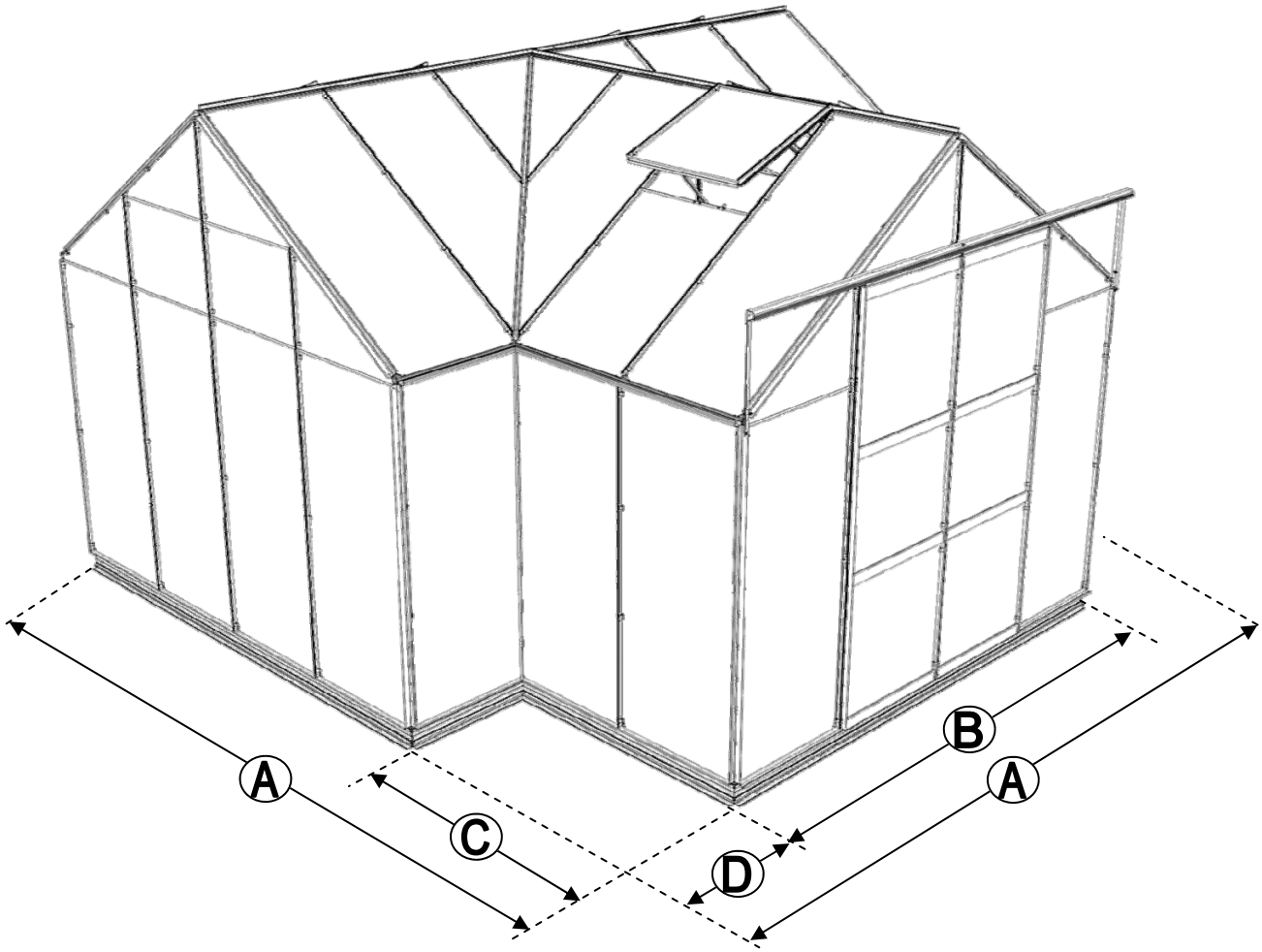
8 ORA



A (mm)	B (mm)	C (mm)	D (mm)
3770	2530	1240	620

Issue 1

GB Thank you for purchasing your new greenhouse. We recommend you familiarise yourself with the instructions and read all safety information before you commence assembly.

These instructions are divided into sections; **B**-base, **partlists**,**1**-12' side, **2**-porch handed sides, **3**-front gable, **4**-plain gables, **5**-joining eight side sections together, **6**-roof, **7**-vents, **8**-doors, **9**-glazing(**9a** toughened glass), **10**-vent attachment, **11**-door attachment, **12** anchoring down, **back cover**-packing list. If you need to contact us for assistance please refer to the relevant section/s.

Safety Warning

- Glass and aluminium can potentially cause injury. Please ensure you wear protective goggles, gloves, headgear and suitable footwear when assembling and glazing the building.
- Please remember that glass is fragile and should be handled with extreme care. Always clear up and dispose of any breakages immediately.
- Do not assemble the greenhouse in high winds.
- For safety reasons and ease of assembly, we recommend that this greenhouse is assembled by a minimum of two people.
- Please clear all lying snow from the greenhouse roof as it can cause the roof to buckle or collapse.

Site Preparation

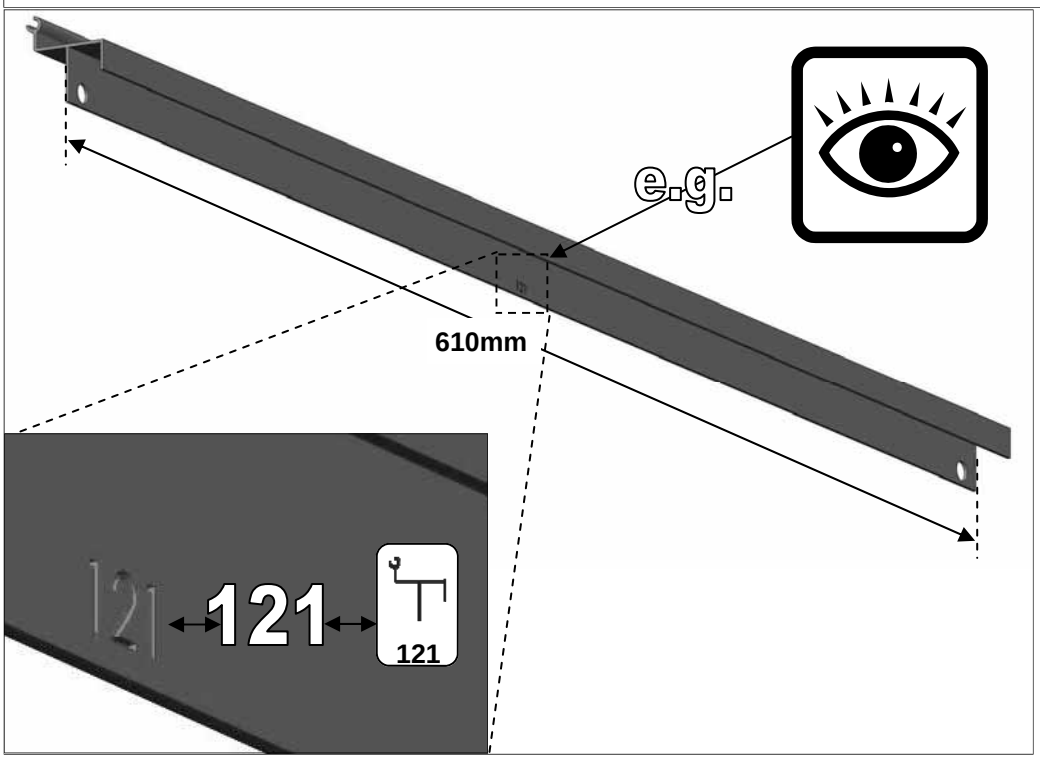
- When selecting a site for your greenhouse, it is vital that you choose as flat and level an area as possible.
- A concrete or slabbed base will provide the most solid foundation for your greenhouse.
- IMPORTANT: Do **not** fix your building down until the building is fully assembled, including glazing.
- Avoid placing your greenhouse under trees or in other vulnerable locations.
- To minimise the risk of wind damage, try to select as sheltered a site as possible, e.g. beside a hedgerow or garden fence.

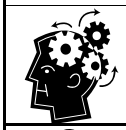
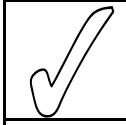
Additional Considerations

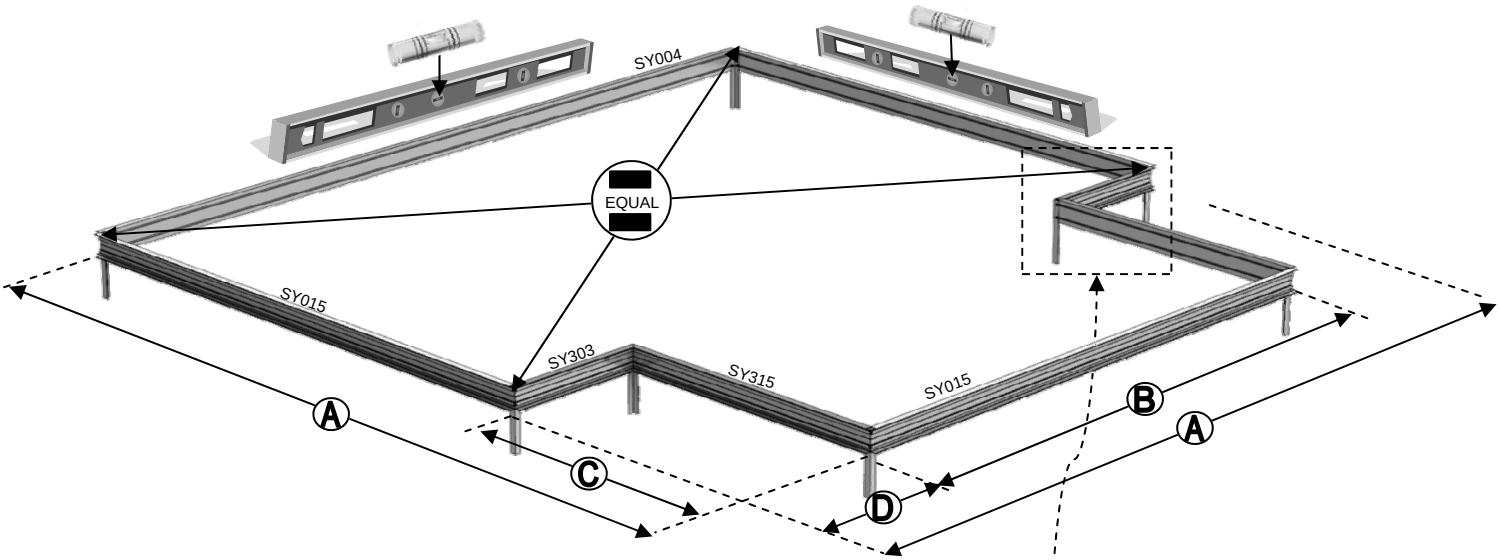
- Please bear in mind that assembling your greenhouse can be time consuming. You may need to spread the construction over two or more days. We recommend that you avoid leaving the building partially glazed. If you ever have to leave your greenhouse half assembled and not anchored down, weigh it down with slabs or bags of sand to stop the wind moving it.
- You will find it helpful to prepare a large, clean and clear area in which to work in. A garage floor or flat lawn area is ideal.
- If you have arranged for someone to install your greenhouse for you, please check that all components are included. Most parts are numbered and can be identified by a stamp or removable label. Alternatively, the components can be identified by lengths detailed in the packing list (see diagram below).
- Anchoring down your greenhouse should be the final stage of construction (including glazing).
- Once installed your greenhouse requires little maintenance, but to maintain the smooth running of your door(s) WD40 or similar can be applied to the door wheels and lower door guides.

Guarantee

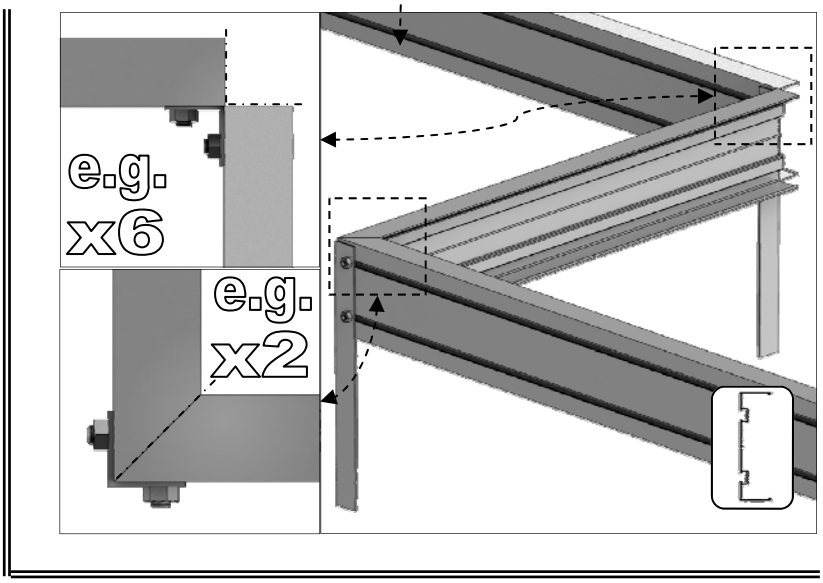
- Your new greenhouse is guaranteed for 10 years against faulty manufacture of the framework. This does not include glazing, moving parts, accidental damage or wind damage.

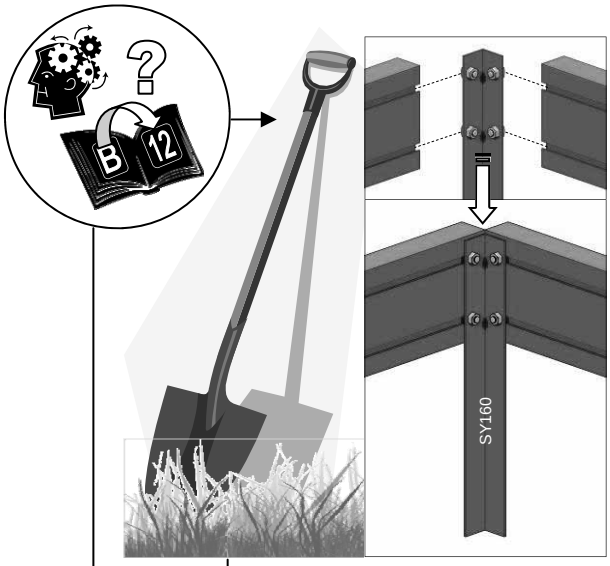


KEY SYMBOL	KEY DESCRIPTION
	EXTERNAL VIEW
	INTERNAL VIEW
	**THINK / CHOOSE?**
	THIS SECTION RELATES TO ANOTHER (e.g. 1 to 5)
	**CORRECT**
	DO NOT FIX DOWN!
	TWIST TO LOCK
	TIGHTEN
	DO NOT WET!

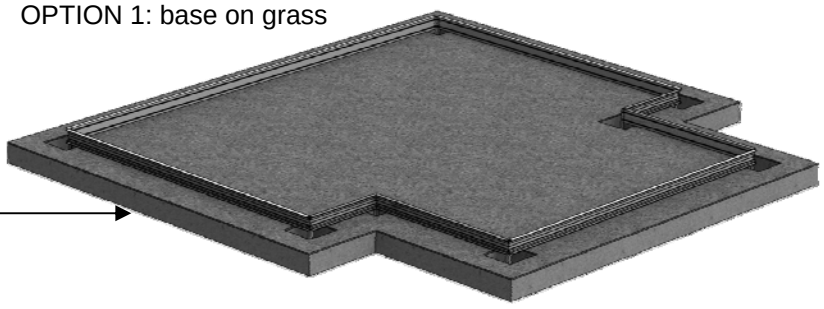


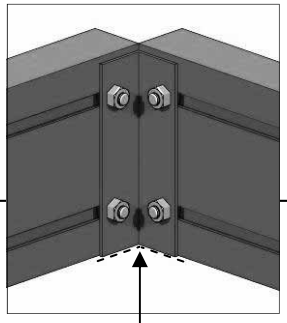
A (mm)	B (mm)	C (mm)	D (mm)
3770	2530	1240	620



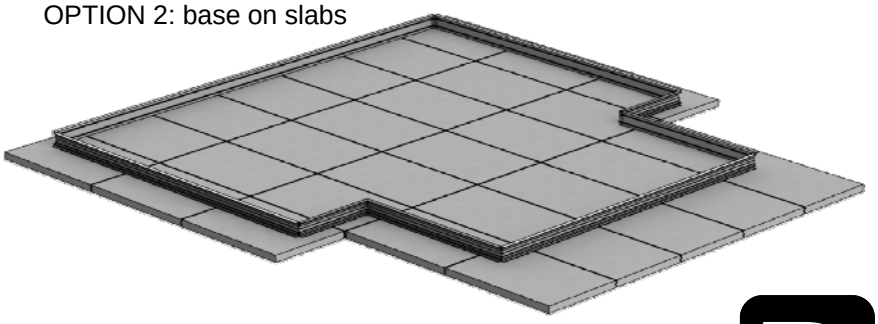


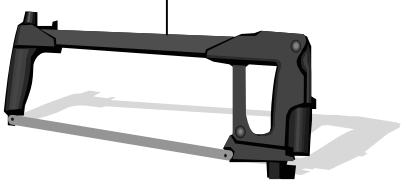
OPTION 1: base on grass





OPTION 2: base on slabs





B

Page Ref	Part No.	Section	Size (mm)	12 12
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	SY BOLM6 X11 CROP		10	57
	SY BOLM6 X15		15	17
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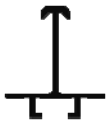
	SY 047		1504	5
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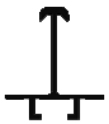
	SY 047		1504	2
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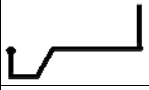
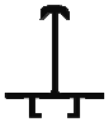
3	SY 018		2476	1
	SY 020		1945	1
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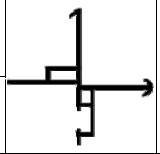
	SY 074		1479	1
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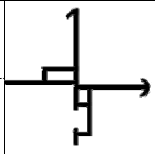
	SY 076		1504	1
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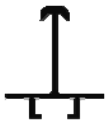
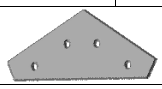
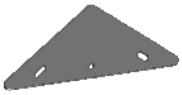
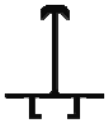
	SY 161		435	1
	SY 200			2
	SY 201			1

Page Ref	Part No.	Section	Size (mm)	12 12
4	SY 020		1945	2
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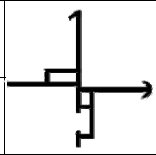
	SY 074		1479	2
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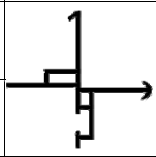
	SY 076		1504	2
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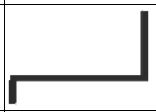
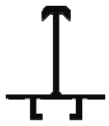
	SY 165		2476	2
	SY 166		2350	2
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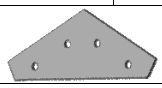
	SY 200			4
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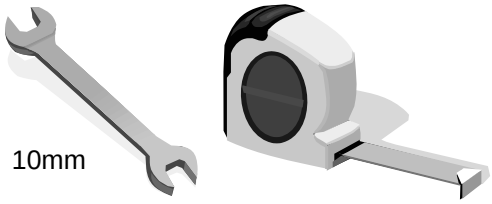

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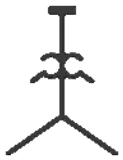
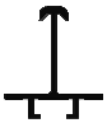
6	SY 002		3720	1
	SY 050		1490	7
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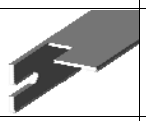
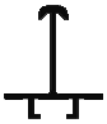
	SY 093		636	4
	SY 308		1474	2
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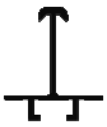
	SY 309		722	2
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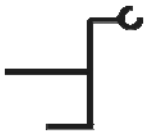
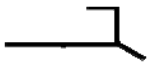
7	SY 121		612	4
	SY 123		610	4
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	SY PIN			8
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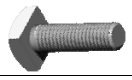
	SY BOL M6X22			8
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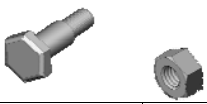
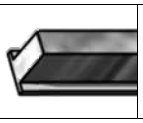
	SYBOL DOOR SYNUT DOOR			4
	SY DRA		4000	1

Page Ref	Part No.	Section	Size (mm)	8 12
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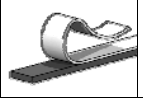
	SY FOAM		15000	11
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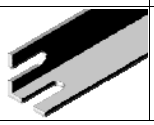
	SY 164		479	2
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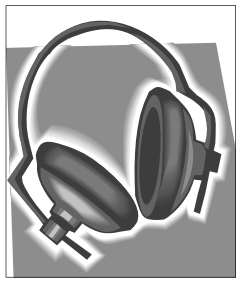

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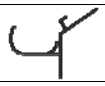
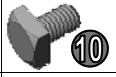
1	Detail						
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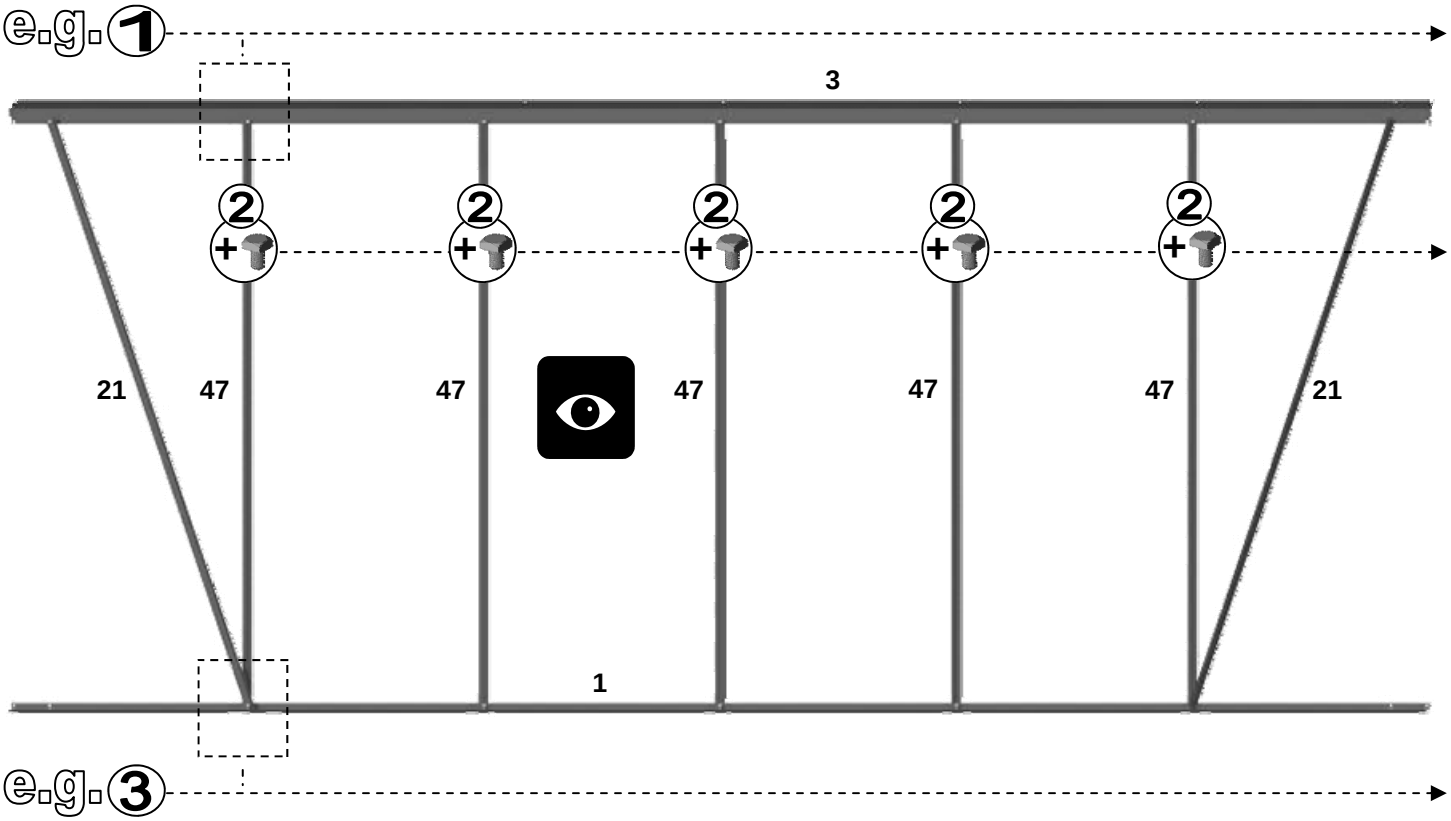
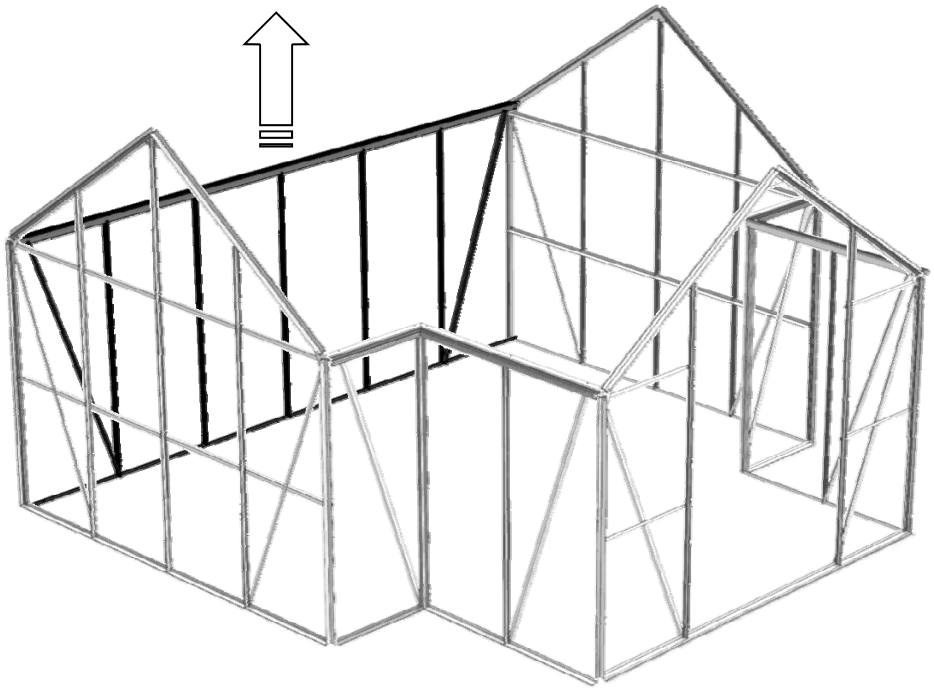
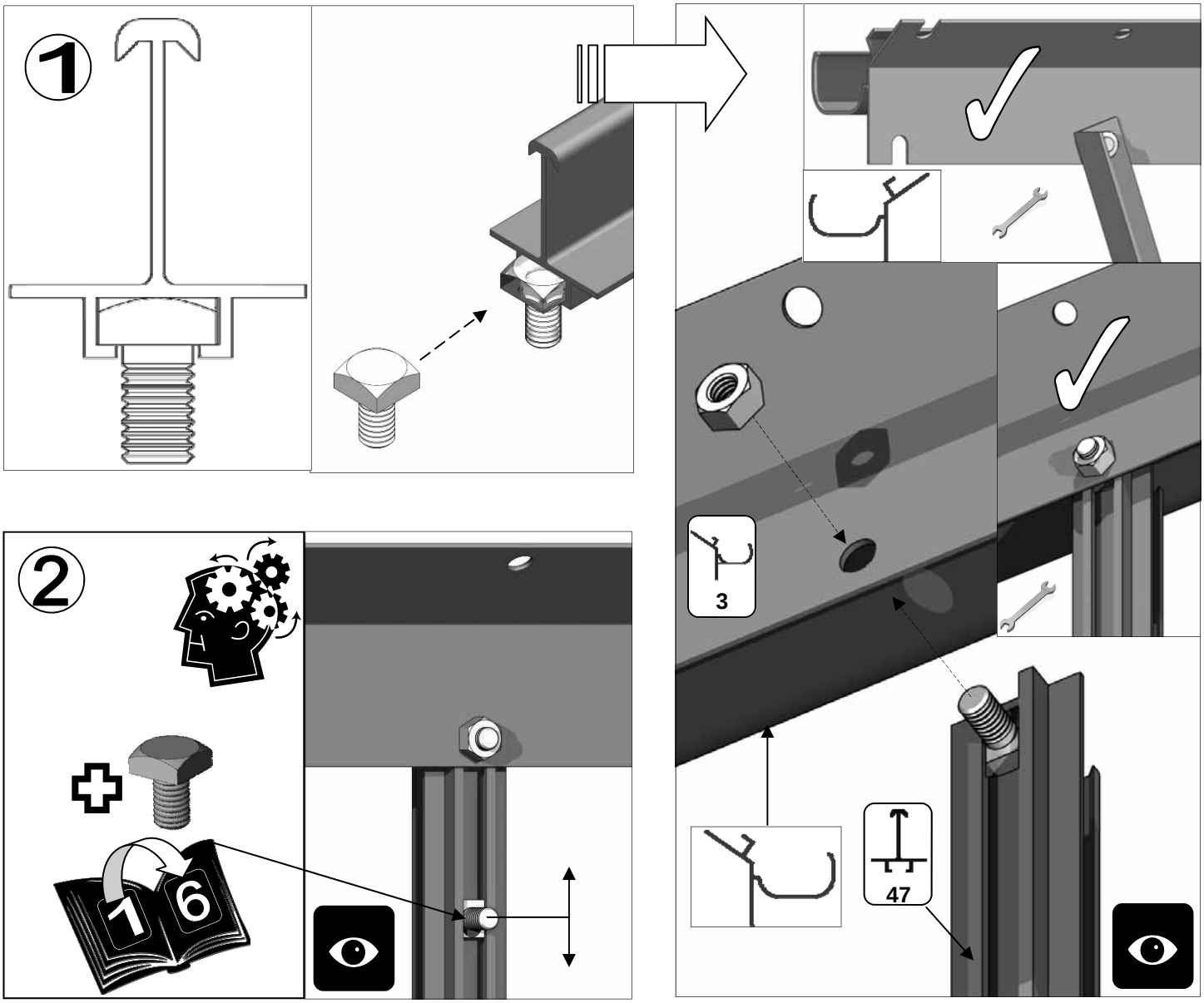
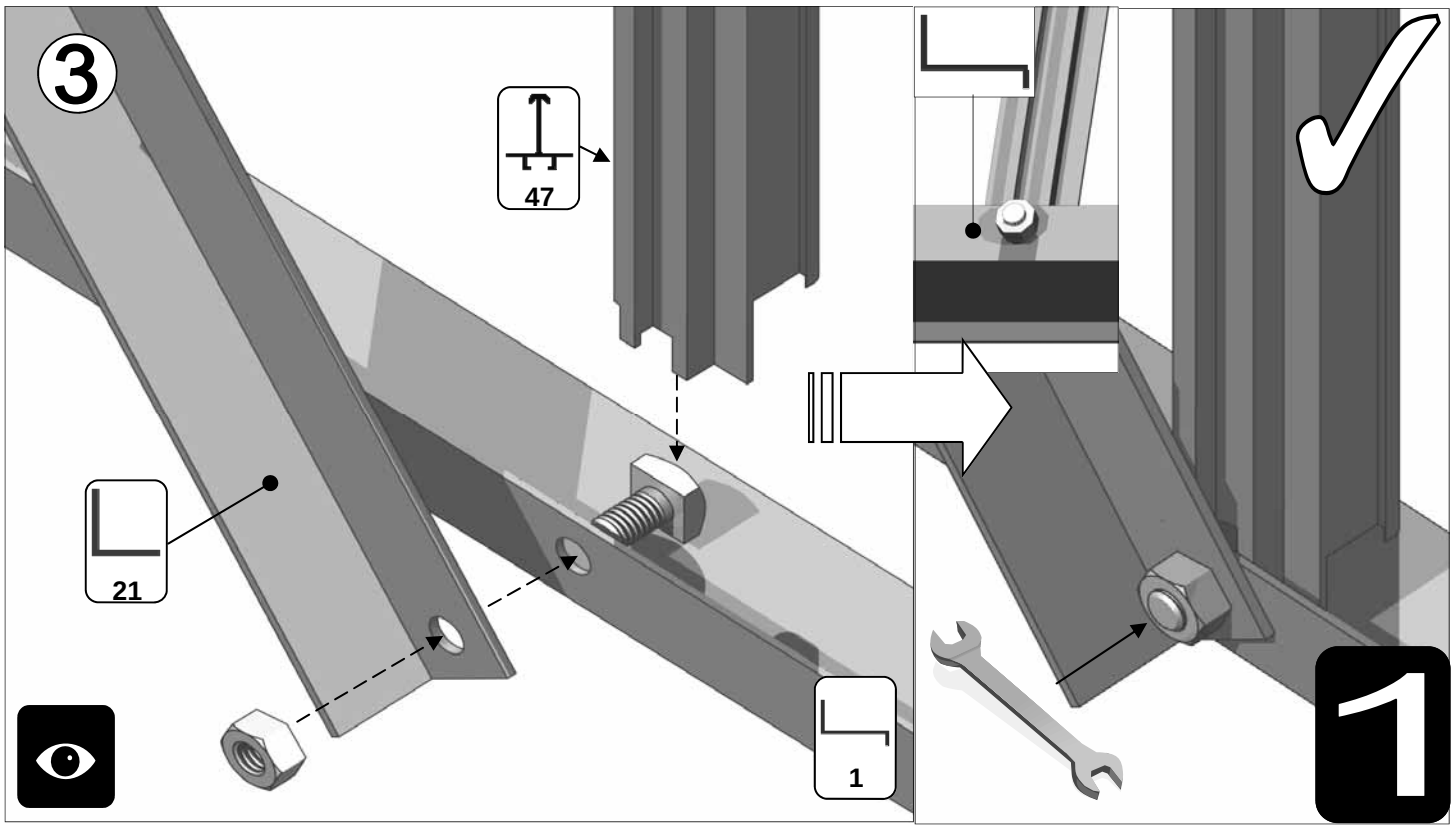


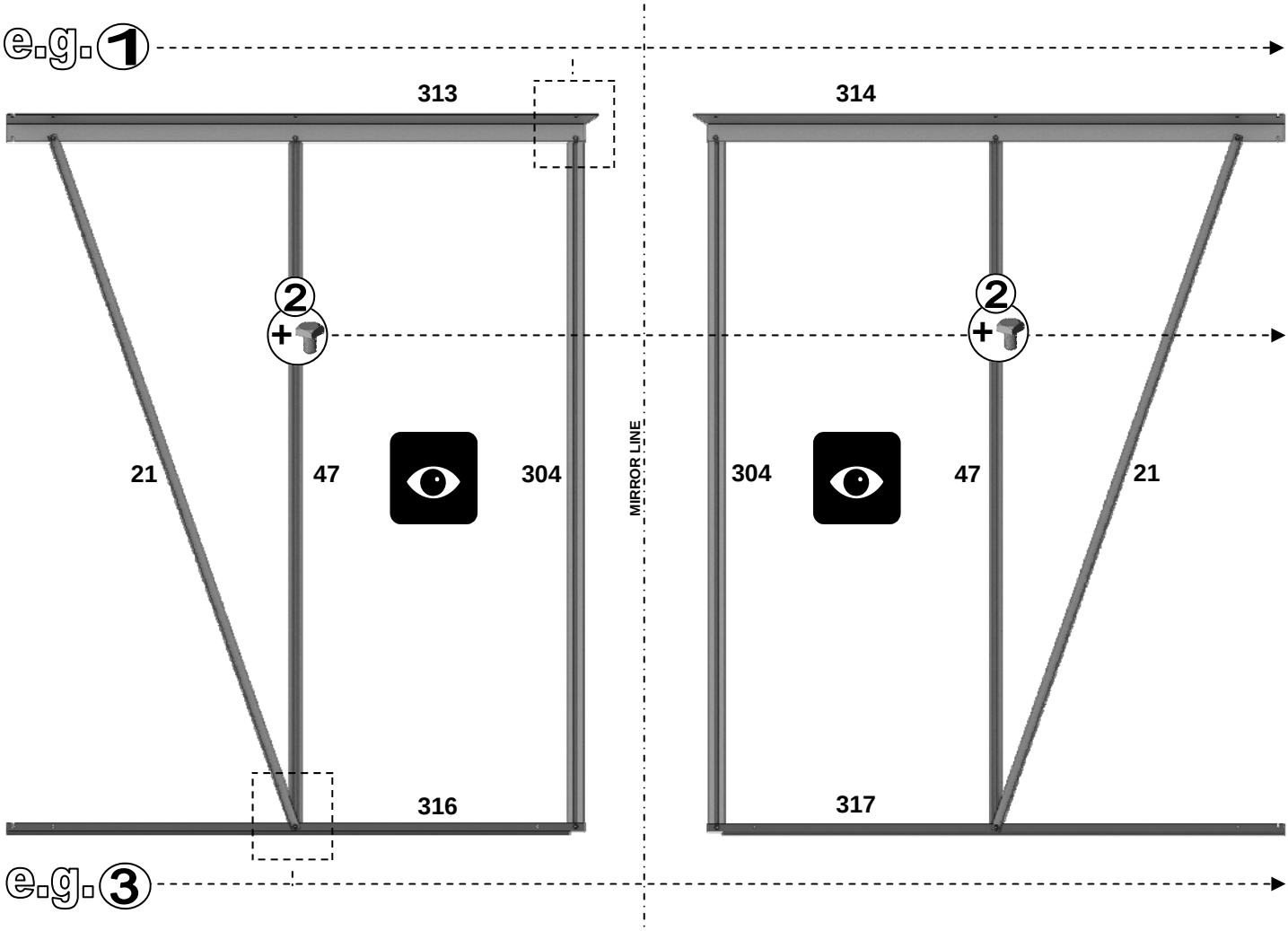


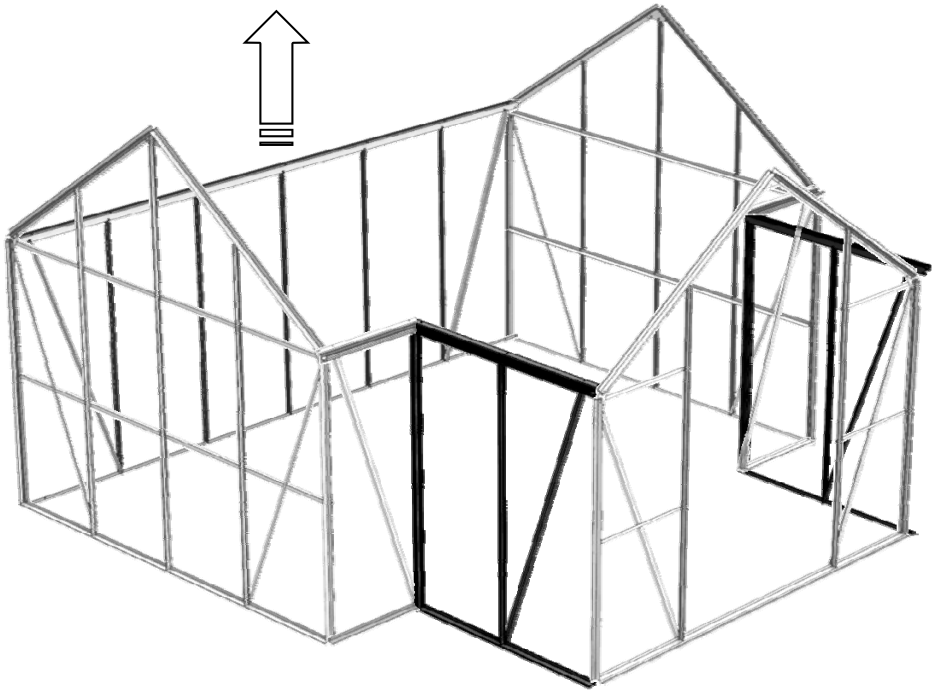
1


1
2
3
47
16


3
47
21
1
1

2	Part No	SY021	SY047	SY304	SY313 / SY314	SY316 / SY317	SYBOL M6X11	SYNUT M6
	Detail							
	Length 'mm'	1585	1504	1504	1270	1240	10	N/A
	Quantity	2	2	2	1 + 1	1 + 1	12	10





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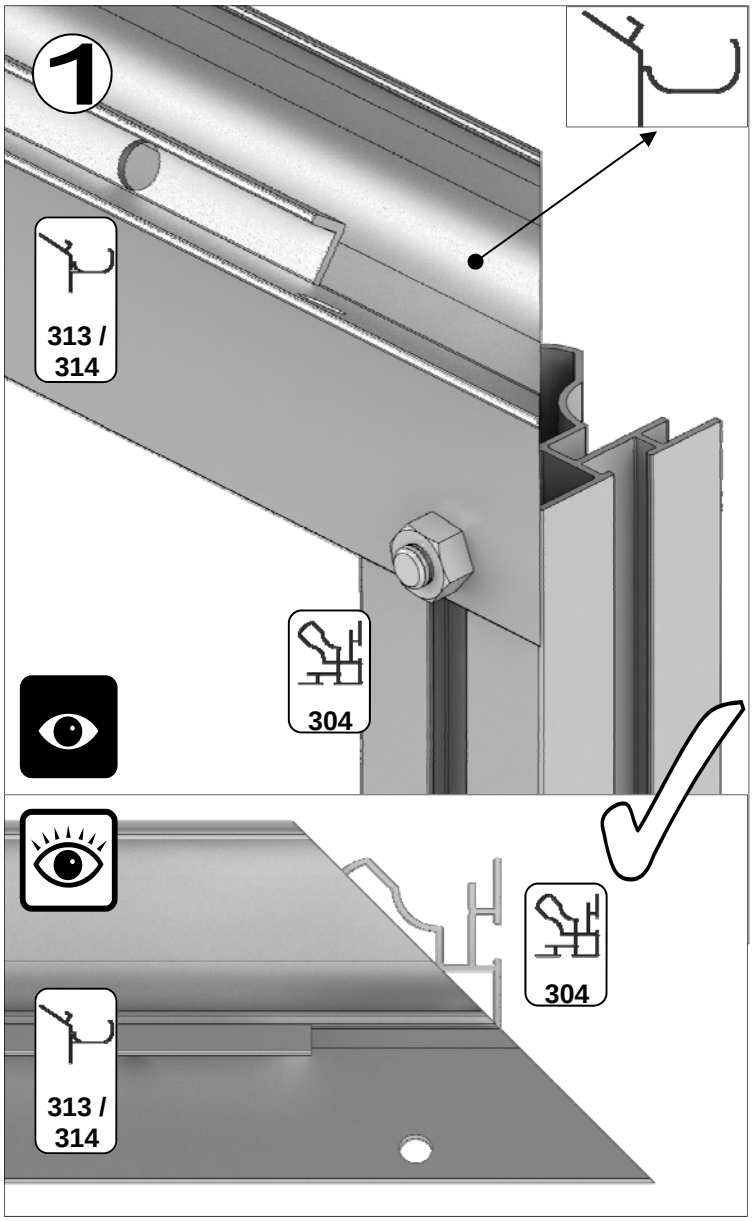
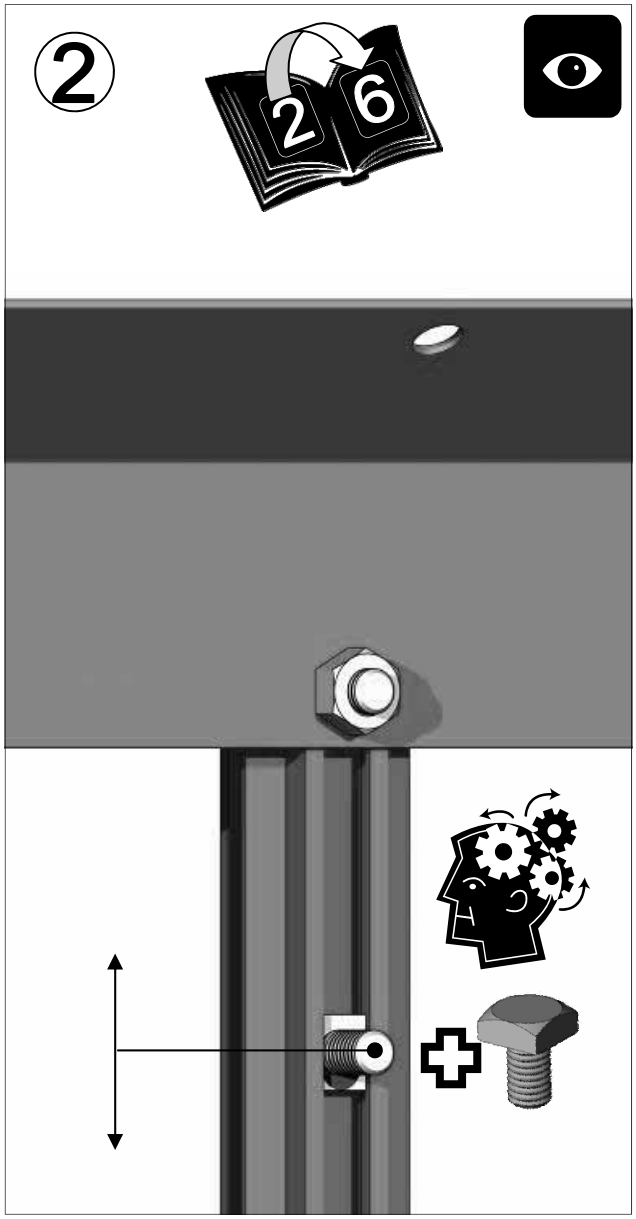
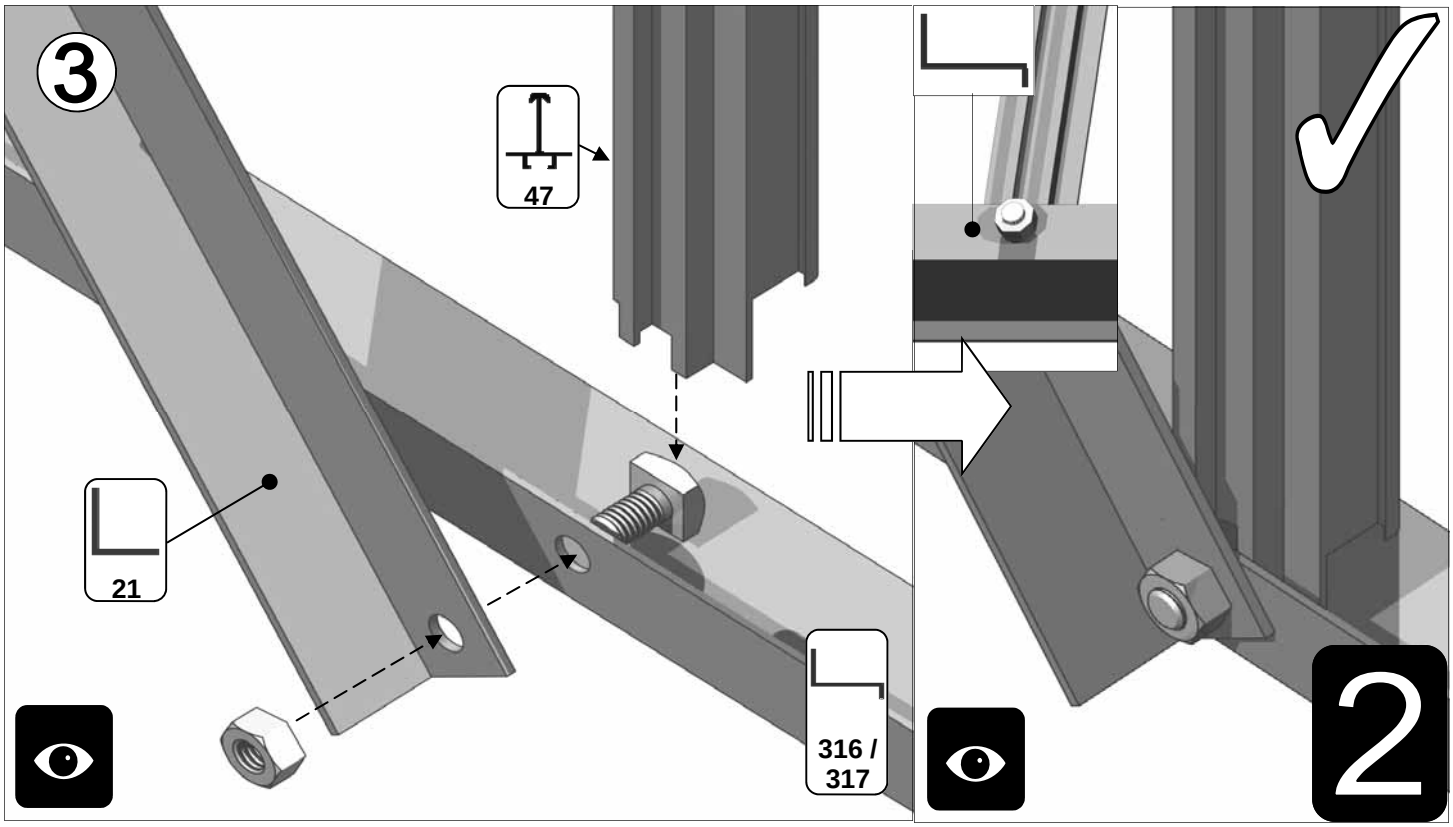
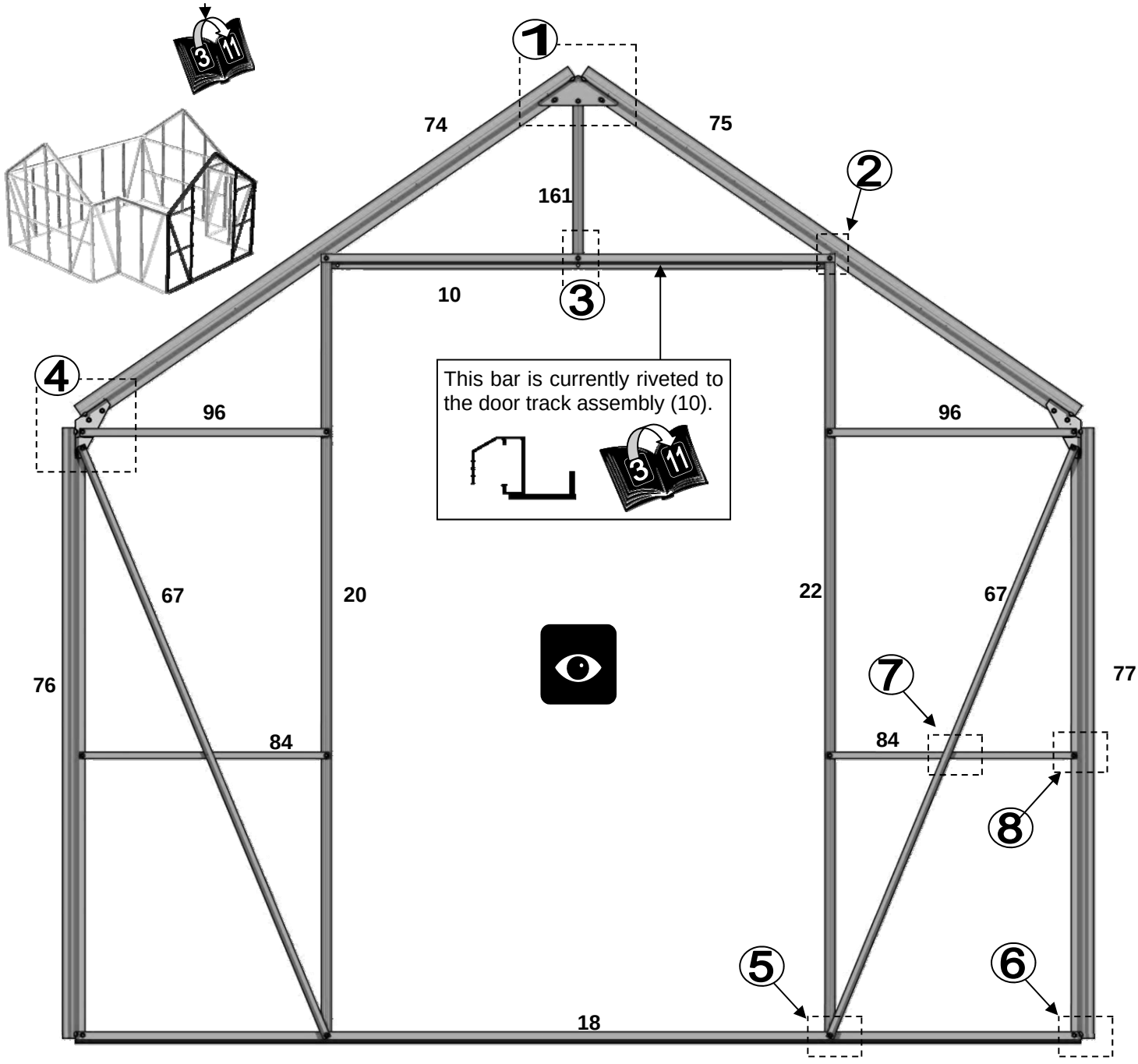
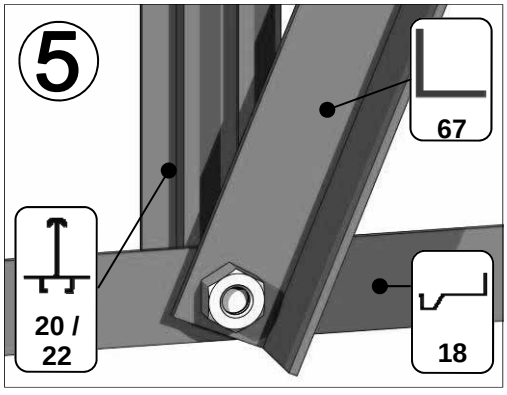

1
313 /
314
304
313 /
314
304

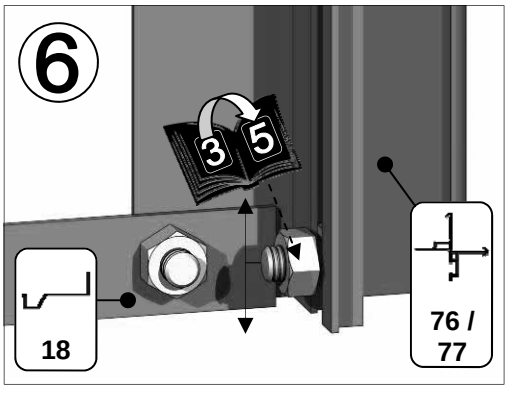

2
2
6

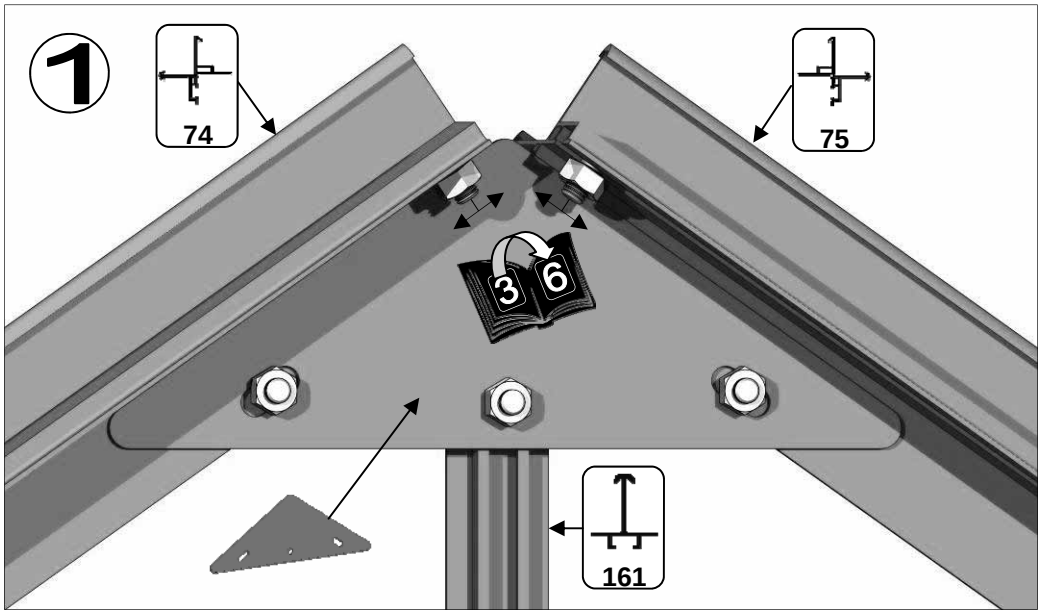

3
47
21
316 /
317
2

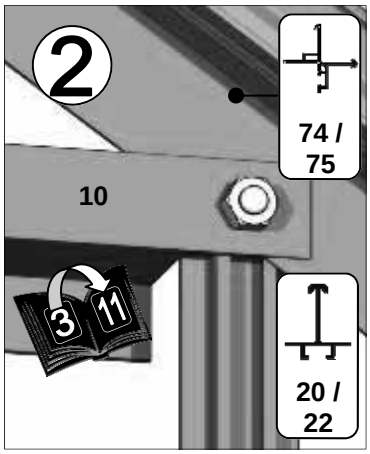
3	Part No	SY010	SY018	SY020 / SY022	SY067	SY074 / SY075	SY076 / SY077	SY084	SY096	SY161	SY200	SY201	SYBOL M6X11	SYNUT M6
	Detail													
	Length 'mm'	2530	2476	1945	1579	1479	1504	614	614	435	N/A	N/A	10	N/A
	Quantity	1	1	1 + 1	2	1 + 1	1 + 1	2	2	1	2	1	32	32

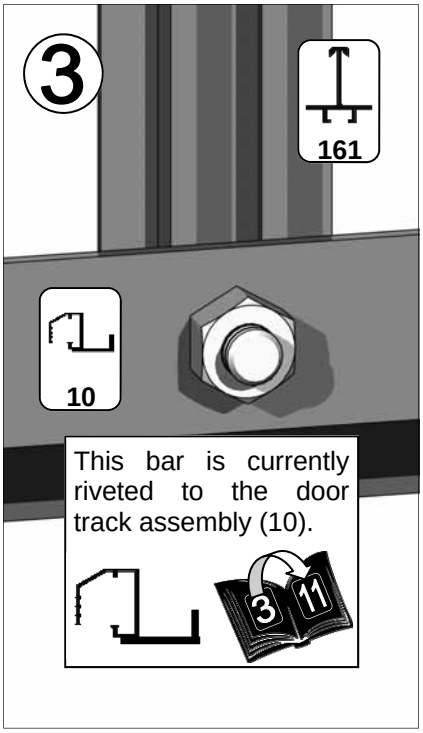


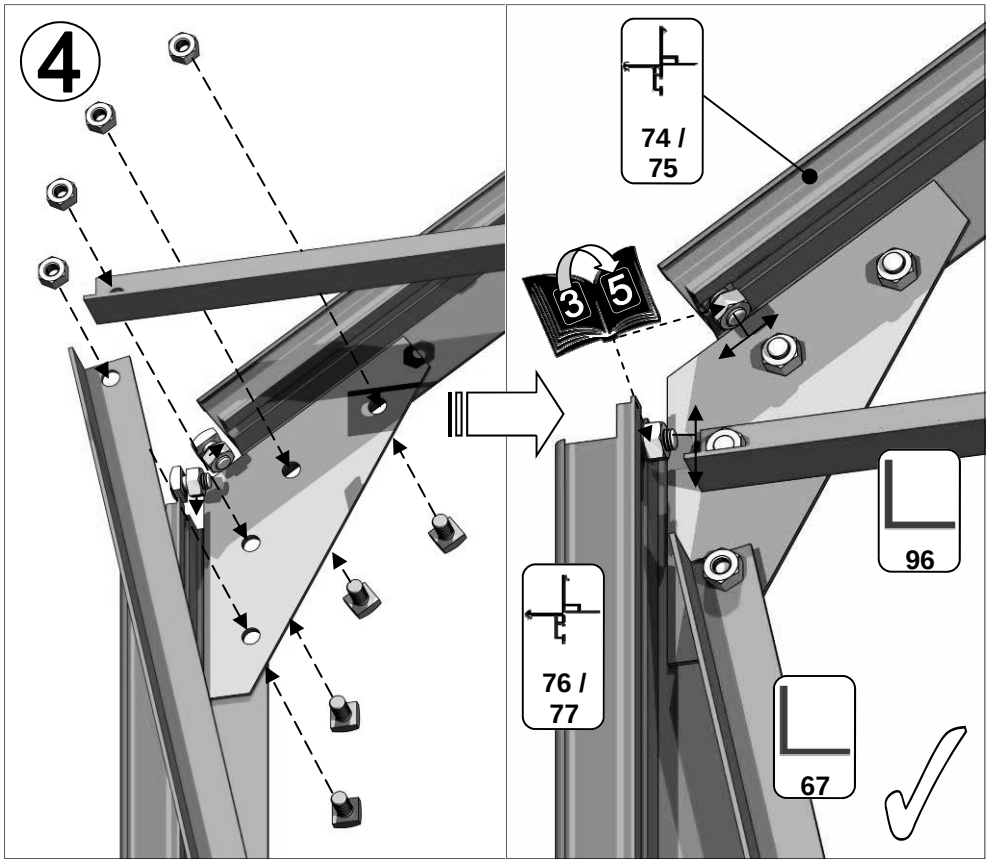


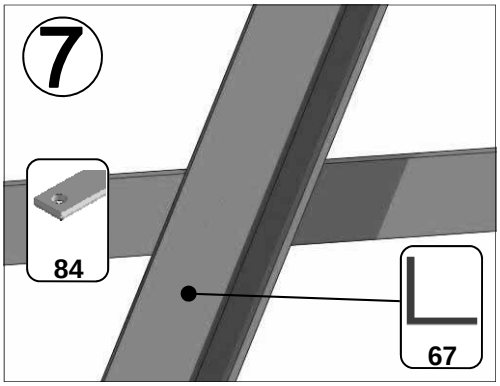


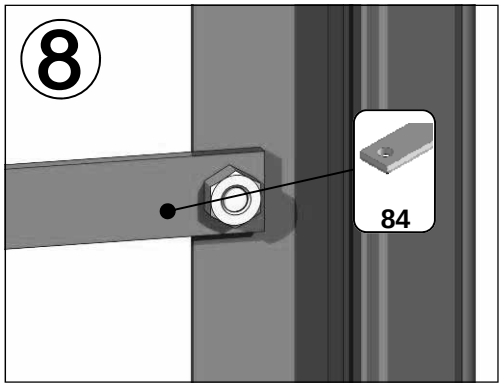

1
74
75
3 6
161


2
74 / 75
10
3 11
20 / 22


3
161
10
This bar is currently riveted to the door track assembly (10).
3 11

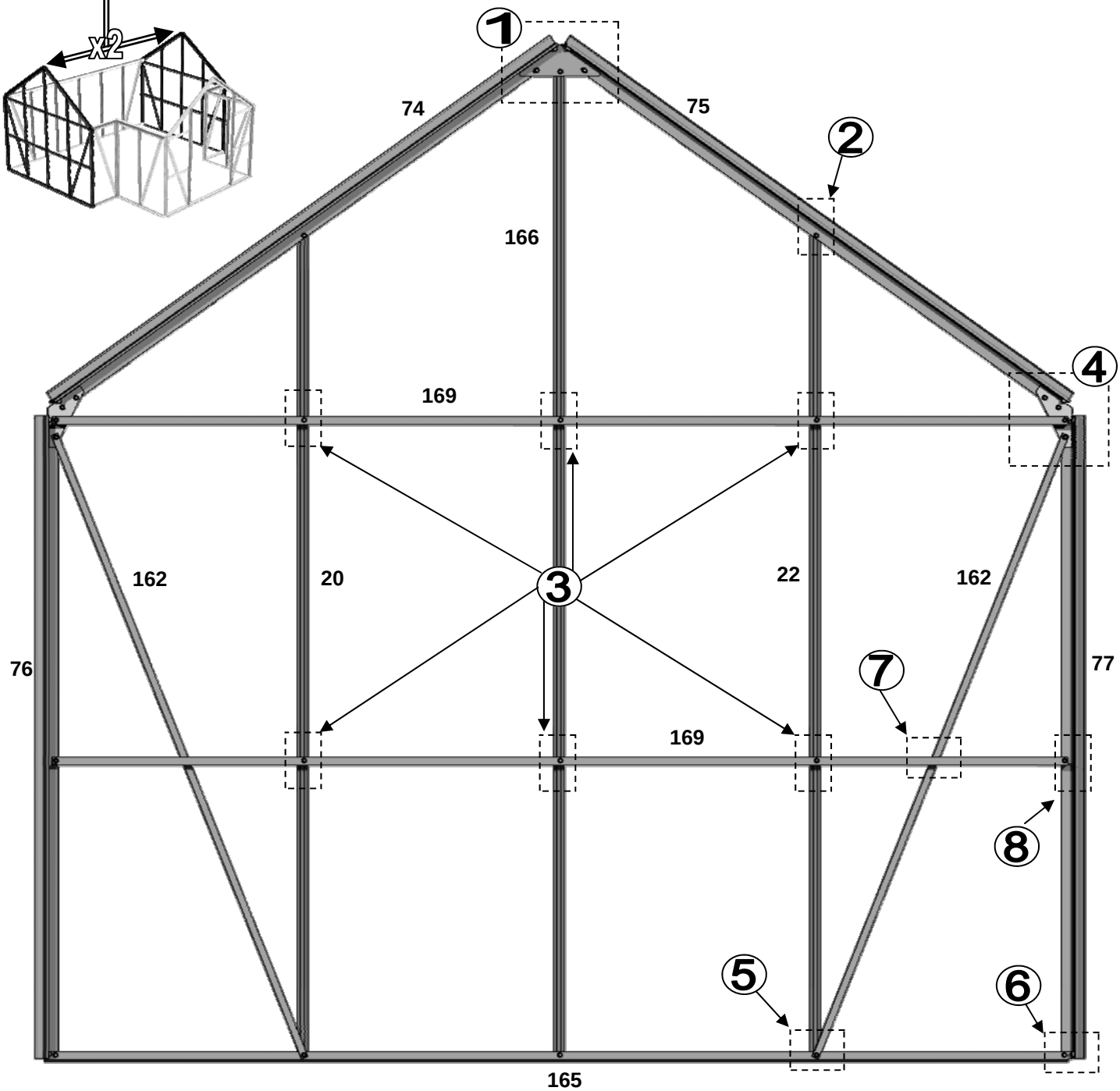

4
74 / 75
3 5
96
76 / 77
67

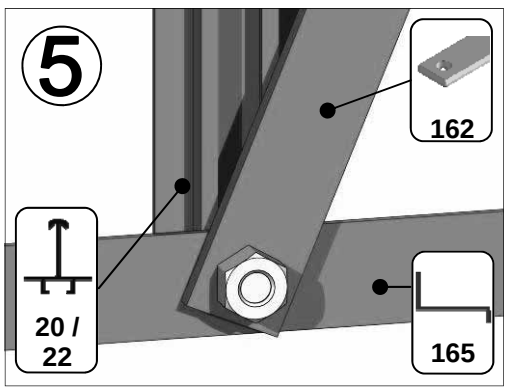

7
84
67

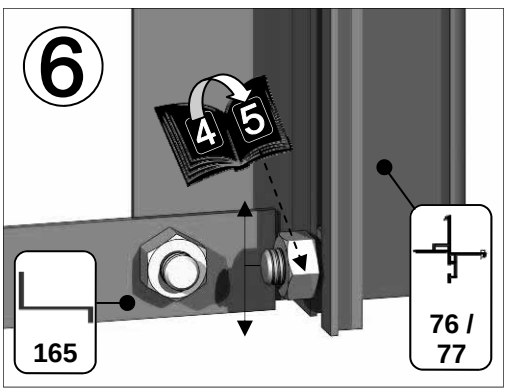

8
84

3

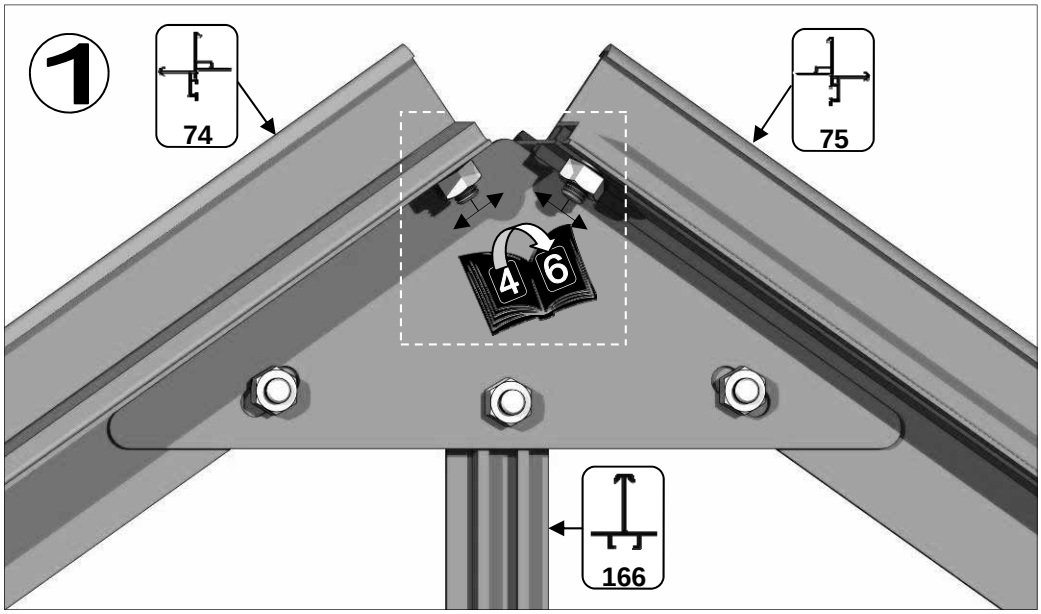
4	Part No	SY020 / SY022	SY074 / SY075	SY076 / SY077	SY162	SY165	SY166	SY169	SY200	SY201	SYBOL M6X11	SYNUT M6
	Detail											
	Length 'mm'	1945	1479	1504	1579	2476	2350	2456	N/A	N/A	10	N/A
	Quantity	1 + 1	1 + 1	1 + 1	2	1	1	2	2	1	34	34

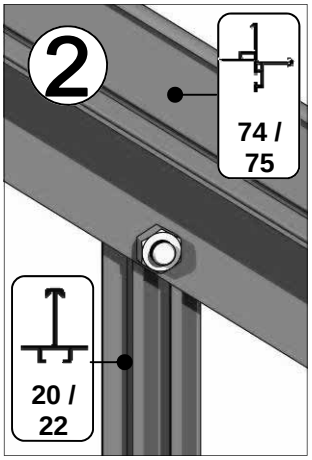


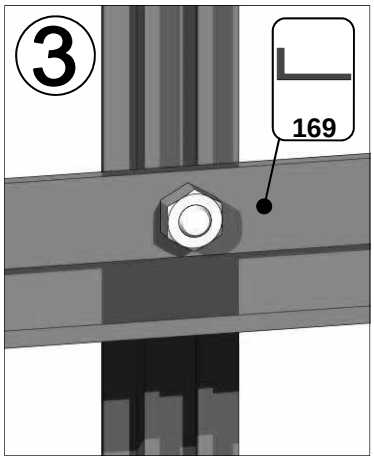


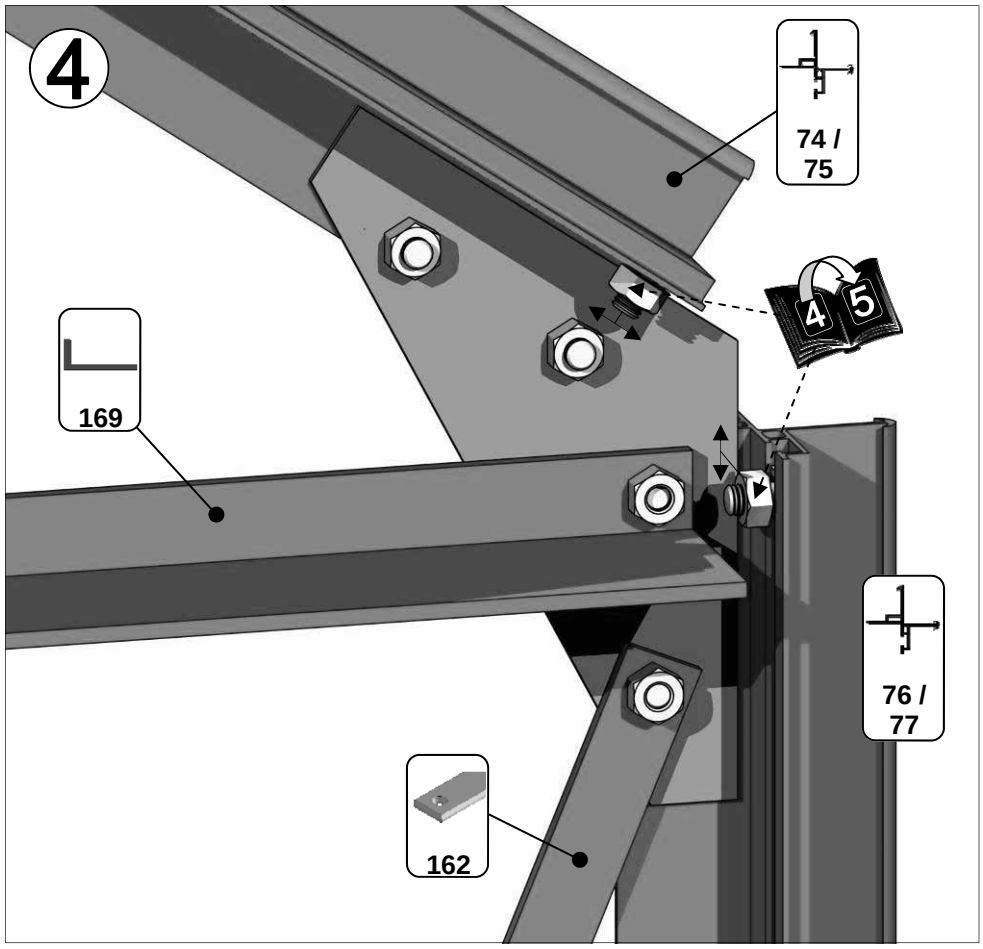


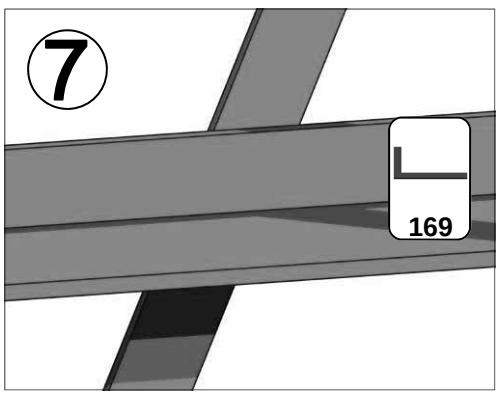
4

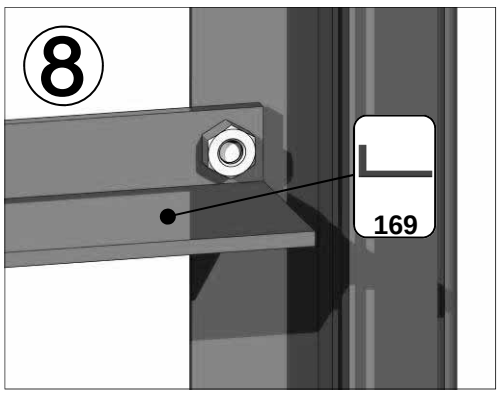

1
74
75
4
6
166


2
74 /
75
20 /
22


3
169

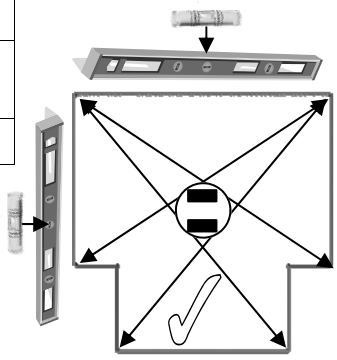

4
74 /
75
4
5
169
76 /
77
162

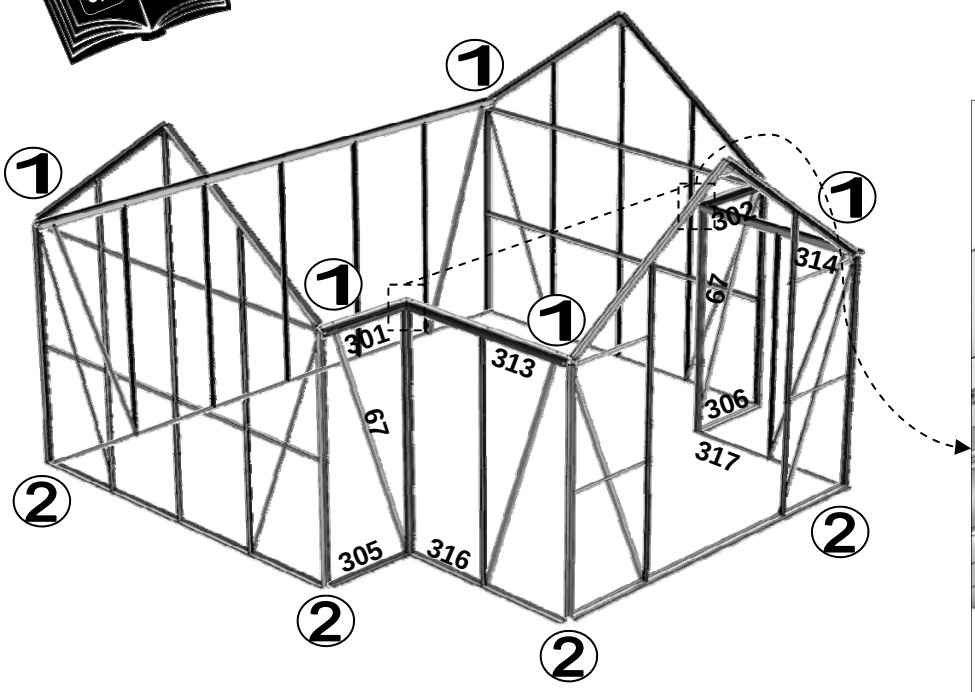

7
169

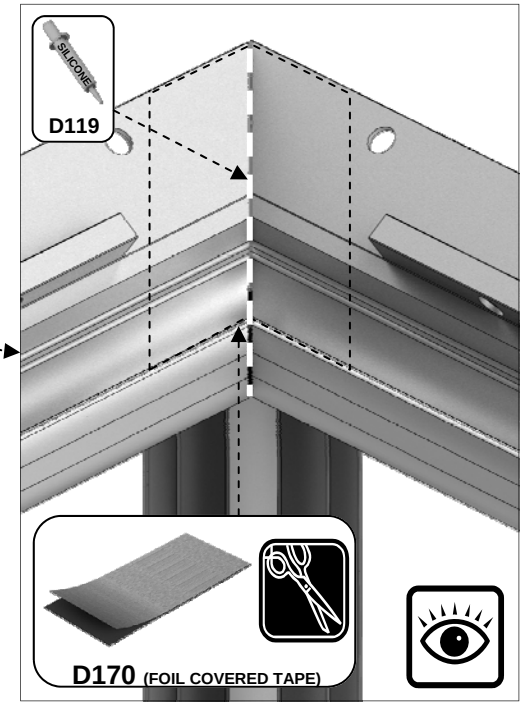

8
169

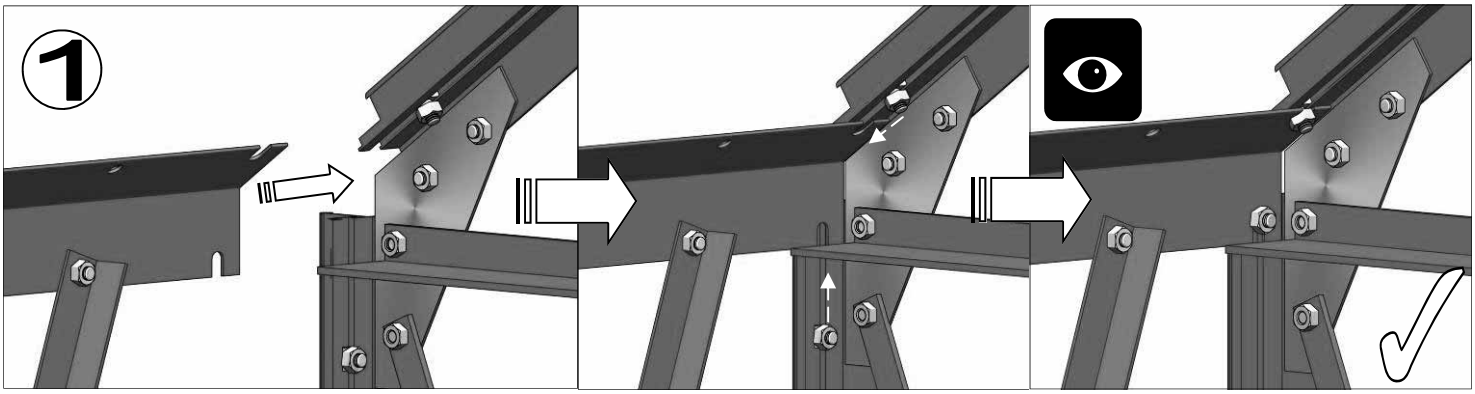
4

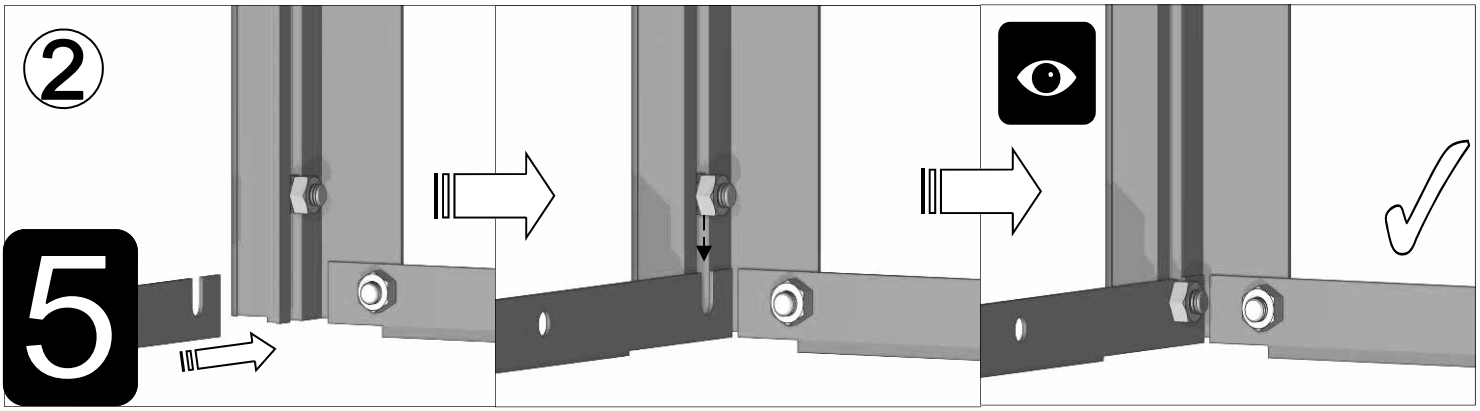
5	Part No	SY067	SY301 / SY302	SY305 / SY306	SYBOL M6X11	SYBOL M6X11 CROP	SYNUT M6	D119	D170	SY159
	Detail									
	Length 'mm'	1579	650	620	10	10	N/A	N/A	N/A	N/A
	Quantity	2	1 + 1	1 + 1	10	19	29	1	2	19

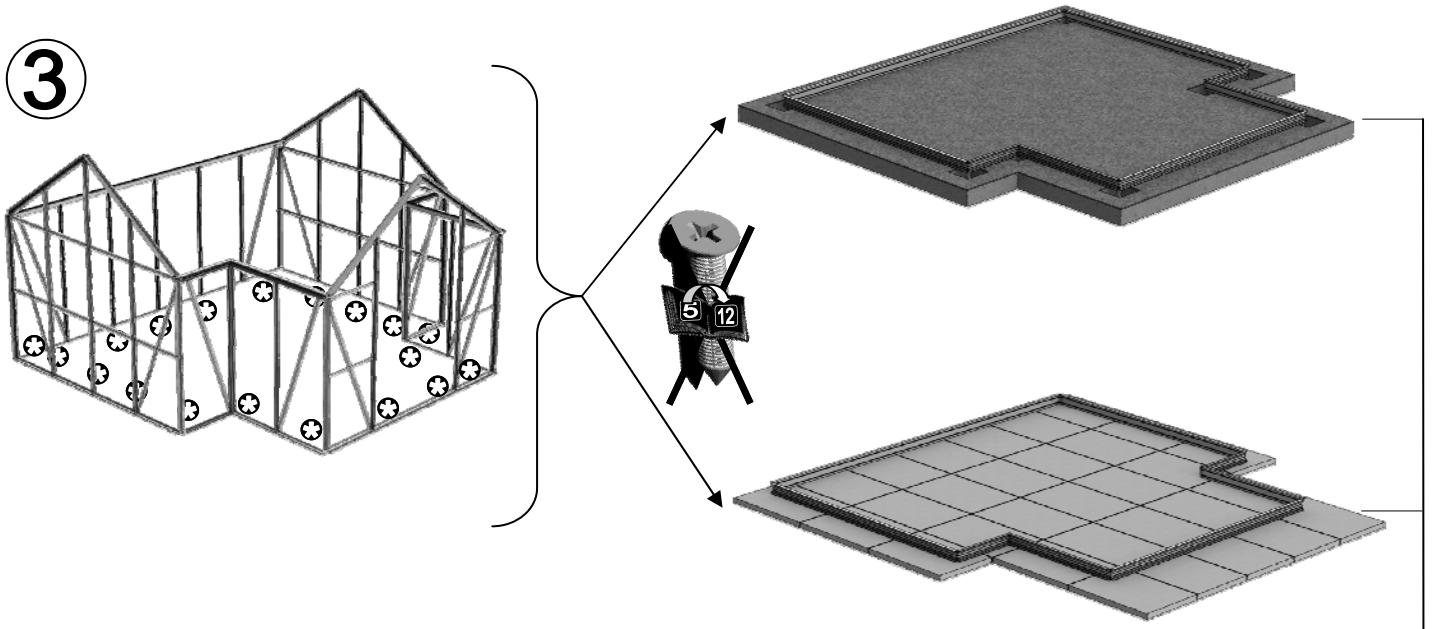


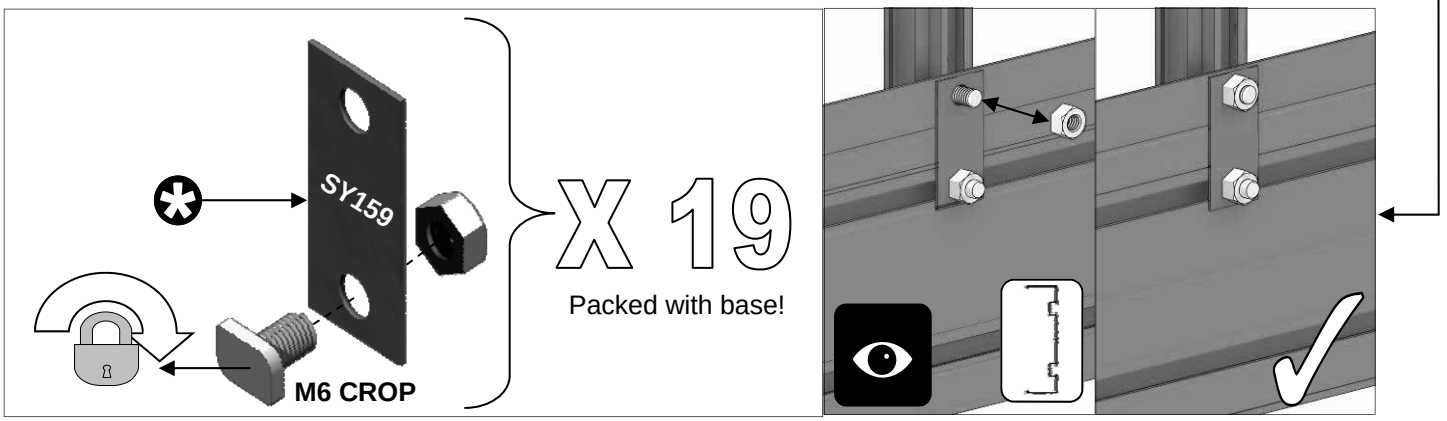


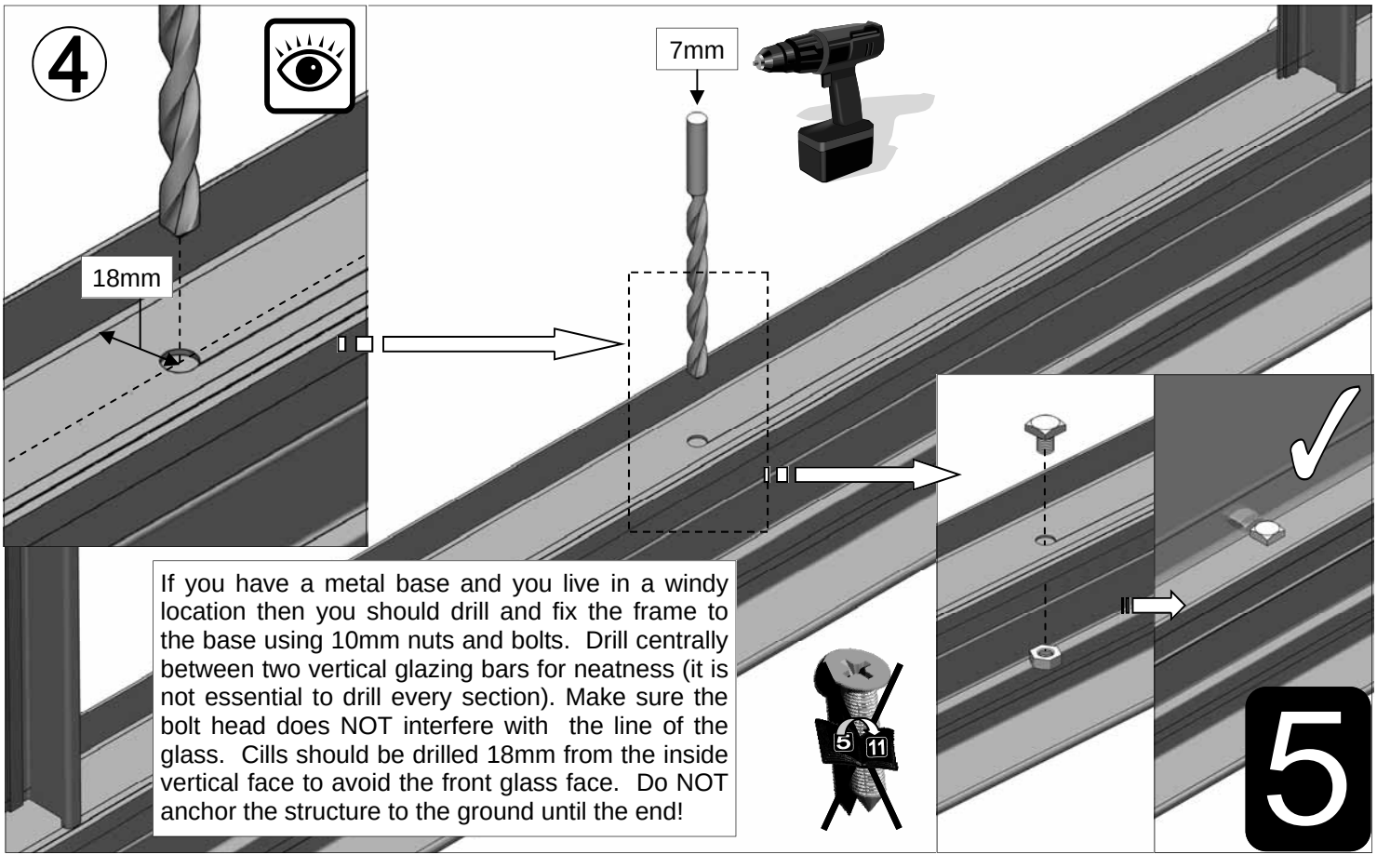


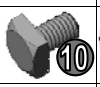


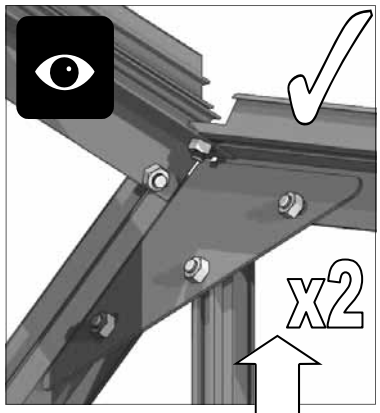


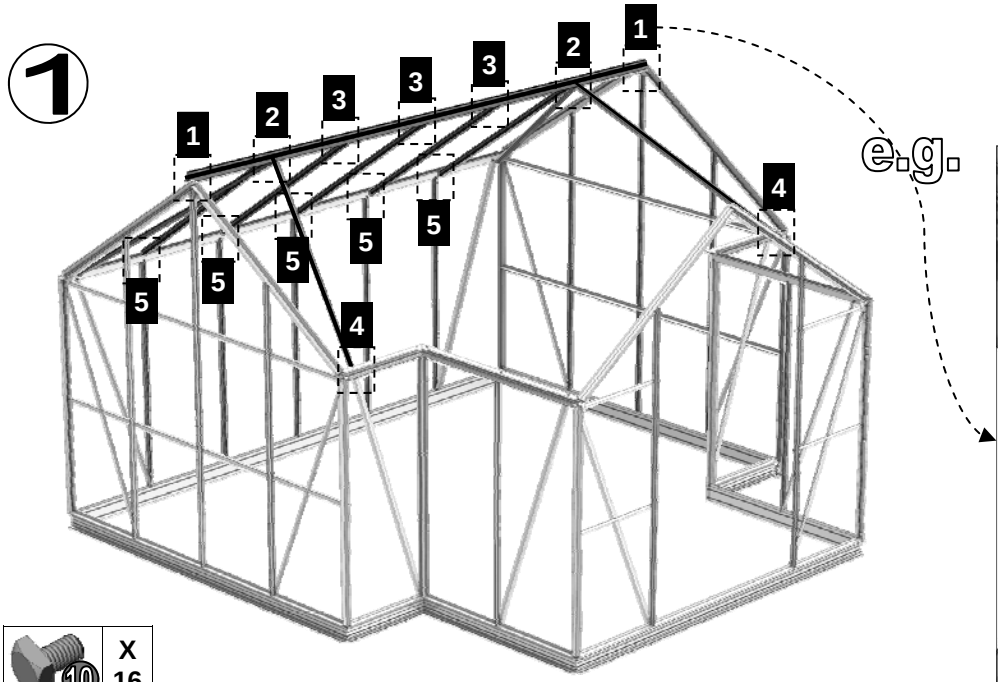

3
5
12

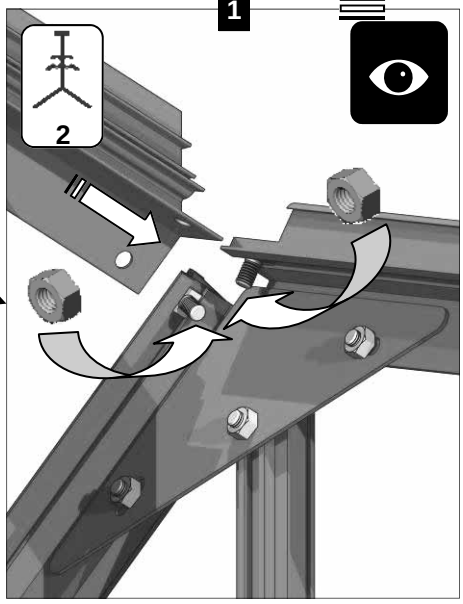

SY159
M6 CROP
X 19
Packed with base!

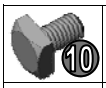

4
7mm
18mm
If you have a metal base and you live in a windy location then you should drill and fix the frame to the base using 10mm nuts and bolts. Drill centrally between two vertical glazing bars for neatness (it is not essential to drill every section). Make sure the bolt head does NOT interfere with the line of the glass. Cills should be drilled 18mm from the inside vertical face to avoid the front glass face. Do NOT anchor the structure to the ground until the end!
5
11
5

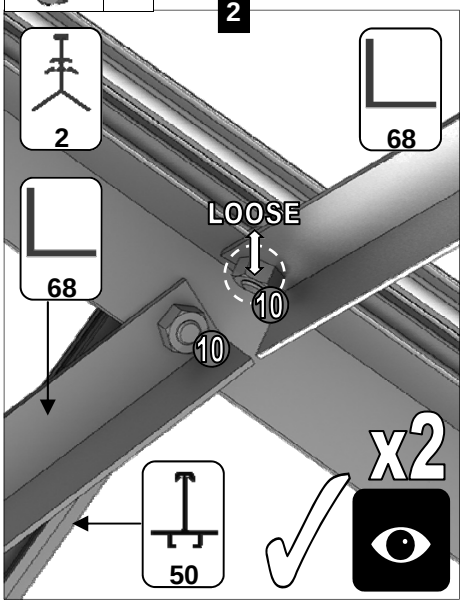
6a	Part No	SY 002	SY 050	SY 068	SY312	SY 318	SY 319	SY 320	SYBOL M6X11	SYBOL M6X15	SYNUT M6
	Detail										
	Length 'mm'	3720	1490	1561	1964	1240	N/A	N/A	10	15	N/A
	Quantity	1	7	6	2	1	2	1	27	12	35

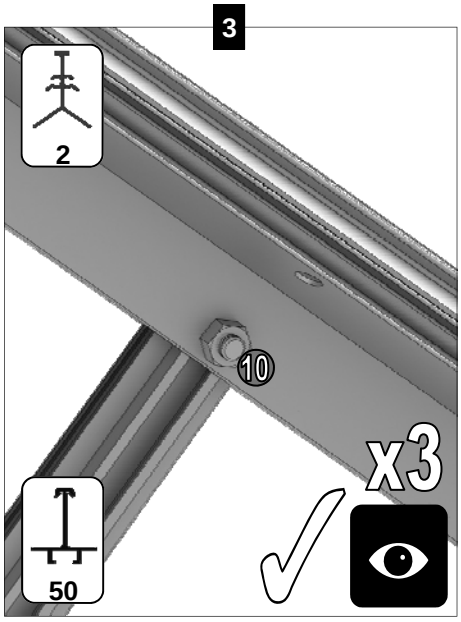


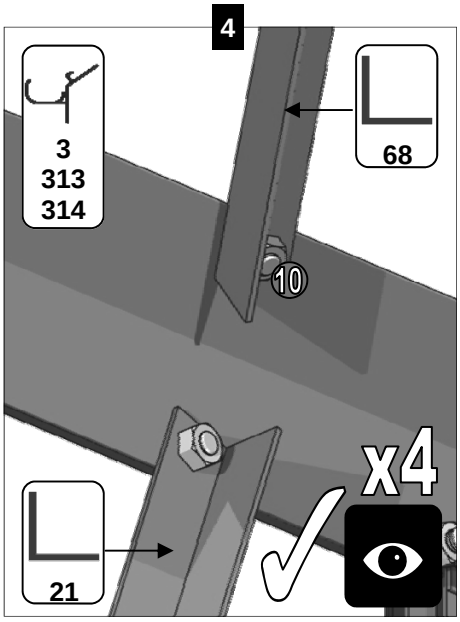


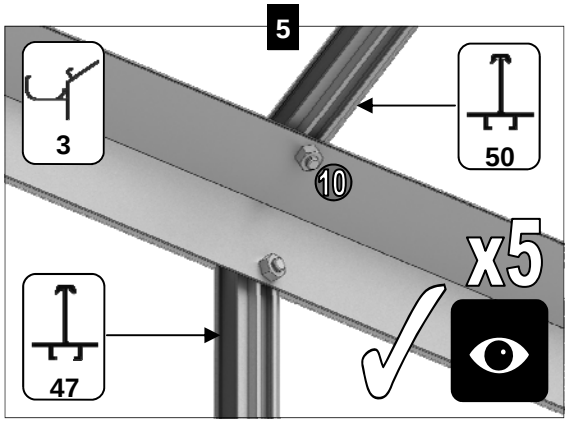


	X 16
	X 16

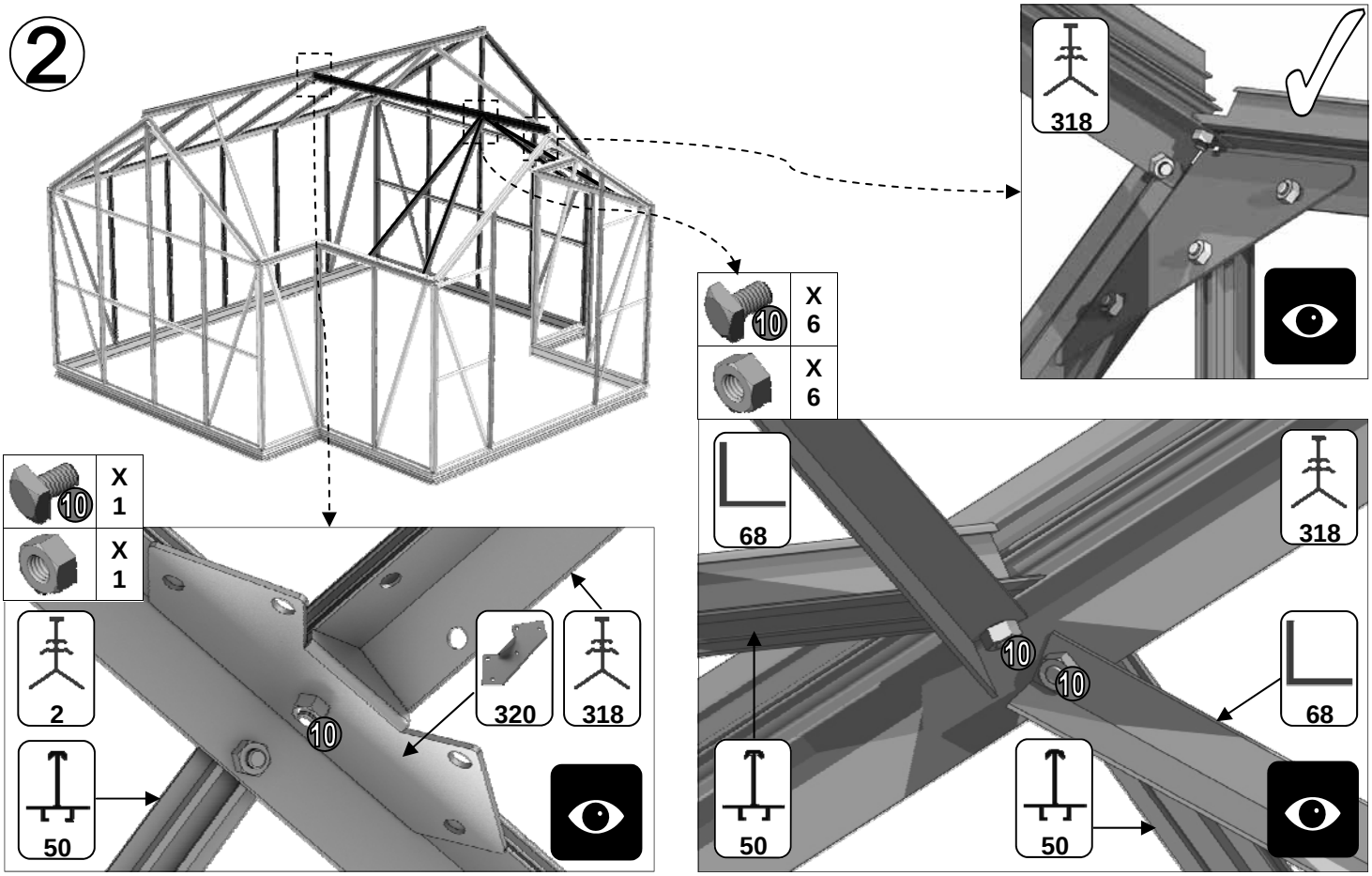


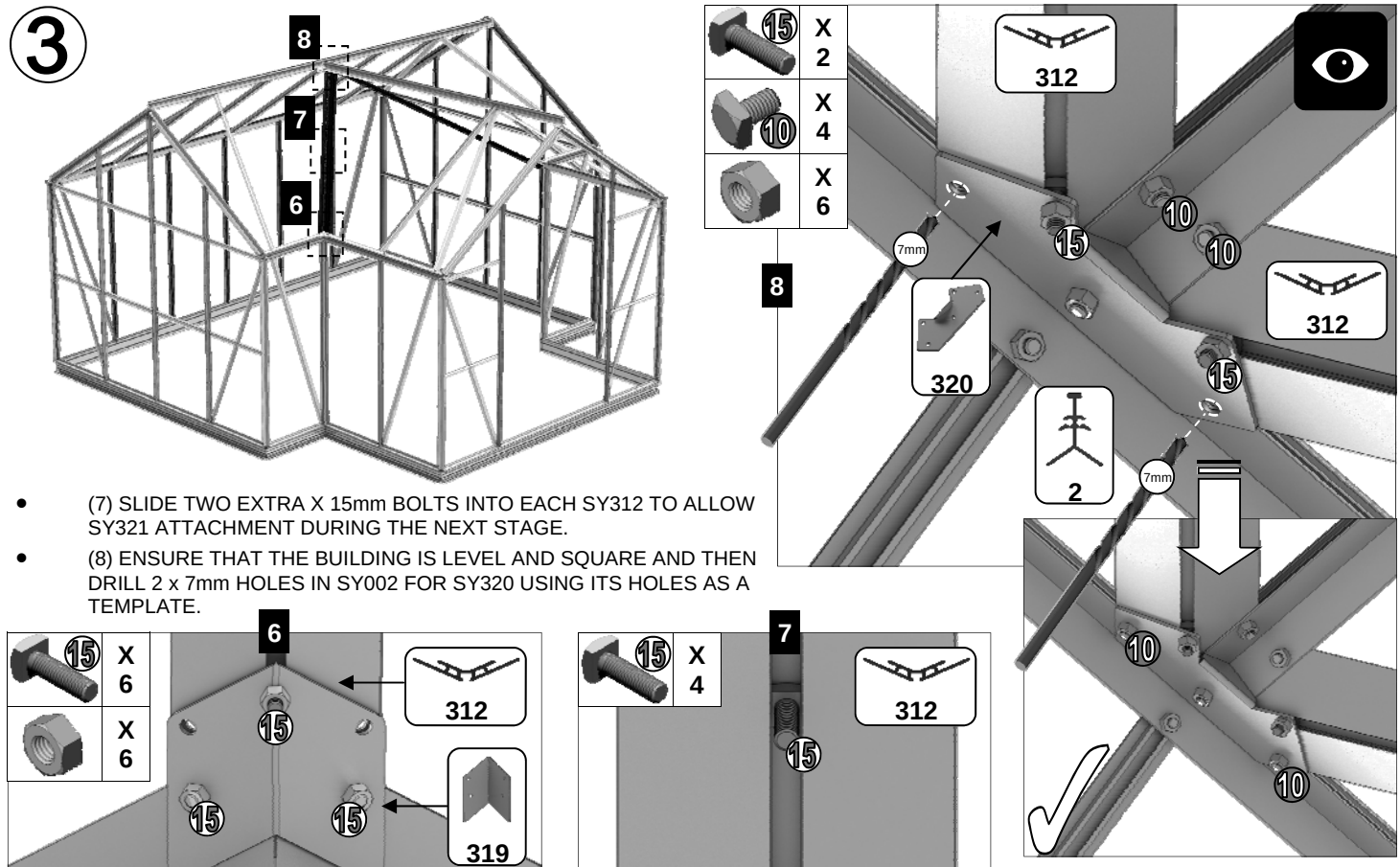




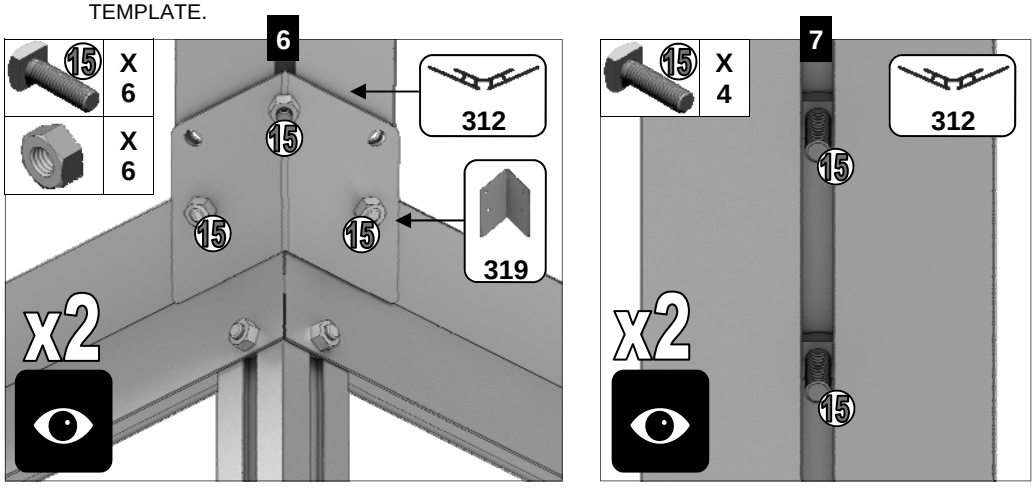


6a

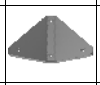
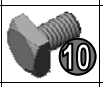




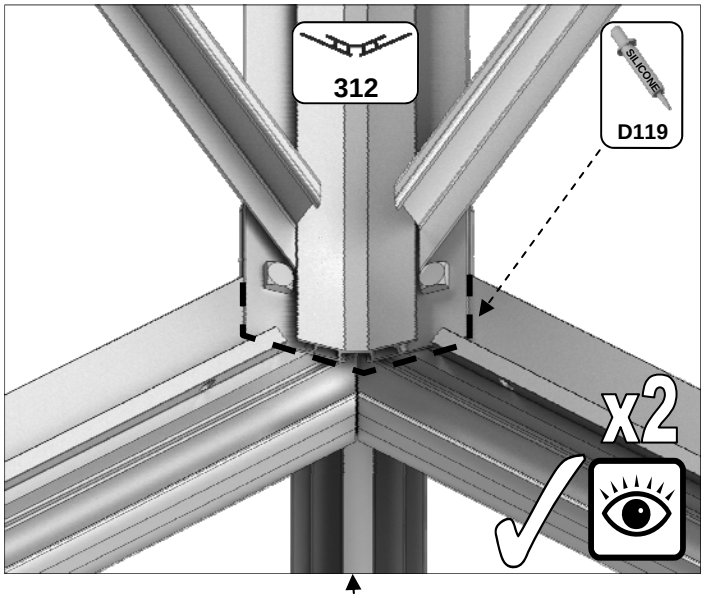
- (7) SLIDE TWO EXTRA X 15mm BOLTS INTO EACH SY312 TO ALLOW SY321 ATTACHMENT DURING THE NEXT STAGE.
- (8) ENSURE THAT THE BUILDING IS LEVEL AND SQUARE AND THEN DRILL 2 x 7mm HOLES IN SY002 FOR SY320 USING ITS HOLES AS A TEMPLATE.

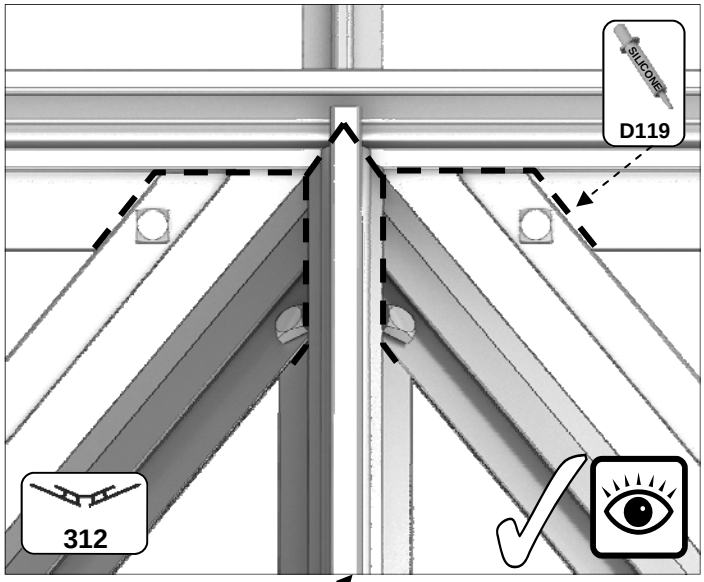


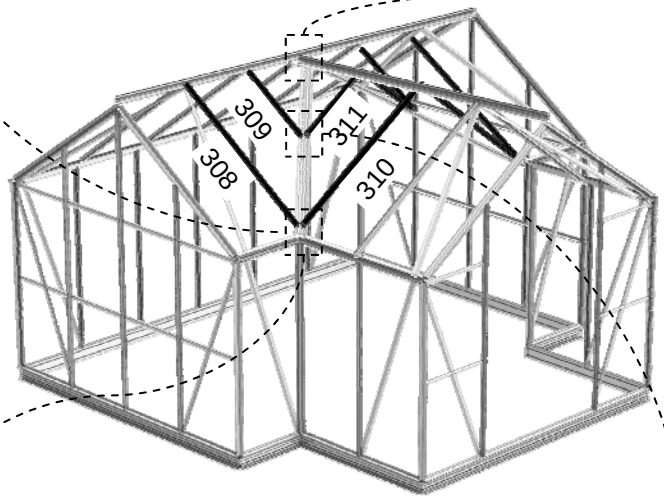
6a

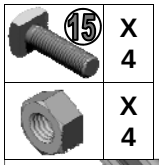
6b	Part No	SY 093	SY308 / SY310	SY309 / SY311	SY321	HE600	HE601	HE 602A	SYBOL M6X11	SYBOL M6X15	SYBOL M6X11 CROP	SYNUT M6
	Detail											
	Length 'mm'	636	1474	722	N/A	608	460	915	10	15	10	N/A
	Quantity	4	2 + 2	2 + 2	2	7	7	1	4	5	30	50

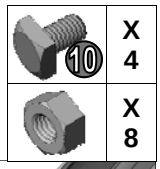
4

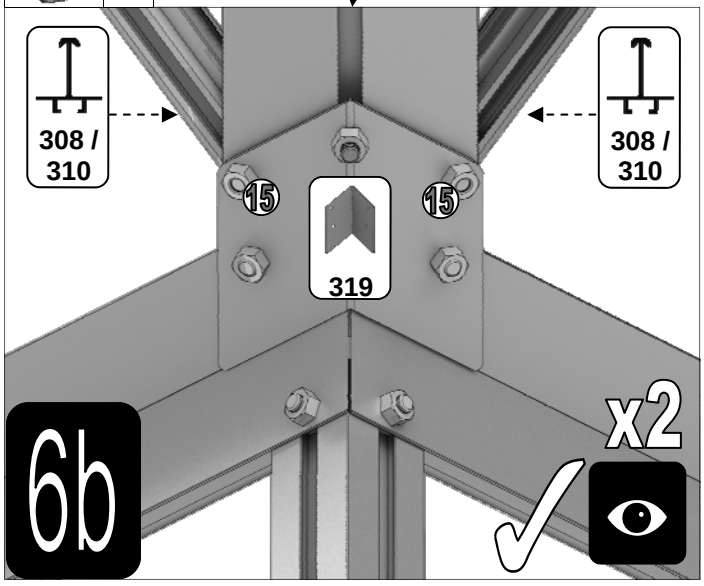


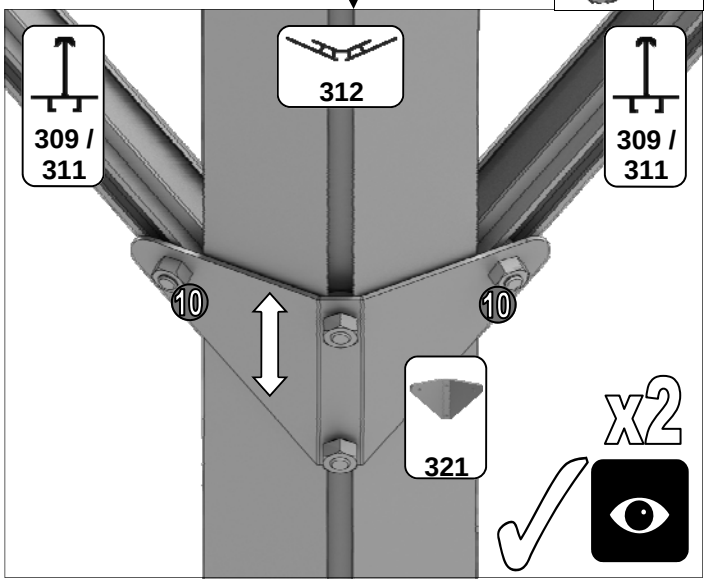


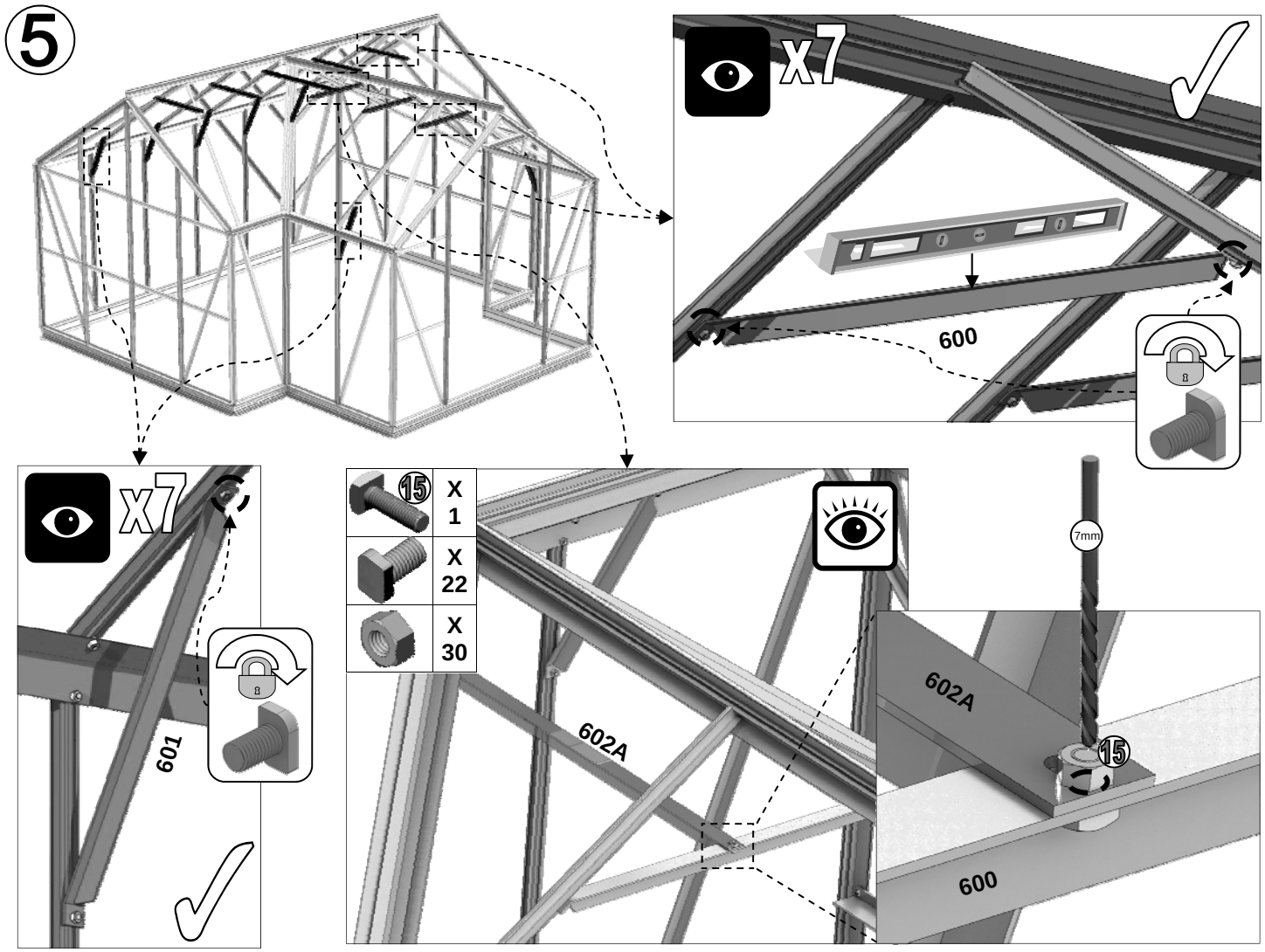


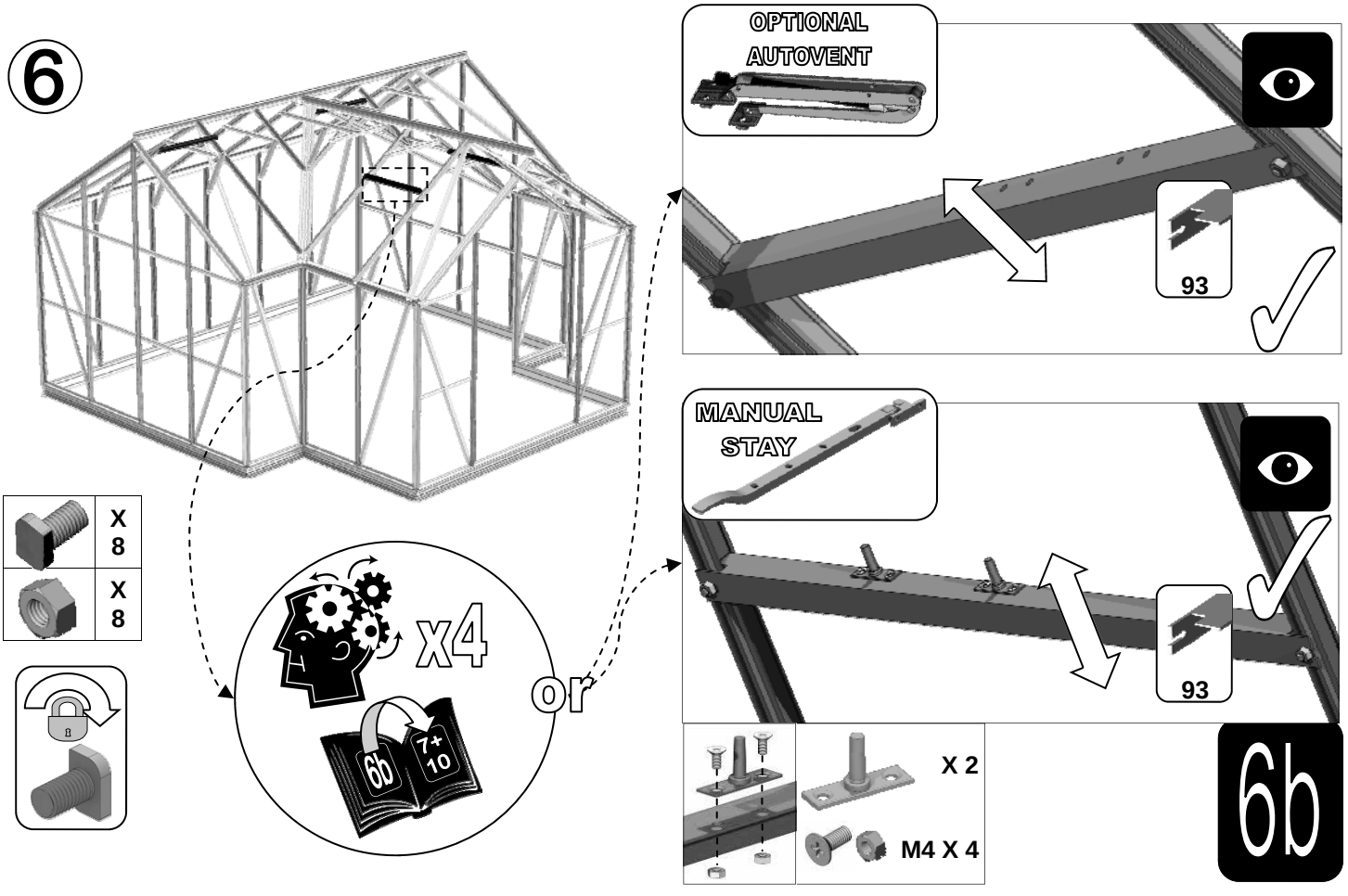






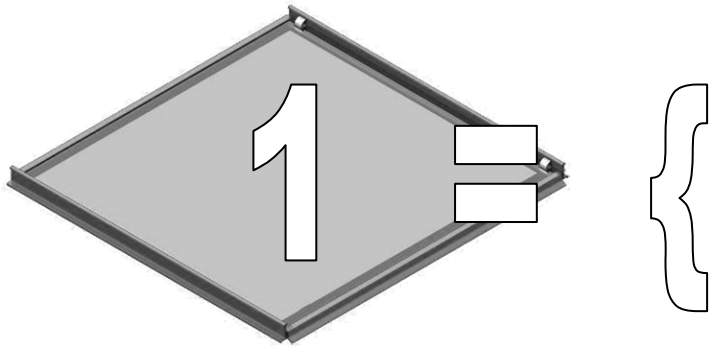


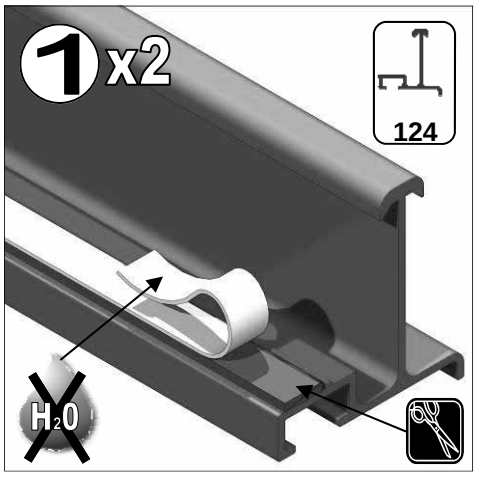

5
x7
600
x7
601
15
X 1
X 22
X 30
602A
7mm
602A
15
600

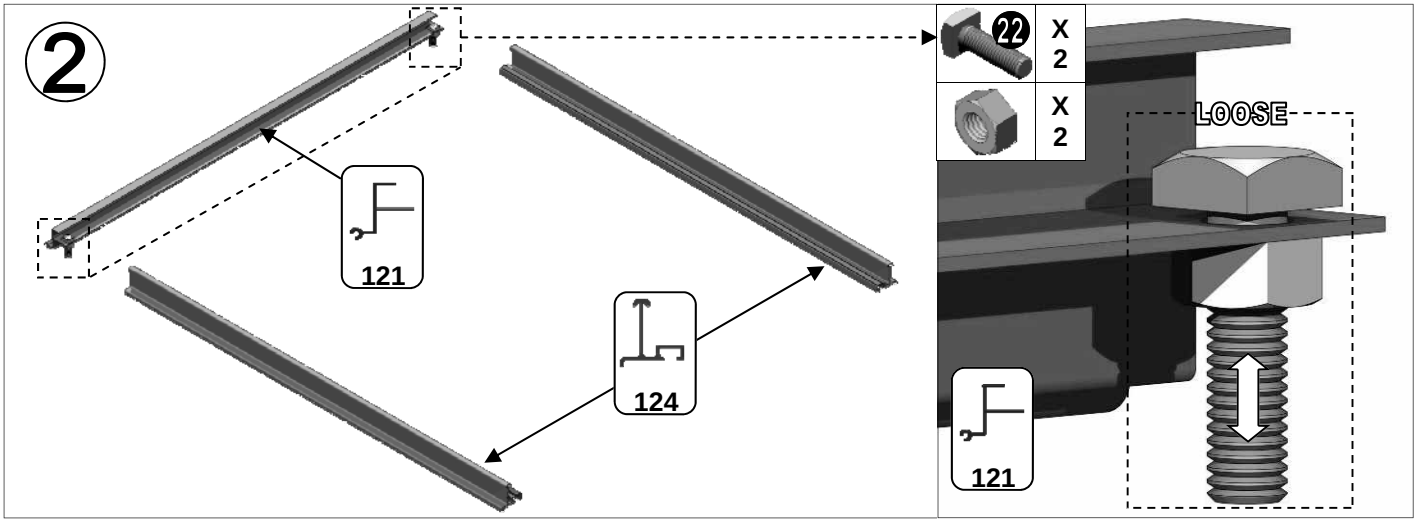

6
OPTIONAL AUTOVENT
93
MANUAL STAY
93
X 8
X 8
x4
or
7+
10
6b
X 2
M4 X 4
6b

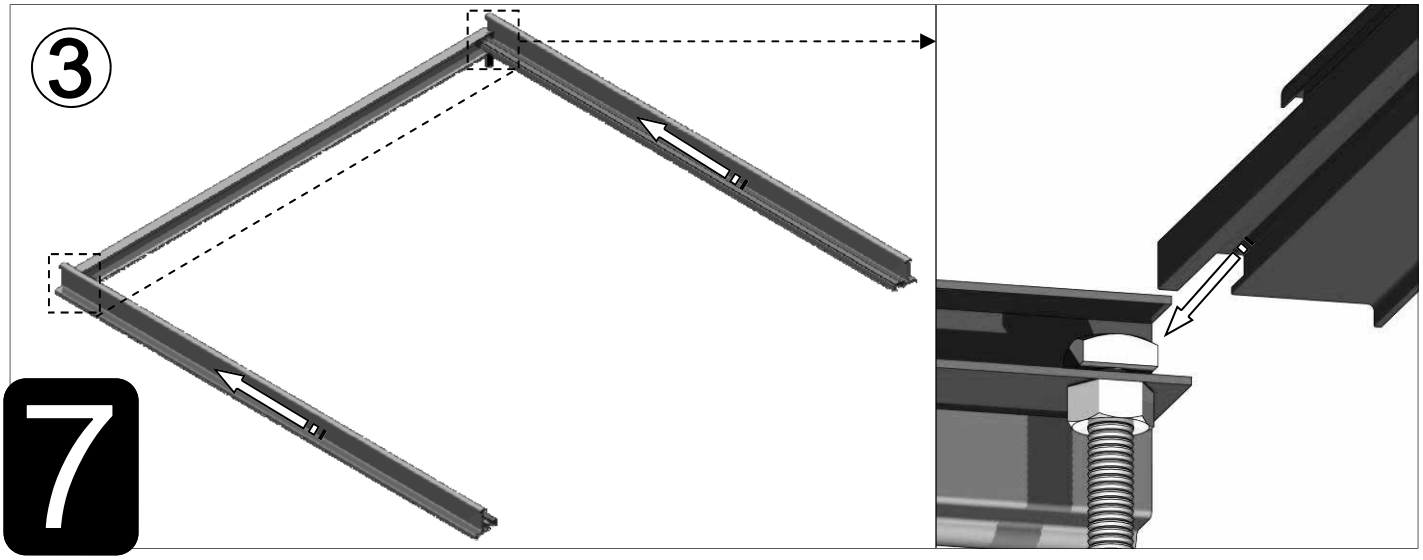
7

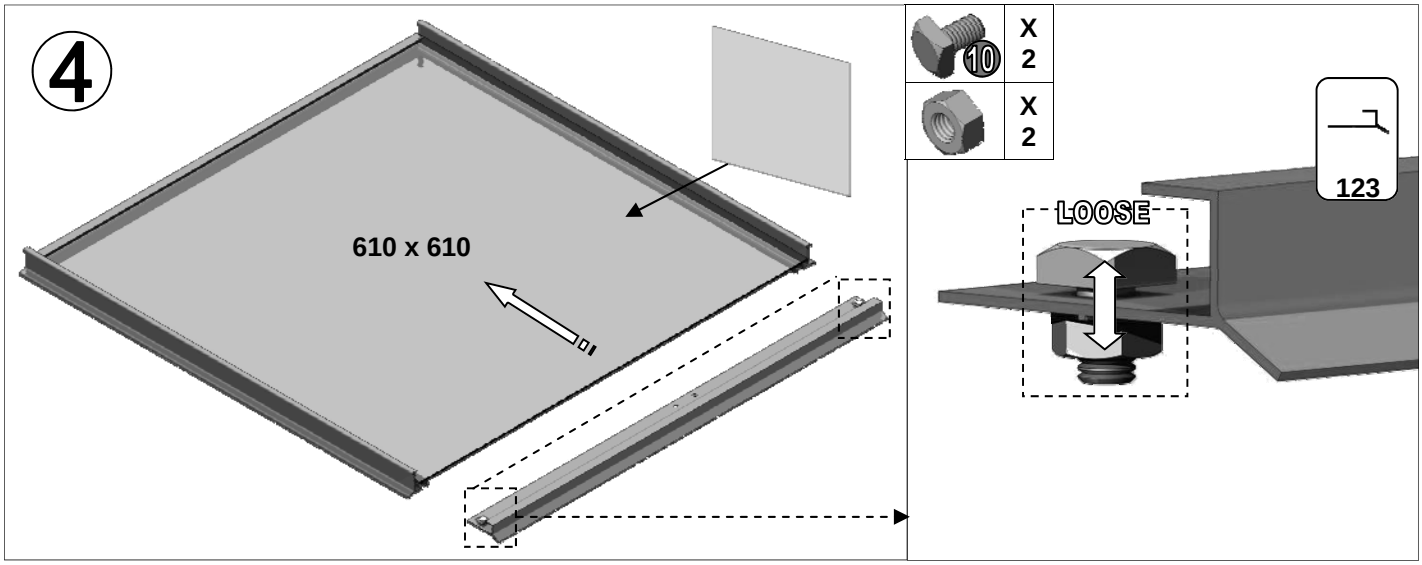
Part No	SY 121	SY 123	SY 124	SY BOL M6X11	SY BOL M6X22	SY NUT M6	SY BOL M4X10	SY NUT M4	SYCLIP (OR OPTIONAL CAPPING?)	SY FOAM	SY STAY	610X 610
Detail												
Length 'mm'	612	610	610	10	22	N/A	10	N/A	N/A	1220	N/A	GLASS
Quantity	1	1	2	2	2	4	6	6	4	1	1	1

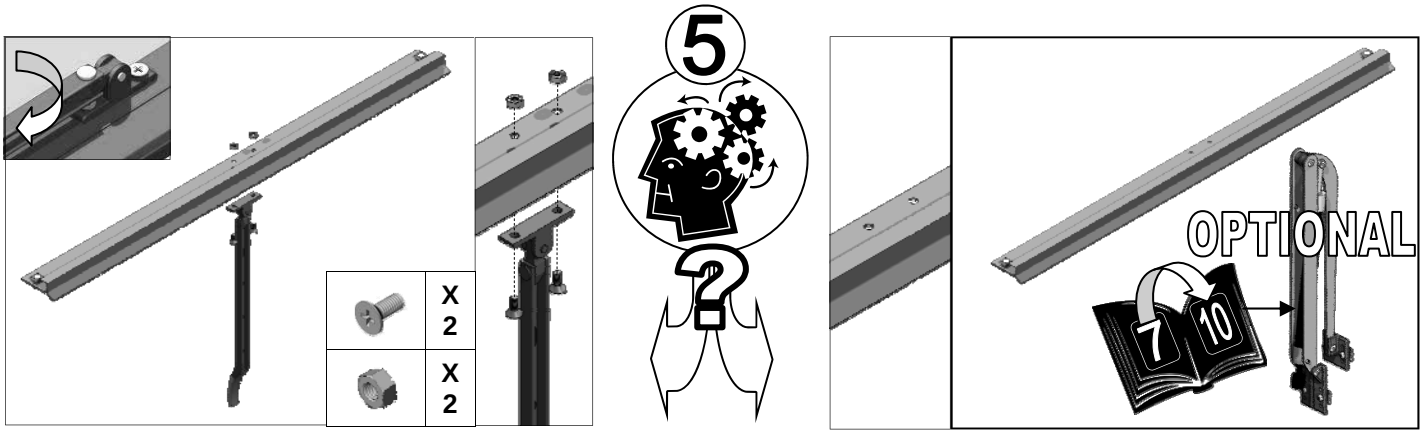


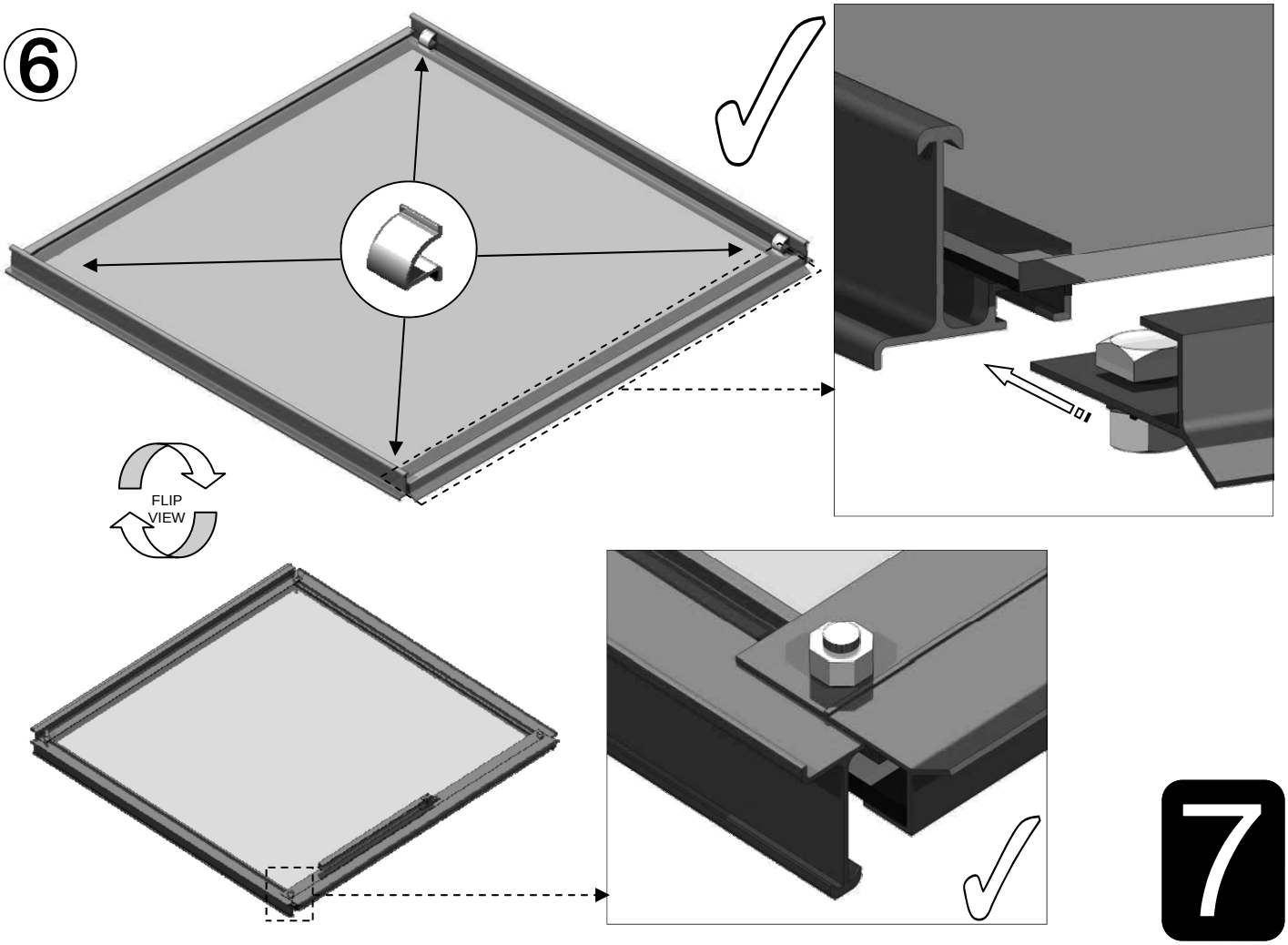




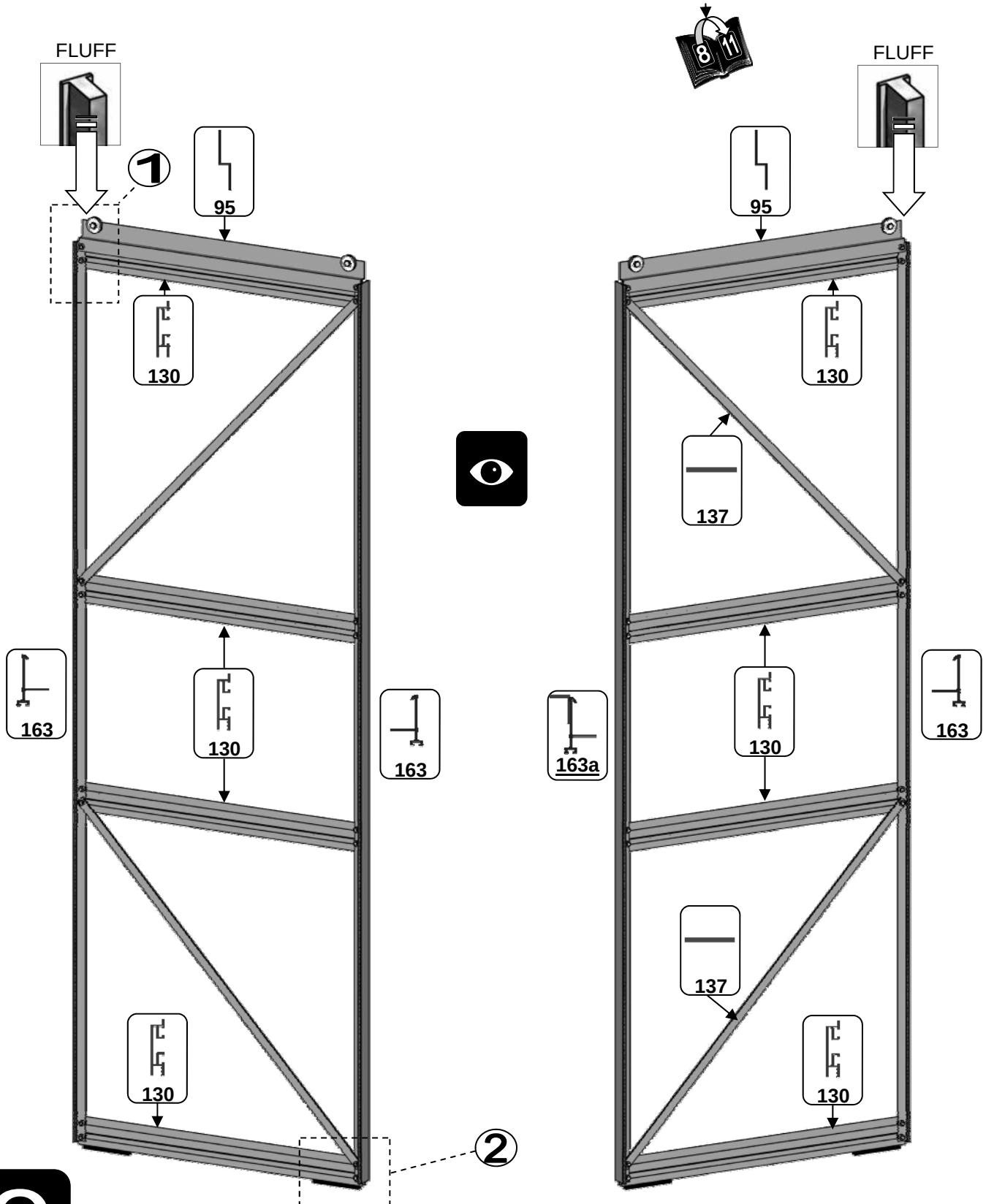


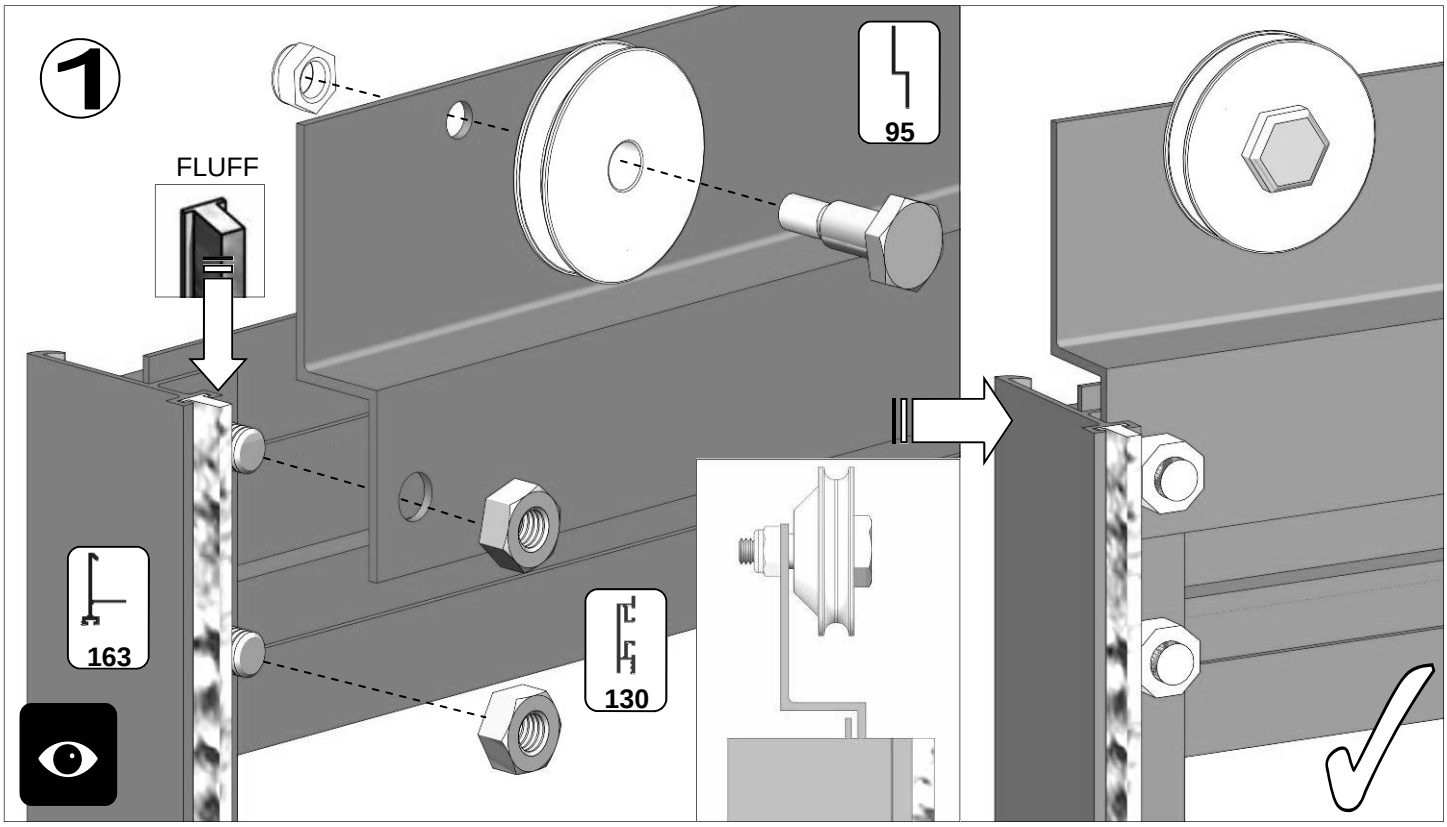

4
610 x 610
X 2
X 2
LOOSE
123

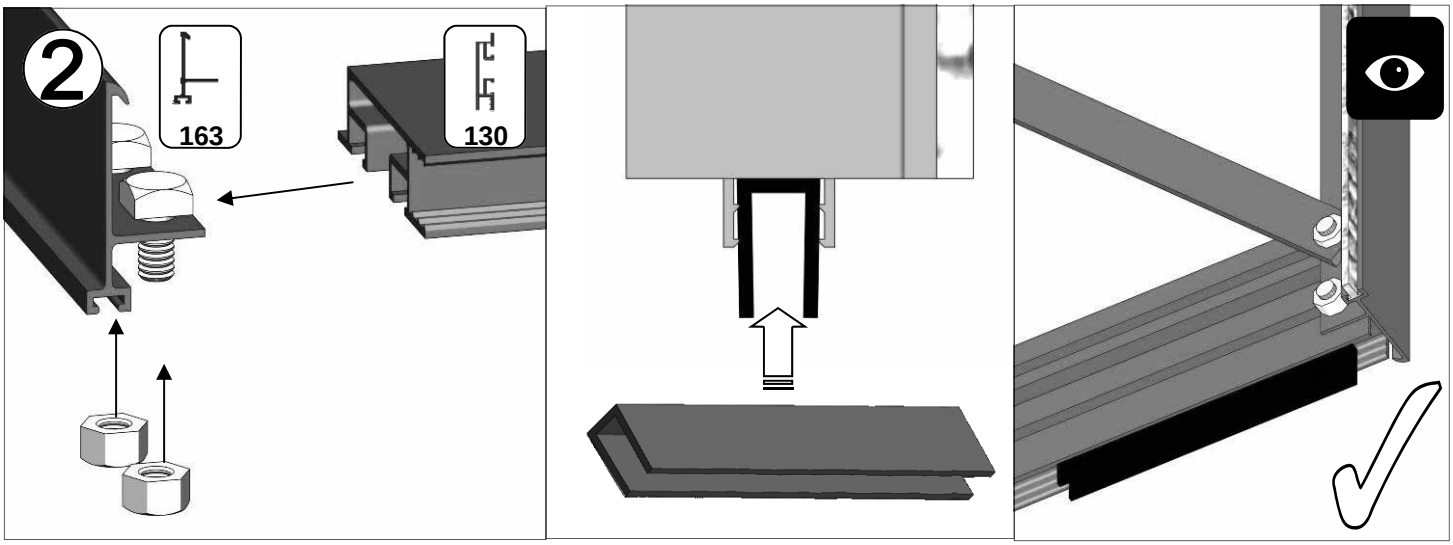

5
X 2
X 2
OPTIONAL
7
10

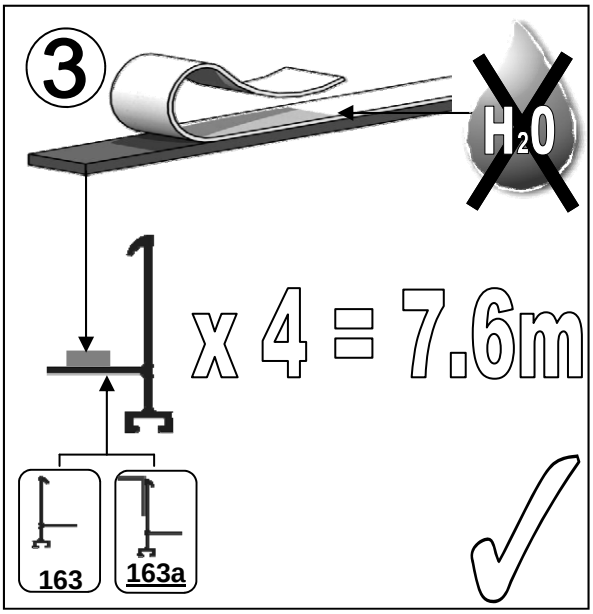

6
FLIP
VIEW
7

	Part No	SY 095	SY 130	SY 137	SY 163	SY 163a	SY DOOR GLIDE	SY WHEEL	SY BOL DOOR	SY NUT DOOR	SY DOOR STOP	SY FOAM	SY DRA	SYBOL M6X11	SYNUT M6
8	Detail														
	Length 'mm'	614	619	883	1901	1901	100 (PLASTIC)	N/A	N/A	N/A	N/A	7600 (FOAM)	4000 (FLUFF)	10	N/A
	Quantity	2	8	4	3	1	4	4	4	4	2	1	1	32	32





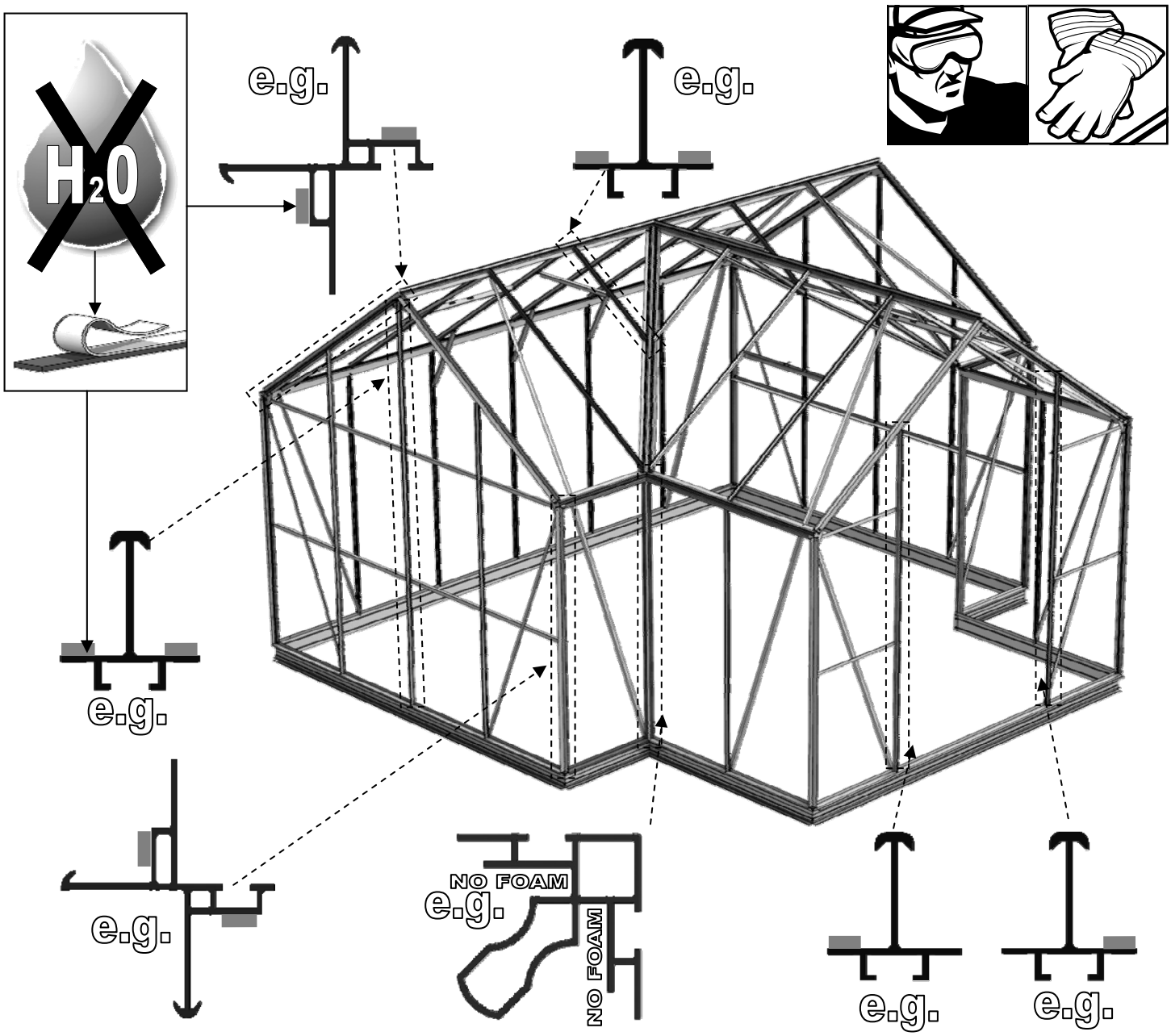


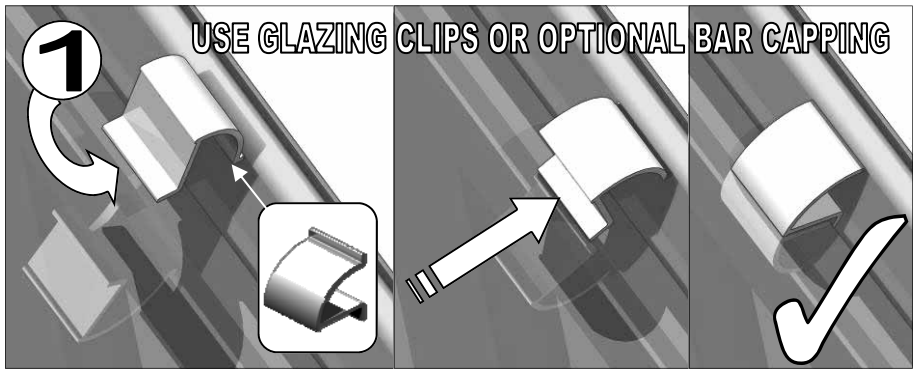


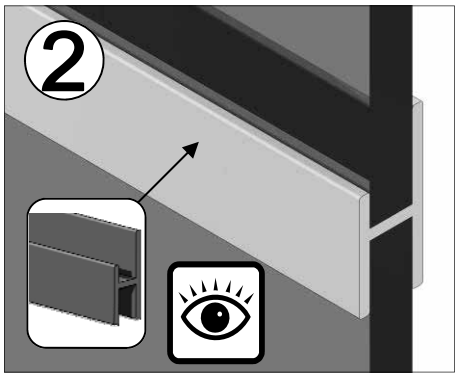
Glazing tips for sections <u>8 & 9</u>:

- The foam (see left) goes longitudinally in three sections on each door stile and all over the greenhouse frame, see overleaf, including the roof corner bars. It never goes horizontally, the glass just sits directly onto the aluminium cills in the sides.
- Remove the white paper on the foam before it gets wet as it is difficult to remove, i.e. it comes off in small pieces.
- Clips (see overleaf) go roughly 1 every 305mm (1') e.g. 610 x 610 pane you would have 2 per side.
- <u>IMPORTANT</u>: When glazing we suggest that you start with the 'T' panes in the roof and work outwards as this is the hardest area to access. Add a small blob of silicone (D119 tube supplied) to the bendable overlap clips below the T and F panes to stop them from sliding down towards the gutter. Once all four 'T' panes are in place check that the area does not leak using a watering can where the two ridges '2' & '318' join.

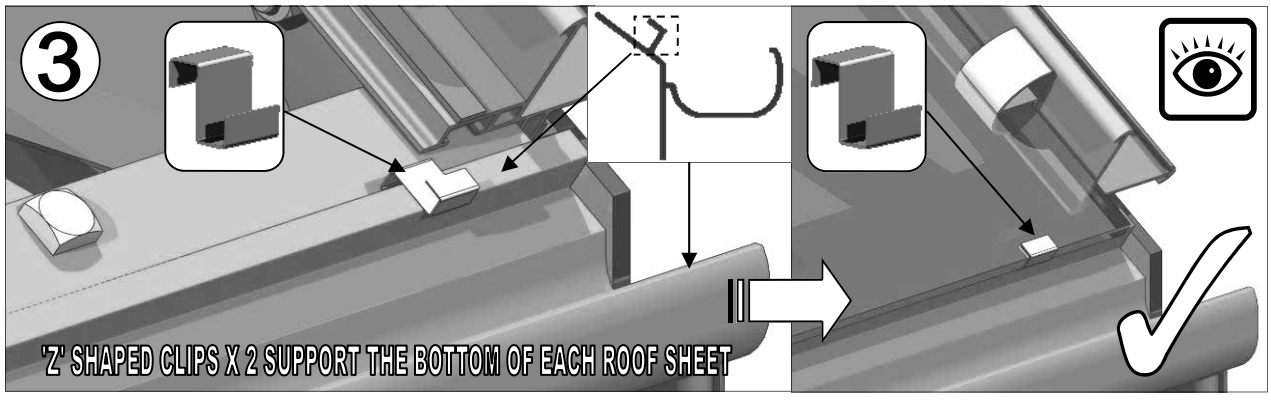
8


e.g.
e.g.
e.g.
e.g.
e.g.
NO FOAM
NO FOAM
e.g.
e.g.

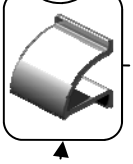

1
USE GLAZING CLIPS OR OPTIONAL BAR CAPPING


2

9


3
'Z' SHAPED CLIPS X 2 SUPPORT THE BOTTOM OF EACH ROOF SHEET

1



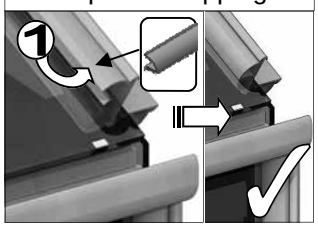
e.g.

TOUGHENED GLASS

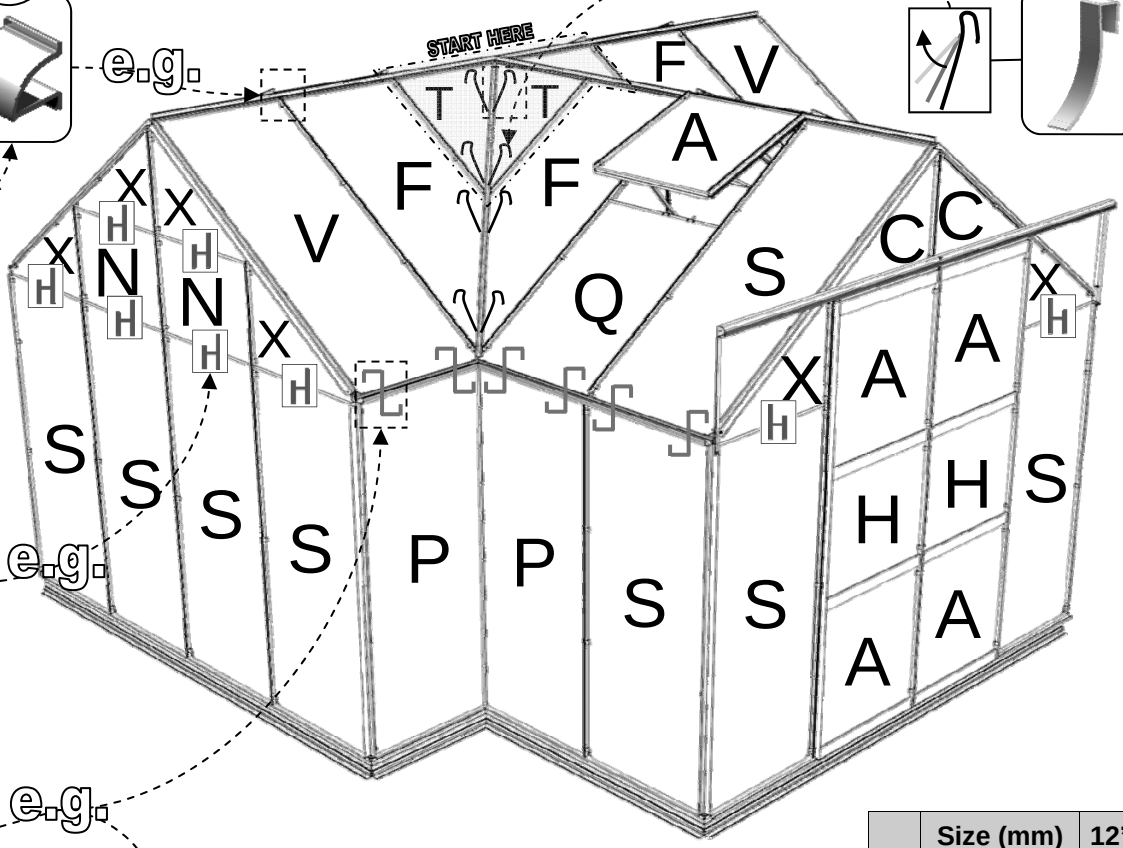
e.g.

4

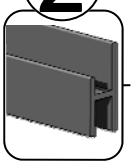
Or optional capping?



START HERE



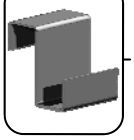
2



H

e.g.

3

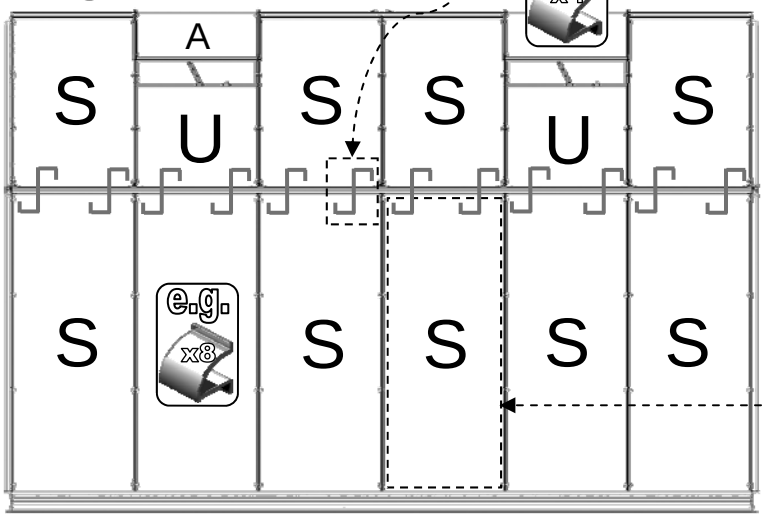


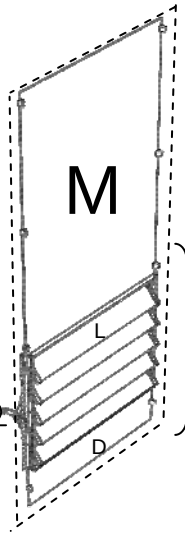
e.g.

BACK

e.g.

x4



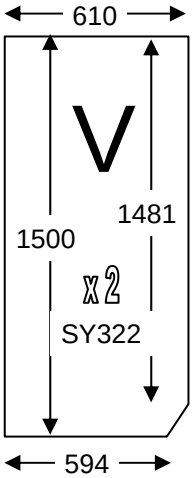


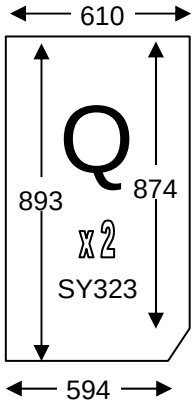
?

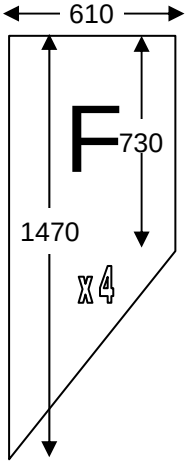
?1

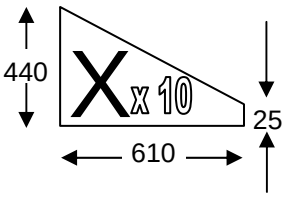
	Size (mm)	12’
S	610 X 1500	24
U	610 X 893	2
A	610 x 610	8
H	610 X 501	2
N	610 x 417	4
P	602 X 1500	4
	SYCLIP	404
H	610mm	14
	SYZCLIP	24
	SC203 (25 BAG)	1

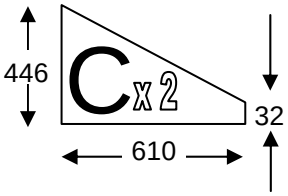
M	610 x 904	1
D	610 x 153	1
L	573 x 100	5

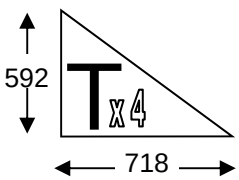




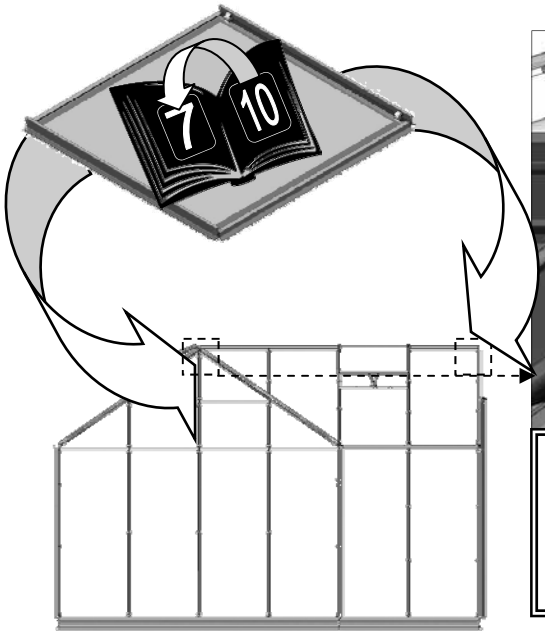


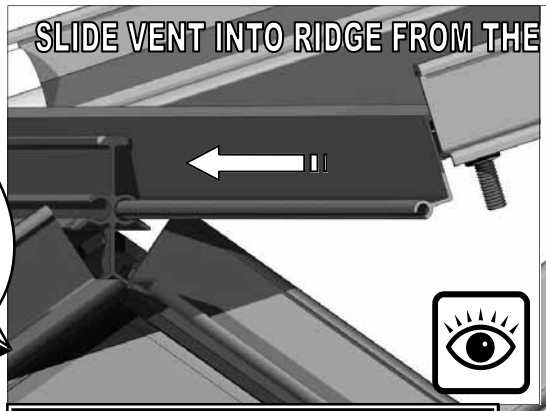


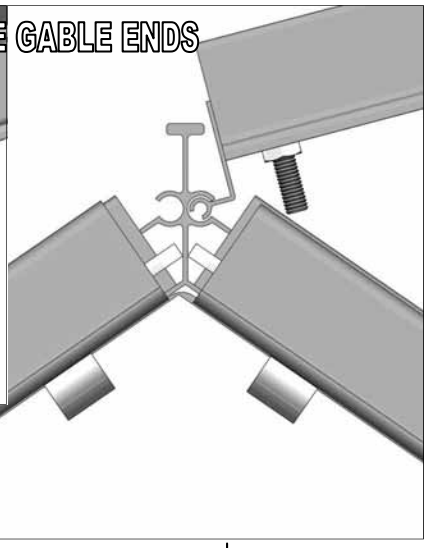




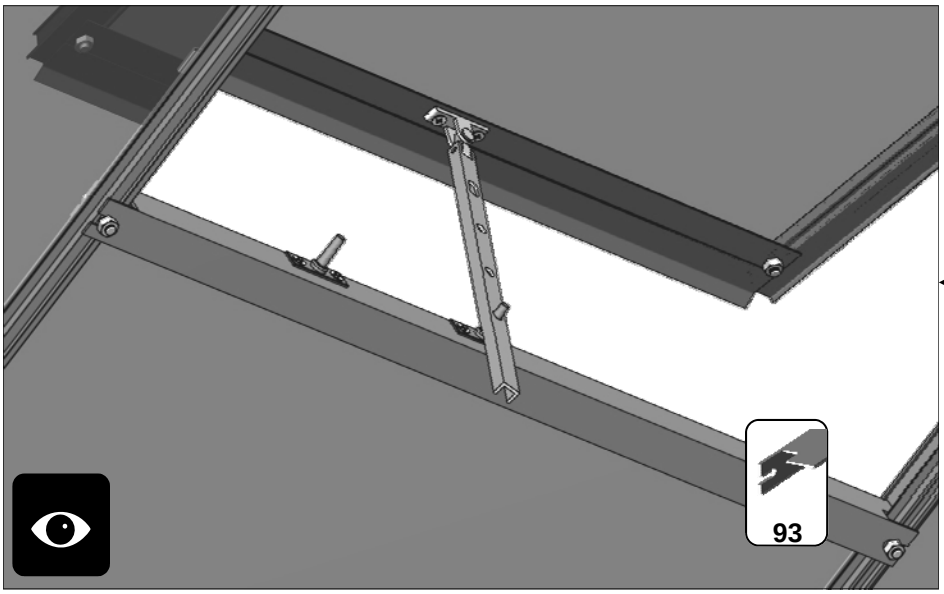
9a



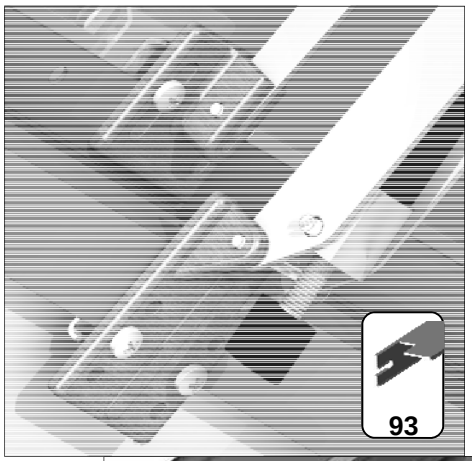


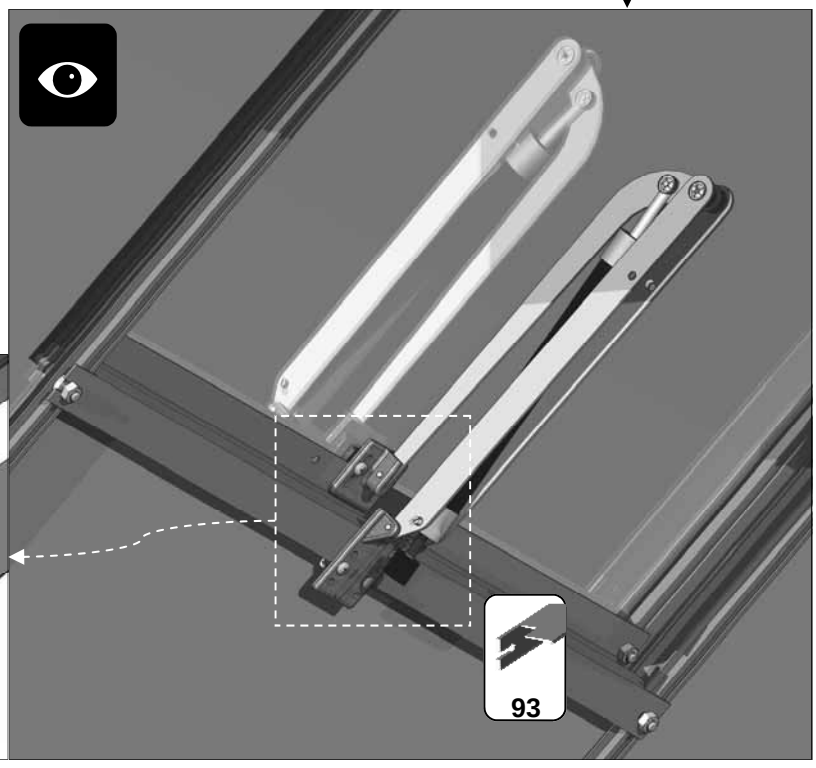


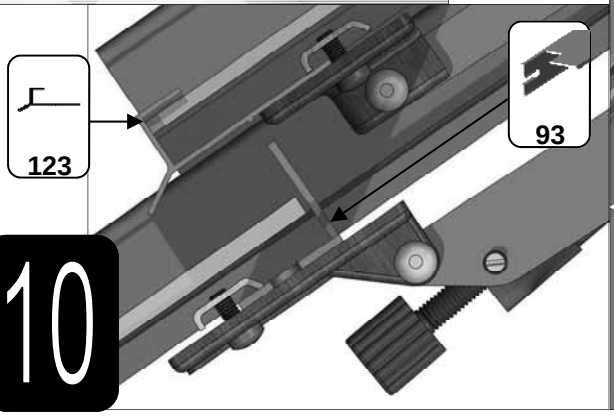
Prior to inserting the roof vents it is a good idea to double check that the roof has no excessive leaks using a watering can. Once they are inserted the roof is harder to access.



OPTIONAL

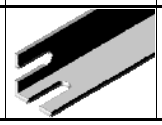


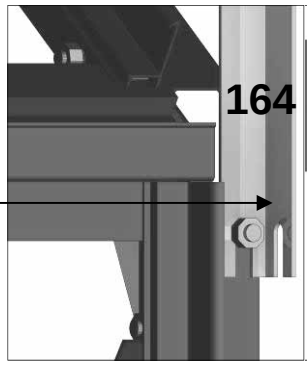


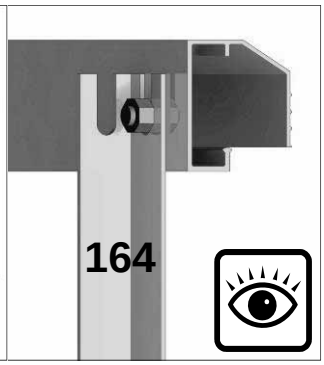


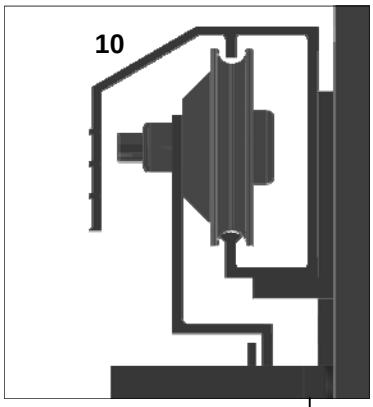
10

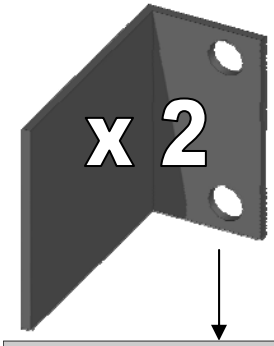
Attach upper door track 10 to the two bolts left ready in section 3 with nuts (position 10 vertically and push it through the central section between the two glaze bars. Twist 10 so that the slots in the mounting bar are facing upwards). Slide doors into upper track (10) and lower track (18), adjust the height of 10 until the door is running smoothly leaving enough room for the pane of glass above.

10		2530	1
164		479	2

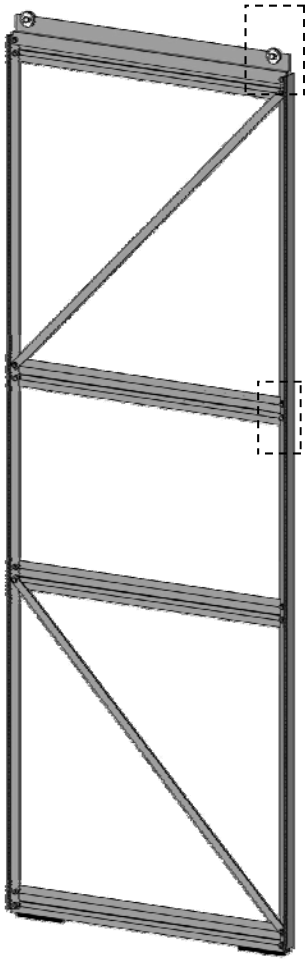


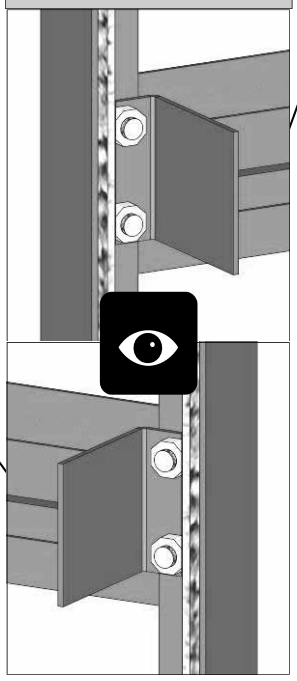


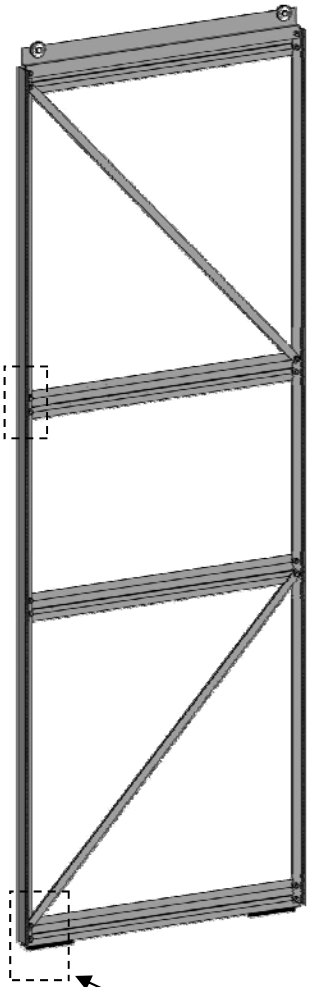


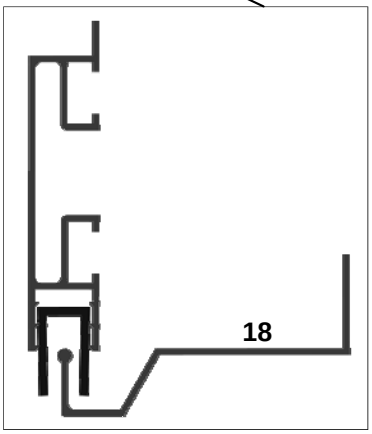


Carefully remove 2 nuts from door rear and attach door stop/ handles (see diagrams below). Re attach the nuts!



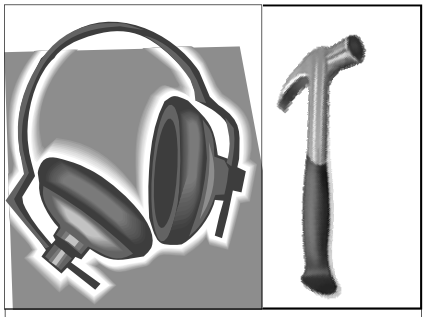


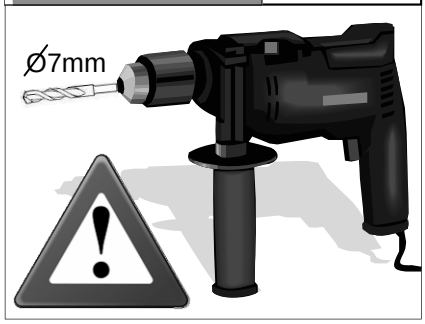




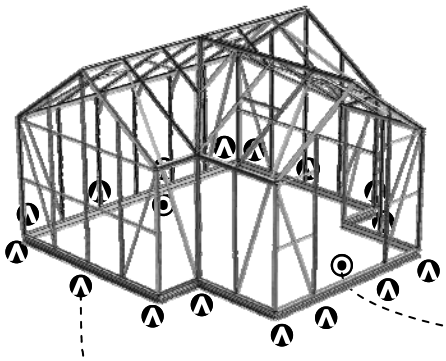
11

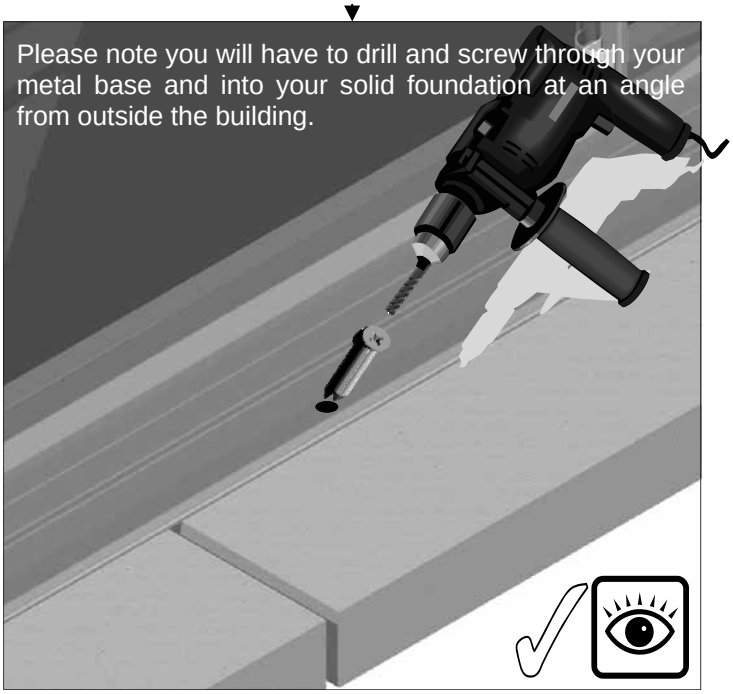
12	Part No	SY SCR2	SY RAWL	SY 198	SYBOL M6X11 CROP	SYNUT M6
	Detail					
	Length 'mm'	50	50	N/A	10	N/A
	Quantity	20	20	2	8	8

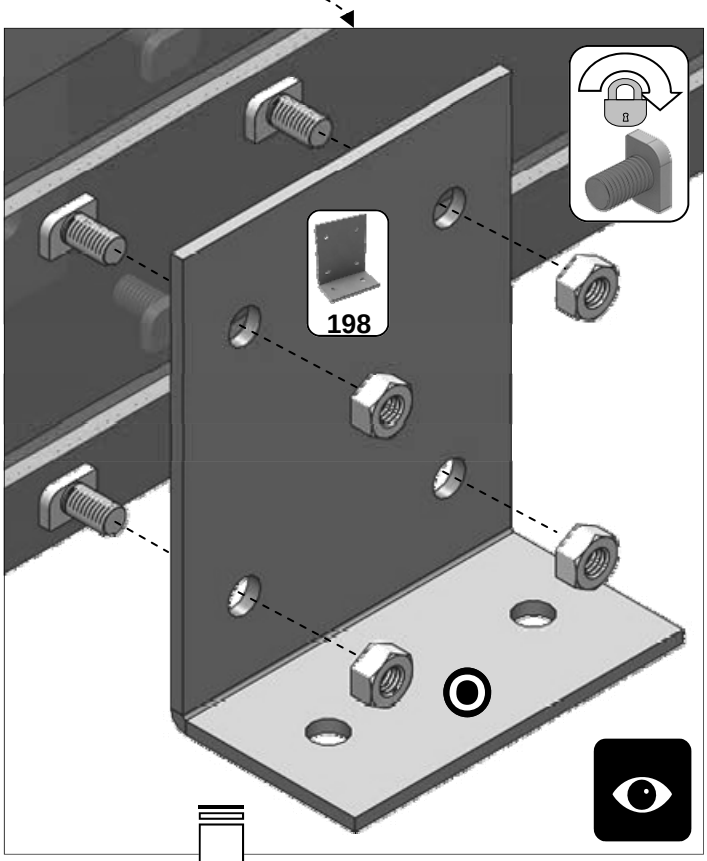


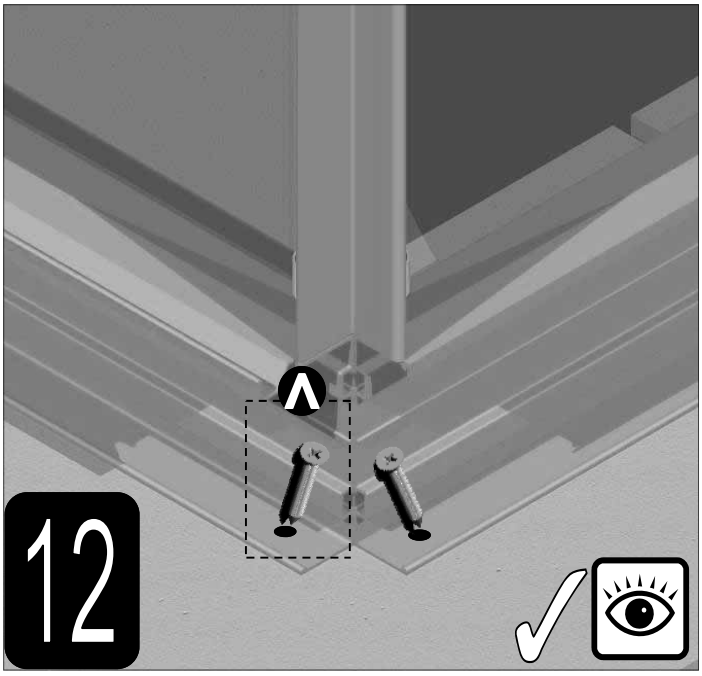


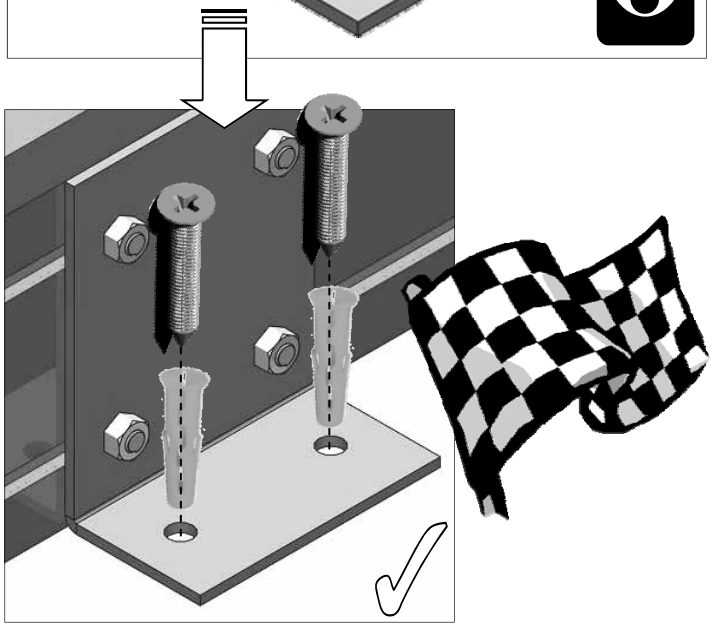
No 10 x 2”

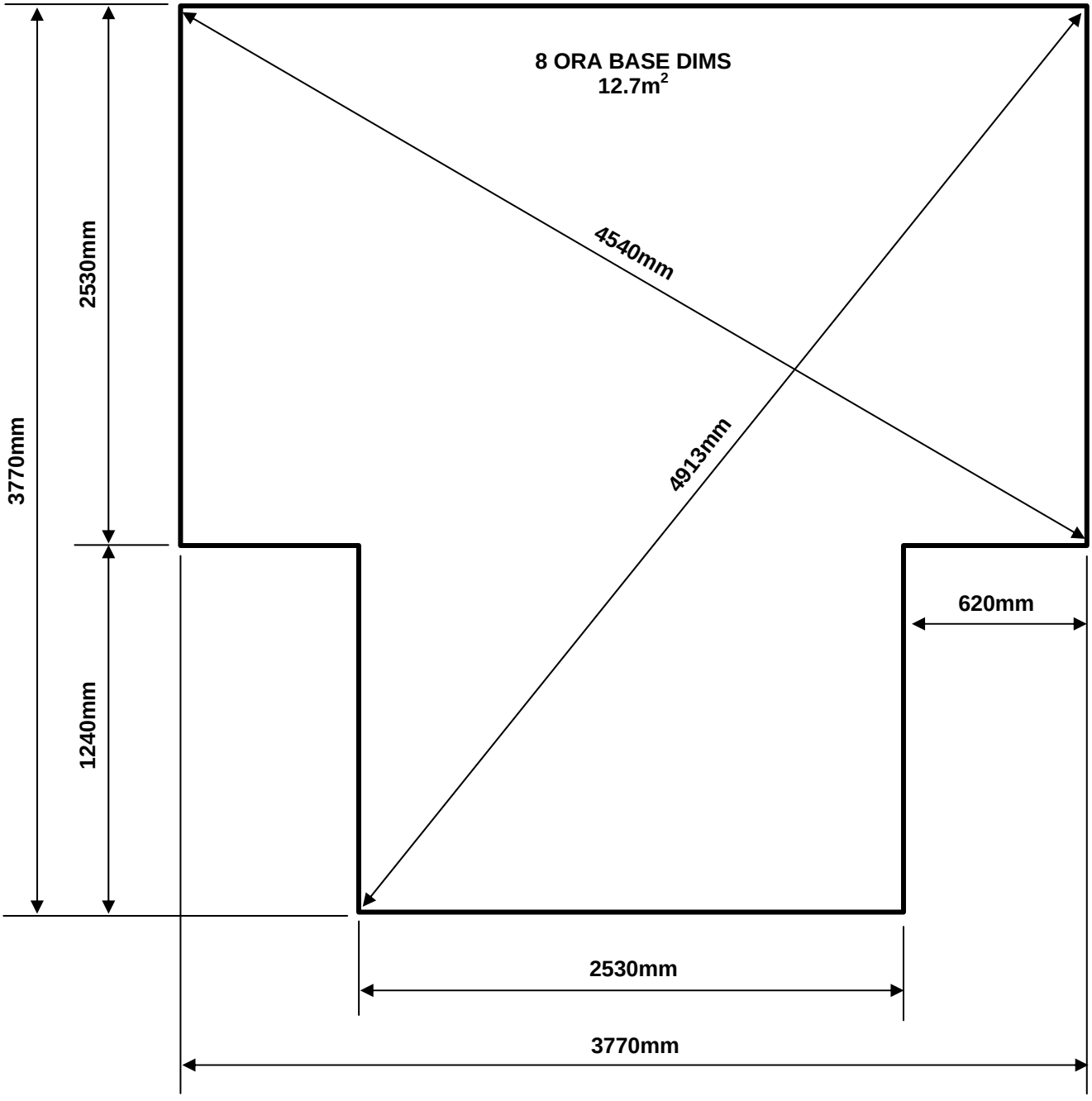











8 ORA BASE DIMS
12.7m2
4540mm
4913mm
2530mm
3770mm
1240mm
620mm
2530mm
3770mm

Push-in Bar Capping (optional) Instructions

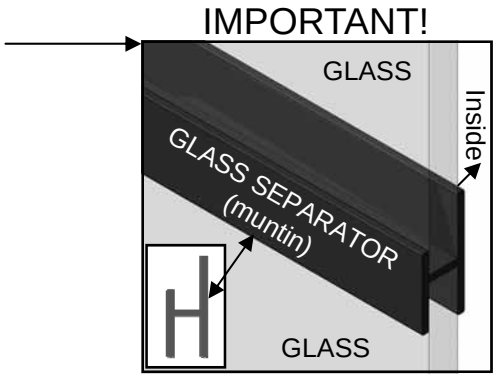
to be used in conjunction with your whole sheet toughened glass glazing plan.

PLEASE NOTE: Bar Capping makes the standard band or w-shaped glazing clip redundant!

You are about to begin glazing your greenhouse. It is vital that you take as many safety precautions as possible, especially when handling glass. When glazing the roof we recommend that one individual stands on some ladders inside the greenhouse, while someone else passes the panes up from the outside.

Important, when glazing any structure it is likely to take you several hours to complete the process. You should leave yourself enough time or get yourself help to do the job in one session. Before you begin the process carefully separate your glass into groups of similar panes being very carefully to measure and separate different types as some are quite similar. When moving the glass please be very careful and put down wooden bearers and cardboard to protect the glass from any hard ground or wall surfaces and to help keep the glass clean.

- Glass separators 'Muntins' (610mm black plastic strips) go on your front and rear gables allowing one pane to sit directly on the pane below (see picture to the right), note larger face of the muntin goes towards the centre of the building.



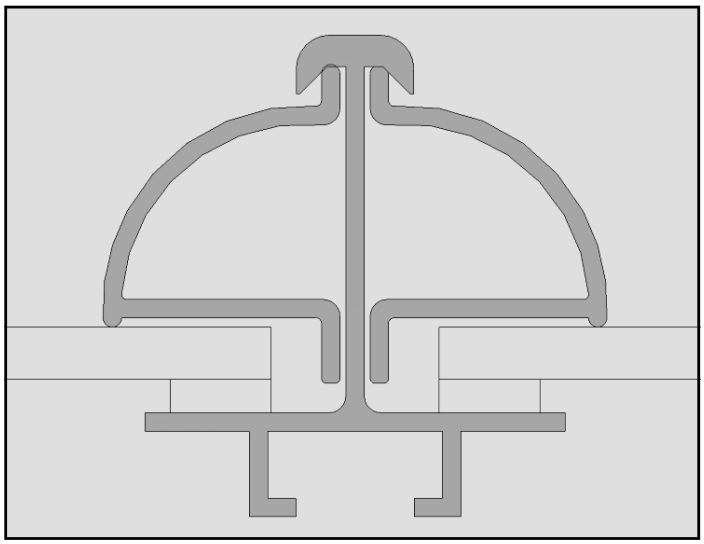
The ideal recommended glazing procedure in our opinion should go as follows;
Start by glazing two roof sections, standing in the doorway looking into the greenhouse the far left roof section and the front right. By doing these two sections first you will be able to establish the squareness of your structure. If you are having difficultly fitting these panes squarely into the structure then you need to recheck that the internal corner to corner measurements of the frame are equal in both directions.

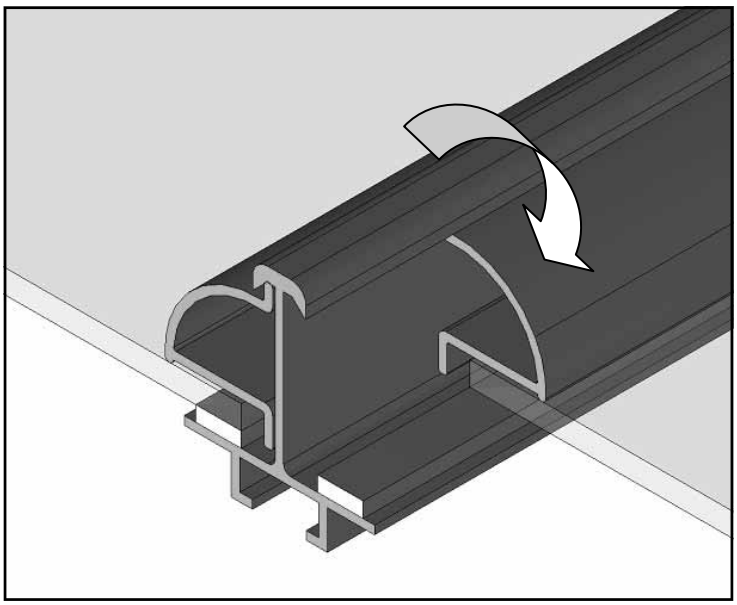
If you are still having difficulty then it may be due to the frame not being perfectly vertical. By moving the ridge backwards and forwards while you are up your supported ladders you will be able to alter the vertical aspect of your structure (you can also place a spirit level against the gables and the sides to assess this). Leave the rest of the roof glazing at this stage and move to glazing the rear and front gables (see next few pages for order and fittings), this will confirm that the structure is vertical.

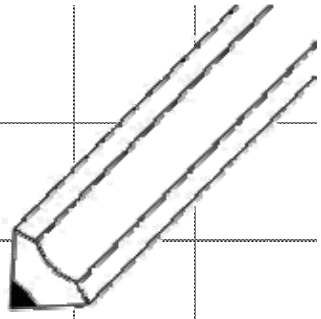
You can now glaze the sides, and then the rest of the roof. Note, that when you are glazing the roof you should leave glass out of the roof where you wish the roof vents to be situated (these should be fitted along with the doors after glazing.

Please note that the order with which you glaze your building is largely effected by your individual situation, i.e. If your greenhouse is to be situated tight up against a shed and a wall then those sides may need to be glazed first and then the whole building very carefully moved into position using as many helping hands as you can muster.

Bar capping needs to be trimmed to length with a hack-saw and inserted down the full length of each pane.







80RA ORANGERY packing List

No	mm	12’	
1	3720	1	
2	3720	1	
3	3720	1	
4	3720	1	
10	2530	1	
15	2480	3	
18	2476	1	
20	1945	3	
21	1585	4	
22	1945	3	
47	1504	7	
50	1490	7	
67	1579	4	
68	1561	6	
74	1479	3	
75	1479	3	
76	1504	3	
77	1504	3	
84	614	2	
93	636	4	
95	614	2	
96	614	2	
121	612	4	
123	610	4	
124	610	8	
130	619	8	
137	883	4	
160	278	8	

No	mm	12’	
161	435	1	
162	1579	4	
163	1901	3	
163a	1901	1	
164	479	2	
165	2476	2	
166	2350	2	
169	2456	4	
301	650	1	
302	650	1	
303	620	2	
304	1504	2	
305	620	1	
306	620	1	
308	1474	2	
309	722	2	
310	1474	2	
311	722	2	
312	1964	2	
313	1270	1	
314	1270	1	
315	1240	2	
316	1240	1	
317	1240	1	
318	1240	1	
600	608	7	
601	460	7	
602A	915	1	

No	mm	12’	
		4	
		11	
		4m	
SYSMAORA12N (SMALLS PACK)		1	

BOX PACKED BY

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