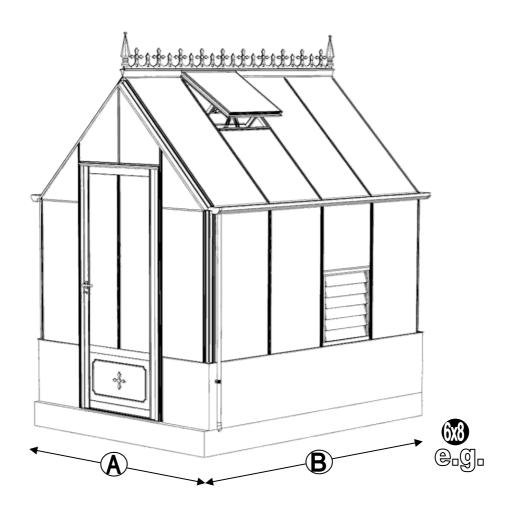


Victorian 'RUGBY' 6 Dwarf Assembly Instructions



NOMINAL SIZE	A (mm)	B (mm)
6 X 6		1990
6 X 8	1968	2610
6 X 10		3230
6 X 12		3850



Thank you for purchasing your new Robinsons greenhouse. We recommend you familiarise yourself with the instructions and read all safety information before you commence assembly. This instruction manual is also available online at www.robinsonsgreenhouses.co.uk in our technical help section should you need to reprint it. Should you require any additional advice you can always call us on 01782 385409.

These instructions are divided into sections highlighted by a white number/letter on a black background at the bottom corner of most pages (see opposite page for details); part lists, B-base, P-preparation, 1-sides, 2-front gable, 3-rear, 4-joining the four sides together, 5-louvre, 6-roof, 7-vent, 8-glazing, 9-vent attachment, 10-door attachment, 11 anchoring down, 12 finishing touches, 13 optional shelf, 14 optional staging. If you need to contact us for assistance please refer to the relevant section/s. If your building is longer than 12', i.e. has an extension then please also refer the separate extension manual.

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. Some parts are numbered and can be identified by a stamped or hand written number (without the 'D'). Alternatively, the components can be identified by their distinctive profiles, lengths and quantities detailed in the parts list (see next page).
- 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 pivot pins / lock etc...

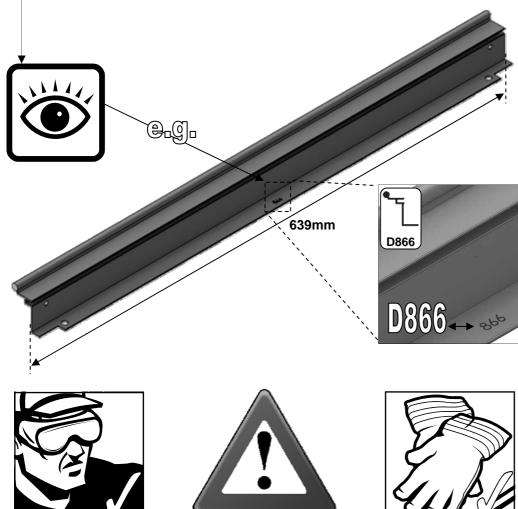
Guarantee

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

ame-		EXTERNAL VIEW
	0	INTERNAL VIEW
,		THINK
	(E)	THIS SECTION RELATES TO ANOTHER (e.g. 1 to 5)
		CORRECT
		DO <u>NOT</u> FIX DOWN!
	B	TWIST TO LOCK
]	~	TIGHTEN
		PUSH AND HOLD
		CUT TO LENGTH

KEY DESCRIPTION

SYMBOL



SECTION NO	TITLE	ASSEMBLY SYNOPSIS: IMPORTANT INFORMATION / CONSIDERATIONS
	PARTS LIST	Most components should have a 'D' code punched into their metal surface. Identify and separate all like for like components prior to assembly. The 'parts list' also separates parts into the various sections 1 - 12 shown below. Parts can also be identified by their profile pictures and stated lengths etc
В	BASE	Base dimensions and recommendations. Ensure that your base is level as this will make assembly of the building, especially the glazing of the roof much more straight forward. Please be aware that the hinge door on your greenhouse opens inwards, make sure that there will be no interference between the door and the foundations.
Р	PREPARATION	Tools required. <u>IMPORTANT</u> : Use WD40 or similar in the glazing bar channels and insert the black glazing rubber prior to frame assembly.
1	SIDES	Take the side glazing bars 'D609' with the rubber inserted and the diagonal braces 'D604', use 10mm bolts to join them to the gutter and 15mm bolts to the cills (note how the head of the bolt slides into each glazing bar during construction). Please also remember to slide in your 22mm bolts for attaching the decorative eave spandrels 'DV100' in section 5.
2	FRONT	Again ensuring that the gable framework is rubbered-up follow the diagrams to assemble each end of the building. Make sure that you have inserted the extra bolts utilised in sections 4 and 5. On the roof and side corner bars not
3	REAR	every rubber channel will require rubber unless it is to be utilised in a partition (see separate manual and section P).
4	JOINING THE FOUR SIDES	Take the two sides (1) and both gables (2 & 3) and join them together on your base. It is a good idea to tie some ladders to the sides to support them if you do not have anyone to hold them for you.
5	LOUVRE	They attach to the building during the glazing process (8) like a piece of glass with a black separator above them. If you are fitting an optional auto-louvre then you need to carefully drill (3mm bit) out the rivets which mount the handle to the frame. You can then either utilise those holes or create more to mount the unit.
6	ROOF	Attach the ridge and then the rubbered-up roof bars ensuring that they are fully butted up to the ridge and down onto the gutter. Attach your cresting before you glaze the building to give yourself more room to work. Utilise the 22mm bolts slid into the side (section 1) and roof bars to attach your DV100 and DV101 spandrels.
7a	VENT	Once the vent is glazed add silicone to the vent sides and top. Stand the vent/s on their hinge (vent top) and then leave the silicone to set.
7b	VENT SLAM	The slam bar 'D079' can be moved up and down between the roof glazing bars so that it can be butted down onto the pane of glass beneath, the autovent will be attached to it later on (9).
8	GLAZING	Layout the bar cappings and covers around the building like a sundial checking that all is present and correct. You can also place the roof cappings in the gutters so they are closer to hand. The glass in the ends has to bevel on the black separator strip, this bevelling action allows the glass to tuck underneath the roof corner canopy. Use the capping and the self tapping screws to then hold the glass in place. The covers then enclose the screw heads giving a neat finish. It is a good idea to glaze two roof sections first to ensure the building is square followed by two side sections to ensure the building isn't leaning. IMPORTANT: On the roof sections please make sure that you place a screw around 25mm / 1" from the bottom of each capping strip (create a hole in the plastic if required) and that the screws are nice and tight to avoid any glass slippage.
9	VENT ATTACHMENT	Take the assembled vent and slide the vent hinge 'D866' into the end of the ridge allowing the vent the pivot open and closed. Vent stops go either side of the vent to stop any lateral movement (so insert stop / vent / stop). Attach the Bayliss XL autovents.
10	DOOR ATTACHMENT	Your door comes pre-constructed and locked minus the handles and their pivot pin but now it needs to be mounted to the front end of your building. Utilise the 'DV522' plates and twist in crop headed bolts to join the door and its frame to the building (pinch the door frame against your long front verticals whilst tightening your 'DV522' plates to ensure that there is no gap). If you are struggling to eradicate the gap between the door frame and verticals then some silicone can be carefully applied to the area to create a vertical seal. Be careful not to lock yourself in the building and to avoid damage do not open the door until it is attached to the front gable. Getting the door to swing perfectly without dropping or rubbing on the ground may require some small but vital adjustments. You may also need to insert a packer underneath the door frame hinge to increase ground clearance. Part 'DV275' canopies the door frame top hiding the clearance space at the top of the door. The door can only be made to swing inwards. IMPORTANT: Please do NOT let the door slam open or closed as it is likely to cause damage to the door and the frame. Please twist the handle to open and close. Please also be aware that your door KEYS (3 provided) are unique to the building so they should not be stored together.
11	ANCHORING DOWN	Now that the greenhouse is finished and the door and vent/s are operating without interference then you need to anchor the building down using 2" rawl plugs and screws. Use a 7mm masonry bit in a hammer drill to create the holes.
12	FINISHING TOUCHES	Now that the main body of the structure is complete you can add; downpipe fittings, eave bungs, gutter stop ends. It is also important to carefully apply some silicone to the internal eaves corners and external and internal ridge corners to minimise the chance of water entering the structure.
13 14	OPTIONAL SHELVING OPTIONAL STAGING	Robinsons integral cantilever staging and shelving attaches to the inside of the greenhouse frame using either square head bolts (insert four into each side glazing bar 'D609' during construction of the sides (1)) or rectangular 'crop head' bolts which can be fitted retrospectively (both sets of bolts accompany the shelving/staging). This system allows the height of either the staging or the shelf to be set at an operator specific height. Commonly the staging brackets are set 900mm from the cills though you can alter this to suit the end user/s. The aluminium shelf / staging slats come in two lengths; (4'):1240mm 'D2002' and (6'):1860mm 'D2003'. These slats can combine to create any length of staging required, i.e. 4'+6' = 10' etc

Section Ref	Part No.	Section	Size (mm)	6 6	6 8	6 10	6 12	
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	D043		1894	2				
	D021		2514		2			
	D022	 	3134			2		
	D023		3754				2	4
	DV213	U-¥/	1897	2				
	DV210		2517		2			
	DV211		3137			2		
	DV212		3757				2	(ഗ
	D604		1316		4	1		75
	D609		1160	4	6	8	10	
	RUBBER	Q	1000 (1m)	10	14	19	24	
	D174		N/A	4	4	8	8	
								Δ
	DV230		1984		1			

DV230	لعب	1984	1
DV301L	1		1
DV301R	 	537	1
D608	₹	1160	4
DV233L	بالم		1
DV233R		2173	1
DV308L	بيلم		1
DV308R		1657	1
DV060		2091	1
DV269		468	2
DV272		1840	1
DV300		1193	4
DV250L		4045	2
DV250R		1345	2
D671		610	1
DV275		904	1
	DV301L DV301R D608 DV233L DV233R DV308L DV308R DV060 DV269 DV272 DV300 DV250L DV250R	DV301L DV301R D608 DV233L DV233R DV308L DV308R DV060 DV269 DV272 DV300 DV250L DV250R	DV301L DV301R D608 DV233L DV233R DV308L DV308R DV060 DV269 DV269 DV272 DV300 DV250L DV250R D671 DV301R 537 1160 2173 2173 2173 2173 1657 1657 1840 1193 1345

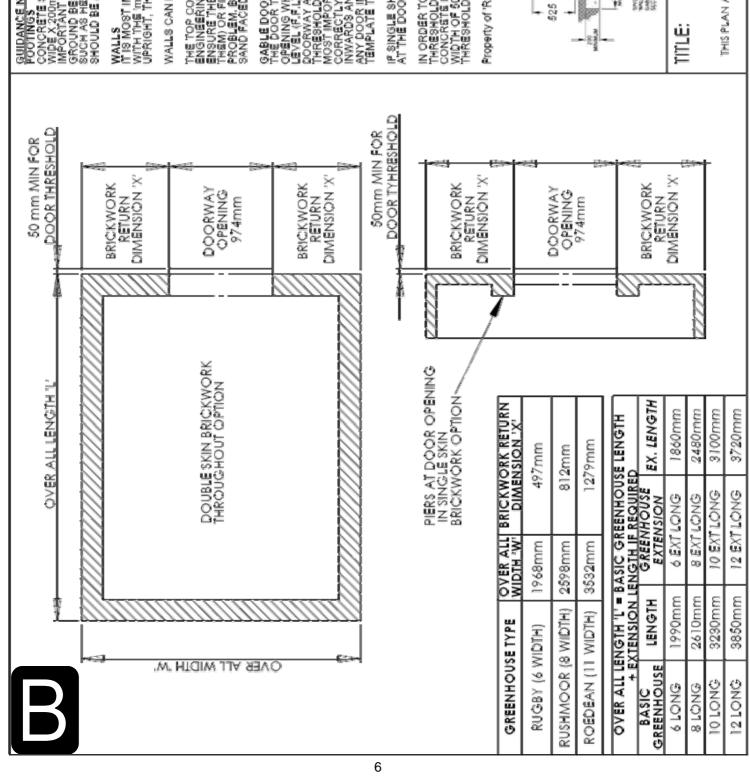
Section Ref	Part No.	Section	Size (mm)				
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	DV104		N/A	4
2	DV105	(N/A	2
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3	D163	[90	2
	D174		N/A	5

	DV204	71	1897	1			
	DV201	V	2517		1		
	DV202		3137			1	
[5]	DV203	\times	3757				1
	DV253		1345	4	6	8	10
	RUBBER	Q	1000 (1m)	11	17	22	27

	D866	•	639	2	2	4	4
	D863L		613	2	2	4	4
	D863R	<u></u>	613	2	2	4	4
6	D862	1	593	2	2	4	4
	D079 PLUS FLUFF	H H	590	2	2	4	4
	D114	00	N/A	4	4	8	8
	D220 PLUS FS6060 SCREW	00	N/A	4	4	8	8
	D205	-	N/A	4	4	8	8

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Sect Re		art No.	Section	Size (mm)	6 6	6 8	6 10	6 12					Size (mm)	6 6	6 8	6 10	6 12
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	2/3 D	610	4	1160			4			MAIN FRAME QUANTITIES	VENTS / DOORS etc SEPERATE		22mm				
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8	5 D\	/650	r	1345			4						NUT				
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	D214		N/A		2							17					
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	DV219		N/A		2											7	
	DV218		N/A		2				1							7	4
		1								>							



ANCE NOTE FOR ROBINSONS DWARF WALL GREENHOUSES

CONCRETE STRIP FOOTINGS SHOULD BE A MINIMUM OF 400mm WIDE X 200mm DEEP, IF THE SITE IS ON MADE UP GROUND IT IS IMPORTANT THAT THE FOOTINGS ARE CUT INTO THE COMPACTED GROUND BELOW, WHERE THE GROUND IS LIABLE TO MOVEMENT SUCH AS HEAVY CLAY OR LOOSE SANDY SOIL REINFORCING SHOULD BE ADDED TO THE CONCRETE FOOTINGS.

WALLS IT IS MOST IMPORTANT THAT THE BRICKWORK IS IN ACCORDANCE WITH THE 'mm' DIMENSIONS PROVIDED AND IS SQUARE, LEVEL AND UPRIGHT, THE DIAGONAL MEASUREMENTS SHOULD BE EQUAL.

WALLS CAN BE BITHER DOUBLE OR SINGLE SKIN

THE TOP COURSE OF BRICKS SHOULD BE LAID FROG DOWN, IF ENGINEERING BRICKS ARE USED FOR THE TOP COURSE PLEASE INSURE THEY ARE SOLID NOT CELLULAR (WITH HOLES THROUGH THEM) OR FIXING DOWN OF CREENHOUSE WILL BE A PROBLEM. BRICKS SHOULD BE A GOOD QUALITY STOCK BRICK, SAND FACED FLETTON TYPE BRICKS ARE NOT SUITABLE.

GABLE DOOR OPENING
THE DOOR THRESHOLD REQUIRES BRICK WORK ACROSS THE
OPENING WHICH SHOULD BELEVEL WITH THE FINSHED FLOOR
LEVEL (F.F.L.) OF THE GREENHOUSE. THE OPENING FOR THE
DOORWAY NOT THE GREENHOUSE. THE OPENING FOR THE
THRESHOLD LEVEL REQUIRE THE HIGHEST ACCURACY AND ARE
MOST IMPORTANT SO THAT THE DOOR FITS THE APERTURE
CORRECTLY, PLEASE ALSO BE AWARE THAT THE DOOR OPENS
INWARDS AND THEREFORE THE FOUNDATIONS NEED TO AVOID
ANY DOOR INTERFERENCE. IT IS ADVISABLE TO MAKE A WOODEN
TEMPLATE TO CHECK THE DOOR APERTURE DIMENSIONS.

IF SINGLE SKIN WALLS ARE USED THEN PIERS SHOULD BE FORMED AT THE DOOR OPENING.

IN ORDER TO SUPPORT THE OUTER EDGE OF THE DOOR THRESHOLD THERE MUST BE A PROJECTION OF BRICKWORK / CONCRETE INFRONT OF THE DOOR END WALLWITH A MINIMUM WIDTH OF 50mm, THIS NEEDS TO BE LEVEL WITH THE DOOR THRESHOLD OPENING.

Property of 'Robinsons Greenhouses' @ 2015

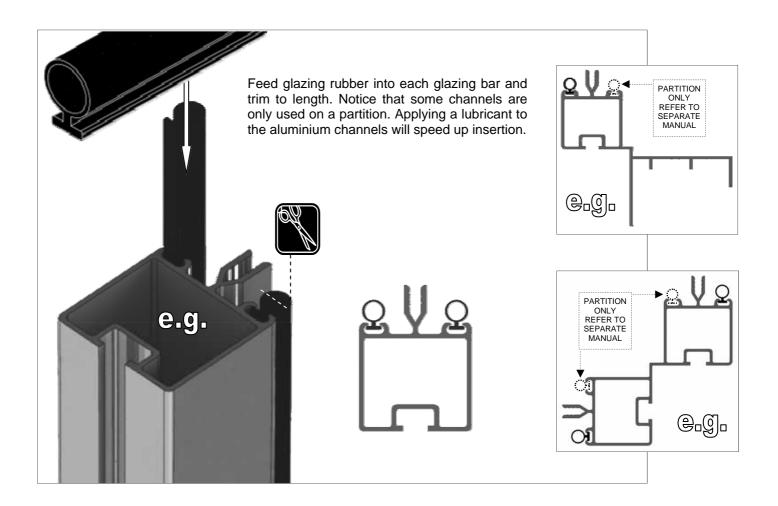
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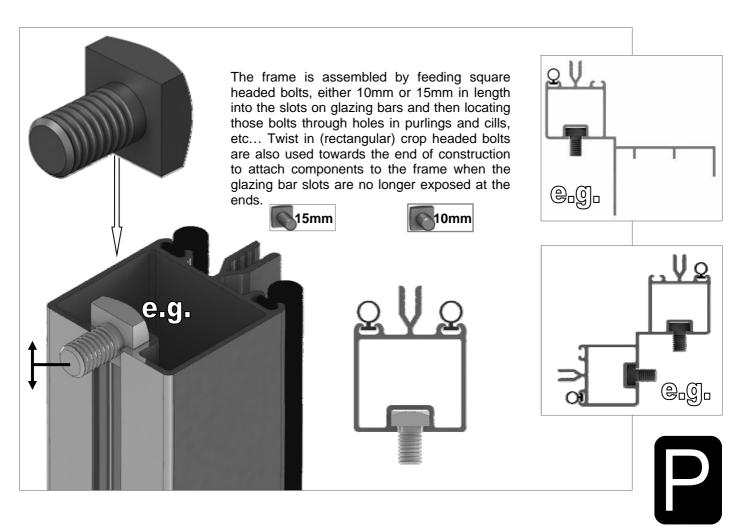
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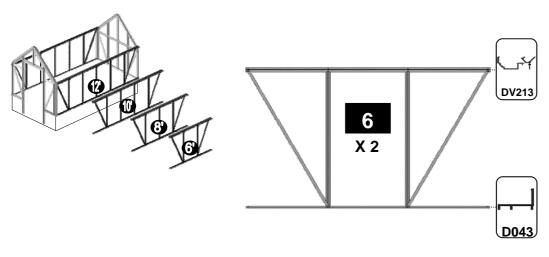
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NOT THE SHALL TH

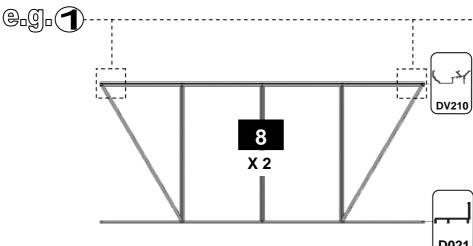
THIS PLAN APPLIES TO GREENHOUSE WITH DOOR AT ONE END ONLY DWARF WALL RANGE



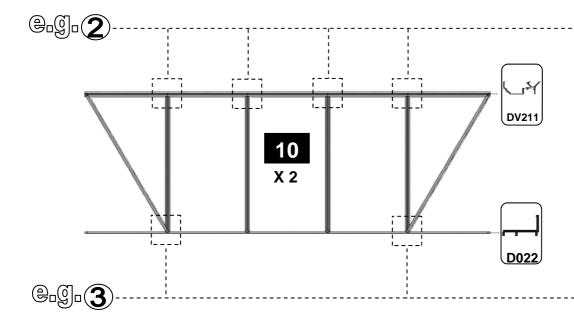




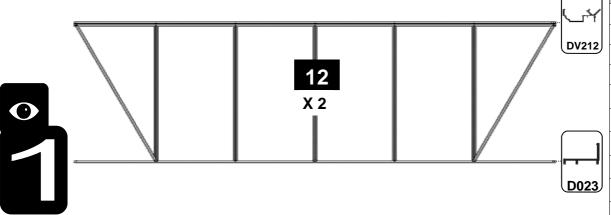
6 X	6 X 2 DWARF									
Part No	mm	Quantity								
DV213	1897	2								
D043	1894	2								
D609	1160	4								
D604	1316	4								
D174	6	4								
SYBOLM6X11	Can.	4								
SYBOLM6X15	Caron	8								
SYBOLM6X22		8								
SYNUTM6	0	12								
Rubber	1000	10								



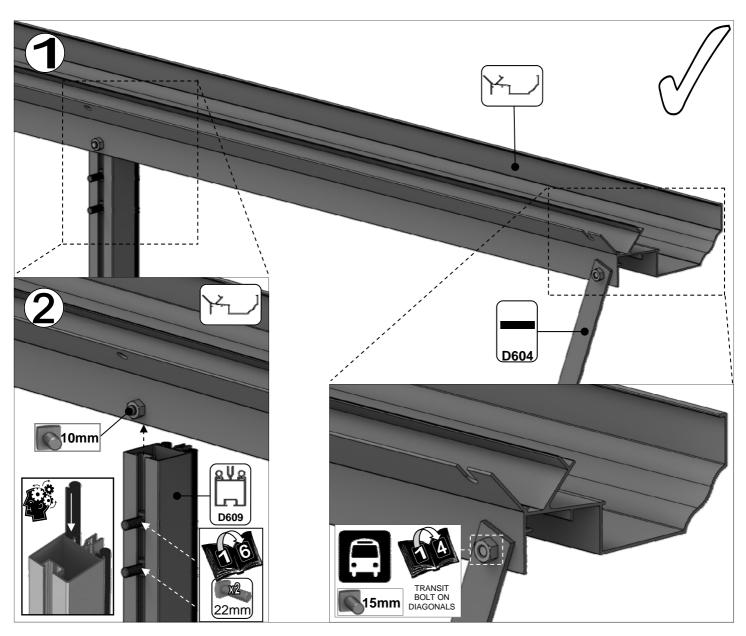
8 X	2 DWA	₹F
Part No	mm	Quantity
DV210	2517	2
D021	2514	2
D609	1160	6
D604	1316	4
D174	6	4
SYBOLM6X11		6
SYBOLM6X15		10
SYBOLM6X22		12
SYNUTM6		16
Rubber	1000	14

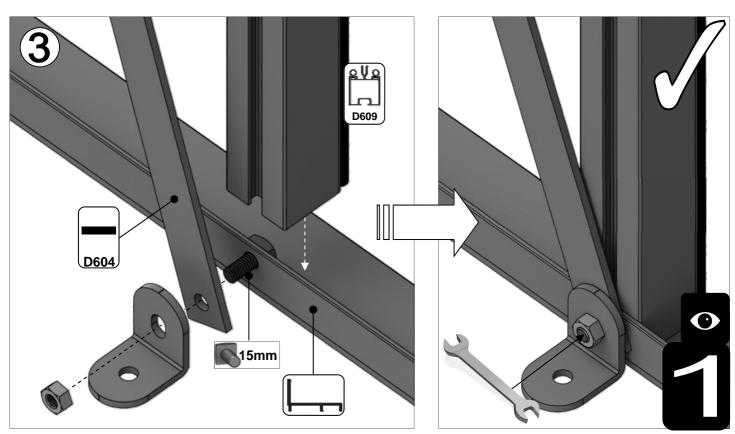


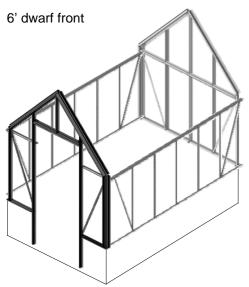
10 X 2 DWARF			
Part No	mm	Quantity	
DV211	3137	2	
D022	3134	2	
D609	1160	8	
D604	1316	4	
D174	6	8	
SYBOLM6X11		8	
SYBOLM6X15	1	12	
SYBOLM6X22		16	
SYNUTM6	0	20	
Rubber	1000	19	



12 X 2 DWARF		
Part No	mm	Quantity
DV212	3757	2
D023	3754	2
D609	1160	10
D604	1316	4
D174	6	8
SYBOLM6X11		10
SYBOLM6X15	1	14
SYBOLM6X22		20
SYNUTM6		24
Rubber	1000	24

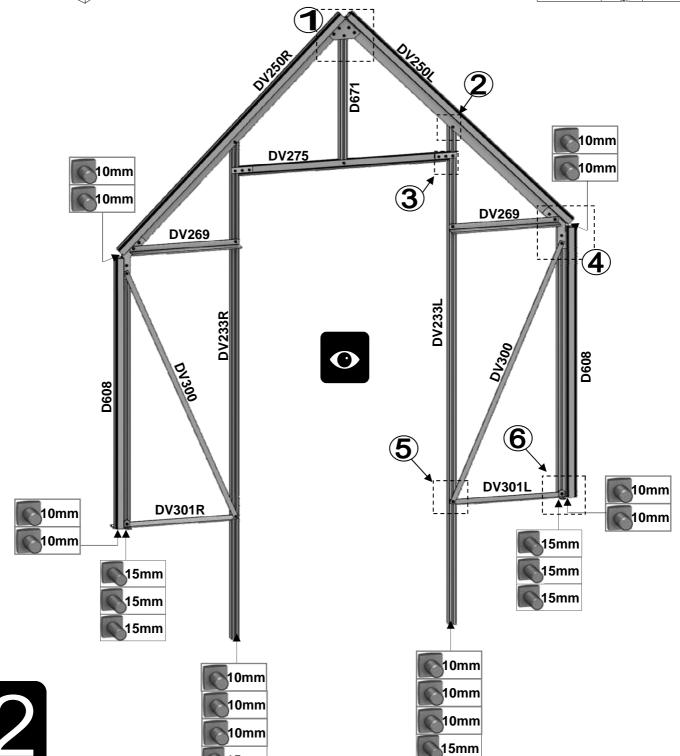




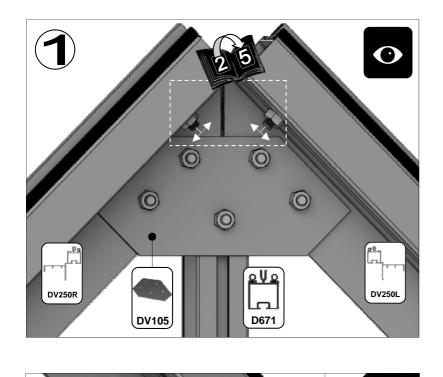


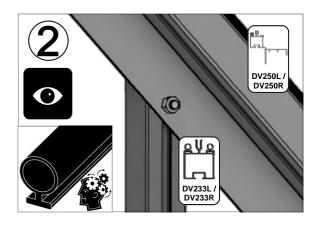
Part No	mm	Quantity
D671	610	1
D608	1160	2
DV233L	2173	1
DV233R	2173	1
DV250L	1345	1
DV250R	1345	1
DV269	468	2
DV275	904	1
DV300	1193	2
DV301L	537	1
DV301R	537	1
	1	I I

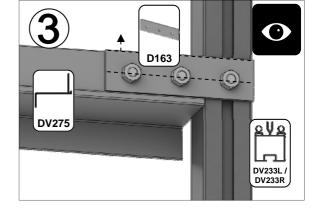
Part No	mm	Quantity
DV104	1	2
DV105		1
D163		2
D174	3	2
D227	Q	18m
M6X10		28
M6X15	Carried States	8
M6NUT		36

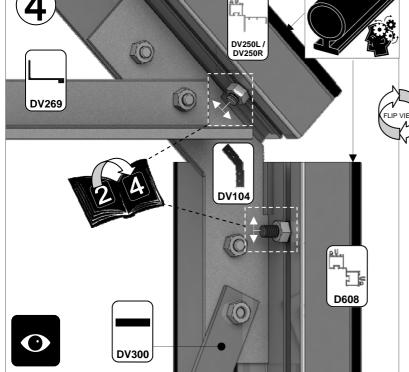


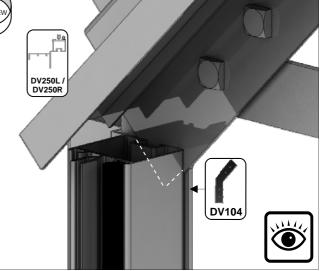
15mm

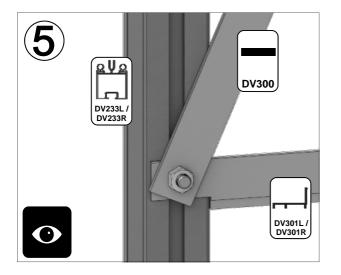


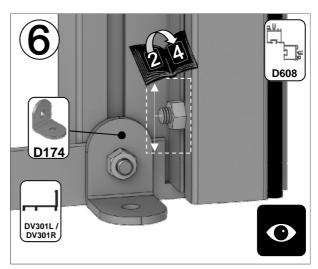




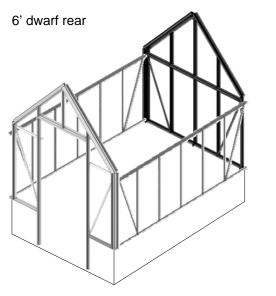






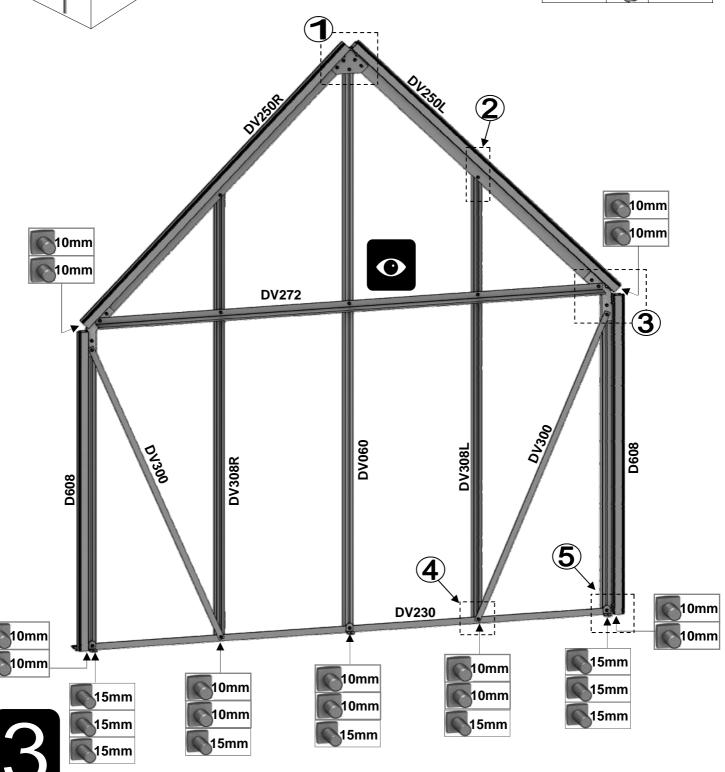


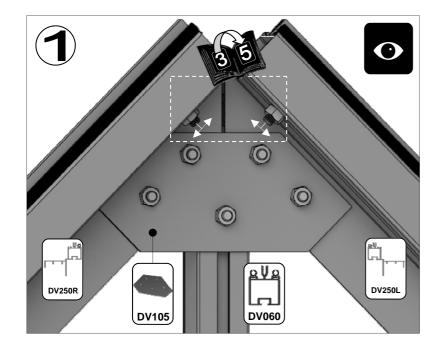


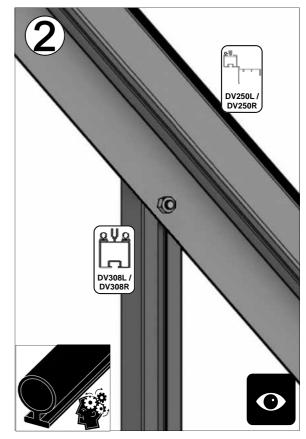


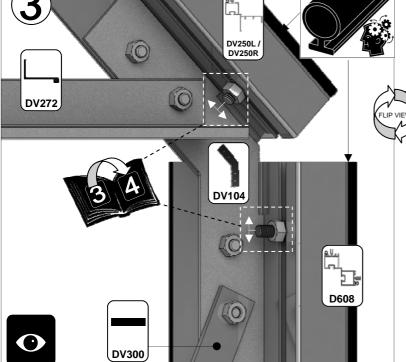
Part No	mm	Quantity
D608	1160	2
DV060	2091	1
DV230	1984	1
DV250L	1345	1
DV250R	1345	1
DV272	1840	1
DV300	1193	2
DV308L	1657	1
DV308R	1657	1

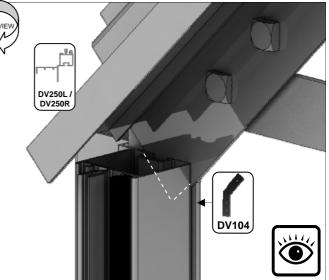
Part No	mm	Quantity
DV104		2
DV105		1
D174		3
D227	Q	19m
M6X10		22
M6X15	Company of the Compan	9
M6NUT		31

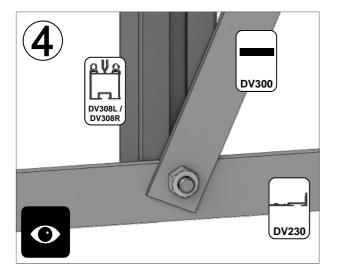


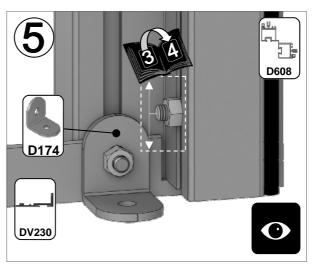


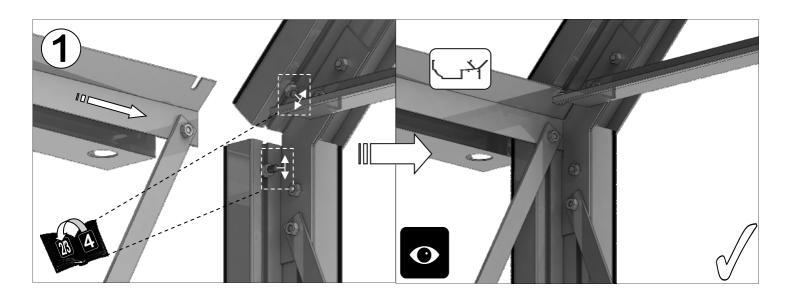


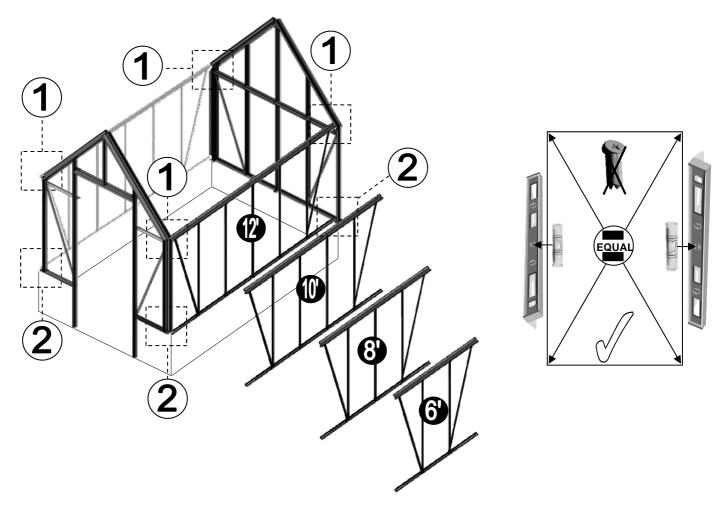


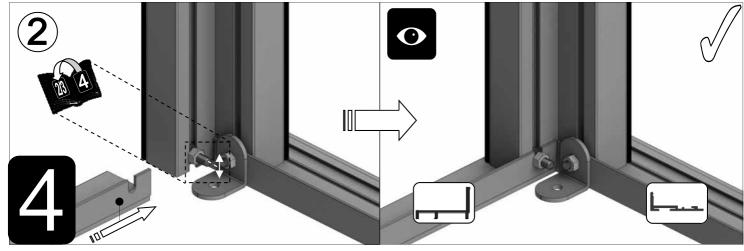


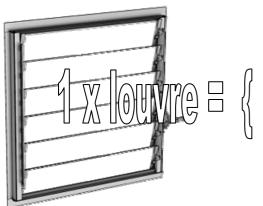






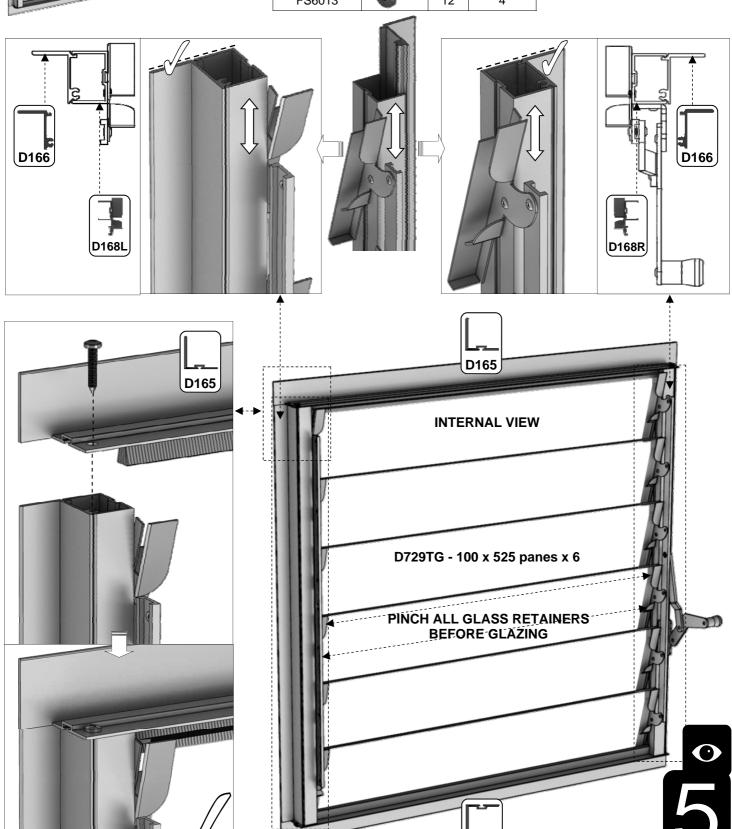






Part No		mm	Quantity
D168L	4	552	1
D168R (handle)	事本	552	1
D165		612	2
D166	<u> </u>	552	2
FS6013		12	4





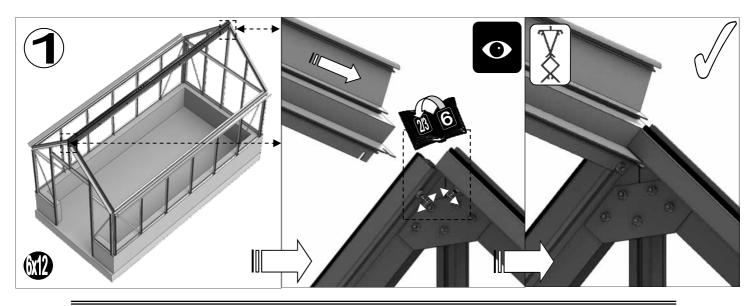
D165

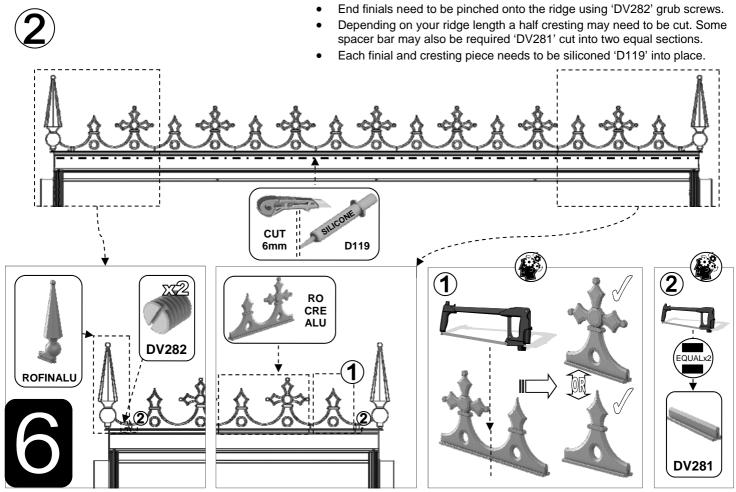
	6'	
Part No	mm	Quantity
DV204	1897	1
DV253	1345	4
DV100	n/a	4
DV101	n/a	2
RUBBER	1000	11
SYBOLM6X11		8
SYBOLM6X22		16
SYNUTM6		32

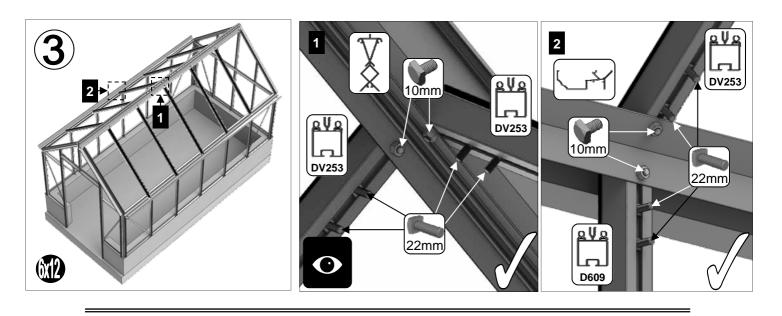
	8'	
Part No	mm	Quantity
DV201	2517	1
DV253	1345	6
DV100	n/a	6
DV101	n/a	3
RUBBER	1000	17
SYBOLM6X11	6	12
SYBOLM6X22		24
SYNUTM6		48

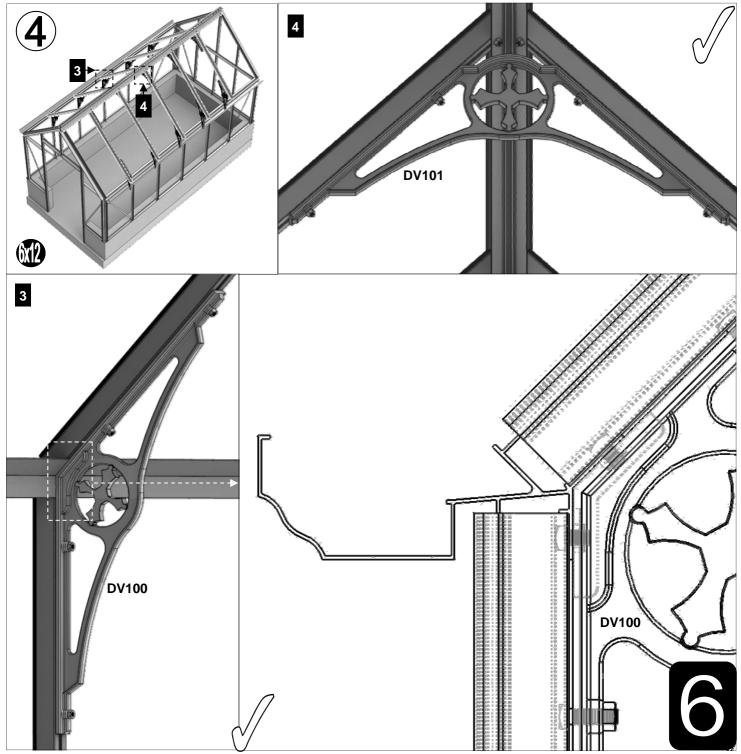
10'	
mm	Quantity
3137	1
1345	8
n/a	8
n/a	4
1000	22
S.	16
	32
6	64
	mm 3137 1345 n/a n/a

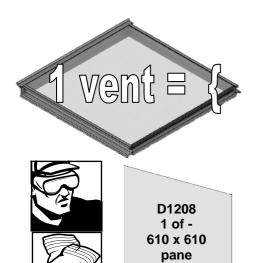
	12'	
Part No	mm	Quantity
DV203	3757	1
DV253	1345	10
DV100	n/a	10
DV101	n/a	5
RUBBER	1000	27
SYBOLM6X11		20
SYBOLM6X22		40
SYNUTM6		80





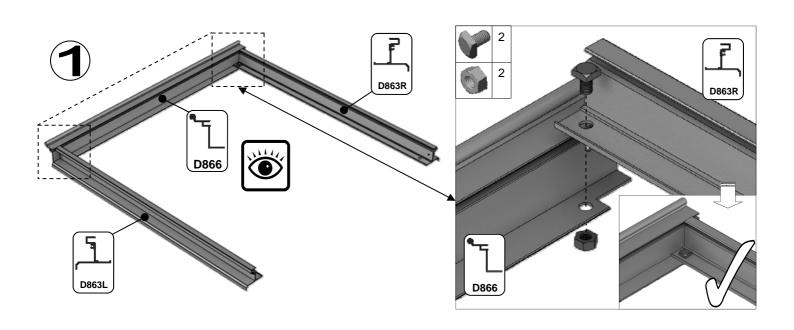


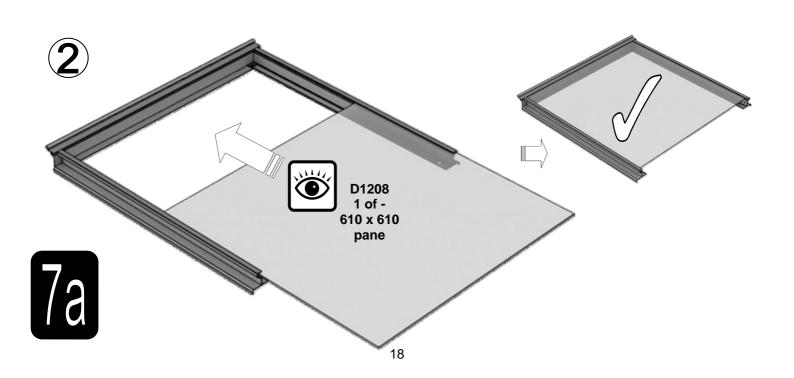


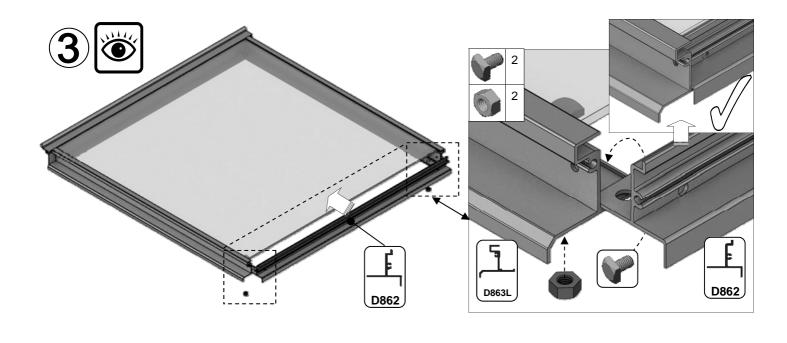


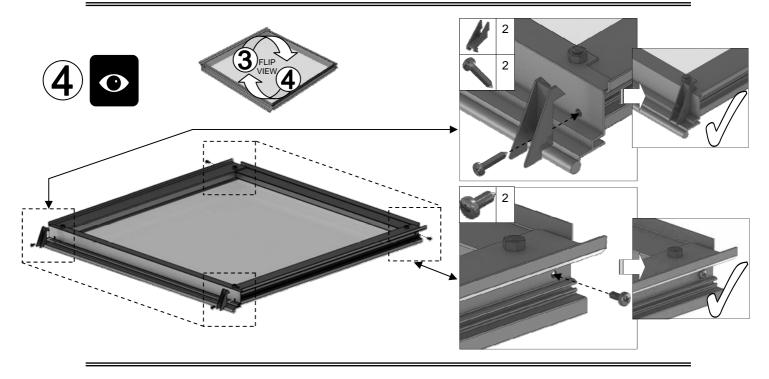
Part No		mm	Quantity
D866	` _	639	1
D863L		613	1
D863R	上	613	1
D862	丰	593	1

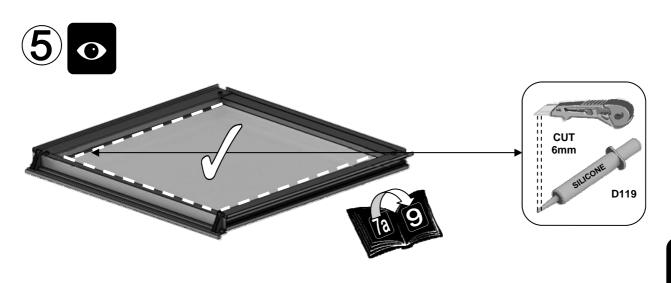
Part No		mm	Quantity
D220 PLUS SCREW	No.	N/A	2
D205		N/A	2
SY- BOLM6X11		10	4
SYNUTM6		M6	4
8 X 12 S/T FS6017	6	10	2
8 x 19 S/T FS6018	1	19	2







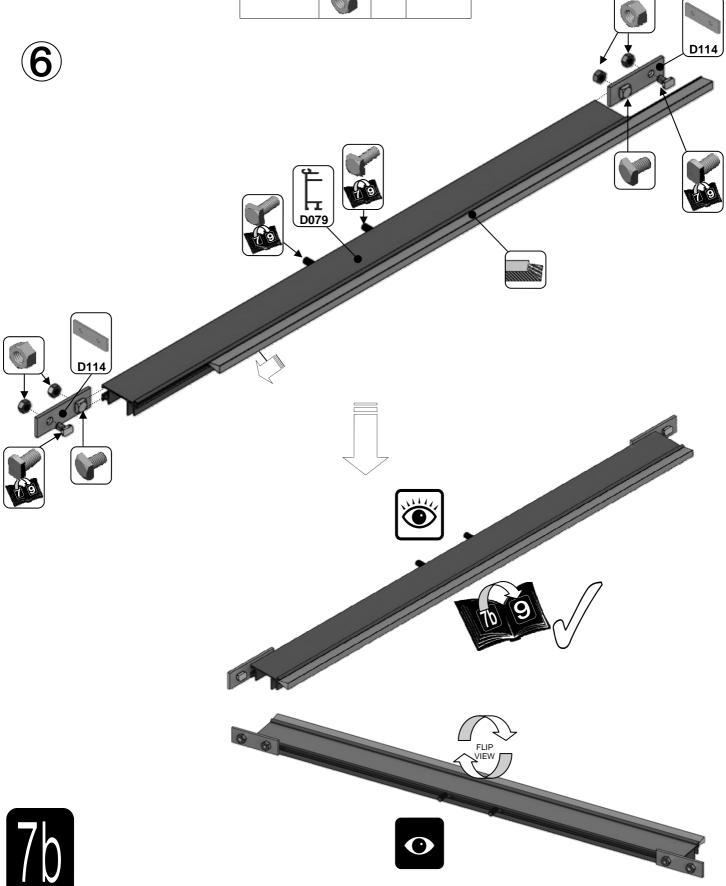


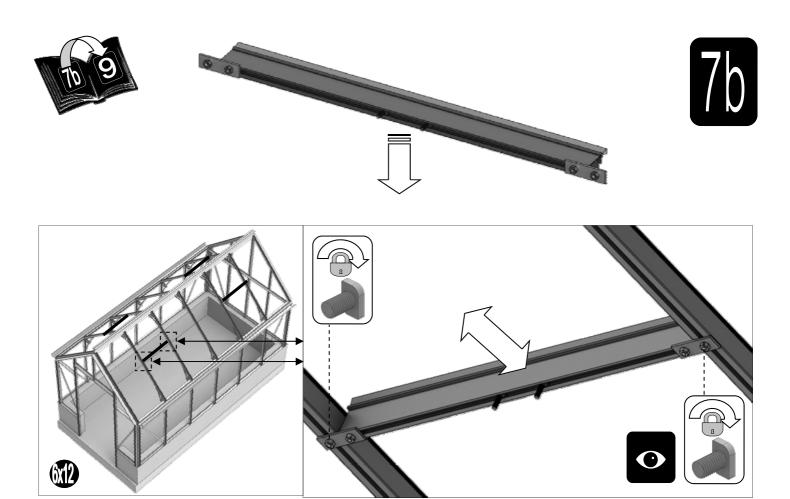




Part No		mm	Quantity
SY- BOLM6X11		10	2
SY- BOLM6X15	GP .	15	2
SYBOLM6 X11CROP		10	2
SYNUTM6		N/A	4

Part No		mm	Quantity
D079 PLUS FLUFF	ij	590	1
D114	0 0	N/A	2





GLAZING (plans pto):

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.

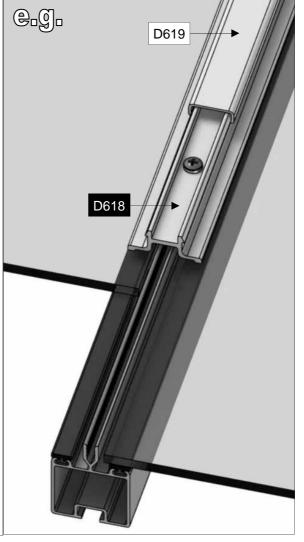
Layout the plastic bar cappings e.g. D618 and covers e.g. D619 around the building like a sundial checking that all is present and correct, see right and pto. You can also place the roof cappings in the gutters so they are closer to hand.

Use the capping e.g. 618 and the self tapping screws to then hold the glass in place. The covers then enclose the screw heads giving a neat finish e.g. D619.

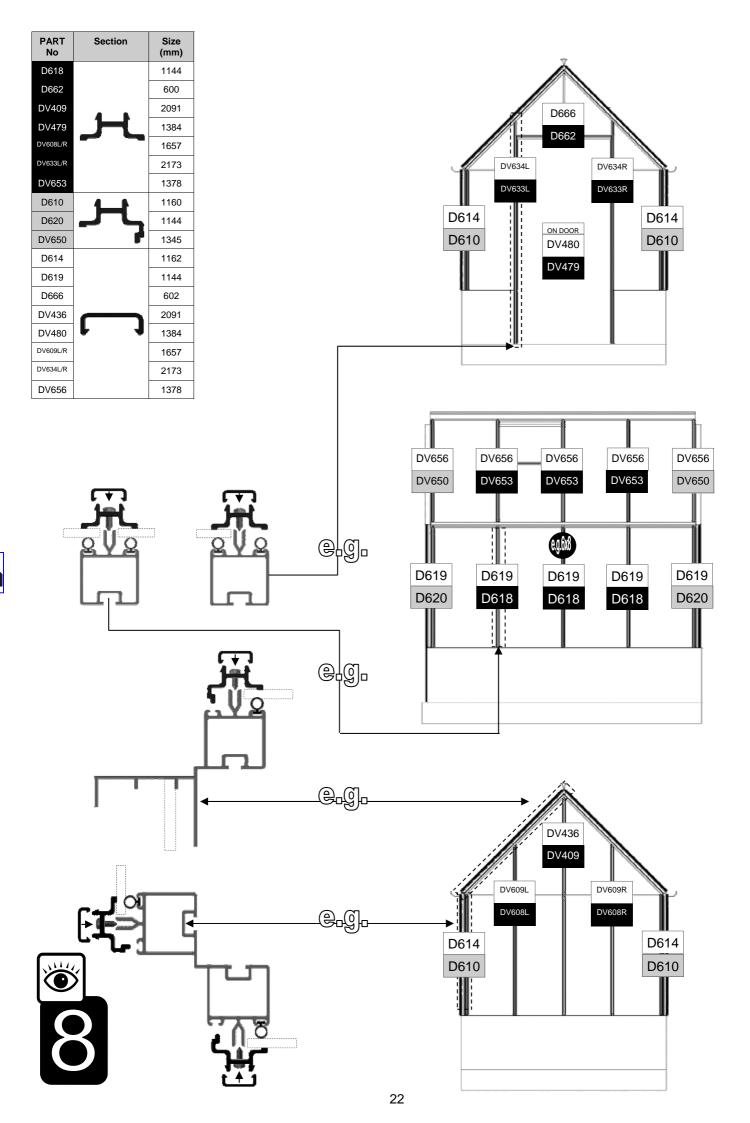
IMPORTANT: On the roof sections please make sure that you place a screw around 25mm / 1" from the bottom of each capping strip (create a hole in the plastic if required) and that the screws are nice and tight to avoid any glass slippage.

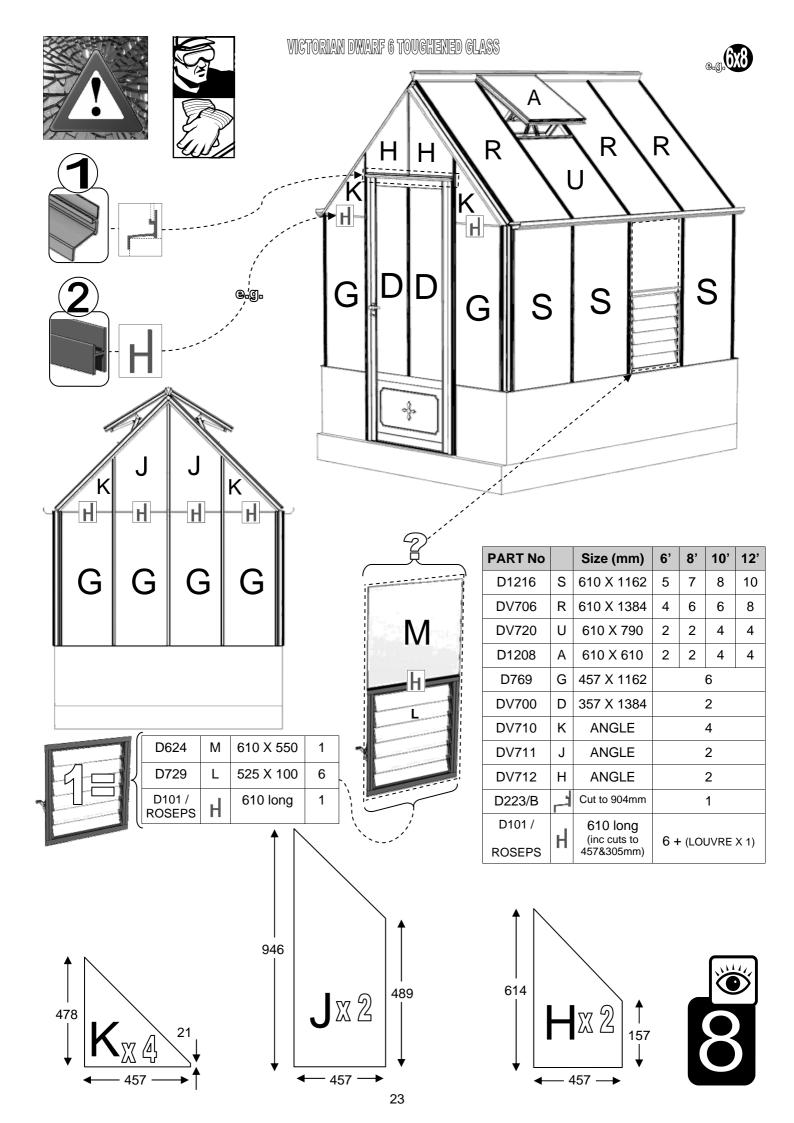


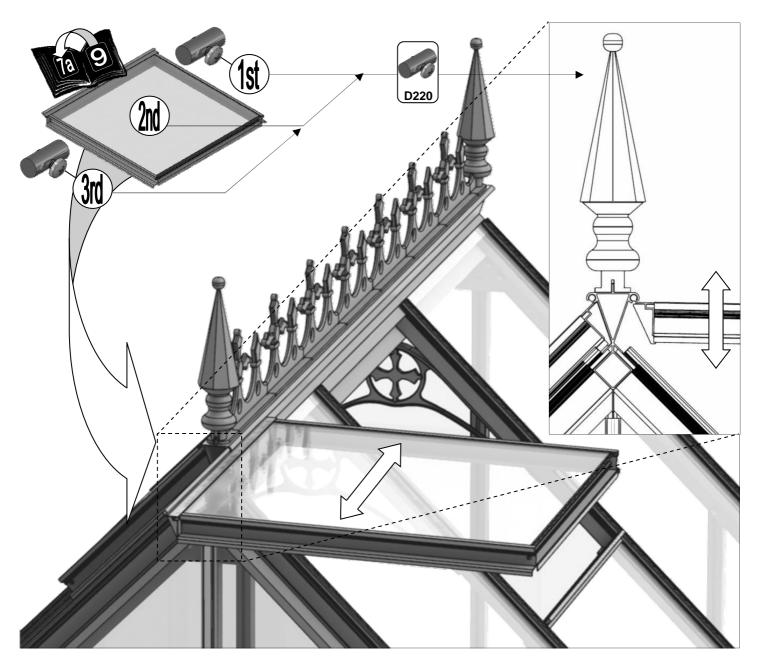


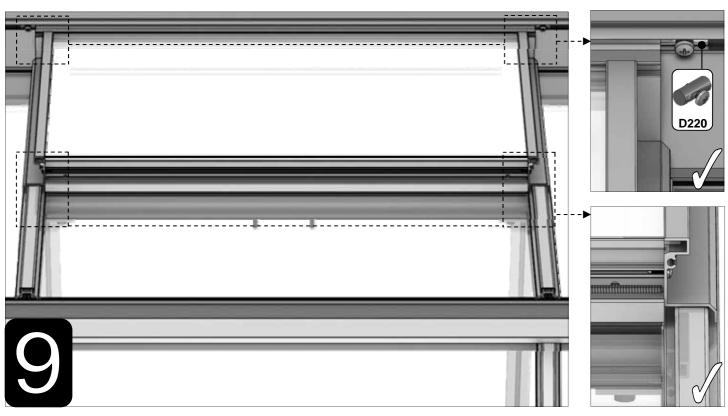


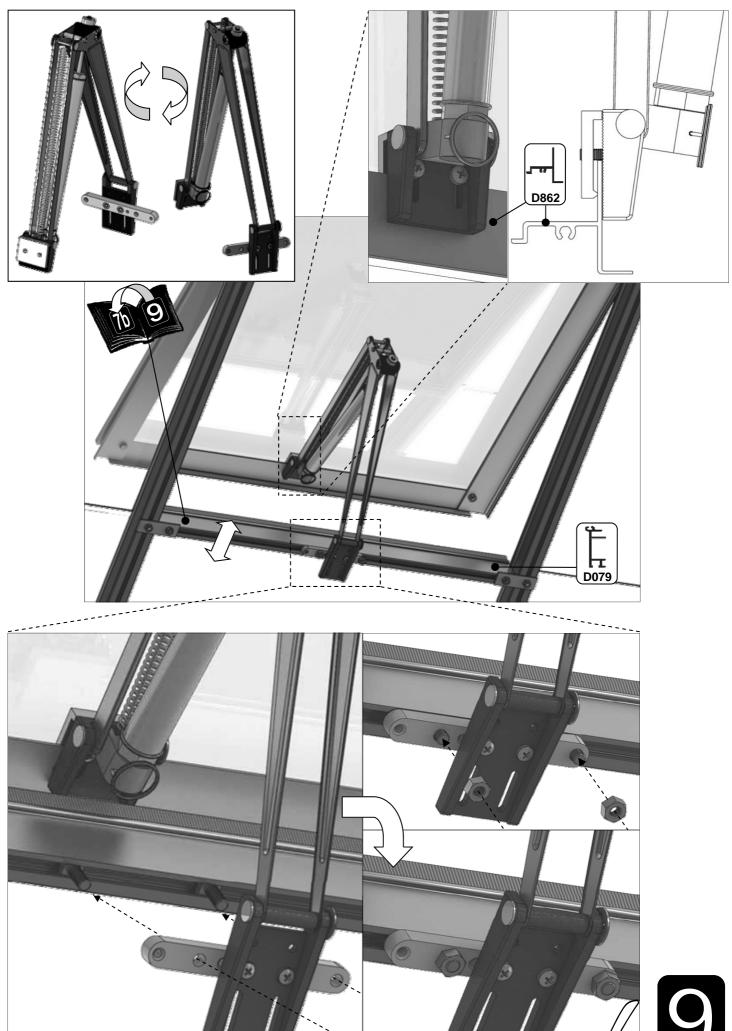


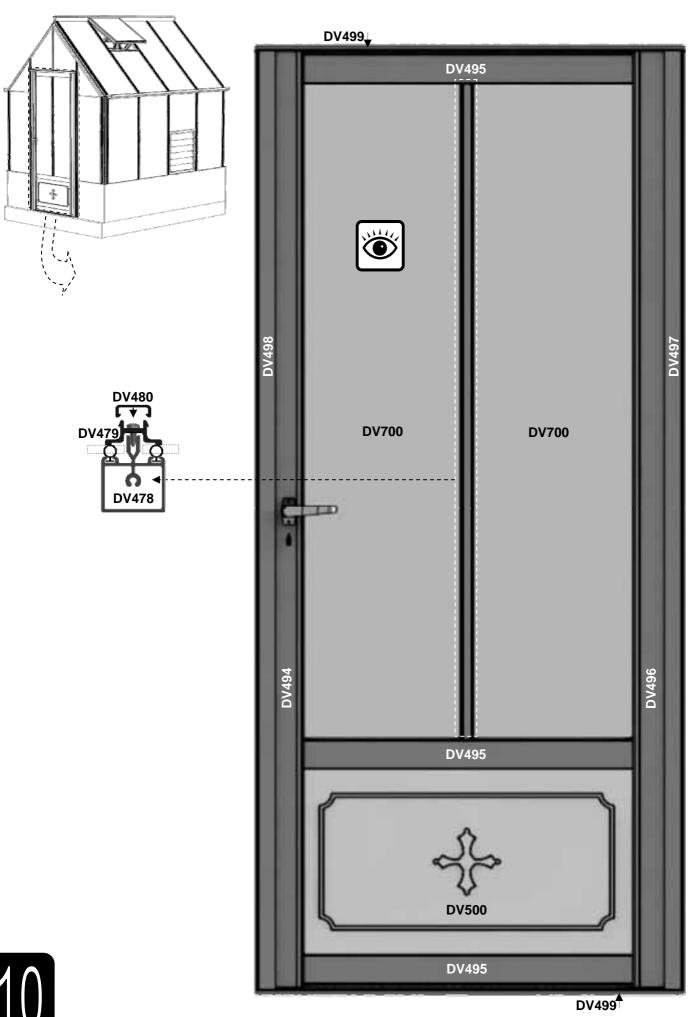




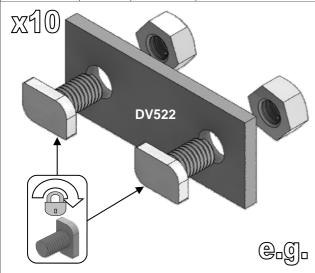


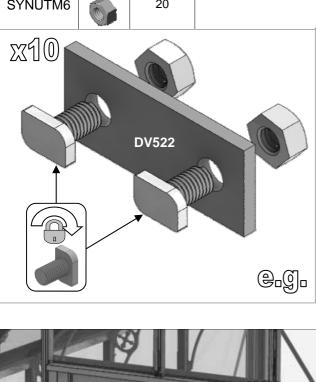


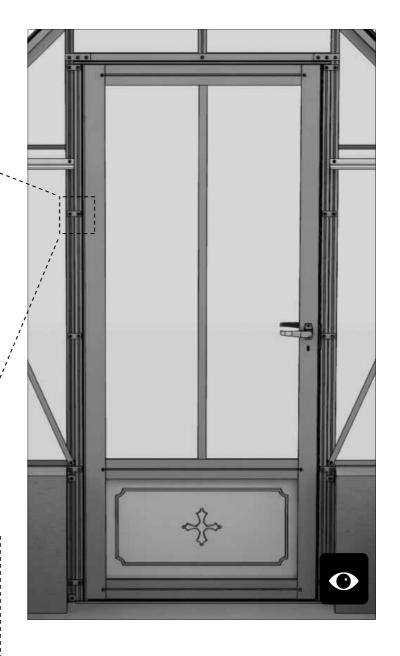


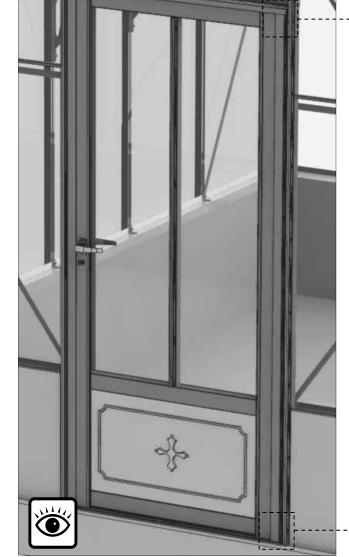


Part No		Quantity
D522	0	10
SYBOLM6 X11CROP		20
SYNUTM6		20



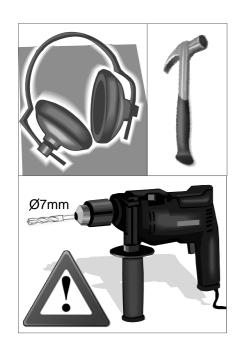


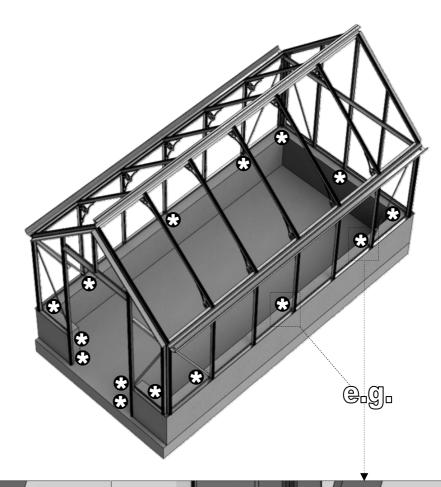


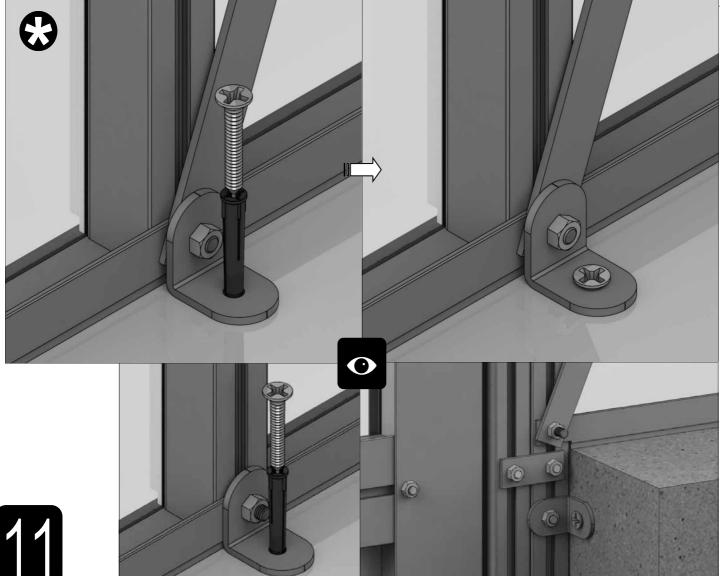


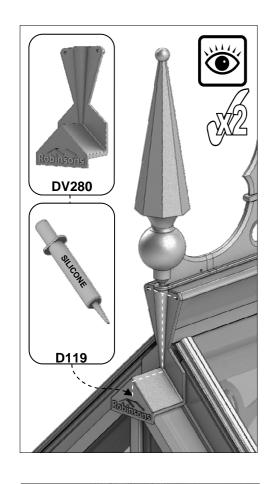


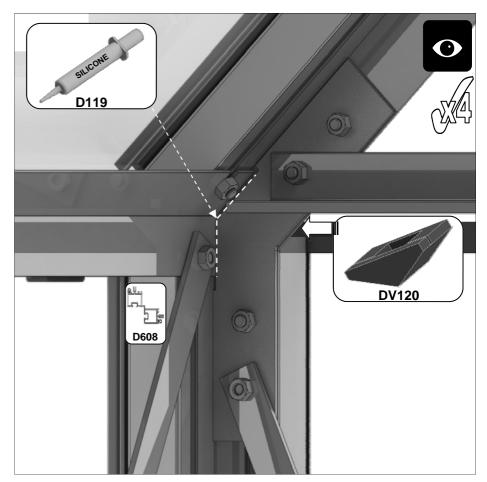


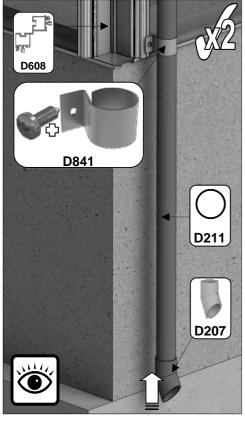




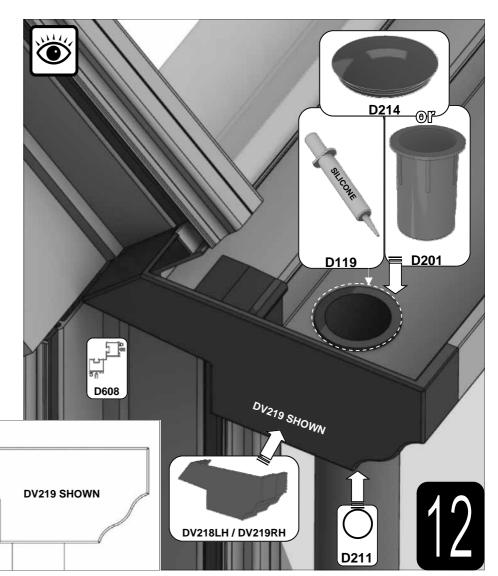


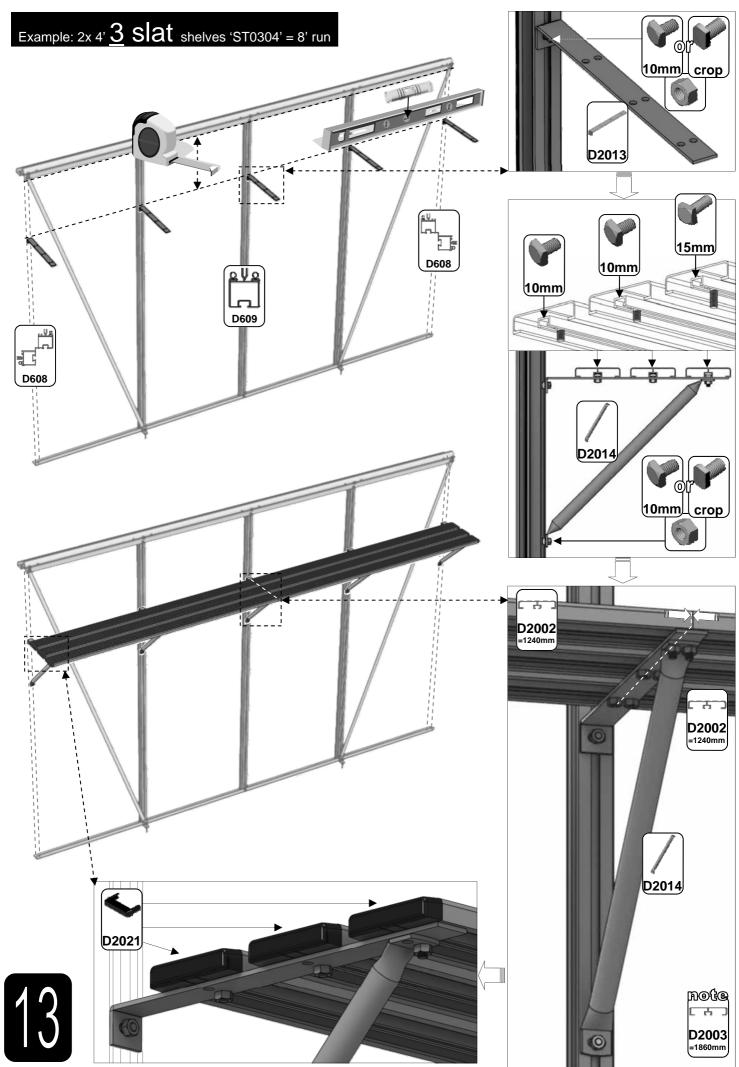


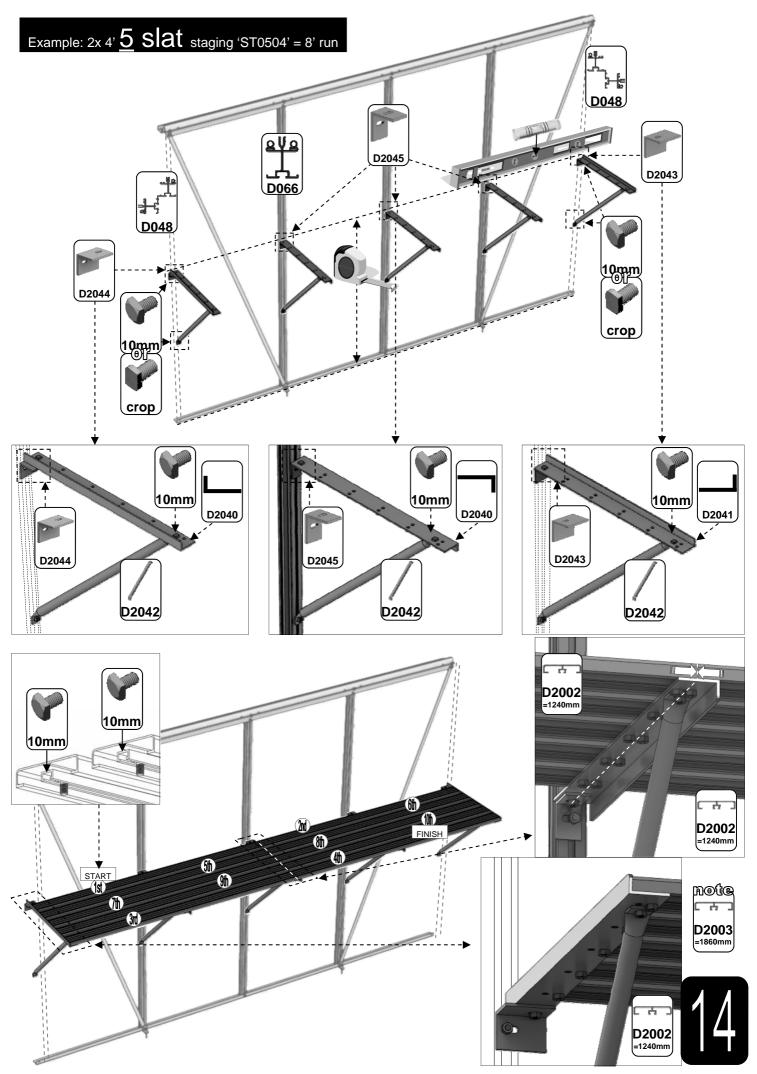




CUT







Please be aware that this is a new multi-national manual. If you spot any errors or have any constructive comments regarding the manual please email james.spooner@greenhousepeople.co.uk and I will make the necessary amendments. In addition any photographs of completed buildings would be most appreciated to add to our portfolio.

THIS GREENHOUSE BOX WAS PACKED BY:	DATE:



www.robinsonsgreenhouses.co.uk

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