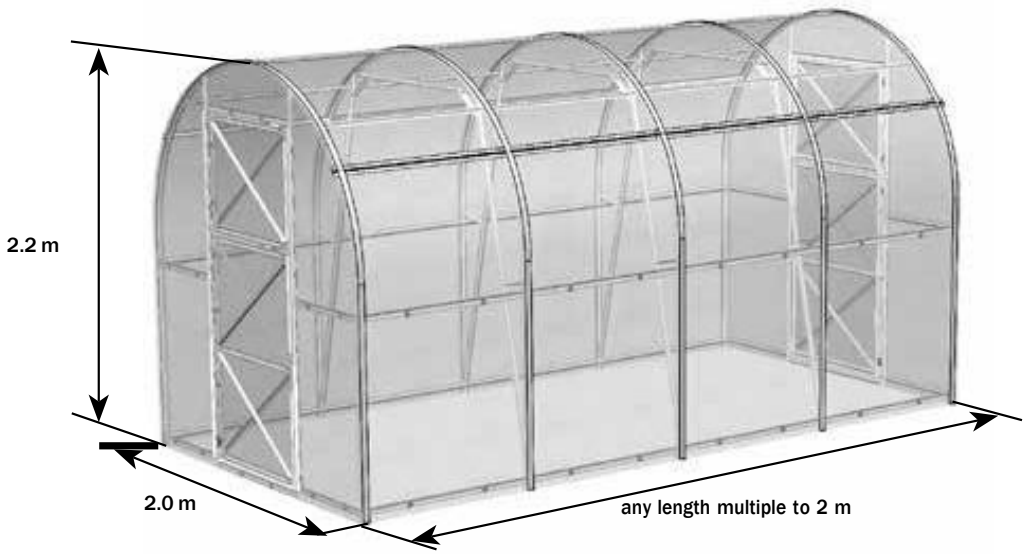


**DANCOVER<sup>®</sup>**



Manual  
for  
Greenhouse DUO



**!** Perform assembling and operation of the greenhouse in strict accordance with the manual and operating rules stated in the technical certificate. Please keep this technical certificate for further reference.

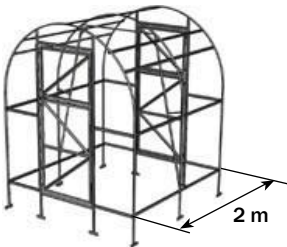
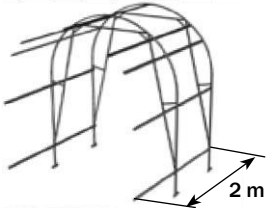
**Description**

Greenhouse DUO is designed for creation microclimate favorable for growing garden crops on cottage and household plots.

Greenhouse might have variable length depending on customers' desire. Required length of greenhouse is provided by purchasing of s with extending inserts. Each insert add 2 m to base length. Base length is 2 m. Height of installed frame is 2.2 m.

The frame of the greenhouse is made of galvanized iron and is to be assembled with screws and nuts. Greenhouse is fixed on the ground by digging special frame endings or on fundament using angles. Complete set includes all that is needed for fastening of coverage. Greenhouse may be completed with coverage on buyer's request. Greenhouse has two door openings and two small windows in opposite ends.

Table 1 Parameters of greenhouse		
greenhouse length (m)	covered area (m <sup>2</sup> )	polycarbonate sheets 2.1 m x 6 m, pcs.
2	4	2
4	8	3
6	12	4

DUO	Base Box		Ext. Box	
	1/2	2/2	1/2	2/2
<p><b>BASE</b></p> 	<b>1</b>	<b>1</b>	-	-
<p><b>EXTENTION</b></p> 	-	-	<b>1</b>	<b>1</b>

## Operation rules

Before the start of operation, the greenhouse should be assembled and installed as prescribed in the manual. When the greenhouse is assembled by a third party the customer should supervise the quality of works to ensure compliance with the present manual. Some detail have extra holes due to uniformity of details. During assembly, be careful not to damage the parts, because until they assembled fully, they do not have sufficient rigidity. Use supports (e.g., chairs) at intermediate stages of assembly to evenly raise the assembled frame. To align the holes in difficult joints use a nail with a diameter of 4 mm or mandrel with a conical end. During assembly of the frame details' connections should be implemented for all specified openings. Simplified connection of the parts is a violation of assembly rules and cause of removal warranty support by manufacturer.

Do not install the greenhouse too close to buildings or trees where masses of snow/ice can fall on it. Recommended distance is at least 2 m. The greenhouse is designed to withstand wind at the speed below 24 m/sec. The greenhouse cladding should not be removed for the winter period if snow load is limited. If the greenhouse is left unattended for the entire winter the customer should either remove the cladding or estimate the possible snow load. For the frame assembled with all parts including strainers and braces, the maximal snow load begins when the layer of snow weight is 240 kg per 1 sqm of horizontal surface which corresponds to 60 cm of the packed snow.

## Cleaning and washing sheets of polycarbonate

1. Rinse the sheet with warm water.
2. Wash the sheet with a solution of mild soap or with a household detergent and warm water, using a soft rag or a sponge to remove dirt.
3. Rinse with cold water and wipe with a soft cloth.





























Never use abrasives or highly alkaline cleaning compositions for cleaning polycarbonate sheets. Dry rubbing of the surface will damage the protective layer of the cladding and shorten its shelf life. Never rub the surface of polycarbonate sheets with brushes, metallic cloth or other abrasive materials.

When disinfecting the greenhouse from pathogens causing fungal and bacterial diseases, do not use «sulfur blocks» to avoid frame corrosion.













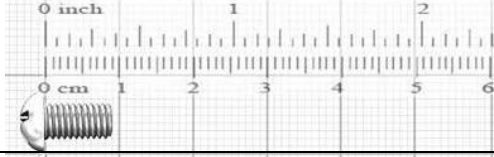


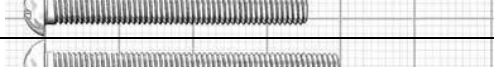
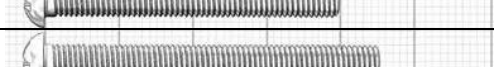
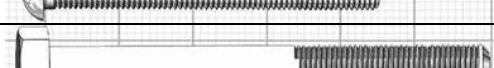
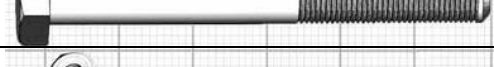



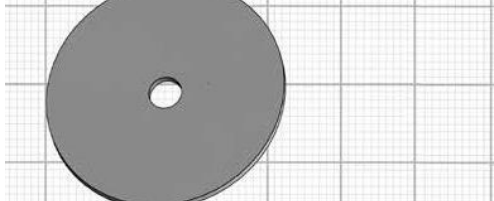
## Warranty liabilities

1. Term for making claims is 24 months from the day of purchase. Warranty does not apply to cases of:
2. Greenhouse installation in violation of instruction requirements
3. Violation of the rules of operation.
4. Inappropriate use of the greenhouse.
5. Deformation of the greenhouse as a result of ground movement.
6. Floods, hurricanes and other natural disasters.

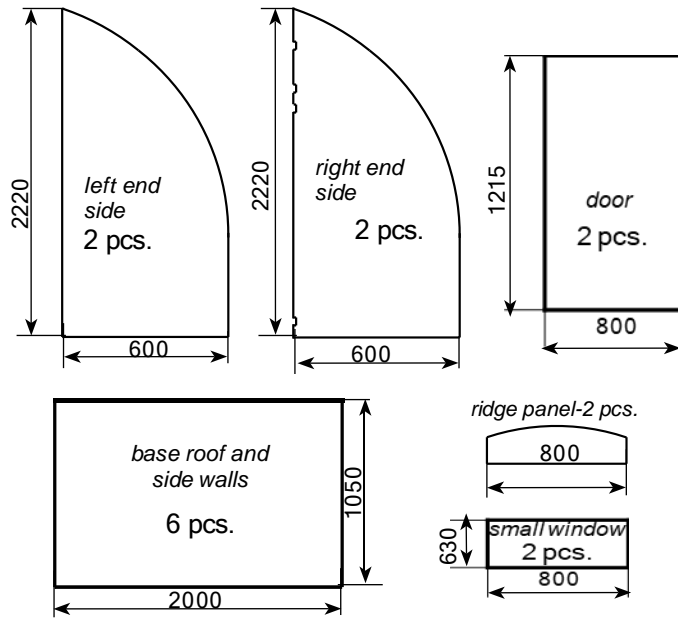
**STANDARD SUPPLY SET  
BOX 1/2**

<b>№</b>	<b>marking</b>	<b>view</b>	<b>denomination</b>	<b>length, m</b>	<b>quantity, pcs.</b>
1	1		Stand	1.25	6
2	2KE		End balk	1.05	12
3	2KK		Ridge balk	0.98	2
4	2P		Edge balk	0.98	4
5	3		Supports	0.14	10
6	24		Base stand	0.35	10
7	4H		Bottom arc	0.97	6
8	4B		Top arc	1.25	1
9	4BK		Top end arc	1.25	2
10	8		End wall connecting bar	0.56	8
11	10		Door opening strainer	0.82	4
12	9-1L		Left bottom door opening stand	0.94	2
13	9-1R		Right bottom door opening stand	0.94	2
14	9-2L		Left top door opening stand	1.21	2
15	9-2R		Right top door opening stand	1.21	2
16	9-3		Bottom strap door opening	0.66	4
17	9-4		Top strap door opening	1.21	4
18	12FL		Left small window vertical	0.62	2
19	12FR		Right small window vertical	0.62	2
20	12DL		Left door vertical	1.21	2
21	12DR		Right door vertical	1.21	2
22	13M		Door and small window horizontal	0.71	10
23	14M		Small door diagonal	0.87	12
24	-		Long clamp	0.63	10
25	-		Short clamp	0.5	6
26	22		Screed horizontal	1.12	1
27	23		Brace details	1.02	4
28	25		Screed radial	0.22	2

BOX 1/2

29	26		Angled bevel	0.24	2
30	-		Hook for door and small windows	0.34	4
31	-		Door and small window loop	-	8
32	-		Hook bracket	-	8
33	-		Twoside adhesive tape	5	1
34	-		Adhesive tape	-	1
35	-		Rotator	-	4
36	-		Bending tube	0.12	1
37	-		Top bandage	5.5	3
38	-		Bottom bandage	0.3	6
39	PK		Profile	1.05	4
40	-		elastic caps	0.4	1
41			Screw M4x8	354	
42			Screw M4x14	32	
43			Screw M4x30	44	
44			Screw M4x35	32	
45			Screw M4x40	26	
46			Screw M4x45	16	
47			Bolt M6x60	6	
48			Nut M4	508	
49			Nut M6	6	
50			Washer 6	12	
51			Washer 32x4	52	

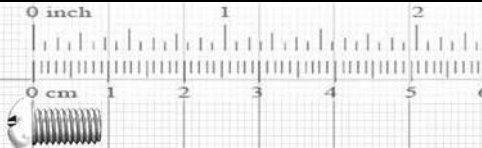



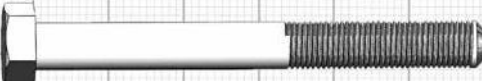



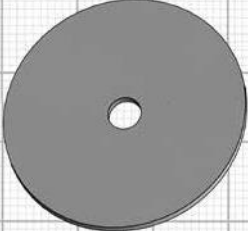
**BOX 2/2**  
**polycarbonate walls**



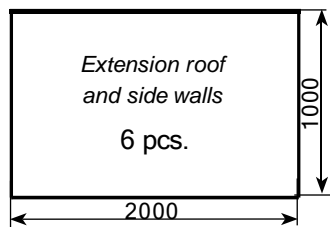
**BOX EXTENSION**  
**BOX 1/2**

No	marking	view	denomination	length, m	quantity, pcs
1	1		Stand	1.25	4
2	2E		Main balk	1.05	12
3	2P		Edge balk	0.98	4
4	2KK		Ridge balk	0.98	2
5	3		Supports	0.14	4
6	24		Base stand	0.35	4
7	22		Horizontal screed	1.12	2
8	23		Brace detail	1.02	8
9	25		Radial screed	0.22	4
10	26		Angled bevel	0.24	4
11	4H		Bottom arc	0.97	4
12	4B		Top arch	1.25	2
13	P		Profile	1.0	4
14	-		Top bandage	5.56	2
15	-		Bottom bandage	0.41	4
16	-		Two-side Adhesive tape	5	1

**BOX 1/2**

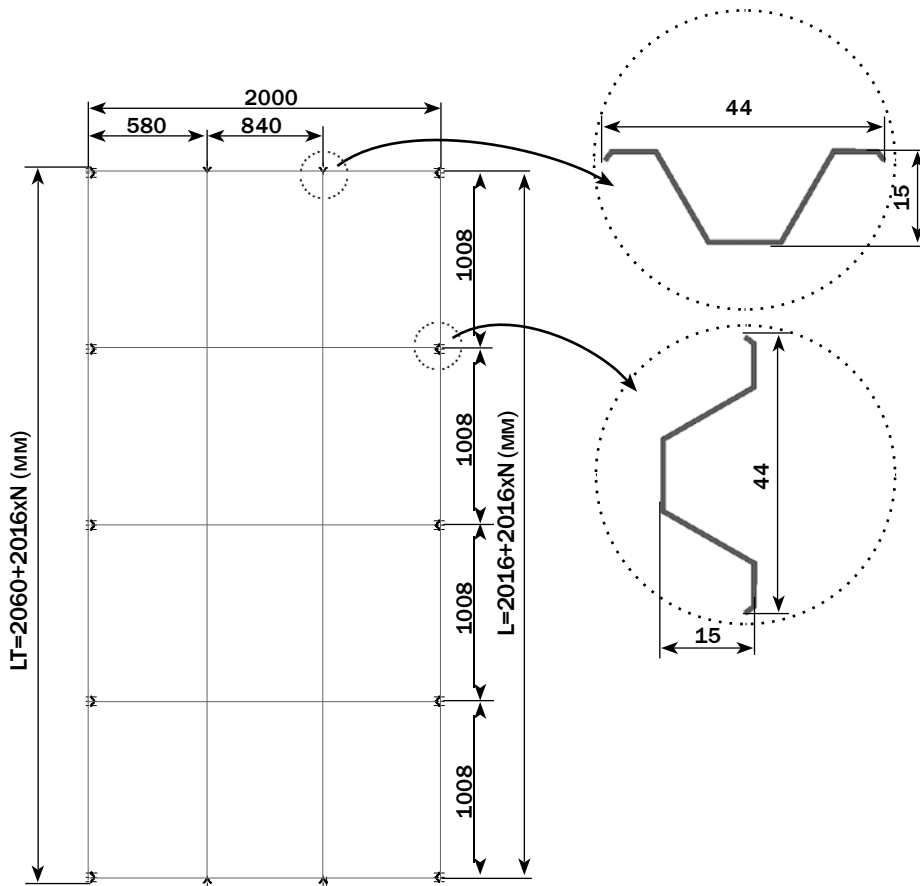
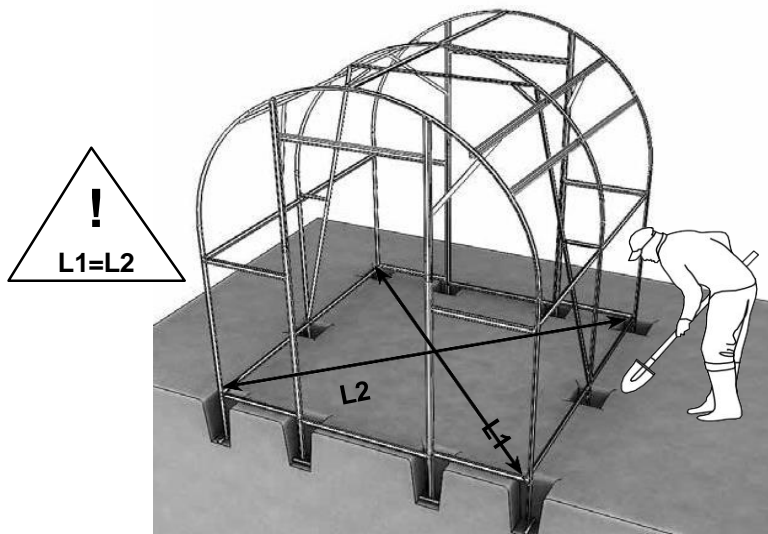
№	view	denomination	quantity, pcs
17		Screw M4x8	138
18		Screw M4x14	16
19		Screw M4x30	8
20		Screw M4x45	16
21		Bolt M6x60	4
22		Nut M4	178
23		Nut M6	4
24		Washer 6	8
25		Washer 32x4	16

**BOX 2/2**  
**polycarbonate walls**

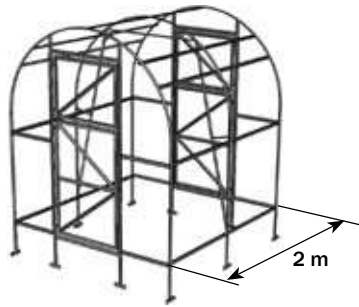




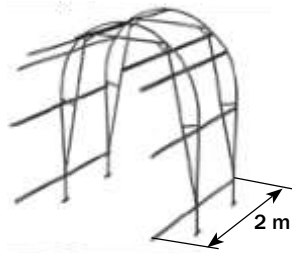
# MOUNTING ON THE FOUNDATION



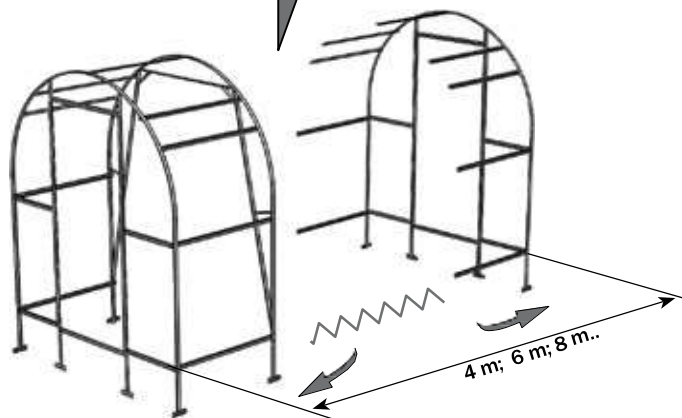
**General view of the frame, greenhouse DUO**



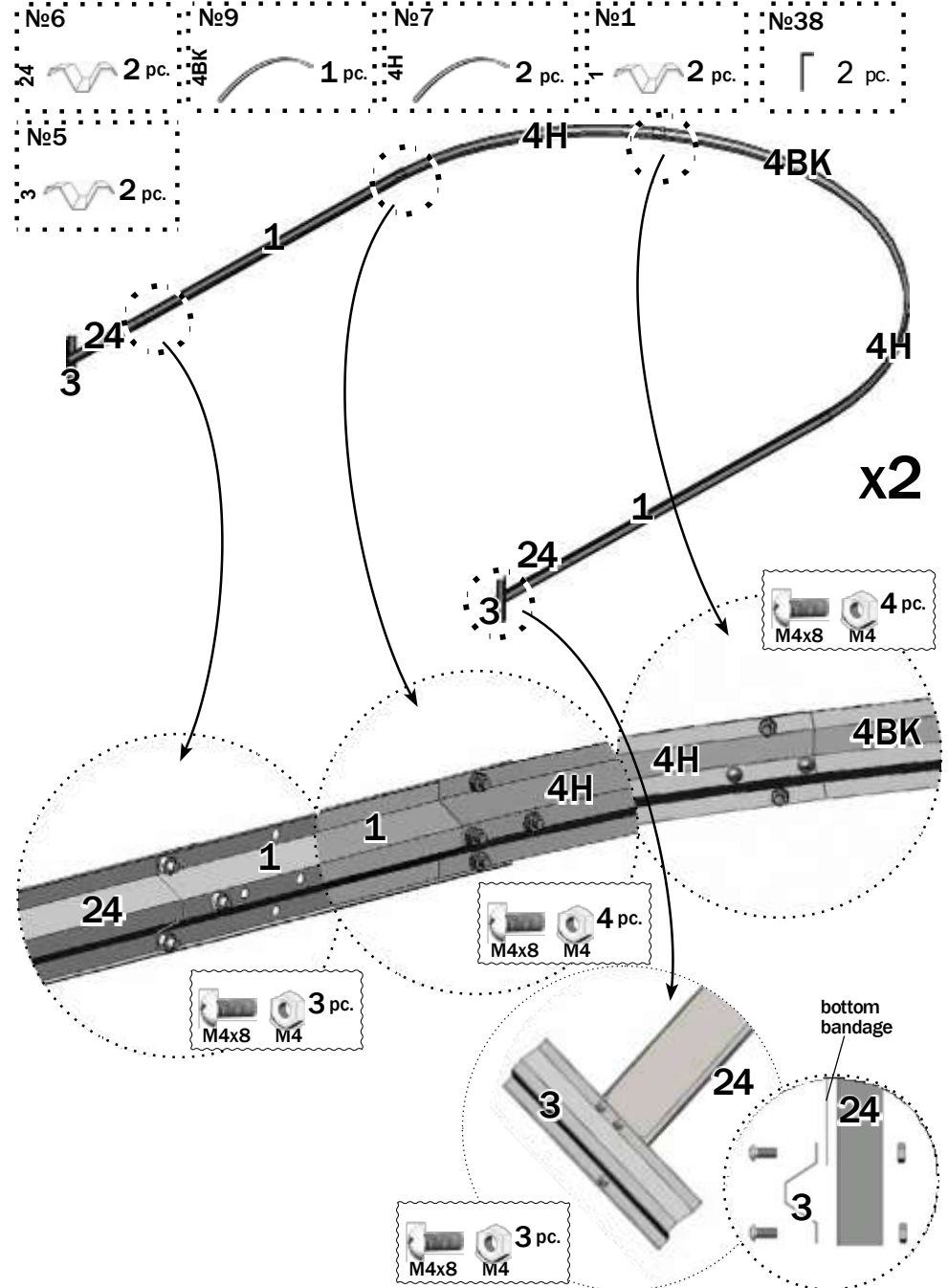
**General view of the INSERT for greenhouse DUO**



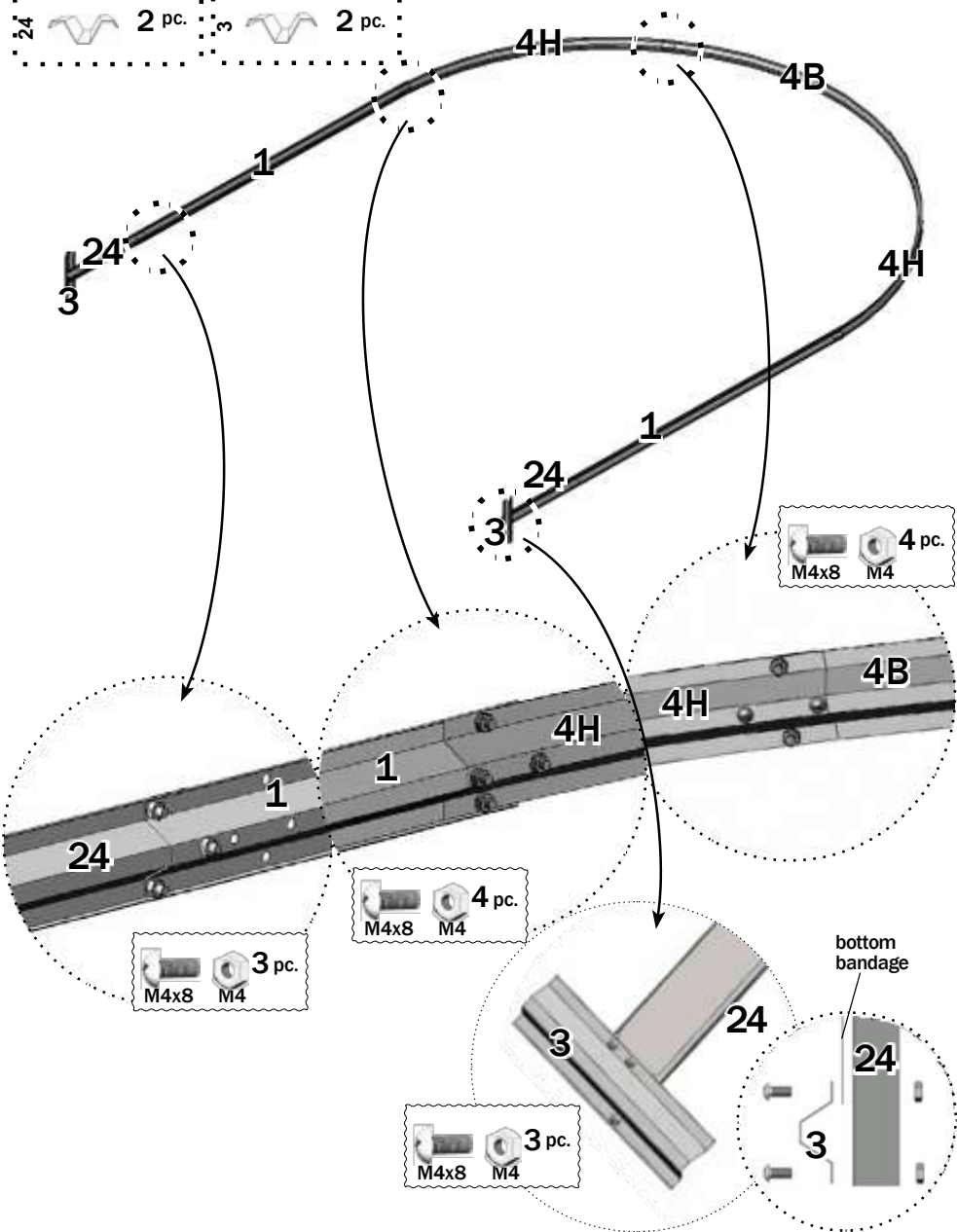
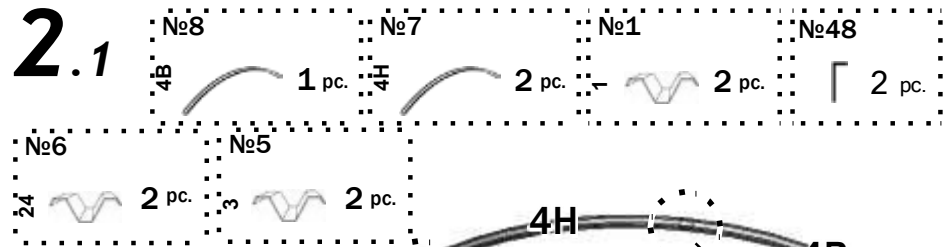
Greenhouse DUO extended by any number of inserts:



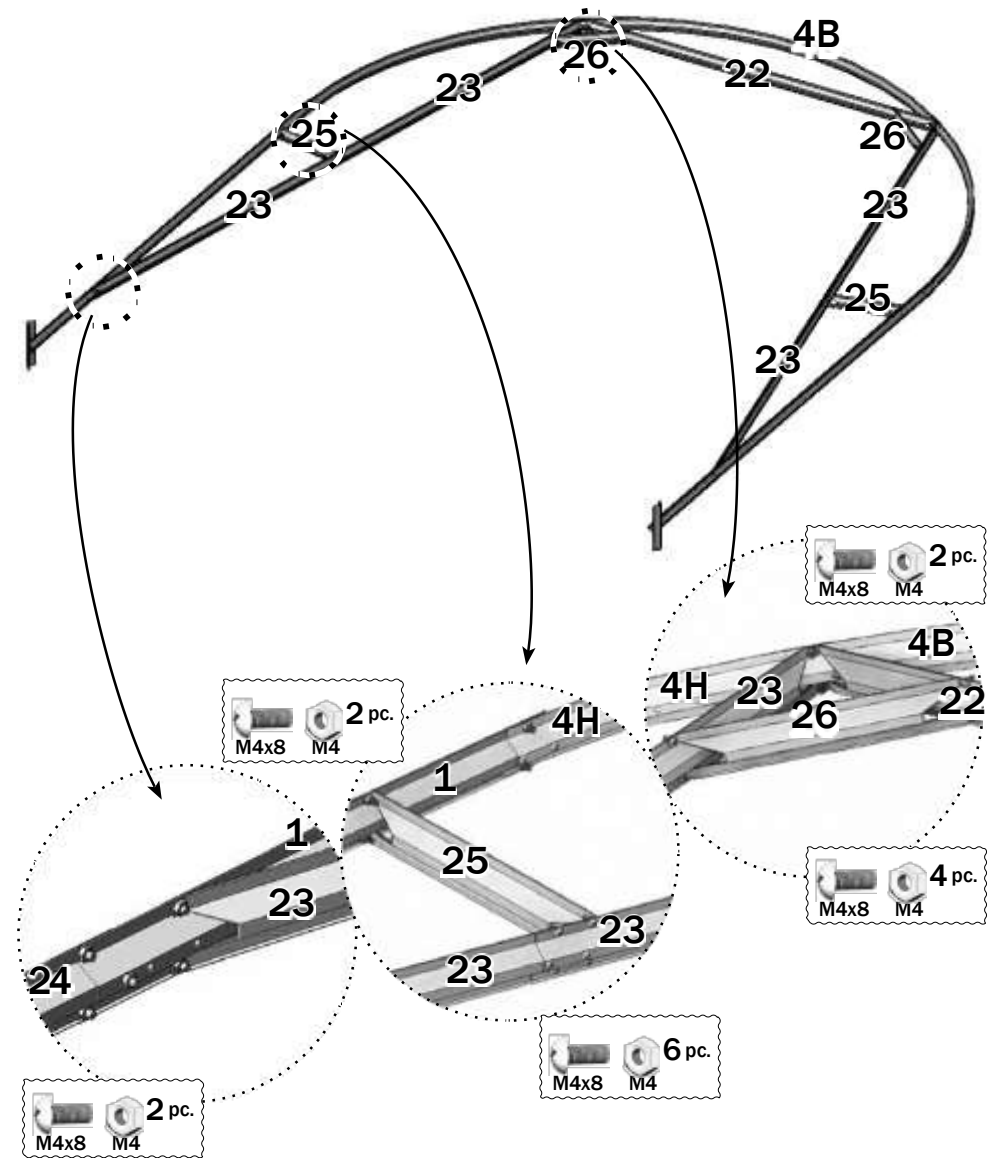
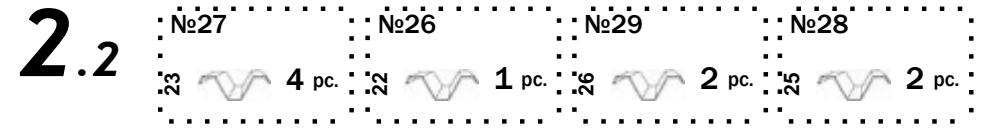
**1** If the greenhouse is mounted on a foundation (see para. 6.2), the elements 24 and 3 are not assembled and are not mounted in the subsequent assembly.



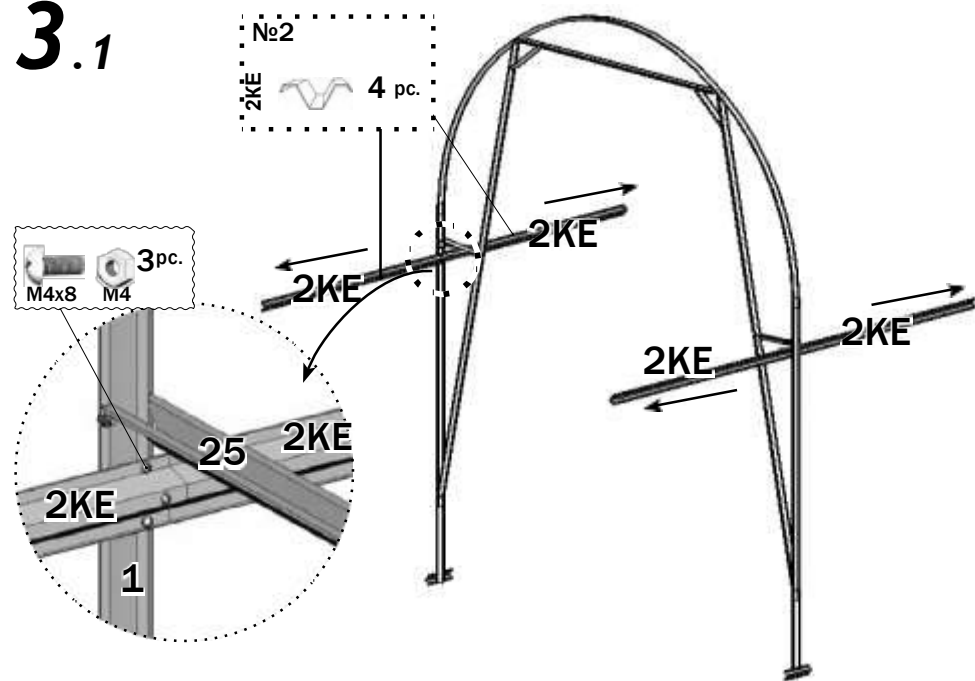
# 2.1



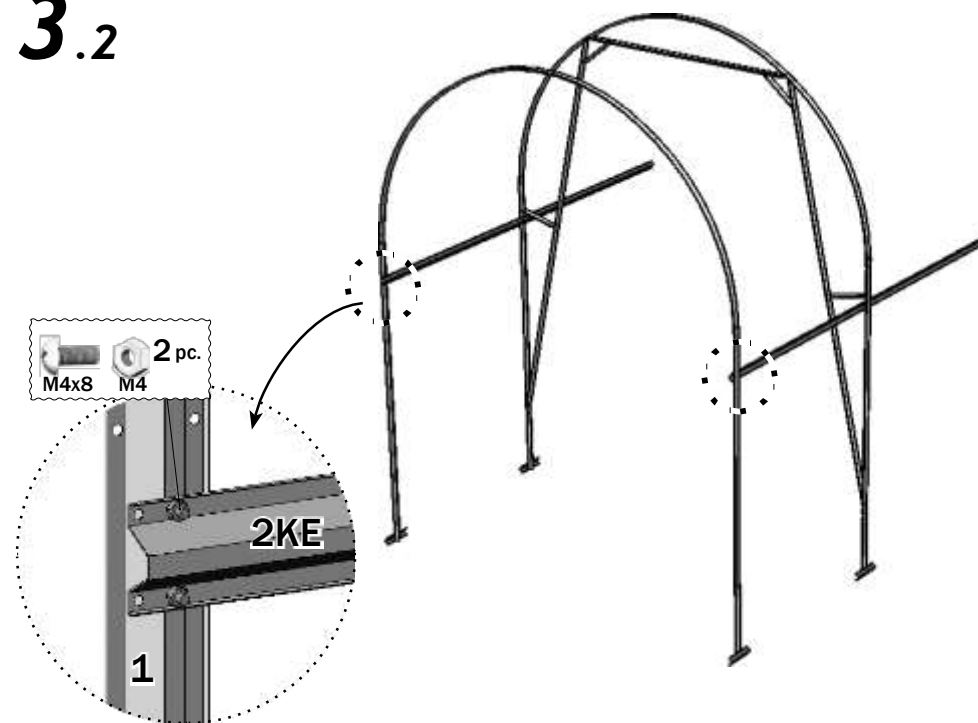
# 2.2



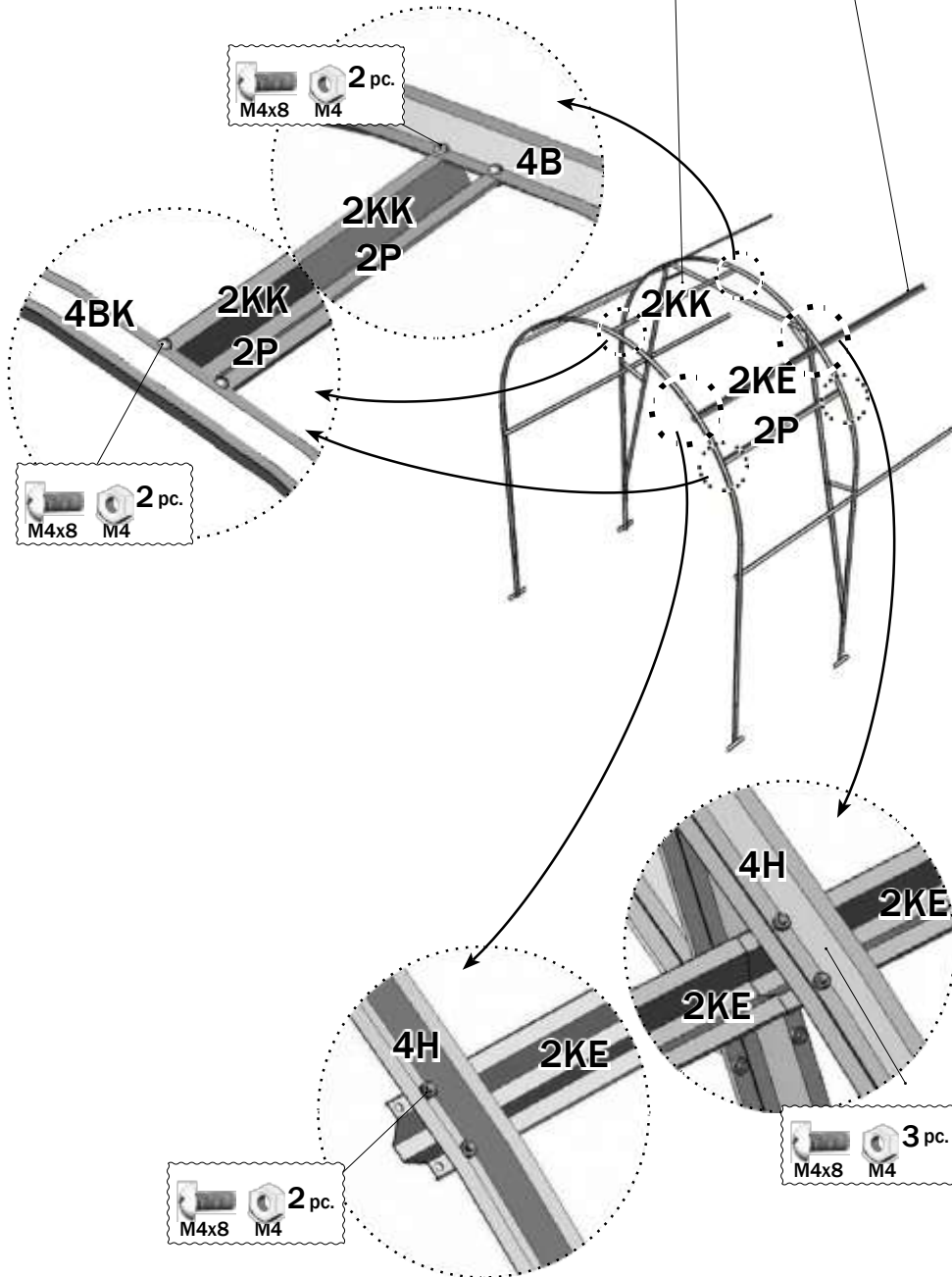
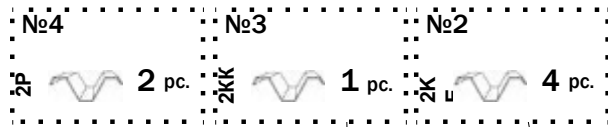
### 3.1



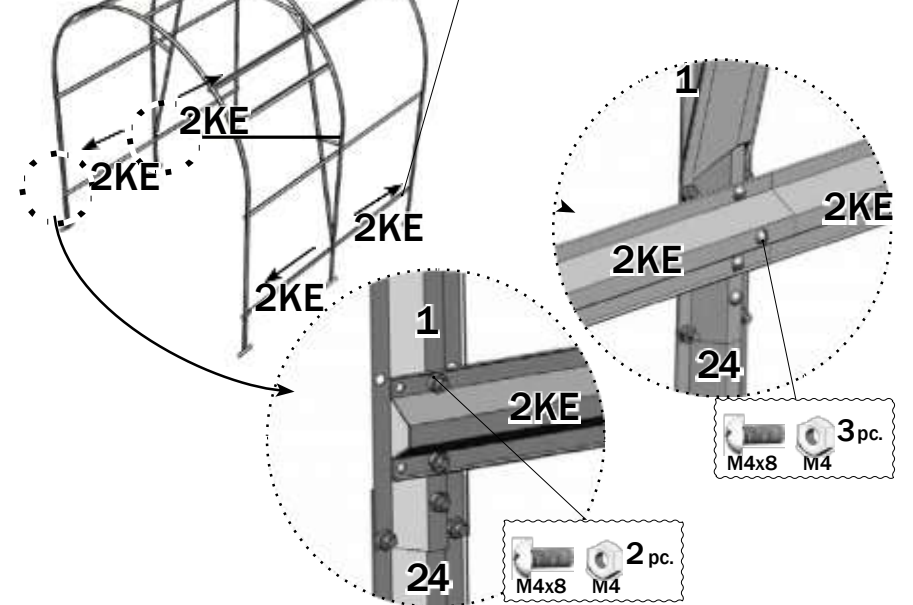
### 3.2



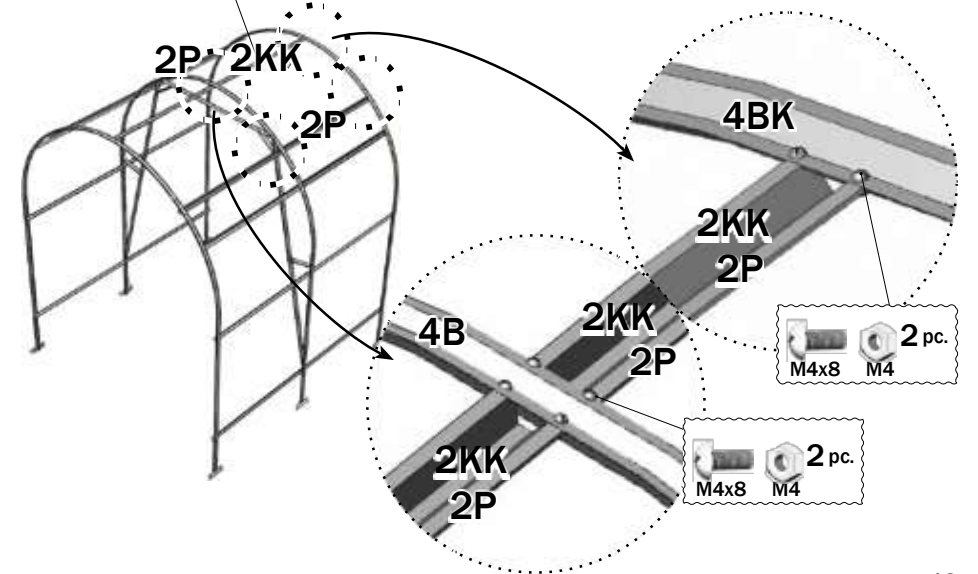
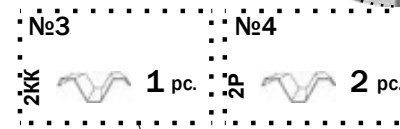
# 3.3



# 3.4

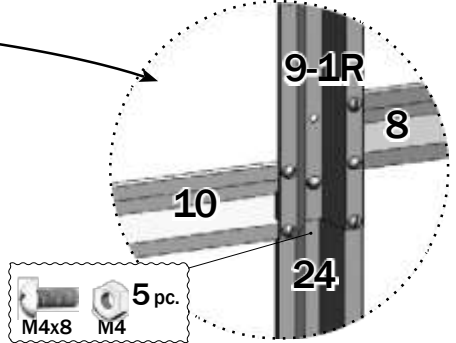
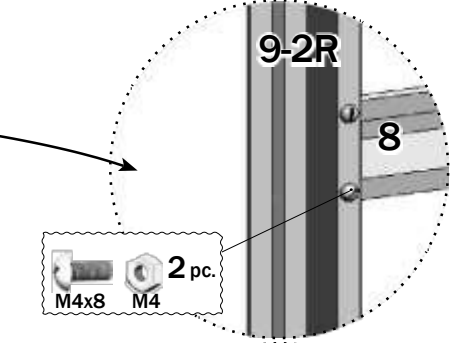
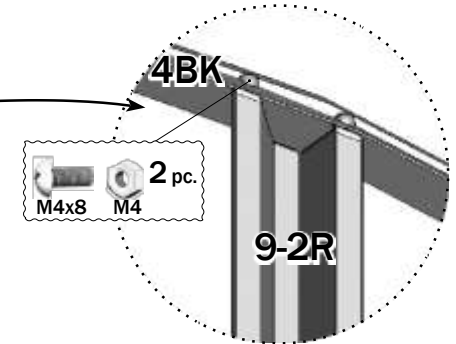
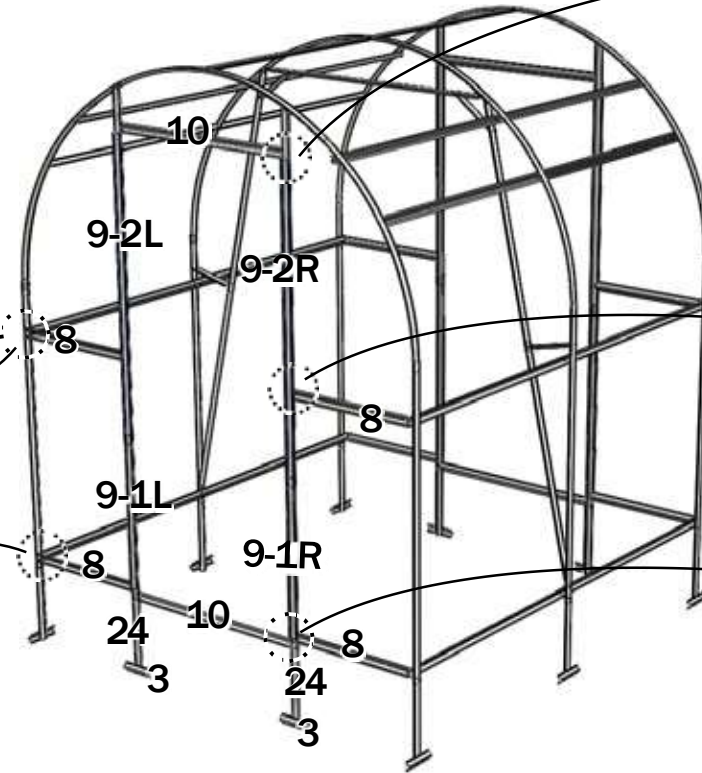
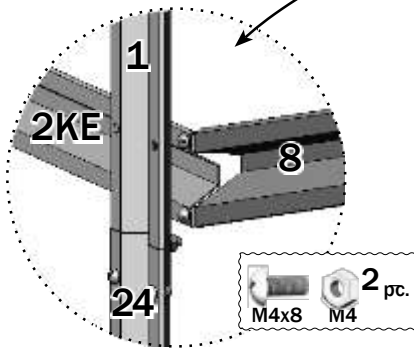
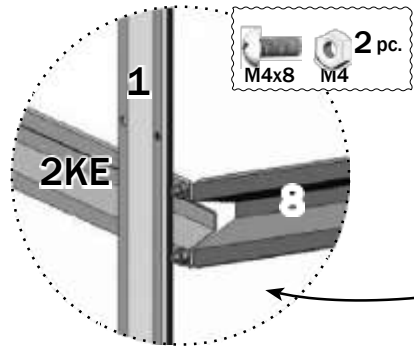


# 3.5



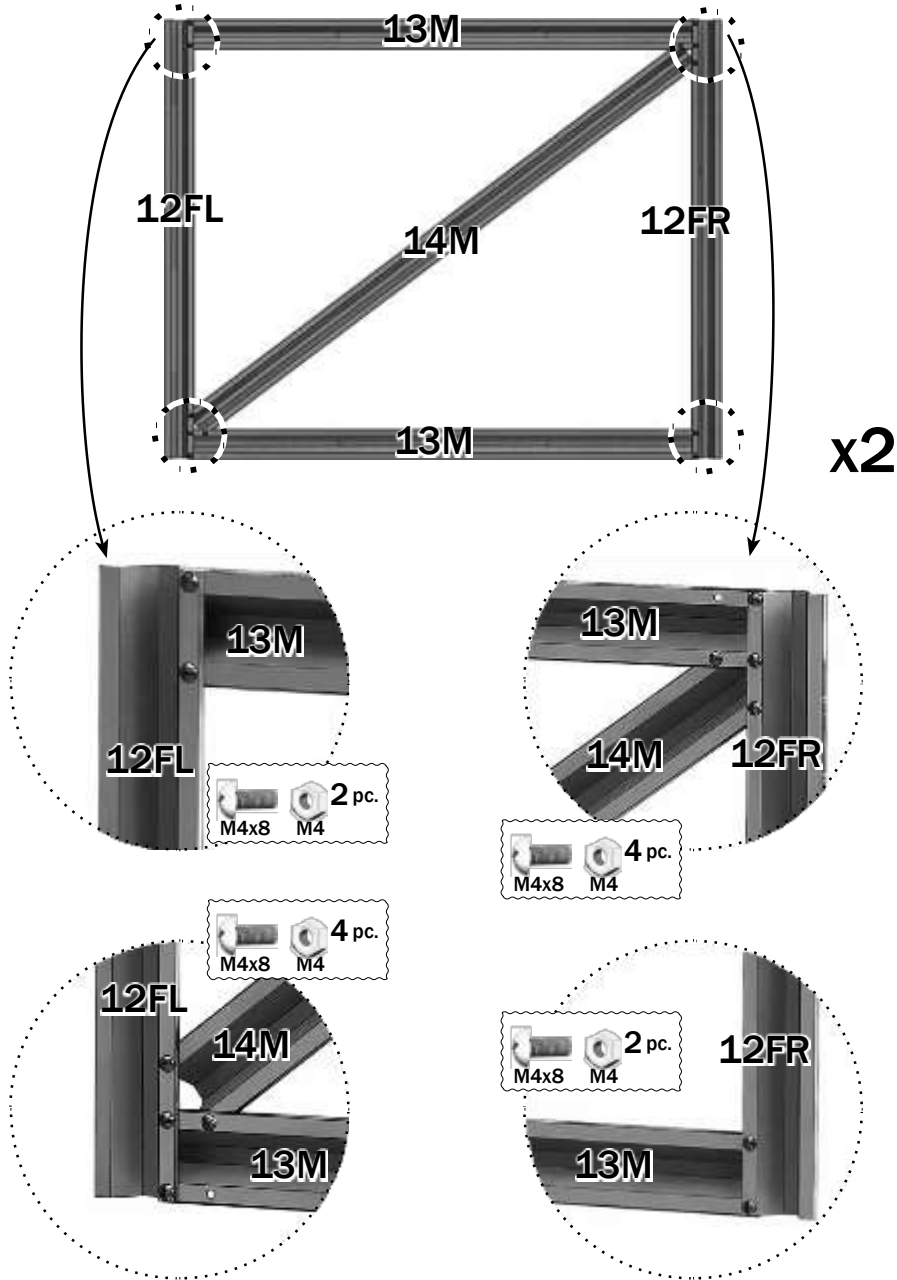
4

№12,13	№14,15	№10
9-1 4 pc.	9-2 2 pc.	8 8 pc.
№11	№6	№5
10 4 pc.	24 4 pc.	3 4 pc.



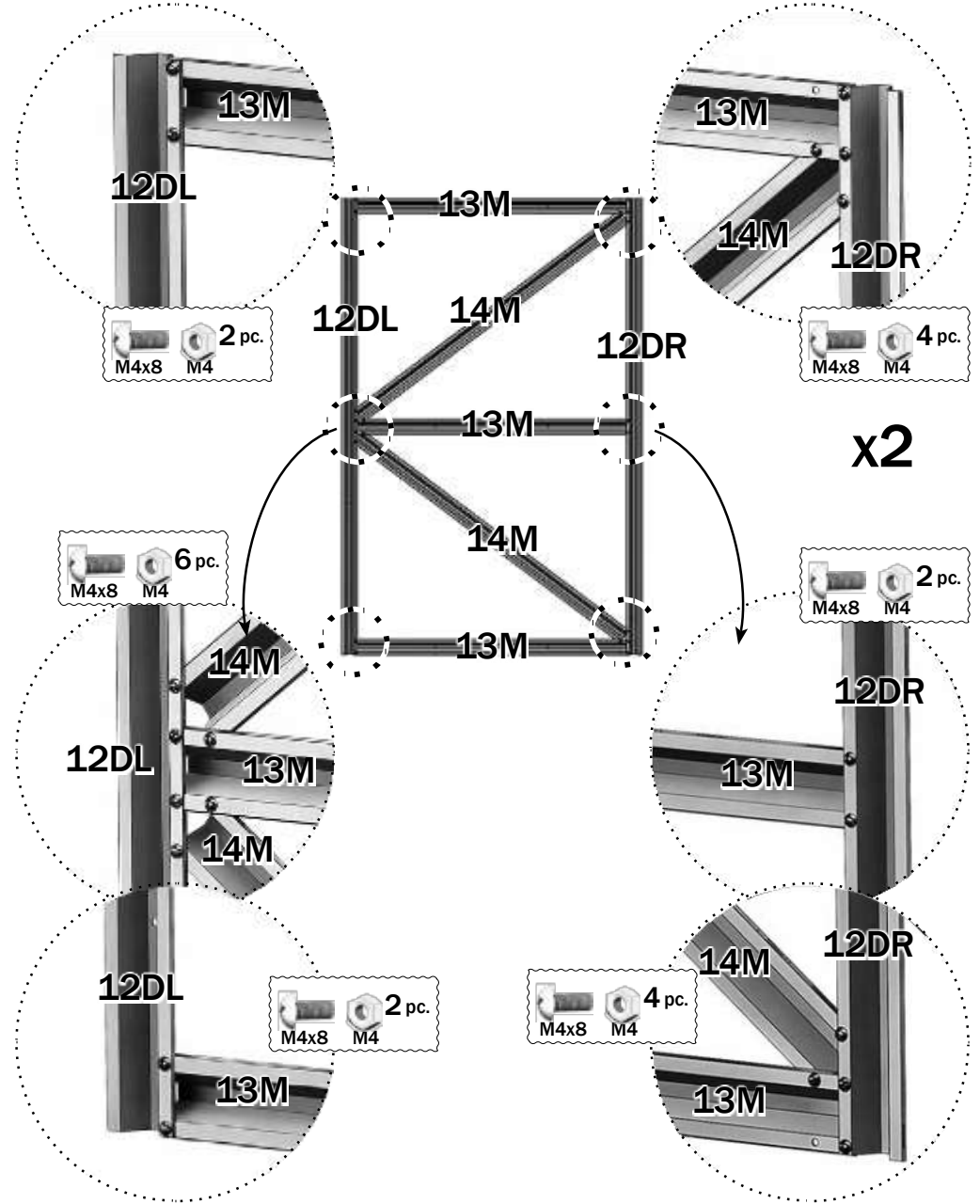
# 5

- №22 13M 2 pc.
- №23 14M 1 pc.
- №18 12FL 1 pc.
- №19 12FR 1 pc.



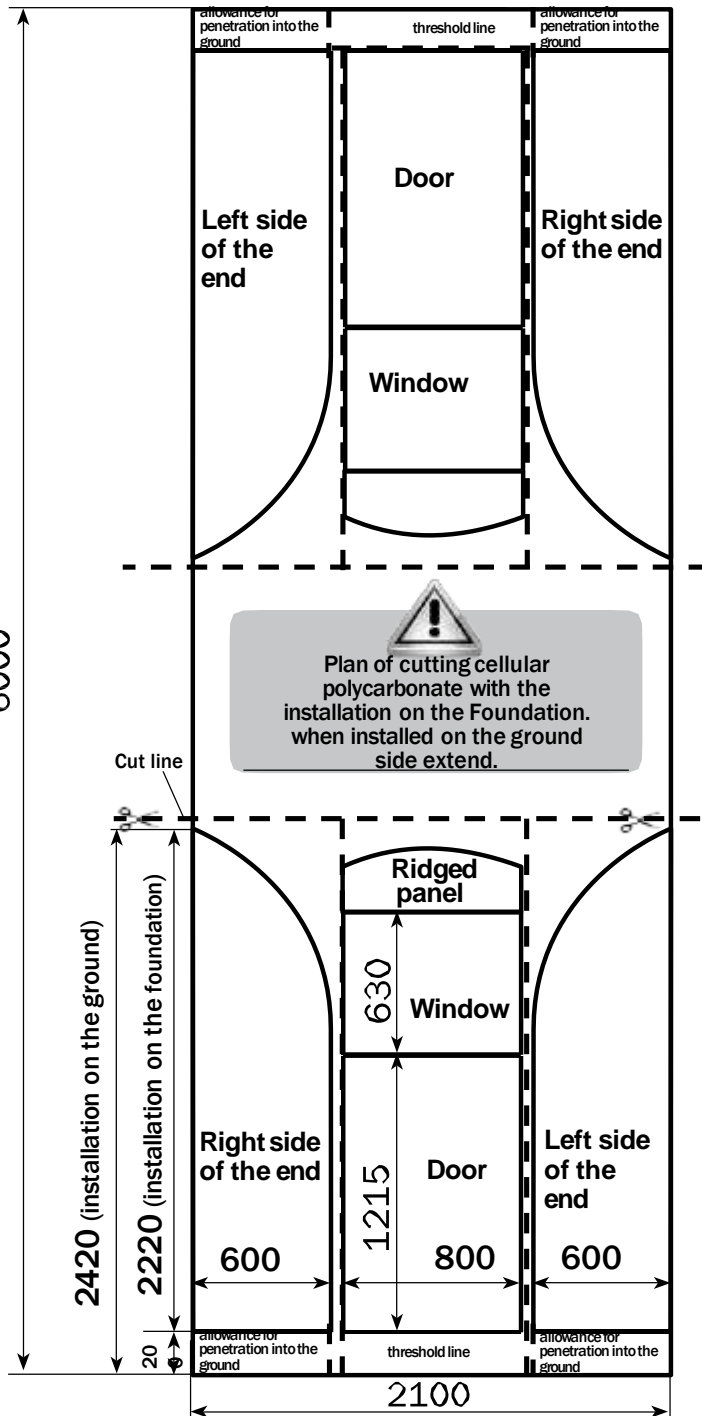
# 6


- №22 13M 3 pc.
- №23 14M 2 pc.
- №20 12DL 1 pc.
- №21 12DR 1 pc.





**CUTTING POLYCARBONATE SHEET PERFORM STRICTLY IN ACCORDANCE WITH THE FIG.1  
Polycarbonate sheet size 2100 x 6000 mm**

Fig. 1



 In Fig.1 is a diagram of cutting for installation of greenhouses on the Foundation. If the greenhouse is installed on the ground, the lower part of the sidewalls of the end, it is recommended to extend 200 mm for the corresponding deepening of the polycarbonate in the ground. This depth of coating along the perimeter of the greenhouse creates a barrier to the penetration of the greenhouse to the roots of weeds.

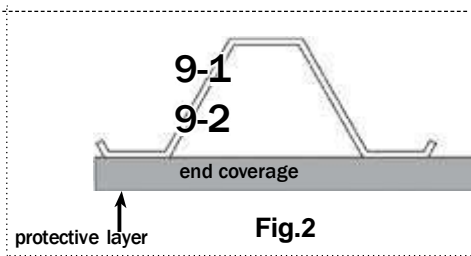
 The polycarbonate should be installed with the strongly defined outer side (towards the sun), having a protective layer (always make sure when purchasing or before installation). The protective layer is usually on the side with inscriptions on the packaging film. On the other side of the sheet the film is clear. After drawing the planning lines on the sheet but before cutting it, mark the protective side of every piece of polycarbonate: after removing the packaging film, both sides of the sheet look very similar. The packaging film should be removed from both sides right before fastening the cover surface to the frame.

 Cutting is better done with an electrical fret saw, or with a jigsaw with small saw teeth.

To cover greenhouses need:  
for greenhouse DUO - 2 sheets; for greenhouse DUO+insert - 3 sheets;  
greenhouse DUO+2 inserts - 4 sheets of polycarbonate with a thickness of 4(6) mm size 2.1 x 6 m.

Cut a piece of polycarbonate (the cutting line, Fig.1). Put the piece of cover on the end, strictly combining the outer edge of the coating elements 9-1, 9-2 (Fig. 16) and draw the elements 1, 4H and 4BK. cut out pieces of the coating to the seam allowance. Then put the assembled door and window to the coating sheet with the addition of one lateral edge opposite the hinges of the hinge is 15 mm. pieces of the coating, located above the window, cut at the installation site.

Install side parts of the butt end as shown in Fig.2. Holding a piece of cover surface in place, fasten it with screws and washers on parts 8 (Fig.8). And on angles with the use of self-tapping screws with washers. Holes for screws should be drilled with 4 mm bore from inside the greenhouse through ready-made holes in frame parts. Install pieces of "half-rounded ridge" by fastening it to angles with self-tapping screws with washers. Cut off any overlapping parts on the sides.





Match elements 9-3 and 9-4 (Fig.3) and install them according to Fig.5. Press the pieces of polycarbonate at the edges from the doors and windows lining 9-3, 9-4 (Fig.5), leaving holes for rotator. cut pieces of the coating to be installed above doorways, and under door openings, install it and fasten it with washers (Fig.8) for detail 10.

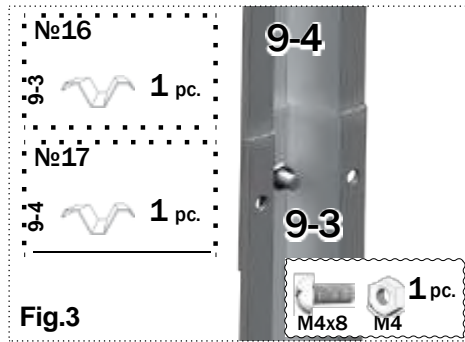


Fig.3

Trim with a knife the pieces of the coating in the arcs 4H and 4BK and parts 1, and then close the resulting cut adhesive tape in accordance with Fig.4

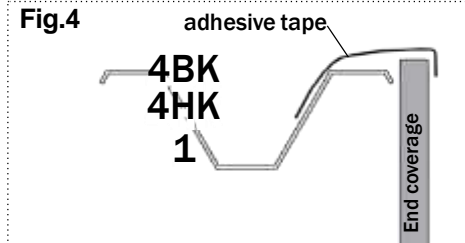


Fig.4

Secure the pieces of the coating on the Windows and doors on the side - the weight of the hinges with washers (Fig.5), and about other parties - clamps (Fig.6), having closed cell (paste over them with tape). On the sides opposite to the hinge cover should get over a frame of 15 mm (Fig.6). Loops are superimposed on top of the polycarbonate and when tightening the screws under the hinge polycarbonate crushed.

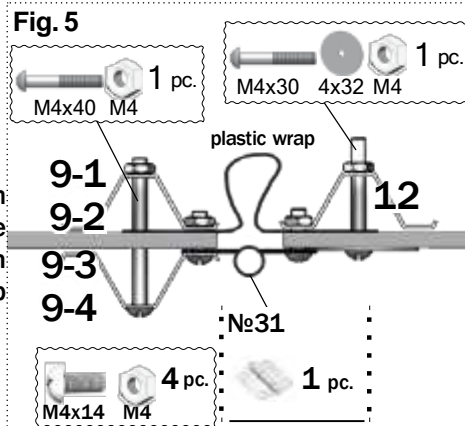


Fig.5

The cracks in the door opening closed with plastic wrap (Fig.5, 6).

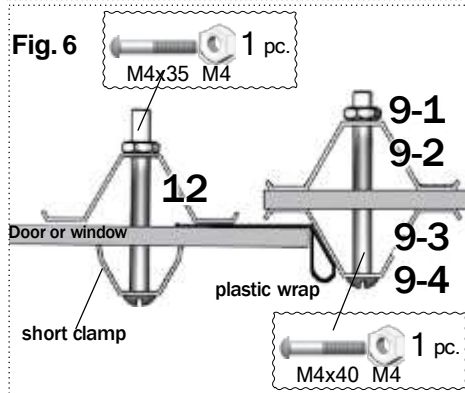


Fig.6

If the configuration of the greenhouse has sealing profile see page 35

Washers and clamps on the end are set in accordance with Fig.7.

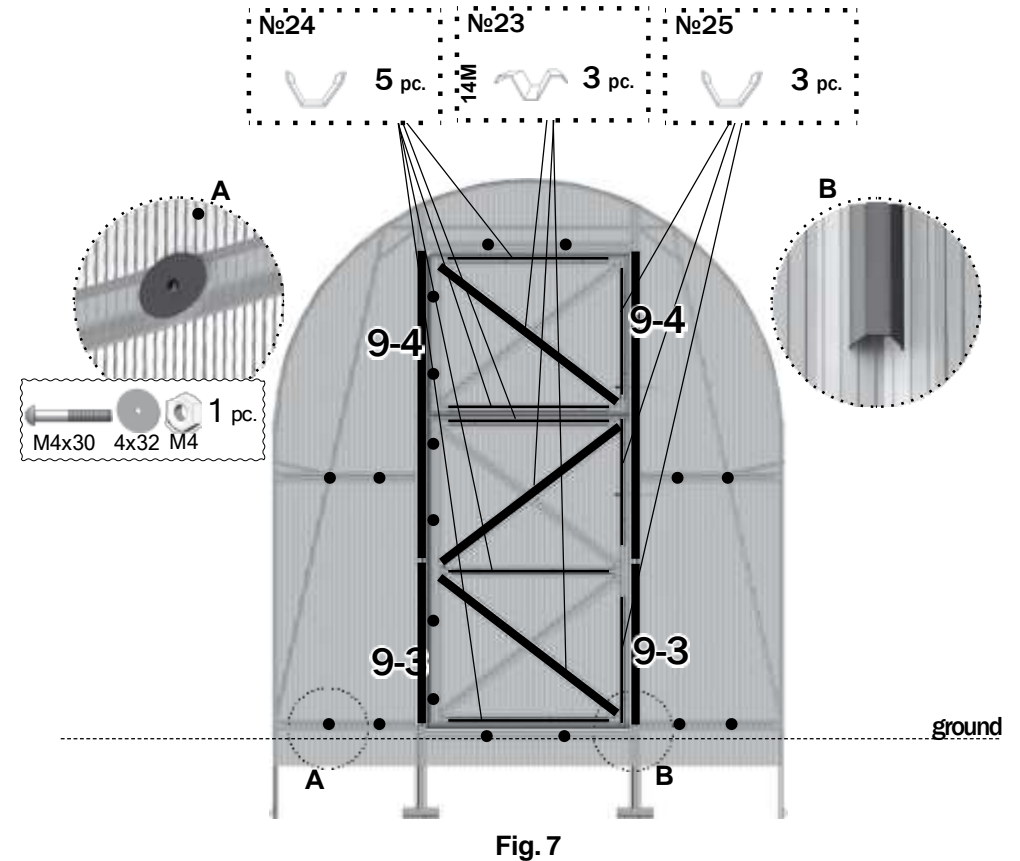



Fig.7

 Free of the hole remain in some elements. Do not put screws with the washers on them.

# 8

Rotator for locking doors and windows inserted into the holes of the uprights of the door opening direct end outside until it stops. Using the tube the bend of the inner rectilinear end of the arm up (Fig.8). This design allows the rotator to elastically press the door and the window ends in closed position, being both outside and inside the greenhouse.

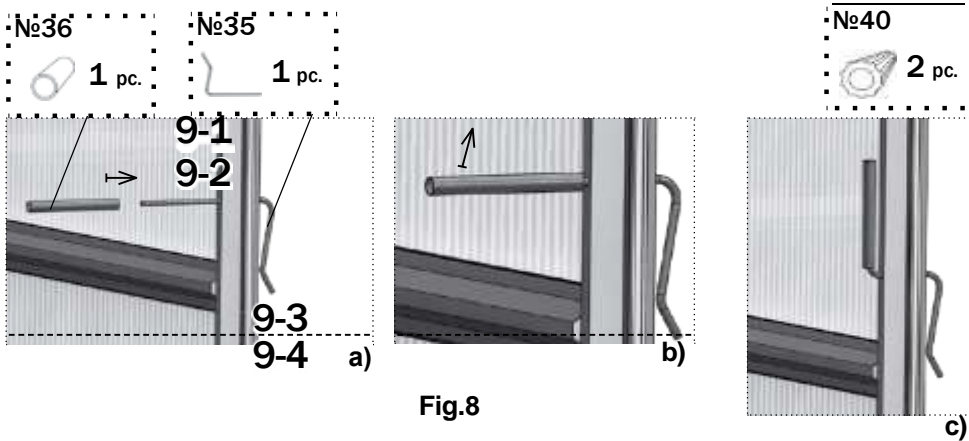


Fig.8

x4



Before installing the cover sheet be sure to tape the ends and joints of the coating between the ends of the greenhouse from dust, moisture and insects (Fig.9).

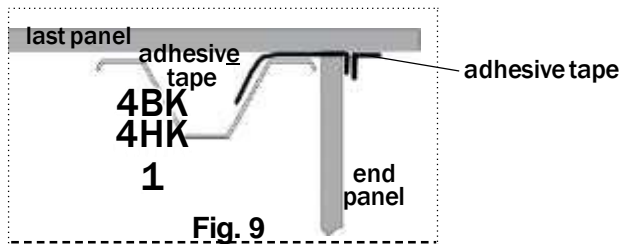
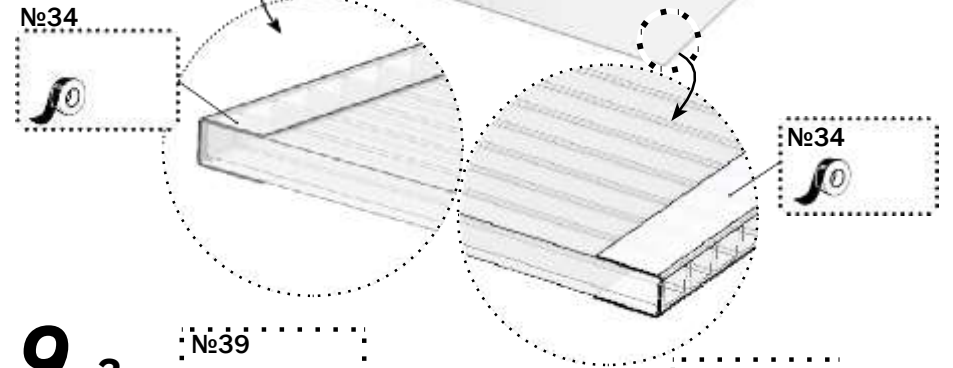


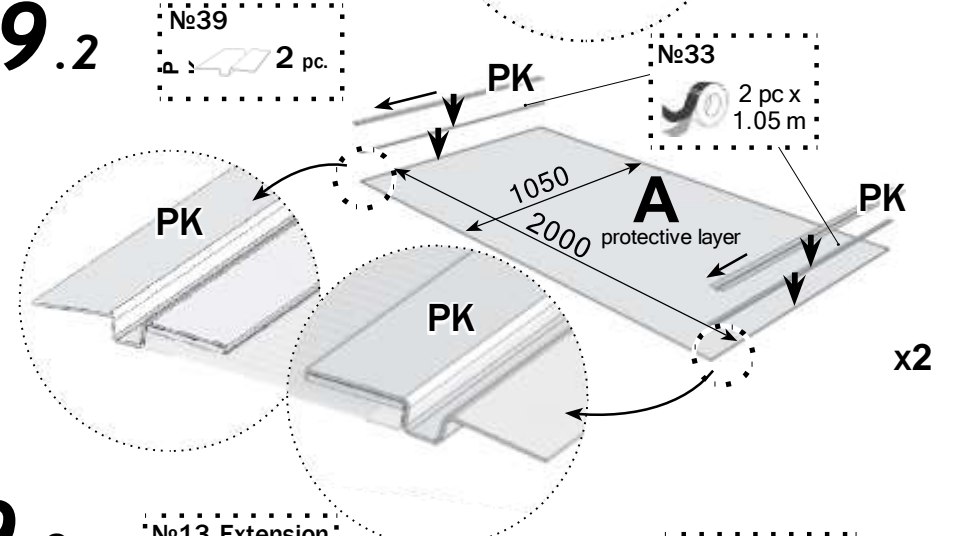
Fig.9

The polycarbonate should be installed with the strongly defined outer side (towards the sun), having a protective layer (always make sure when purchasing or before installation). The protective layer is usually on the side with inscriptions on the packaging film. On the other side of the sheet the film is clear tape. After drawing the planning lines on the sheet but before cutting it, mark the protective side of every piece of polycarbonate: after removing the packaging film, both sides of the sheet look very similar. The packaging film should be removed from both sides right before fastening the cover surface to the frame.

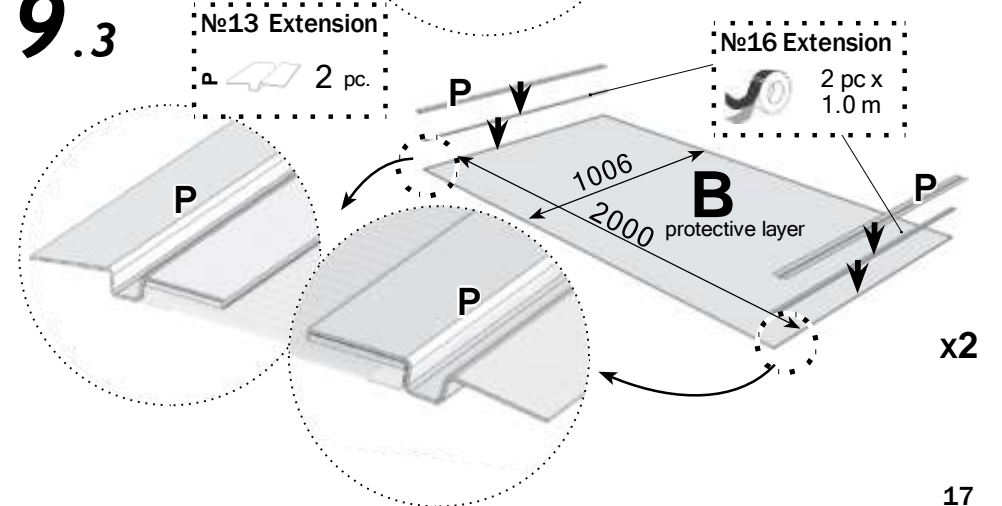
# 9.1



# 9.2

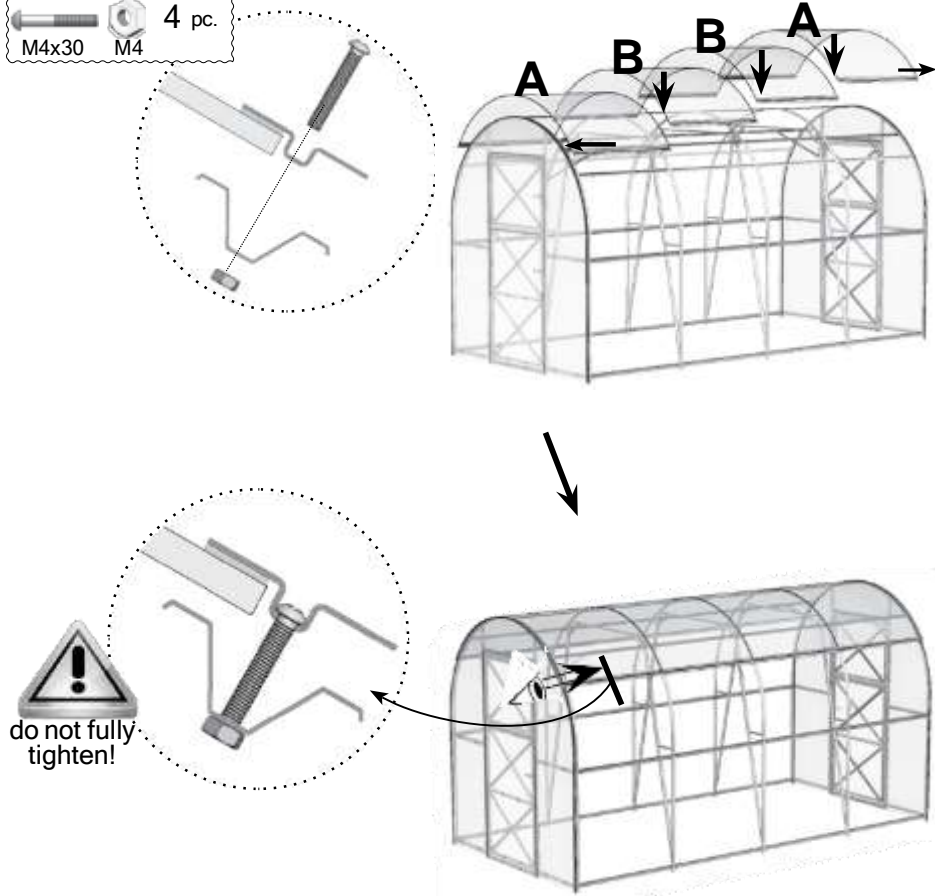


# 9.3

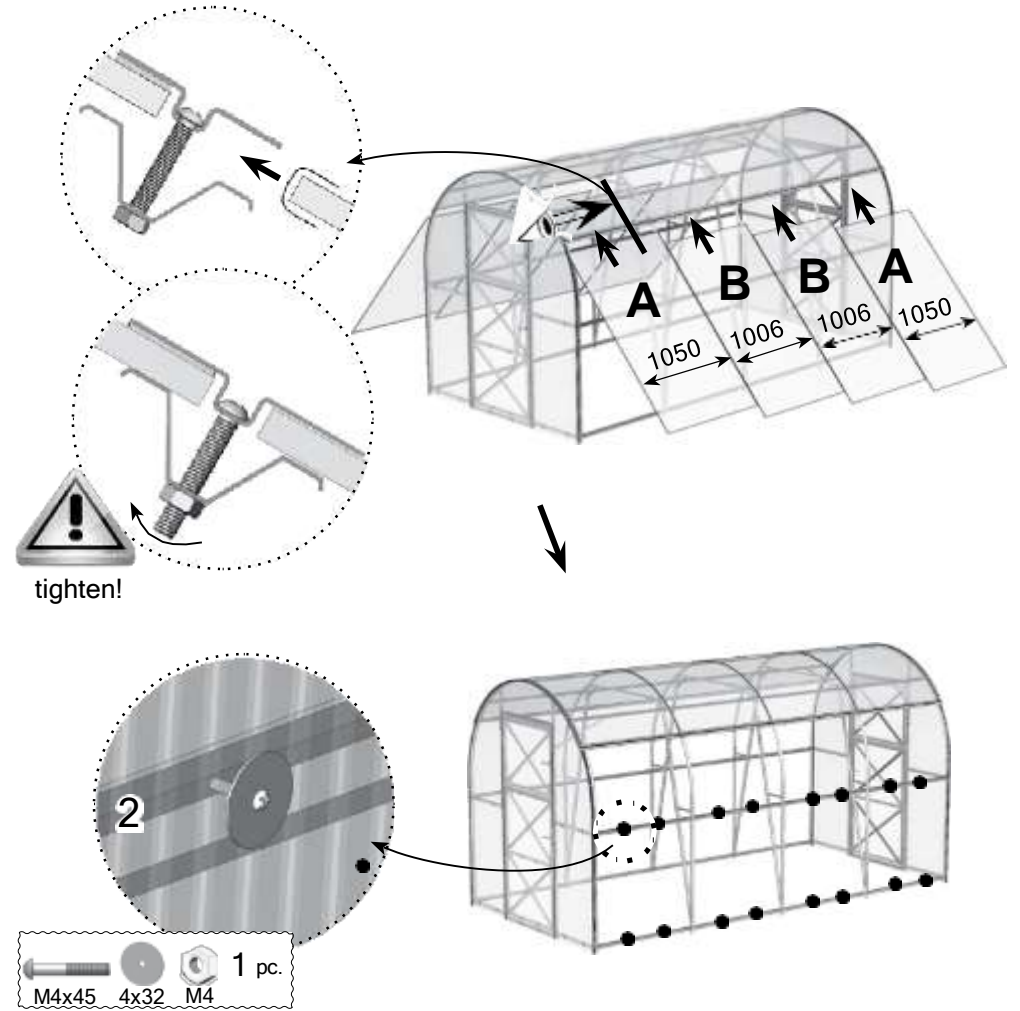


# 9.4


M4x30 M4 4 pc.



# 9.5

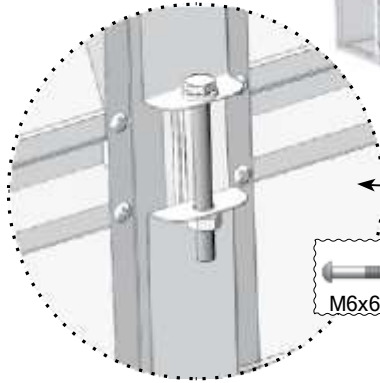
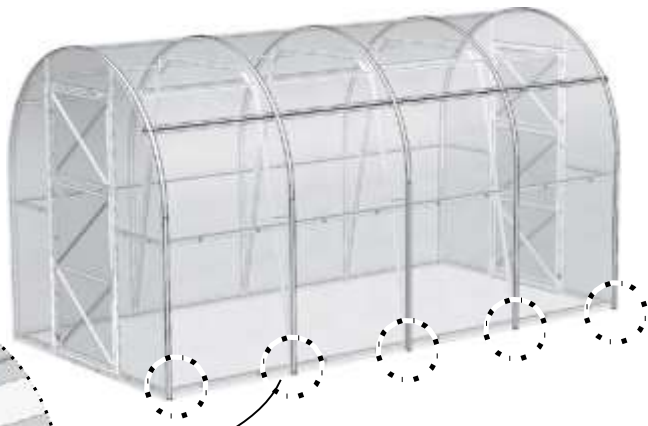
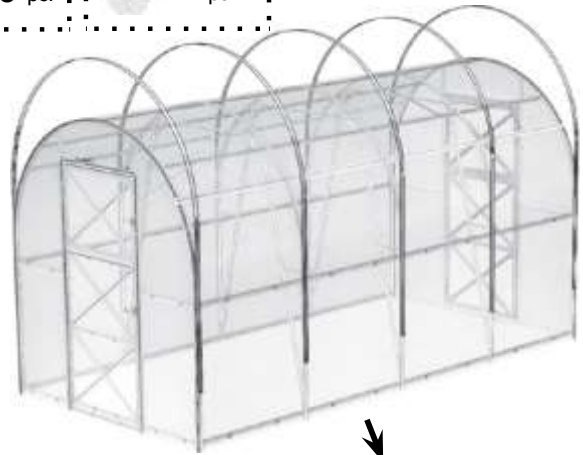


M4x45 4x32 M4 1 pc.

 Avoid excessive tightening of fastening screws to prevent crumbling of polycarbonate and destruction of cellular.

# 9.6

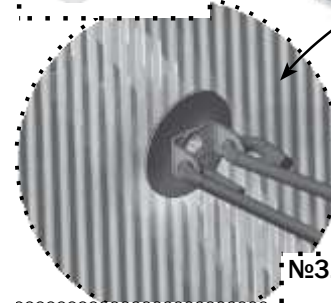
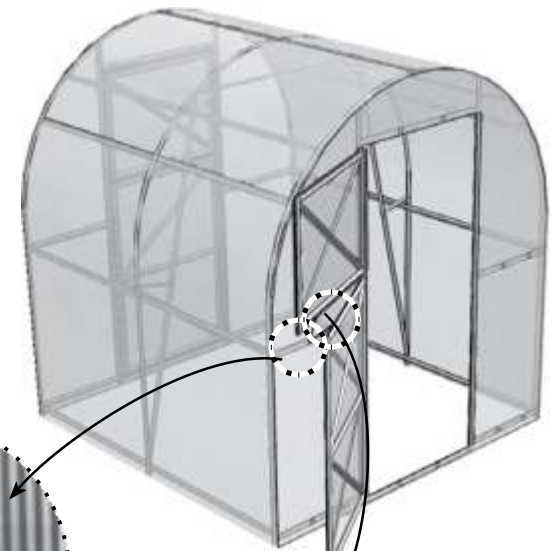
- №37 3 pc.
- №14 Extension 2 pc.



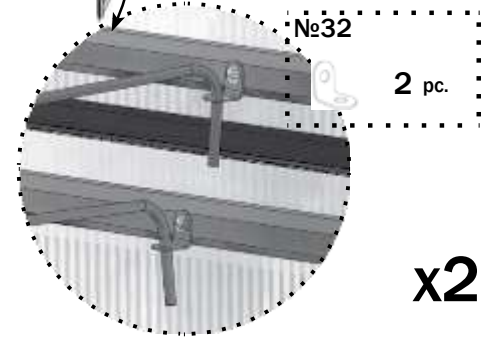
- M6x60 6 6 M6 1 pc.

# 10

- №32 2 pc.




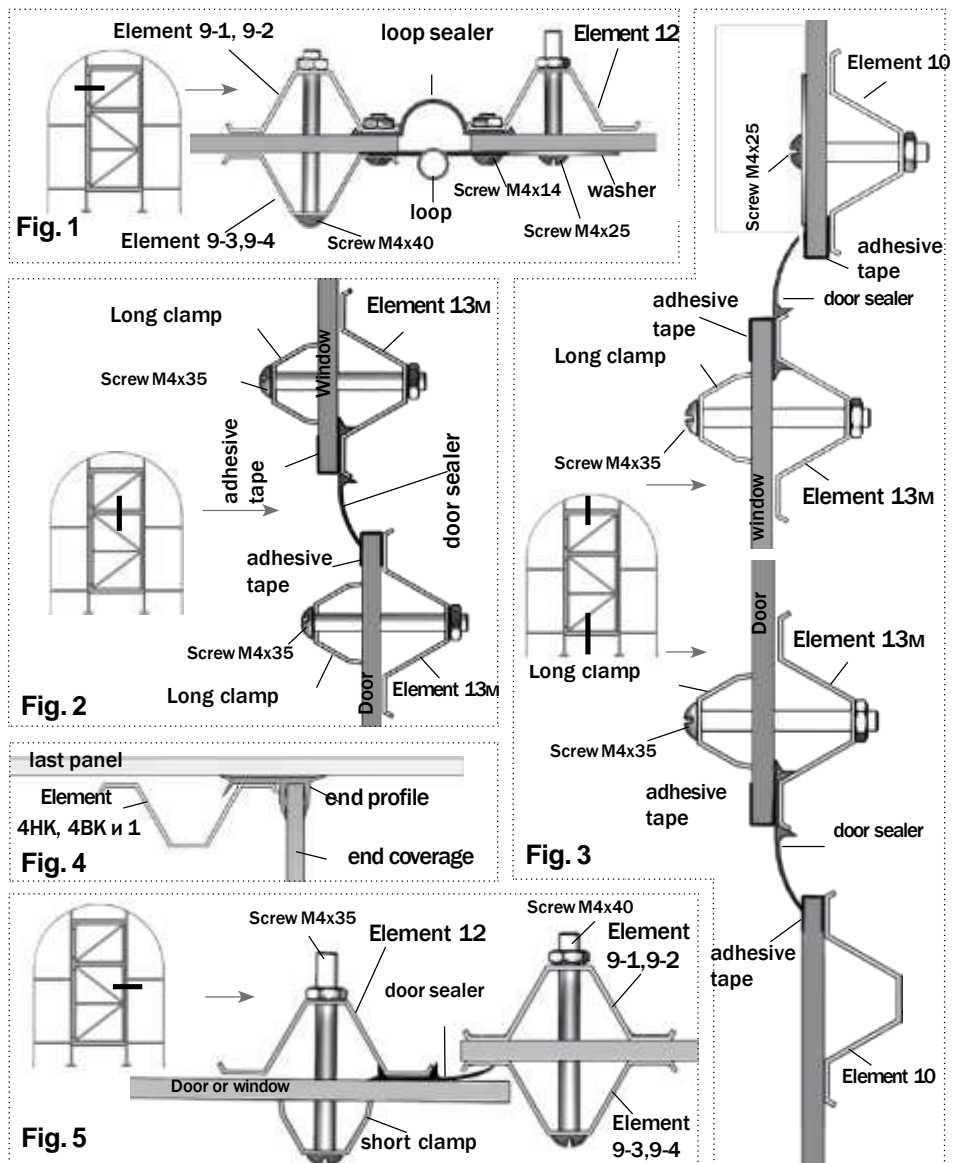
- №31 3 2 pc.
- M4x30 4x32 M4 1 pc.



x2

Sealing profile consists of door profile - 8,5 m; loop profile is 3.6 m; end profile - 12m.

 the sealing profiles are installed along the contour of the doors and vents in compliance with Fig.1-5



## Contact information

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