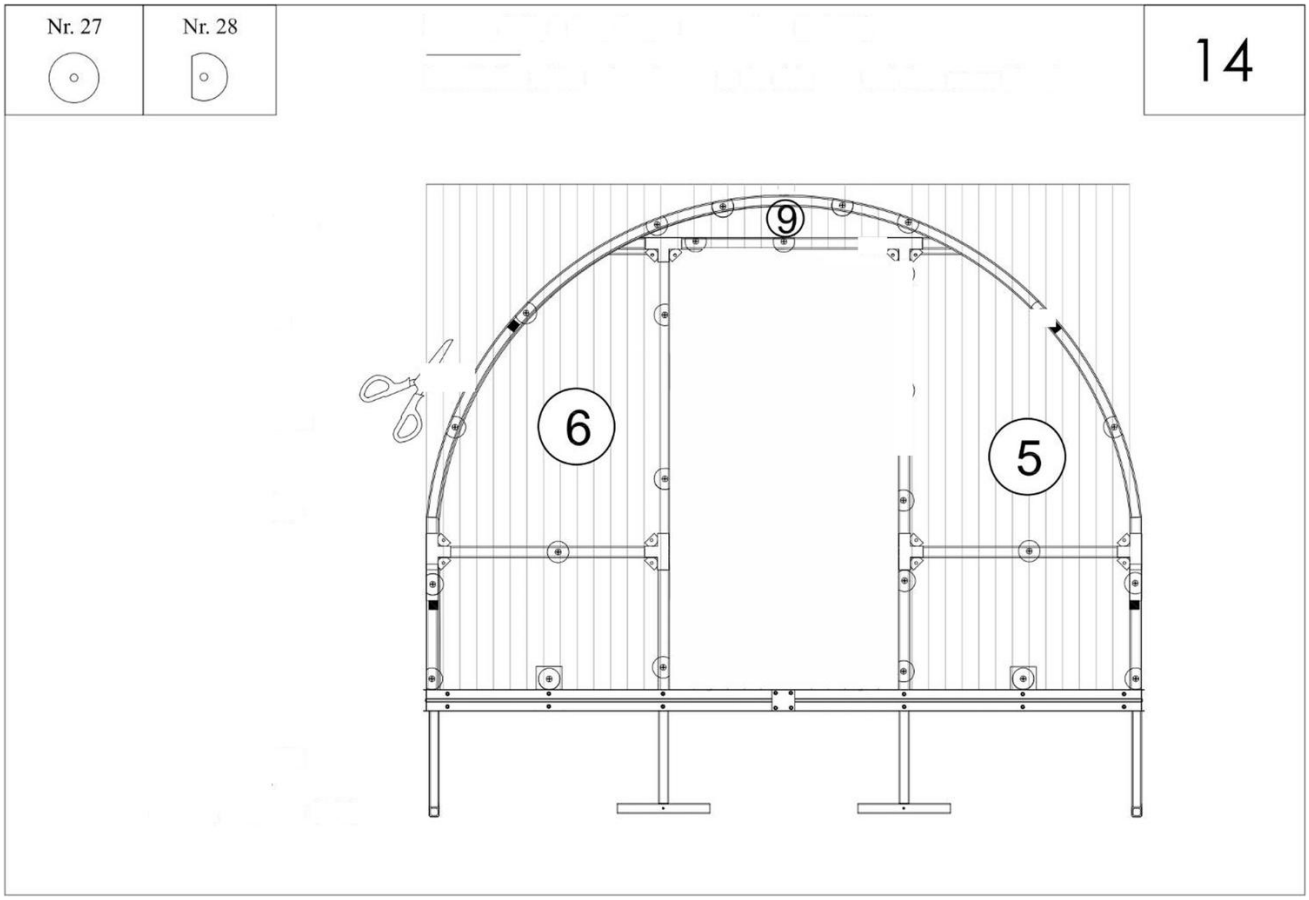


Figure 14 – front: 5, 6 side sections; 9 section above the door

19 Fix the polycarbonate sheets to the front of the greenhouse and in the same way to the rear. Fix the sheets cut according to the cutting diagram (7, 8, 3, 9) – side sections, section below the window and section above the door – at the intended points to the frame with M5-40 bolts, nuts and washers, and to the fixing plates with M5-16 bolts, nuts and washers (figure 15).

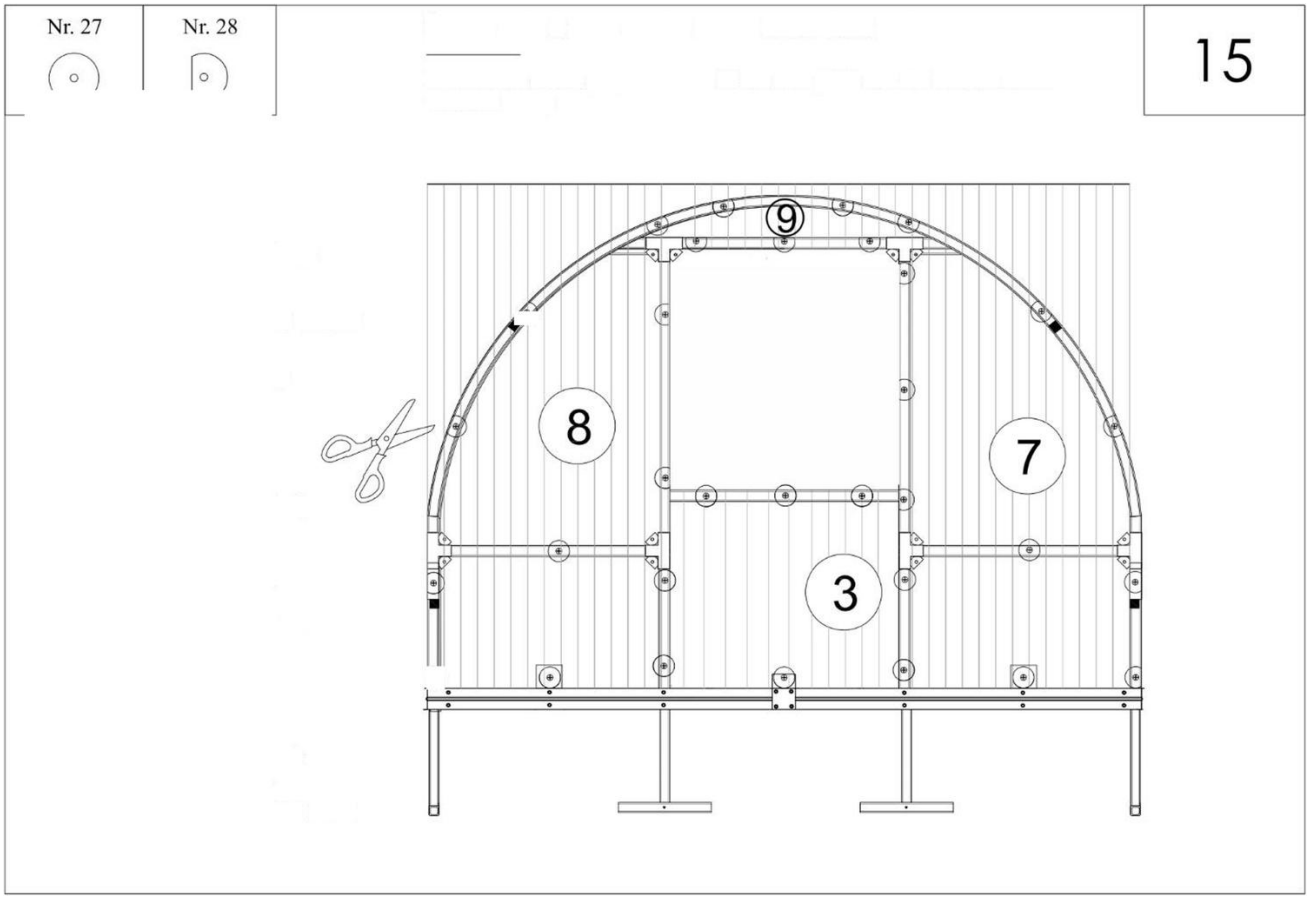


Figure 15 – rear: 7, 8 side sections; 3 section below the window; 9 section above the window

20 **Assembling doors and windows.** Join all door parts in the kit into a rectangle. Use two-way connectors and M5-16 bolts and nuts to fix the corners. Attach the vertical door parts to the horizontal door parts using three-way connectors, M5-16 bolts and nuts (figures 16 and 17).

NOTE! The doors are fixed to the posts in the closed position, through the polycarbonate sheets at the intended points.

Fix the door frame and cover the greenhouse doors and the rear window with polycarbonate (figures 18 and 19).

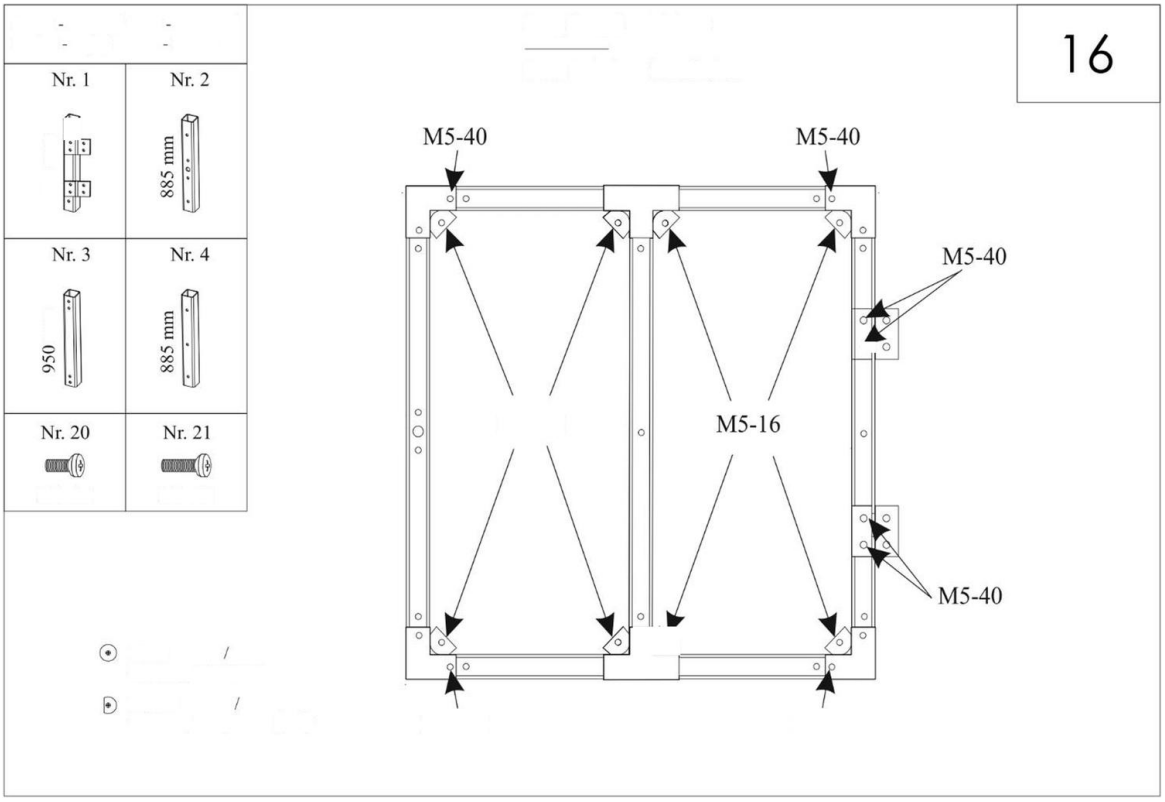


Figure 16

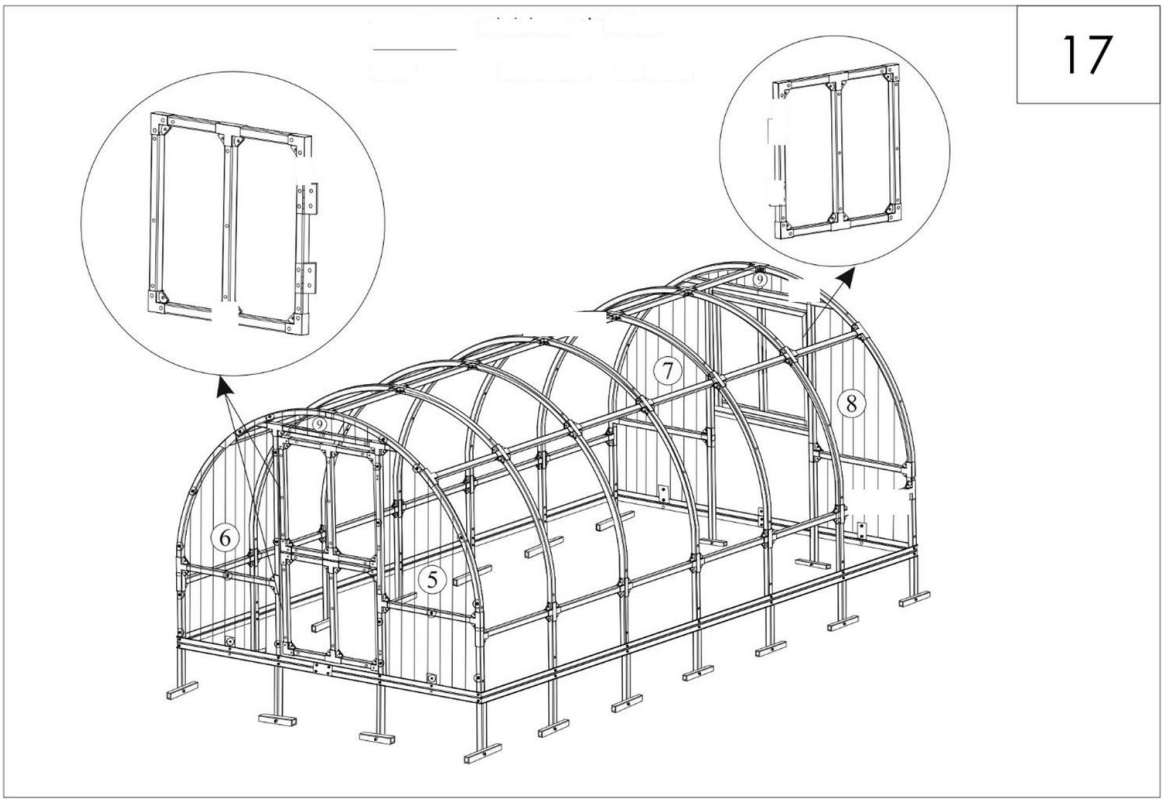


Figure 17

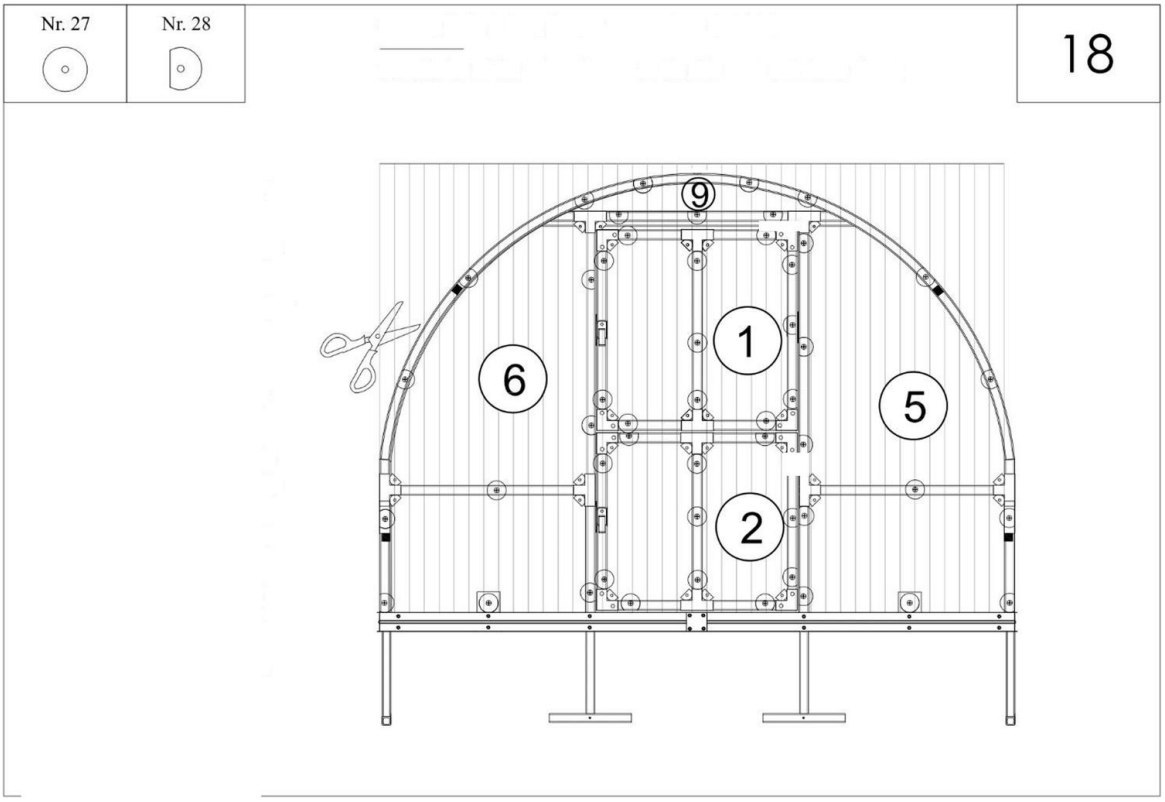


Figure 18 – front: 1 upper door section; 2 lower door section; 5, 6 side sections; 9 section above the door

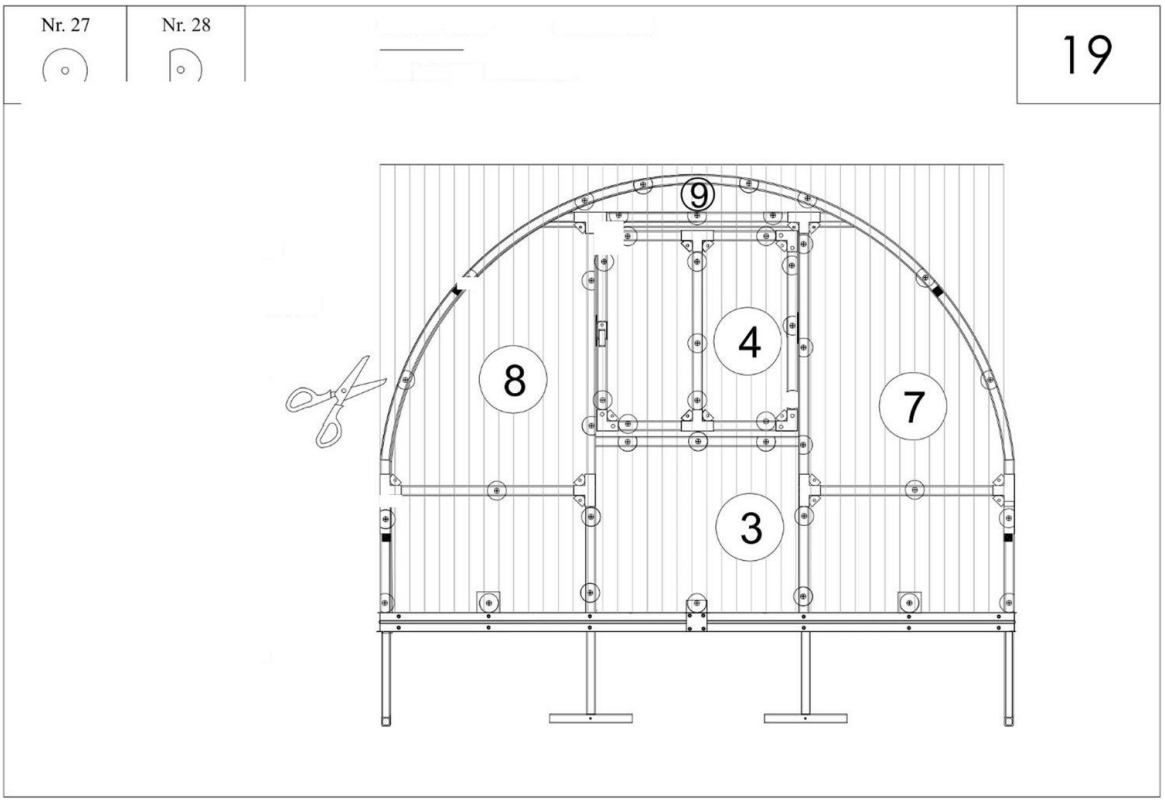


Figure 19 – rear: 4 window; 3 section below the window; 7, 8 side sections; 9 section above the window

21 Cover the channels of the upper edges of the cut polycarbonate sheets at the front and rear with aluminium foil tape (no. 34). Cover the channels of the upper edges of the door and window sheets with protective tape (figure 20).

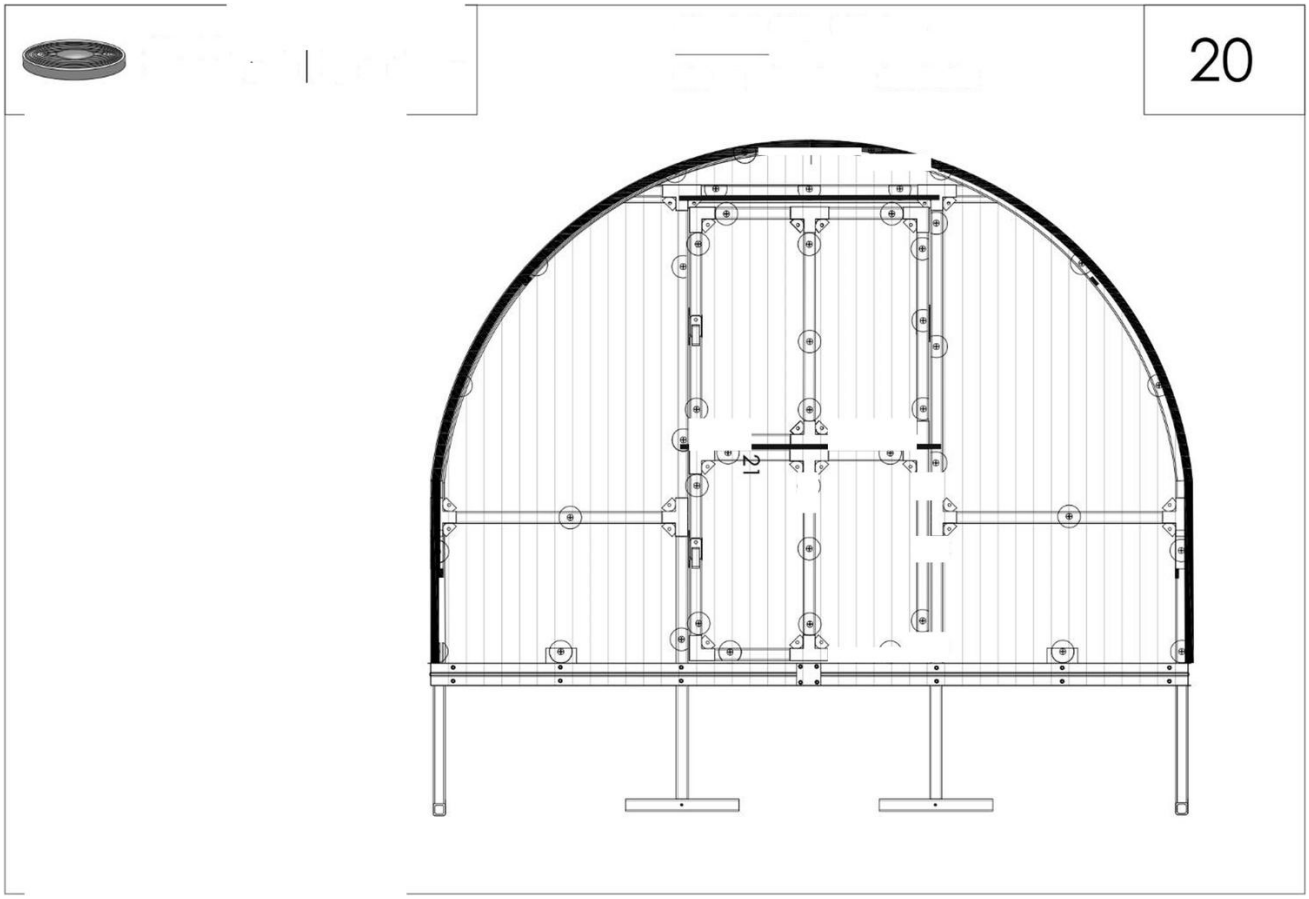


Figure 20 – the channels at the upper edges are covered with aluminium foil tape (no. 34)

22 **Installing the roof.** Start fitting the full roof sheets from the bottom up, leaving an overhang of approx. 5 cm at the edges. The polycarbonate is fixed with M5-40 bolts, nuts and washers exactly at the intended points. Each arch has 8 fixing points – 4 on one side and 4 on the other.

The other side of the sheet is fixed at the intended points from the top down, pulling the sheet taut.

If the roof sheets (2100 x 6000 mm) are too long, cut them shorter so that they rest evenly on the side profiles of the base frame. At the front and rear, the sheets must rest on the edge of the base frame.

Place the next roof sheet (2100 x 6000 mm) with a 5–7 cm overlap on top of the previous sheet and fix it in the same way at the intended points with M5-40 bolts, M5 nuts and washers (figure 21).

NOTE! At the overlap, both sheets are fixed with the same bolt, nut and washer at every fourth arch.

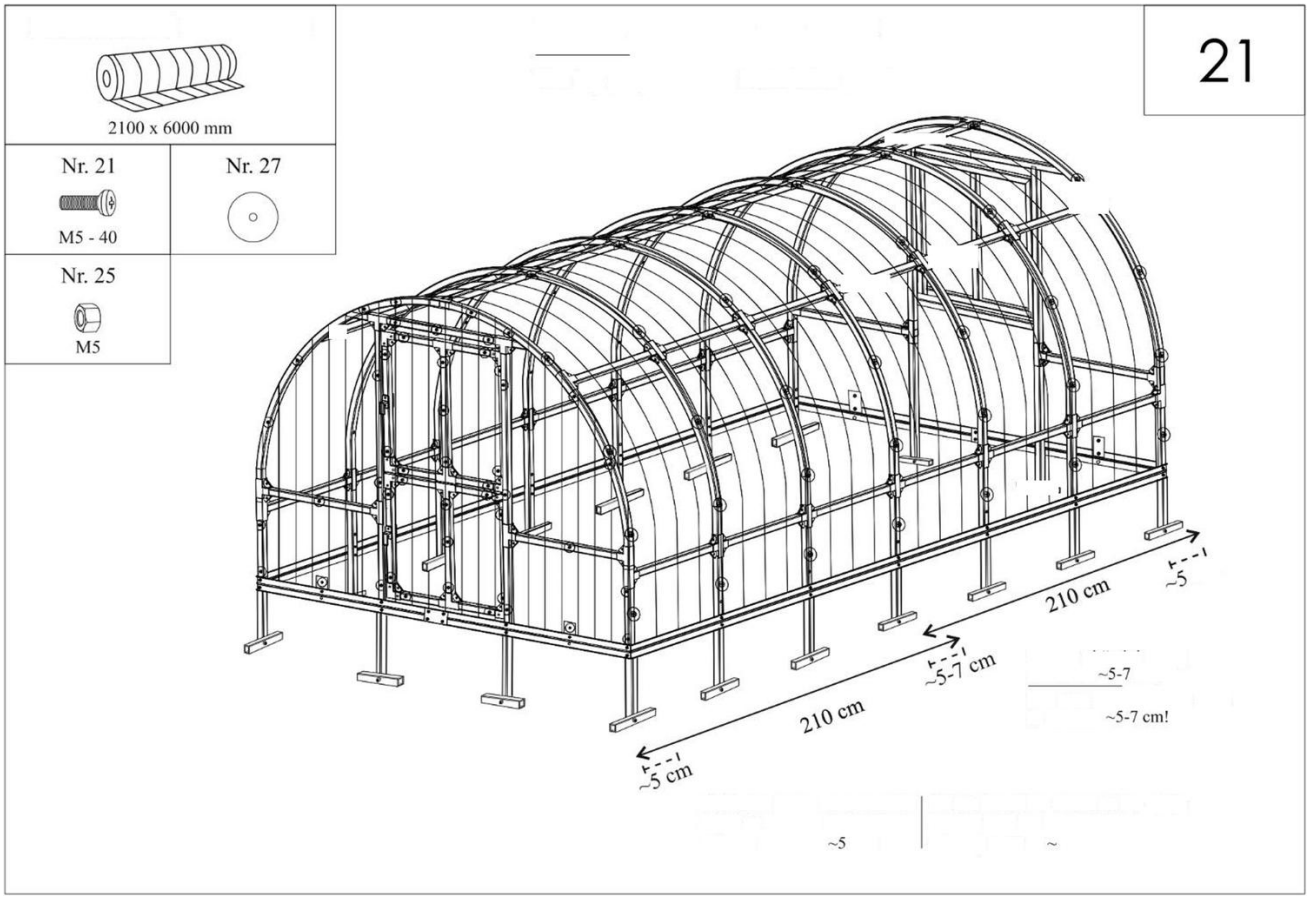
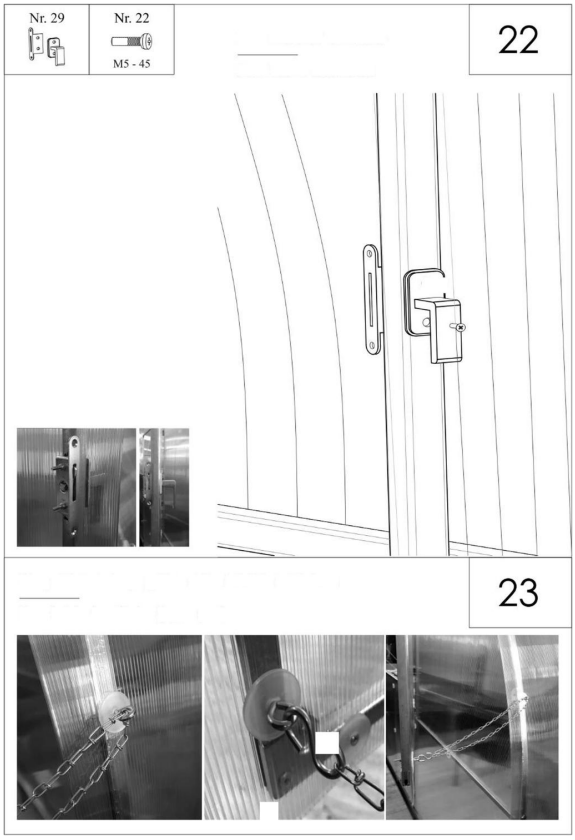


Figure 21

23 Fit the door and window handles (no. 29). We recommend making the fixing holes for the handles in the sheets with a utility knife, cutting X-shaped holes over the holes in the metal (figure 22).

NOTE! At the edges, fix the handles with half-moon washers.

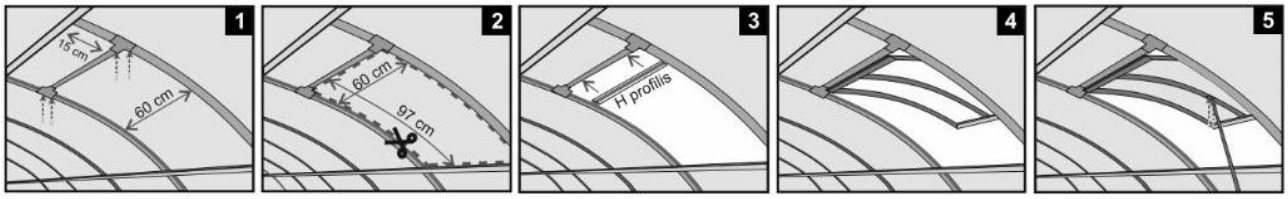
24 Fit the eye bolts (no. 36) in place: one near the lower corner of the door, the other at the edge of the greenhouse roof, almost in line with the eye on the door (slightly higher). Attach the door opening chain (no. 37) (figure 23).



Figures 22 and 23 – fitting the handles and the door opening chain

Roof vent installation (optional)

1. Choose a place between the arches where there is no joint between polycarbonate sheets. Measure 15 cm from the middle profile of the greenhouse. Fix the profile between the side arches with M5-16 bolts and nuts together with three-way connectors.
2. Cut out a polycarbonate sheet 60 cm wide and 97 cm long. Fit an H-connecting profile on the upper edge.
3. Attach the roof vent frame with hinges to the already installed profile with M5-40 bolts and nuts.
4. Slide the roof vent polycarbonate into the H-connecting profile and fix it at the intended points with M5-40 bolts, nuts and washers. The UV-protected side must face outwards.
5. Close the lower channels with a U-profile. Fit a manual or automatic opener to the lower crossbar of the roof vent (depending on the kit).



Roof vent installation steps 1–5

No.	Description	Qty
1	Frame	1
2	Polycarbonate sheet	1
3	Roof vent profile	1
4	U-profile	2
5	H-connecting profile	1

No.	Description	Qty
6	Manual opener	1
7	Washers	8
8	Bolts M5-40 / M5-16 / nuts M5	12 / 4 / 16
9	Three-way connector	2

Warranty

The frame parts of the KLASIKA TUBE greenhouse are covered by a **60-month warranty against rust-through**. The warranty covers only quality defects resulting from manufacturing faults. The polycarbonate has a separate warranty depending on its manufacturer – ask the seller for details. The warranty period starts on the date of purchase stated on the invoice.

The warranty does not cover:

- damage caused by natural disasters, ecological and other anomalies or force majeure;
- damage caused by snow, wind or hail – in strong wind, snow or hail, keep doors and roof vents closed, support the roof if necessary and clear snow from the roof;
- damage caused by unsuitable transport, storage or use (unless the transport was arranged by the seller);
- if the greenhouse has not been assembled according to these instructions;
- if the product has been mechanically damaged, dismantled or modified after delivery;
- damage caused by improper maintenance or repairs;
- normal wear and tear of parts.

Proof of purchase must be presented for warranty repairs. Warranty repairs are free of charge during the warranty period. If the claim proves unjustified, the buyer pays the call-out costs. The warranty period of a repaired product is not extended.

For warranty matters and further information, please contact: **www.interbauen.ee** · **info@interbauen.ee**