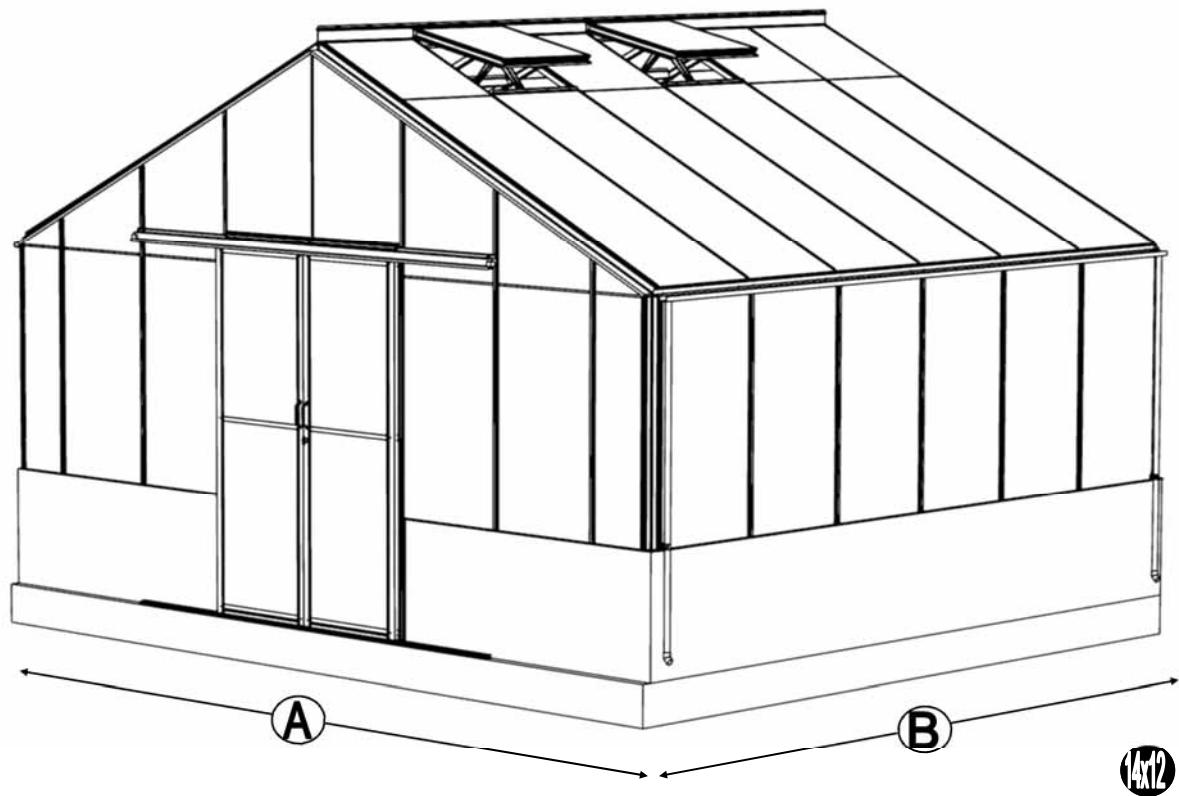




Renown DWARF Assembly Instructions



NOMINAL SIZE	A (mm)	B (mm)
14 x 8	4450	2610
14 x 10		3230
14 x 12		3850

NOMINAL SIZE	A (mm)	B (mm)
6ft extension	-	1860



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**-roof, **6**-vent, **7**-door, **8**-glazing, **9**-vent attachment, **10**-door attachment, **11** anchoring down, **12** optional louvre, **13** optional shelf, **14** optional staging, **15** finishing touches. 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. 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 wheels and lower door guides.

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.

UPDATE: Robinsons plastic / aluminium cover strips -

On a Robinsons building the glazing capping is in two parts. The lower plastic capping screws into the glazing bars pressing the glass down onto its rubber beading. The upper plastic / aluminium covers then need to be applied to cover the heads of the self-tapping screws. If you are struggling to press on the cover strips then we recommend the use of a rubber mallet or perhaps a wooden block and hammer, a short sharp tap onto the cover at one end is all that is needed to stretch the cover around the lower capping protrusions locking it into place. You can then either continue to use the mallet along the length of the cover or continue just using the palm of your hand. Once in the building and the edges are protected Robinsons 4mm thick toughened safety glass is very strong and can cope with the vibrations caused by hitting the covers though we would not recommend that you hit the glass directly. Some of the aluminium cover caps have a hole in them at one end which is sometimes used to hang the parts for powder coating. You can if you wish use the hole to stop the covers from sliding in the roof using a glazing screw, note you will have to use a countersunk screw under the vents to avoid interference with the vent bottom.



KEY SYMBOL	KEY DESCRIPTION
	EXTERNAL VIEW
	INTERNAL VIEW
	THINK
	THIS SECTION RELATES TO ANOTHER (e.g. 1 to 5)
	CORRECT
	DO NOT FIX DOWN!
	TWIST TO LOCK
	TIGHTEN
	PUSH AND HOLD
	CUT TO LENGTH

SECTION No	TITLE	ASSEMBLY SYNOPSIS: IMPORTANT INFORMATION / CONSIDERATIONS
B P 1 2 3 4 5 6a 6b 7 8 9 10 11 12 13 14 15	PARTS LIST	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..
	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.
	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.
	SIDES	Take the side glazing bars 'D609' with the rubber inserted and the diagonal braces 'D604', use 12mm bolts to join them to the gutter and 16mm bolts to the cills (note how the head of the bolt slides into each glazing bar during construction).
	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, 5 and 10. On the roof and side corner bars not every rubber channel will require rubber unless it is to be utilised in a partition (see separate manual and section P).
	REAR	
	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.
	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. If you have <u>cresting</u> then it is a good idea to fit it before glazing, see section (15). Some tubular braces are supplied to add extra strength, they should be fitted with crop head bolts. Purlings should also be attached using crop headed bolts along the mid-line of each roof side to add extra strength 'e.g.D113' (please note that a 30mm segment will need to be notched out of the protruding angle where a purling meets an A-frame so that the purling can tuck in-between the roof bar and the A-frame).
	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.
	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).
	DOOR/S	Construct the door using the diagrams and then leave to one side ready for attachment in section (10).
	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,
	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). Attachment of autovent/s.
	DOOR ATTACHMENT	Use the bolts inserted in section (2) to attach the upper door track. The lower door runner 'D861' and ramp threshold 'D088' push down and lock together.
	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.
	OPTIONAL LOUVRE	They attach to the building during the glazing process (8) like a piece of glass with a black separator above and below them.
	OPTIONAL SHELVEING	Robinsons integral cantilever staging and shelving attaches to the inside of the greenhouse frame using either square / hex 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...
	OPTIONAL STAGING	
	FINISHING TOUCHES	Now that the main body of the structure is complete you can add; ridge caps, downpipe fittings, eave bungs. Images showing cresting and finial attachment, this is often easiest to do after section (5) rather than using the vent apertures later on (i.e. before glazing).

Section Ref	Part No.	Section	Size (mm)	14 8	14 10	14 12
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1	D021		2514	2		
	D022		3134		2	
	D023		3754			2
	D014		2517	2		
	D015		3137		2	
	D016		3757			2
	D604		1316	4		
	D609		1160	6	8	10
	RUBBER		1000 (1m)	12	14	17
	D174		N/A	4	8	8

2 + 3	D740		4466	1		
	D600		1270	1		
	D723(L)		1624	1		
	D724(R)			1		
	D608		1160	4		
	D655		1906	2		
	D656		1610	4		
	D657		1314	4		
	D670		2210	1		
	D675		2506	2		
	D110		1585	1		
	D110R			1		
	D653		1270	1		
	D743		4380	1		

RENOVN 14 DWARF

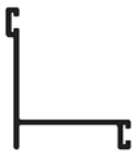
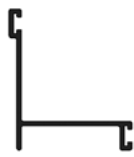
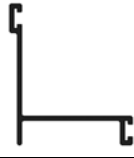
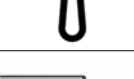
Section Ref	Part No.	Section	Size (mm)	14 8	14 10	14 12
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2 + 3	D626		1497	4		
	D111		N/A	2		
	D741L		2431	2		
	D742R			2		
	RUBBER		1000	61		
	D174		N/A	12		

5	D001		2517	1		
	D002		3137		1	
	D003		3757			1
	D737		2427	6	8	10
	D113		2510	2		
	D918		3130		2	
	D034		3750			2
	RUBBER		1000	30	39	49

6	D866		639	2	3	4
	D863L		613	2	3	4
	D863R		613	2	3	4
	D862		593	2	3	4
	D079 PLUS FLUFF		590	2	3	4
	D114		N/A	4	6	8
	D220 PLUS FS6060 SCREW		N/A	4	6	8
	D205		N/A	4	6	8

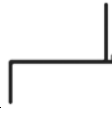
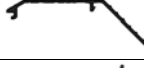
Section Ref	Part No.	Section	Size (mm)	14 8	14 10	14 12
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7	D090 + D347 lock = D301		1824	1
	D092 + D156 strike = D303		1824	1
	D093		1824	1
	D094		1824	1
	D096 + D217 wheel = D307		611	2
	D095		611	2
	D097		611	2
	D232		905	4
	D233		797	4
	P053		N/A	2
	D225		610	2
	D840B		4000	1

MAIN FRAME QUANTITIES VENTS / DOORS etc SEPERATE		FS6505 HEX 12mm	41	47	53
		FS6506 HEX 16mm	59	61	63
		FS6504 M6 NUT	132	148	164
		CROP HE569	32	40	48

Section Ref	Part No.	Section	Size (mm)	14 8	14 10	14 12
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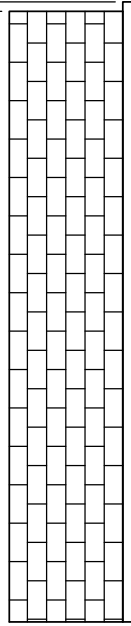
8	1	D618		1144	6	8	10
	2/3	D658		1314	4		
	2/3	D659		1610	4		
	3	D661		1906	2		
	2	D662		600	2		
	3	D735		2210	1		
	2	D754		892	1		
	5	D815		1830	6	8	10
	5	D870		601	6	8	10
	2/3	D610		1160	4		
	1	D620		1144	4		
	5	D739		1830	4		
	2	D814		1883	2		
	5	D871		601	4		
	2/3	D614		1162	4		
	1	D619		1144	10	12	14
	2/3	D663		1316	4		
	2/3	D664		1610	4		
	3	D665		1908	2		
	2	D666		602	2		
	3	D734		2210	1		
	5	D738		2435	10	12	14
	2	D755		892	1		
	2	D836		1883	2		

10	D733		900	1
	D865		1210	1
	D861		2450	1
	D088		1207	1
	D086		2510	1
	D085		2510	1
	D627		114	2
	D163		90	2
	D150		N/A	1
	D154		N/A	2

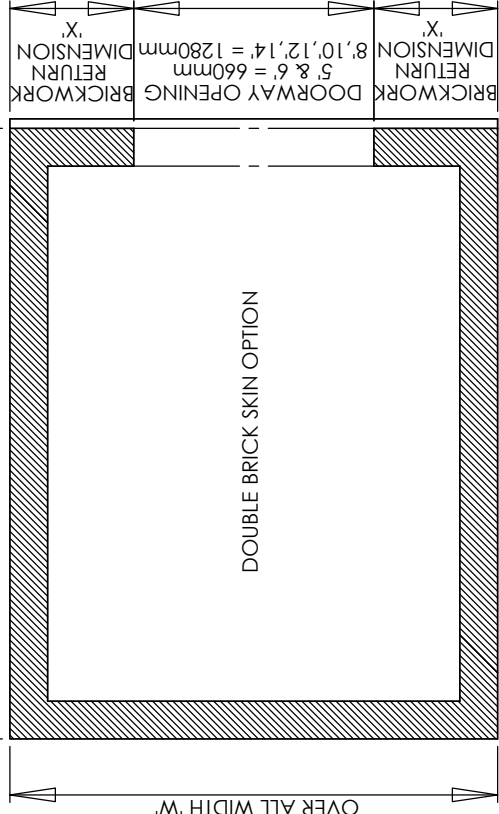
RENOVN 14 DWARF

THIS PLAN APPLIES TO GREENHOUSES WITH DOORS AT ONE END ONLY.

50mm MINIMUM



OVER ALL LENGTH 'L'



GREENHOUSE TYPE	OVER ALL WIDTH 'W'	BRICKWORK RETURN DIMENSION 'X'
REGATTA (5 WIDTH)	1654mm	497mm
REGENT (6 WIDTH)	1960mm	650mm
ROYALE (8 WIDTH)	2580mm	650mm
ROSETTE (10 WIDTH)	3210mm	965mm
REGAL (12 WIDTH)	3820mm	1270mm
RENOWN (14 WIDTH)	4450mm	1585mm

OVER ALL LENGTH 'L' = BASIC GREENHOUSE LENGTH + EXTENSION IF REQUIRED		
BASIC GREENHOUSE	LENGTH	EXTENSION
4 LONG	1370mm	6ft EXT LONG
6 LONG	1990mm	8ft EXT LONG
8 LONG	2610mm	
10 LONG	3230mm	
12 LONG	3850mm	

OVER ALL LENGTH 'L' = BASIC GREENHOUSE LENGTH + EXTENSION IF REQUIRED		
BASIC GREENHOUSE	LENGTH	EXTENSION
4 LONG	1370mm	6ft EXT LONG
6 LONG	1990mm	8ft EXT LONG
8 LONG	2610mm	
10 LONG	3230mm	
12 LONG	3850mm	

GUIDANCE NOTE FOR ROBINSONS DWARF WALL GREENHOUSES.
FOOTINGS
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 DIMENSIONS PROVIDED AND IS SQUARE, LEVEL AND UPRIGHT, THE DIAGONAL MEASUREMENTS SHOULD BE EQUAL.

WALLS CAN BE EITHER DOUBLE OR SINGLE SKIN.

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

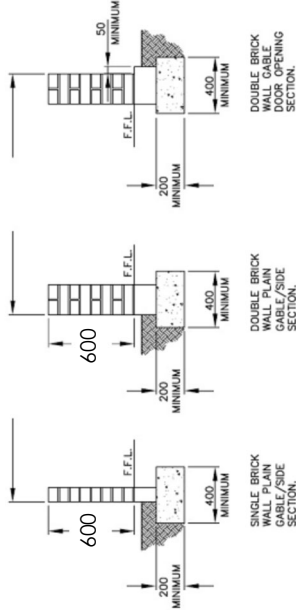
GABLE DOOR OPENING
THE DOOR THRESHOLD REQUIRES BRICK WORK ACROSS THE OPENING WHICH SHOULD BE LEVEL WITH THE FINISHED FLOOR LEVEL (F.F.L) OF THE GREENHOUSE.

THE OPENING FOR THE DOORWAY AND THE HEIGHT TO THE TOP OF THE WALL FROM THE THRESHOLD LEVEL REQUIRE THE HIGHEST ACCURACY AND ARE MOST IMPORTANT SO THAT THE DOOR FITS THE APERTURE CORRECTLY. IT IS ADVISABLE TO MAKE A WOODEN TEMPLATE TO CHECK THE DOOR APERTURE DIMS.

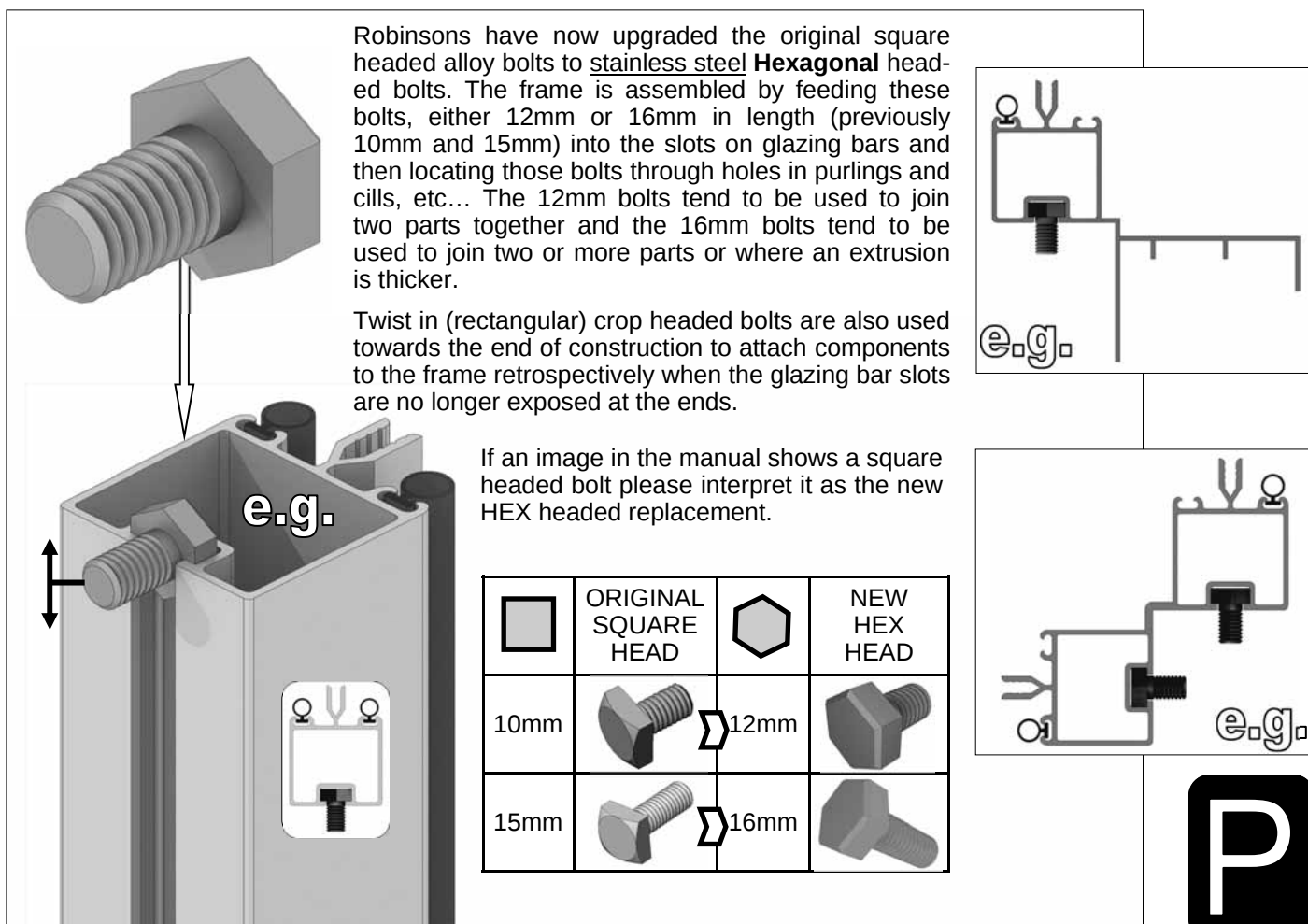
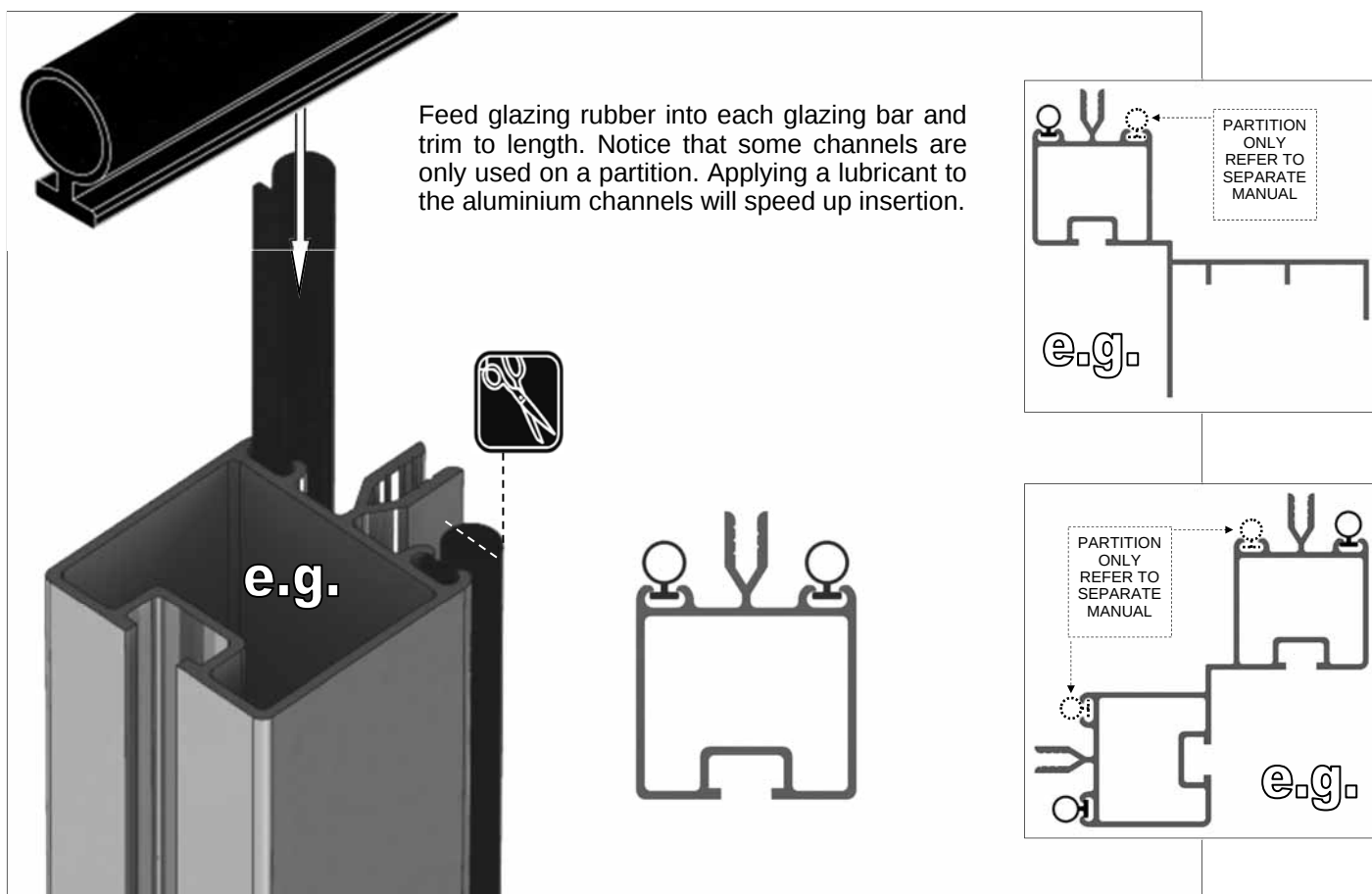
IF SINGLE SKIN WALLS ARE USED THEN PIERS SHOULD BE FORMED AT THE DOOR OPENING.

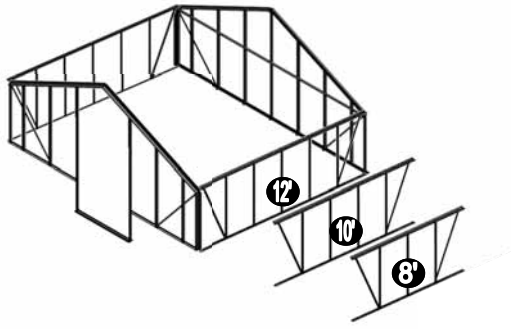
IN ORDER TO SUPPORT THE OUTER EDGE OF THE DOOR THRESHOLD THERE MUST BE A PROJECTION OF BRICKWORK / CONCRETE IN FRONT OF THE DOOR END WALL WITH A MINIMUM WIDTH OF 50mm. THIS NEEDS TO BE LEVEL WITH THE DOOR THRESHOLD OPENING.

Property of 'Robinsons Greenhouses' © 2019

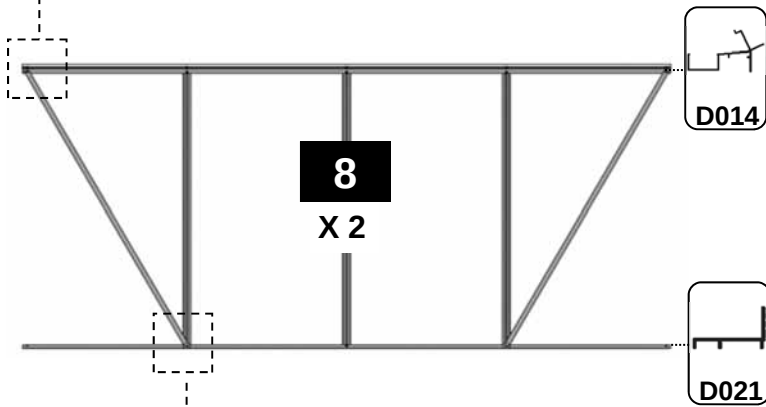


TITLE: GREENHOUSE DWARF WALL PLAN



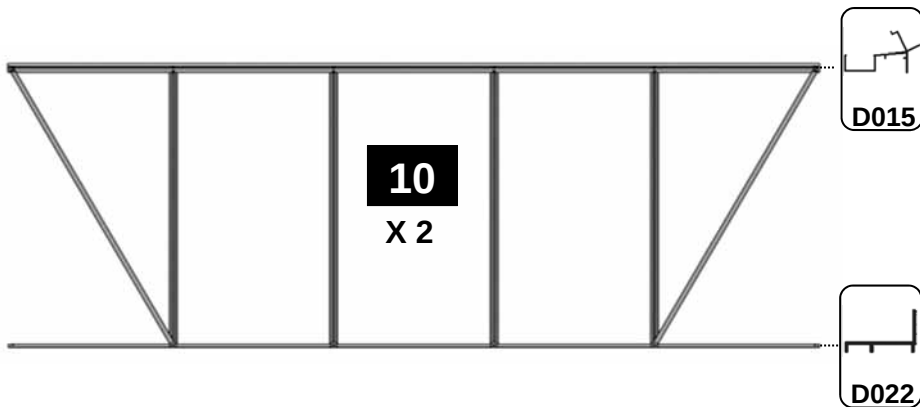


e.g. ①

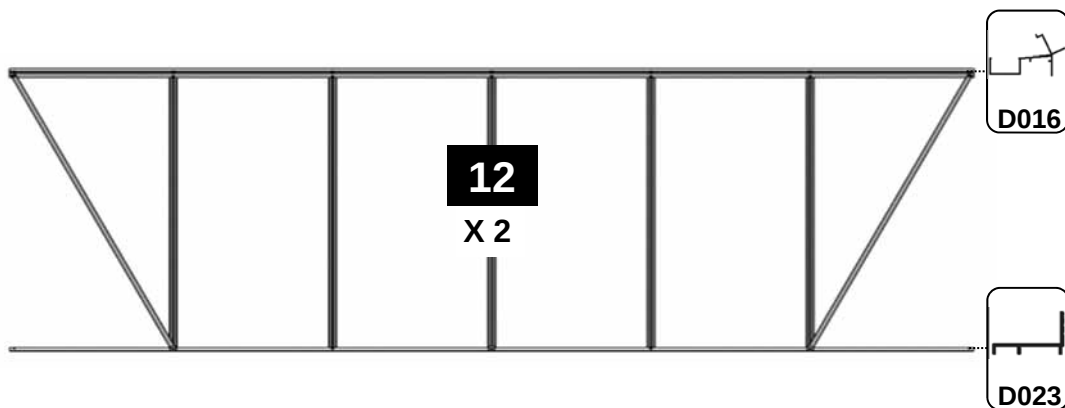


8 X 2 DWARF		
Part No	mm	Quantity
D014	2517	2
D021	2514	2
D609	1160	6
D604	1316	4
D174		4
M6-12mm		6
M6-16mm		10
M6-NUT		16
Rubber	1000	14

e.g. ②

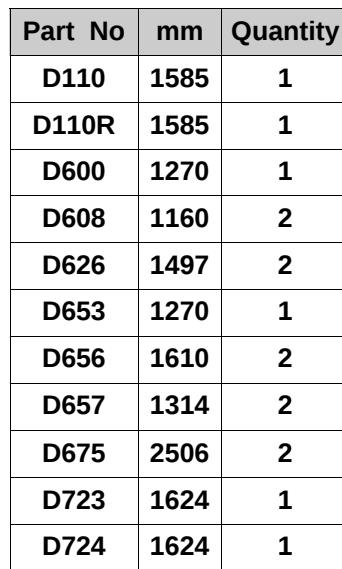


10 X 2 DWARF		
Part No	mm	Quantity
D015	3137	2
D022	3134	2
D609	1160	8
D604	1316	4
D174		8
M6-12mm		8
M6-16mm		12
M6-NUT		20
Rubber	1000	19



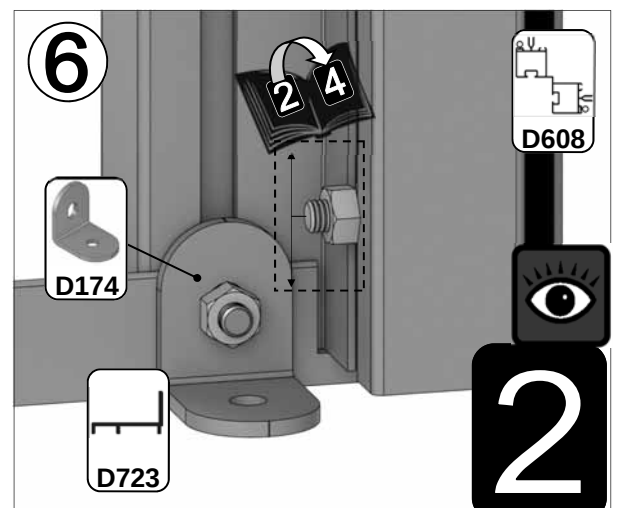
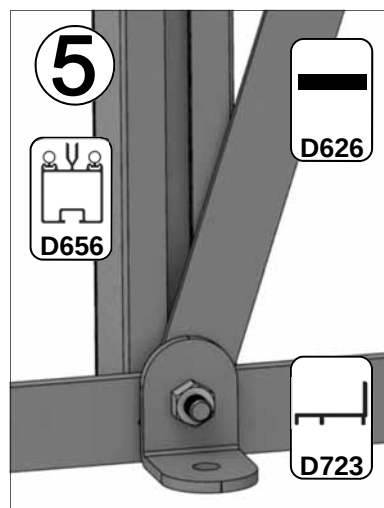
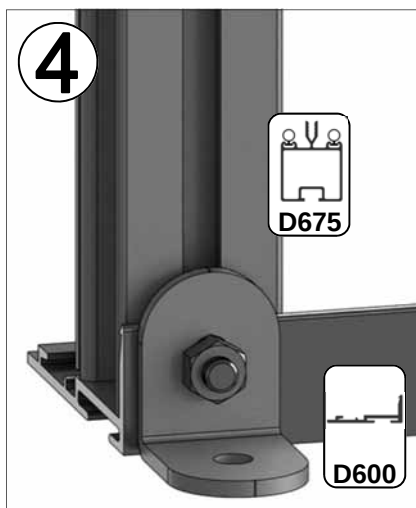
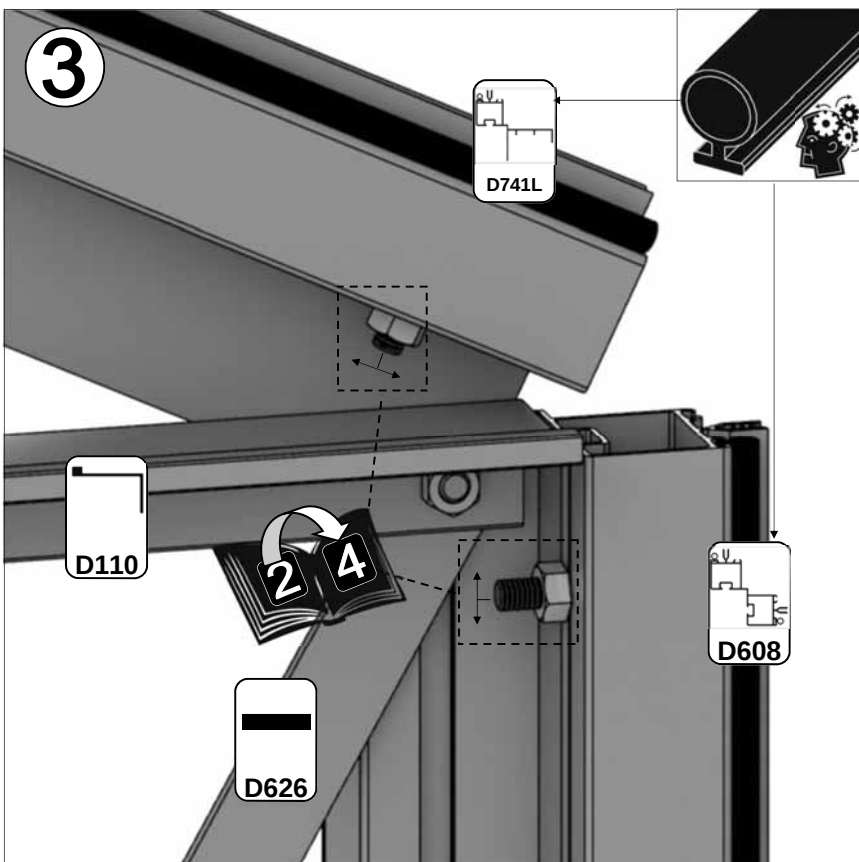
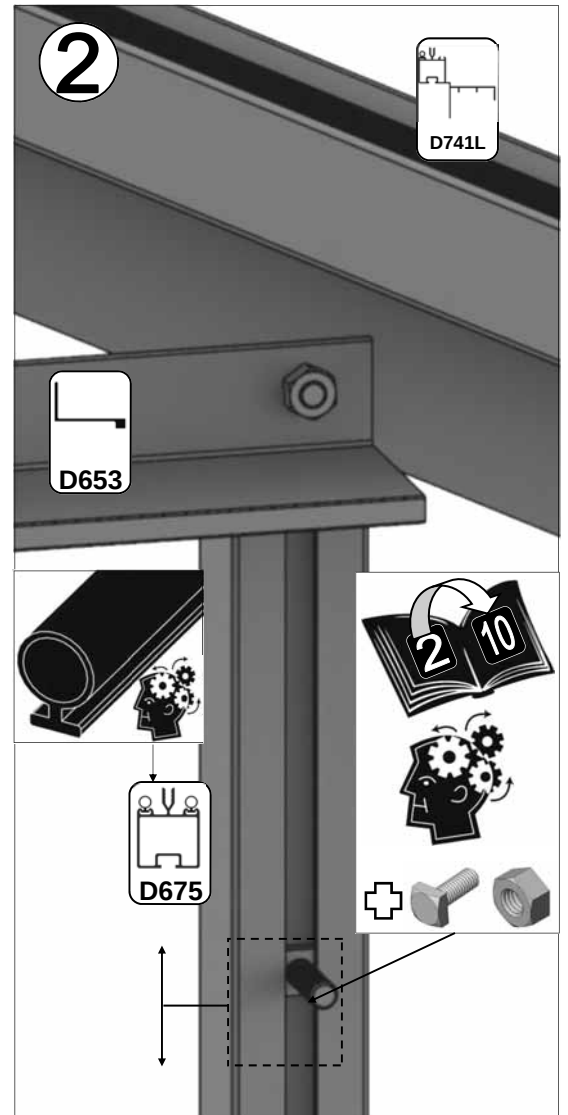
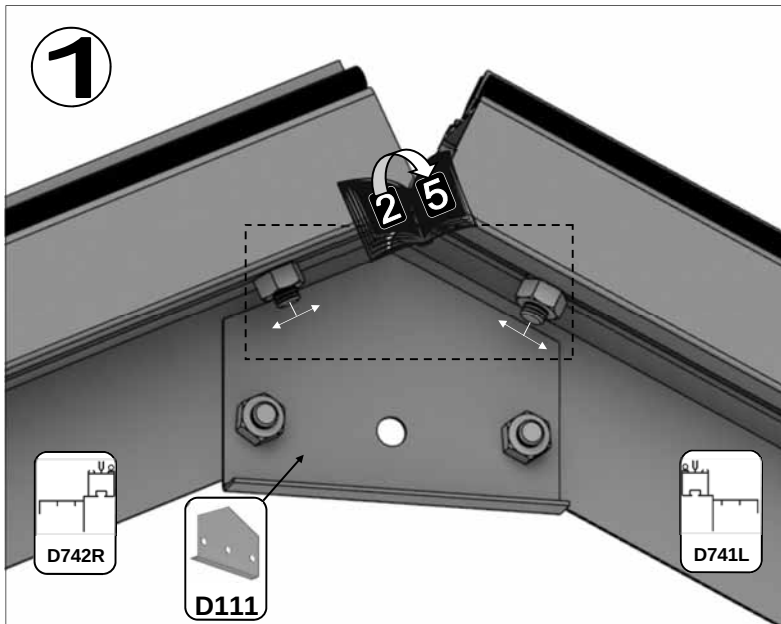
12 X 2 DWARF		
Part No	mm	Quantity
D016	3757	2
D023	3754	2
D609	1160	10
D604	1316	4
D174		8
M6-12mm		10
M6-16mm		14
M6-NUT		24
Rubber	1000	24

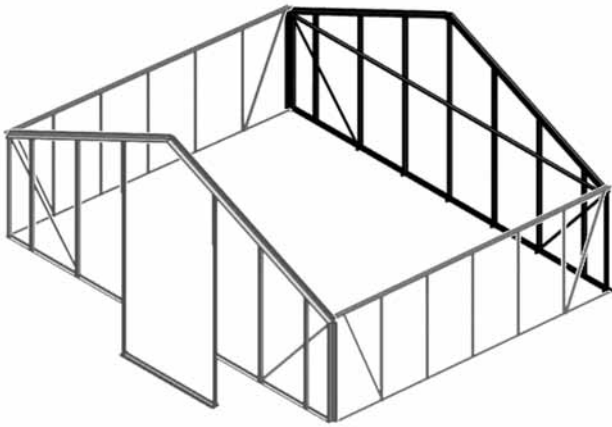




Part No	mm	Quantity
D741L	2431	1
D741R	2431	1
D111		1
D174		6
D227		32
M6X12		12
M6X16		26
M6NUT		38

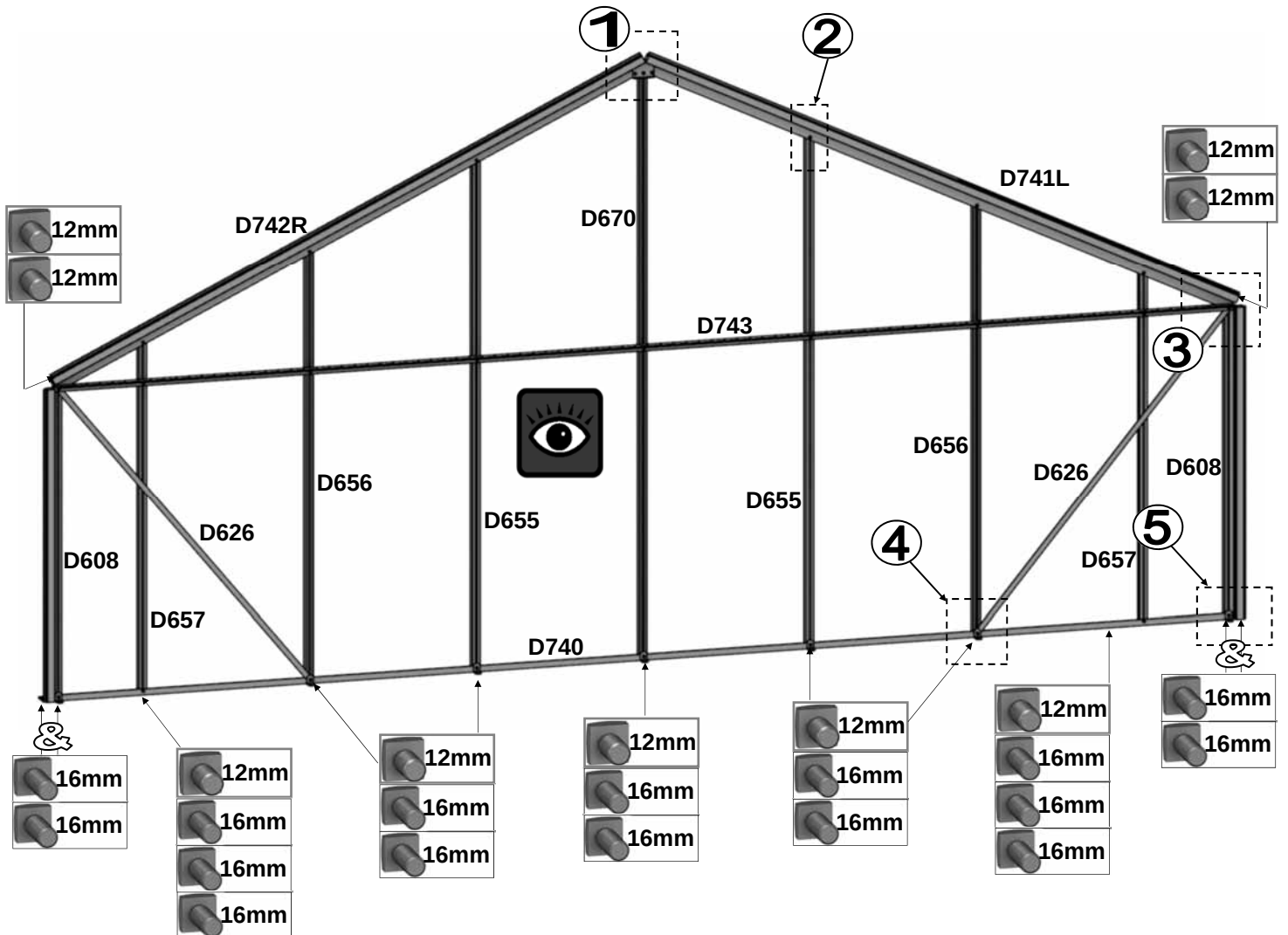




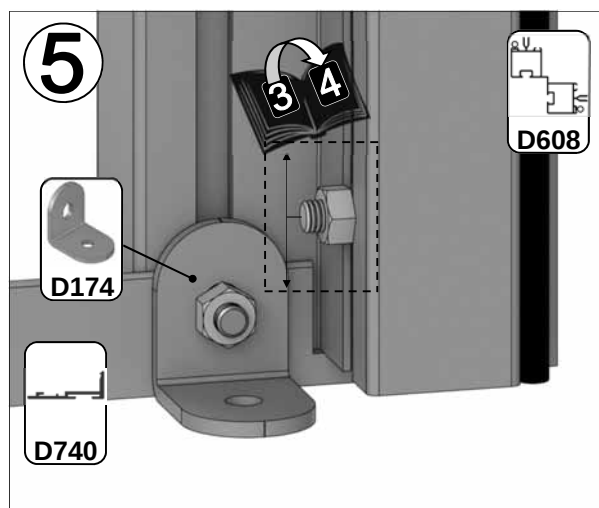
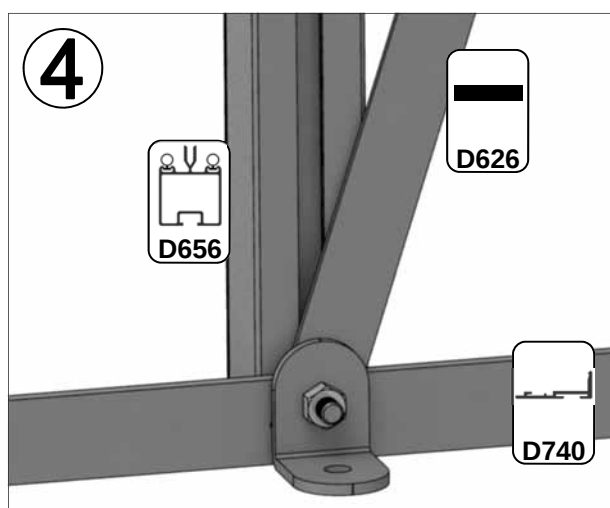
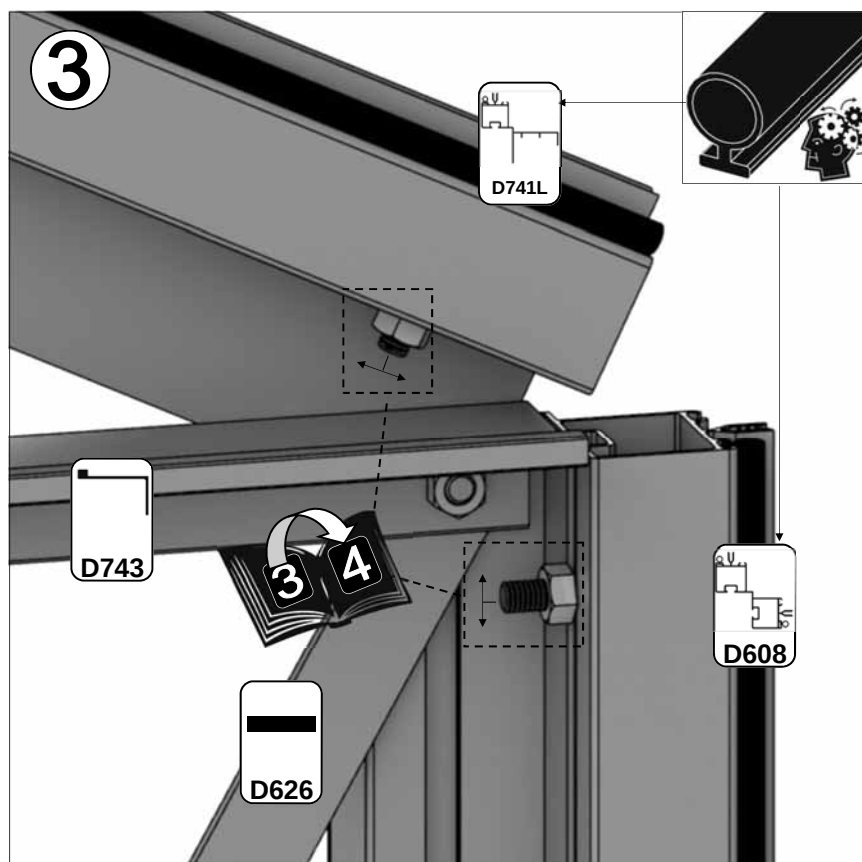
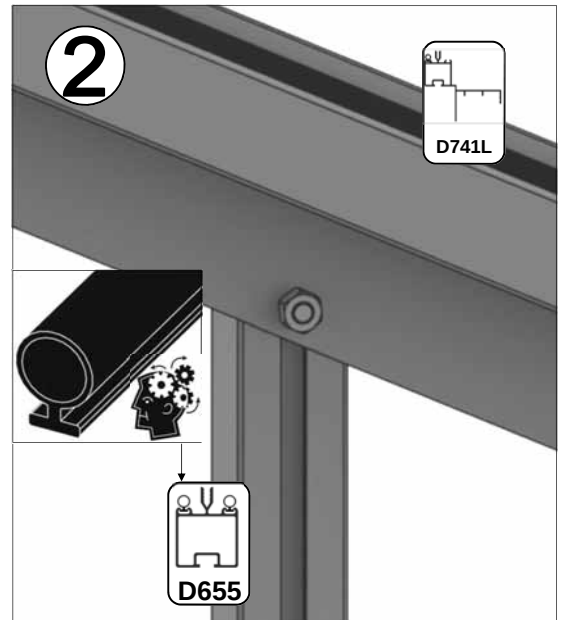
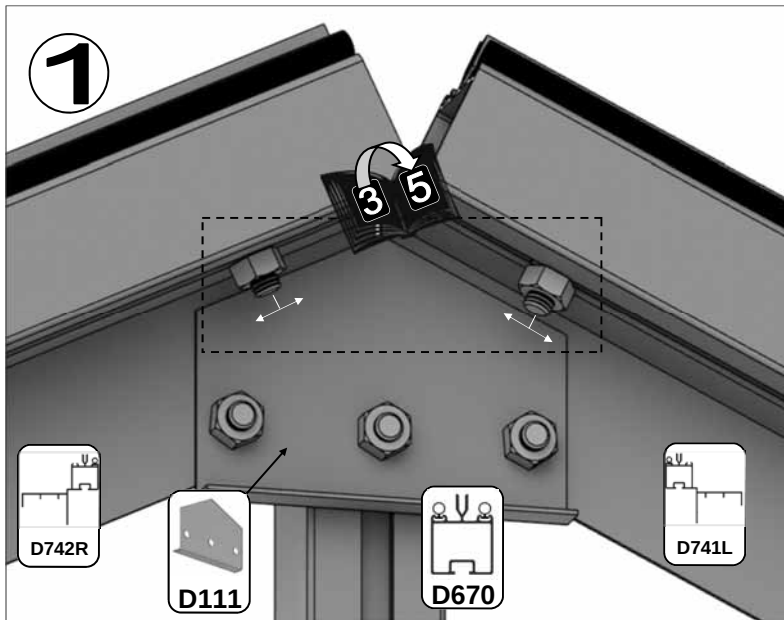


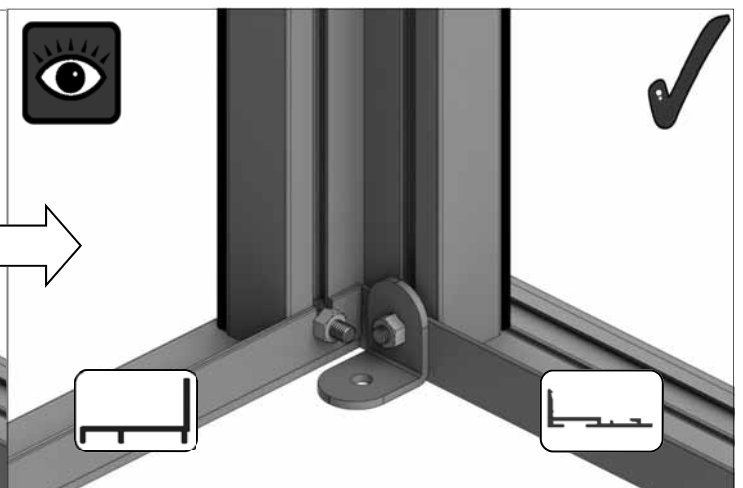
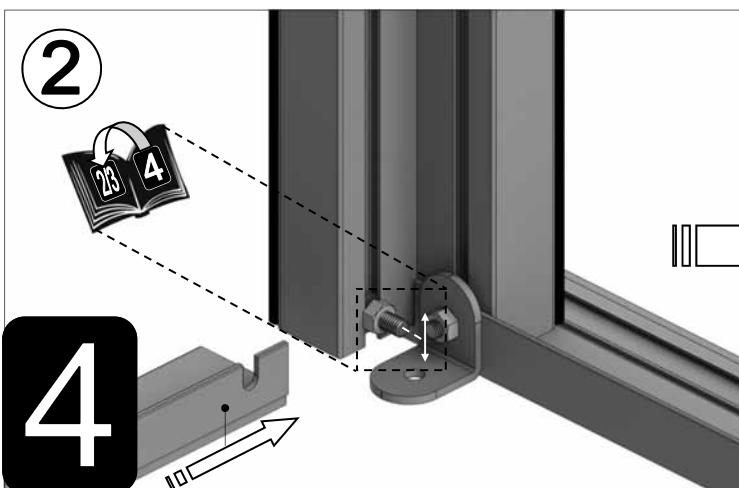
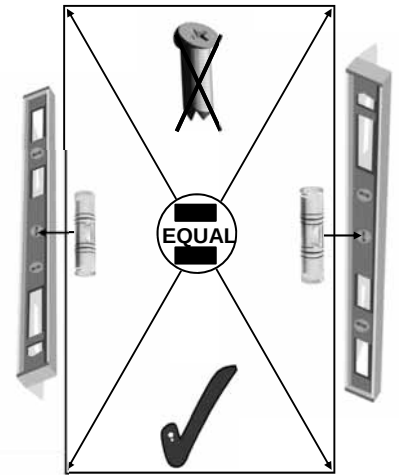
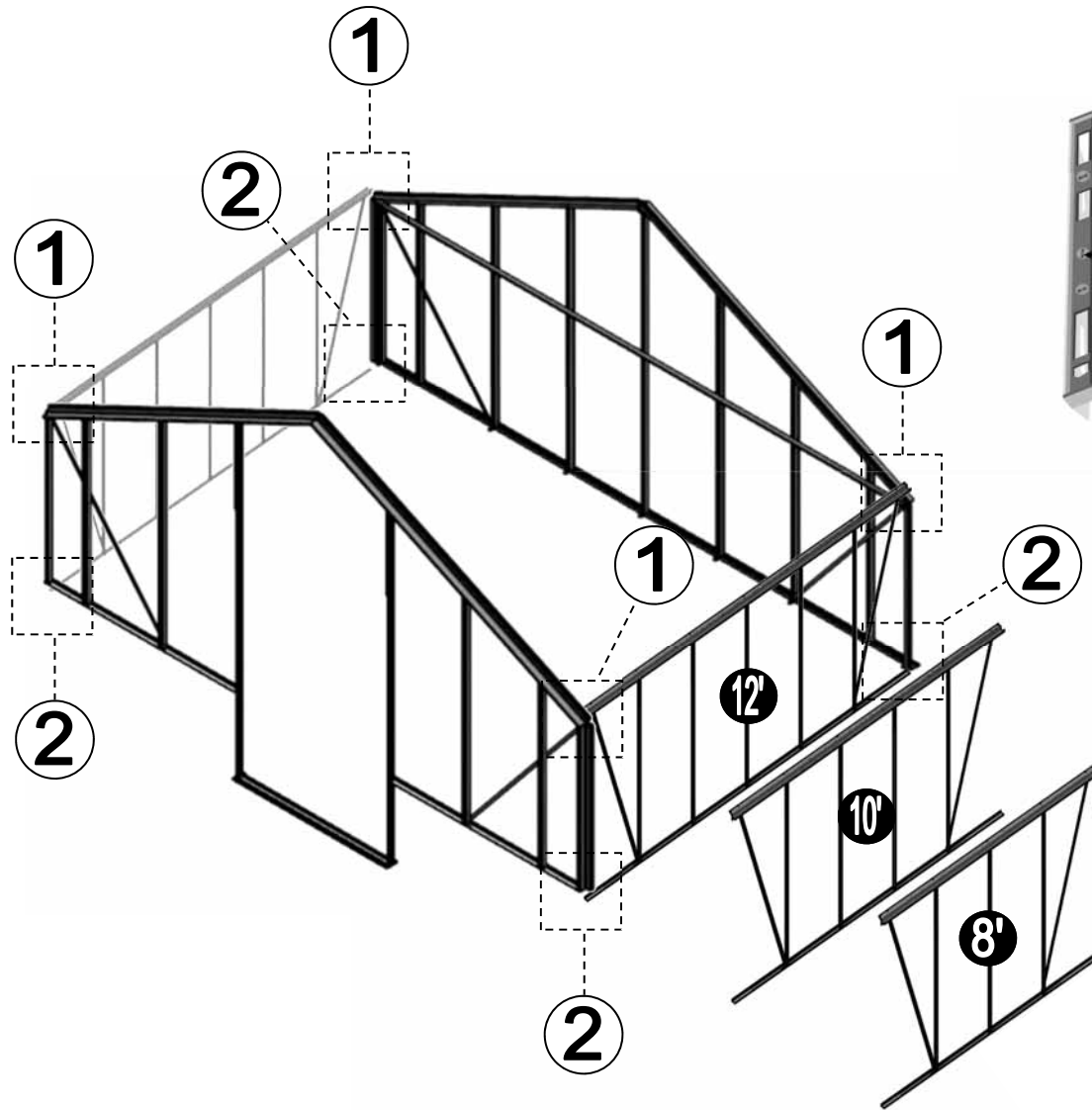
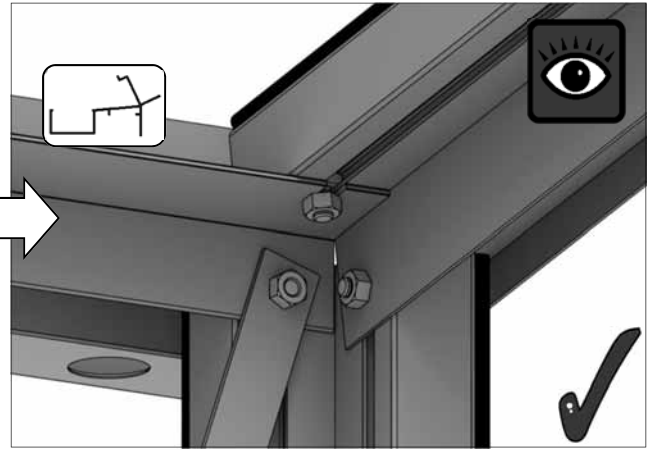
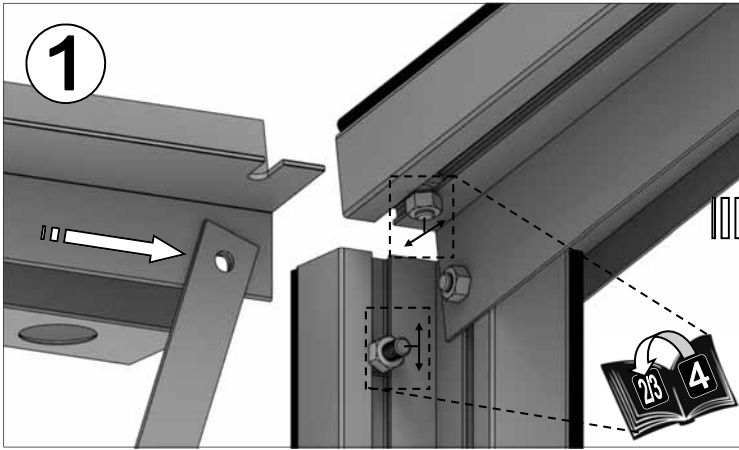
Part No	mm	Quantity
D608	1160	2
D626	1497	2
D655	1906	2
D656	1610	2
D657	1314	2
D670	2210	1
D740	4466	1
D741L	2431	1
D742R	2431	1
D743	4380	1

Part No	mm	Quantity
D111		1
D174		6
D227		29
M6X12		11
M6X16		23
M6NUT		34



3

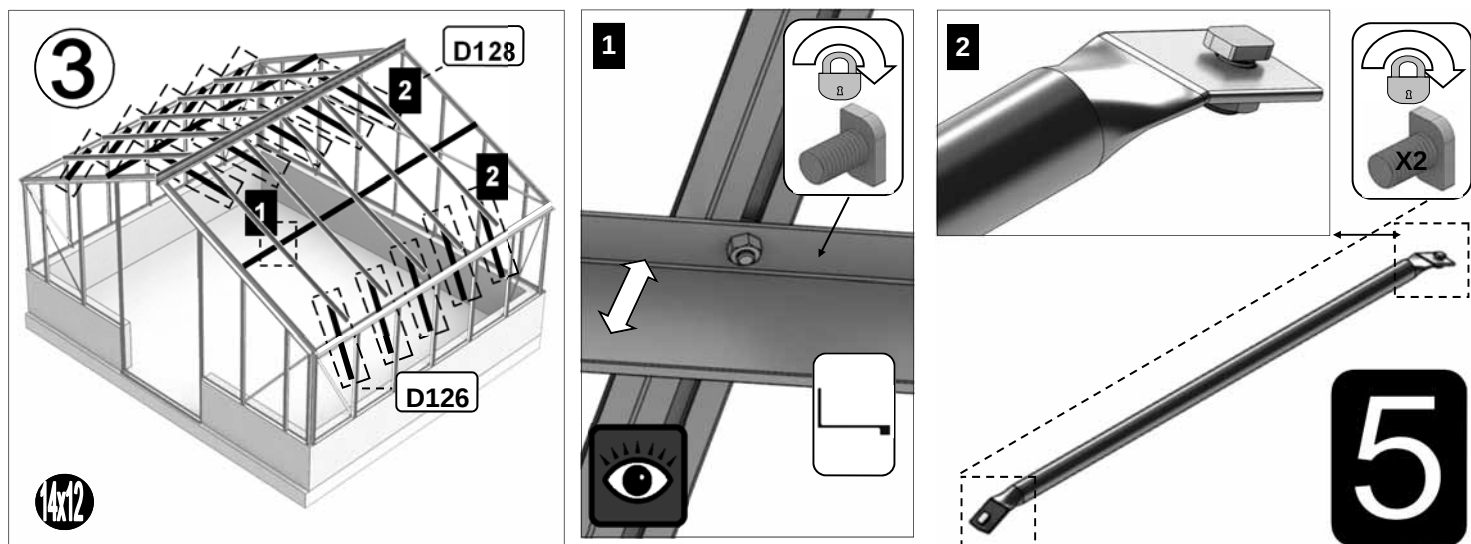
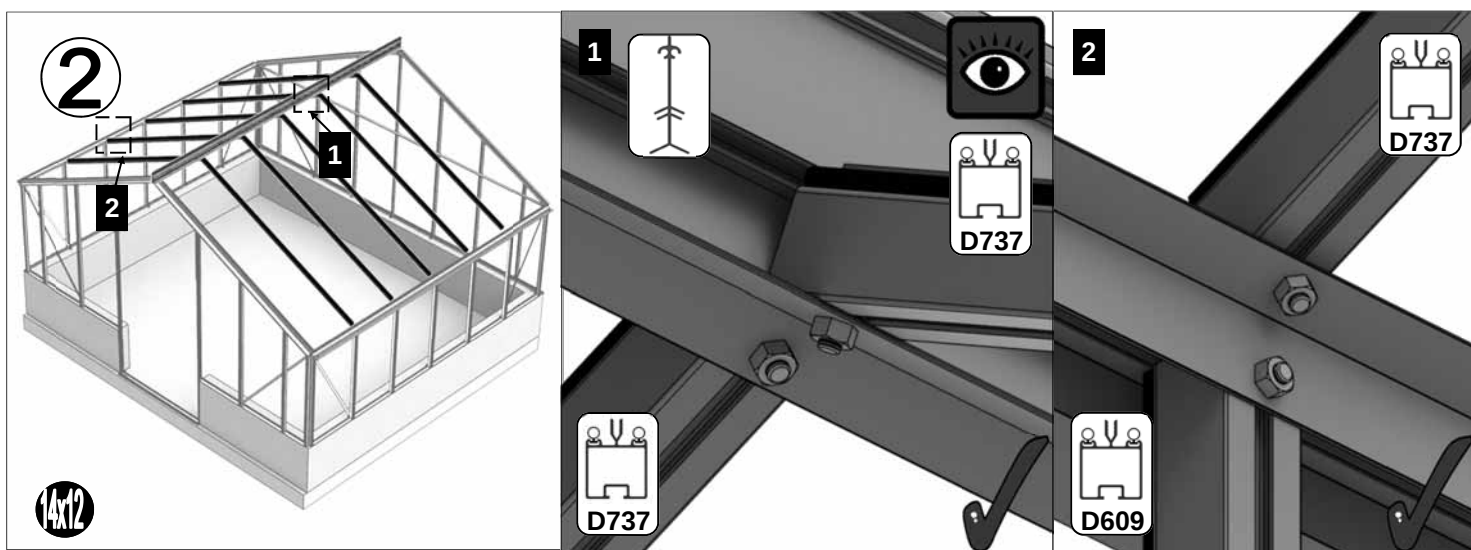
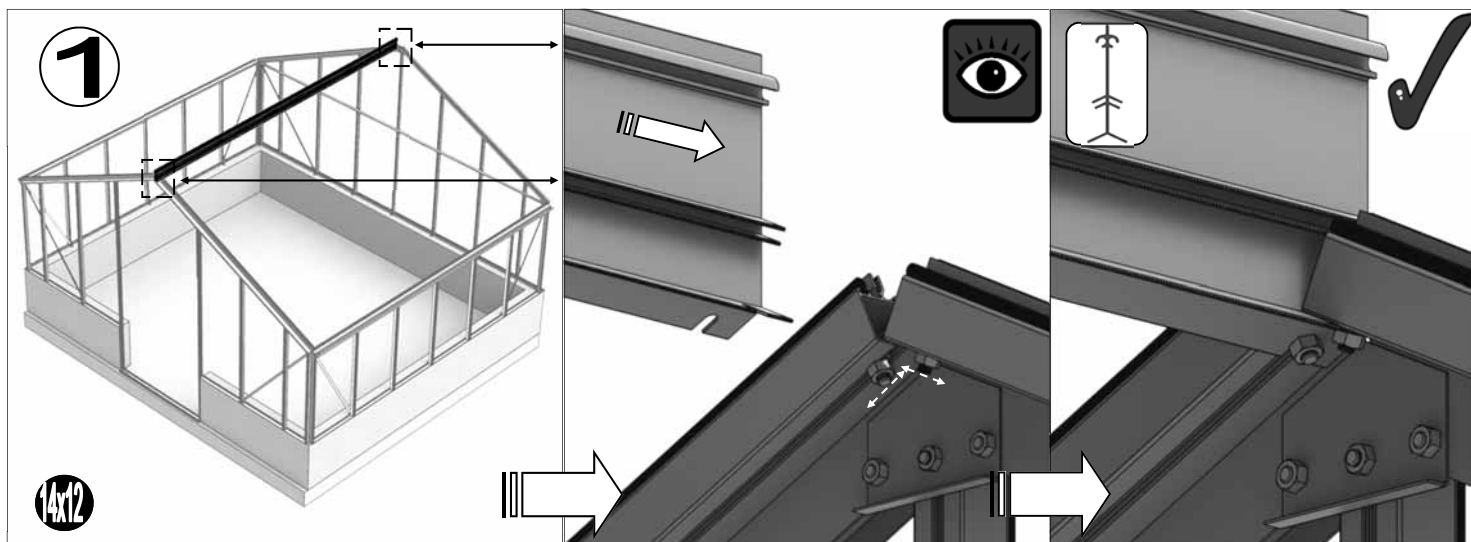




8'	Part No	mm	Quantity
 12	D001	2517	1
	D737	2427	6
	D113	2510	2
	D126	445	6
	D128	1015	3
	RUBBER	1000	30

10'	Part No	mm	Quantity
 16	D002	3137	1
	D737	2427	8
	D918	3130	2
	D126	445	8
	D128	1015	4
	RUBBER	1000	39

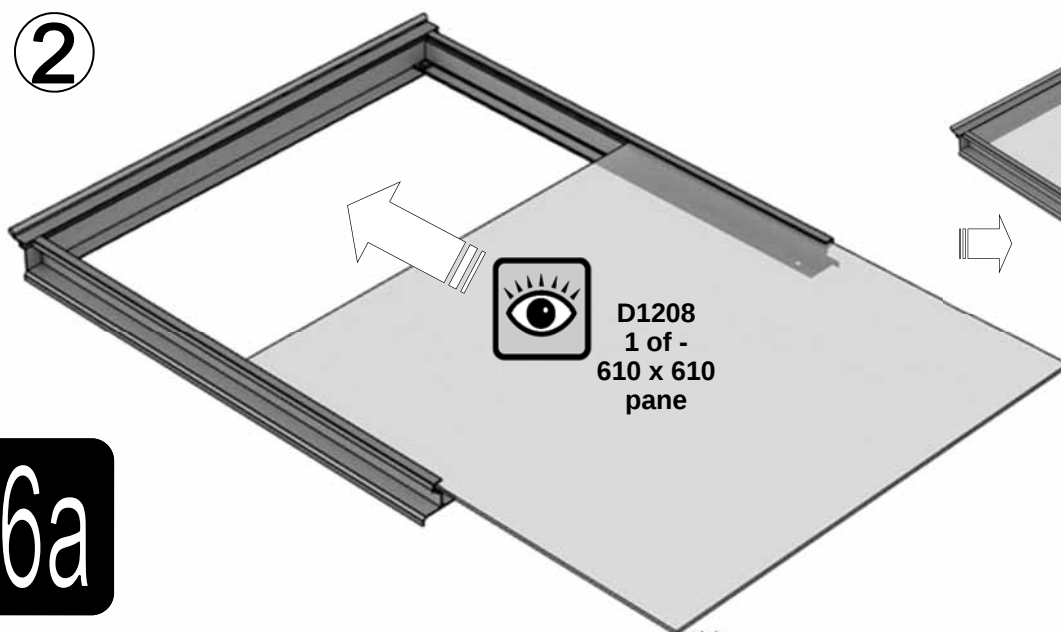
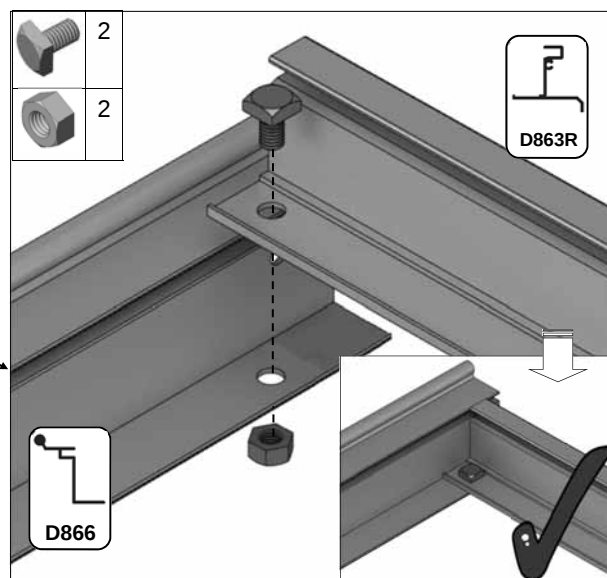
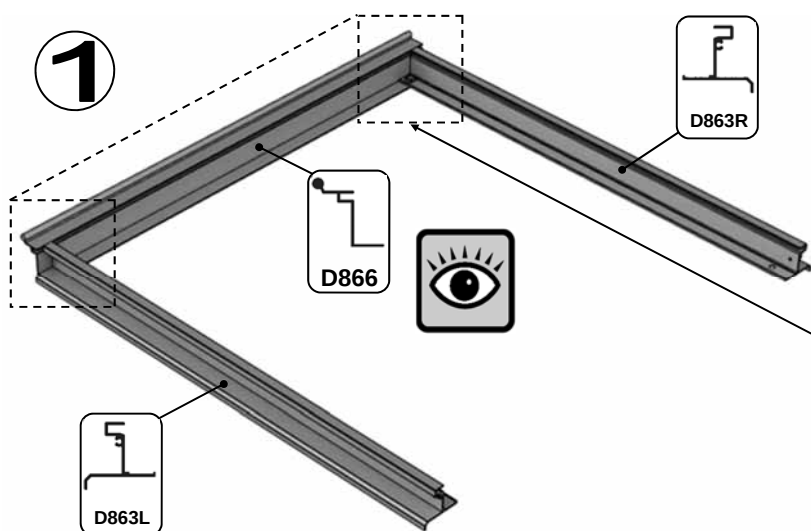
12'	Part No	mm	Quantity
 20	D003	3757	1
	D737	2427	10
	D034	3750	2
	D126	445	10
	D128	1015	5
	RUBBER	1000	49



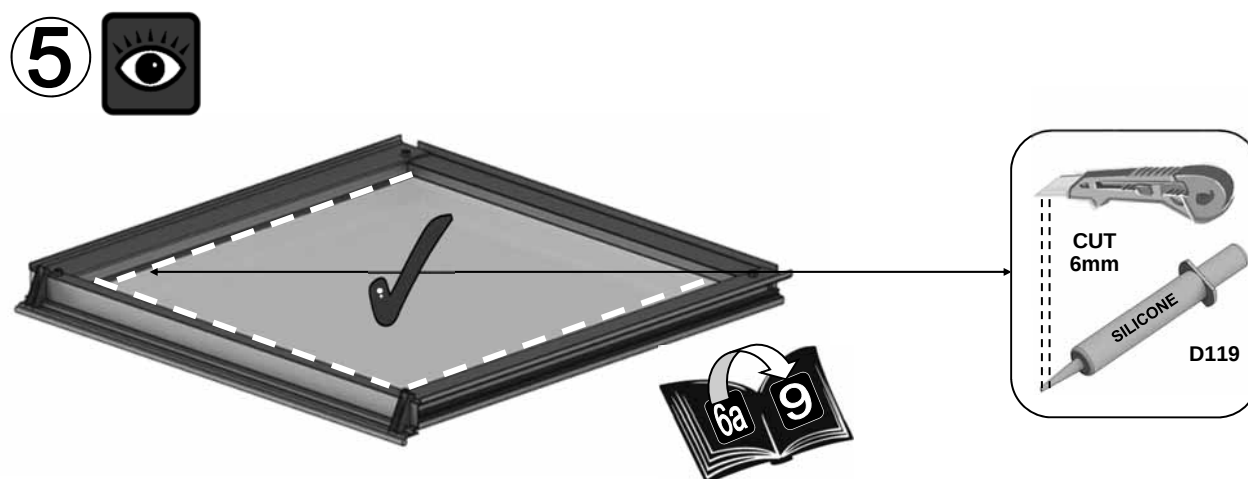
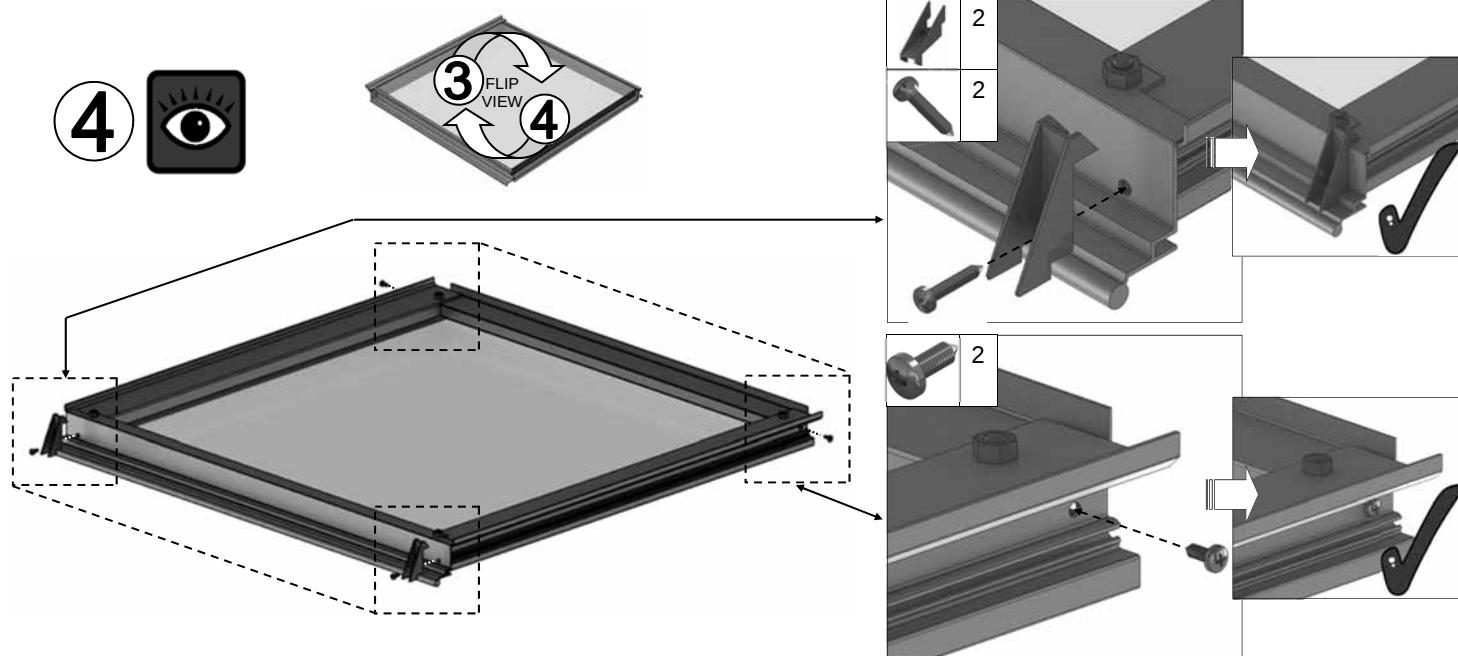
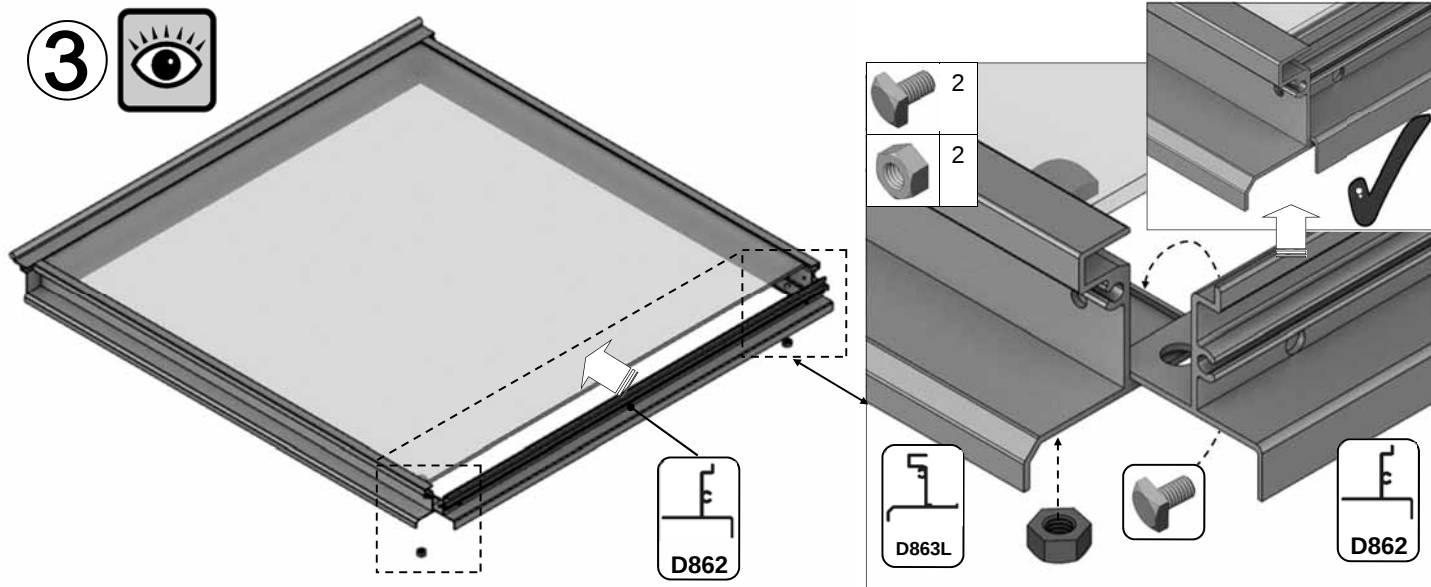


Part No		mm	Quantity
D866		639	1
D863L		613	1
D863R		613	1
D862		593	1

Part No		mm	Quantity
D220 PLUS FS6060 SCREW		N/A	2
D205		N/A	2
BOLM6X12		12	4
NUT M6		M6	4
8 X 12 S/T FS6017		10	2
8 x 19 S/T FS6018		19	2



6a



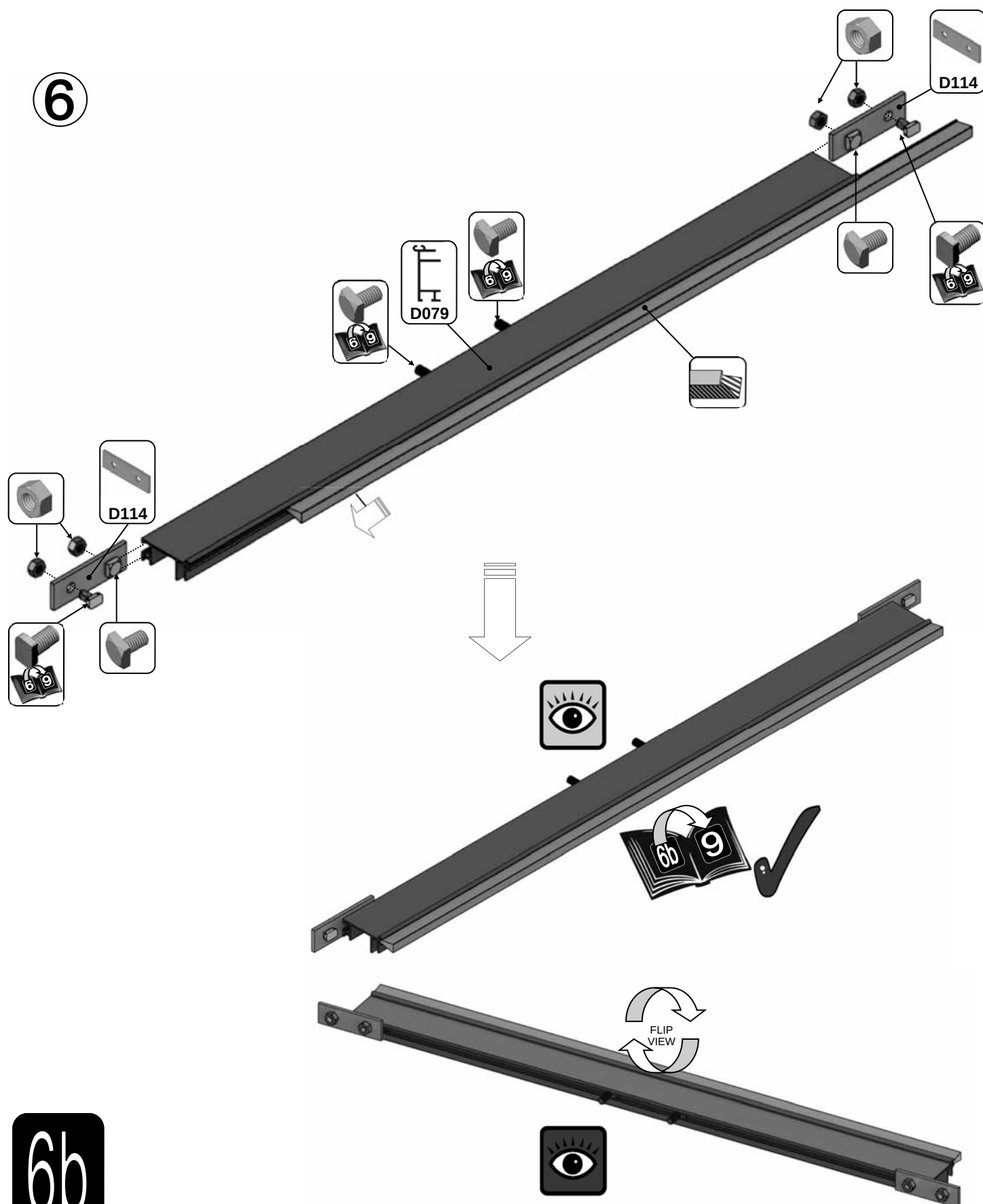
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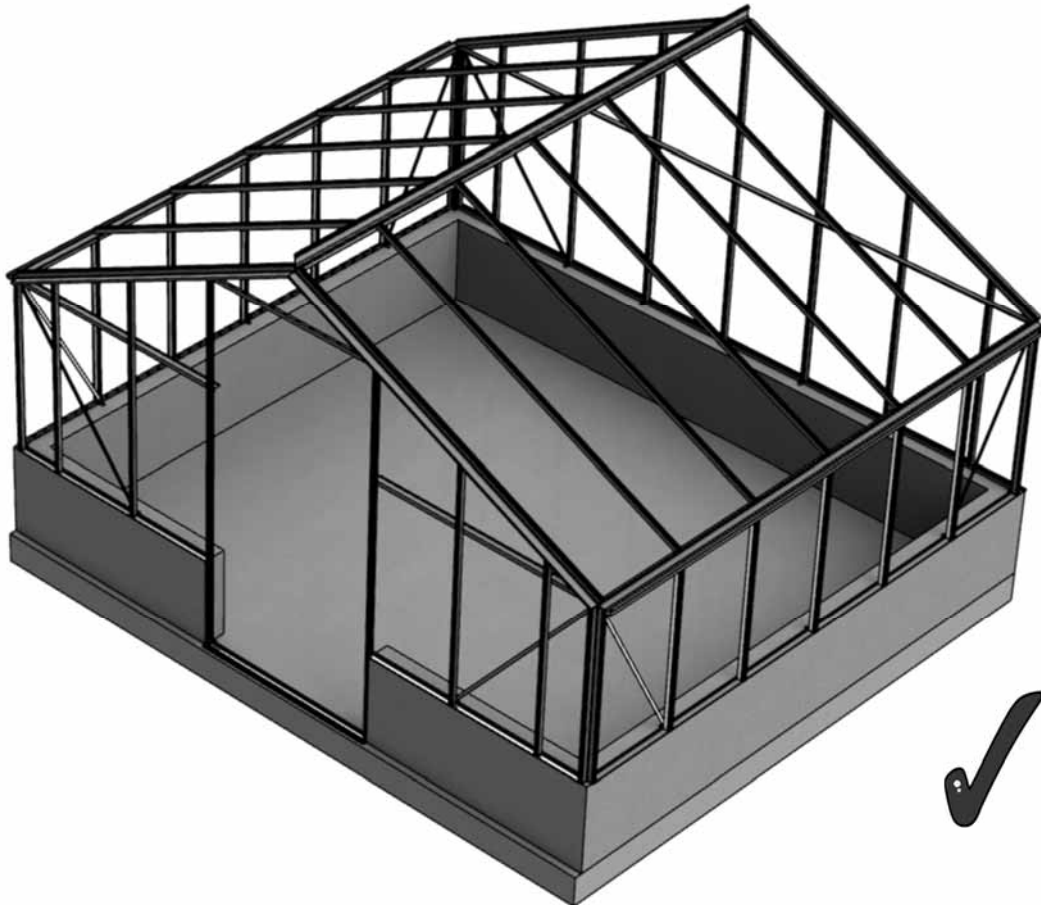
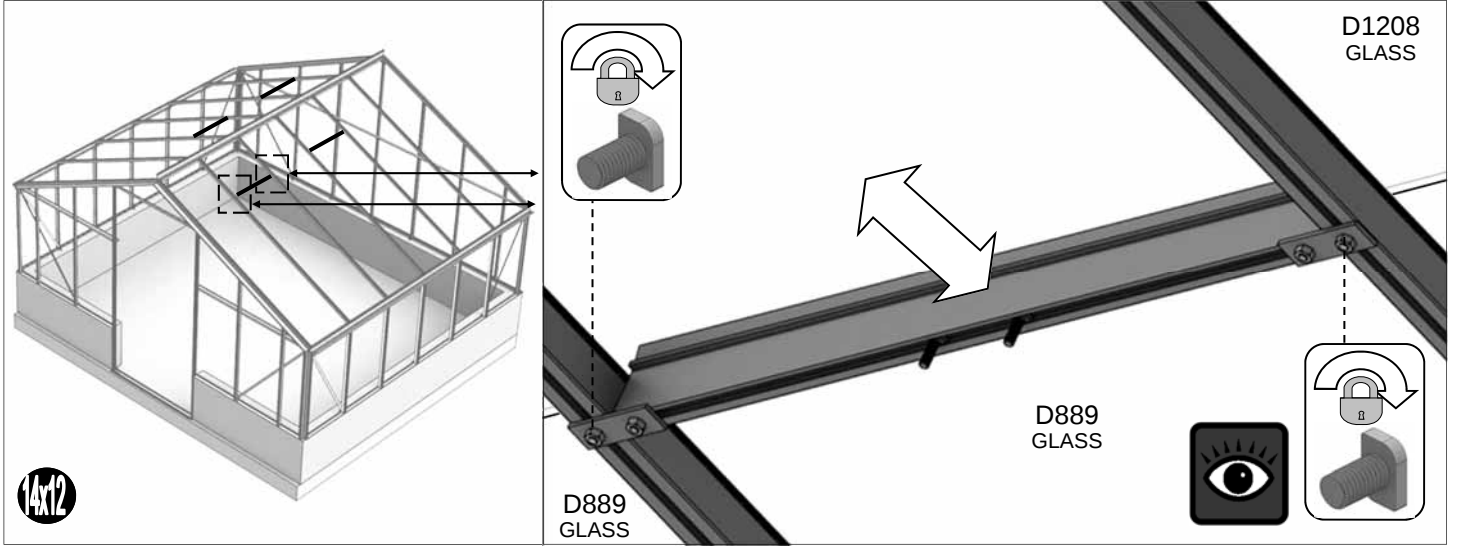
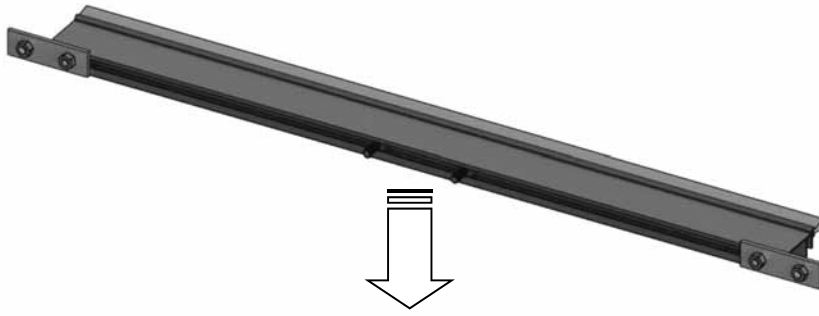
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slam bar = {

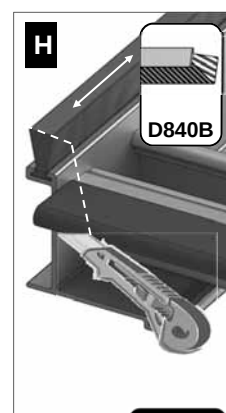
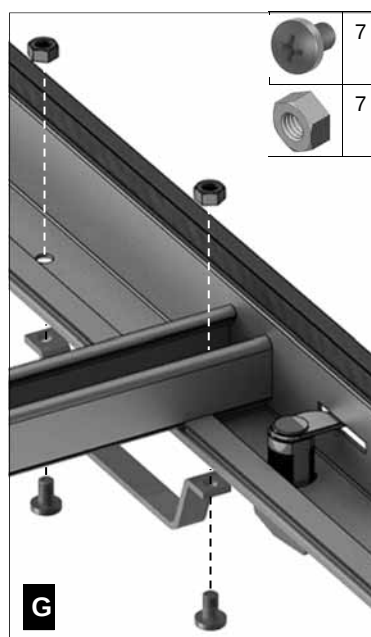
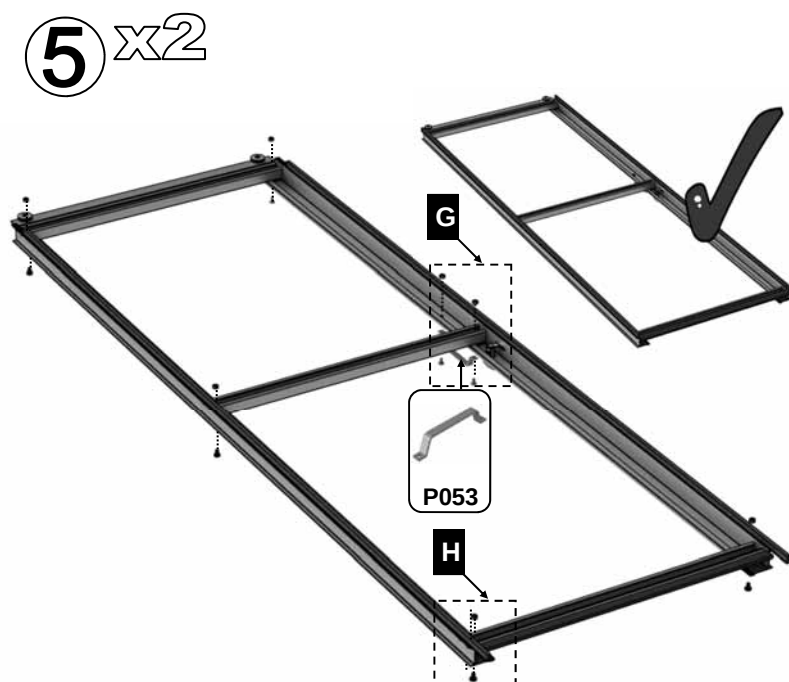
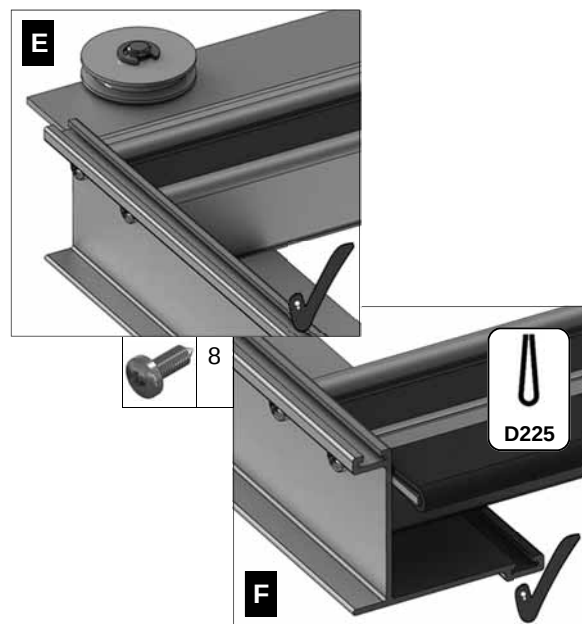
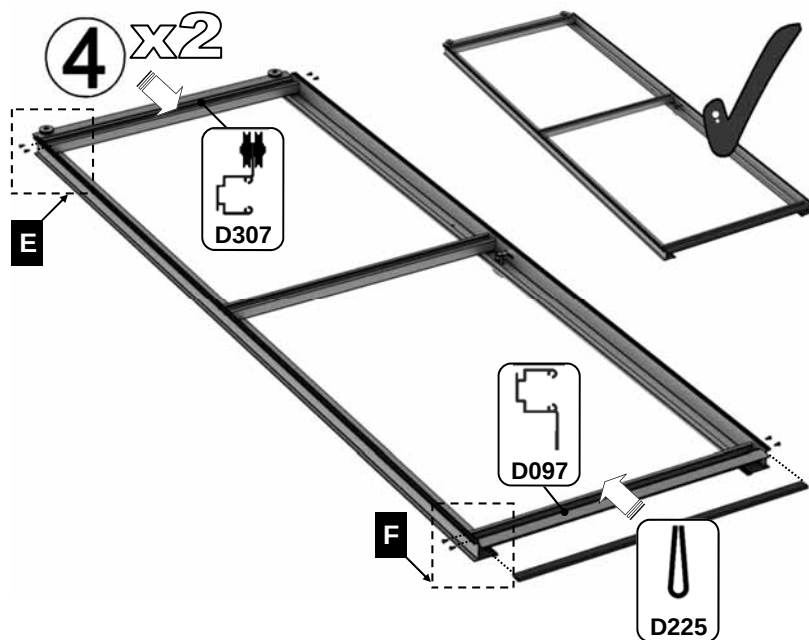
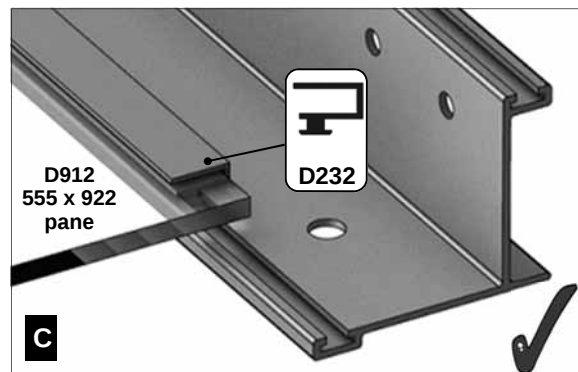
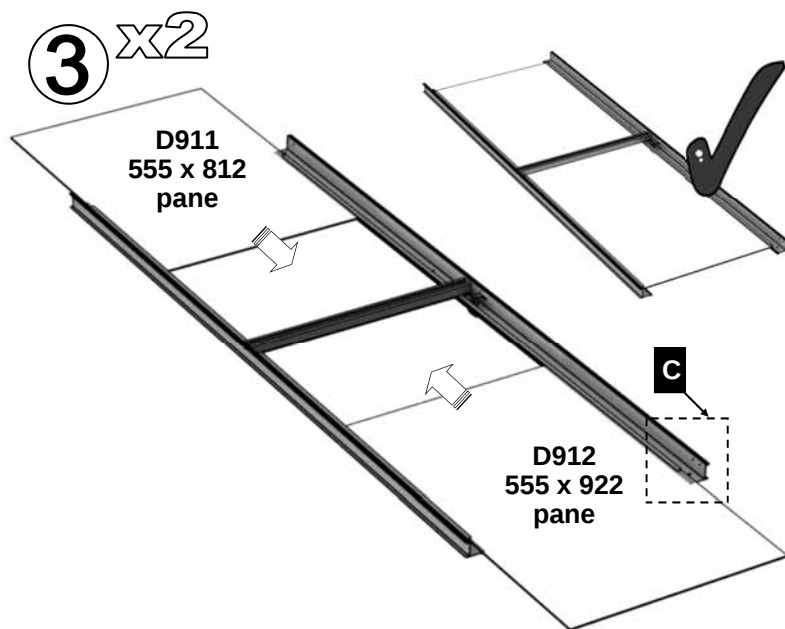
Part No		mm	Quantity
BOLM6X12		12	4
M6 CROP		10	2
NUT M6		N/A	4

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

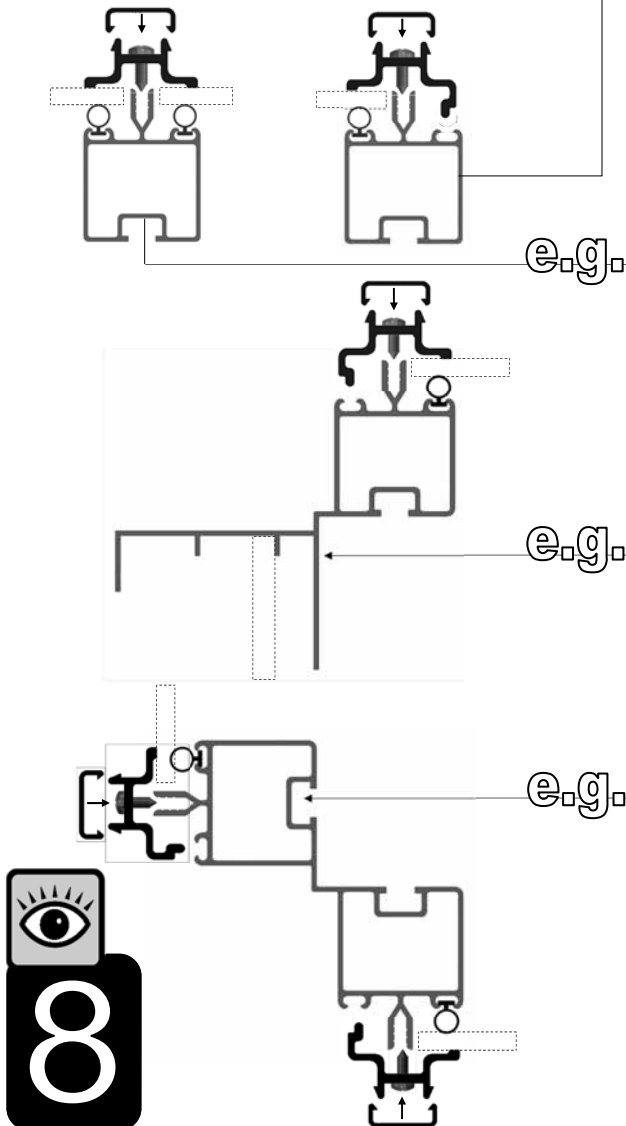
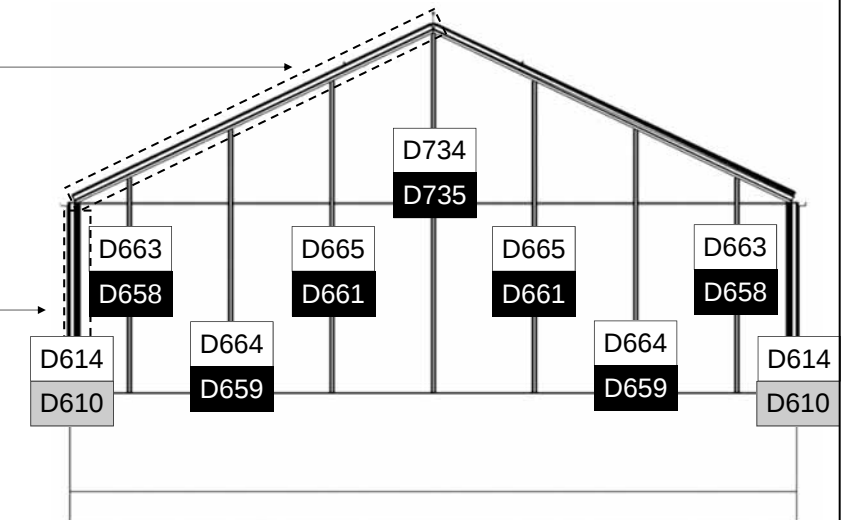
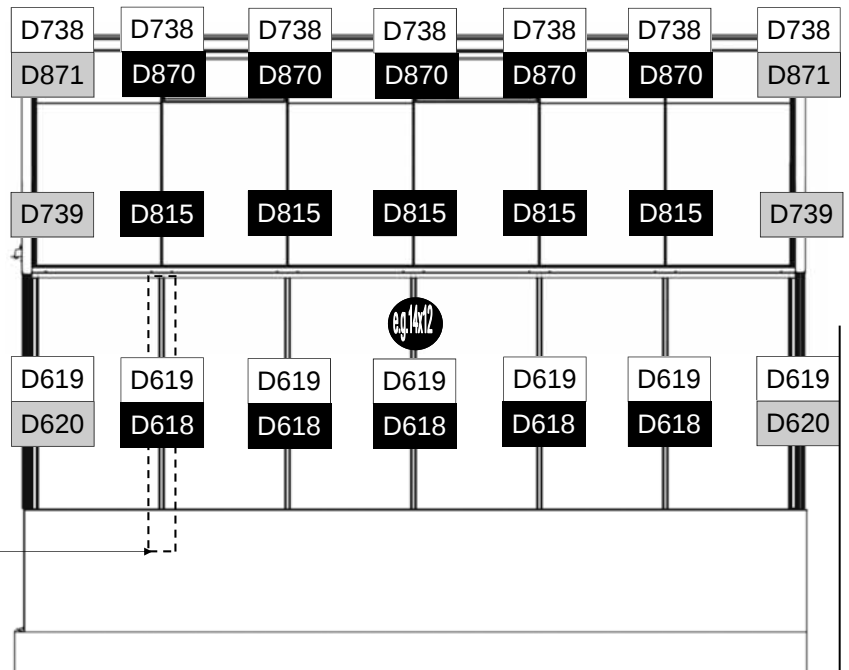
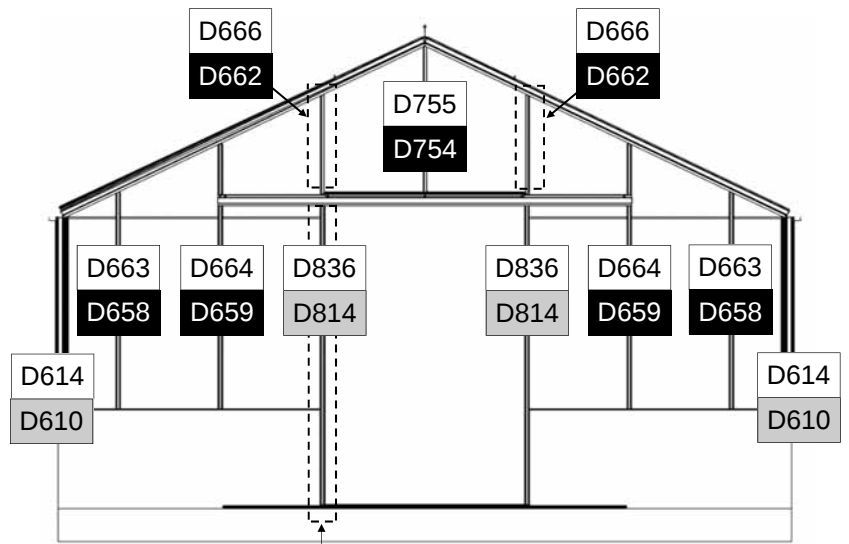
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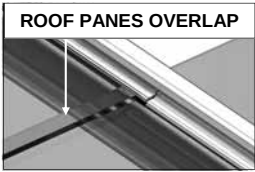






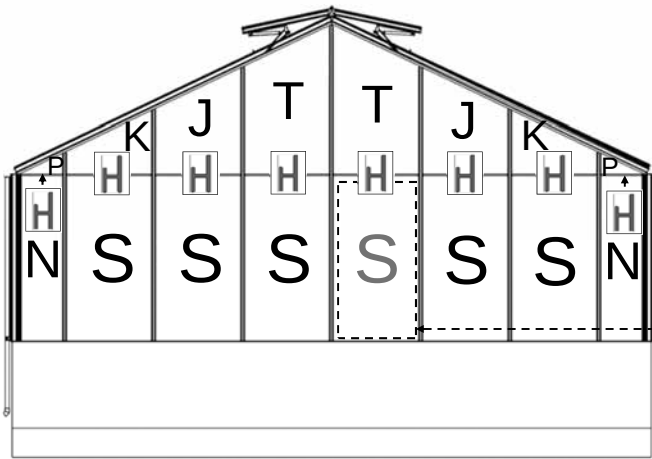
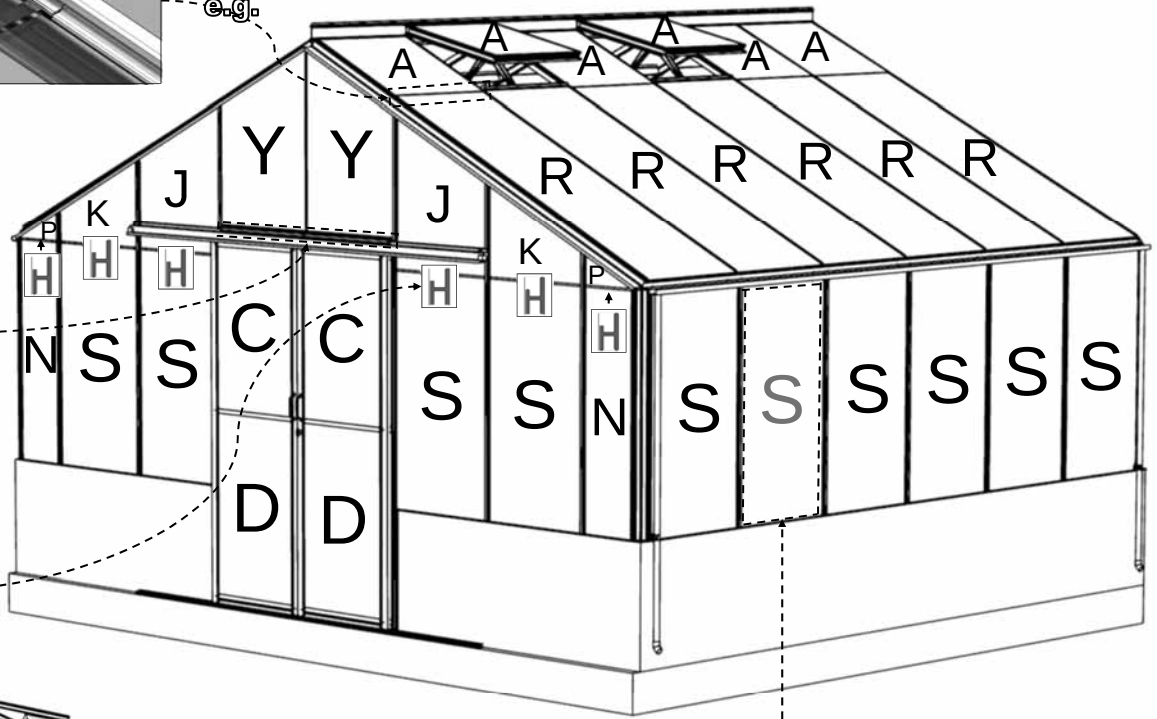
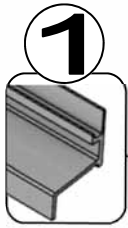
PART No	Section	Size (mm)	e.g.
D618		1144	
D658		1314	
D659		1610	
D661		1906	
D662		600	
D735		2210	
D754		892	
D815		1830	
D870		601	
D610		1160	
D620		1144	
D739		1830	
D814		1883	
D871		601	
D614		1162	
D619		1144	
D663		1316	
D664		1610	
D665		1908	
D666		602	
D734		2210	
D738		2435	
D755		892	
D836		1883	



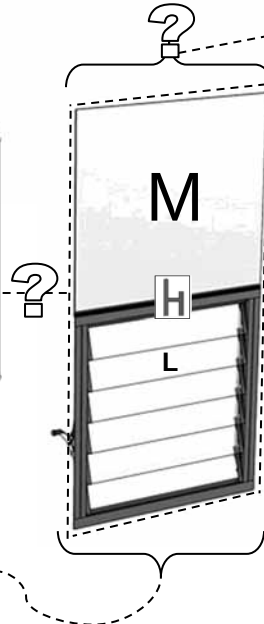


RENOWN DWARF TOUGHENED GLASS

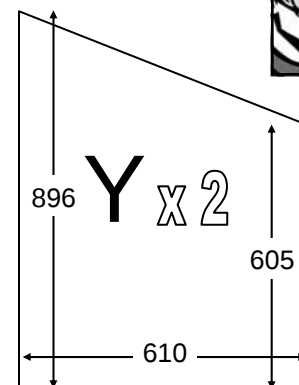
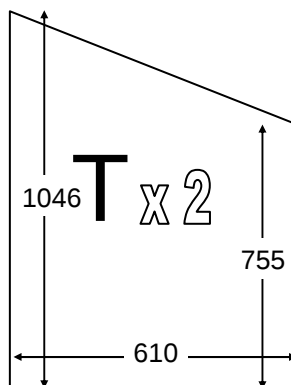
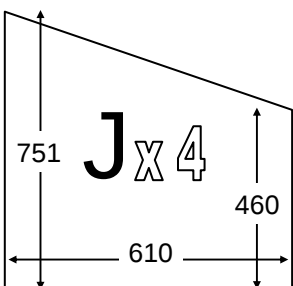
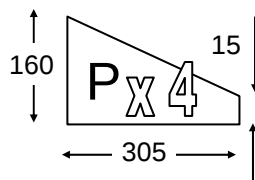
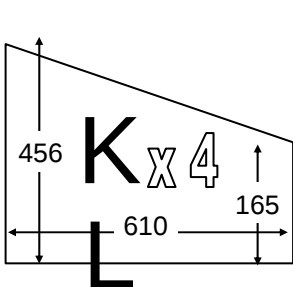
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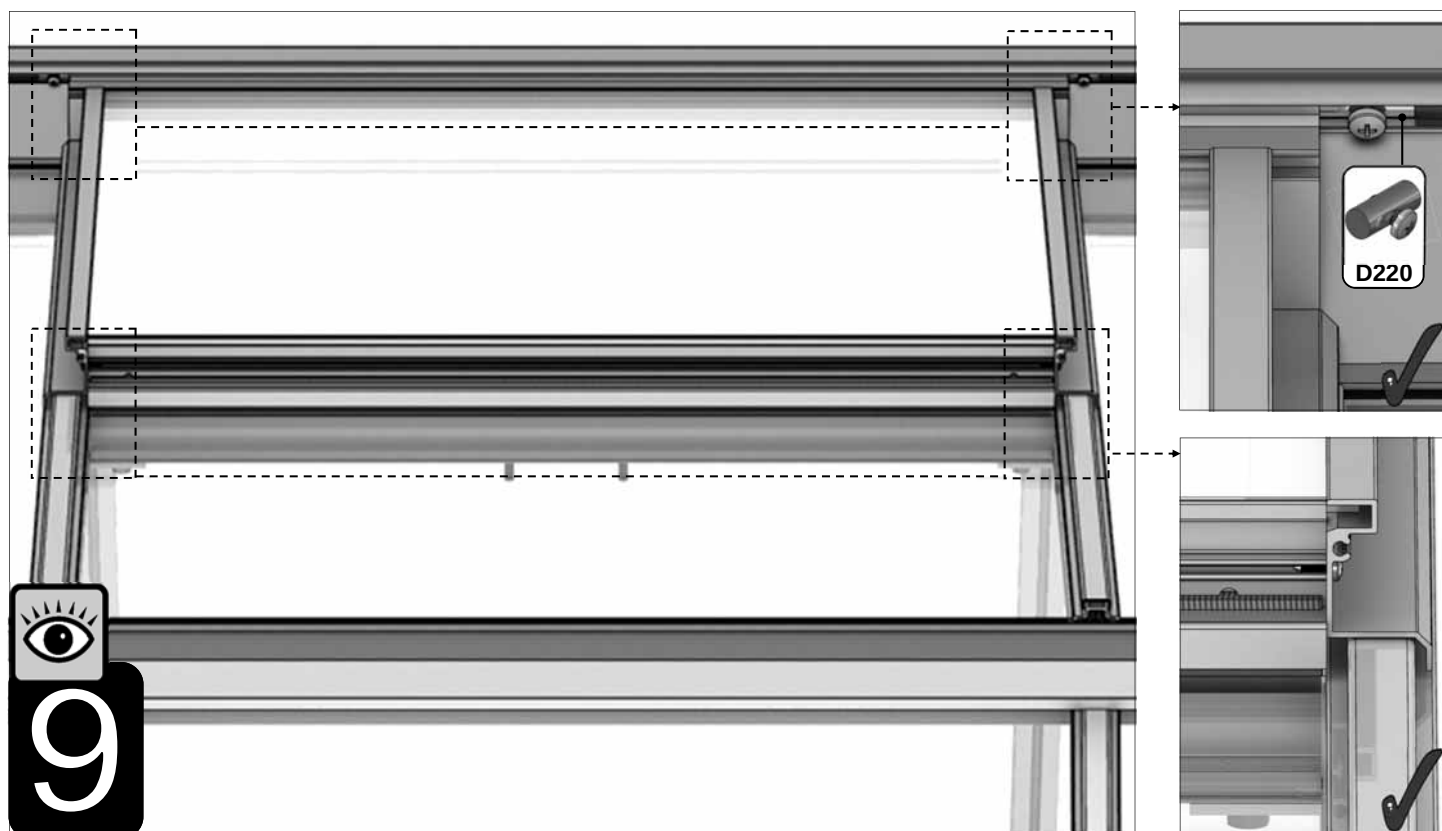
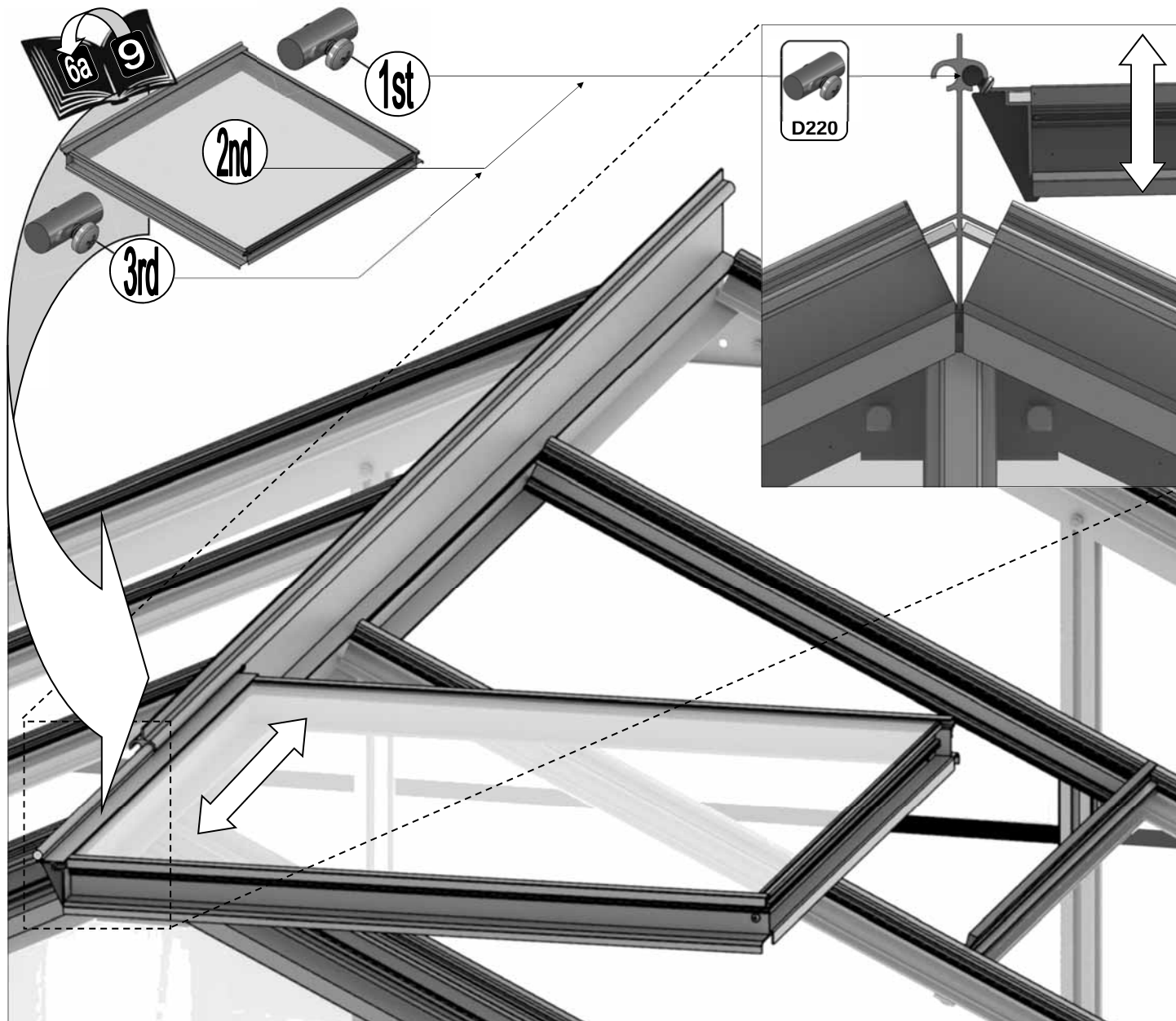


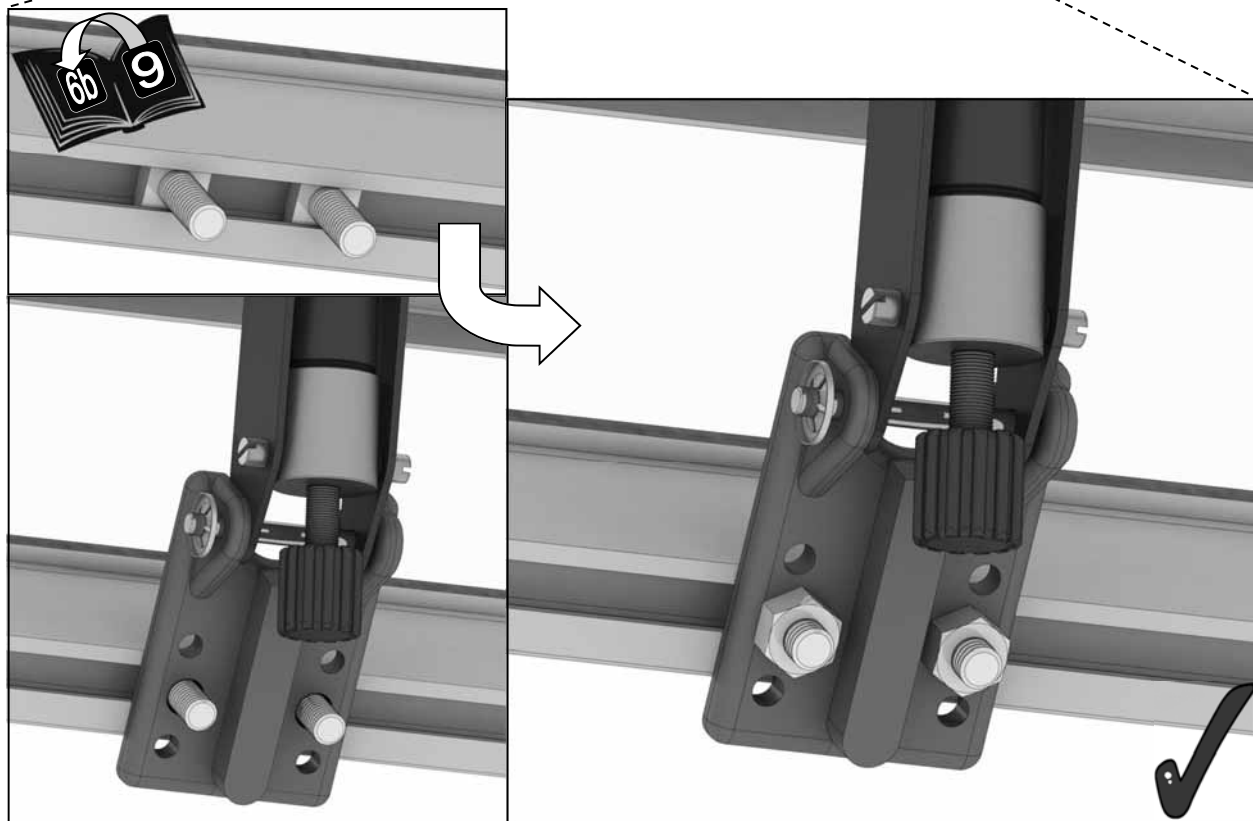
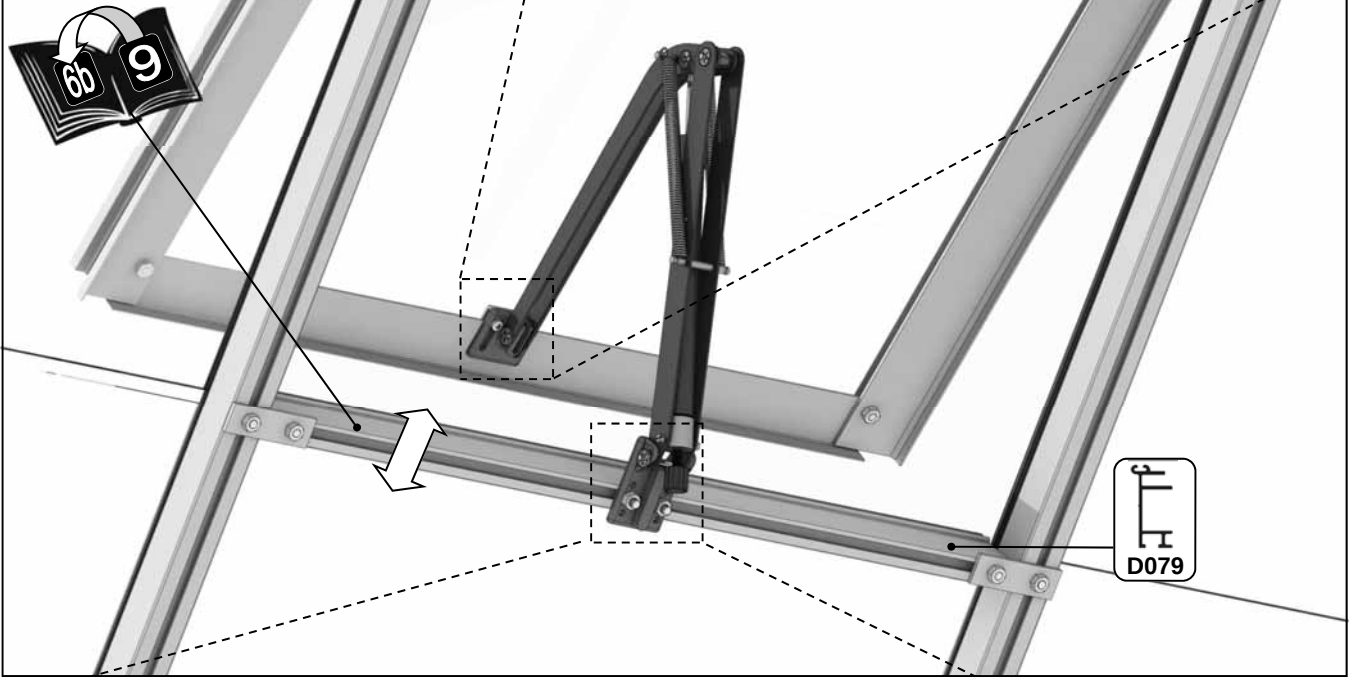
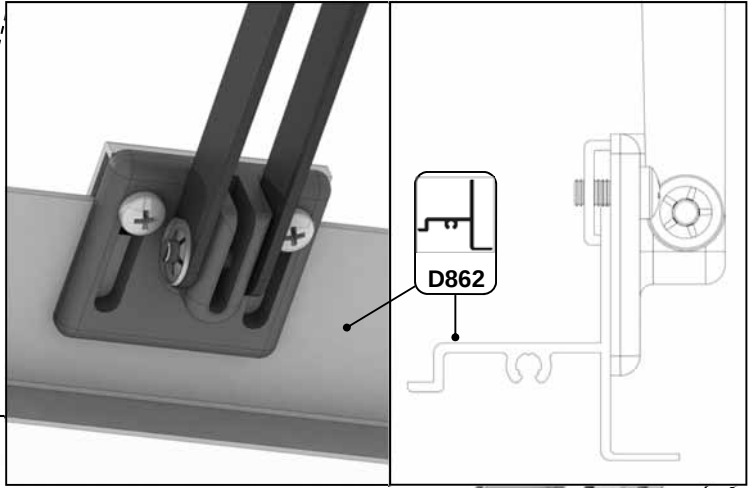
D624	M	610 X 550	1
D729	L	525X 100	6
D101 / ROSEPS	H	610 long	1



PART No		Size (mm)	8'	10'	12'
D1216	S	610 X 1162	16	18	20
D889	R	610 X 1855	8	10	12
D1208	A	610 X 610	8	10	12
D625	N	305 X 1162	4		
D911	C	555 X 812	2		
D912	D	555 X 922	2		
D890	Y	ANGLE	2		
D898	T	ANGLE	2		
D902	P	ANGLE	4		
D901	K	ANGLE	4		
D907	J	ANGLE	4		
D223/B		1210	1		
D101 / ROSEPS	H	610 long (inc cuts to 305mm)	12		

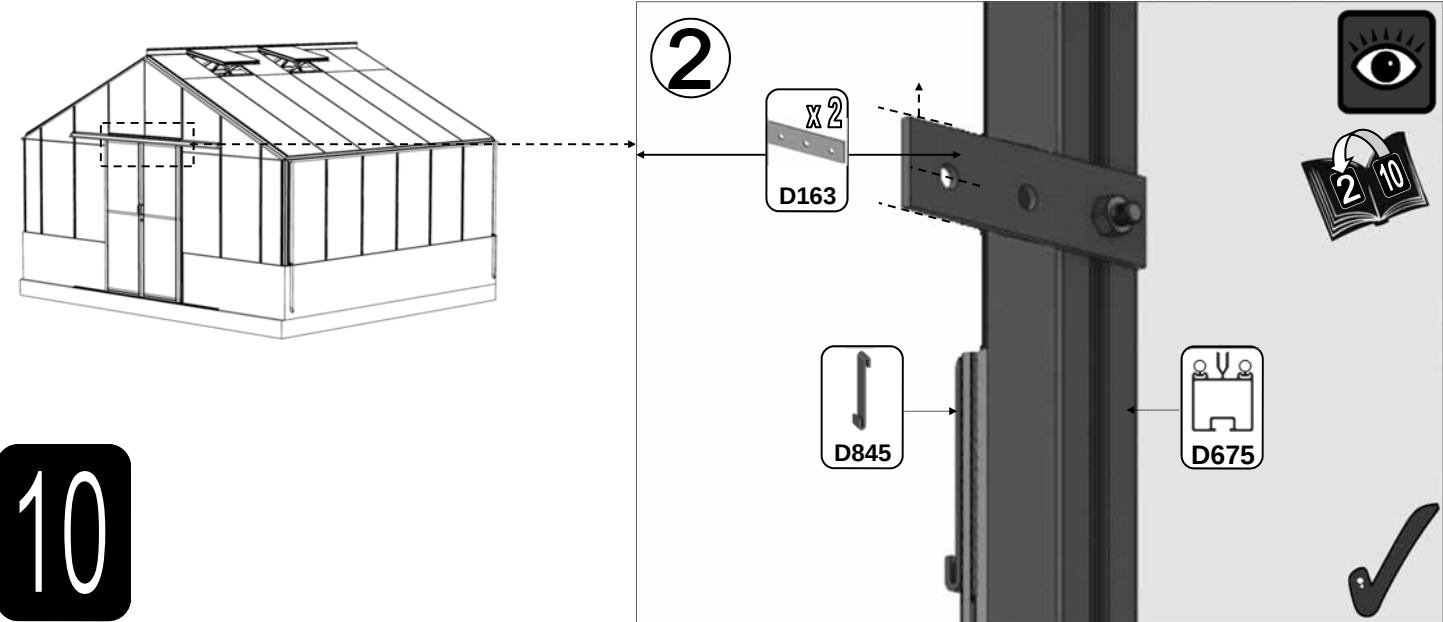
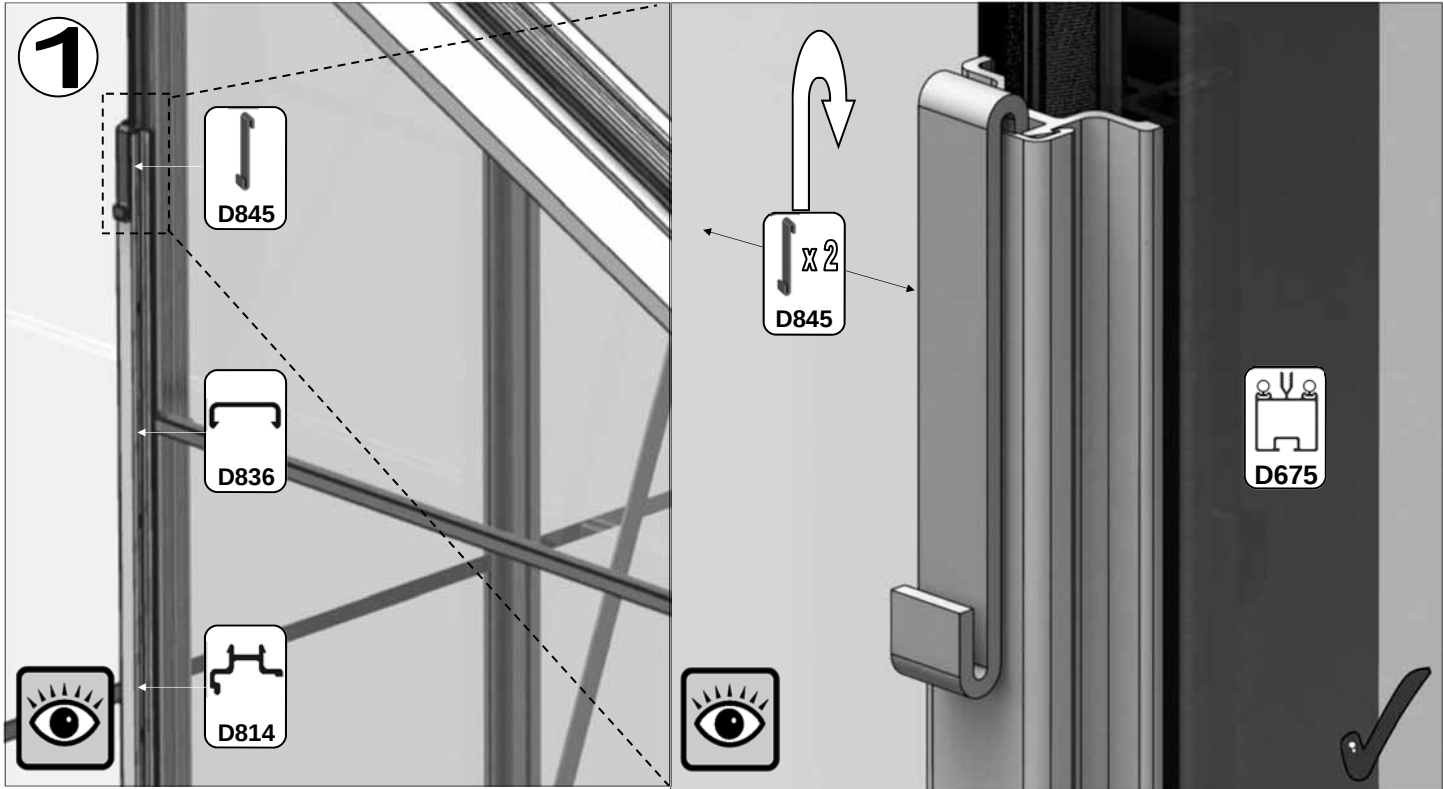
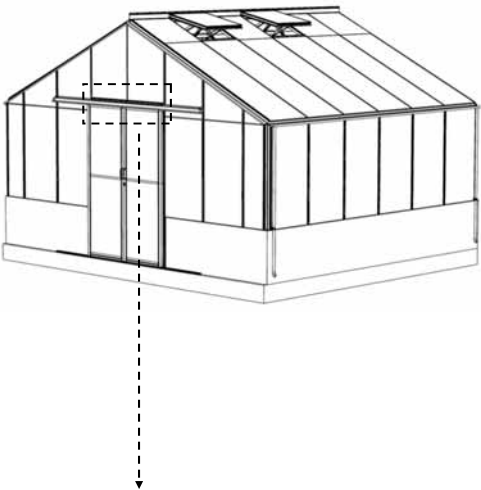


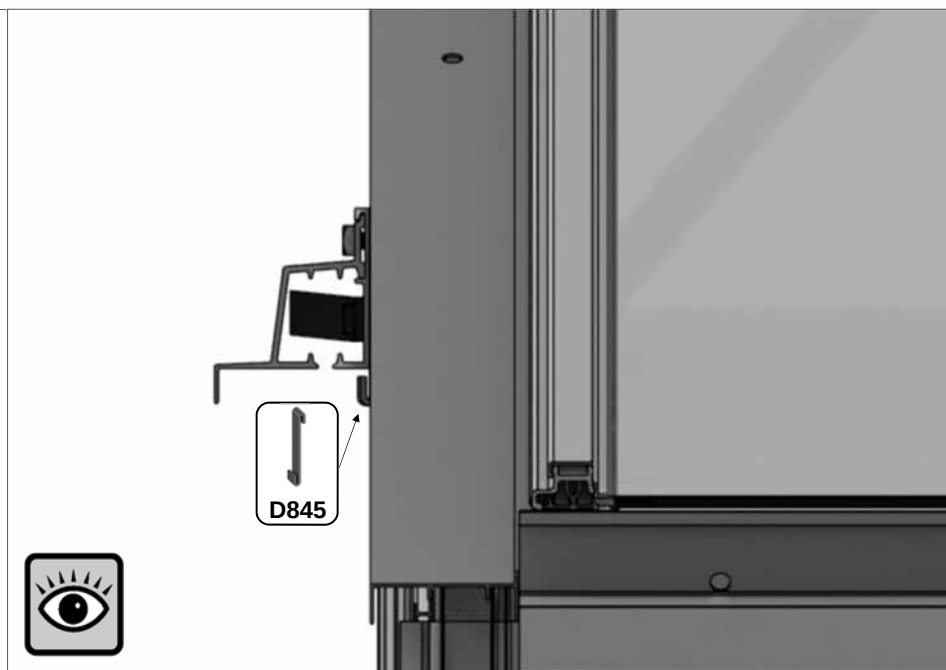
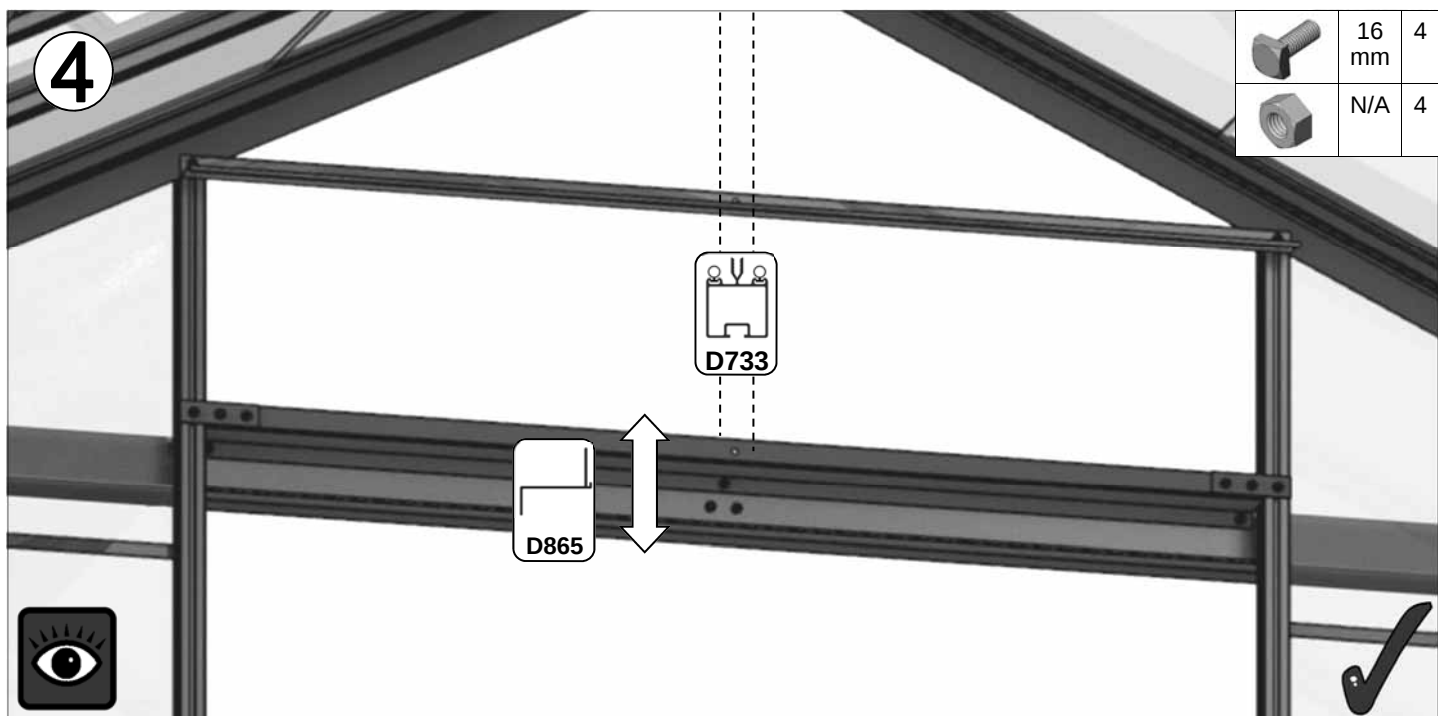
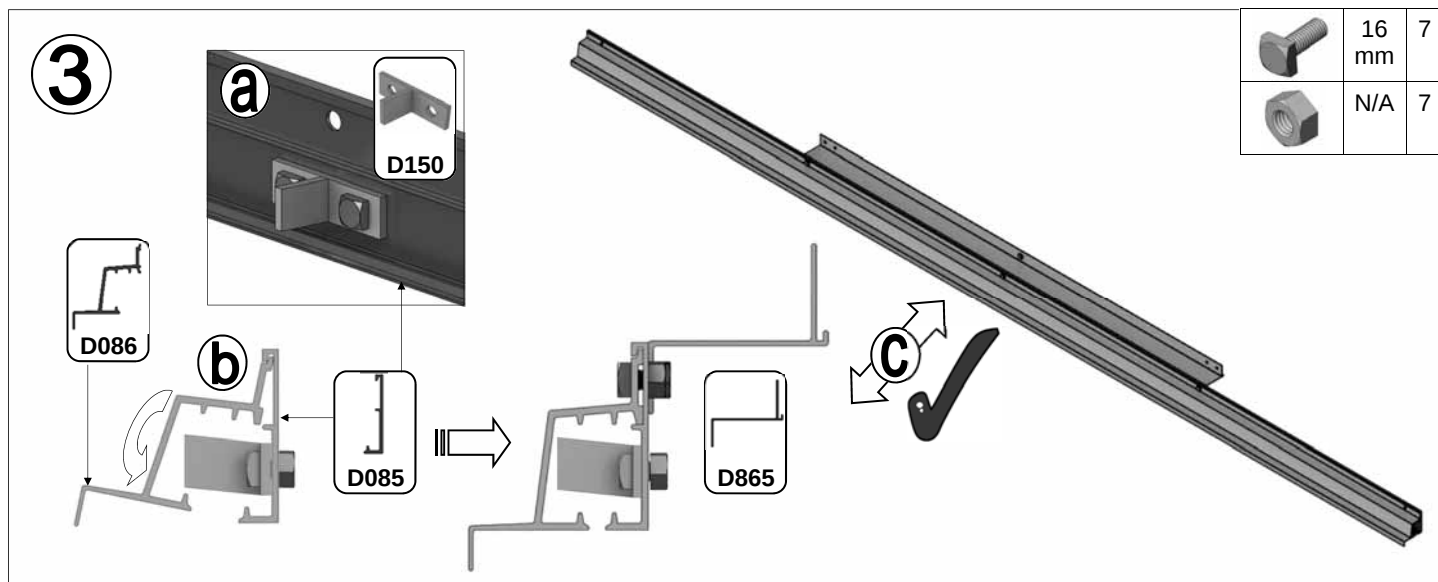




Part No		mm	Q
D865		1210	1
D086		2510	1
D085		2510	1

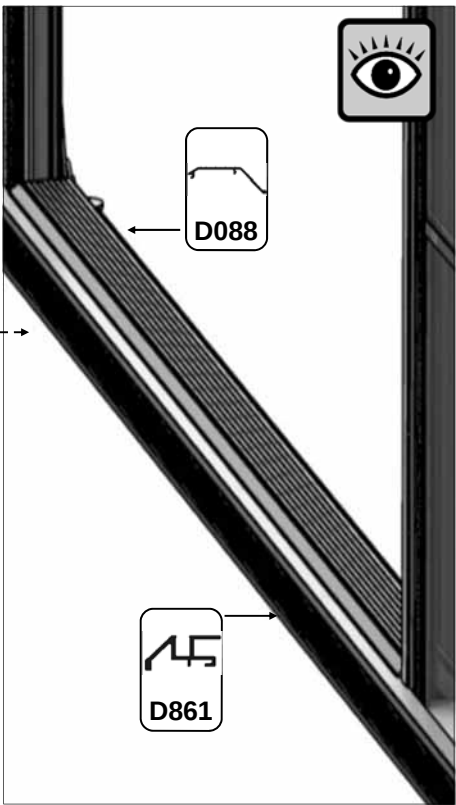
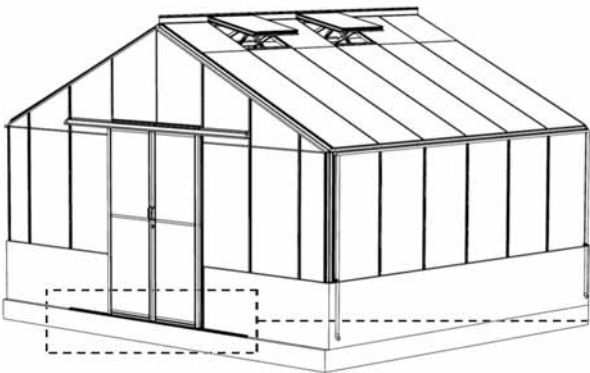
Part No		mm	Q
D163		90	2
D150			1
D845			2
BOLM6X16			11
NUT M6			11



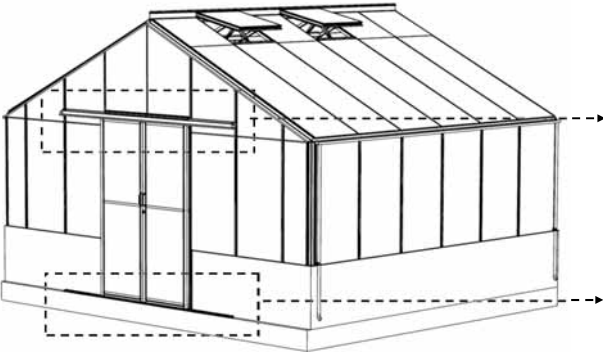
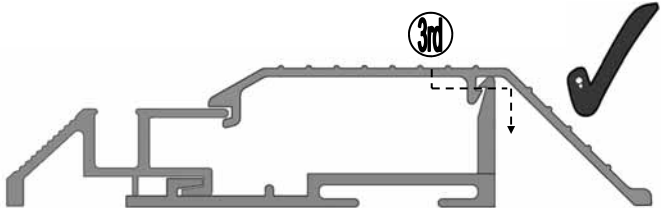
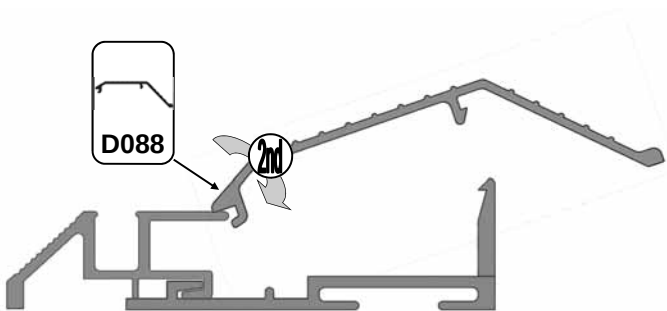
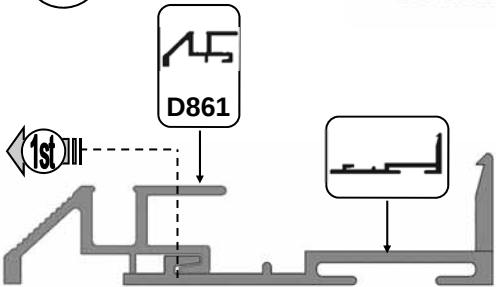


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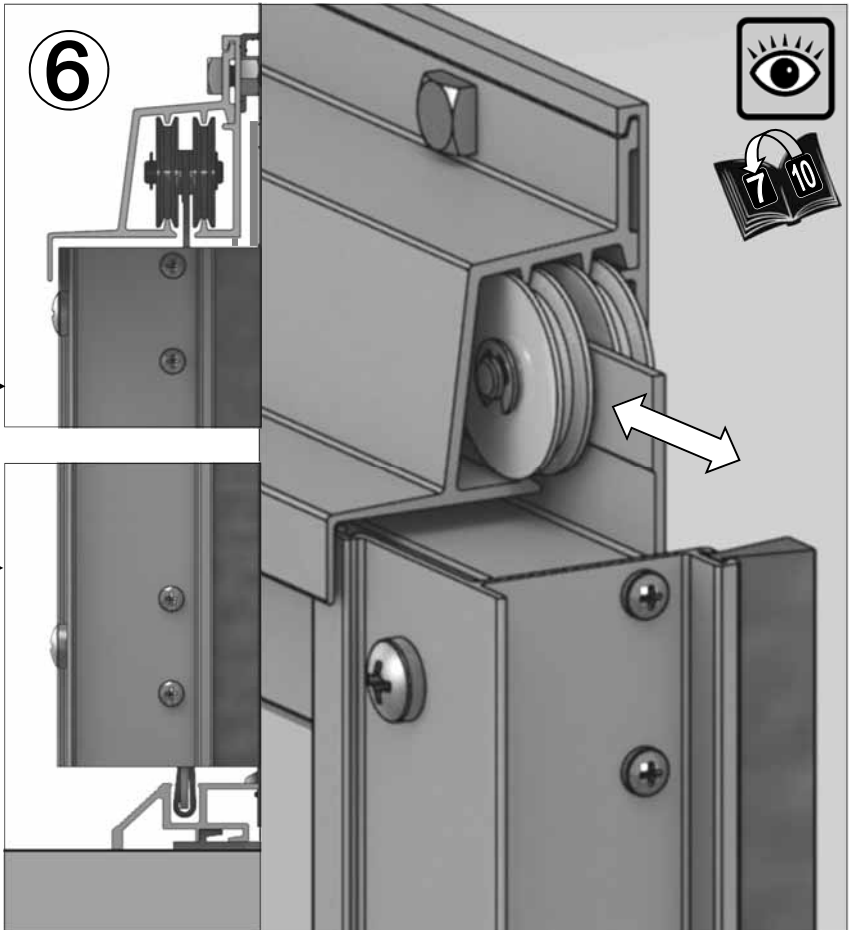
Part No		Q
D861		1
D088		1



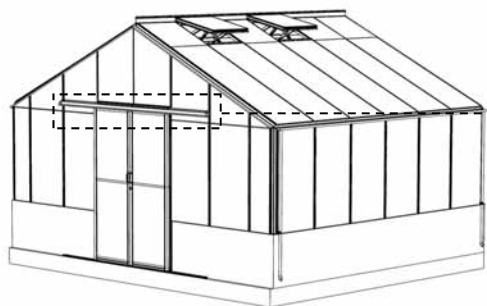
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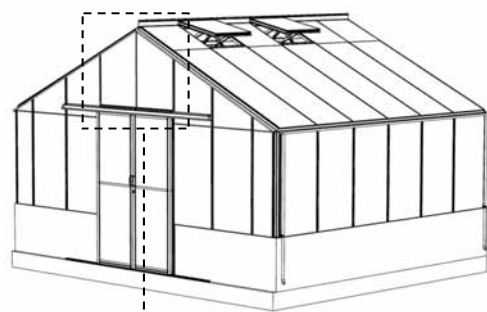
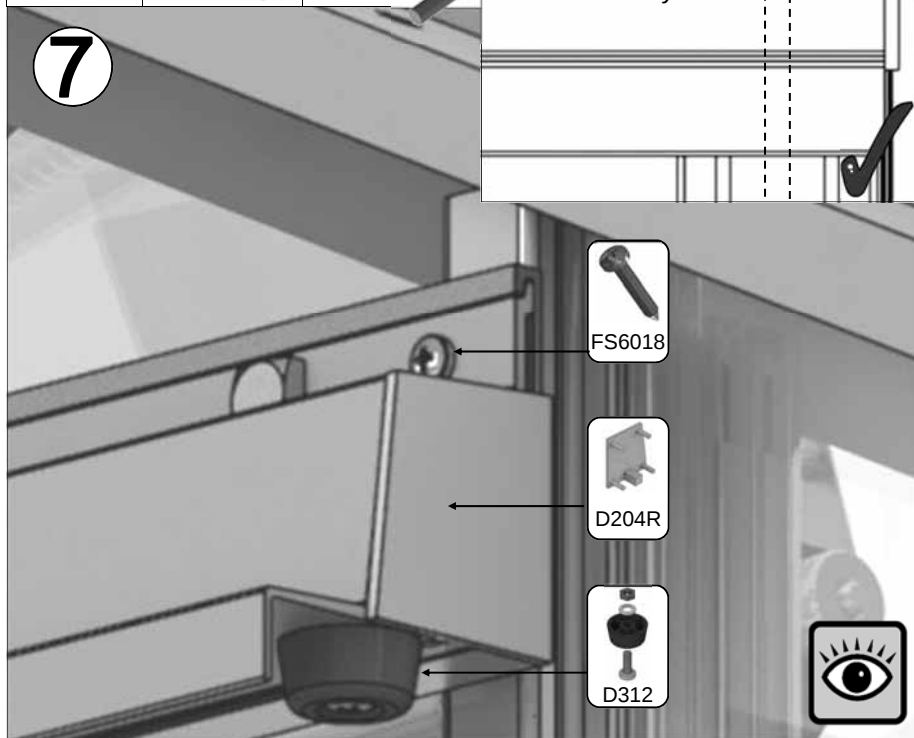
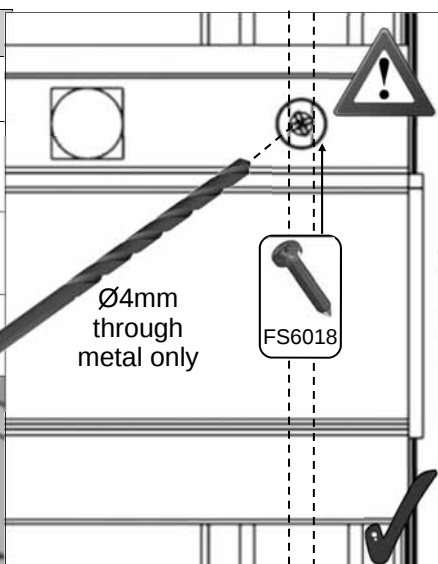
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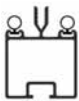
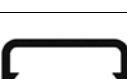


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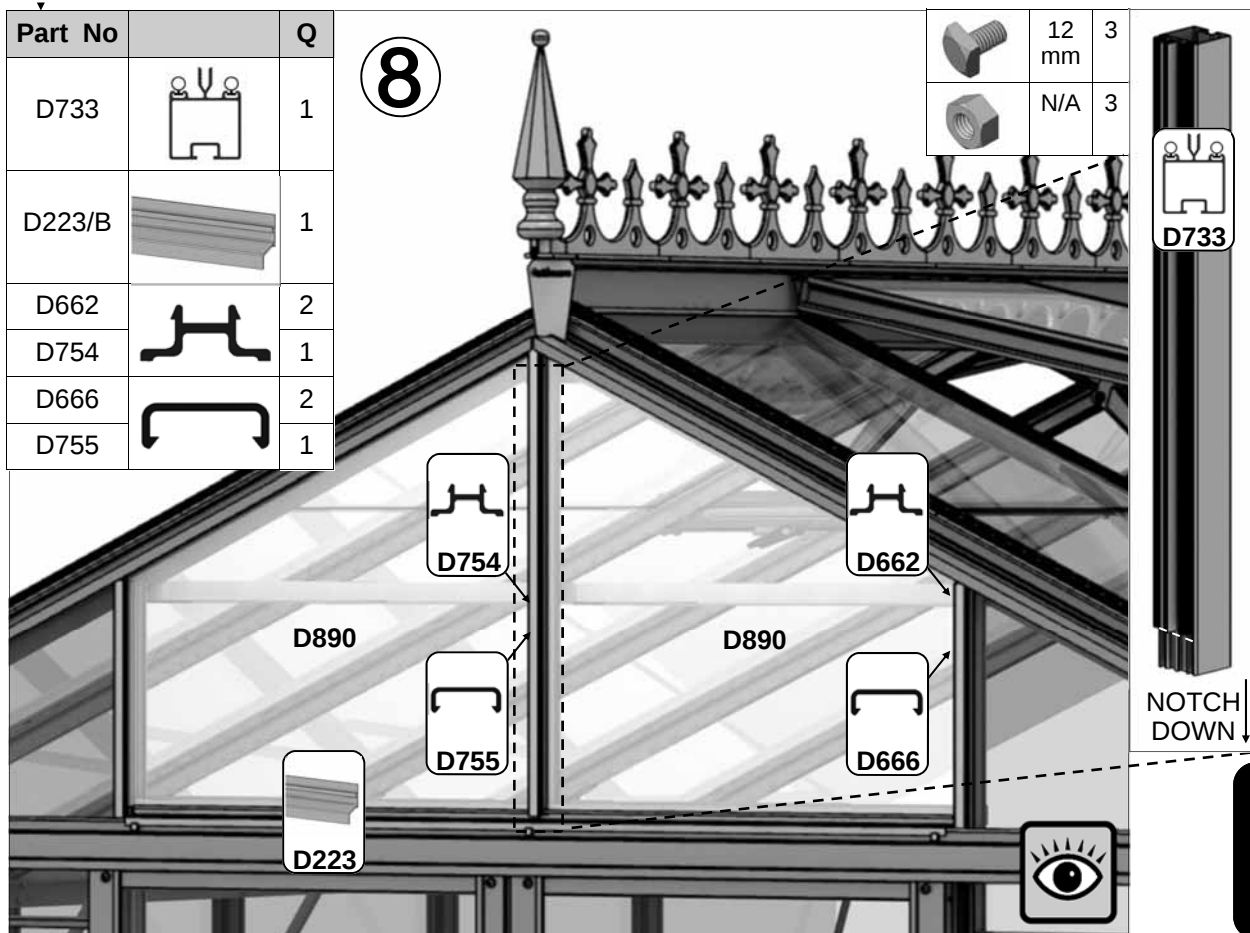


Part No		Quantity
FS6018		2
D312		2
D204L /B		1
D204R /B		1

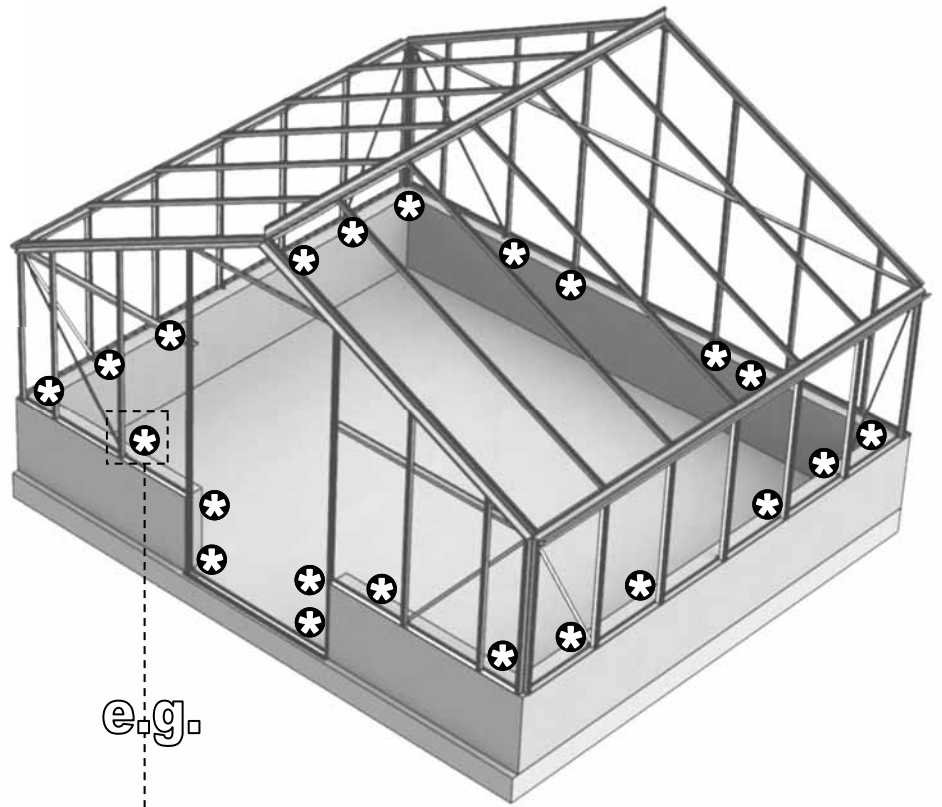
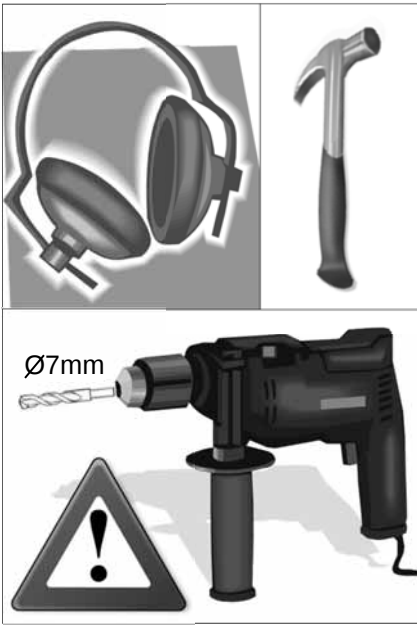


Part No		Q
D733		1
D223/B		1
D662		2
D754		1
D666		2
D755		1

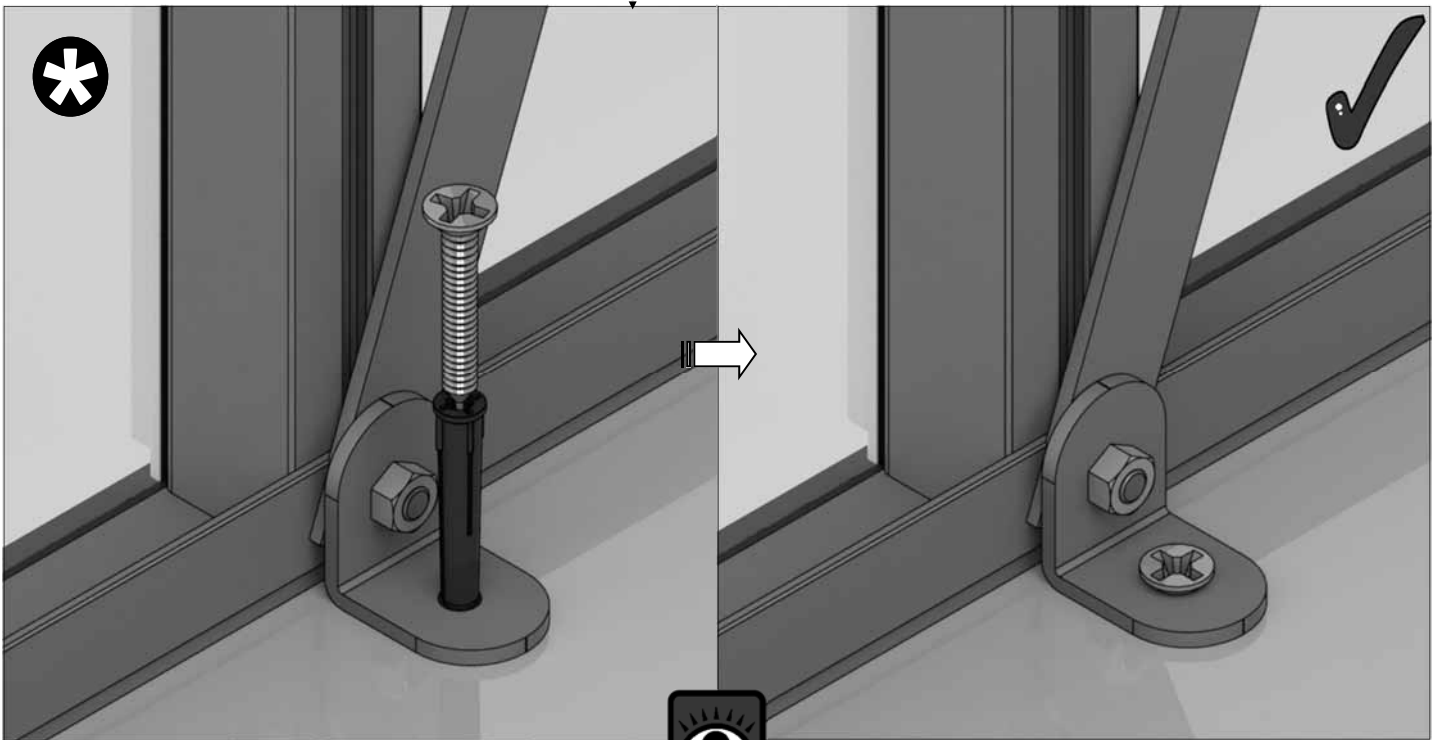
8



10

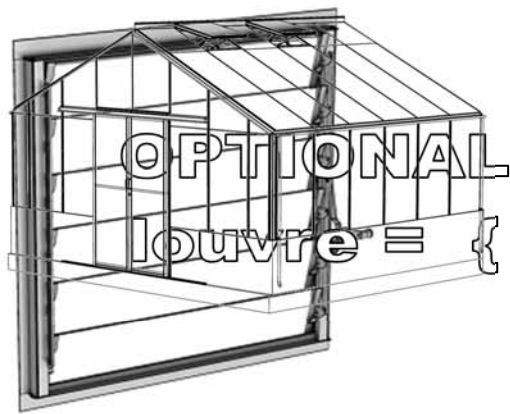


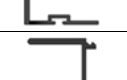
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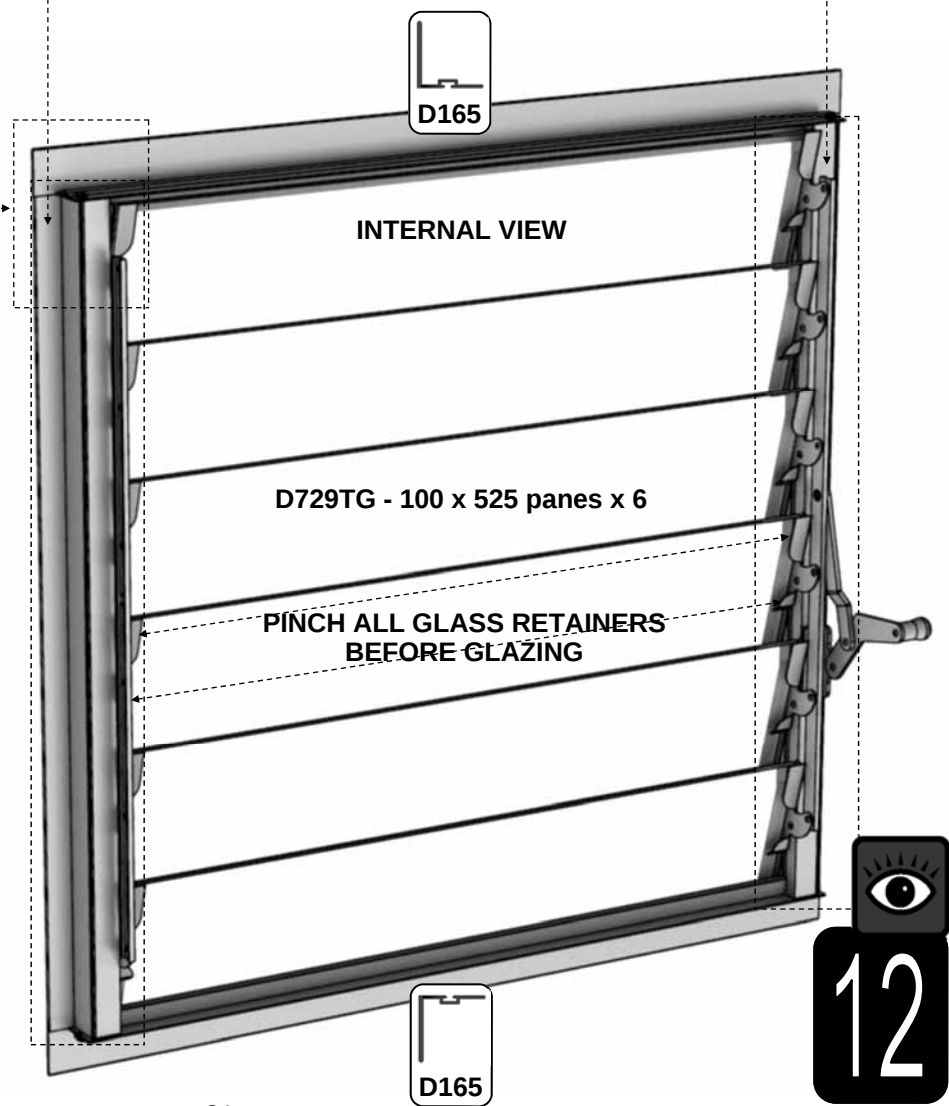
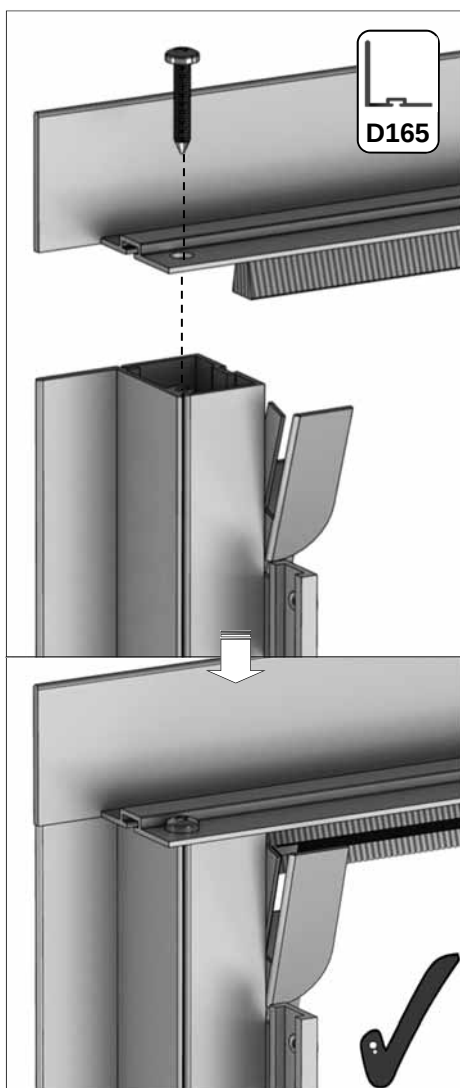
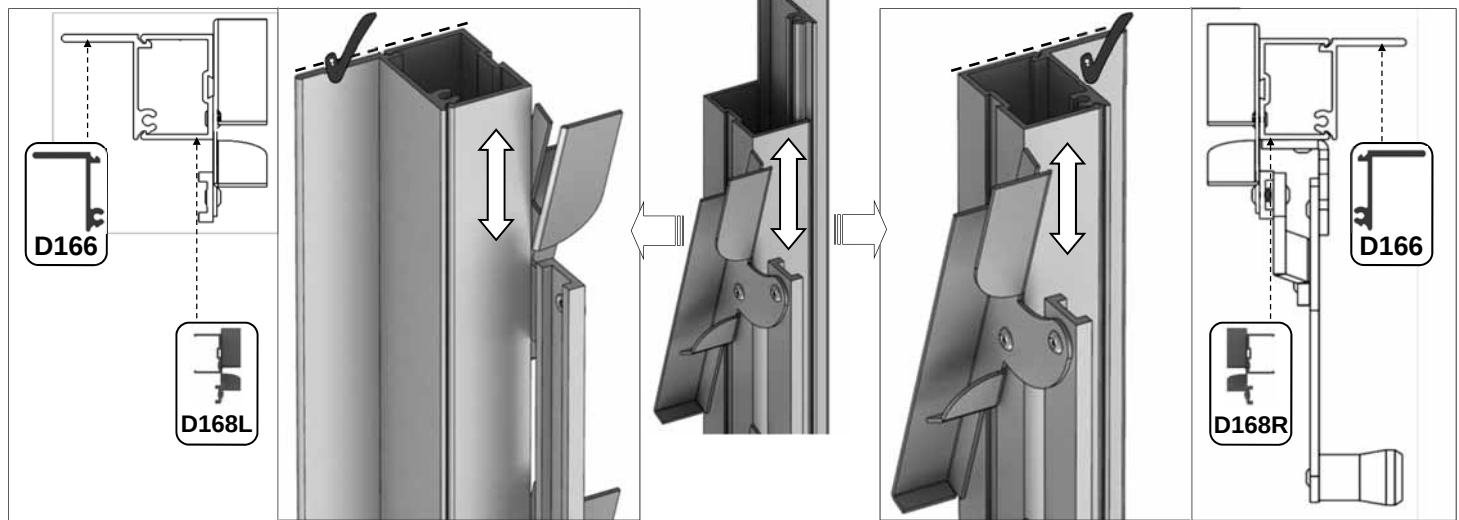


11

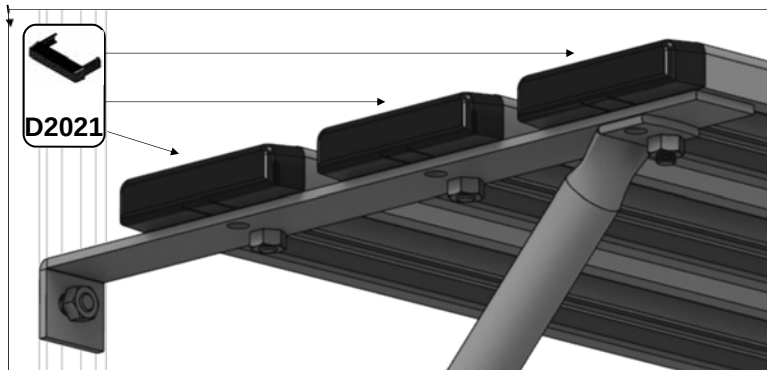
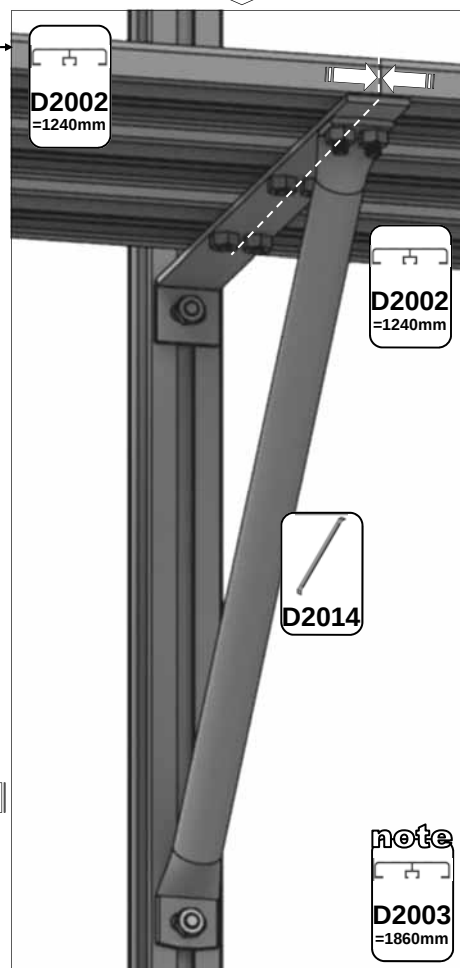
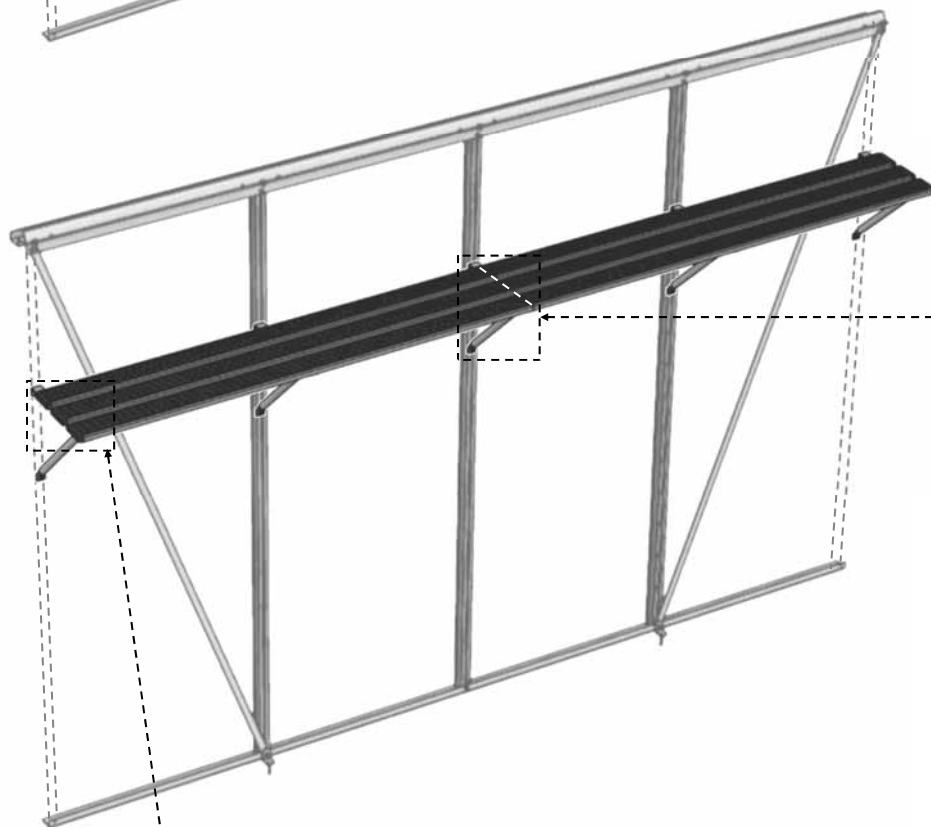
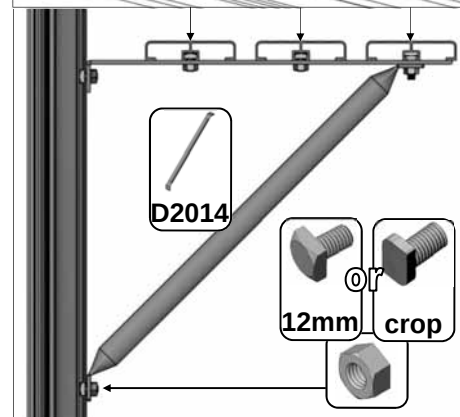
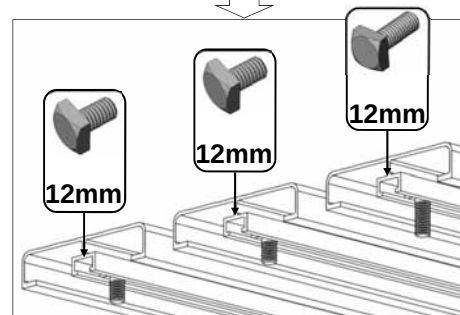
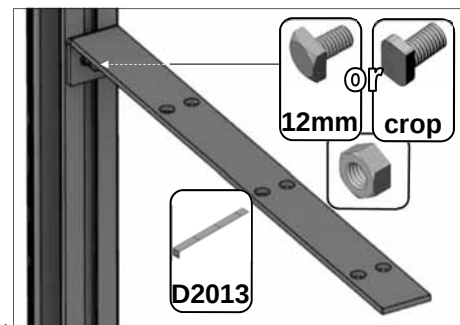
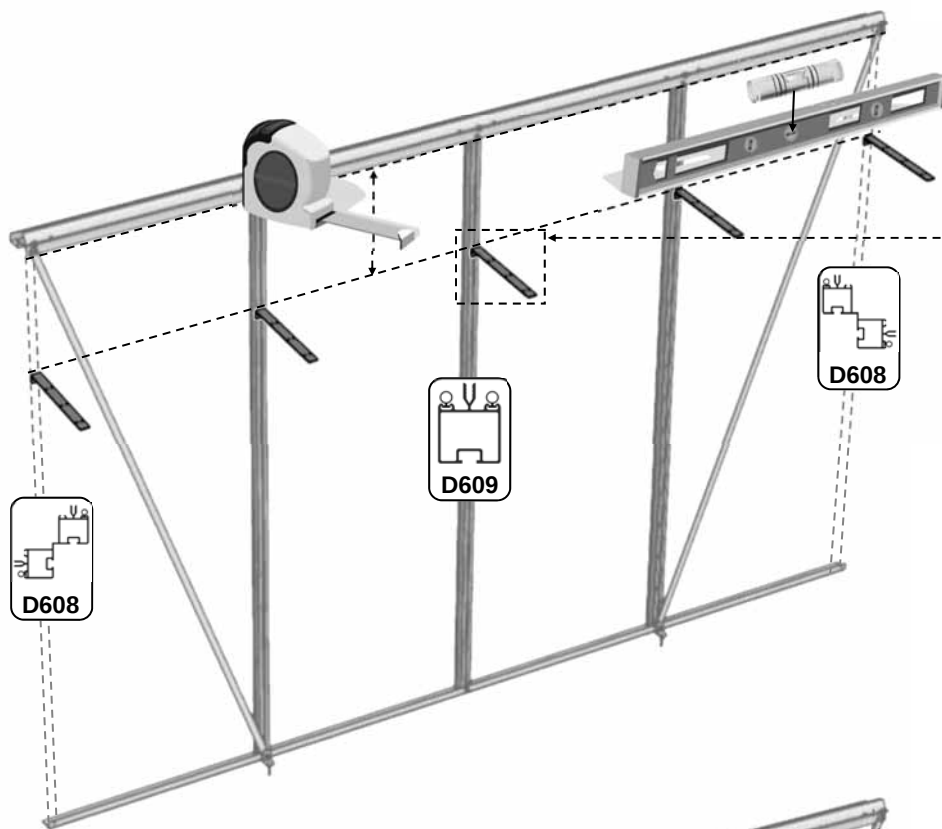




Part No		mm	Quantity
D168L		552	1
D168R (handle)		552	1
D165		612	2
D166		552	2
FS6013		12	4

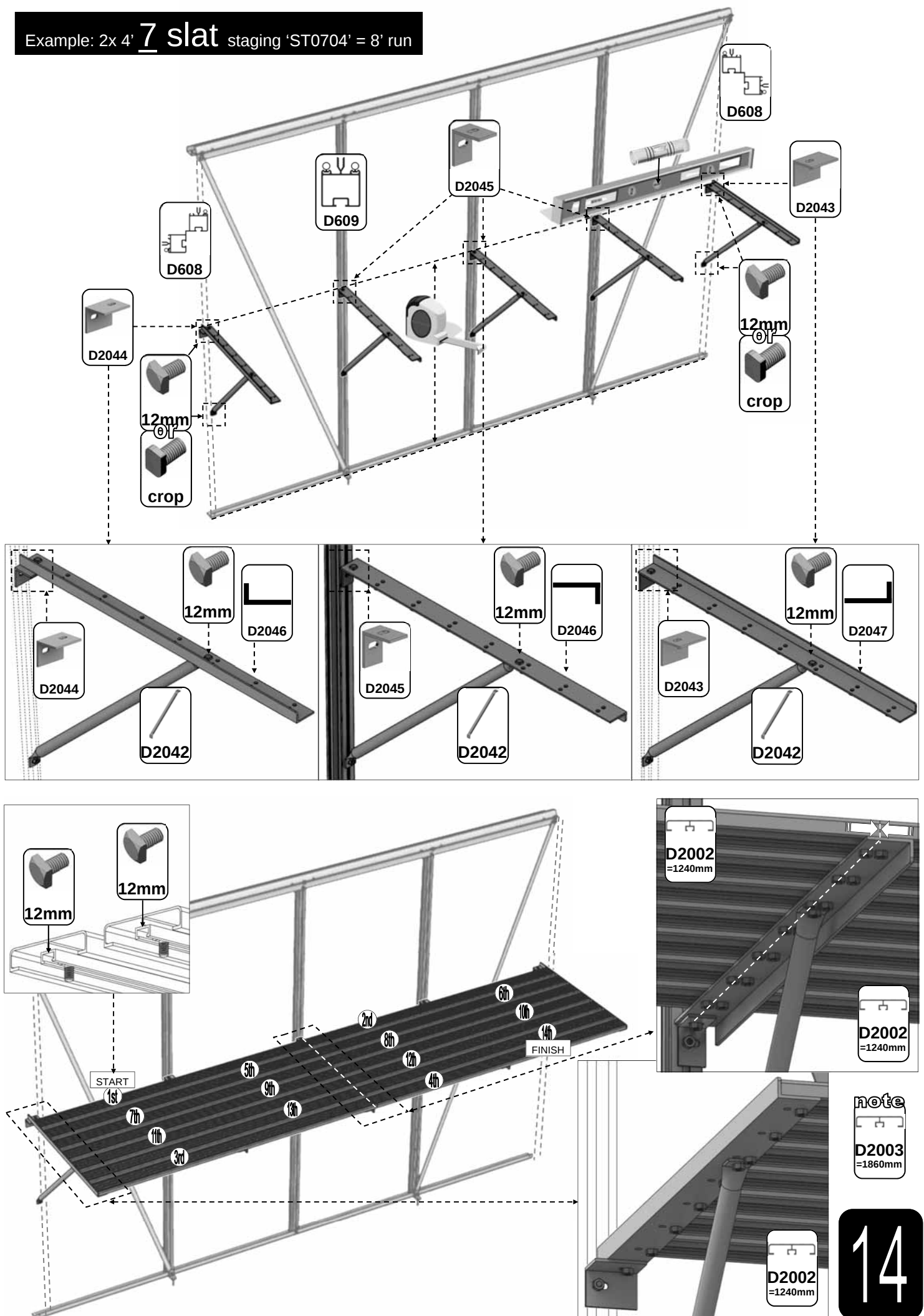


Example: 2x 4' 3 slat shelves 'ST0304' = 8' run

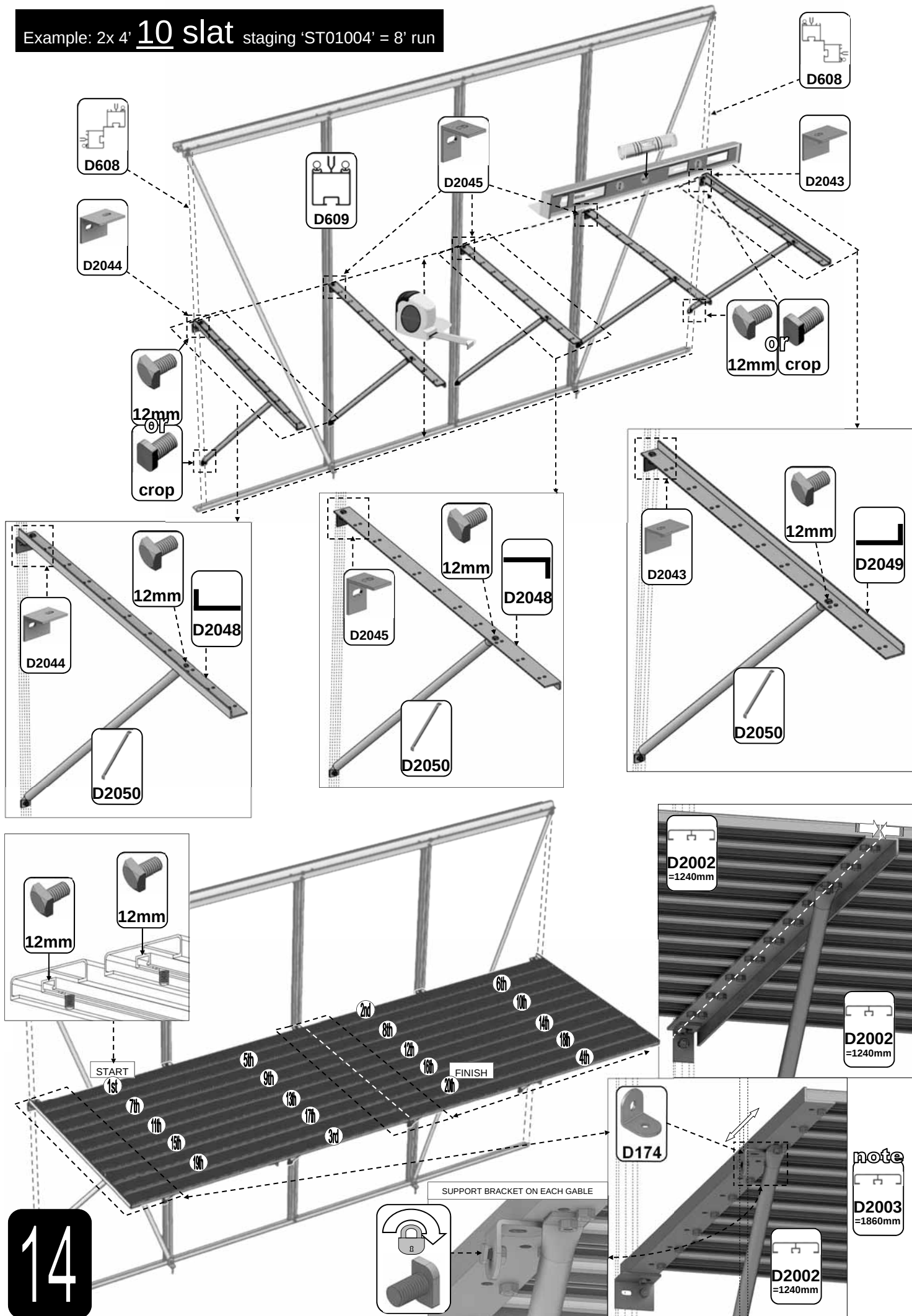


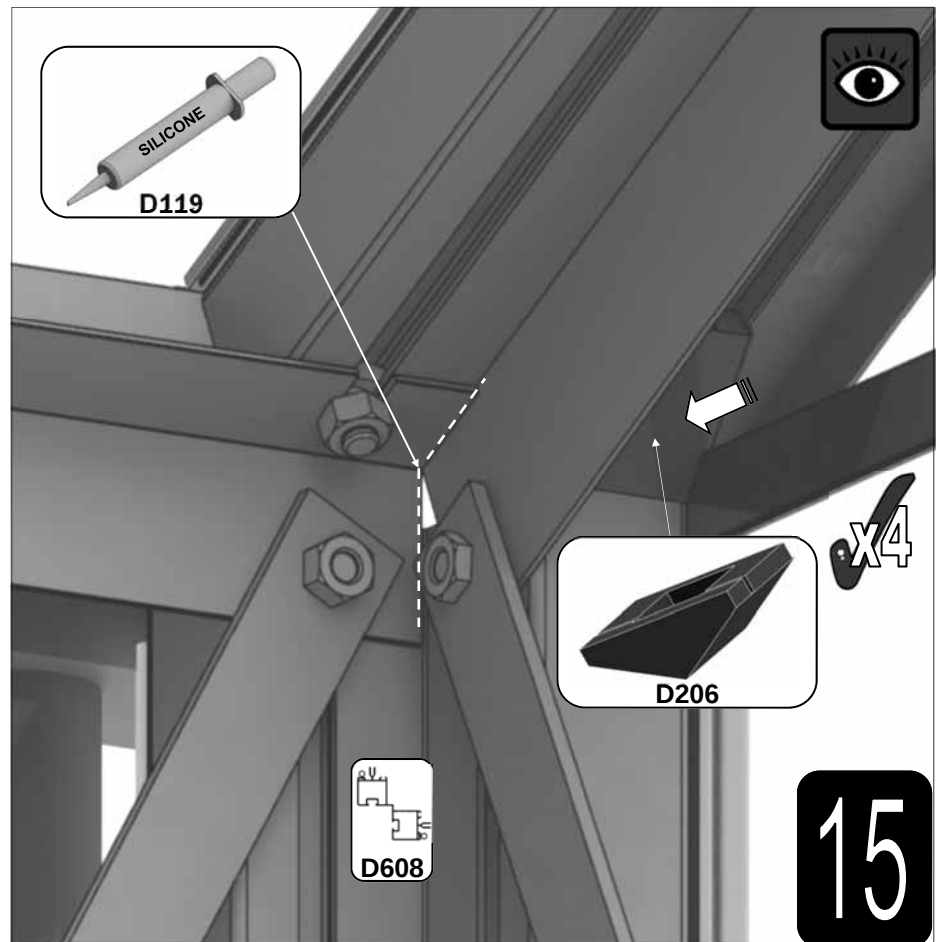
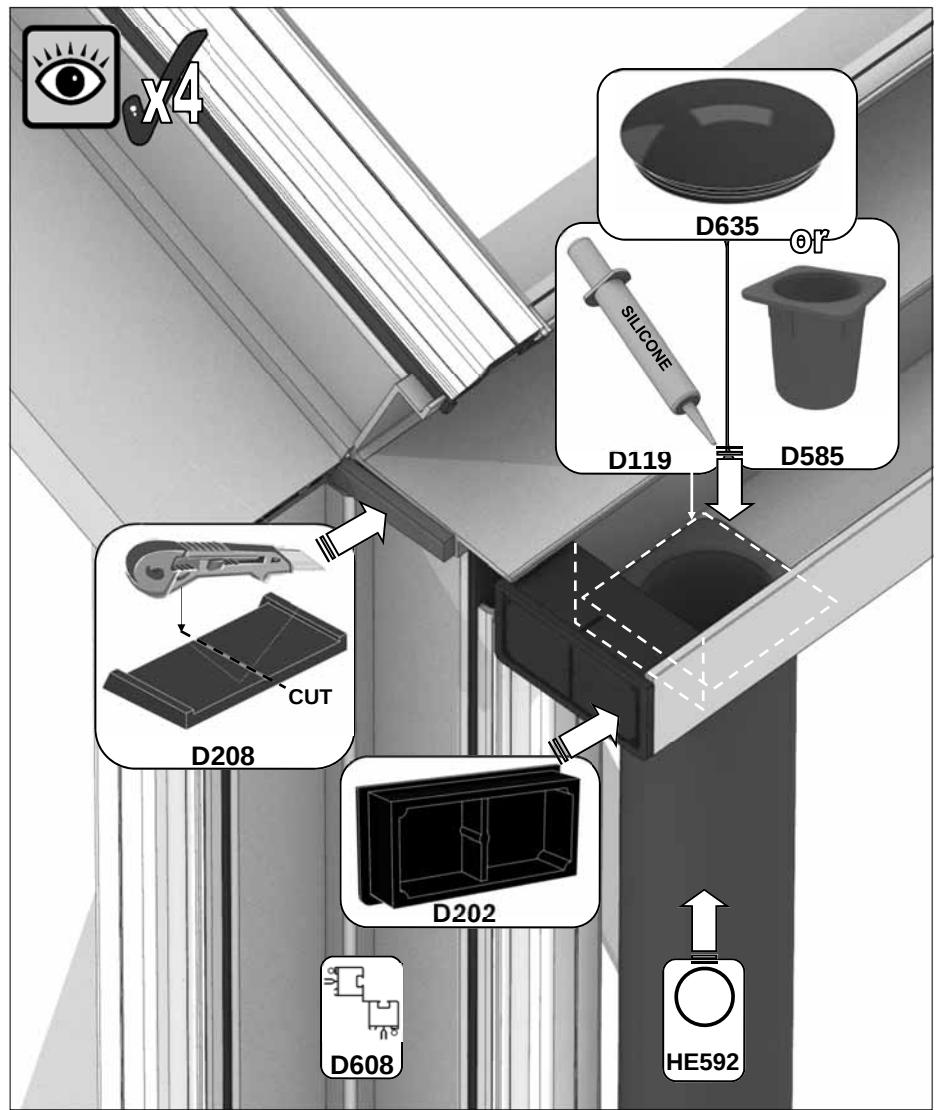
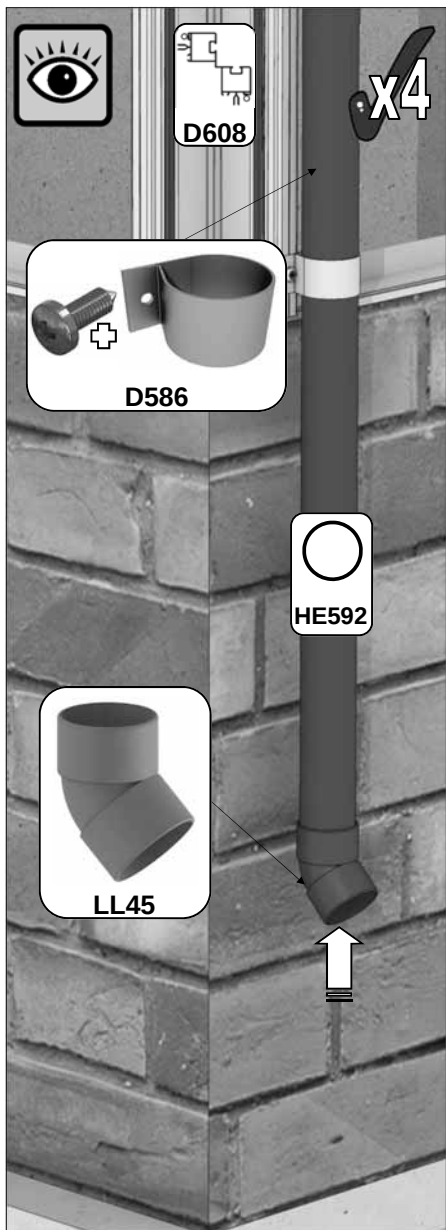
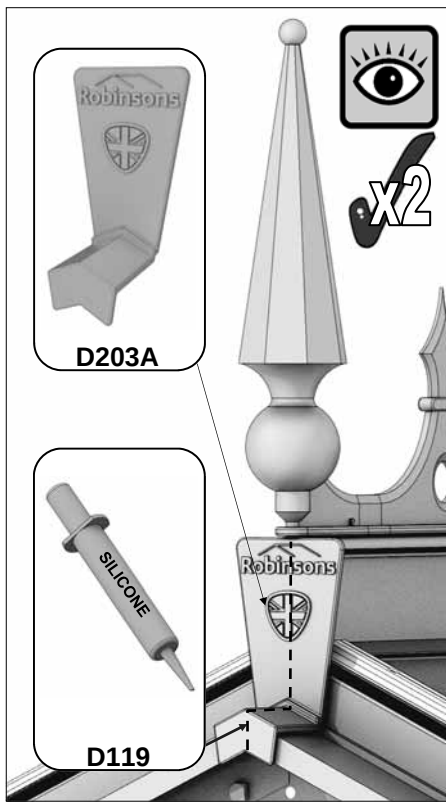
13

Example: 2x 4' 7 slat staging 'ST0704' = 8' run



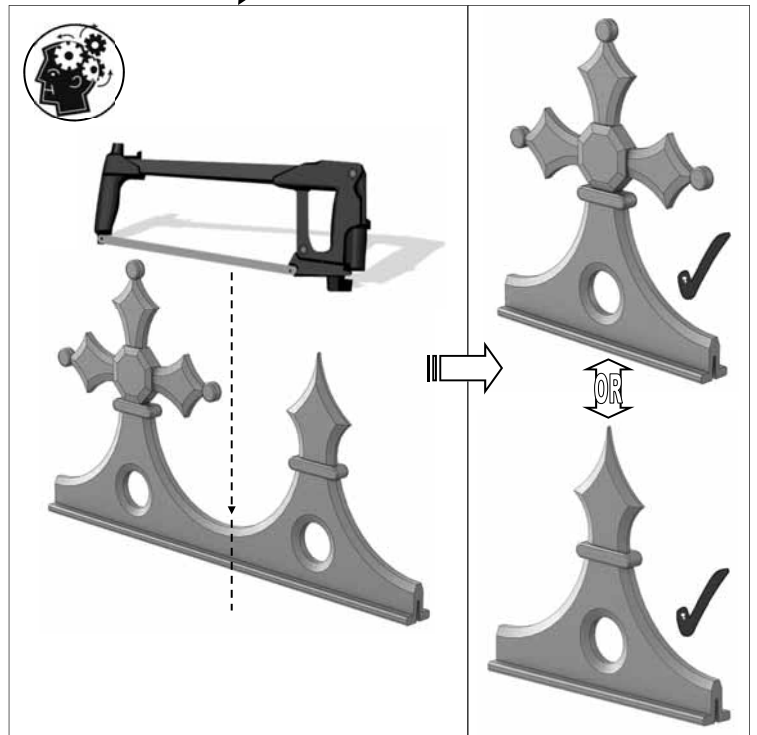
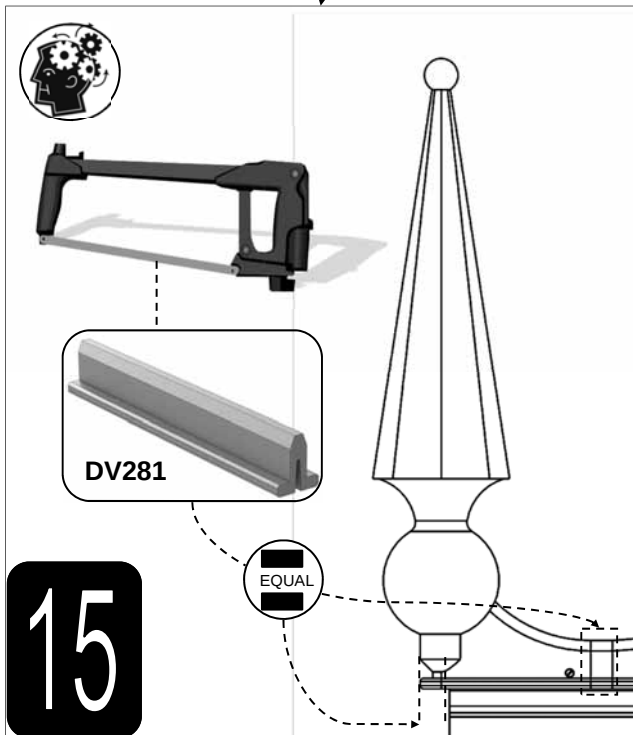
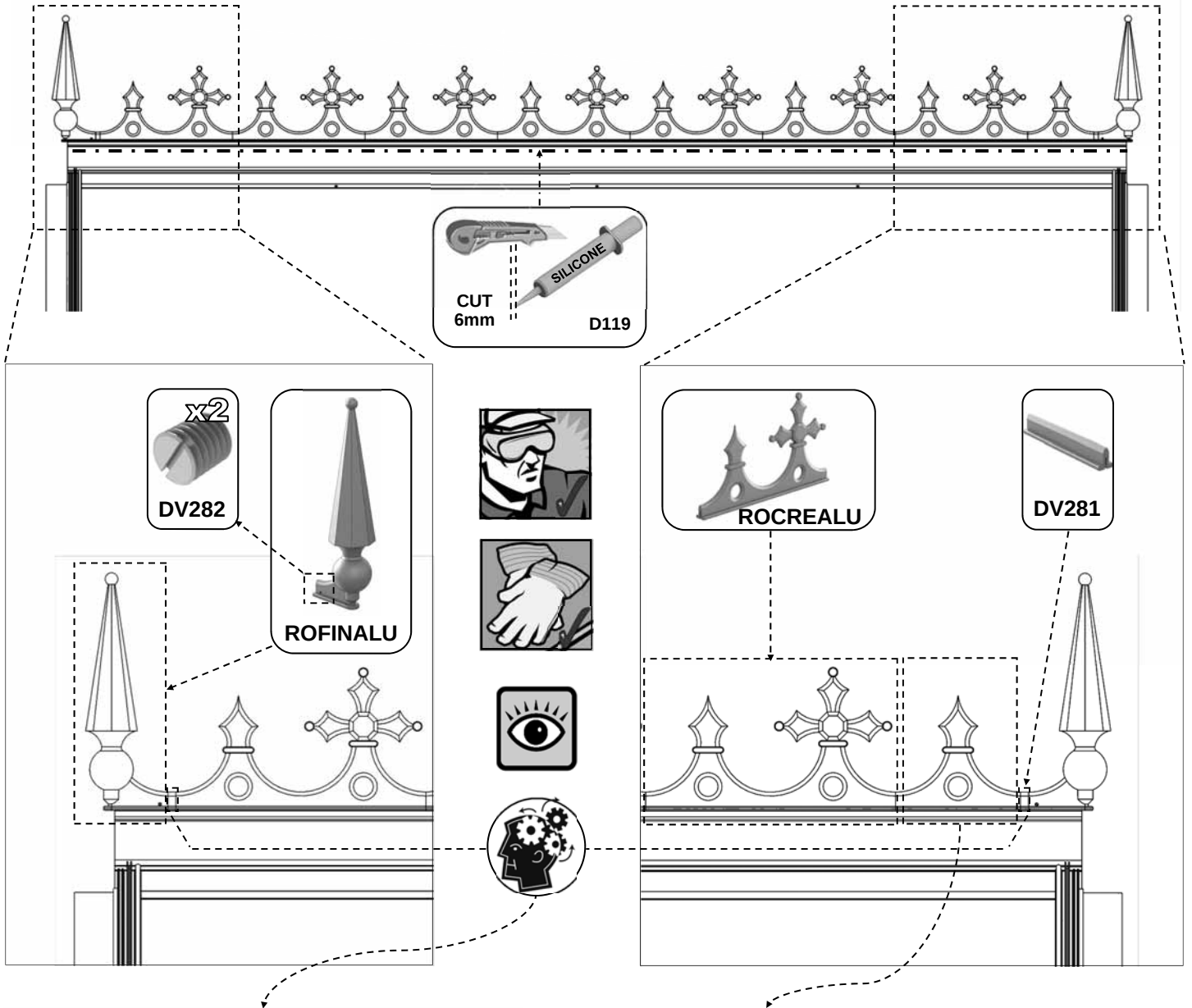
Example: 2x 4' 10 slat staging 'ST01004' = 8' run

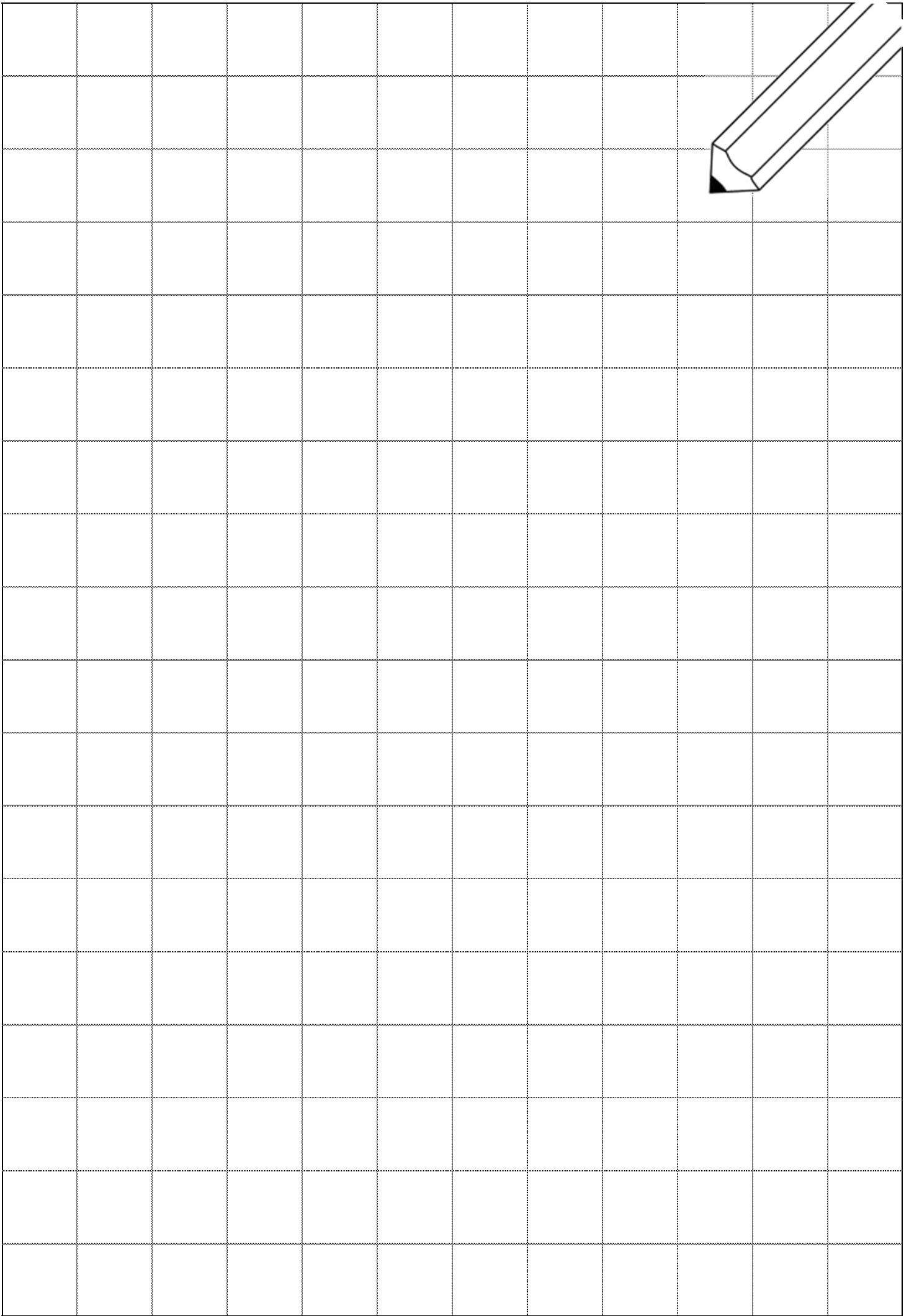




OPTIONAL cresting = {

- End finials need to be pinched onto ridge using 'DV282' grub screws.
- Depending on your ridge length a half cresting may need to be cut or/ and some spacer bar 'DV281' cut into two equal sections.
- Each finial and cresting piece needs to be siliconed 'D119' into place.







The Dwarf wall model shown throughout this help sheet is a Royale on a 2' (610mm) wall. Some of the other models also have a dwarf wall option. The information shown in the pictures is however, relevant to all models.

USEFUL INFORMATION:

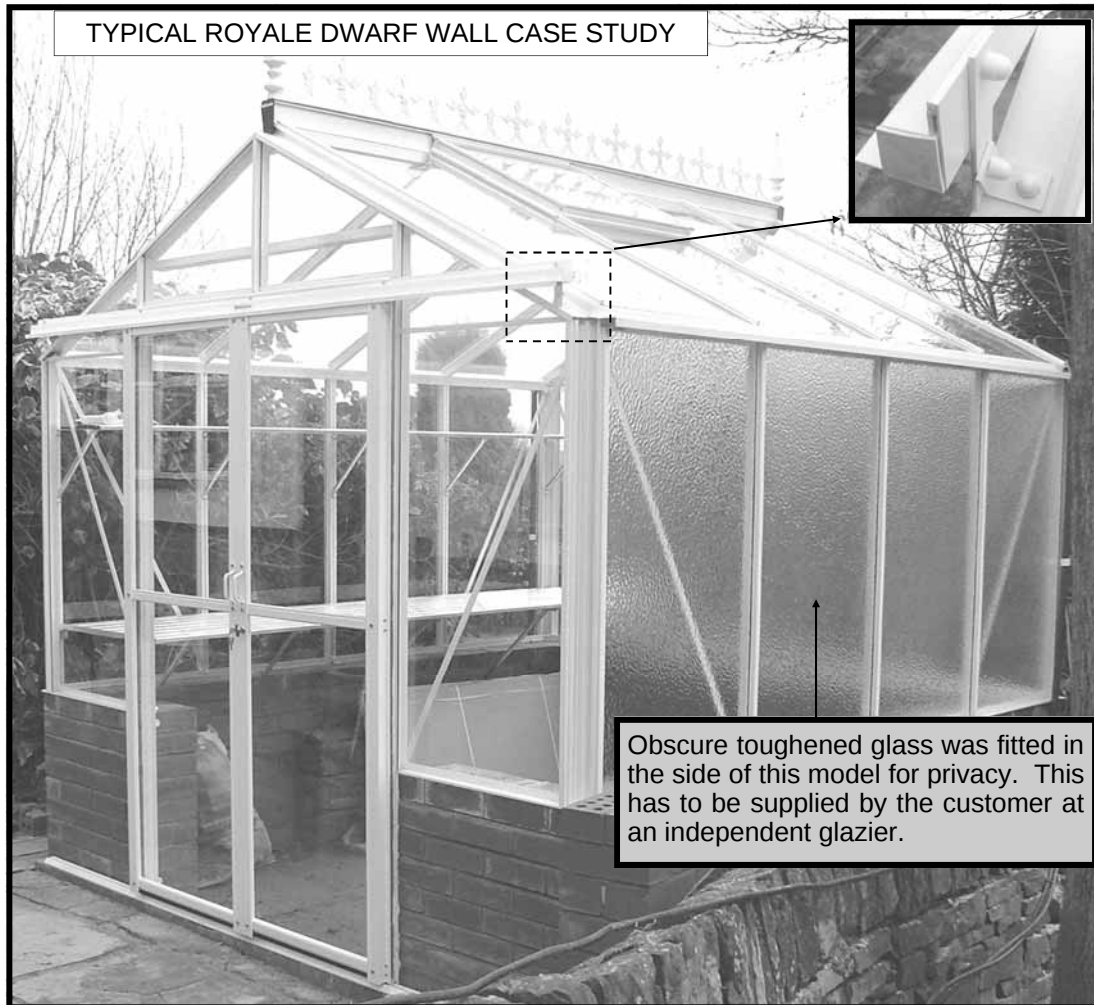
ROBINSONS VENTS are slid into position down the ridge.

AUTOVENTS come as standard on each window allowing automatic climate / airflow in your greenhouse.

ROOF BAR CAPPING:

The bar capping in your roof comes in two sections and is then covered with a longer full length cover cap.

TYPICAL ROYALE DWARF WALL CASE STUDY



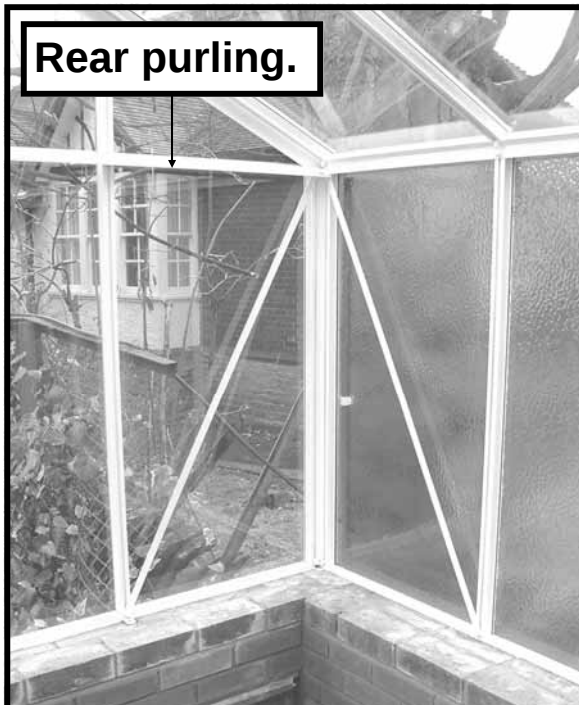
Obscure toughened glass was fitted in the side of this model for privacy. This has to be supplied by the customer at an independent glazier.



4' Front purling.

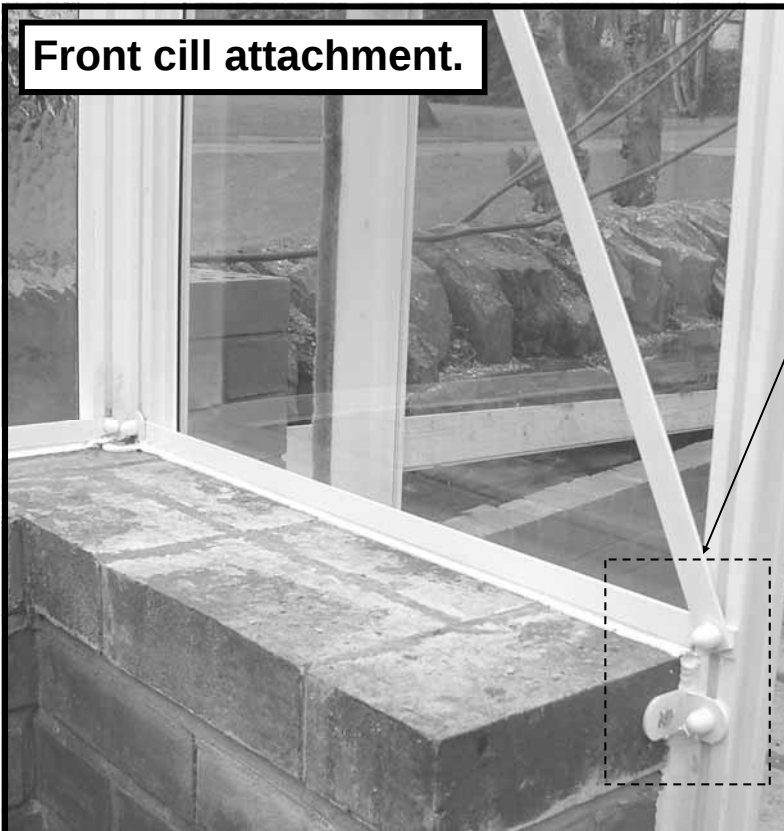
It should be fitted above the door to give extra strength horizontally across from the roof bars. If you are having difficulty getting the holes to line up push upwards on the ridge and its adjoining roof bars.

Rear purling.



Internal view of rear right hand corner. The rear purling is seen on this picture which spans the back of the green house. Extra bolts need to be slid into each vertical glazing channel in the rear to allow the purling to be attached. In this case the purling is fitted at the ends using the same long bolt that joins the roof and side corner bars together. At this height the purling will not interfere with any shelving that you may have. A separate bolt can be used in the corners if you wish.

Front cill attachment.

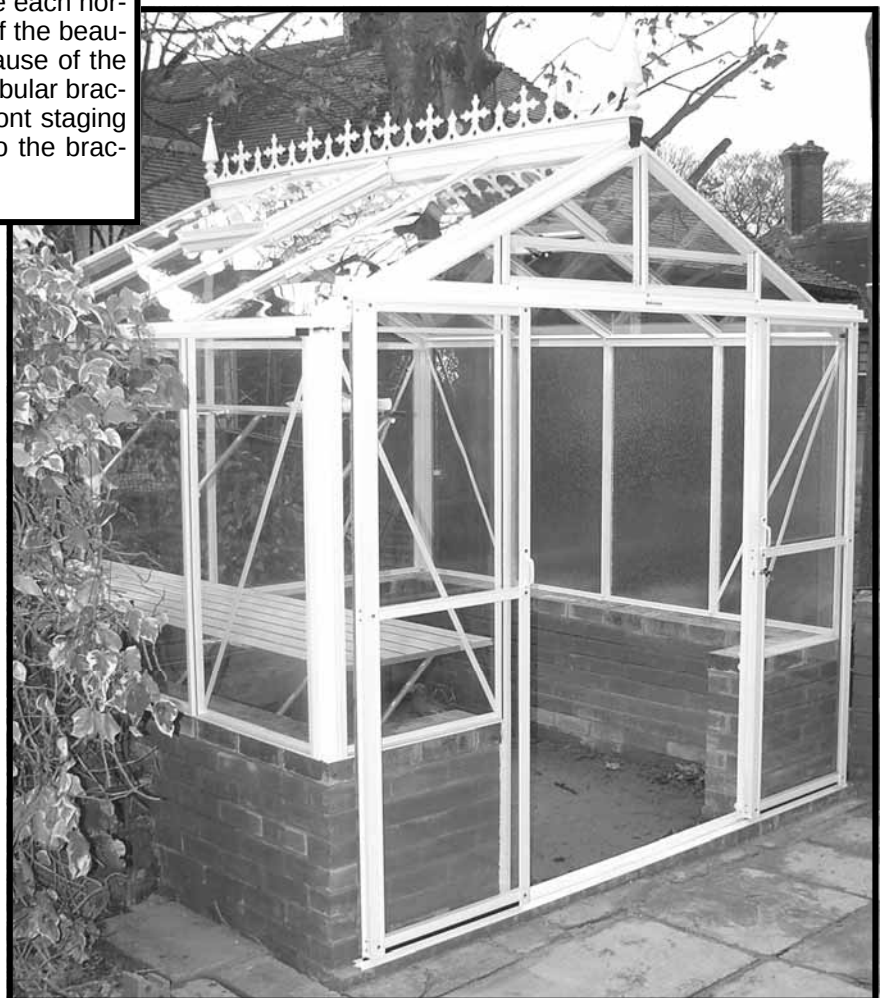


You can utilise your base brackets to join the frame to your dwarf wall.



Fixing staging in a dwarf wall model.

To fix the staging diagonal tubular bracings you will have to hammer drill into your brickwork and fix with rawl plugs and screws. You should use a spirit level to make sure each horizontal is accurate and then mark and drill. One of the beauties of Robinsons staging is its adaptability. Because of the rock outcrop on the inside wall of this model the tubular bracings has been attached to the underside of the front staging run with 15mm bolts to give a sharper gradient to the bracings avoiding the rock.



Please be aware that this is a 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. Whilst the information contained in this booklet is accurate at the time of publication, changes in the course of Robinsons policy of improvement through development and design might not be indicated. We point out this fact to avoid any infringements of the Trade Descriptions Act and also to advise that Robinsons Greenhouses reserve the right to change specifications and materials without prior notice.

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

To contact Robinsons Customer Services email us at sales@robinsonsgreenhouses.co.uk or call us on 01782 385 409.

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