

Manual for Greenhouse TITAN Arch 196

03-03-2022





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

The "TITAN Arch 196" greenhouse is designed and manufactured in accordance with SNiP 2.10.04-85 and generally intended for industrial cultivation of crops at farms and peasant holdings.

Width of the greenhouse is 7.46 m. Area of covered ground depends on the length of the greenhouse and for minimal length of 4.2 m is 31.5 m^2 . Height of the installed frame is 3.8 m. Required length of the greenhouse is provided by purchasing of extra packages «Insert» and adds 2.1 m to the base length (table 1). The frame of the greenhouse is made of galvanized iron 1 mm thick and is to be assembled with screws, nuts and washers.

The greenhouse is fixed on the ground without foundation by digging special frame endings or on a fundament using cleater angles. The type of fixing is determined by a buyer. The kit includes everything you need to mount the covering. The greenhouse may be completed with covering on buyer's request. Number of gates, doors, small windows is conformed to a buyer and the complete set of an anteroom is conformed to a buyer.

| Table 1 | able 1 COMPLETION WITH PACKAGES, PCS | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------|------------------|------------------|------------------|---------------------|---------------|---|---|---|---|
| | nse | | | | (ba | F asic le | RAM ength | l E 1 4,2 | m) | | | | (fr | ame ex | NSER tension | T for 2,1 | m) | | | | |
| L greenhouse length, m | N - number of greenho sections, excluding | 1 TITAN Arch 196 Package | 2 TITAN Arch 196 Package | 3 TITAN Arch 196 Package | 4 TITAN Arch 196 Package | 5 TITAN Arch 196 Package | 6 TITAN Arch 196 Package | 7 TITAN Arch 196 Package | 8 TITAN Arch 196 Package | 9 TITAN Arch 196 Package | 10 TITAN Arch 196 Package | EXTRA PACKAGE | 1 INSERt PACKAGE | 2 INSERT PACKAGE | 3 INSERT PACKAGE | 4 INSERT PACKAGE | EXTRA PACKAGE | | | | |
| 4,2 | 0 | | | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | | | | |
| 6,3 | 1 | | | | | | | | | | | | | | | | 1 | 1 | 1 | 1 | 1 |
| 8,5 | 2 | | | | | | | | | | | | 2 | 2 | 2 | 2 | 2 | | | | |
| 10,6 | 3 | | | | | | | | | | | | 3 | 3 | 3 | 3 | 3 | | | | |
| 12,7 | 4 | | | | | | | | | | | | 4 | 4 | 4 | 4 | 4 | | | | |
| 14,9 | 5 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | | | | |
| 17,0 | 6 | | | | | | | | | | | | 6 | 6 | 6 | 6 | 6 | | | | |
| 19,1 | 7 | | | | | | | | | | | | 7 | 7 | 7 | 7 | 7 | | | | |
| 21,2 | 8 | | | | | | | | | | | | 8 | 8 | 8 | 8 | 8 | | | | |
| 23,4 | 9 | | | | | | | | | | | | 9 | 9 | 9 | 9 | 9 | | | | |
| 2,1(N+2) | | | | | | | | | | | | | Ν | Ν | Ν | N | Ν | | | | |

Table 2 COMPLETION WITH TAMBOUR PACKAGES*, PCS

| Package name | quantity | dimensions (mm) | max. allowable |
|-------------------|----------|-----------------|----------------|
| Tambour | 1 | 2700x100x100 | 31 |
| Door | 1 | 1900x100x50 | 14,2 |
| Tambour packaging | 1 | 200x100x50 | 1,3 |
| Door sealing | 1 | 500x300x50 | 1,2 |
| Side wall sealing | 1 | 500x300x50 | 3,1 |

*Completing with one anteroom or more is made at the request of the buyer (purchased separately).

| able 3 PARAMETERS OF PACKAGES | | | | | | |
|--|----------------|-------------------|--|--|--|--|
| content | dimensions,mm | weight,no More,kg | | | | |
| FRAME (BASE LENGT | I 4.2 M) | | | | | |
| 1 PACKAGE TITAN Arch 196 (arc elements) | 3100x200x100 | 15,0 | | | | |
| 2 PACKAGE TITAN Arch 196 (power arc straight elements) | 2800x100x90 | 28,0 | | | | |
| 3 PACKAGE TITAN Arch 196 (end runners elements) | 2000x90x100 | 41,0 | | | | |
| 4 PACKAGE TITAN Arch 196 (end side brace elements) | 2400x90x100 | 23,0 | | | | |
| 5 PACKAGE TITAN Arch 196 (arc elements) | 3100x200x100 | 15,0 | | | | |
| 6 PACKAGE TITAN Arch 196 (end straight elements and strips) | 2800x200x100 | 41,0 | | | | |
| 7 PACKAGE TITAN Arch 196 (end straight elements) | 2800x200x100 | 34,0 | | | | |
| 8 PACKAGE TITAN Arch 196 (elements and strips for doors) | 500x300x100 | 14,0 | | | | |
| 9 PACKAGE TITAN Arch 196 (elements and strips for gates) | 2700x100x90 | 37,0 | | | | |
| 10 PACKAGE TITAN Arch 196 (fixtures, component parts and sea | l) 500x300x100 | 19,5 | | | | |
| EXTRA PACKAGE | | | | | | |
| INSERT (2.1 M FRAME EL | DNGATION) | | | | | |
| 1 PACKAGE INSERT (arc elements) | 3100x200x100 | 15,0 | | | | |
| 2 PACKAGE INSERT (power arc straight elements) | 2800x100x90 | 32,0 | | | | |
| 3 PACKAGE INSERT (runners elements) | 2100x110x90 | 43,0 | | | | |
| 4 PACKAGE INSERT (fixtures and component parts for Insert) | 200x100x50 | 2,0 | | | | |
| EXTRA PACKAGE | | | | | | |

| Table 4 | 4 DETAILED PARTS LIST "FRAME" (4.2 m) | | | | | |
|----------|---------------------------------------|---------------|-------------|--|--|--|
| marking | name | quantity(pcs) | length (m)) | | | |
| | 1 PACKAGE TITAN Arch 196 | | | | | |
| 4 | Arc | 4 | 3,08 | | | |
| | 2 PACKAGE TITAN Arch 196 | | | | | |
| 5н | Bottom arc strainer | 2 | 2,73 | | | |
| 5 | Top arc strainer | 2 | 2,73 | | | |
| 6 | Segment strainer | 3 | 2,58 | | | |
| 7м | Radial strainer 1 | 4 | 0,3 | | | |
| 76 | Radial strainer 2 | 3 | 0,54 | | | |
| 3 | Support | 2 | 0,29 | | | |
| 1 | Foundation stay brace | 2 | 0,84 | | | |
| | 3 PACKAGE TITAN Arch 196 | | | | | |
| 2к | End runner | 13 | 1,99 | | | |
| 2кн | Bottom end runner | 4 | 1,99 | | | |
| | 4 PACKAGE TITAN Arch 196 | | | | | |
| Укос | Longitudinal stiffness side brace | 8 | 2,36 | | | |
| | 5 PACKAGE TITAN Arch 196 | | | | | |
| 4 | Arc | 4 | 3,08 | | | |
| | 6 PACKAGE TITAN Arch 196 | | | | | |
| 11 | Top girder | 2 | 2,7 | | | |
| 15ц | Central vertical member | 1 | 0,6 | | | |
| 15 | Side vertical member | 2 | 0,55 | | | |
| 9 | Stay brace | 4 | 2,7 | | | |
| 10 | Cross bar | 5 | 1,07 | | | |
| 8 | Side brace | 2 | 1,31 | | | |
| 10ц | Central strainer | 1 | 2,72 | | | |
| Π-11 | Strip of a top girder | 1 | 2,67 | | | |
| П-9 | Strip of a gate opening stay brace | 2 | 2,62 | | | |
| П-10 | Strip of a cross bar | 1 | 1,01 | | | |
| П-12-д | Strip of a door opening stay brace | 1 | 1,9 | | | |
| | 7 PACKAGE TITAN Arch 196 | | | | | |
| 5н | Bottom arc strainer | 2 | 2,73 | | | |
| 5 | Arc strainer | 2 | 2,73 | | | |
| 6 | Segment strainer | 1 | 2,58 | | | |
| 7м | Radial strainer 1 | 4 | 0,3 | | | |
| 76 | Radial strainer 2 | 1 | 0,54 | | | |
| 1 | Foundation stay brace | 6 | 0,84 | | | |
| 3 | Support | 6 | 0,29 | | | |
| П-5н | Strip of a bottom arc strainer | 6 | 1,24 | | | |
| | Ridge side brace | 1 | 2,23 | | | |
| | Strip of a ridge side brace | 2 | 0,03 | | | |
| | 8 PACKAGE TITAN Arch 196 | 1 | | | | |
| 13-д | Door cleat | 2 | 0,95 | | | |
| 13-д-н | Door bottom cleat | 1 | 0,95 | | | |
| 12-д-л | Door left stay brace | 1 | 1,88 | | | |
| 12-д-п | Door right stay brace | 1 | 1,88 | | | |
| 14-д | Door diagonal | 2 | 1,23 | | | |
| П-12-д-п | Strip of a door right stay brace | 1 | 1,88 | | | |
| П-13-д-н | Strip of a door bottom cleat | 1 | 0,95 | | | |
| 16к | Guiding bracket | 4 | 0,08 | | | |
| | Hasp | 2 | 0.65 | | | |

| Table 4 | DETAILED PARTS LIST "FRAME" (4.2 m) | | | | | |
|----------|-------------------------------------|---------------|------------|--|--|--|
| marking | name | quantity(pcs) | length (m) | | | |
| | 9 PACKAGE TITAN Arch 196 | | | | | |
| 13-в | Gates cleat | 4 | 1,28 | | | |
| 13-в-н | Gates bottom cleat | 2 | 1,28 | | | |
| 12-в-п | Gates right stay brace | 2 | 2,61 | | | |
| 12-в-л | Gates left stay brace | 2 | 2,60 | | | |
| 16-к | Guiding bracket | 8 | 0,08 | | | |
| 14-в | Hinged gate diagonal | 4 | 1,73 | | | |
| П-12-в-п | Strip of a right stay brace | 2 | 2,61 | | | |
| П-13-в-н | Strip of a bottom cleat | 2 | 1,28 | | | |
| | Hasp | 4 | 0,91 | | | |
| | 10 PACKAGE TITAN Arch 196 | | | | | |
| | Screw M6x10 DIN 965 | 460 | | | | |
| | Bolt M6x14 DIN 933 | 1192 | | | | |
| | Bolt M6x20DIN 933 | 120 | | | | |
| | Nut M6 DIN 934 | 1772 | | | | |
| | Bracket 26x17x16 (angle) | 352 | | | | |
| | Hanger | 18 | | | | |
| | Hinge ПН 1-130 left | 4 | | | | |
| | Hinge ПН 1-130 right | 8 | | | | |
| | Straight lug 40x90 | 8 | | | | |
| | Pull PC-80-2 | 6 | | | | |
| | Self-driving screw M5x20 | 352 | | | | |
| | Washer 6 | 1344 | | | | |
| | Washer 32x6 | 450 | | | | |
| | Penofol | 1 | 21,4 | | | |
| | Door seal | 1 | 35,6 | | | |
| | End seal | 1 | 24 м | | | |
| | EXTRA PACKAGE (BASE) | • | | | | |
| | Ridge | 2 | 2,10 | | | |
| | Top draw band | 3 | 10,91 | | | |
| | Bottom draw band | 6 | 0,60 | | | |
| Ф.ПП.Д | Arc base sheet | 4 | 2,91 | | | |
| Ф.ПП.К | Outermost base sheet for a runner | 4 | 1,95 | | | |
| | Tingle | 24 | 0,09 | | | |
| Ф.ПК | Outermost shape | 4 | 2,10 | | | |
| | Washer 32x6 | 24 | | | | |
| | Bolt M6x14 | 56 | 1 | | | |
| | Bolt M6x20 | 24 | | | | |
| | Bolt M6x60 | 6 | 1 | | | |
| | Nut M6 | 86 | | | | |
| | Washer 6 | 88 | | | | |
| | Double-size scotch tape | 2 | 5м | | | |

| Table 5 DETAILED PARTS LIST "INSERT" | | | | | |
|--|-----------------------------------|---------------|------------|--|--|
| marking | name | quantity(pcs) | length (m) | | |
| | 1 PACKAGE INSERT | | | | |
| 4 | Arc | 4 | 3,08 | | |
| | 2 PACKAGE INSERT | | | | |
| 5н | Bottom arc strainer | 2 | 2,73 | | |
| 5 | Arc strainer | 2 | 2,73 | | |
| 6 | Segment strainer | 3 | 2,58 | | |
| 7м | Radial strainer 1 | 4 | 0,3 | | |
| 76 | Radial strainer 2 | 3 | 0,54 | | |
| П-5н | Strip of a bottom arc strainer | 4 | 1,24 | | |
| 3 | Support | 2 | 0,29 | | |
| 1 | Foundation stay brace | 2 | 0,84 | | |
| | 3 PACKAGE INSERT | | | | |
| 2 | Main runner | 13 | 2,08 | | |
| 2н | Main runner | 4 | 2,08 | | |
| | 4 PACKAGE INSERT | | | | |
| | Screw M6x10 DIN 965 | 52 | | | |
| | Bolt M6x14 DIN 933 | 164 | | | |
| | Bolt M6x20DIN 933 | 40 | | | |
| | Nut M6 DIN 934 | 256 | | | |
| | Washer 6 | 304 | | | |
| | EXTRA PACKAGE INSERT | | | | |
| | Ridge | 1 | 2,10 | | |
| | Top draw band | 1 | 10,91 | | |
| | Bottom draw band | 2 | 0,60 | | |
| Ф.ПП.Д | Arc base sheet | 4 | 2,91 | | |
| Ф.ПП.О | Outermost base sheet for a runner | 2 | 2,04 | | |
| | Tingle | 24 | 0,09 | | |
| Ф.П | Main shape | 2 | 2,10 | | |
| | Washer 32x6 | 12 | | | |
| | Bolt M6x14 | 38 | | | |
| | Bolt M6x20 | 12 | | | |
| | Bolt M6x60 | 2 | | | |
| | Nut M6 | 52 | | | |
| | Washer 6 | 54 | | | |
| | Double-size scotch tape | 1 | 5м | | |

| marking | name | quantity(pcs) | length (n |
|----------|------------------------------------|---------------|-----------|
| | 1 PACKAGE ANTEROOM | | |
| 15 | Side vertical member | 1 | 0,55 |
| 9 | Stay brace | 2 | 2,7 |
| 10 | Cross bar | 2 | 1,07 |
| 8 | Side brace | 1 | 1,31 |
| 1 | Foundation stay brace | 2 | 0,84 |
| 3 | Support | 2 | 0,28 |
| 2кн | Bottom end runner | 5 | 1,99 |
| 10ц-т | Central strainer | 1 | 1,28 |
| П-9 | Strip of a gate opening stay brace | 1 | 1,9 |
| П-10 | Strip of a cross bar | 1 | 1,0 |
| | 2 PACKAGE ANTEROOM | | |
| 13-д | Door cleat | 2 | 0,95 |
| 13-д-н | Strip of a door bottom cleat | 1 | 0,95 |
| 12-д-л | Door left stay brace | 1 | 1,88 |
| 12-д-п | Door right stay brace | 1 | 1,88 |
| 14-д | Door diagonal | 2 | 1,23 |
| П-12-д-п | Strip of a door right stay brace | 1 | 1,88 |
| П-13-д-п | Strip of a door bottom cleat | 1 | 0,95 |
| | Bracket | 4 | 0,84 |
| | Hasp | 2 | 0,65 |
| | Anteroom seal | | |
| | Door seal | 1 | 6м |
| | End seal | 1 | 8 м |
| | Anteroom prepacking | | |
| | Screw M6x10 | 78 | |
| | Bolt M6x14 | 123 | |
| | Bolt M6x20 | 50 | |
| | Nut M6 | 251 | |
| | Bracket 26x17x16 | 97 | |
| | Hanger | 3 | |
| | Hinge ПН 1-130 left | 2 | |
| | Straight lug 40x90 | 2 | |
| | Pull PC-80-2 | 2 | 1 |
| | Self-driving screw | 97 | |
| | Washer 6 | 91 | 1 |

WARRANTY LIABILITIES

1. The manufacturer bears responsibility for the greenhouse frame complete setup. 2. The manufacturer bears responsibility for the greenhouse

assemblability in accordance with the manual.

3. The manufacturer bears responsibility for the greenhouse durability under specified magnitude of atmospheric actions.

4. Claim presentation period is 12 months from the date of purchase.

WARRANTY CONDITIONS

Warranty liabilities do not apply to cases of:

- 1. Greenhouse installation with violation of requirements of the manual.
- 2. Violation of the rules of operation.
- 3. Inappropriate use of the greenhouse.
- 4. Floods, hurricanes and other natural disasters.

The manufacturer reserves the right for greenhouse engineering design changes.

RULES OF OPERATION

It is not allowed to install the greenhouse without fastening on the ground because of the large sail area of the greenhouse and the possibility of floating away the unfastened greenhouse.

The greenhouse should be serviced in the winter period. The greenhouse has durability under the action of snow loads way more than is required for greenhouses, but less for some snow areas in comparison with the general construction standards. According to SNIP 2.10.04-85 «Greenhouses and seedbeds» «weight of snow blanket on 1 m² of horizontal surface of the ground in design of static greenhouses...» should be taken from 10 to 40 kg/m² depending on a snow region. This is much less than the general construction standards for snow load, because it is assumed that on the current greenhouses a snowcap is not preserved until the next snowfall. According to the results of strength tests the limits of durability of the greenhouse frame are revealed: destroying snow load is 196 kg/m², permissible load (with safety coefficient 1.4) – 140 kg/m².

The permissible load approximately corresponds to the thickness of fresh snow 0.9 m and settled snow 0.45 m. Thus, in operation it is necessary to prevent accumulation of snowcaps above specified limits.

If the greenhouse is not heated in winter, or it is supposed to use the greenhouse as an unheated housing, awning, warehouse, etc., it is necessary to control the snowcap (to shift the snow down with a wooden or plastic scraper, installed on a pole). For these variants of operation it is possible to supply reinforced frames with a reduced interval between the power arcs under the snow load specified by the customer.

Do not allow damage to the frame, and if it happened, then hold timely repairs

OPERATION RULES

CLEANING AND WASHING OF THE POLYCARBONATE SHEETS.

1. Rinse the sheet with warm water.

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

3. Rinse with cold water and dry with a soft rag to remove water.



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 (blackening).

INSTALLATION INSTRUCTIONS FOR THE «TITAN Arch 196» GREENHOUSE



Be careful during the assembly! Parts have sharp corners. Beware of cuts! The works shall be carried out in gloves.

INTRODUCTION

1. General view of the frame is shown in Fig.1, with tambour - Fig.1a (tambour is to be purchased separately at the customer's request). The frame is assembled from the shaped numbered parts. Middle flanges of the frame are facing the cladding.

2. Indices:

- м small;
- **6** big;
- ${\bf \kappa}$ end (of the greenhouse length);
- H lower;
- ц center;
- A door;
- B gates;
- **n** right;
- Λ left;
- **Π** band;
- → the arrow indicates the direction of

the installation according to the diagrams in the instructions.





TITAN Arch 196 GREENHOUSE INSTALLATION MANUAL

3. Vocabulary:

Left side - on the left, from the position outside the greenhouse, before the gates. **Right side** - on the right, from the position outside the greenhouse, before the gates.

4. Assembling nodes are marked with letters and shown in figures. The greenhouse assembly is carried out using M6 bolts, nuts, washers, self tappers etc. The joints are performed by the part overlay and with fastening on holes. Bolts, nuts and washers shall be put in all the points specified in the instruction.

5. Assembling the greenhouse is presented in stages, at each stage assembling nodes are shown as «before» and «after.» There are no nuts and washers installed from the inner side of the section shown in node figures.

6. During assembly, be careful not to damage the parts, because until they assembled fully, they do not have sufficient rigidity. Use additional tools for assembly: -wrench 10;

-screwdriver; -drill with a \otimes 6,5 bit; -stepladder height of 3m; -power jigsaw; -knife.

INSTALLATION SEQUENCE

| Stage | Name | page. |
|-------|--|-------|
| 1 | End wall assembly | 13-17 |
| 2 | Installation of runners on the end wall | 17 |
| 3 | Power arc assembly | 18-20 |
| 4 | End section assembly: end section without the anteroom assembly; end section with the anteroom assembly; installation of longitudinal stiffness side braces on the end section. | 21 |
| 5 | End section installation | 22 |
| 6 | Extension of the frame length by the insert | 23 |
| 7 | Second side wall section assembly | 23 |
| 8 | Attaching the second end section to the frame | 23 |
| 9 | Doors and gates assembly | 24-26 |
| 10 | Installation of the cladding and sealing | 27-35 |

GENERAL VIEW OF THE GREENHOUSE FRAME WITH EXTENDING INSERTS

Fig. 1



GENERAL VIEW OF THE GREENHOUSE FRAME WITH EXTENDING INSERTS





Fig. 1a

ONE «INSERT» extends the greenhouse by 2.13 m. Number of the inserts for the greenhouse is not limited.

GENERAL VIEW OF THE GREENHOUSE FRAME WITH THE ANTEROOM



Fig. 16 General view with the anteroom





INSTALLATION SEQUENCE





Foundation stay braces **1** μ supports **3** are connected **1** align the side flanges of shapes (**fig.1.7 view C**).







Fig. 1.6



bolt M6x14

INSTALLATION SEQUENCE





Fig. 1.7 General view of the end wall



INSTALLATION SEQUENCE



STAGE 3 Assembly of the power arc

Assembly of the power arc is carried out in a horizontal plane similar to the assembly of the end wall

(fig. 3.1-3.5).



fig. 3.1



fig. 3.2











INSTALLATION SEQUENCE F 6 ,5н П-5н G fig. 3.3 Н bolt M6x14 5н bolt M6x14 washer 6 Κ asher 6 bolt M6x14

INSTALLATION SEQUENCE



INSTALLATION SEQUENCE

STAGE 4

End section assembly without the anteroom.

Assembly is carried out according to the **fig.4.1**. The assembled power arc (60 kg) is brought to the end wall with the installed runners, is raised to the height of the end runners and joined with their upper ends. It is recommended to connect the outermost and middle runners first.

End section assembly with the anteroom.

Connection the power arc with the anteroom to the end runners **2k** and **2kH** (fig.4.2.)

Installation of longitudinal stiffness side braces.

Installation is carried out in the same way for variants with or without the anteroom.



INSTALLATION SEQUENCE

fig. 5.1

STAGE 5

End section installation

In the variant of installation of the greenhouse without a foundation, marking of axes is made on the ground in accordance with **fig. 5.1** and holes 70 cm deep are dug for foundation stay braces with supports.

In the variant of installation of the greenhouse on a foundation in accordance with fig. 5.1, cleater angles are mounted to the foundation for the subsequent fastening on them bottom ends of arcs in accordance with fig. 5.2 without foundation stay braces.

The end section (weight is about 200 kg) is lifted and placed in a vertical position on a prepared place.



A

13

INSTALLATION SEQUENCE

connect the outermost

and middle runners first.

Next power arc is joined

to the power arc that has

already been connected,

and so on all the arcs are

using a stepladder.

alternatively joined

STAGE 6

Extension of the frame length.

Assembled power arc is brought to the assembled end section at the distance of the main runner and joined to it with the use of main runners 2 and 2H align the side flanges of shapes (fig. 6).

It is recommended to



STAGE 7

The second end section assembly.

Assembly of the second end section is carried out similar to the assembly of the first end section. If the

greenhouse is assembled installed without inserts (L-4,2m), when the end wall is in vertical runners and longitudinal position similar to Fig.6.1 stiffness side braces are

STAGE 8

Connecting of the second end section to the frame.

section is brought to the frame at the distance of the main runners and is with the help of them.

Assembled second end It is recommended to connect the outermost and middle runners first, using a stepladder. Lines connected to the frame of runners are leveled and foundation stay braces

are covered 24 with earth. The earth is compacted. If it is necessary. aligning is repeated.

2н

DOORS AND GATES ASSEMBLY

12

STAGE 9

Doors and gates assembly. Doors and gates assembly is carried out in the same way. Units are shown in figures.

Fig. 9.1

13



DOORS AND GATES ASSEMBLY



STAGE 10 Installation of covering

Install covering after fixing the frame on the ground. It is better to cut the sheets using a fret saw or a fine-pitch arm saw.



Install honeycomb polycarbonate with a specified side facing outwards (sunward); this side has a covering layer (make sure to clarify it on buying or prior to installation). Covering layer is usually placed on the side with notations on the shipping film. The film is transparent on the opposite side of a sheet. After marking the sheet but prior to cutting it, mark the side with the covering layer on each piece of the sheet: when the shipping film is removed sheet sides look the same. Shipping film shall be removed from the both sides immediately before fastening covering on the frame.









CUT POLYCARBONATE SHEET IN STRICT ADHERENCE

CUTTING LIST FOR THE ANTEROOM

29



FASTENING OF COVERING



FASTENING OF COVERING



FASTENING OF COVERING



FASTENING OF COVERING



(\mathbf{R}) DANCOVER

Contact information

Austria



Estonia



Ireland



Nederland



Spain



Belgium





France

Croatia



Denmark







Latvia



Poland





Lithuania

Portugal



UK



Sweden

Switzerland





For more information please visit: www.dancovershop.com



Italy



