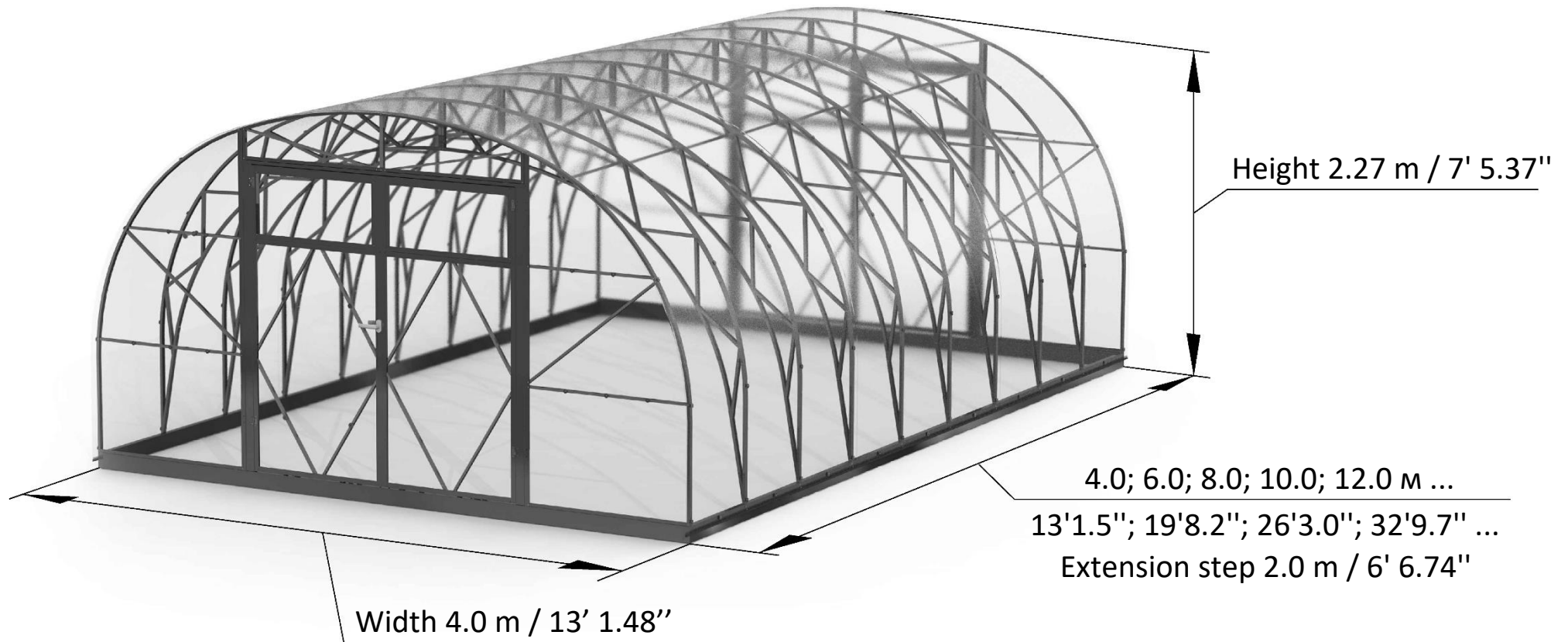


ES 4.0 DD GREENHOUSES

RANGE INSTALLATION MANUAL



Dear Customer,
Thank you for choosing Ecoslider Greenhouses!

Description:

Ecoslider Greenhouses are designed to create a microclimate favorable for plant growth.

The length of the greenhouse can vary depending on the buyer's preference. The desired length of the greenhouse is achieved by purchasing additional extension kits. Each extension kit extends the basic length of the greenhouse by 2.0 (6' 6.74") meters. The length of the basic kit is 4.0 (13' 1.5") meters. The installed frame height of the greenhouse is 2.19 (7' 2.22") meters.

The greenhouse frame is made of galvanized steel profile with a high zinc content, ensuring high strength, reliability, and protection against external factors. The greenhouse is covered with cellular polycarbonate from leading European manufacturers, providing high strength, excellent thermal insulation properties, protection against ultraviolet radiation, and high natural transparency.

Goods acceptance:

Upon receiving the goods, please check the number of boxes you are supposed to receive. If you find any damage to the boxes, please note this on the transport document. Check for any damage to the parts in these boxes. Contact customer support at +(372) 528-4100 or email us at info@ecoslider.com. Photos will help us identify the parts and assess their degree of damage. Please inform us of any issues before starting installation within the shortest possible time (3 days after receiving the goods) to avoid warranty complications.

Minor scratches and paint abrasions on the visible surface of the metal parts of the greenhouse are allowed.

On the polycarbonate sheets, punctures, creases (defects resulting from sharp bending), and dents (damage in the form of a depression with sharp edges) are not allowed.

Should you have any further inquiries or require assistance, please do not hesitate to contact us.



Operating rules:

- Before starting to use the greenhouse, it must be assembled and installed according to the instructions. When installing the greenhouse by third parties, the buyer should ensure the quality of assembly compliance with the instructions.
- Do not install the greenhouse close to buildings and trees from which snow or ice can fall. The recommended distance is at least 2 meters away from such structures or trees.
- The greenhouse is rated to withstand winds of 38 m/s (137 km/h), but the warranty applies to a maximum of 21 m/s (76 km/h).
- Do not leave the greenhouse door open unattended during strong winds.
- If the greenhouse will be unattended for the entire winter, the buyer must either assess the possible snow load or remove snow from the roof.

Warranties:

- The general warranty for our greenhouses, including movable elements such as doors, windows, locks, hinges, etc., is 2 years.
- Manufacturer's warranty for polycarbonate - 10 years.
- Warranty for galvanized trusses - 10 years.
- The manufacturer is responsible for the completeness of the kit.
- The manufacturer is responsible for the ease of assembly of the structure according to the instructions.
- The manufacturer is responsible for the structural strength within the specified operating rules.

Our warranty does not cover instances of:

- Improper installation contrary to instruction requirements.
- Breach of operating guidelines.
- Misuse of the greenhouse for unintended purposes.
- Unauthorized modifications to the greenhouse structure.
- Deformation due to exceeding snow load capacities.
- Structural damage resulting from ground movement.

Оглавление

Complete set	4
Contents	6
1. Support frame assembly	8
2. End Walls assembly	10
3. Trusses assembly and installation	11
4. Installation of the polycarbonate panels	13
5. End walls installation	15
6. Final installation	16

Additions:

1. Installation of manual smartventor opener
2. Installation of automatic smartventor opener
3. Installation of hatch
4. Installation of manual window opener
5. Installation of automatic window opener

Tools



Assembly and installation recommendations

Please read the instructions carefully before assembling.

Follow the steps indicated in the instructions. Final assembly and Installation must be performed by at least two people.

Safety:

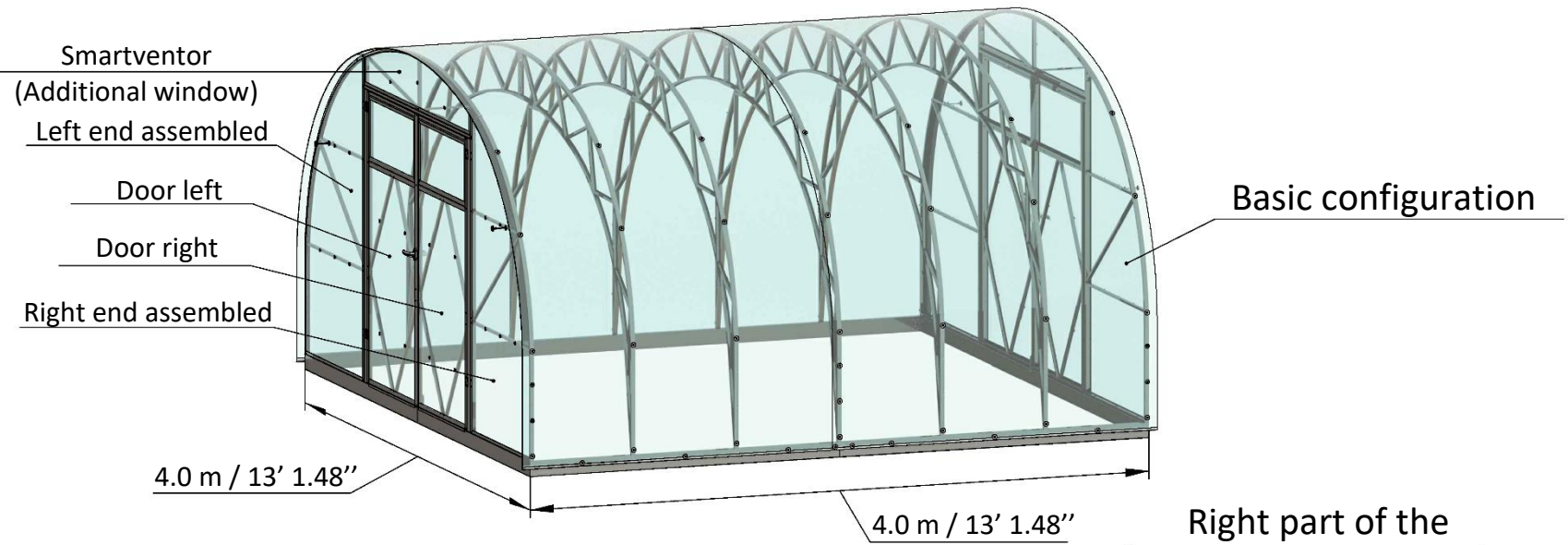
- Some parts may have sharp edges. Be careful when working with them. Use gloves.
- Installation of the greenhouses should be done within one day.
- When using ladder and electrical appliances, follow the manufacturer's safety instructions.
- Do not install the greenhouse when the wind is more, then 4÷5 m/s or when it is raining.

Assembly:

- Select a flat surface to assemble the greenhouse components.
- Polycarbonate sheets must be installed with the **UV** protected side, facing out.
- Prior to installation of polycarbonate, remove the protective film from both sides of the sheets.
- If there is a protective film on metal parts, remove the film.
- If there is a protective film on the metal parts of greenhouse, remove it.
- When fastening polycarbonate sheets with screws and nuts, do not apply great effort to avoid leaving dents.
- Secure the greenhouse to a solid leveled surface to ensure proper functioning.

Equipment			Quantity, pcs.							Note
			(BASE)	Number of extensions in the greenhouse						
			0	1	2	3	4	...	N	
Name	Qty (BASE)	Col. 1 extend	ES 4.0 DD / 13' 1.48'' greenhouse length range, m/ft							
			4.0	6.0	8.0	10.0	12.0	...	4.0+(2.4*N)	
Details										
Left Part Assembled	2	0	2	2	2	2	2		2	End walls assembly
Right Part Assembled	2	0	2	2	2	2	2		2	End walls assembly
Pillar	2	0	2	2	2	2	2		2	End walls assembly
Pillar_R	2	0	2	2	2	2	2		2	End walls assembly
Smartventor	2	0	2	2	2	2	2		2	End walls assembly
Door Left	2	0	2	2	2	2	2		2	End walls assembly
Door Right	2	0	2	2	2	2	2		2	End walls assembly
Truss	10	6	10	16	22	28	34		10+6N	Trusses assembly
Plank	5	3	5	8	11	14	17		5+6N	Trusses assembly
FL2end	4	0	4	4	4	4	4		4	Base frame
FL2ext	0	2	0	2	4	6	8		2N	Base frame
FT2	4	0	4	4	4	4	4		4	Base frame
INS	4	2	4	6	8	10	12		4+2N	Base frame
4T6	2	0	2	2	2	2	2		2	End walls assembly
4T9	2	0	2	2	2	2	2		2	End walls assembly
L_55x70	4	0	4	4	4	4	4		4	Base frame
L_40x90	8	2	8	10	12	14	16		8+2N	Base frame
Fastening fittings	8	2	8	10	12	14	16		8+2N	Base frame
DV12 (Lock cover)	2	0	2	2	2	2	2		2	Doors
Polycarbonate panels										
Polycarbonate panel 2100x7000	2	1	2	3	4	5	6		2+N	Walls installation
Accessories										
Door Handle	4	0	4	4	4	4	4		4	Doors
Door Lock	2	0	2	2	2	2	2		2	Doors
Square	2	0	2	2	2	2	2		2	Doors
Lock screw M5x35	4	0	4	4	4	4	4		4	Doors
Magnet assembly (M)	4	0	4	4	4	4	4		4	Final assembly
U-profile (2100 mm)	4	2	4	6	8	10	12		4+2N	Walls installation
Protective Tape (PT), m	8.4	4.2	8.4	12.6	16.8	21.0	25.2		8.4+4.2N	Walls installation
Rubber seal, 8.4 m	1	0	1	1	1	1	1		1	Final assembly
Fasteners										
Screw 4.2x19 DIN 7504	346	84	346	430	514	598	682		346+84N	Total
Screw 4.2x25 DIN 7504	16	16	16	32	48	64	80		16+16N	Walls installation
Bolt M6x16 DIN 912	10	6	10	16	22	28	34		10+6N	Trusses assembly
Butterfly nut M6 DIN 315	10	6	10	16	22	28	34		10+6N	Trusses assembly
Washer 25x6.5x1.25 DIN 522	112	50	112	162	212	262	312		112+50N	Total
Plastic washer 24x8.4x2 DIN 9021	4	0	4	4	4	4	4		4	End walls assembly

N – number of standard extensions (2.0 m / 6' 6.74")
in addition to the base length of the greenhouse.
Base length – 4.0 m /13' 1.48".

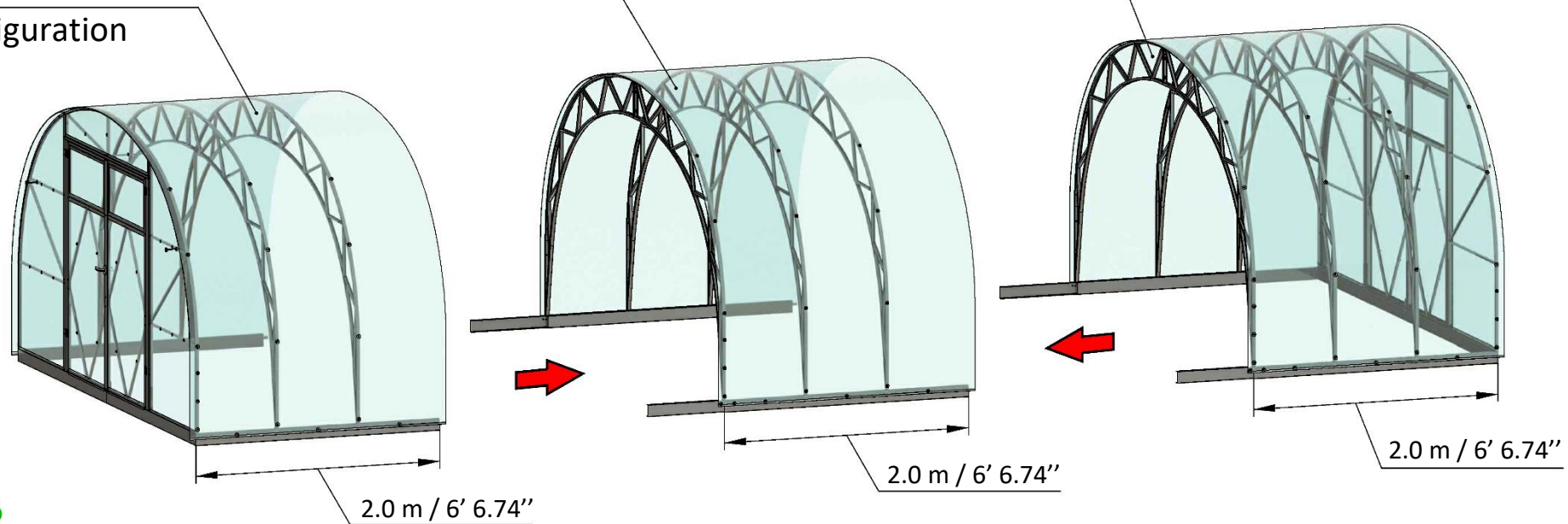


Basic configuration

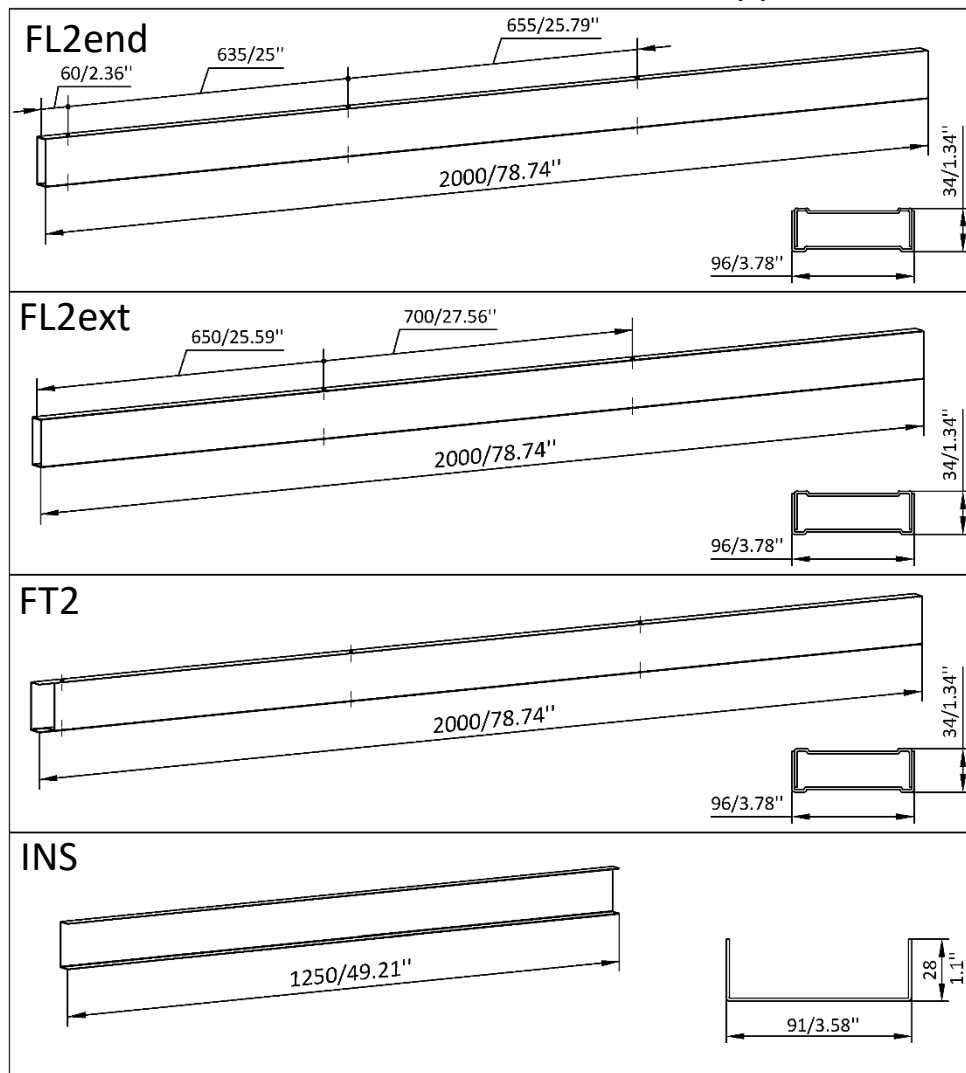
Right part of the basic configuration

Left part of the basic configuration

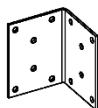
Greenhouse extension



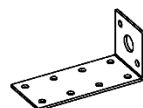
Support frame



L_55x70



L_40x90

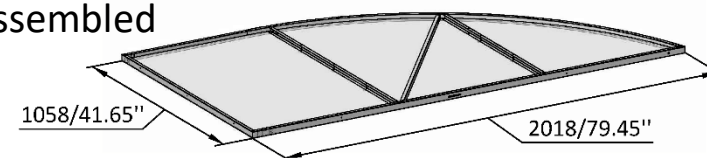


Fastening fittings

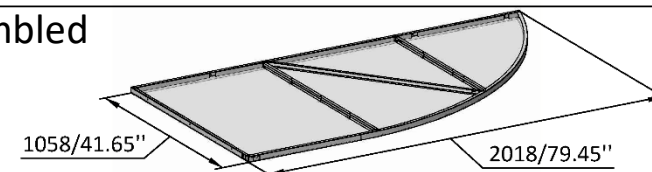


End

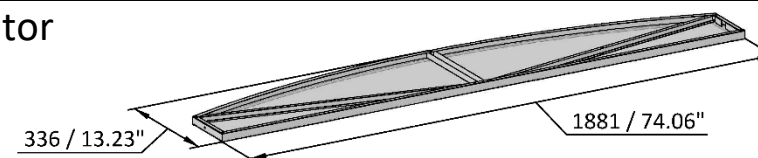
Right Part Assembled



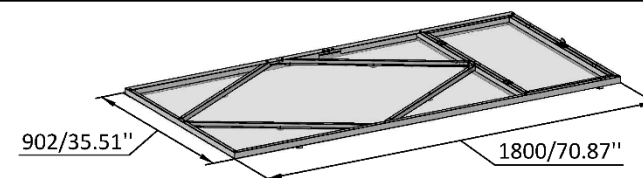
Left Part Assembled



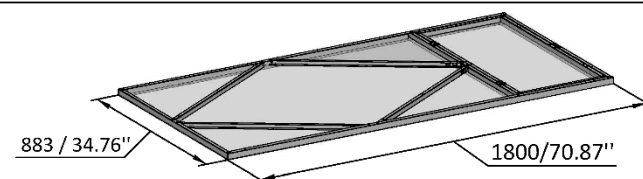
Smartventor



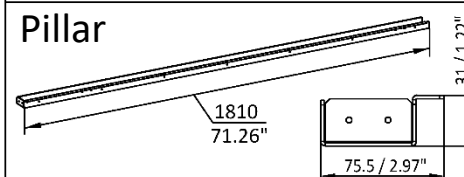
Door Left



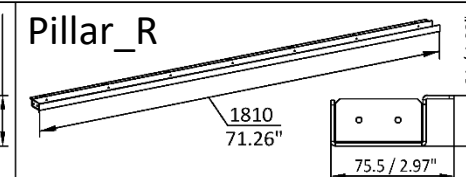
Door Right



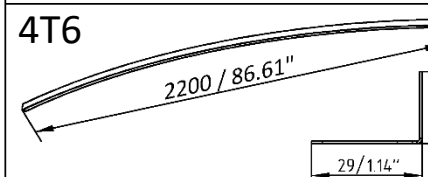
Pillar



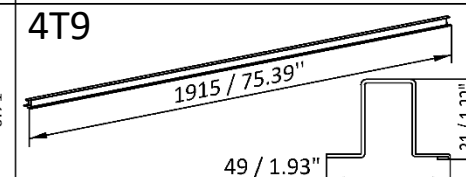
Pillar_R



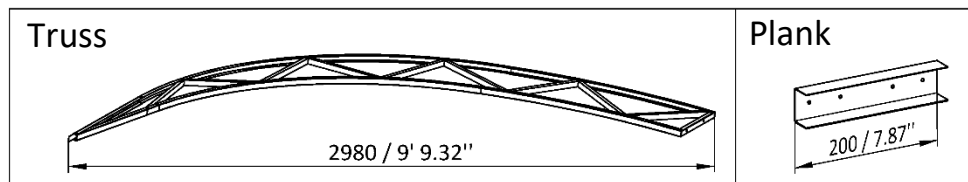
4T6



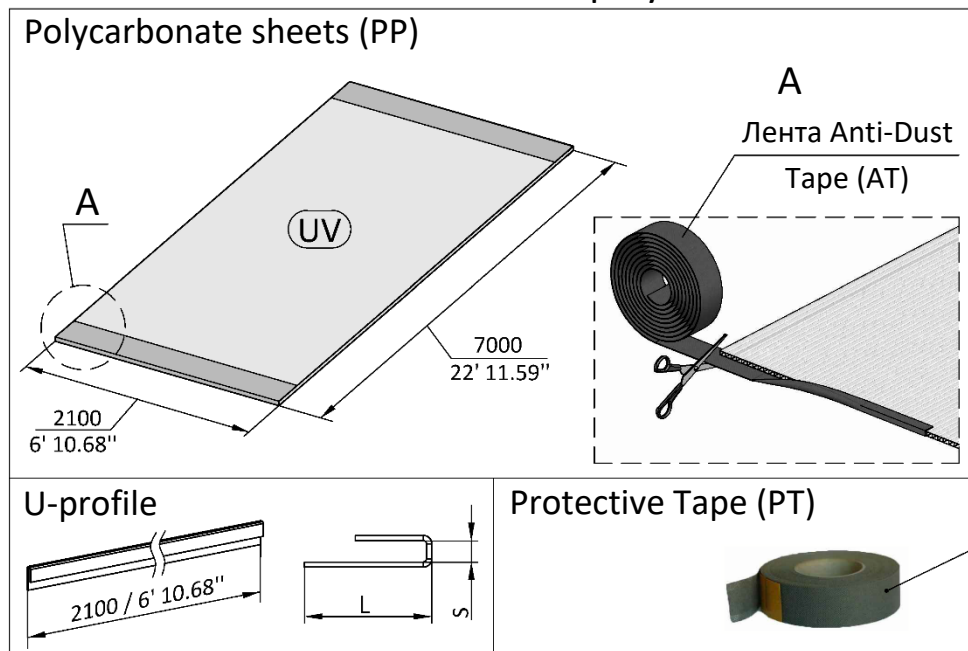
4T9



Trusses



Cellular polycarbonate sheets

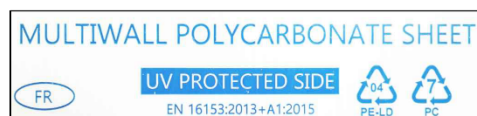


UV

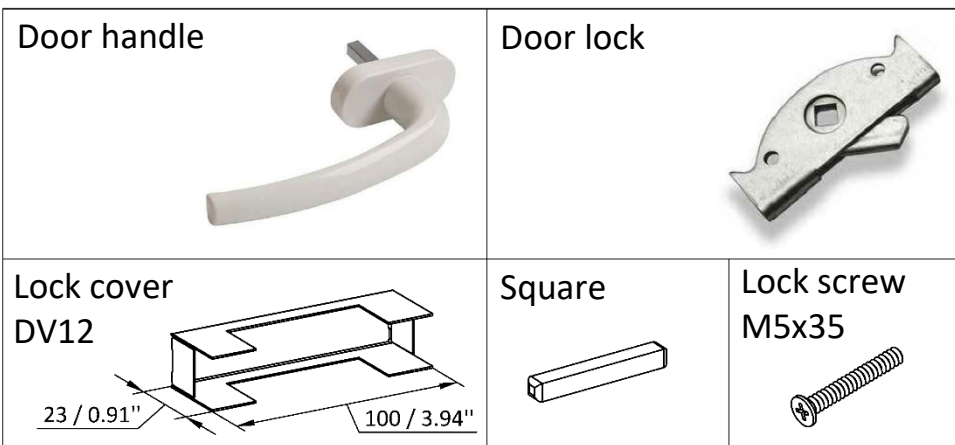
UV protected side (covered with white film)
facing outwards during installation

UV

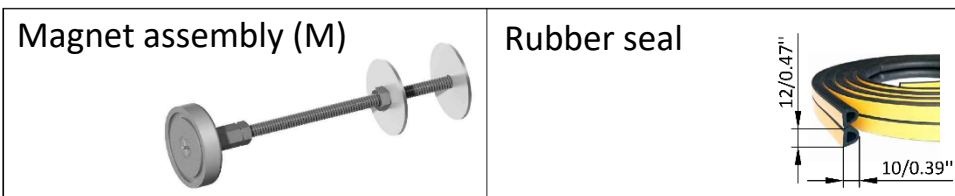
side without UV protection



Installation of handles and lock



Accessories



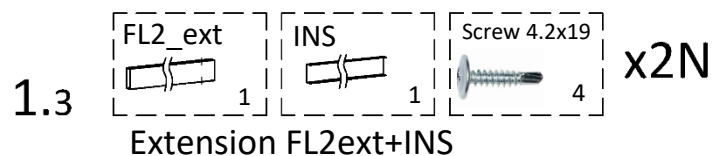
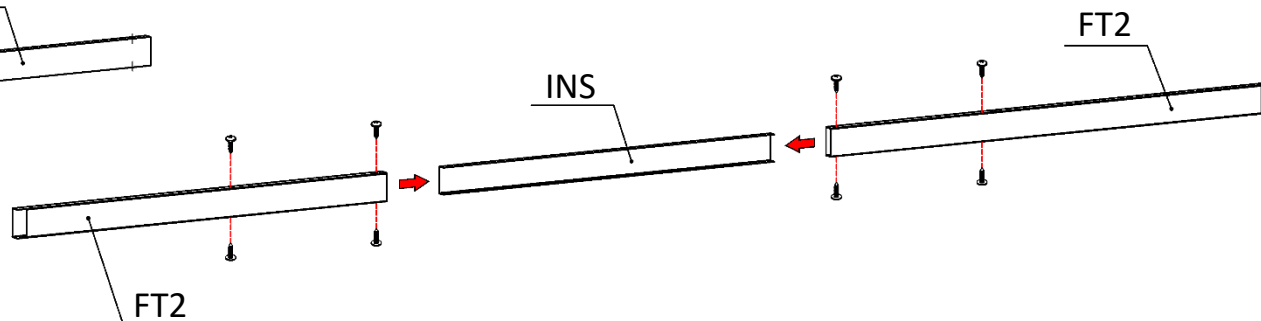
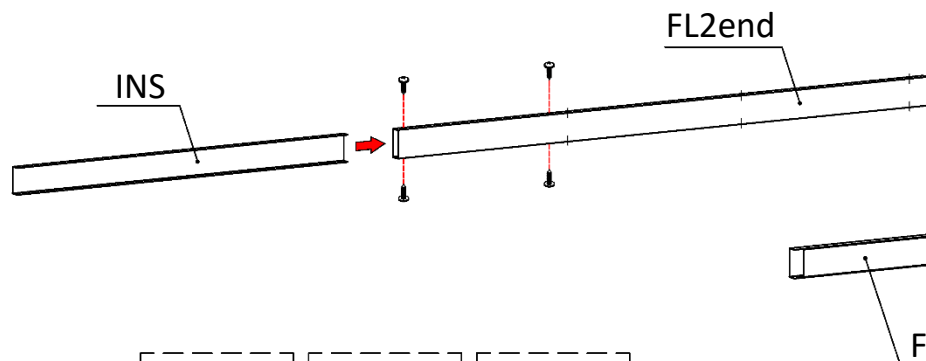
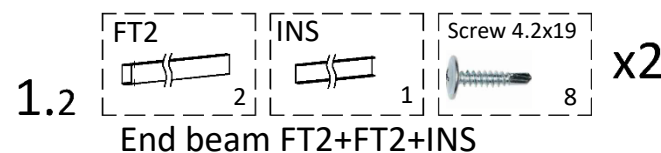
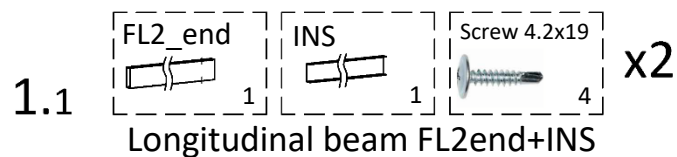
Protective Tape (PT)

- Protects PC against dust, dirt, insects.
- Allows condensation to escape.
- Prevents fungus formation.

Fasteners

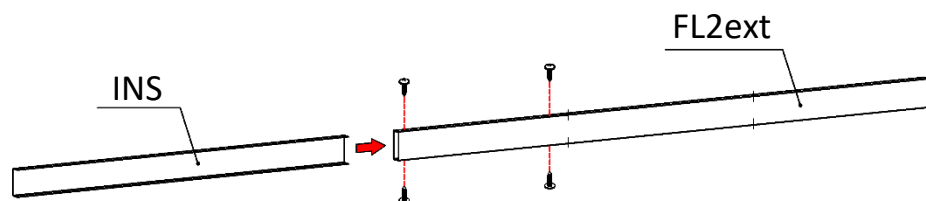


Before installation, remove the film from both sides of the polycarbonate sheet



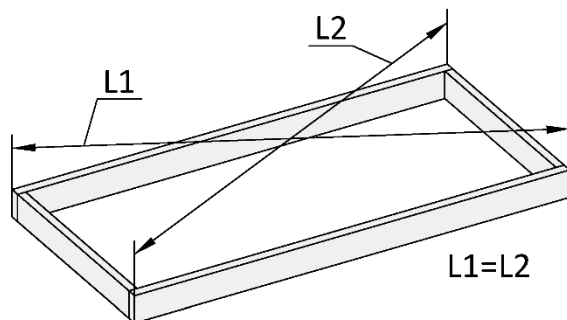
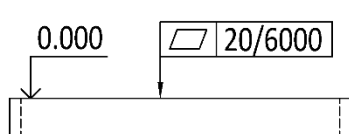
Assembly order:

1. Find a flat surface to assemble the support frame and begin assembly.
2. Assemble the longitudinal and end parts of the support frame according to the specifications outlined in paragraphs 1.1, 1.2 and 1.3.
3. Lay out the longitudinal and end parts of the support frame as shown in Figure A on page 9.
4. Check the equality of the diagonals L1 and L2 of your support frame. $L1 = L2$ (Figure D).
5. Use a level to verify the horizontal alignment of the support frame. The deviation from the horizontal position should not exceed 20 mm over a 6 m length. This ensures proper installation of polycarbonate panels.
6. Connect the longitudinal parts of the support frame using self-tapping screws, as illustrated in Figure A.
7. Secure the longitudinal and end parts of the support frame using corner brackets (55x70) at four locations.
8. Install 40x90 brackets on the outer sides of the support frame. For secure fastening, insert the reinforcement into the hole in the 40x90 bracket and drive it into the ground at a 45-degree angle. The approximate locations of the brackets are shown in Figure A. If the installation is on a solid foundation (e.g., concrete), secure the 40x90 bracket on the inside using appropriate fasteners.
9. It is recommended to attach the support frame after the greenhouse is completely assembled.



D

Support frame installation requirements



L_55x70



4

L_40x90



See table

Fastening fittings



See table

Screw 4.2x19



See table

Bracket L_40x90

Fastening fittings

1. Support frame assembly

A

Extension

FL2ext+INS

FL2end+INS

FT2+FT2+INS

End beam

FL2end+INS

Screw 4.2x19

FL2ext+INS

2000 / 6' 6.74"

FT2+FT2+INS

End beam

FL2end

FL2end

2000 / 6' 6.74"

B

B

C

Bracket L_55x70

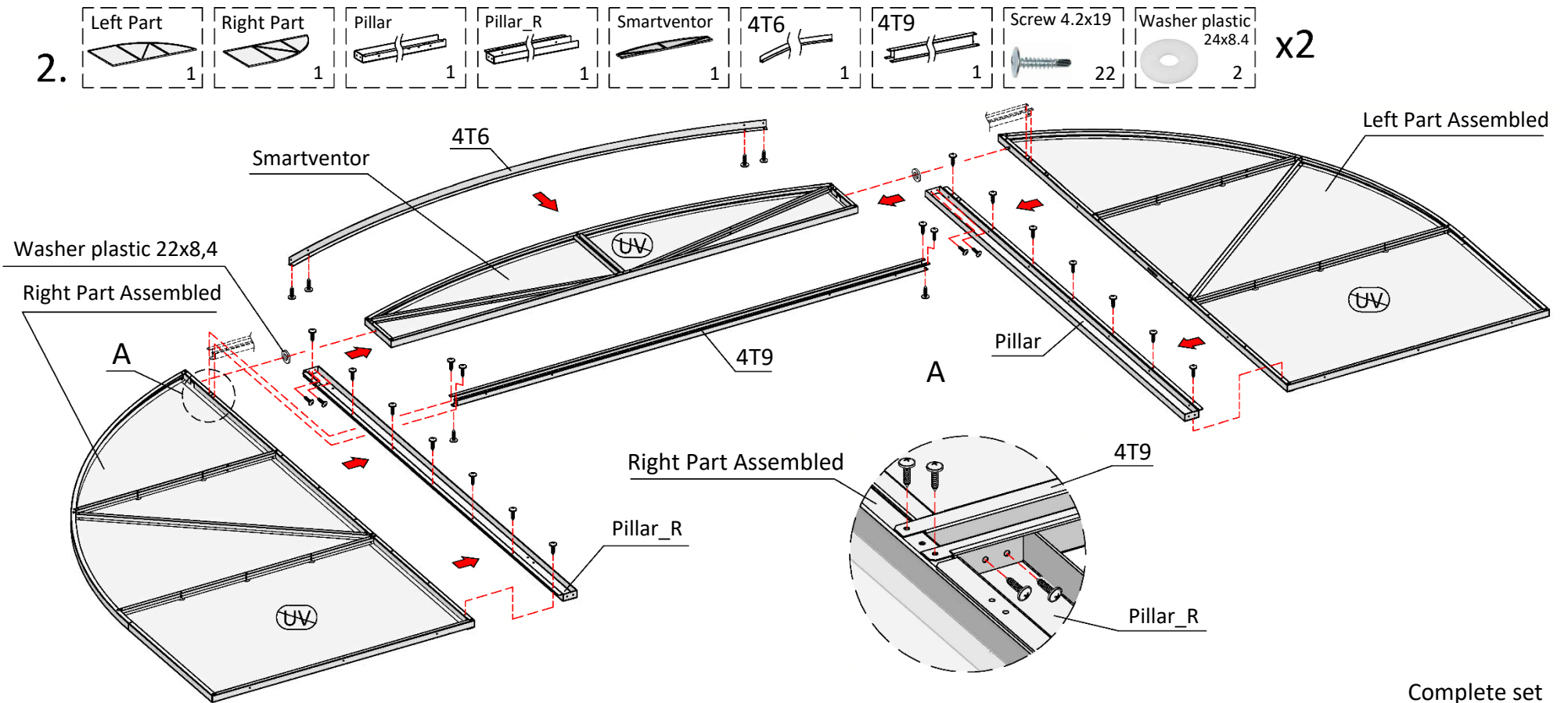
Screw 4.2x19

Screw 4.2x19

Complete set

Support frame			ES 4.0 DD / 13' 1.48" greenhouse length range, m/ft						
			4.0	6.0	8.0	10.0	12.0	...	4.0+(2.0*N)
			13' 1.5"	19' 8.2"	26' 2.3"	32' 9.7"	39' 4.4"	...	13' 1.5"+6' 6.7"+N
			(BASE)	Number of extensions in the greenhouse					
			0	1	2	3	4	...	N
Name	Qty (BASE)	Col. 1 extend	Quantity, pcs.						
FL2end	4	0	4	4	4	4	4		4
FL2ext	0	2	0	2	4	6	8		2N
FT2	4	0	4	4	4	4	4		4
INS	4	2	4	6	8	10	12		4+2N
Bracket L_55x70	4	0	4	4	4	4	4		4
Bracket L_40x90	8	2	8	10	12	14	16		8+2N
Fastening fittings	8	2	8	10	12	14	16		8+2N
Screw 4.2x19 DIN 7504	144	32	144	176	208	240	272		144+32N





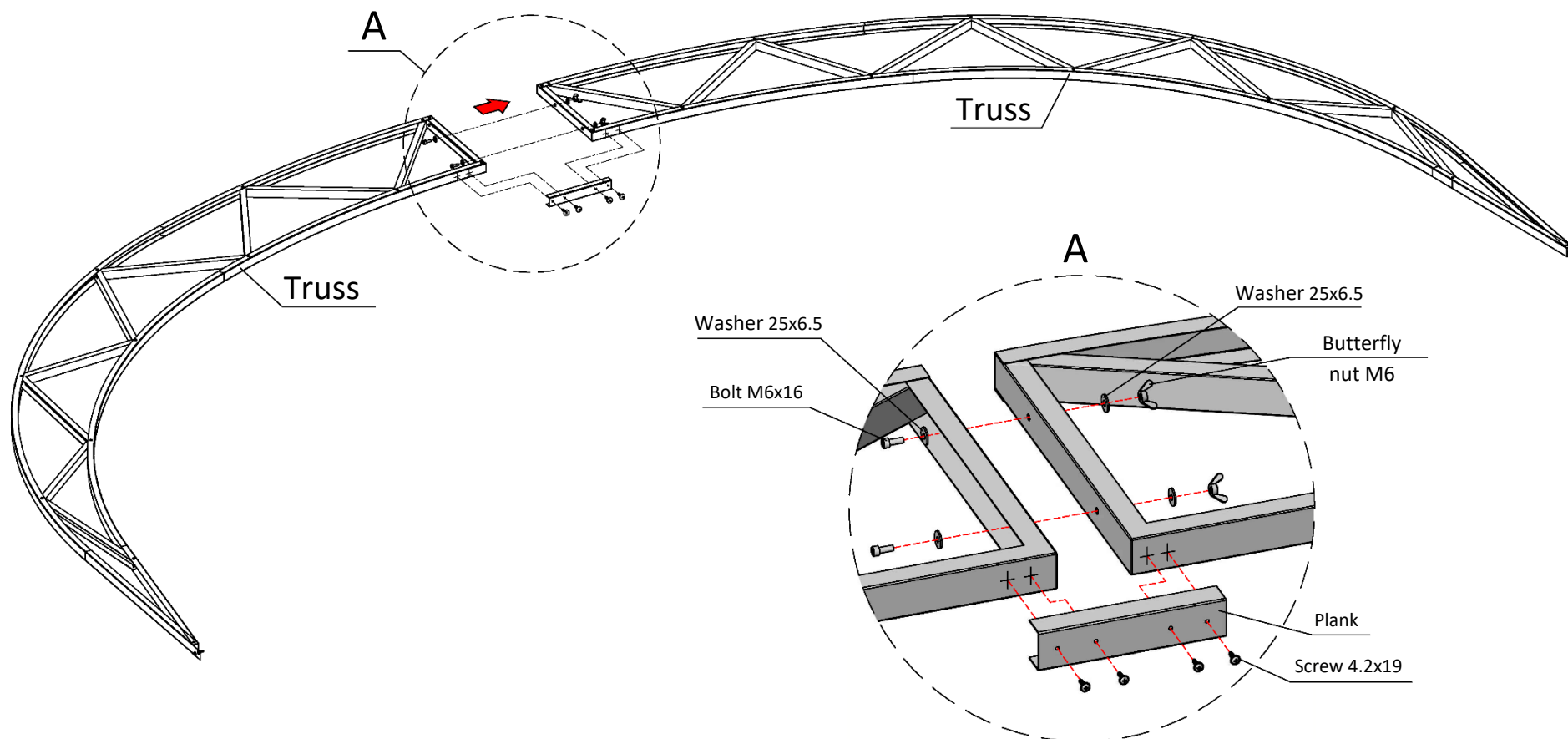
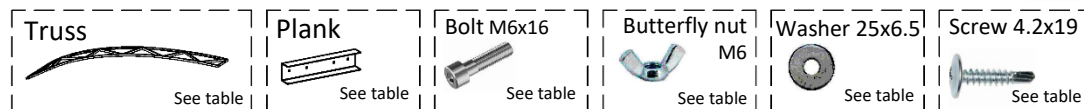
Assembly order:

1. Find a flat surface to assemble the ends on and begin assembling.
2. **IMPORTANT!!!** Polycarbonate sheets should be installed with the UV protection side facing out.
3. Connect Left Part Assembled and Pillar, Right Part Assembled and Pillar_R, using the screws.
4. Assemble the right and left ends with the Smartventor. To do this, place 22x8.4 plastic washers on the pins at the ends and align them with the holes in the Smartventor.
5. Install the 4T6 and 4T9 profiles. To do this, place details on the ends, align the holes, and secure profiles to the ends, as shown in the figure.
6. The Smartventor should rotate freely without jamming.
7. At this stage, it is recommended to install a Smartventor opening mechanism, manual or automatic, to avoid spontaneous opening during installation. For installation, see appendices to instructions 1 and 2.

Complete set

End assembly		
Name	Qty (BASE)	Col. 1 extend
Left Part Assembled	2	0
Right Part Assembled	2	0
Smartventor	2	0
Pillar	2	0
Pillar_R	2	0
4T6	2	0
4T9	2	0
Screw 4.2x19 DIN 7504	56	0
Washer plastic 24x8.4x2	4	0

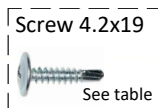
3.1



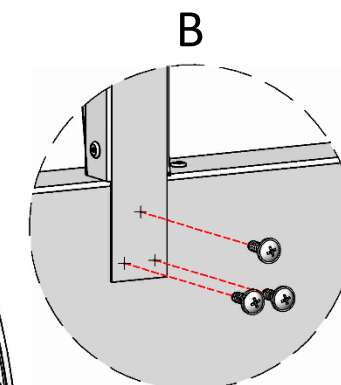
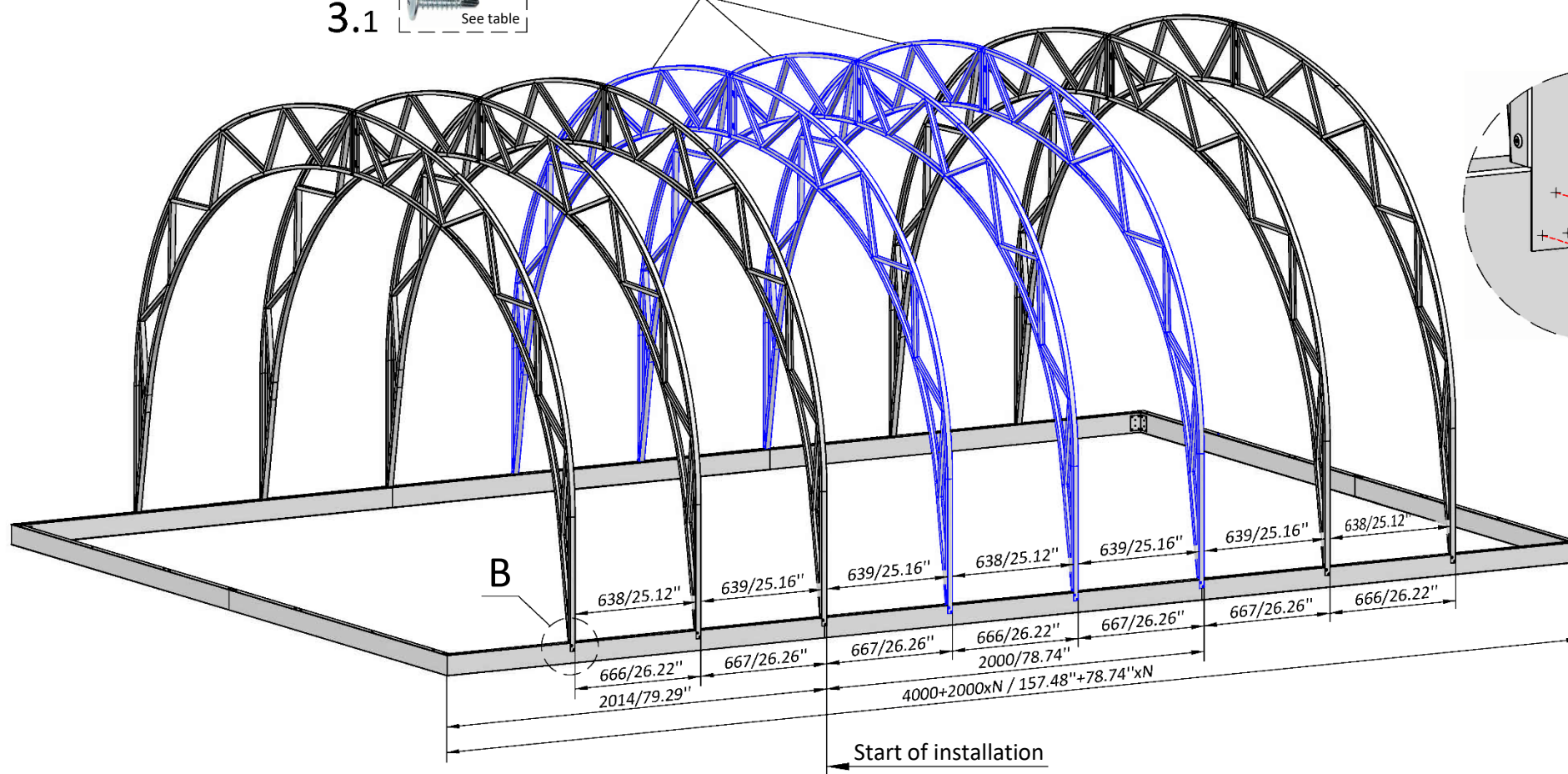
Assembly order:

1. Lay out the top and sides on a horizontal surface of sufficient size.
2. Using M6x16 bolts, 25x6.5 washers and M6 butterfly nuts, assemble the top and side parts together as shown in Figure A.
3. Install the "Plank" part in the middle of the joint between the trusses using screw 2,4x19 (Fig. A).

3.1



Extension



Assembly order (continued):

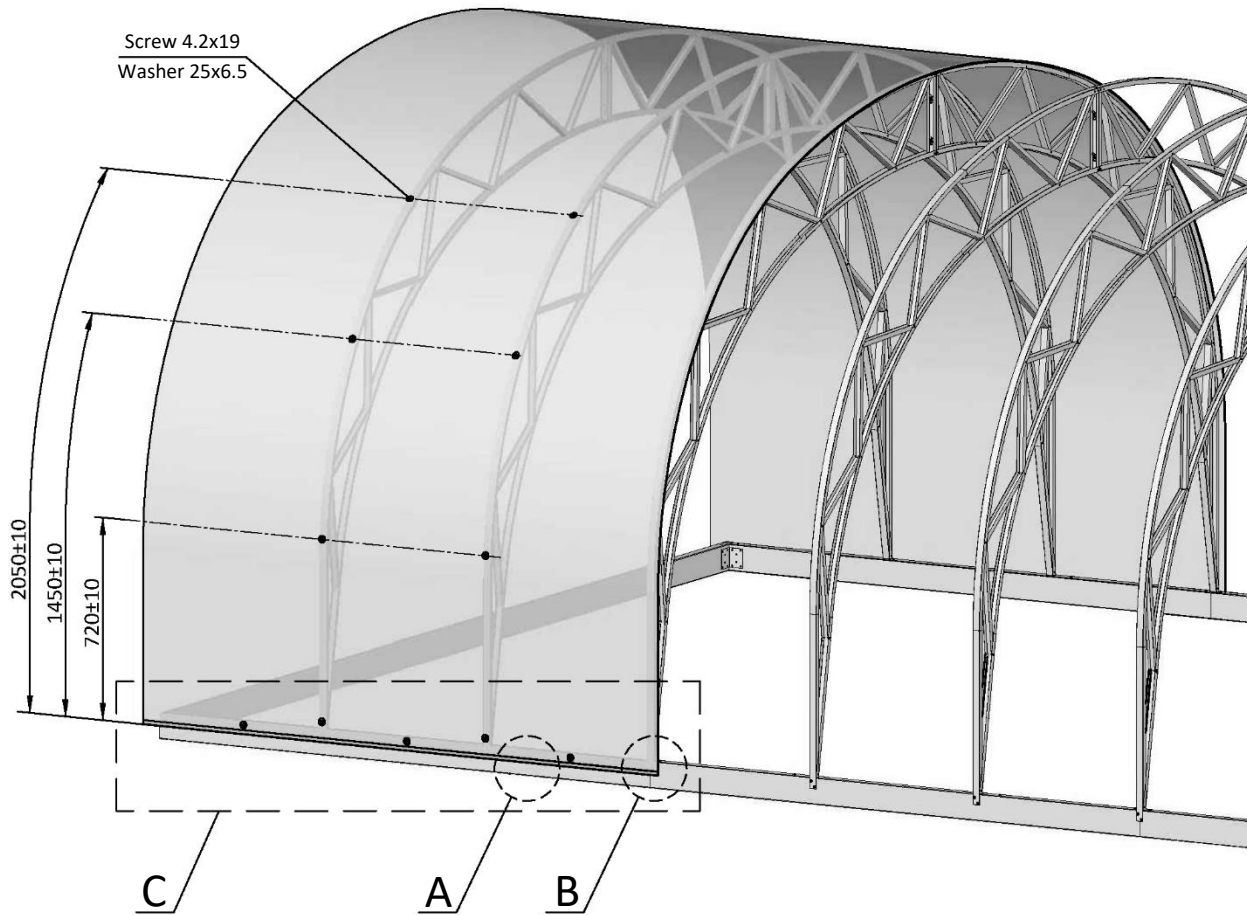
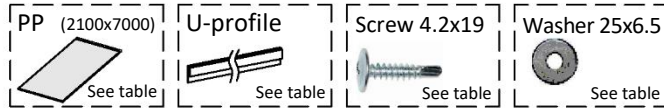
4. Install the trusses on the support frame, using the markings the shown in the figure, and secure the trusses to the frame using 4.2x19 self-tapping screws (Figure B).

Complete set

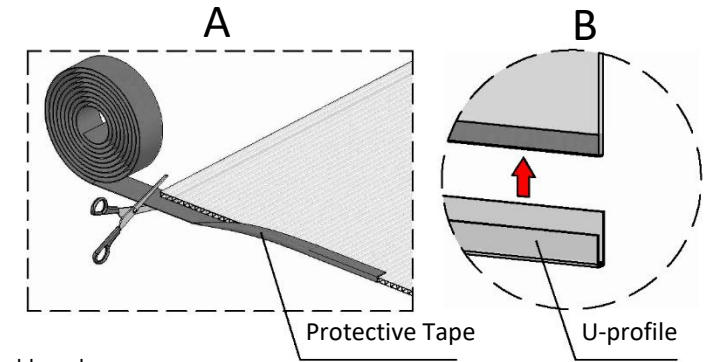
Trusses assembly and installation			ES 4.0 DD / 13' 1.48" greenhouse length range, m/ft						
			4.0	6.0	8.0	10.0	12.0	...	4.0+(2.0*N)
			13' 1.5"	19' 8.2"	26' 2.3"	32' 9.7"	39' 4.4"		13' 1.5"+6' 6.7"*N
			(BASE)	Number of extensions in the greenhouse					
			0	1	2	3	4	...	N
Name	Qty (BASE)	Col. 1 extend	Quantity, pcs.						
Truss	10	6	10	16	22	28	34		10+6N
Plank	5	3	5	8	11	14	17		5+3N
Screw 4.2x19 DIN 7504	50	30	50	80	110	140	170		50+30N
Bolt M6x16 DIN 912	10	6	10	16	22	28	34		10+6N
Butterfly nut M6 DIN 315	10	6	10	16	22	28	34		10+6N
Washer 25x8.5 DIN 522	20	12	20	32	44	56	68		20+12N



4.1



4. Installation of the polycarbonate panels

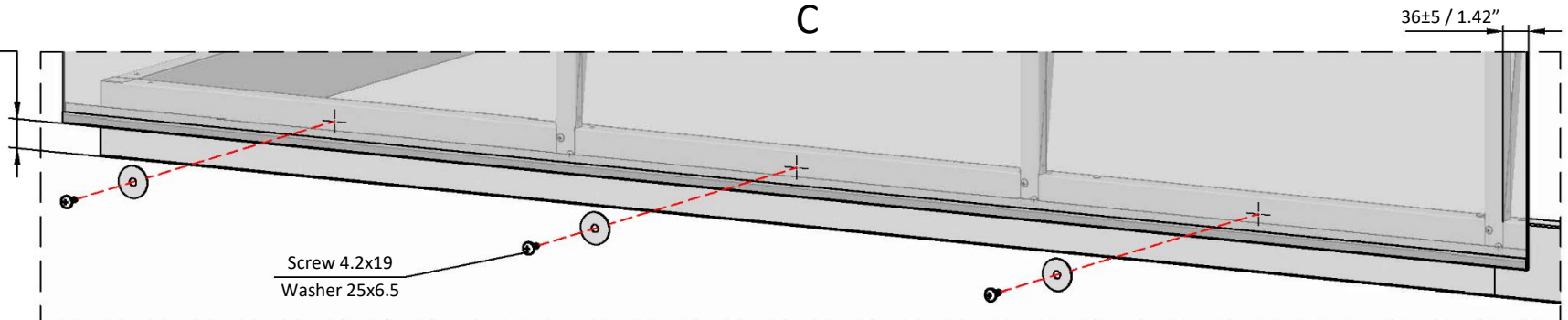


Assembly order:

1. **IMPORTANT!** Before installing polycarbonate panels, check the diagonals of the greenhouse support frame and ensure horizontality. The accurate installation of the panels relies on this essential factor.
2. **IMPORTANT!** Polycarbonate sheets should be installed with the UV protected side facing out.
3. Apply protective tape around the edges of the polycarbonate panel (Fig. A).
4. Attach the U-profile over the polycarbonate panel on both sides (Fig. B).
5. Install the polycarbonate panel sheet from the end side.
6. Align the bottom end of the polycarbonate panel along the longitudinal part of the base frame, as shown in Figure C, and fasten three screws to the trusses on one side.
7. Then stretch the sheet on the other side and secure it to the support frame.
8. Align the greenhouse trusses vertically along the internal channels in the polycarbonate panel. Check that the sheets fit snugly along the entire length of the trusses.
9. According to the markings in Figure 4.1, fasten the polycarbonate panel to the trusses using screws with washers. Do not deform the polycarbonate panel with the washers.
10. **IMPORTANT!** Do not overtighten the screw to prevent the polycarbonate from being crushed under the washer at the fastening point.

C

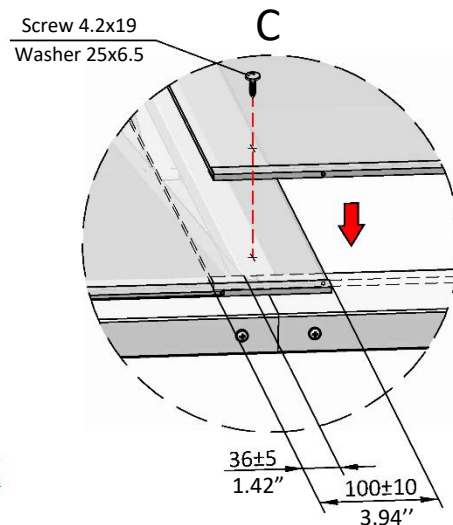
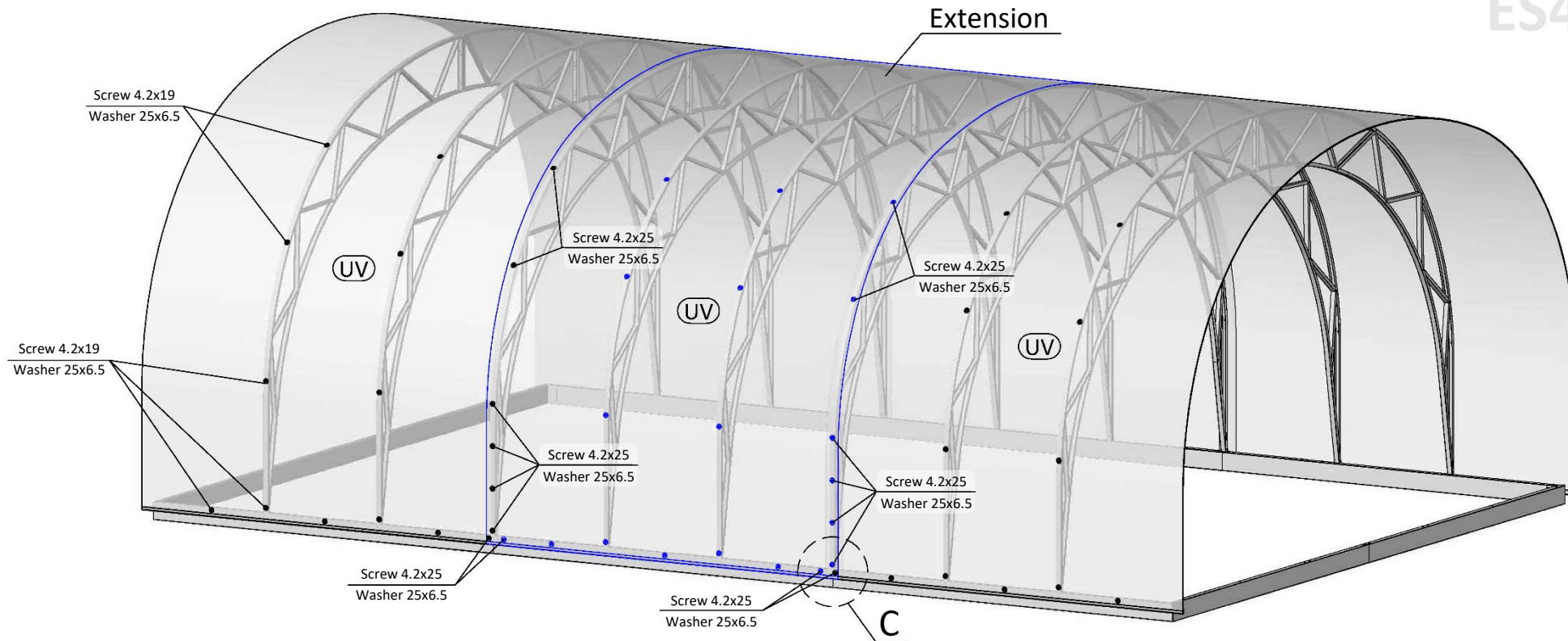
Align the polycarbonate sheet on both sides of the greenhouse





4. Installation of the polycarbonate panels

ES40DD



Assembly order (continued):

7. Install the rest of the panels in the same way.
8. Alignment of subsequent sheets of polycarbonate panels should be performed according to fig. C.

Complete set

Installation of the polycarbonate panels			ES 4.0 DD / 13' 1.48" greenhouse length range, m/ft						
			4.0	6.0	8.0	10.0	12.0	...	4.0+(2.0*N)
			13' 1.5"	19' 8.2"	26' 2.3"	32' 9.7"	39' 4.4"		13' 1.5"+6' 6.7"+N
			(BASE)	Number of extensions in the greenhouse					
			0	1	2	3	4	...	N
Name	Qty (BASE)	Col. 1 extend	Quantity, pcs.						
Polycarbonate panel 2100x6000	2	0	2	2	2	2	2		2
U-profile (2100 mm)	4	2	4	6	8	10	12		4+2N
Anti-Dust Tape, m	8.4	4.2	8.4	12.6	16.8	21.0	25.2		8.4+4.2N
Screw 4.2x19 DIN 7504	44	22	44	66	88	110	132		44+22N
Screw 4.2x25 DIN 7504	16	16	16	32	48	64	80		16+16N
Washer 25x6.5 DIN 522	60	38	60	98	136	174	212		60+38N



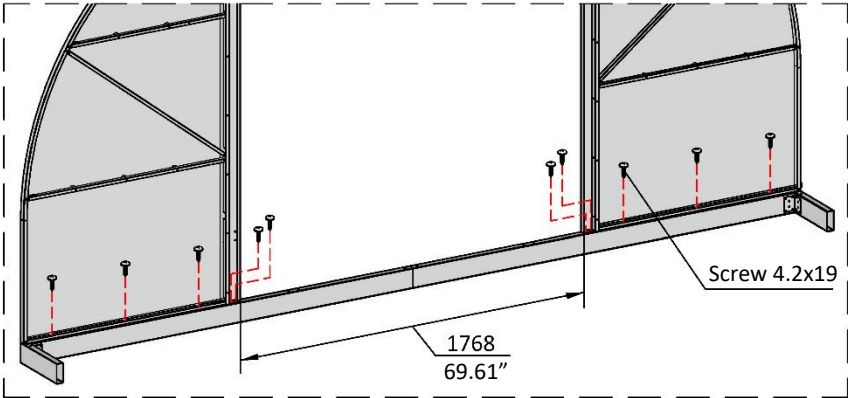
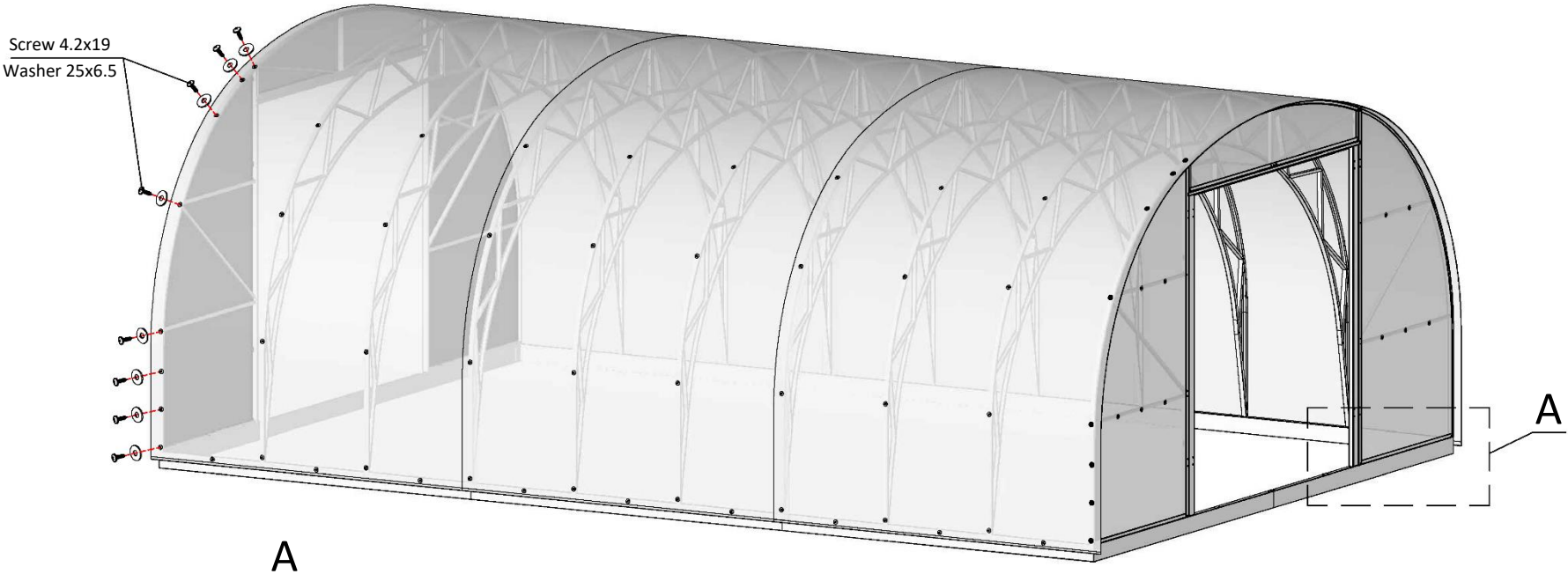
5.

Screw 4.2x19
See table

Washer 25x6.5
See table

x2

5. End walls installation



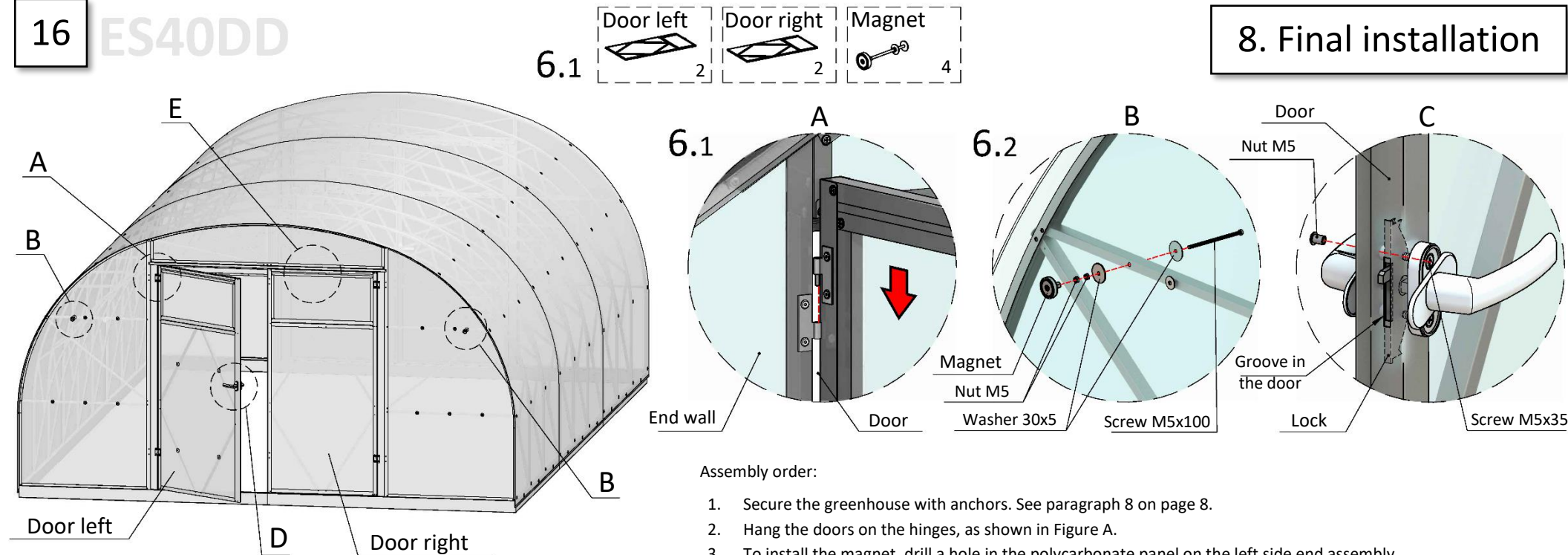
Assembly order:

- 1. Install the ends on the transversal sections of the base frame. Carefully slide them under the polycarbonate panel. Level them up according to the external side of the base frame. Maintaining a dimension of 885 mm between the end parts, fasten it to the base frame using screws, as shown in Figure A.
- 2. Fasten the polycarbonate panel at the ends using screws and washers, according to the markings shown in Figure 3.1 (page 13). Do not deform the polycarbonate panel with the washer.

Complete set

End walls installation		
Name	Qty (BASE)	Col. 1 extend
Screw 4.2x19 DIN 7504	52	0
Washer 25x6.5 DIN 522	32	0





Assembly order:

1.

Secure the greenhouse with anchors. See paragraph 8 on page 8.
2.

Hang the doors on the hinges, as shown in Figure A.
3.

To install the magnet, drill a hole in the polycarbonate panel on the left side end assembly. Insert the screw into the hole, as shown in Figure B, and fasten the magnet. Make sure the magnets hold the doors well in the open position.
4.

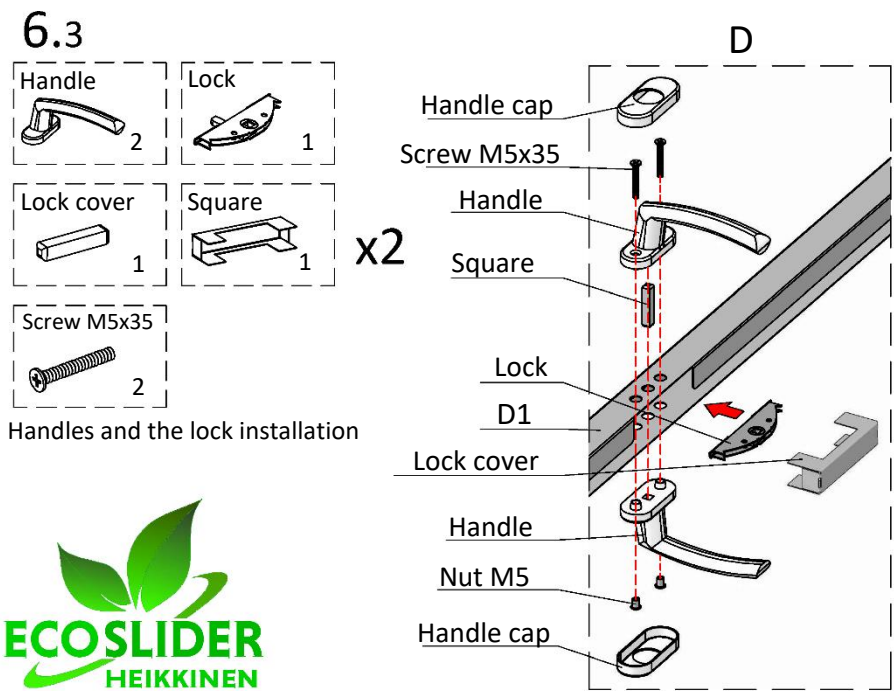
Install the door handle, as shown in Figure D.
5.

Before installing the door handle, drill 3 holes in the polycarbonate door panel against the holes in the door part. To simplify the assembly, it is recommended to assemble the lock mechanism in the closed position (lock latch extended). Assemble the handles, install the lock protection. In the open position, the handle should be turned to the side.
6.

In the closed position, the handle should be turned down.
7.

The handles must turn freely without jamming. If necessary, adjust the position of the lock latch relative to the groove in the door pillar. To do this, loosen the M5 nuts (Fig. C) and turn the M5x35 lock screws (there is a threaded hole in the Lock).
8.

The lock mechanism will shift. After adjustment, fix the M5 nuts.



Complete set

Final installation		
Name	Qty (BASE)	Col. 1 extend
Door left	2	0
Door right	2	0
Magnet (M)	4	0
Handle	4	0
Lock	2	0
D12 (Lock cover)	2	0
Square	2	0
Screw M5x35	4	0
Rubber seal, 8.4 m	1	0

