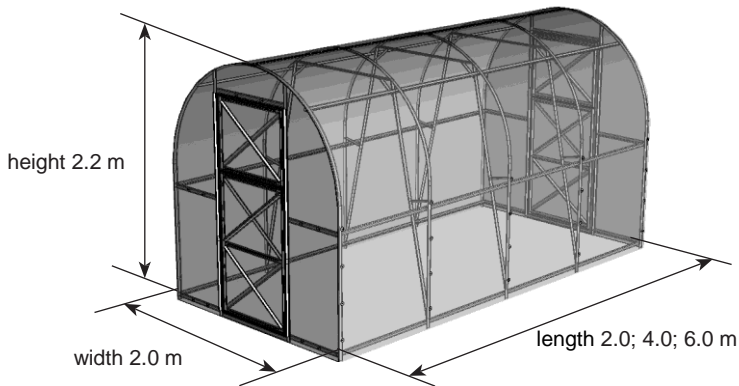


# MADELUX

[www.serrashop.it](http://www.serrashop.it)

## COMPACT



Technical certificate

page 2-6

Assembling manual

page 7-22



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

Dachnaya Dvushka greenhouse is designed for creation of microclimate favorable for growing garden crops on cottage and household plots. The greenhouse may have various length depending on desire of buyer. Required length of greenhouse is provided by purchase of packages with extending inserts in addition to the base length 2 m (table 1). Covered ground area depends of the length.

Height of installed greenhouse frame is 2.2 m.

Frame of greenhouse is made of galvanized steel and assembled using screws and nuts. No foundation is required for the greenhouse but foundation installation is acceptable. Greenhouse is fixed on the ground by digging special frame endings. 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 in opposite ends and door and small window in each door opening. See page 17 for number of polycarbonate sheets.

Table 1 Package completing							
greenhouse length	package number						
	No. 1	No. 2	No. 3	No. 4	No. 5*	Insert	
						No. 1	No. 2
2 m	+	+	+	+	—		
4 m	+	+	+	+	—	+	+
6 m	+	+	+	+	—	++	++

Table 2 Contents of packages		
contents	dimensions, mm	weight, no more kg
<b>Frame (base length 2 m)</b>		
1 package - straight elements and manual	55x50x1260	8.0
2 package - arc elements	230x50x1180	3.0
3 package - end straight elements	95x50x1260	15.6
4 package - fixtures and component parts	180x130x80	2.0
5* package - sealing profile	350x300	1.5
<b>Insert (2 m frame elongation)</b>		
1 package - balks, straight elements, fixtures and component parts	75x50x1260	10.5
2 package - arc elements	230x50x1180	2.0

\* The 5th package is not included in Dachnaya Dvushka complete set. It is purchased separately on buyer's request. See page 22 for information about completing and installation of 5 packages.

Table 3 Dachnaya Dvuska detailed parts list		
marking	name	quantity (pcs.)
1st package		
1	stand	6
2к	end balk	12
2кк	ridge balk	2
3	supports	10
24	foundation stand	10
2nd package		
4BK	top end arcs	2
4B	top arc	1
4H	bottom arcs	6
3rd package		
8	end connecting elements (bottom)	8
9-1л	door opening vertical elements	2
9-1п	door opening vertical elements	2
9-2л	door opening vertical elements	2
9-2п	door opening vertical elements	2
9-3	door opening bottom cover plate	4
9-4	door opening top cover plate	4
10	door opening horizontal elements	4
12фл	end small window vertical elements	2
12фп	end small window vertical elements	2
12дл	door vertical elements	2
12дп	door vertical elements	2
13м	door and end small window horizontal elements	10
14м	door and end small window diagonals	12
	long clamp	10
	short clamp	6
22	horizontal strainer	1
23	brace strut elements	4
25	radial strainer	2
26	angle boom	2
	door and small window hook	4




Dachnaya Dvuska detailed parts list		
marking	name	quantity (pcs.)
4th package		
	hinge for door and small window	8
	hook arm	8
	screw M4 x 8	332
	screw M4 x 14	32
	screw M4 x 25	92
	screw M4 x 40	24
	nut M4	484
	washer	60
	special wrench	1
	adhesive tape	1
	lock blank part (rotator with 2 elastic headers)	4
	rotator bending tube	1
5th package (not included in basic complete set)		
	door profile 	8.5 m
	hinge profile 	3.6 m
	end profile 	12 m

Table 4 Vstavka insert detailed parts list		
marking	name	quantity (pcs.)
1st VSTAVKA insert package		
1	stand	4
2	basic balk	12
2-кк	ridge balk	2
3	supports	4
	screw M4 x 8	118
	screw M4 x 35	8
	nut M4	134
	washer	16
2nd VSTAVKA insert package		
4B	top arcs	2
4H	bottom arcs	4

## Operating rules



The greenhouse is designed for no more than 30 m/s wind speed and 240 kg/m<sup>2</sup> snow load that correspond approximately to 0.6 m packed snow layer.

1. Before use of the greenhouse, assemble and install it on the ground in accordance with the manual.
2. In winter, coverage of greenhouse should not be removed provided that snow load is limited. Dachnaya Dvushka does not require snow load control in most Russian regions including Moscow, Tver, Leningrad, Sverdlovsk, Novosibirsk and other oblasts with snow region number not higher than IV (according to SNiP 2.01.07-85). Clarify snow region number for locality where the greenhouse will be installed with trading organization or local building organizations. If snow region is higher than VI, the greenhouse requires snow load control, i.e. periodic removal of snow blanket and preventing snow pressure on side walls.



When installing the greenhouse by third parties, buyer should supervise compliance of assembling with the manual.



Do not install greenhouse close to buildings and trees from which snow or ice can fall down. 2 m distance is recommended.

## Cleaning and washing of polycarbonate sheets

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



Never use abrasives or high-alkali detergents for cleaning polycarbonate sheets. Dry wiping damages protective layer of the coverage and shorten its service life. Never rub surface of polycarbonate sheets with a brush, metalized fabric or other abrasive materials.



To prevent corrosion (darkening) of frame, do not use fungicidal and antibacterial sulphur cartridges for disinfecting the greenhouse.

## Warranty

### Warranty

1. Manufacturer is responsible for full completing frame elements of greenhouse.
2. Manufacturer is responsible for assemblability of the greenhouse in accordance with the manual.
3. Manufacturer is responsible for durability of the greenhouse under specified values of weather impact.
4. Warranty period – 12 months from date of purchase.

### Warranty conditions


The warranty does not cover cases of:

1. Installation of greenhouse with violation of manual's requirements.
2. Violation of operating rules.
3. Unintended use of greenhouse.
4. Floods, hurricanes, other natural disasters.

**MADELUX**

## Dachnaya Dvushka greenhouse installation manual

### Introduction

1. General view of frame is represented in Figure 1. Install details in such a way to make profile side shelves facing coverage.  
Frame is constructed from numbered elements. Some elements are composed of several parts having equal number but different index.
  2. Indices:  
K – end (along the length of greenhouse);  
KK - ridge;  
H - bottom;  
B - top;  
П - right;  
Л - left;  
→ - arrow indicates installation direction according to manuals' schemes.
- 

Some elements have free holes resulted from elements' uniformity.
3. Terminology:  
Left side is from the left when standing outside of the greenhouse in front of the door.  
Right side is from the right when standing outside of the greenhouse in front of the door.
  4. Connect the elements by putting profiles and fastening with screws and nuts through holes. When connecting elements by profile-in-profile method, no matter what the element is on top.
  5. Be careful not to damage elements, because they do not have enough rigidity before final assembling.



When assembling the frame, connect elements using all available holes. Simplified connection with one or two screws is a violation of assembling rules and a ground for warranty waiver.



Be careful! Elements have sharp angles. Guard against cutting! Work in safety gloves.

# General view of Dachnaya Dvushka greenhouse frame

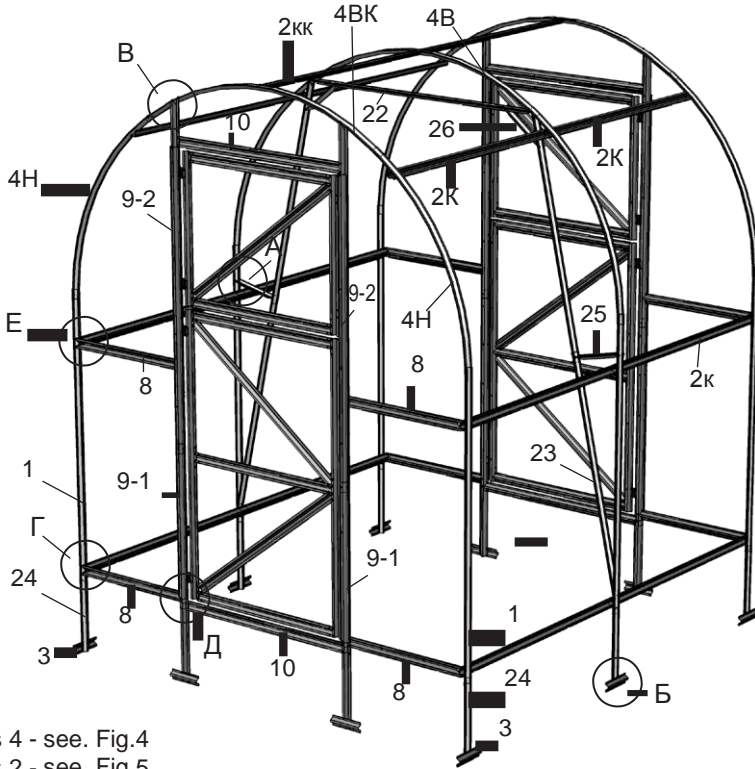
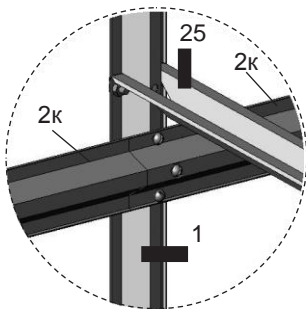


Fig. 1

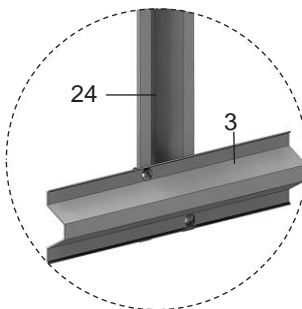
elements 4 - see. Fig.4

elements 2 - see. Fig.5

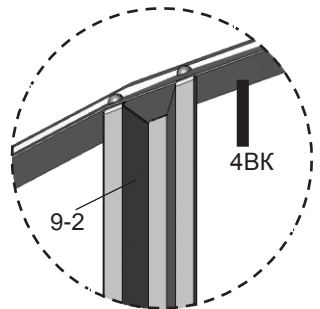
elements 12...14 (door and small window) - see. Fig.13,14



A  
(inside view)



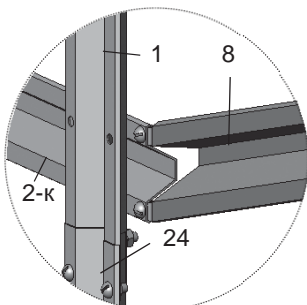
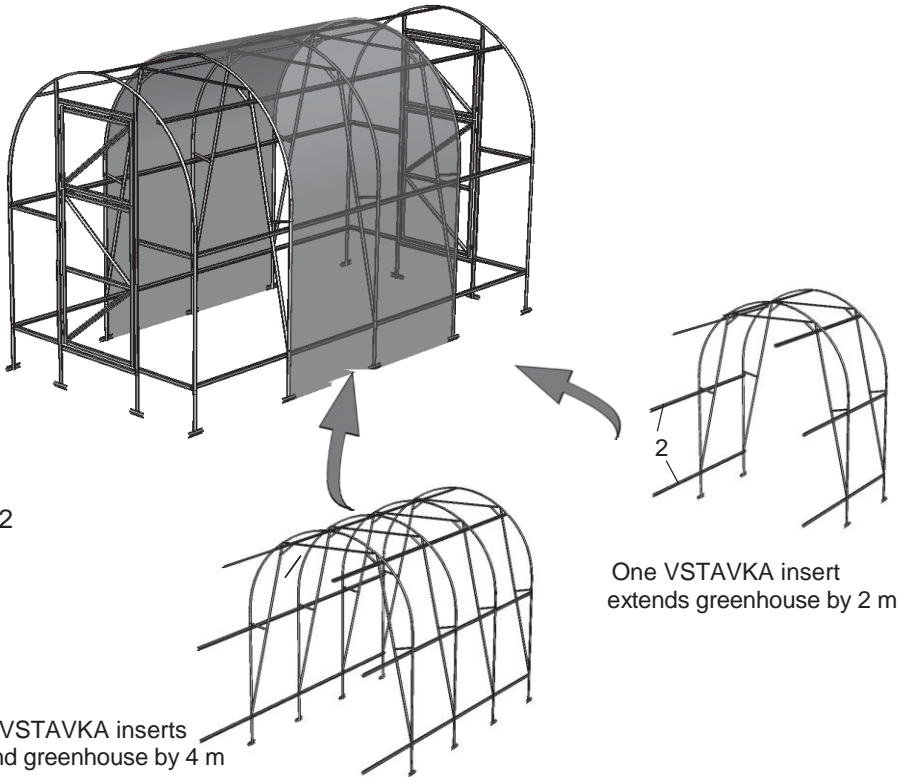
Б  
(outside view)



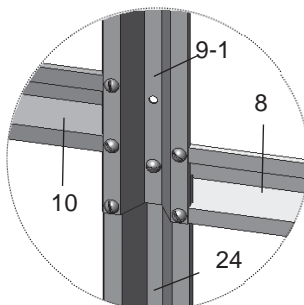
Б  
(outside view)



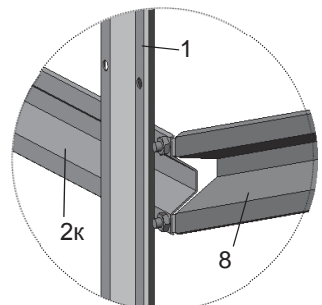
## General view of greenhouse frame extended by inserts



Г  
(outside view)



Д  
(outside view)



Е  
(outside view)

## Installation sequence

1. Perform assembling close to location of the greenhouse.
2. Assemble greenhouse in accordance with photographs of assembling stages and units represented in Fig. 6...14.
3. Use support layout plan to install the greenhouse on a foundation (Fig.3).  
When installing on the ground, dig a trench by the frame perimeter at a depth of shovel blade on the site selected for greenhouse installation. Install frame into the trench. Check equality of frame diagonals using a cord. Total draft of greenhouse into the ground should be so that bottom elements 10 of door opening touch the ground. Check equality of the diagonals using a cord again and correct position of the frame angles.
4. Level the frame using filling or deepening of the trench to make longitudinal elements straight, horizontal and parallel to each other and to make arcs even at side view. Perform final tightening of all screws.

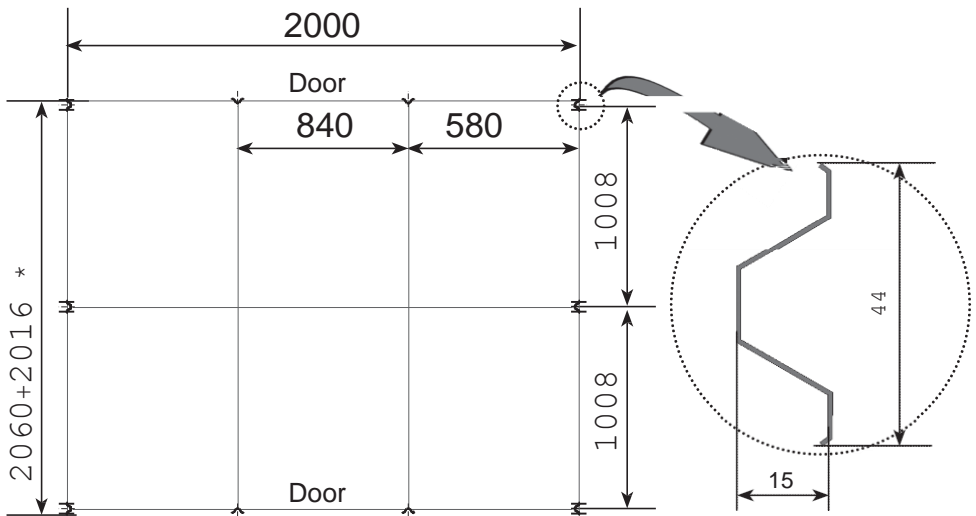


Fig. 3. Greenhouse foundation support layout plan

Layout of frame arcs and longitudinal connecting elements of greenhouse extended by inserts

Fig. 4

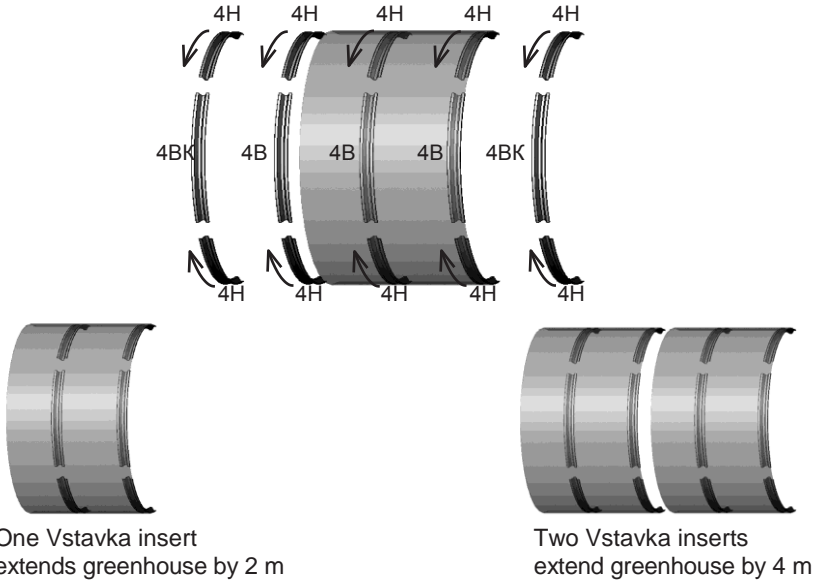
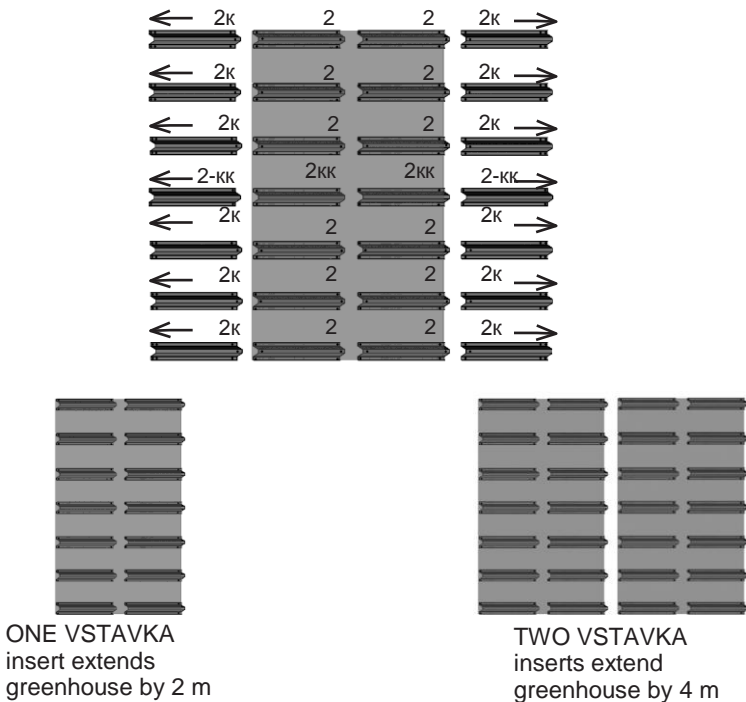
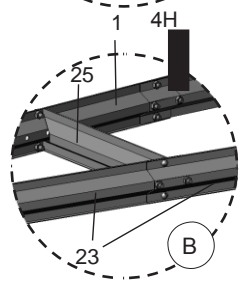
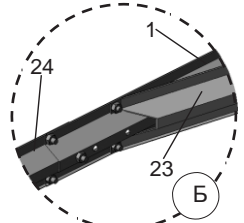
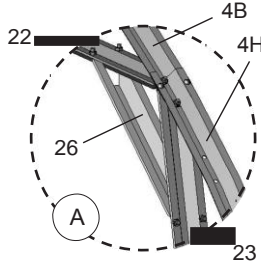
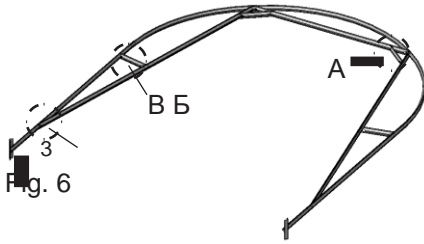


Fig. 5



## Assembling stages

### 1 STAGE



Assemble one load-bearing arc (or required number of load-bearing arcs depending on number of inserts) from elements 1, 3, 4B, 4H, 22, 23, 24, 25, 26 using screws M4x8, nuts M4. Do not use elements 24 and 3 if the greenhouse is installed on a foundation.

### 2 STAGE

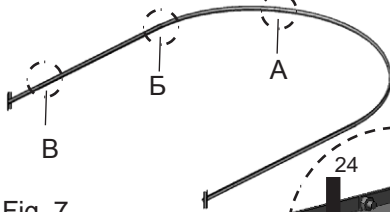
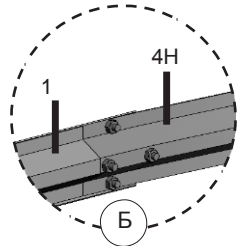
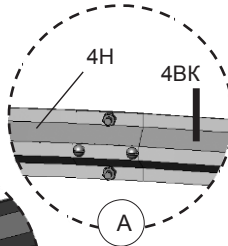
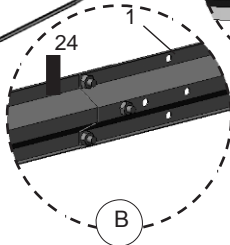


Fig. 7



Assemble two end arcs using elements 1, 3, 4BK, 4H, 24.

### 3 STAGE

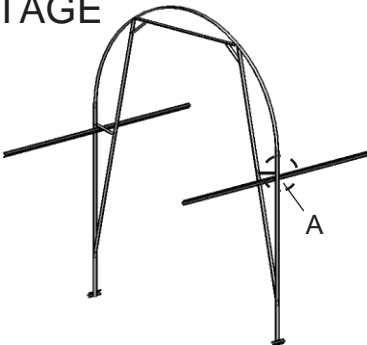
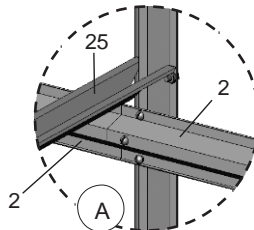


Fig. 8



Connect elements 2K and 2 to the arc nearest to the end in accordance with Fig. 5 and depending on availability of inserts.

## Assembling stages

## 4 STAGE

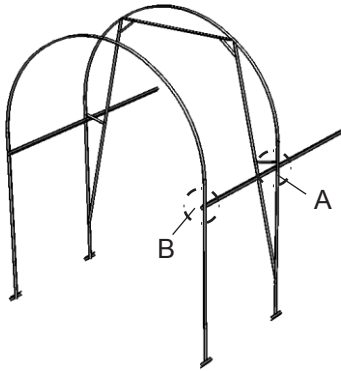
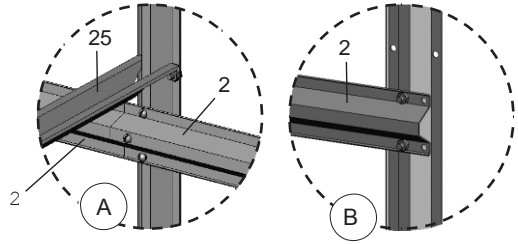


Fig. 9



Connect end arc to the section assembled at stage 3.

## 5 STAGE

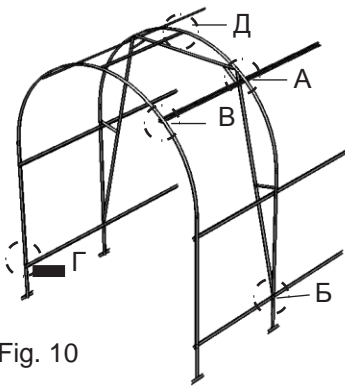
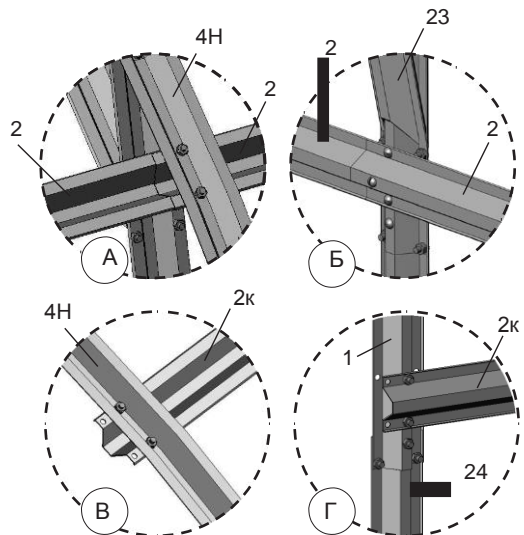
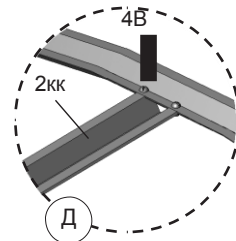


Fig. 10

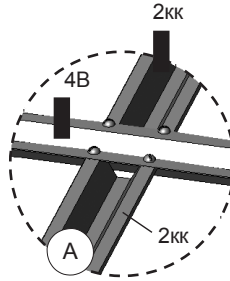


Connect balks in accordance with Fig. 10 and Fig. 5.



## Assembling stages

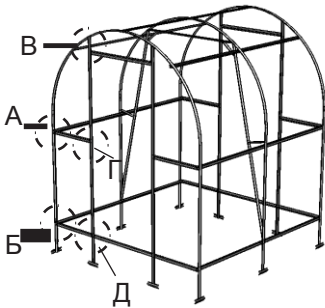
### 6 STAGE



Connect the second end arc. If greenhouse length is more than two meters, connect required number of inserts sequentially increasing balks and then connect end arc.

Fig. 11

### 7 STAGE



#### Assemble end elements.

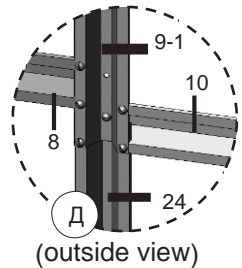
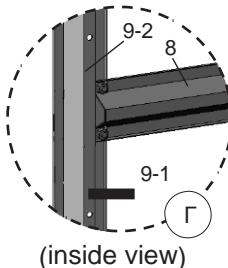
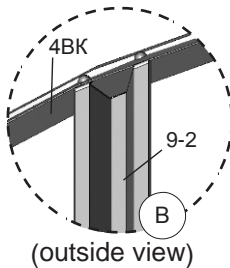
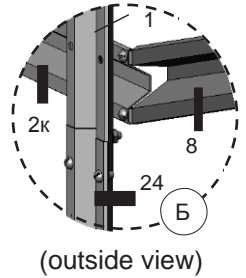
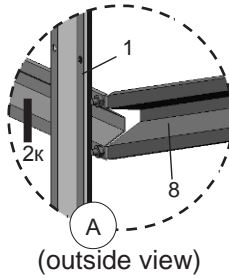


Fig. 12

## Assembled door and small window

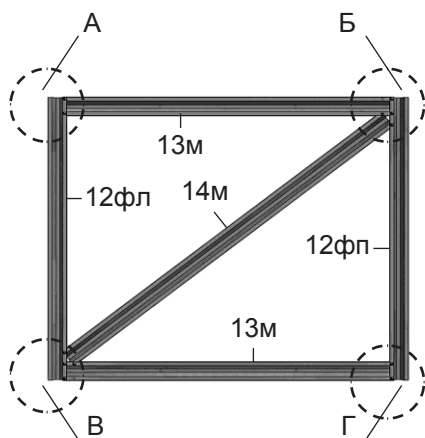


Fig. 13  
Small window - outside view

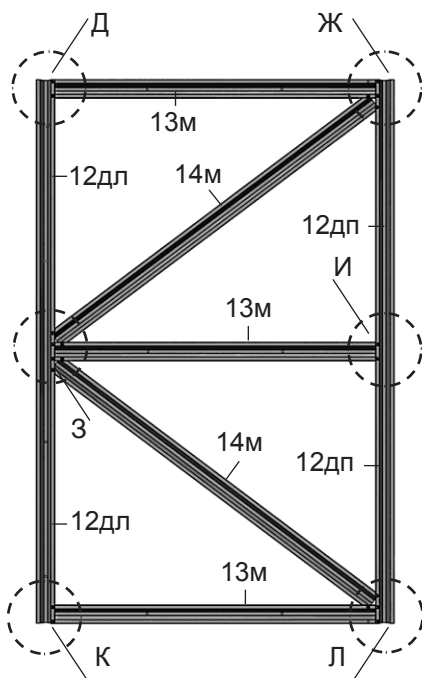
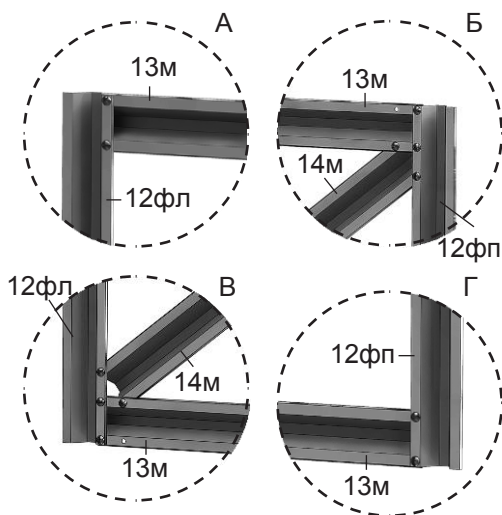
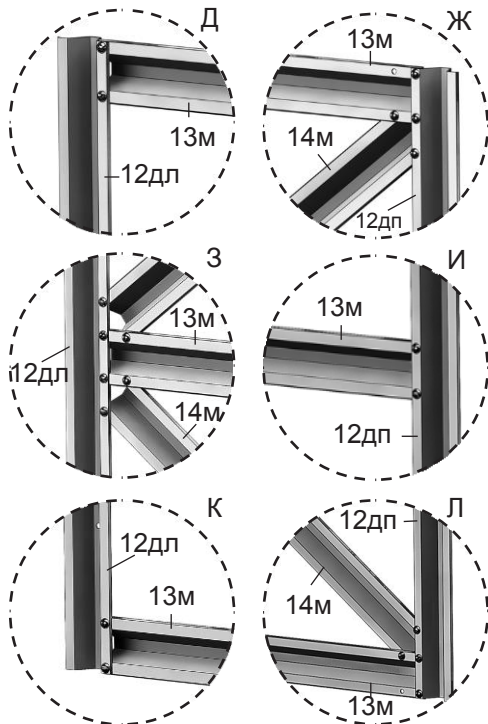
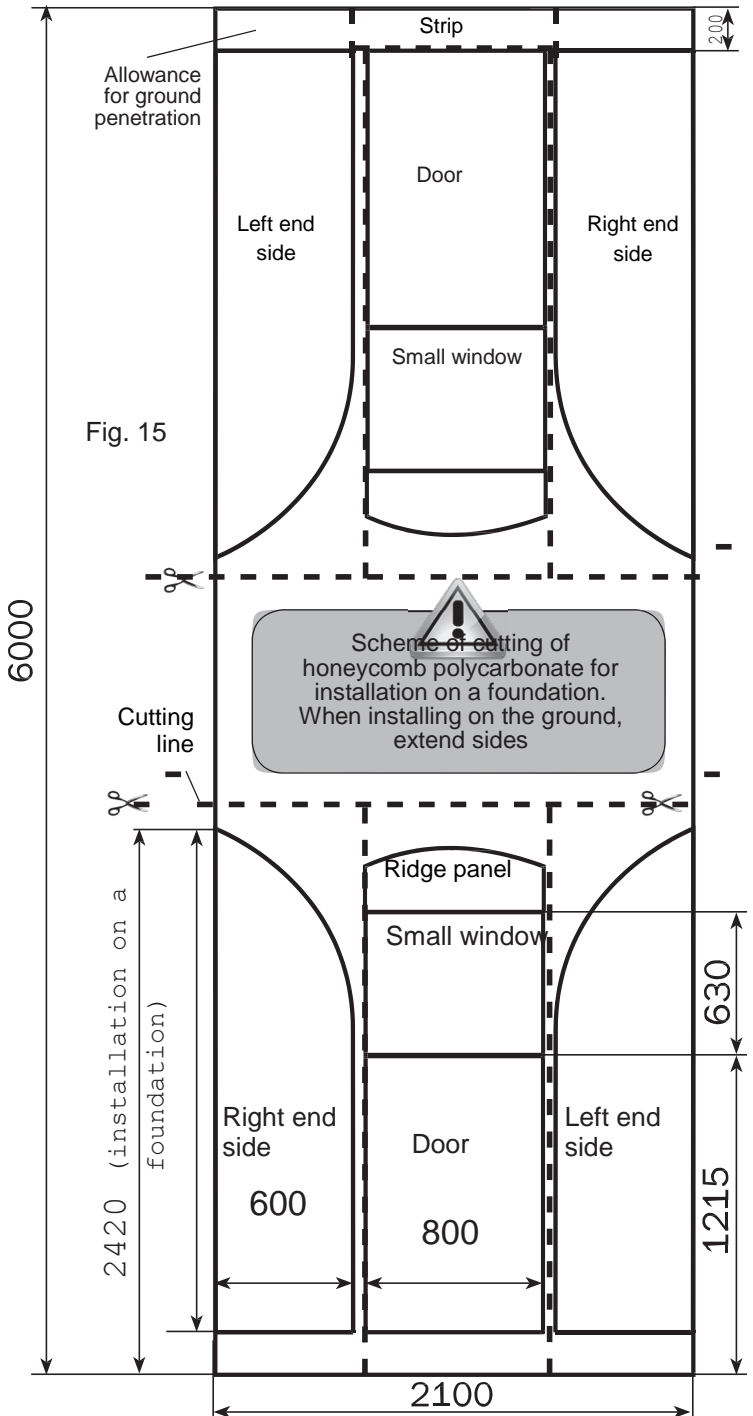


Fig. 14  
Door - outside view



CUT POLYCARBONATE SHEET STRICTLY IN ACCORDANCE WITH FIG. 15  
2100 x 6000 mm honeycomb polycarbonate sheet





## Cutting and fastening of coverage



Cutting layout for greenhouse installation on a foundation is given in Fig. 15. If the greenhouse is installed on the ground, it is recommended to extend bottom end sides for 200 mm for appropriate penetration of polycarbonate in the ground. Such a penetration of the coverage around the greenhouse perimeter makes a barrier for intrusion of weeds' roots into the greenhouse.



Mount honeycomb polycarbonate strictly facing sun with a side having protective layer (by all means, clarify it under purchase or before mounting). Protective layer usually is on the side with inscriptions on transport film. On the other side of sheet film is clear. After marking the sheet but before its cutting make marks on protective side of each piece of the sheet: after removal of transport film sheet sides have no visual differences. Transport film is removed from both sides immediately before fastening coverage on the frame.



A power jigsaw or fine tooth arm saw is recommended for cutting.

- Greenhouse coverage requires:  
two 2100 x 6000 x 4 mm honeycomb polycarbonate sheets for Dachnaya Dvushka; three sheets for Dachnaya Dvushka + Vstavka insert;  
four sheets for Dachnaya Dvushka + 2 Vstavka inserts.
- Cut a piece of polycarbonate (Fig. 15) with allowance and mark it by elements 1, 4H and 4BK. Then put assembled door and small window on a coverage sheet adding 15 mm for one side edge opposite to hinges. Cut the pieces to be installed above small window at the place of installation.
- Mount side pieces of end coverage in accordance with Fig. 16. Holding a piece of coverage fasten it with screws and washers by elements 8 (Fig.22). Holes for screws are drilled by boring bit of 4 mm diameter from inside of greenhouse through available holes in frame elements.

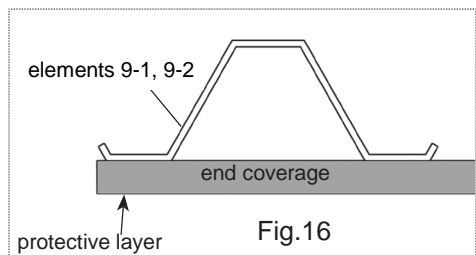


Fig.16

## Fastening of coverage

4. Join elements 9-3 and 9-4 (Fig. 17) and mount them in accordance with Fig. 19. Press polycarbonate pieces by edges on the side of door and small window by cover plates 9-3, 9-4 (Fig. 19) leaving holes for rotators. Cut pieces of coverage for installation above door openings and install them fixing by washers (Fig. 22) on element 10.

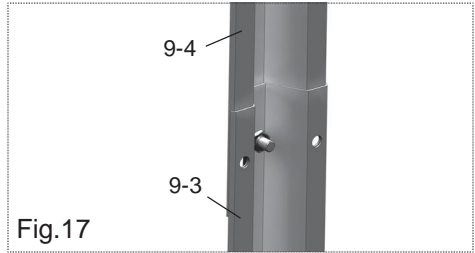


Fig.17

5. Using a knife, even coverage pieces by arcs 4H, 4BK and element 1, then cover the obtained cut-off with adhesive tape in accordance with Fig. 18.

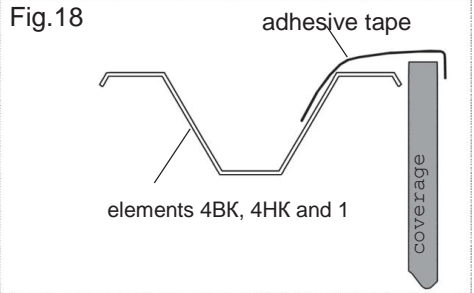


Fig.18

6. Fasten coverage pieces on small windows and doors with washers from the side of hinges, and with clamps from other sides (Fig. 20) covering honeycomb with adhesive tape beforehand. On the sides opposite to hinges coverage should protrude behind the frame for 15 mm (Fig. 20). Hinges are put over polycarbonate and wrinkle polycarbonate under tightening the screws.

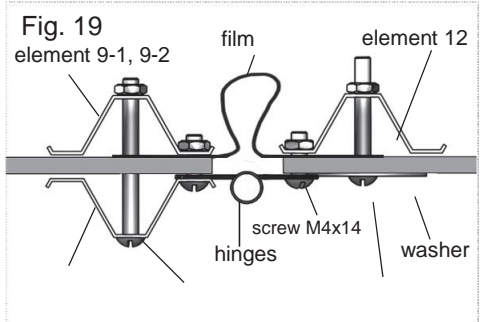


Fig. 19

element 9-3,9-4 screw M4x40 screw M4x25

7. Gaps in door opening should be covered by polyethylene film or isolon (Fig. 19, 20).

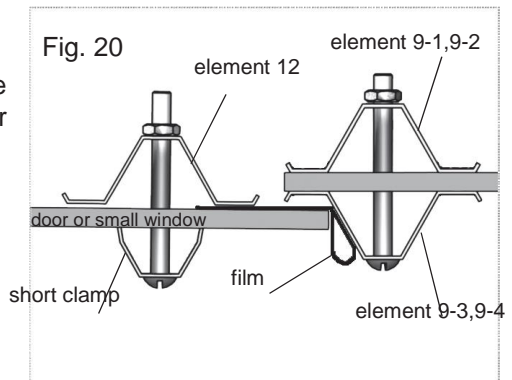


Fig. 20

## Fastening of coverage

7. Mount end washers and clamps in accordance with Fig. 21.

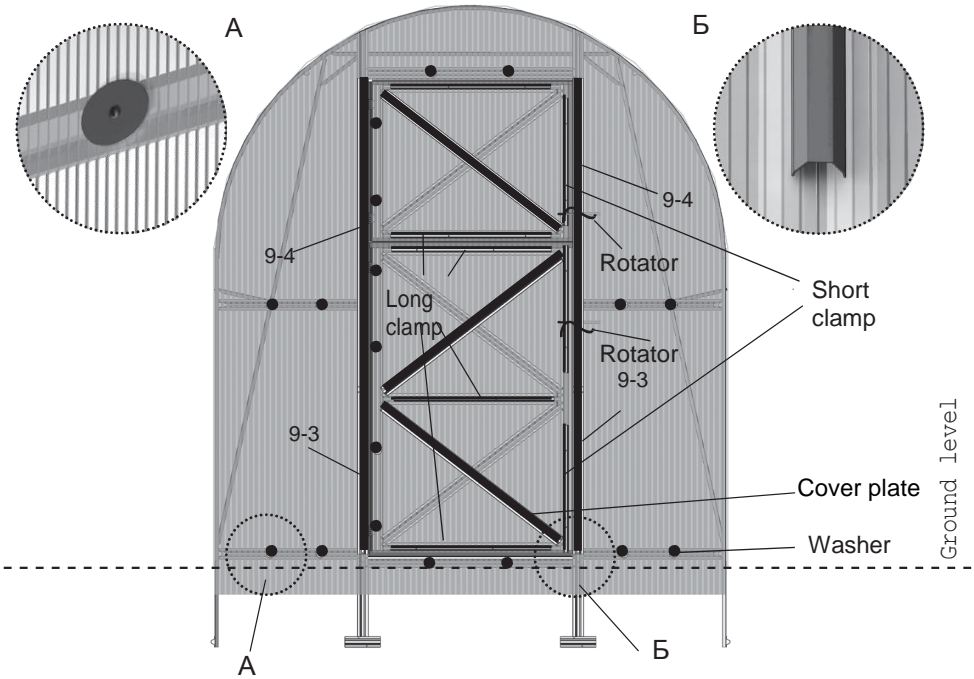


Fig. 21

8. Fasten the coverage using screws and washers in accordance with Fig. 22.

Fig. 22



Some elements still have free holes. Do not install screws and washers in them!

## Fastening of coverage



Before mounting a sheet, make sure to cover edges with adhesive tape to protect from getting dust, moisture and insects.

- Cover the top of Dachnaya Dvushka greenhouse of 2 m length with one 6 x 2.1 m sheet and each extending insert with one sheet. Fasten panels by elements 1 with screws and washers removing a slack between the frame and sheet. Mount screws inclined, so that when tightening a nut, the screw would pull down a panel edge. For this purpose, when drilling sheets through the hole in element 1, tilt a bore bit under 30° angle. Start coverage fastening from the middle of sheet gradually moving to the edges.

Firstly, mount one sheet so that its edges lay on elements 1, 4B and 4H. Fasten bottom edges on elements 1 with screws and washers initially in the middle of sheet width. Install the second sheet in the same way overlapping the first sheet (Fig. 23). The last thing is placing screws and washers by side edges of the sheets.

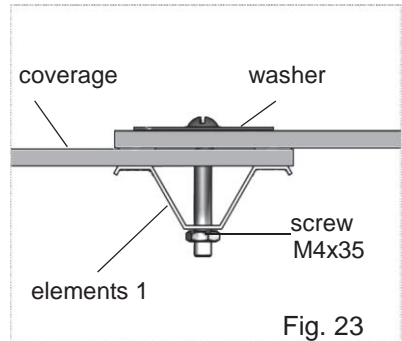


Fig. 23

- Glue coverage joint between greenhouse ends and top panels with adhesive tape (Fig. 24).

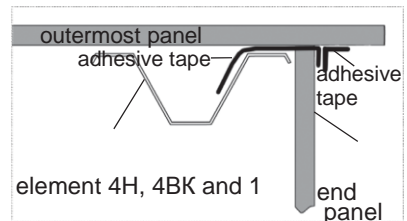


Fig. 24

## Fastening of coverage

11. Insert a wire rotator for locking of doors and small windows into holes of door opening stands with straight end against the stop. Use the tube to bend the straight end upward by hand (Fig. 25). Such a construction provides elastic tightness of the door in closed position both from inside and outside of the greenhouse.

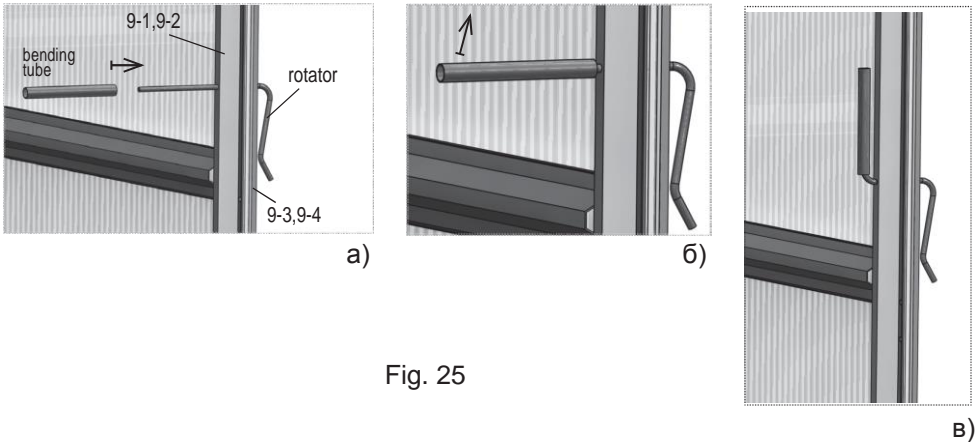


Fig. 25

12. Install an arm with hooks for fixation of doors and small windows in accordance with Fig. 26.

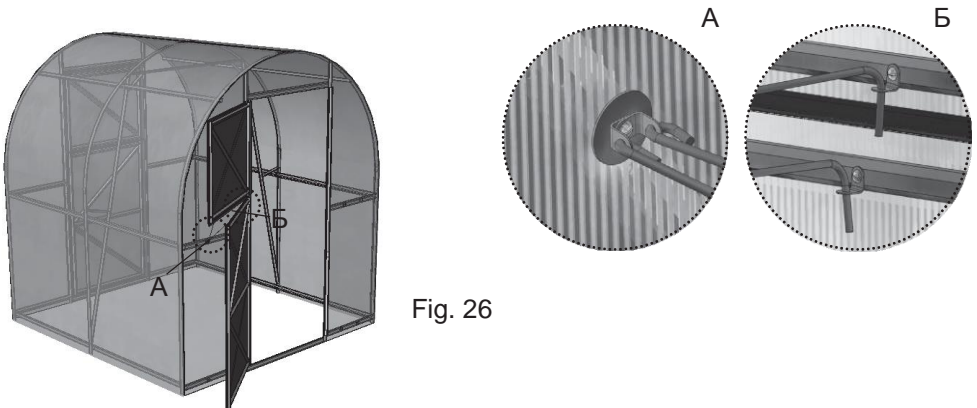



Fig. 26

## Installation of sealing from additional 5th package

5th package (sealing profile) consists of 3.5 m door profile, 3.6 m hinge profile and 12 m end profile.

 Mount sealing profiles by door and small window contour in accordance with Figures 27...31.

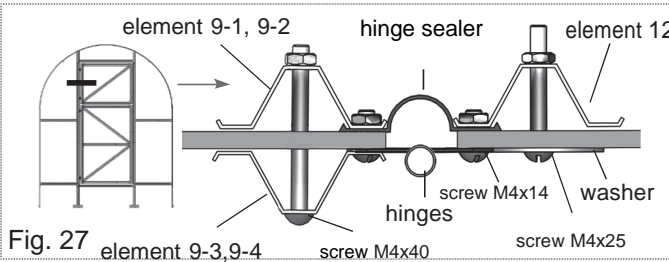


Fig. 27

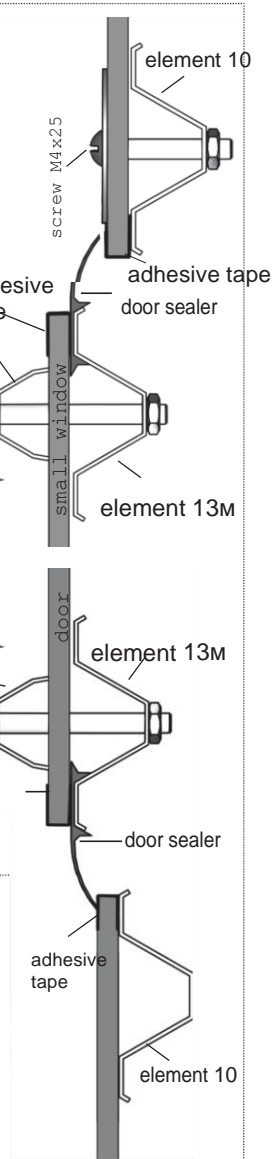


Fig. 29

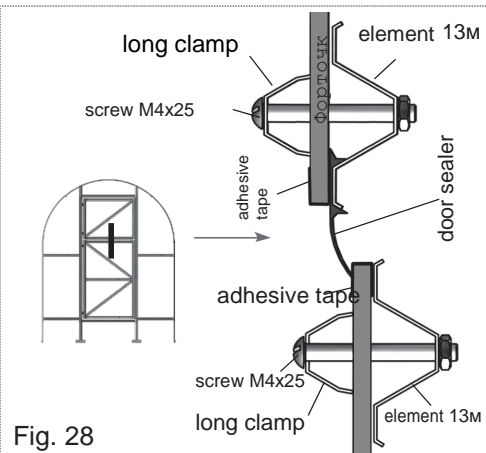


Fig. 28

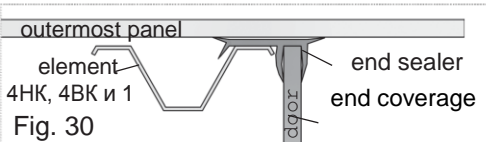


Fig. 30

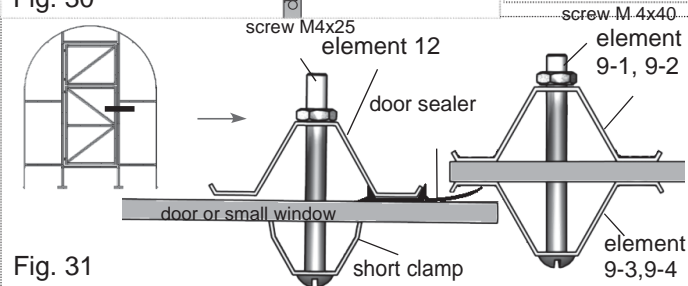
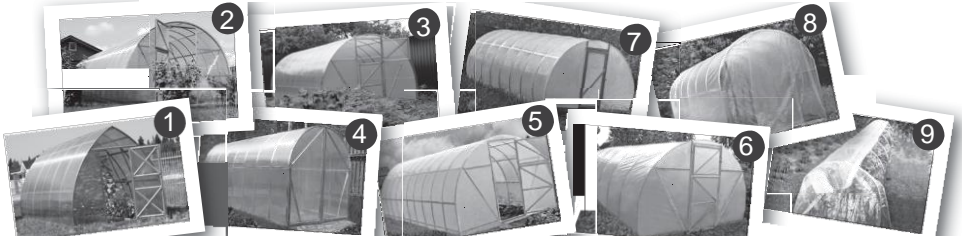


Fig. 31

## FILM AND HONEYCOMB POLYCARBONATE GREENHOUSE PRODUCTION

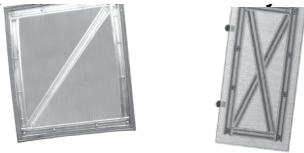


width 2.6 m height 2.5 m length multiple to 2 m width 3.0 m height 2.0 m length 4 m/6 m/8 m width 3.0 m height 2.0 m length 4 m/6 m/8 m width 1.56 m height 1.75 m length 4.2 m

width 3.0 m height 2.0 m length 6.0 m width 3.0 m height 2.0 m length 6.2 m/5.4 m width 2.5 m height 1.75 m length 4.9 m width 1.56 m height 1.75 m length 4.2 m width 1.0 m height 1.15 m length 5.0 m



Name	width, m	height, m	length, m
Ferner - 3.5	3,5	3,2	multiple to 2.10
Ferner - 4.2	4,2	3,2	multiple to 2.10
Ferner - 4.6	4,6	3,0	multiple to 2.10
Ferner - 5.0	5,0	2,9/3,6	multiple to 2.10
Ferner - 7.5	7,5	3,8	multiple to 2.10



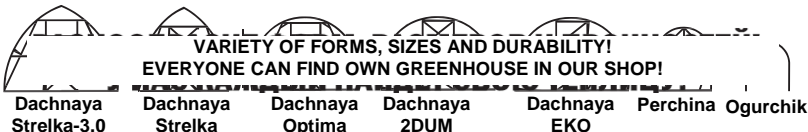
**FITOSVET-L**  
Luminescent lamp for plants



**FITOSVET-D**  
LED lamp for plants  
New!



**Beware of  
forgery!  
Check for:**



**VARIETY OF FORMS, SIZES AND DURABILITY!  
EVERYONE CAN FIND OWN GREENHOUSE IN OUR SHOP!**