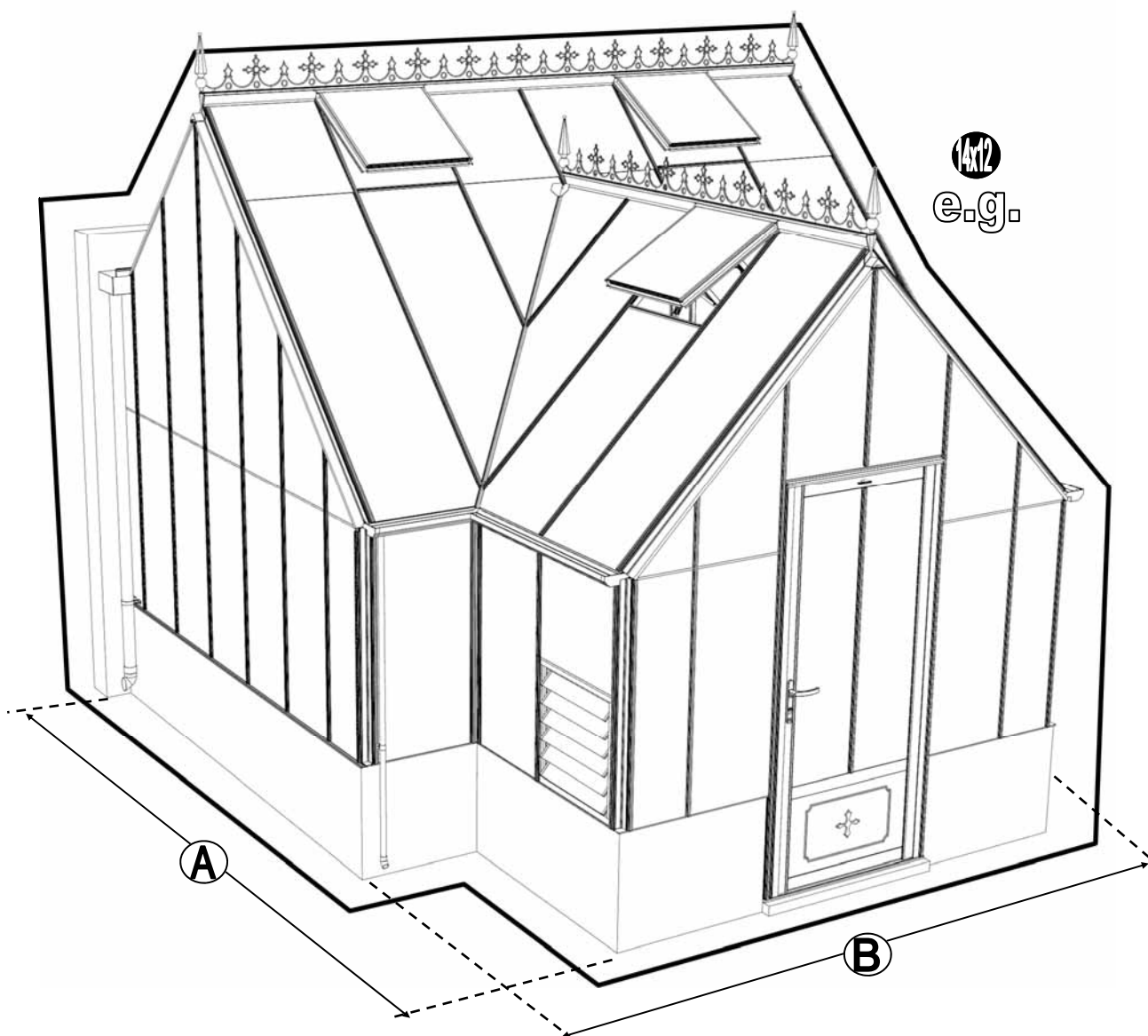


Victorian 14 'ROCHESTER' 3/4 SPAN Porch Dwarf Assembly Instructions



NOMINAL SIZE	A (mm)	B (mm)
14 x 12	4162	3870
14 x 20		6350
14 x 28		8830
14 x 36		11310

GB 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**-porch gable, **2**-end gables, **3**-porch returns, **4**-joining the sides, **5**-valley gutter, **6**-roof, **7**-vent, **8**-louvre, **9**-glazing, **10**-vent attachment, **11**-door attachment, **12** anchoring down, **13** finishing touches, **14** optional shelf, **15** 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 extensions 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:** The back wall and dwarf wall need to be flat, vertical and perpendicular to one another and made from solid bricks.
- **IMPORTANT:** Do **not** fix your building down to the dwarf wall 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 pivot pins / lock etc...

Guarantee

- Your new Robinsons greenhouse is guaranteed for 10 years against faulty manufacture of the framework. 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..Tools required.
	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.
	PREPARATION	IMPORTANT: Use WD40 or similar in the glazing bar channels and insert the black glazing rubber prior to frame assembly.
	PORCH GABLE	Ensure that the gable framework is rubbered-up. Follow the diagrams to assemble the porch gable. Make sure that you have inserted the extra bolts utilised in section 4.
	LEFT (2L) AND RIGHT (2R) END GABLES	Again ensuring that the gable framework is rubbered-up follow the diagrams to assemble each gable in 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 every rubber channel will require rubber unless it is to be utilised in a partition (see separate manual and section P).
	PORCH RETURNS	The porch returns (the L-shaped area to the left and right of the porch gable between eaves and gutters level) can either be built in situ piece by piece or built away from the structure as an L-shape and then attached in a similar manner to the end and porch gables. Please ensure that where relevant you slide 2 x 22mm bolts into the side bars for the attachment of the DV100 eaves spandrels.
	JOINING THE SIDES AND VALLEY GUTTER	Take the porch gable (1) and end gables (2L & 2R) and join them together on your wall. It is a good idea to tie some ladders to the gables to support them if you do not have anyone to hold them for you. Check that the D234 foam is still attached to your wall bars 'DV471' (also detailed on page 17). On models longer than 12' e.g. 20' an extension (4' or 8') is needed either side of the 12' core (20' = 4'ext + 12' core + 4'ext) to make the desired length.
	REAR ROOF	Attach the main ridge between the end gables and then the rubbered-up roof bars 'DV253' 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 roof bars to attach your DV100 and DV101 spandrels. On longer models you may need to carefully prop up the roof and tie the sides together to keep the ridge and gutters straight (i.e. not sagging or bowed) until the building is fully glazed.
	PORCH ROOF	The porch ridge can be fitted to the porch gable supporting its free end with ladders or a wooden sprag. The porch hips 'DV379' can now be attached between the welded porch gutter sections and the free end of the porch ridge. A 'lower' height porch utilises a DV380 bracket to allow the porch ridge to connect to the main module. Identify all of the handed roof bars and look for their locations. Insert the rubber into their channels and when attaching ensure again that where relevant you slide in 22mm bolts for eave (x2) and roof spandrels (x2). Eave and Roof spandrels can now be attached using the previously inserted 22mm bolts. The ladders / sprag supporting the porch ridge free end can now be removed. Prior to glazing the cresting and finials should be siliconed into place. Attaching them once the glass has been installed by leaning through vent apertures is more time consuming.
	VENT VENT SLAM	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. 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 (10).
	LOUVRE	They attach to the building during the glazing process (9) 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.
	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. 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. We would then recommend that you glaze the porch roof and its adjoining angled roof panes whilst the building still has some movement in it. The porch cowling 'DV341' should be attached before the vents are inserted so that access through vent apertures is available. Silicone the cowling area internally, position cowl and VERY carefully (avoiding glass below) mark, drill and screw x 2 'FS6018' into place. IMPORTANT: Silicone the cowling externally and check with watering can that the cowl is water tight, note silicone can be moulded shortly after application if you wet your fingers. 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.
	VENT ATTACHMENT	Take the assembled vent and slide the vent hinge 'D866' into the end of the ridge allowing the vent to pivot open and closed. Vent stops go either side of the vent to stop any lateral movement (so insert stop / vent / stop). Attach the autovent/s.
	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 'D522' 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 'D522' 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.
	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.
	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.
	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 glazing barduring construction 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 floor 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	

Section Ref	Part No.	Section	Size (mm)	14 12
-------------	----------	---------	-----------	----------

1	DV302L		852	1
	DV302R			1
	D608		1160	2
	DV066L			1
	DV066R		1505	1
	DV237L			1
	DV237R			1
	DV263			1
	DV270L		782	1
	DV270R			1
	DV307		1350	2
	DV251L		1790	1
	DV251R			1
	DV275		904	1
	D163		90	2
	DV104		N/A	2
	DV105		N/A	1
	RUBBER		1000	27
	D174		N/A	4

2	DV461 (LH)		2937	1
	DV464 (RH)			1
	D1122 (LH)		241	1
	D1126 (RH)			1
	D608		1160	2
	DV066L			1
	DV066R		1505	1
	DV310L			2
	DV310R			2
	DV312L			2
	DV312R		2438	2
	DV259		2879	2
	DV471		1840	2
	DV467 (LH)		2864	1
	DV470 (RH)			1
	DV307		1350	2
	DV250L		1345	1
	DV250R			1
	DV252L		2451	1
	DV252R			1
	DV104		N/A	2
	DV548		N/A	2
	DV105		N/A	2
	RUBBER		1000	74
	D174		N/A	8

Victorian 14' ROCHESTER 3/4 Span Porched Dwarf



MAIN FRAME
QUANTITIES

VENTS
SEPERATE

Part No.	14 12
FS6505 HEX 12mm	 150
HE569 10mm CROP	 20
FS6506 HEX 16mm	 46
FS6507 HEX 22mm	 40
FS6504 M6 NUT	 256
FS6018 19mm	 2

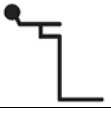
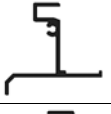
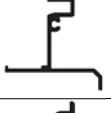
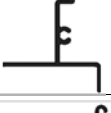
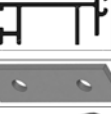
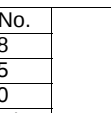
Section Ref	Part No.	Section	Size (mm)	14 12
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3	DV358		608	1
	DV359		1228	1
	DV373		608	1
	DV374		1228	1
	DV363		1160	2
	DV391		632 x 1252	1
	DV392			1
	D609		1160	2
	RUBBER		1000	10
	D174		N/A	4

5	D1070		3857	1
	D1076		3757	1
	D1082		N/A	2
	D1089		N/A	7
	EV0329		13	4
	SYSCR2		50	14
	SYRAWL		50	14

6	D982		100	2
	DV100		N/A	2
	DV101		N/A	8
	DV203		3757	1
	DV351		2470	1
	DV253		1345	5
	DV254		1790	2
	DV375L/R		830	1+1
	DV376L/R		1708	1+1
	DV377L/R		1492	1+1
	DV378L/R		2368	1+1
	DV383		661	1
	DV365		882	1
	DV380		N/A	1
	DV379		2212	2
	RUBBER		1000	49

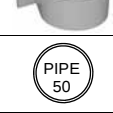
Section Ref	Part No.	Section	Size (mm)	14 12
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7	D866		639	5
	D863L		613	5
	D863R		613	5
	D862		593	5
	D079 PLUS FLUFF		590	5
	D114		N/A	10
	D220 PLUS FS6060 SCREW		N/A	10
	D205		N/A	10

Victorian 14' ROCHESTER 3/4 Span Porched Dwarf

Section Ref	Part No.	Section	Size (mm)	14 12
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10	D522		N/A	10
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12	D119		N/A	1
	DV120		N/A	4
	D589		N/A SLIM	4
	D584		1500	4
	D591		N/A	4
	D636		N/A	4
	D583		N/A	4
	D208		N/A	2
	D1088 PLASTIC		2000 BIG	2
	D1090 PLASTIC		N/A BIG	2
	D1091 PLASTIC		N/A BIG	2
	D1092 PLASTIC		N/A BIG	2
	DV219A (RH)		N/A	2
	DV218A (LH)		N/A	2
	EV0329		13	8
	D1124		227	2

SECTION	PART No.		Size (mm)	Quantity
3	D618		1144	6
2	D815		1830	2
6b	D870		601	4
1 / 2	DV403L/R		1505	2 + 2
1 / 11	DV479		1384	1 FITTED
2	DV610L/R		1972	2 + 2
2	DV612L/R		2438	2 + 2
1	DV637L/R		2489	1 + 1
6a	DV653		1378	5
6b	DV654		1821	2
2	DV659		2879	2
1	DV663		905	1
6b	DV675L/R		863	1 + 1
6b	DV676L/R		1741	1 + 1
6b	DV677L/R		924	1 + 1
6b	DV678L/R		1799	1 + 1
6b	DV683		680	1
1/2	D610		1160	4
3	D620		1144	4
6b	D871		601	2
6a	DV650		1345	2
6b	DV651		1790	2
6b	DV652		1871	2
1 / 2	D614		1162	4
3	D619		1144	10
2	D827		1832	2
1 / 11	DV480		1384	1 FITTED
2	DV611L/R		1972	2 + 2
2	DV613L/R		2438	2 + 2
1/2	DV615L/R		1505	2 + 2
1	DV638L/R		2489	1 + 1
6a	DV656		1378	7
6b	DV657		1821	4
6b	DV658		2481	2
2	DV665		2879	2
1	DV669		905	1
6b	DV679L/R		863	1+1
6b	DV680L/R		1741	1+1
6b	DV681L/R		1525	1+1
6b	DV682L/R		2400	1+1
6b	DV684		680	1
6b	DV341		N/A	1



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 'mm' DIMENSIONS PROVIDED AND IS SQUARE, LEVEL AND UPRIGHT, THE DIAGONAL MEASUREMENTS SHOULD BE EQUAL.

WALLS SHOULD BE DOUBLE 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.

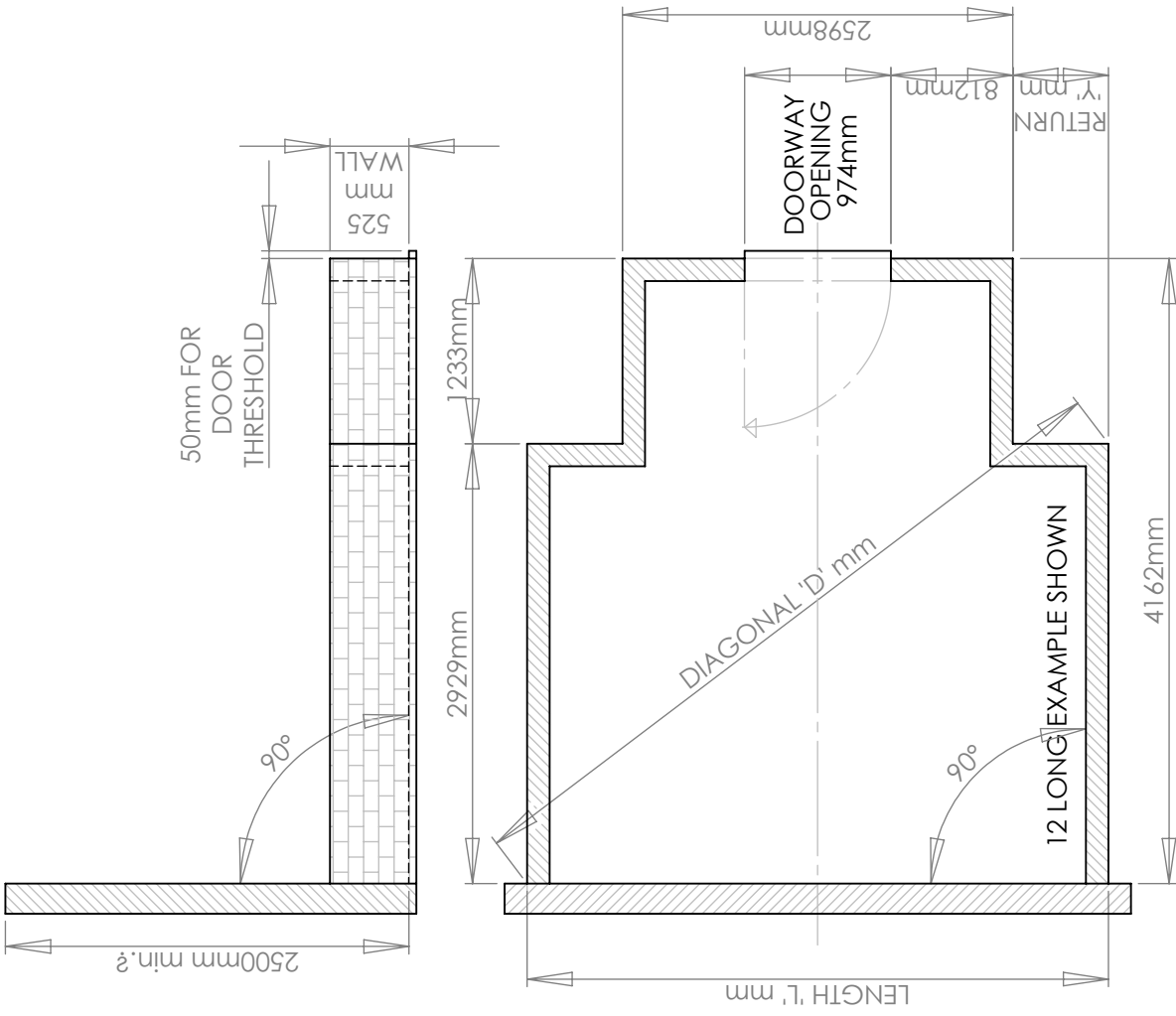
GABLE DOOR OPENING

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. 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.

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

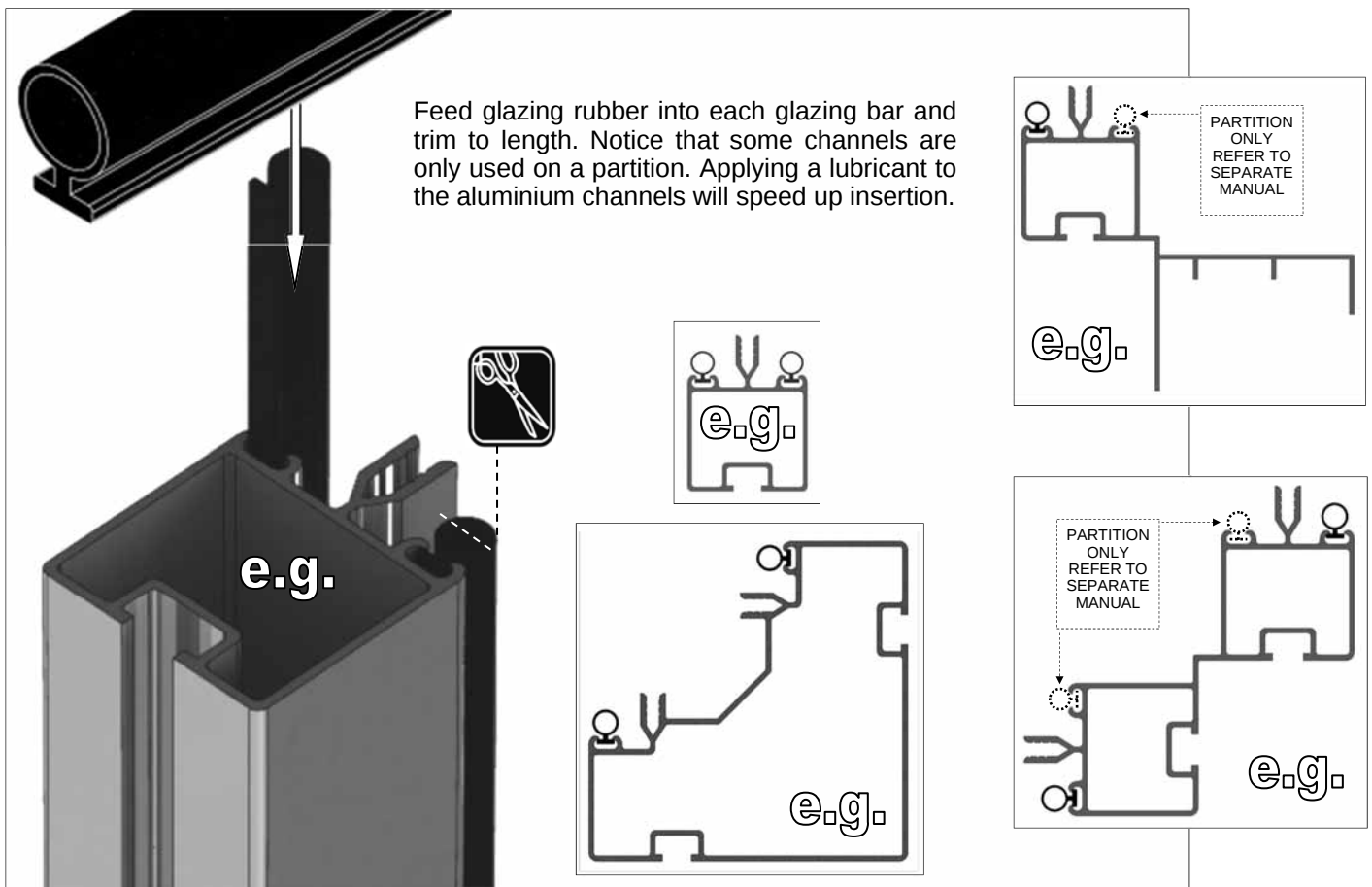
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Robinsons
GREENHOUSES



DIMENSION VARIABLES (mm)			
MODEL	LENGTH 'L'	RETURN 'Y'	DIAGONAL 'D'
12 LONG	3870mm	636mm	4853.5mm
20 LONG	6350mm	1876mm	6993mm
28 LONG	8830mm	3116mm	9303mm
36 LONG	11310mm	4356mm	11683mm

TITLE: ROCHESTER WALL PLAN
WITH NO EXTRA GABLE DOOR/S



Robinsons have now upgraded the original square headed alloy bolts to stainless steel **Hexagonal** headed bolts. The frame is assembled by feeding these bolts, either 12mm, 16mm or 22mm in length (previously 10mm, 15mm and 22mm) into the slots on glazing bars and then locating those bolts through holes in purlins and cills, etc... The 12mm bolts tend to be used to join two parts together and the 16mm bolts tend to be used to join two or more parts or where an extrusion is thicker. 22mm bolts are for your eave and ridge spandrels (DV100 / DV101).

Twist in (rectangular) crop headed bolts are also used towards the end of construction to attach components to the frame retrospectively when the glazing bar slots are no longer exposed at the ends.

If an image in the manual shows a square headed bolt please interpret it as the new HEX headed replacement.

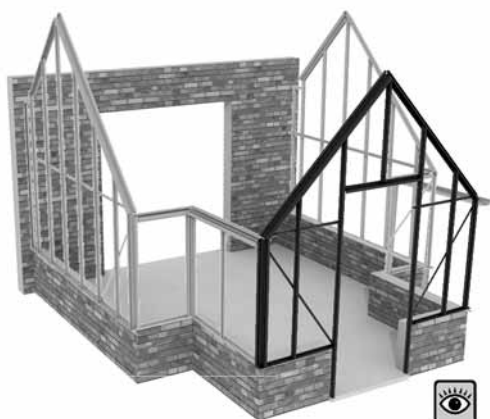
	ORIGINAL SQUARE HEAD		NEW HEX HEAD
10mm		12mm	
15mm		16mm	
22mm		22mm	

e.g.

P

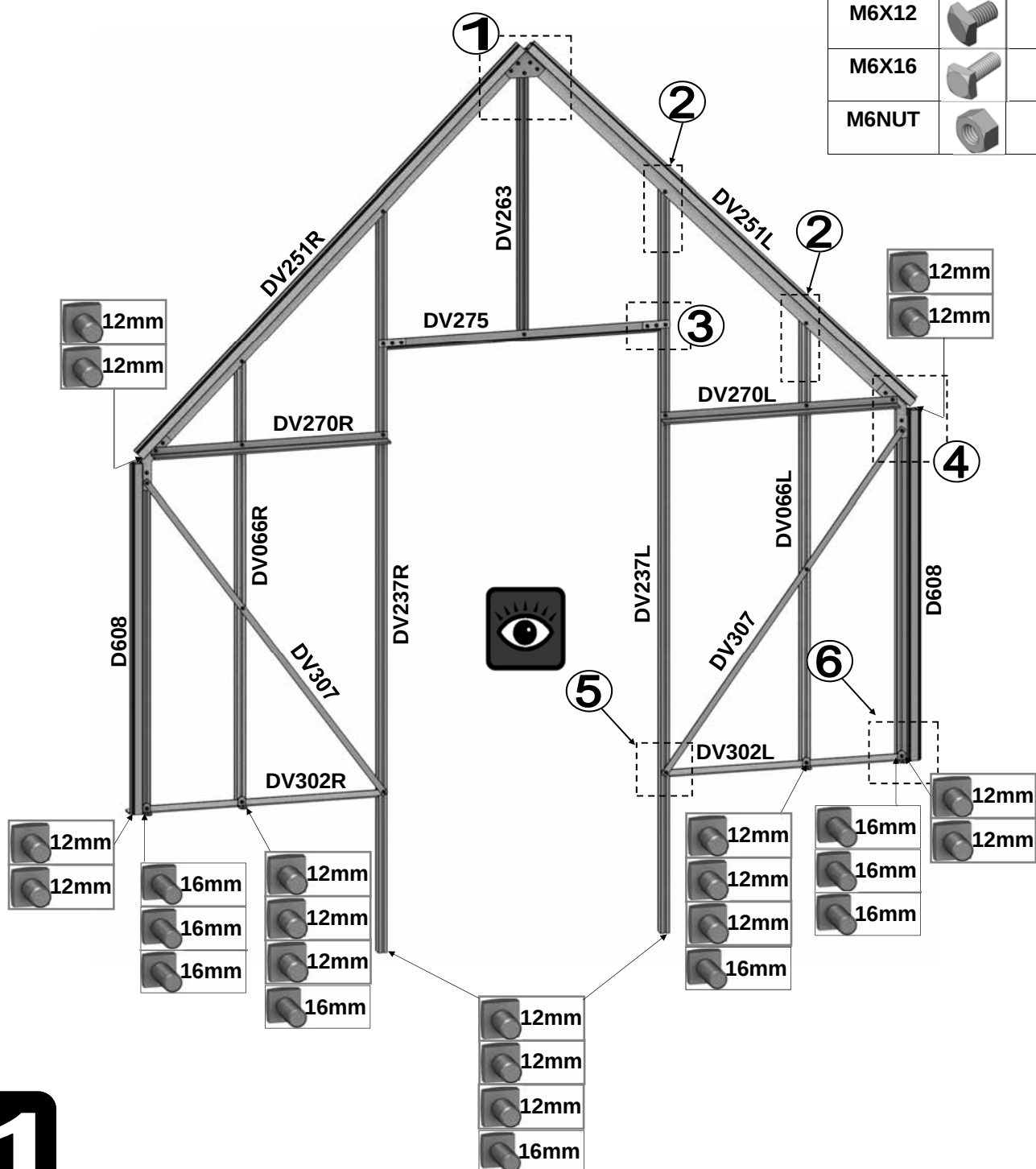
e.g.

14x12

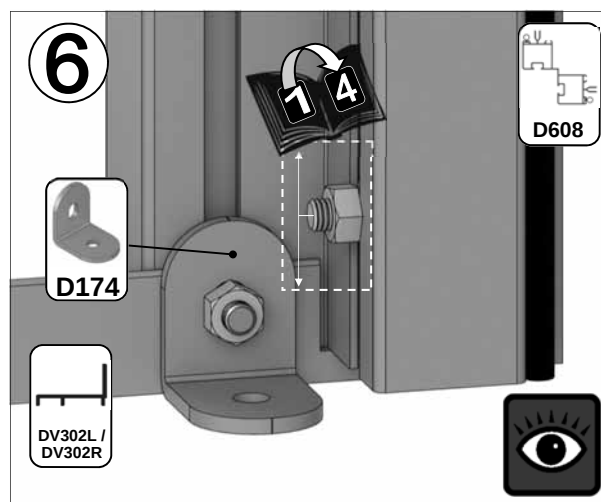
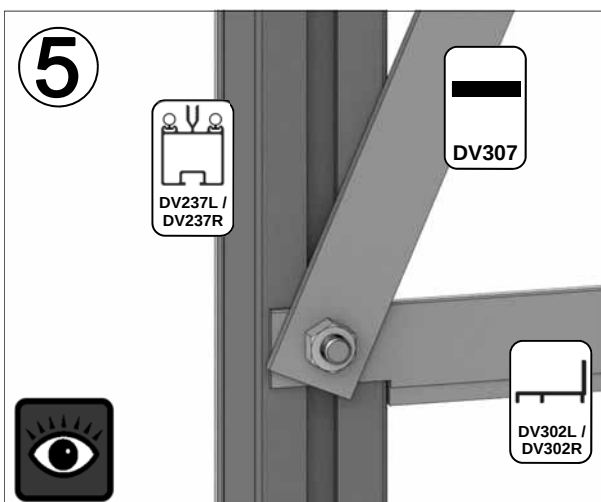
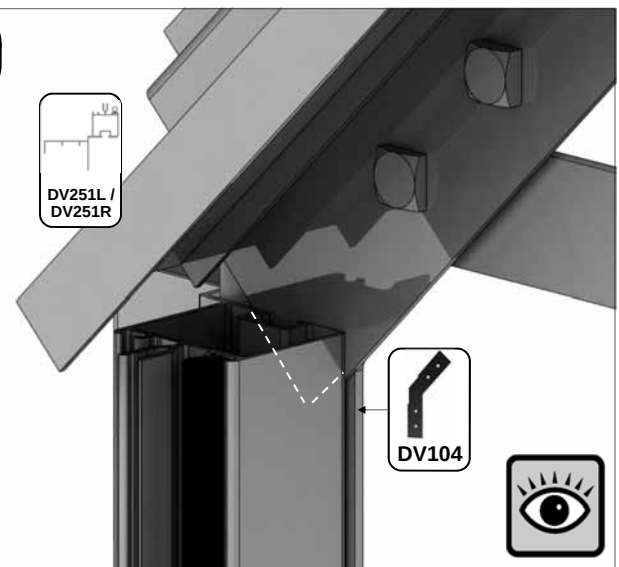
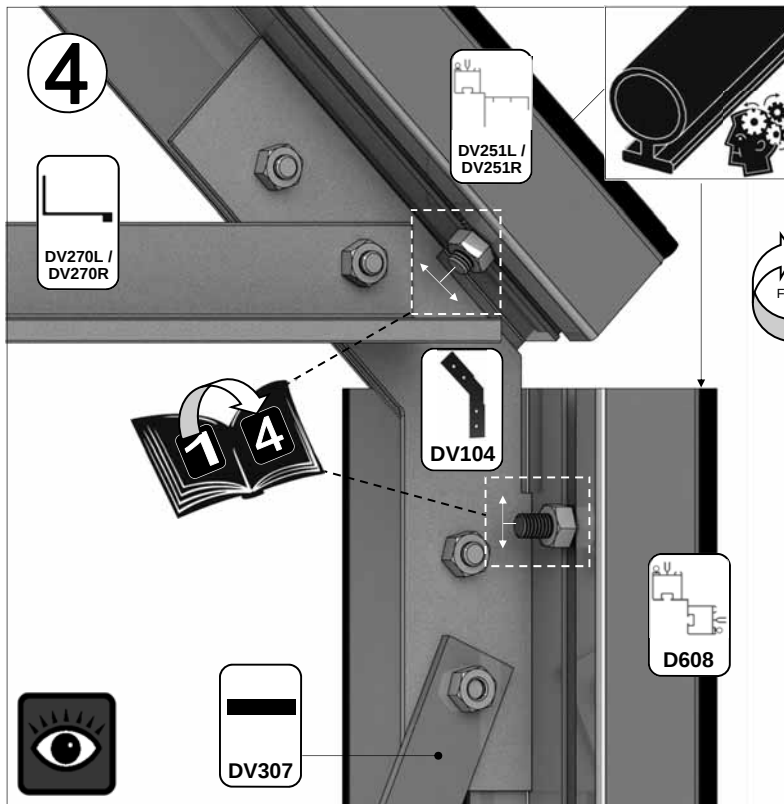
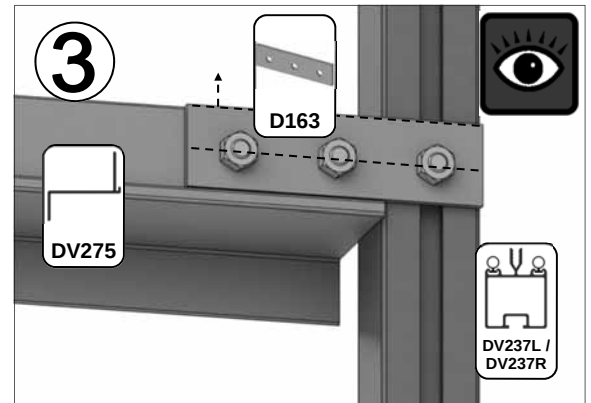
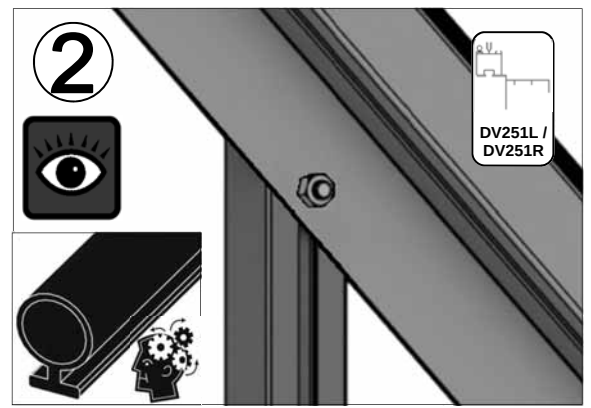
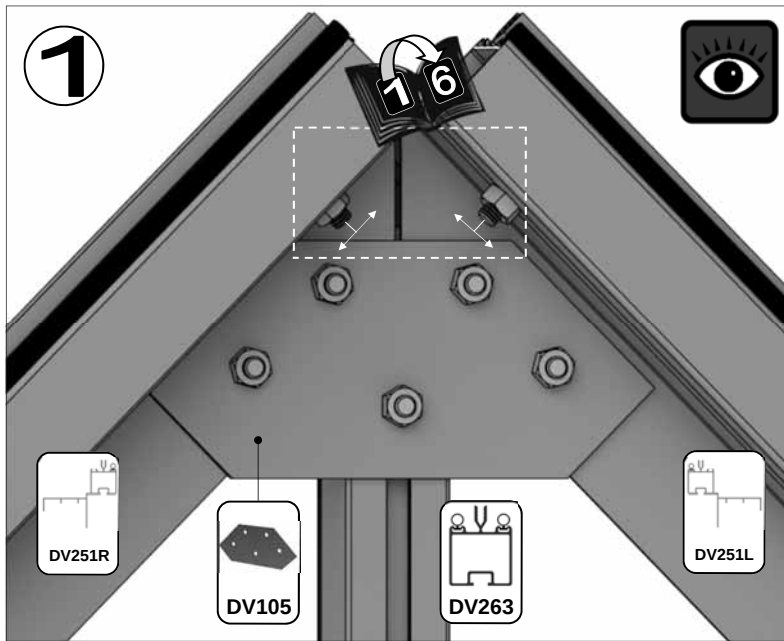


PORCH GABLE		
Part No	mm	Quantity
DV066L	1505	1
DV066R	1505	1
D608	1160	2
DV237L	2489	1
DV237R	2489	1
DV251L	1790	1
DV251R	1790	1
DV263	930	1
DV270L	782	1
DV270R	782	1

Part No	mm	Quantity
DV275	904	1
DV302L	852	1
DV302R	852	1
DV307	1350	2
DV104		2
DV105		1
D174		4
D163		2
D227		27m
M6X12		34
M6X16		10
M6NUT		44

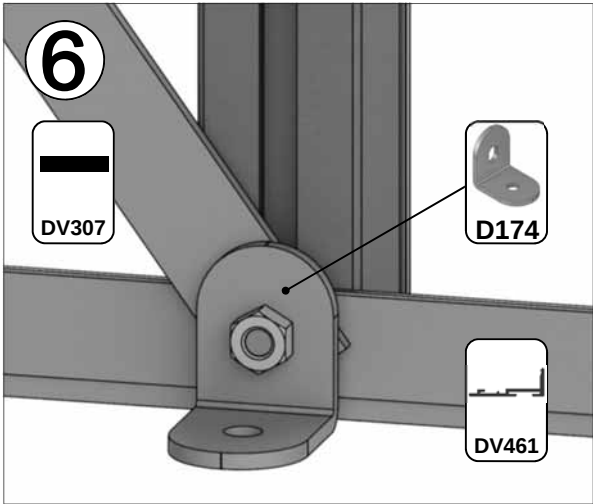
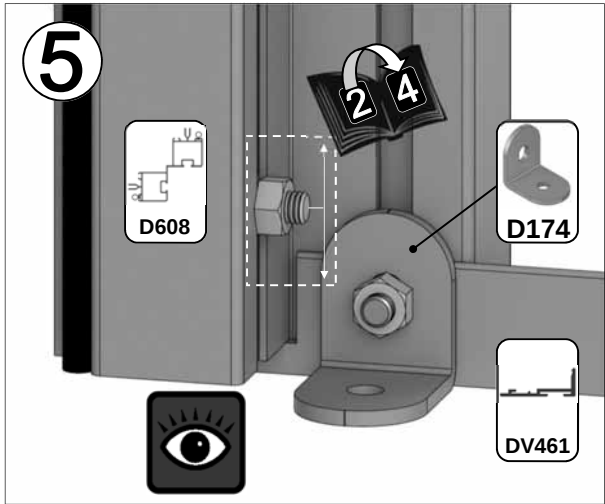
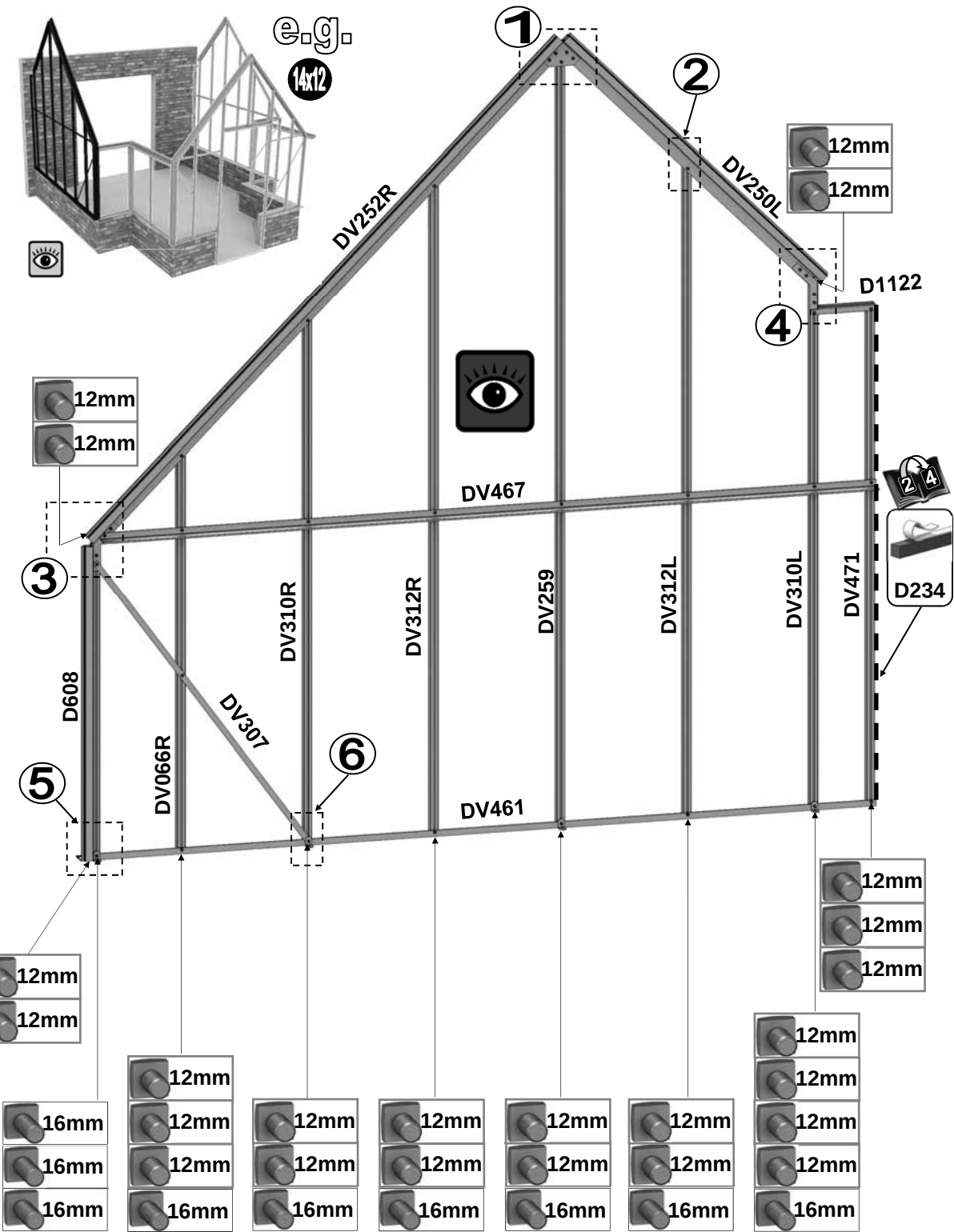


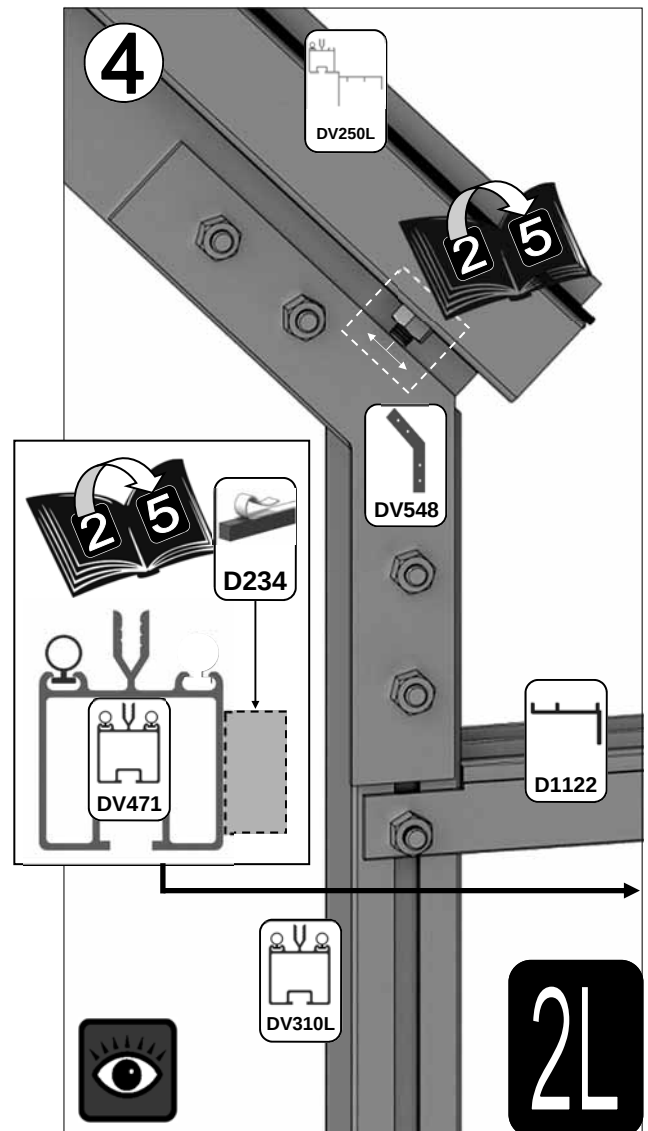
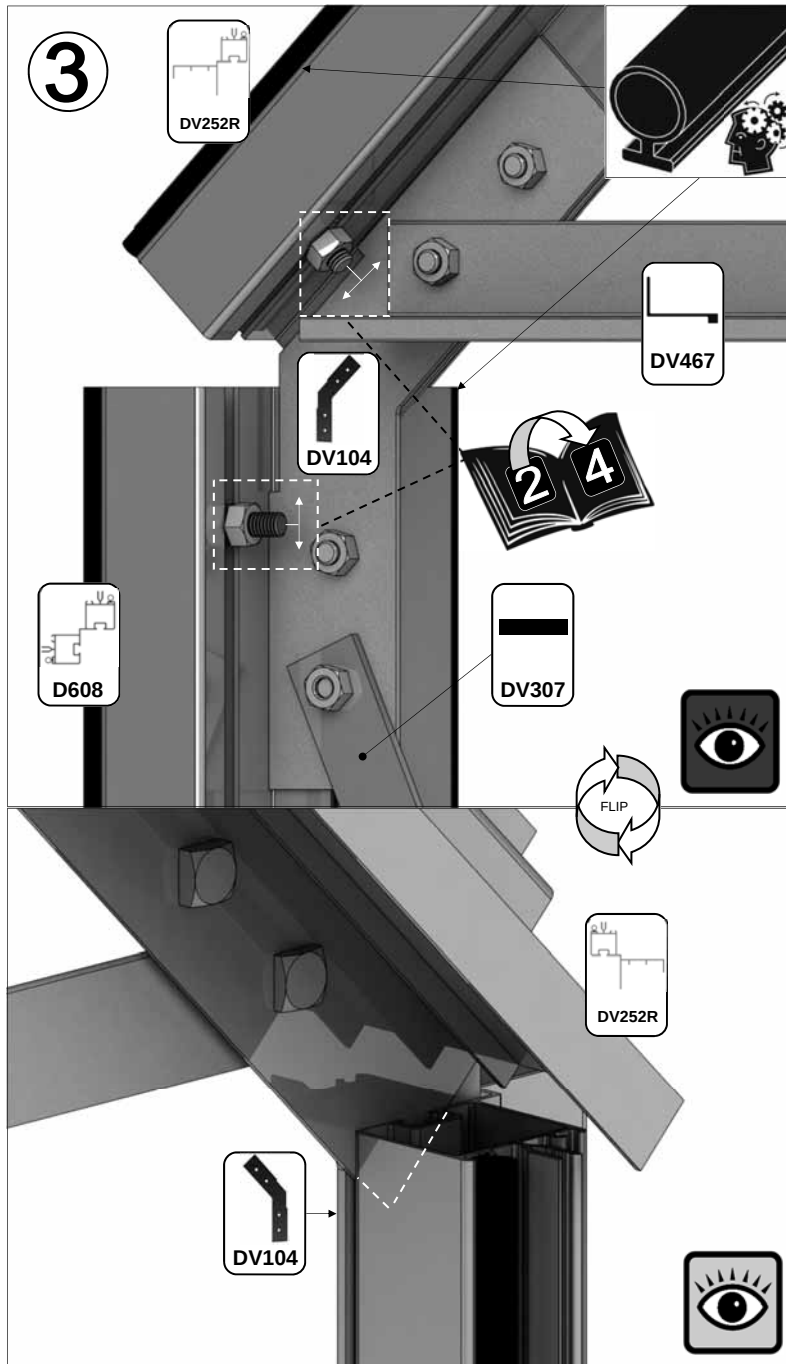
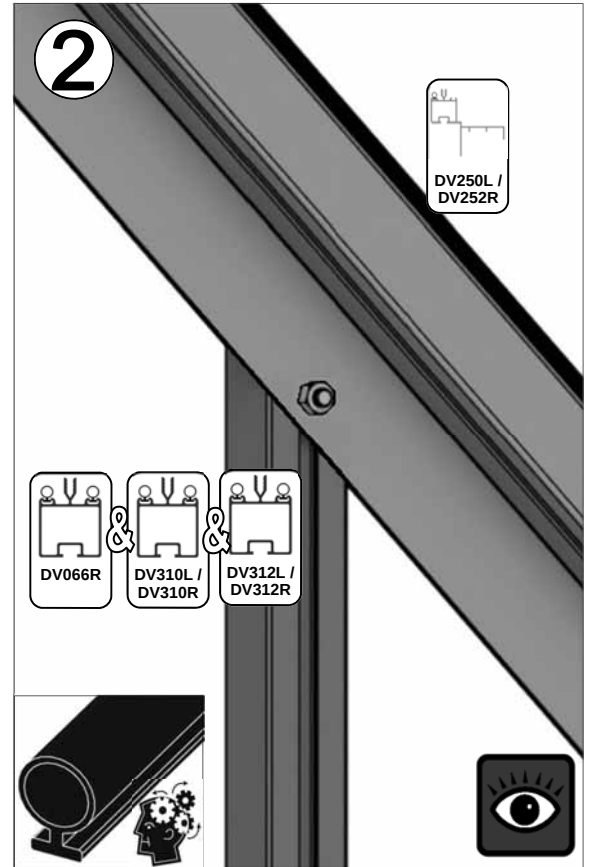
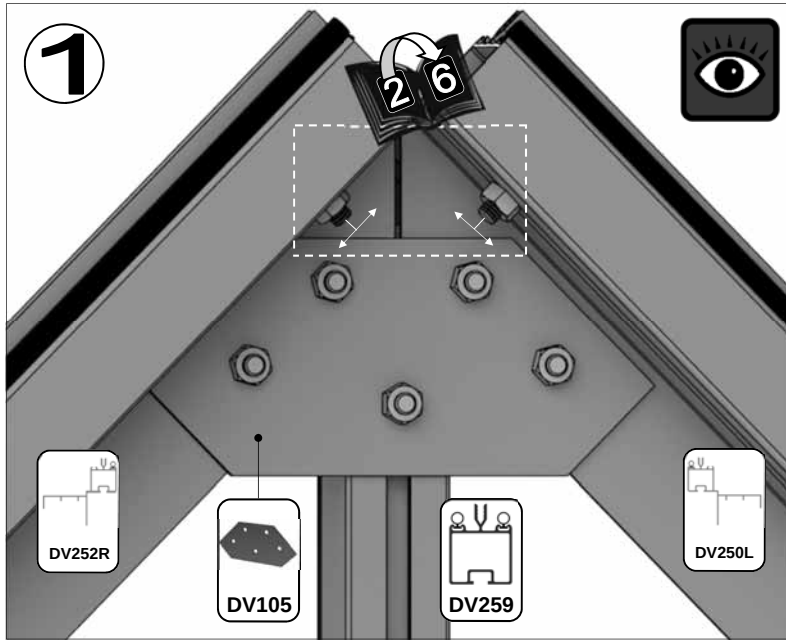
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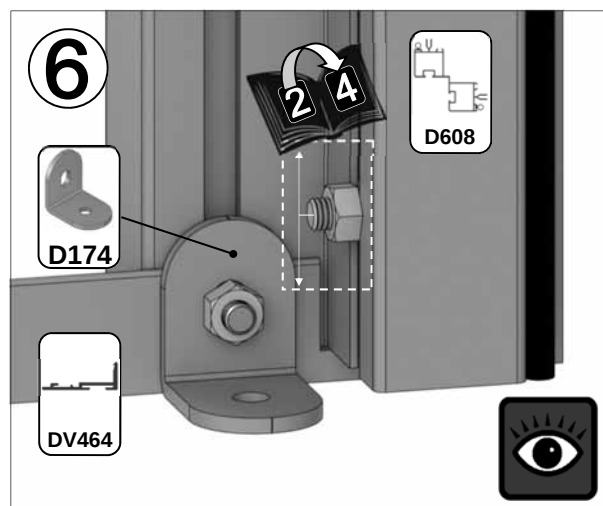
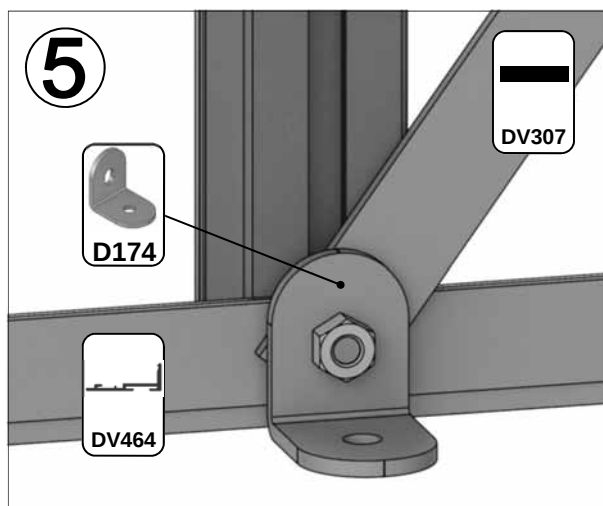
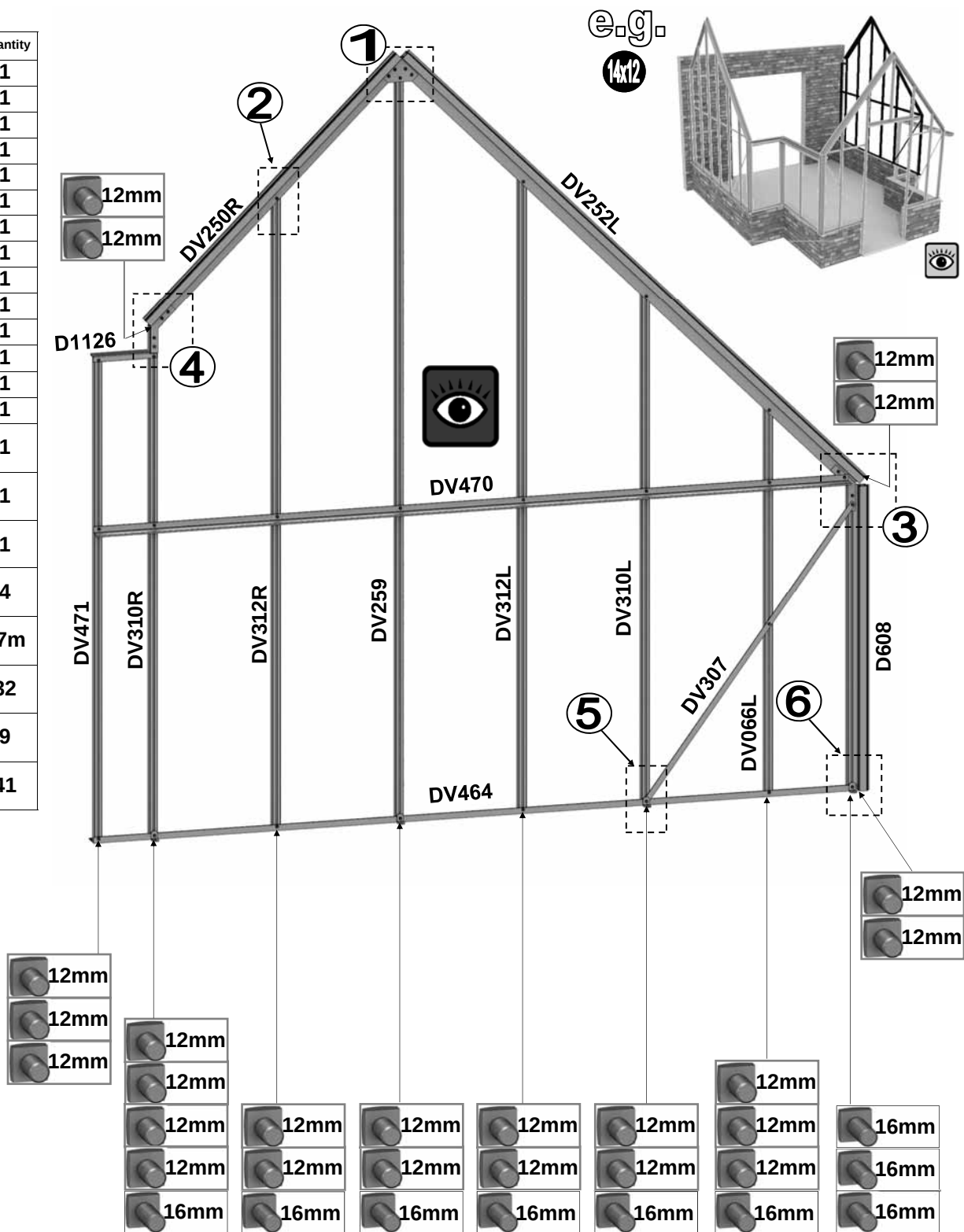
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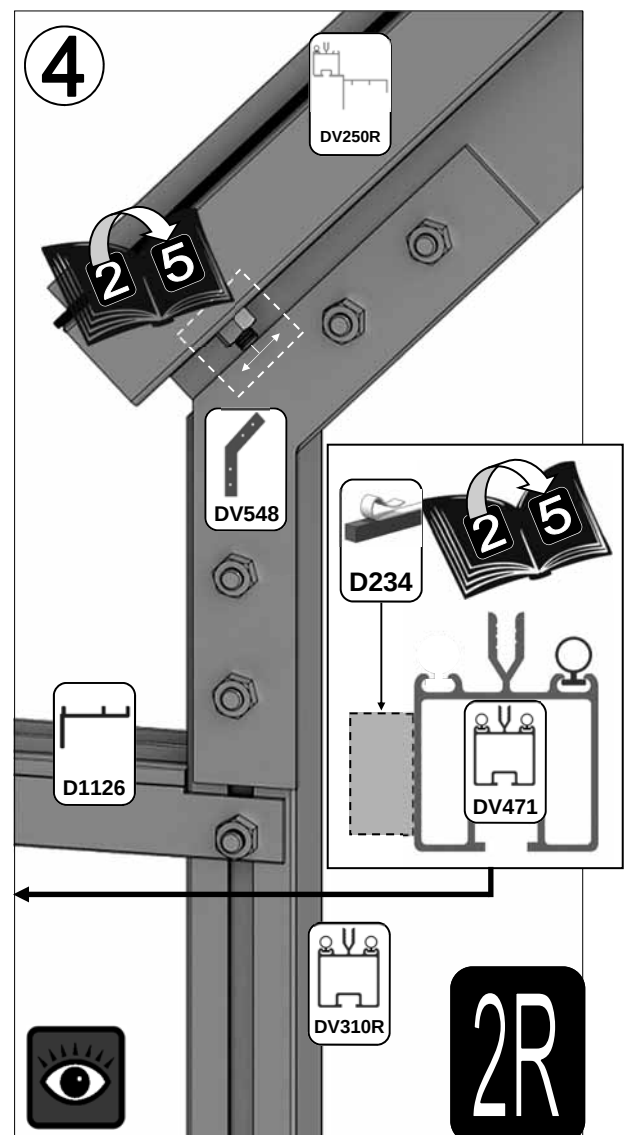
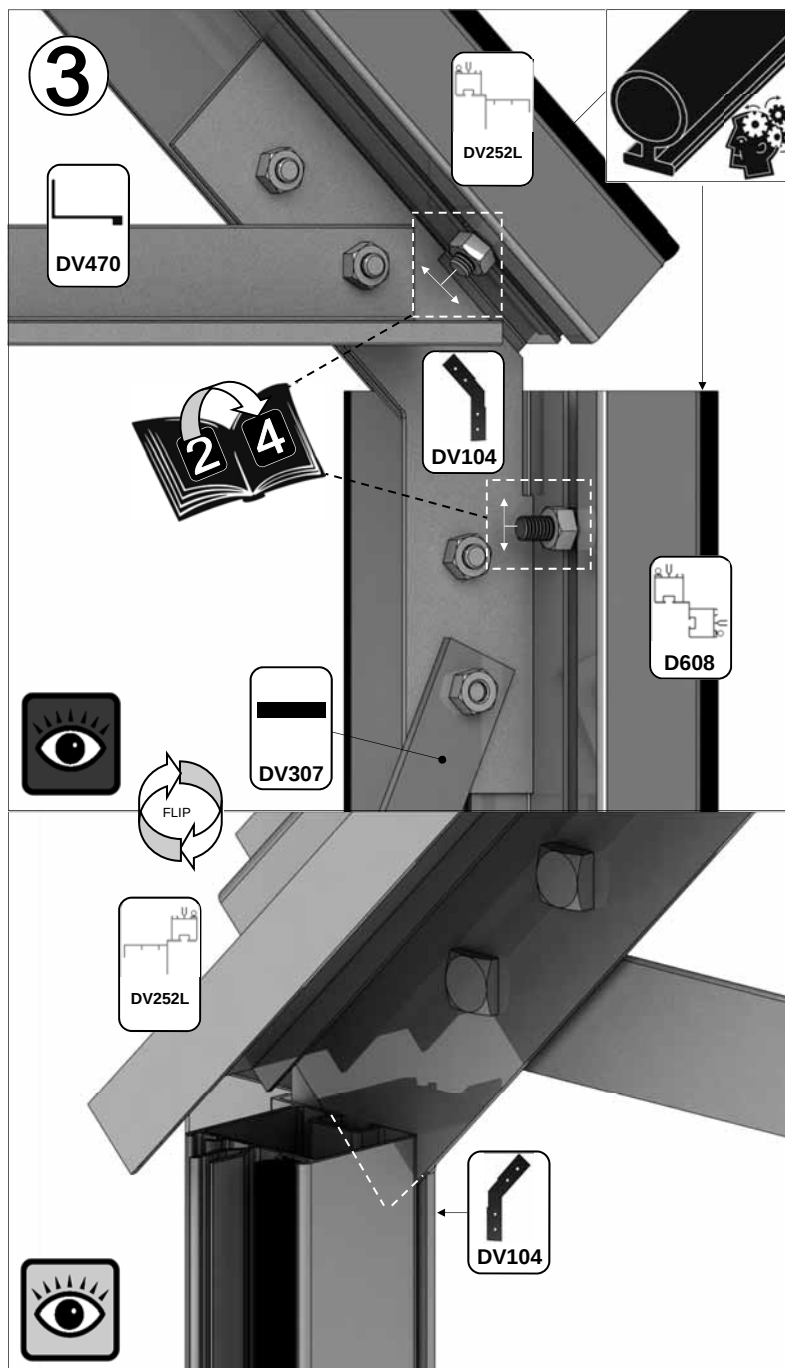
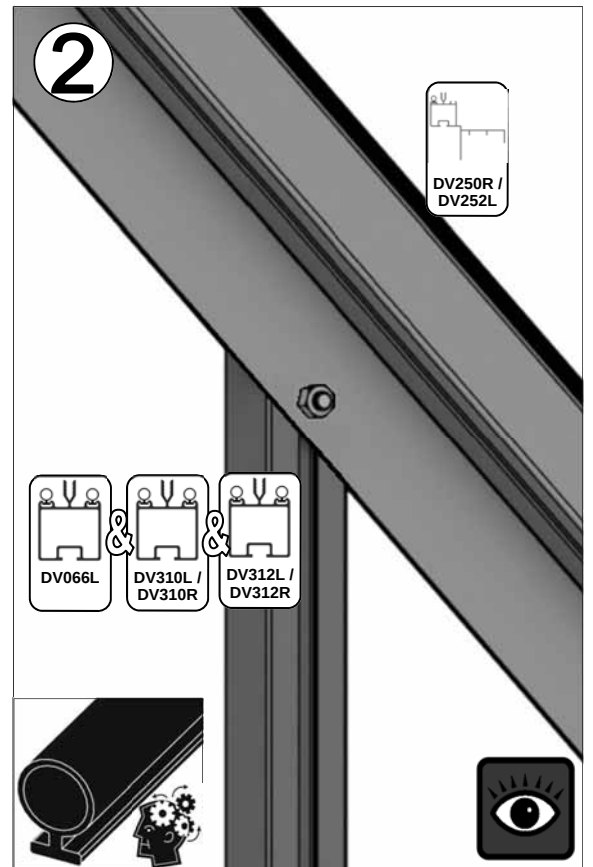
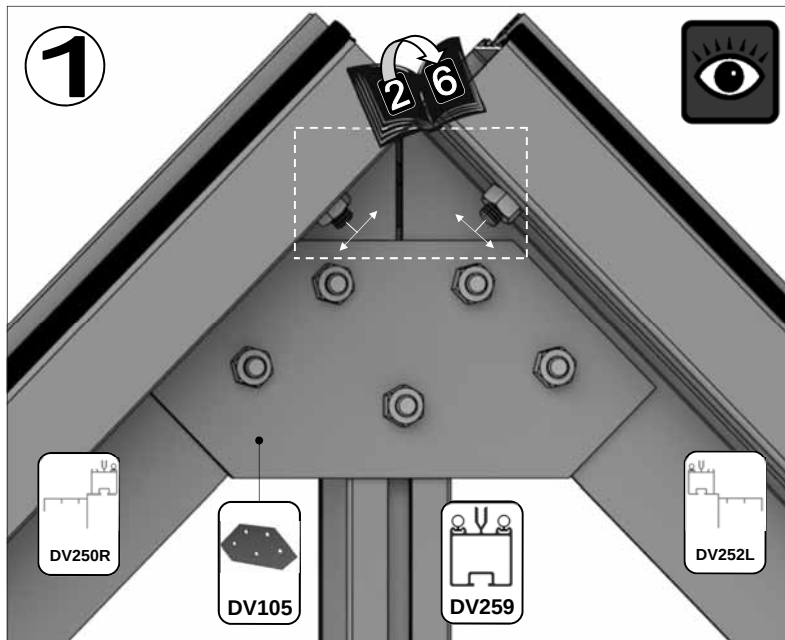
Part No	mm	Quantity
D608	1160	1
D1122	241	1
DV066R	1505	1
DV250L	1345	1
DV252R	2451	1
DV259	2879	1
DV307	1350	1
DV310L	1972	1
DV310R	1972	1
DV312L	2438	1
DV312R	2438	1
DV461	2937	1
DV467	2864	1
DV471	1840	1
DV104		1
DV105		1
DV548		1
D174		4
D227		37m
M6X12		32
M6X16		9
M6NUT		41



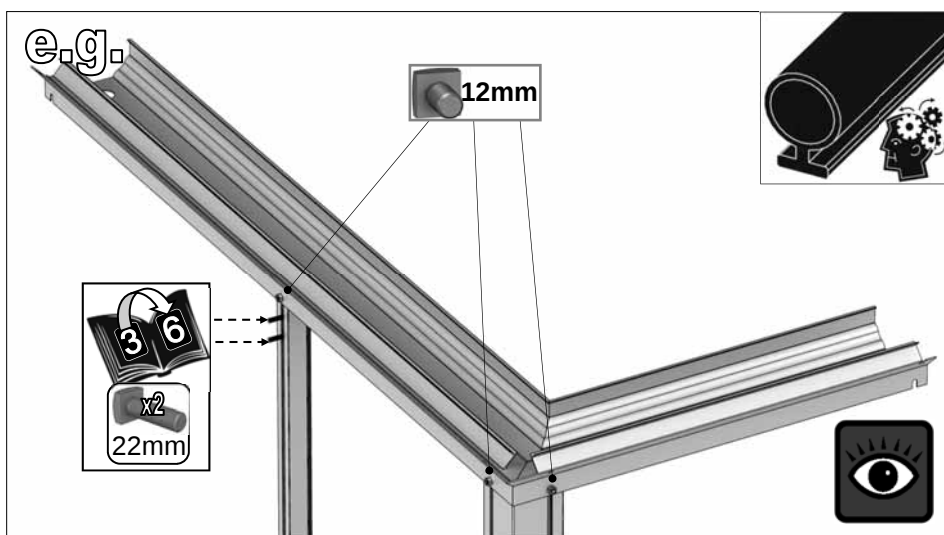
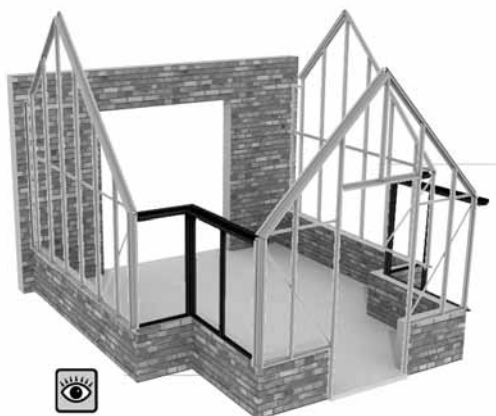


Part No	mm	Quantity
D608	1160	1
D1126	241	1
DV066L	1505	1
DV250R	1345	1
DV252L	2451	1
DV259	2879	1
DV307	1350	1
DV310L	1972	1
DV310R	1972	1
DV312L	2438	1
DV312R	2438	1
DV464	2937	1
DV470	2864	1
DV471	1840	1
DV104		1
DV105		1
DV548		1
D174		4
D227		37m
M6X12		32
M6X16		9
M6NUT		41

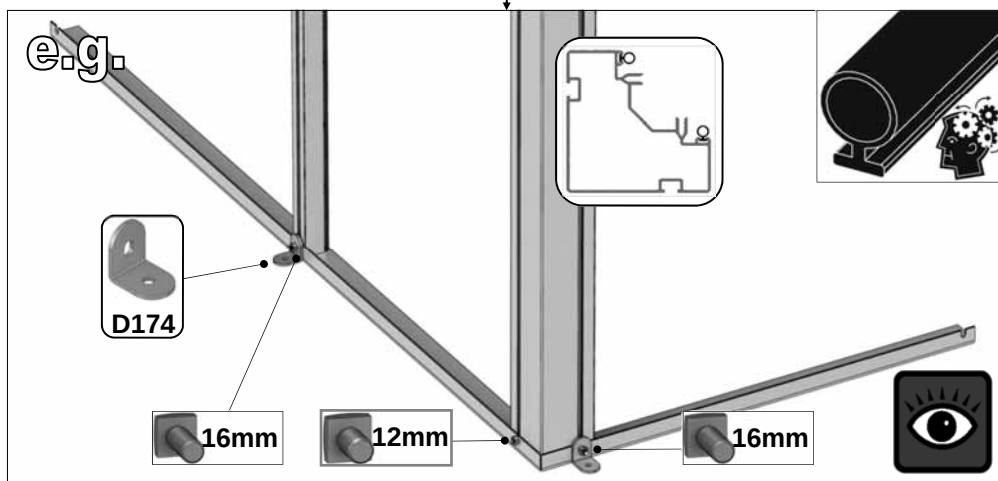
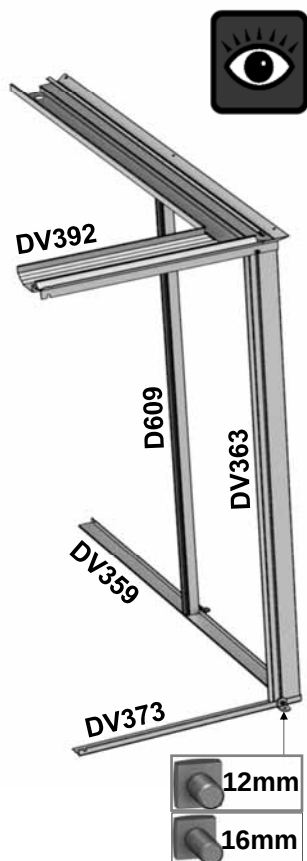
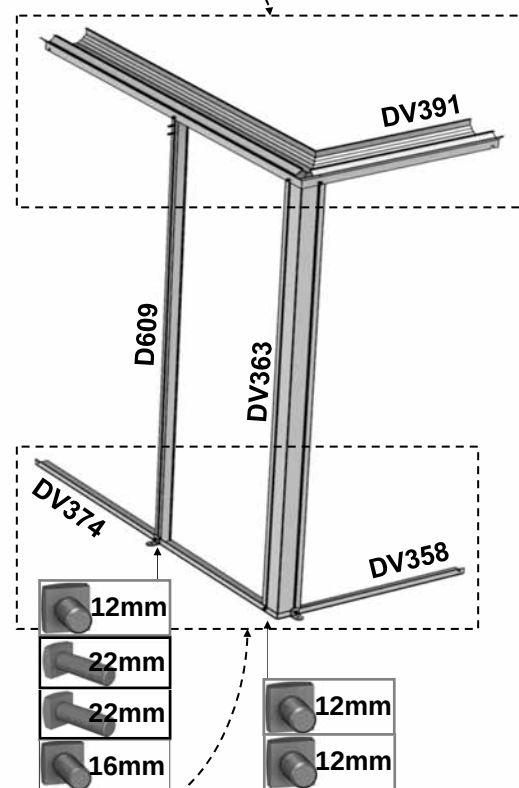




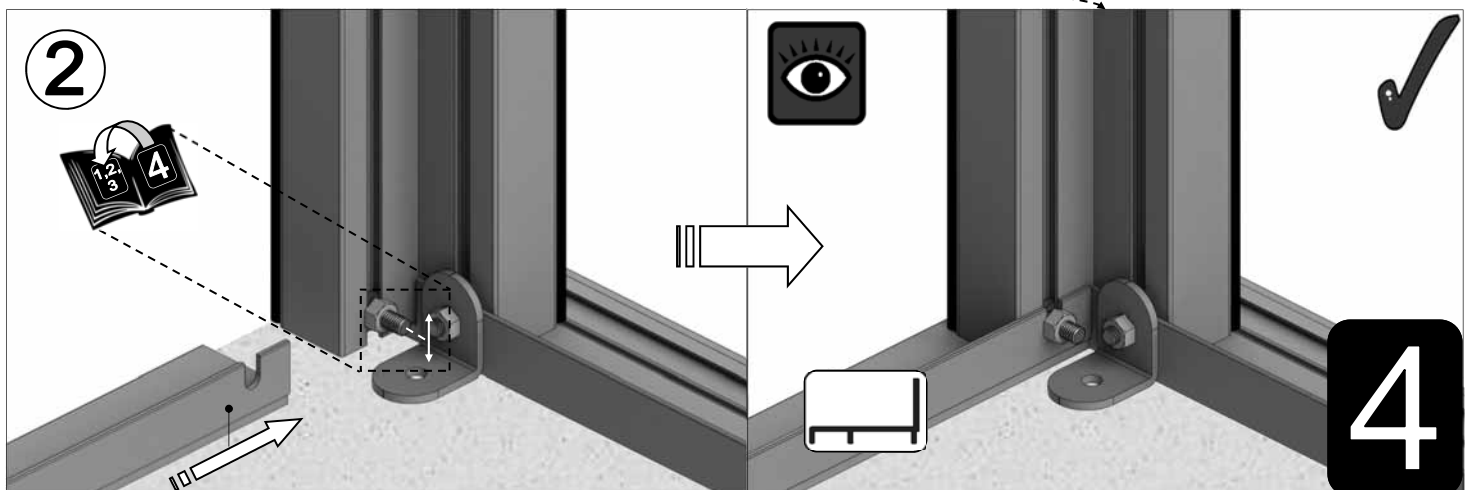
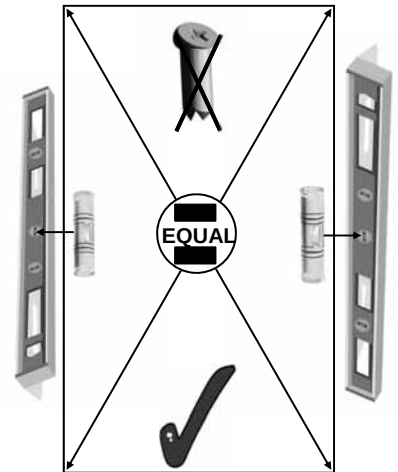
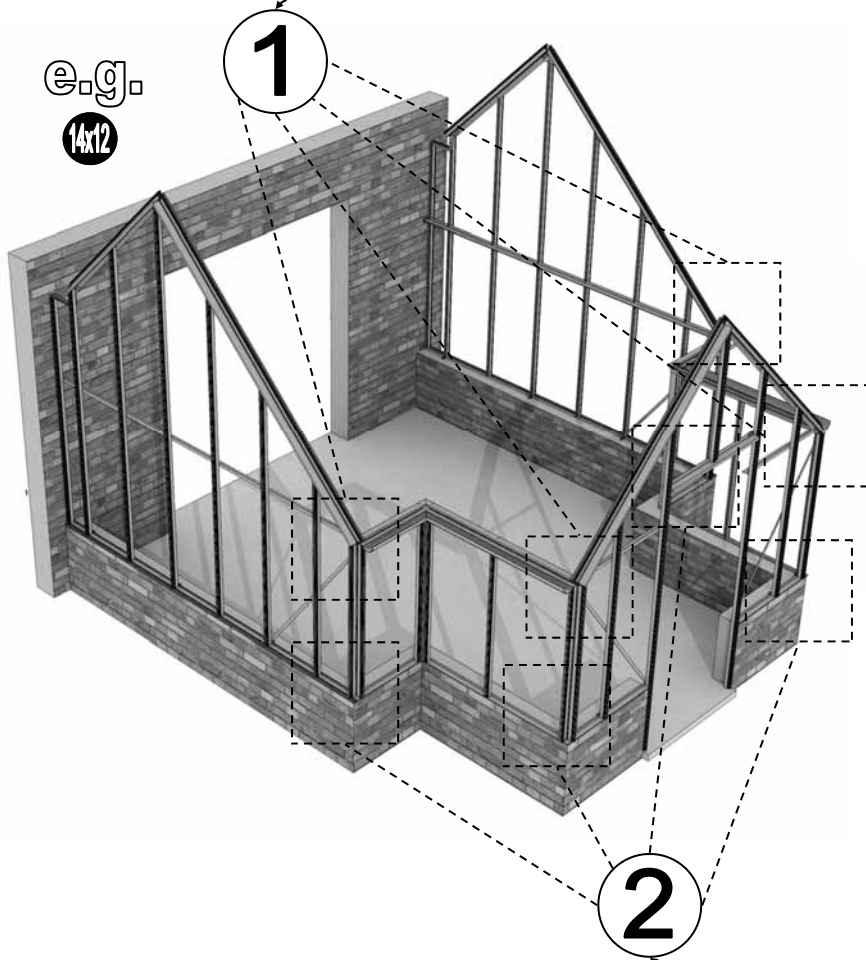
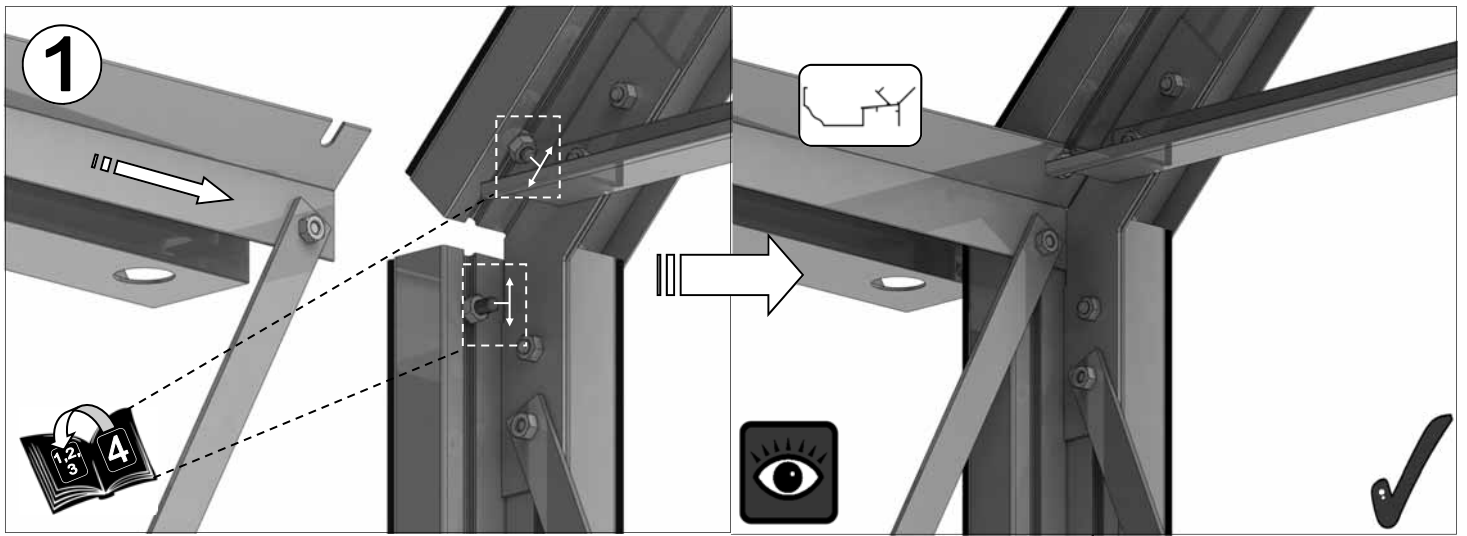
e.g.
14x12



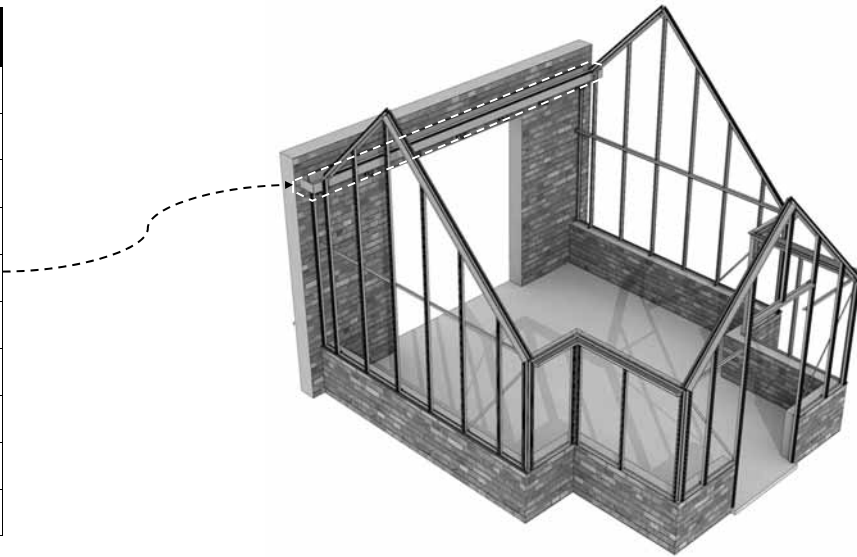
PORCH RETURNS		14x12
Part No	mm	Quantity
D609	1160	2
DV358	608	1
DV359	1228	1
DV373	608	1
DV374	1228	1
DV363	1160	2
DV391	632	1
DV392	x 1252	1
D174		4
D227 Rubber	1000	10
BOL M6X12		8
BOL M6X16		4
BOL M6X22		4
NUT M6		12



3

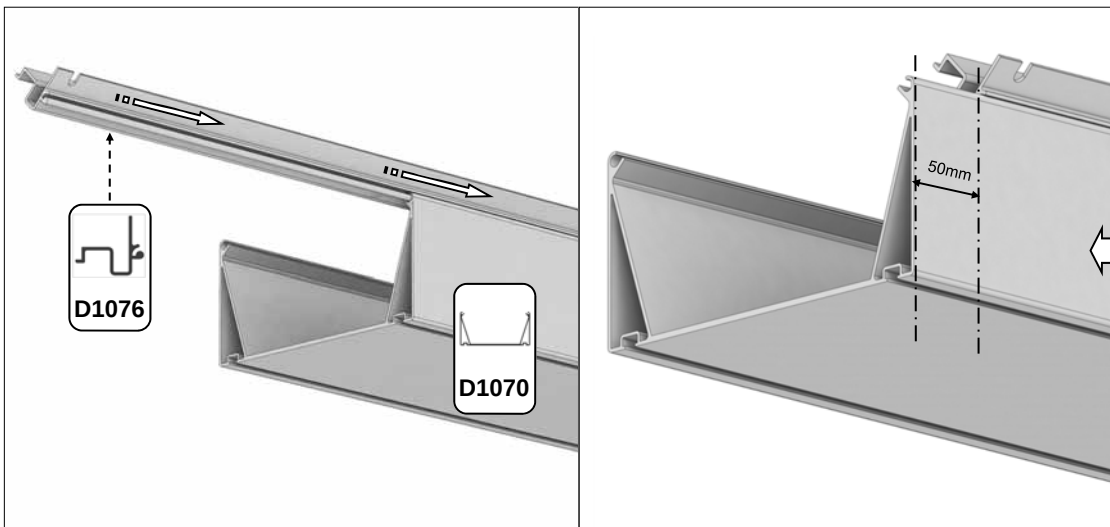
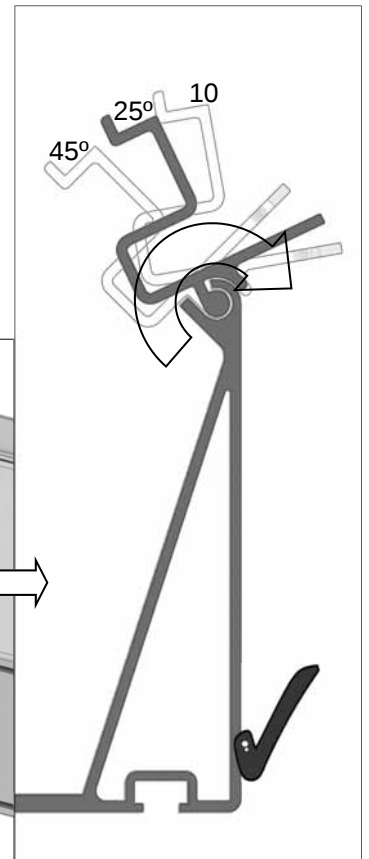


12'		
Part No	mm	Quantity
D1070	3857	1
D1076	3757	1
D1082	N/A	2
D1089	N/A	7
BOLM6X16		14
NUTM6		14
EV0329	13	4
SYSCR2	50	14
SYRAWL	50	14



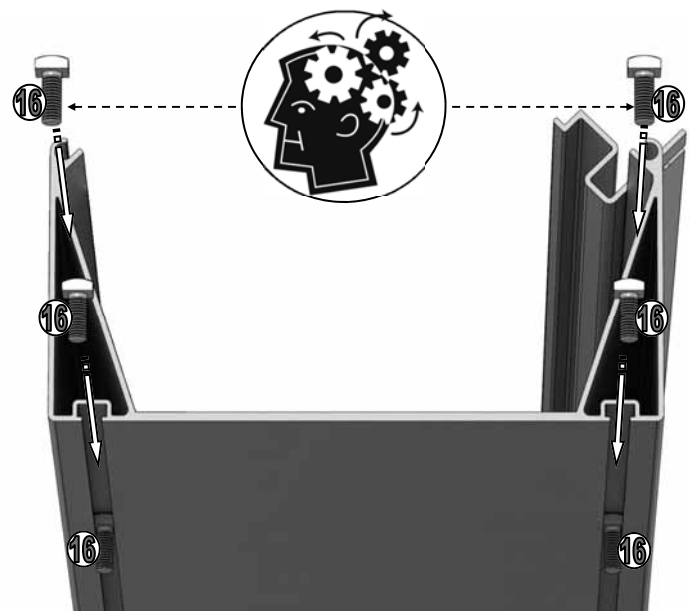
It is intentional that your valley gutter D1070 is 100mm longer than its corresponding flange D1076. The valley gutter should protrude away from the flanges by 50mm at either end. This allows the valley gutter to extend beyond the frame minimising any chance of leaks.

On extended buildings the valley flange/s and valley gutter/s will continue to be stepped away from each other to add strength, minimise leaks and to make sure that the valley gutter always extends by 50mm at each end of the building. The valley gutter end caps 'D1082' will attach to this 50mm protrusion.



One 16mm bolt needs to be slid into each of the valley gutter bolt channels (see right) to enable each support castings D1089 to attach.

Position the castings roughly 100mm from the valley ends and also inline with each roof bar (see below and next page).



5

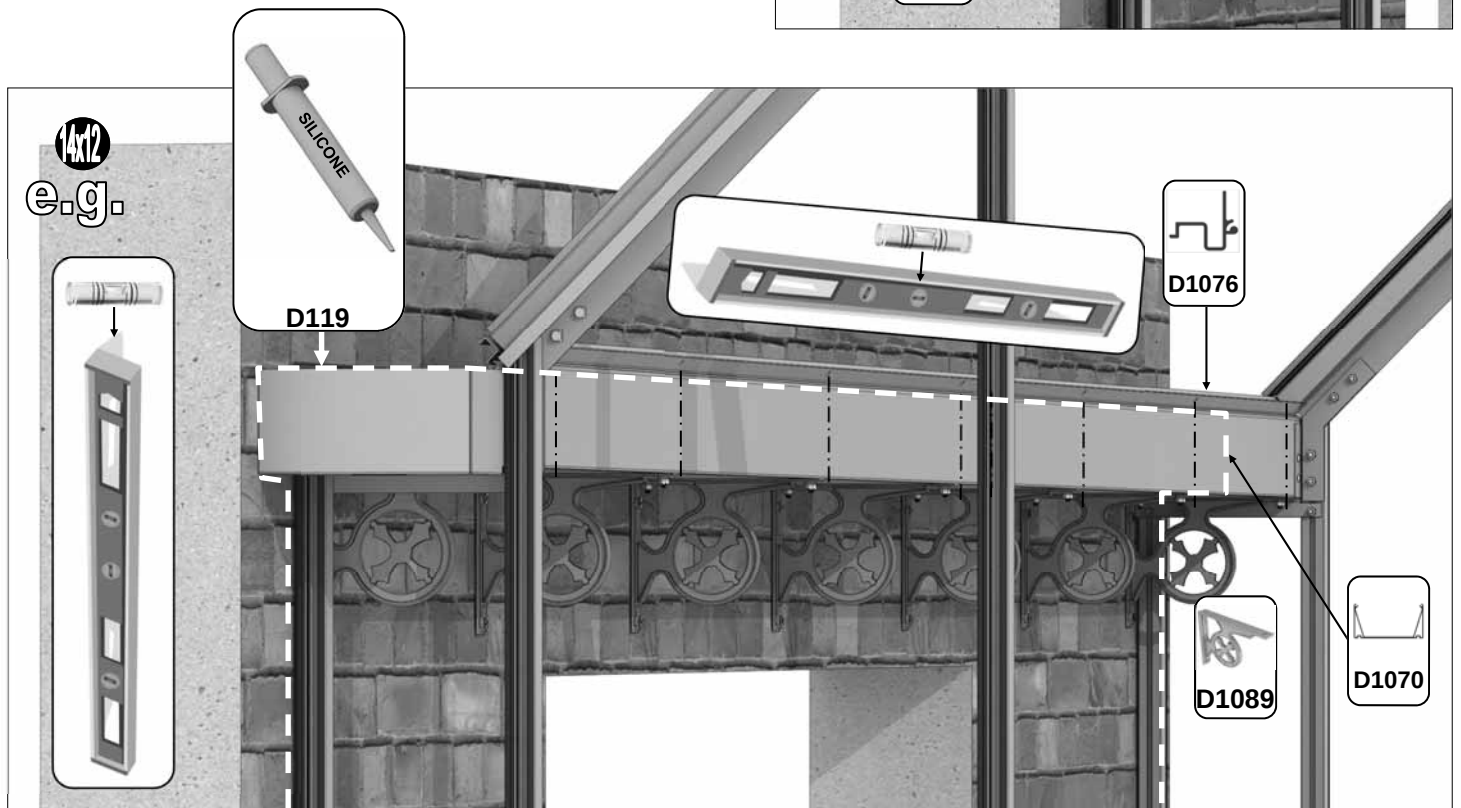


The D1089 castings are used to secure the valley gutter to the wall using 2" (50mm) rawl plugs and screws. Ensure that everything is square and level especially the valley.

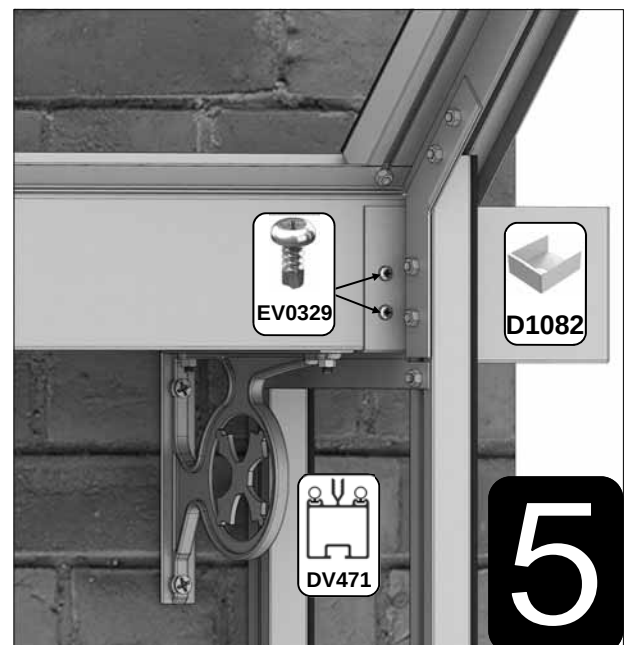


D1082

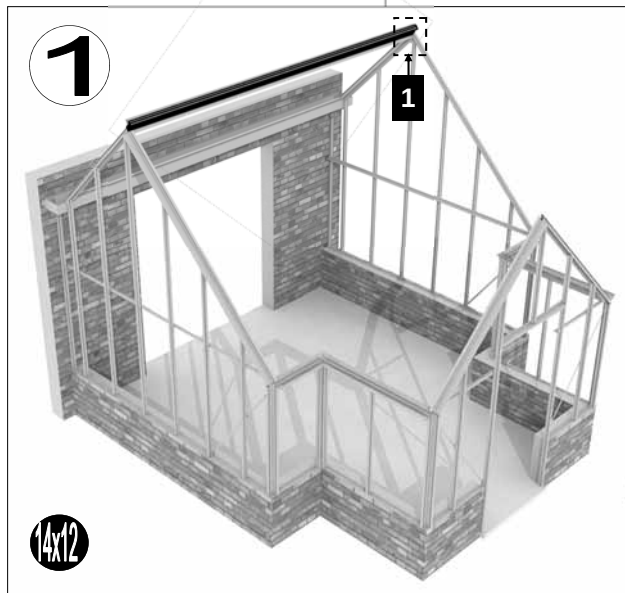
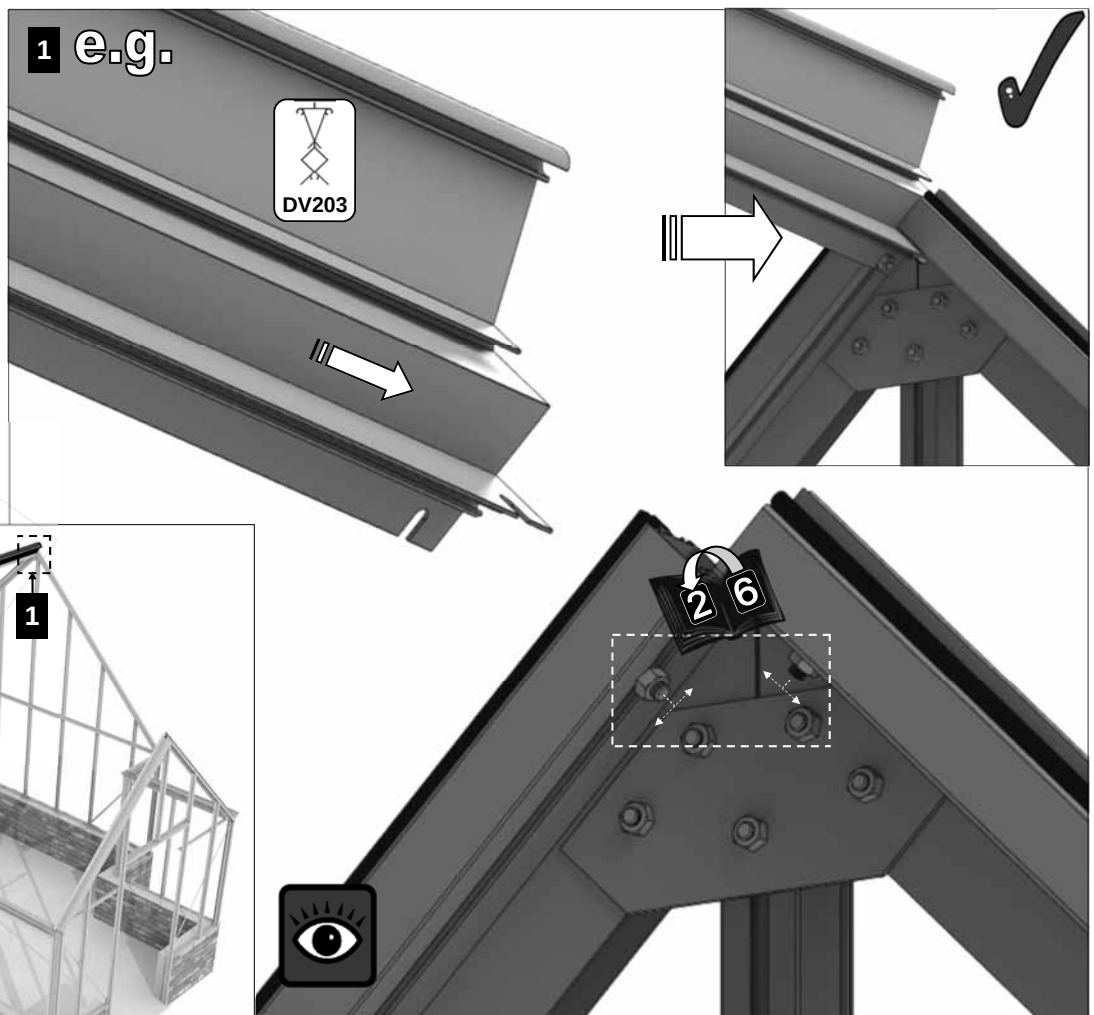
D1122



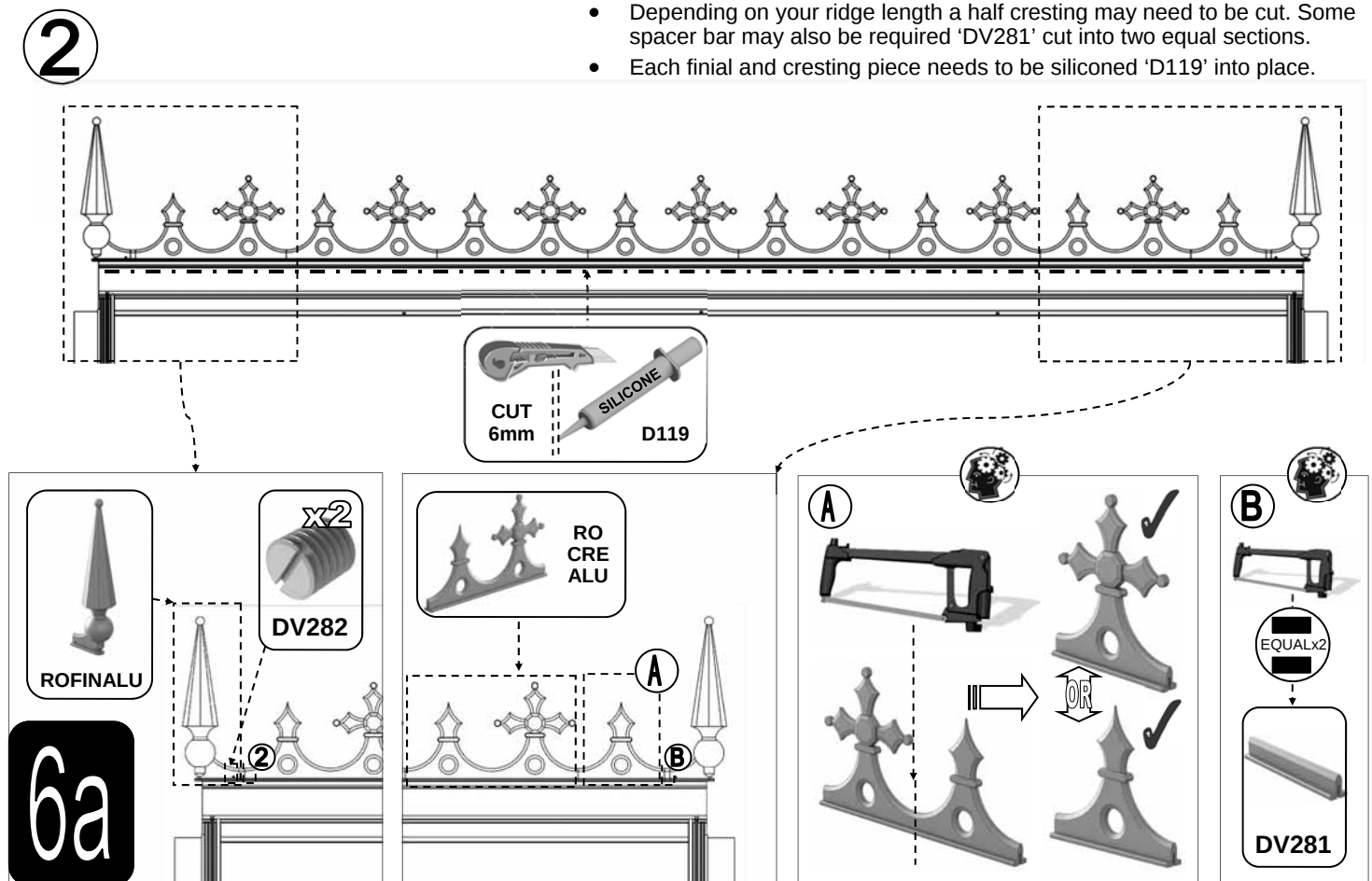
- 1) Drill through the vertical wall bars with a 7mm drill/hammer drill using a 7mm masonry bit, Use 3" screws (not supplied) to secure the wall bars.
- 2) Drill through the vertical wall bars with a 7mm drill bit and enlarge the inner hole to 10mm. Use 2" screws to secure the wall bars hiding the screw heads inside the bars to give a neat finish.
- 3) Use L-shaped brackets (D174) and 2" screws to secure the frame to the wall similar to anchoring the greenhouse down.

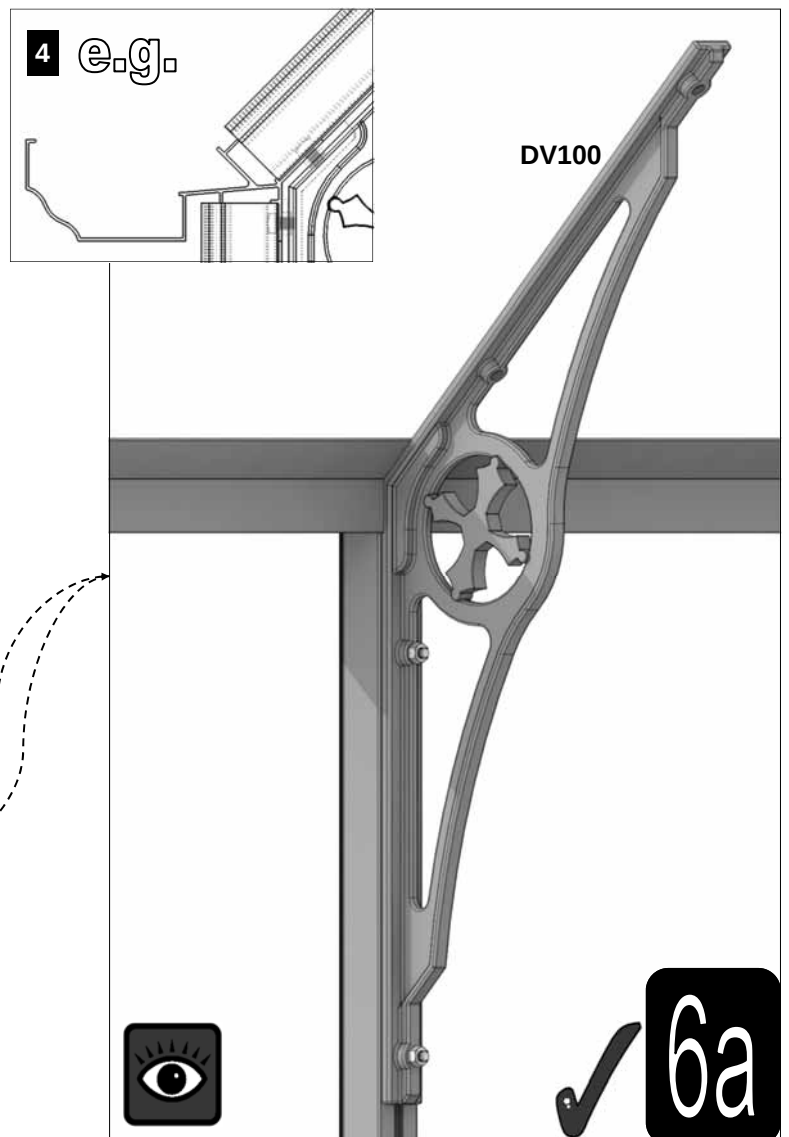
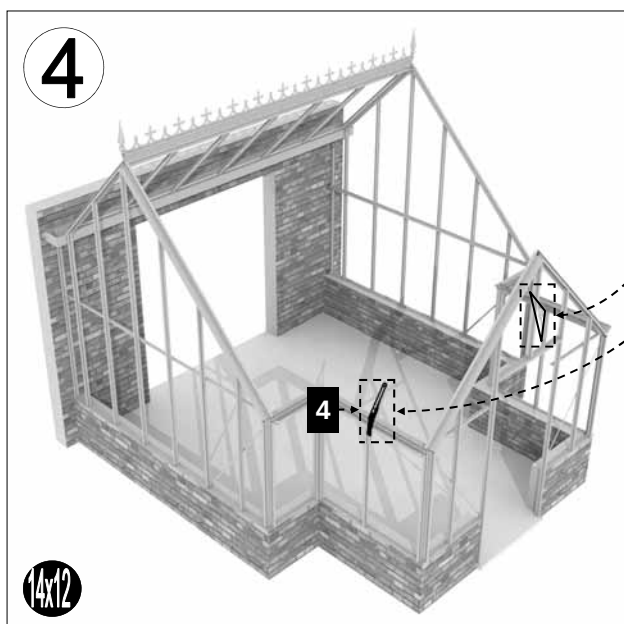
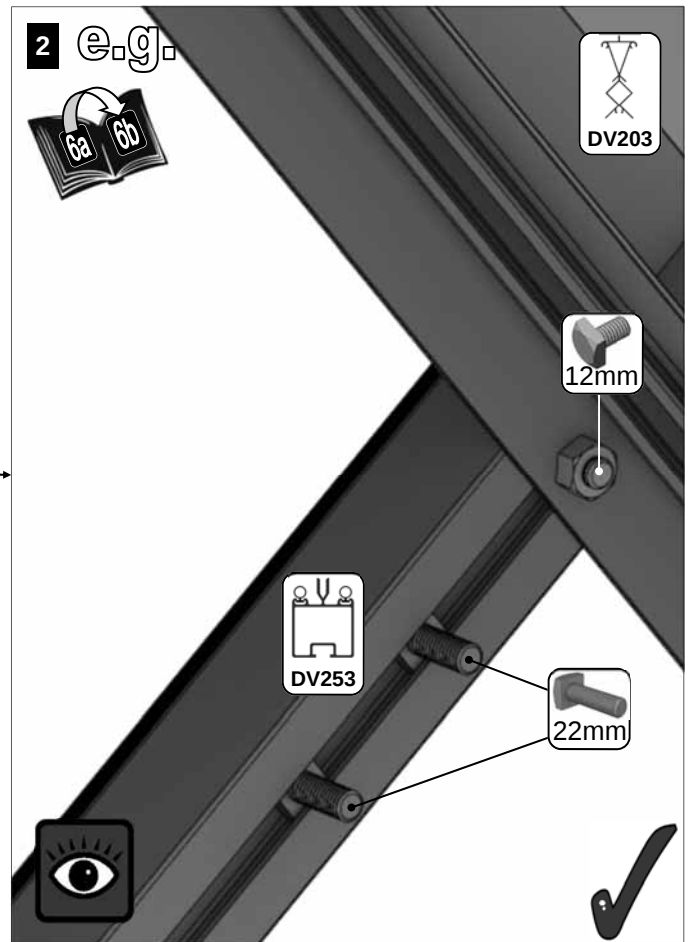
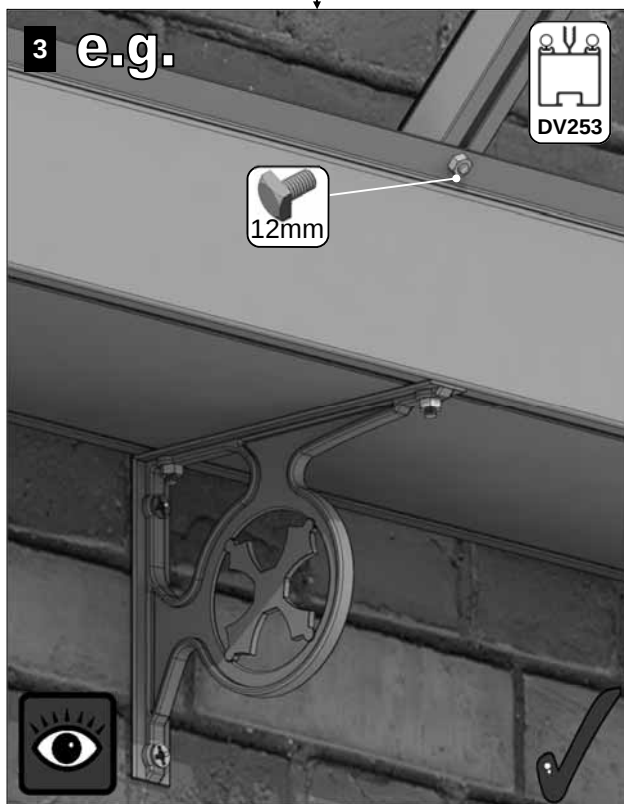
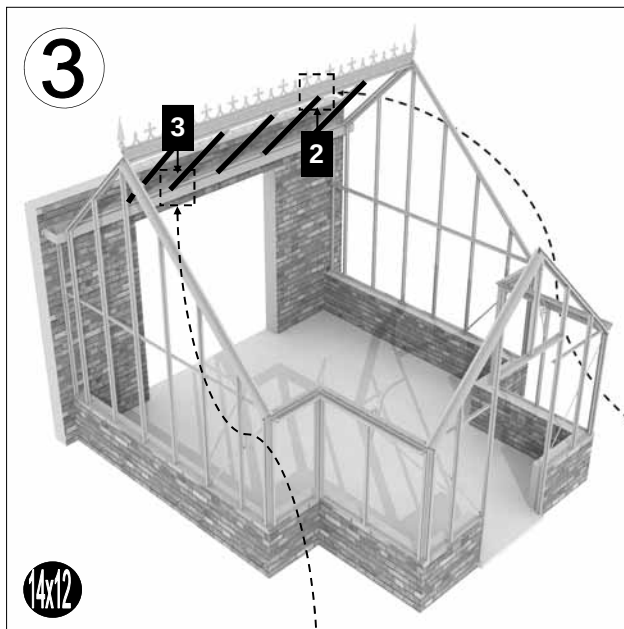


REAR ROOF		14x12
Part No	mm	Quantity
DV203	3757	1
DV253	1345	5
DV100	n/a	2
D227 Rubber	1000	14
BOL M6X12		10
BOL M6X22		10
NUT M6		14

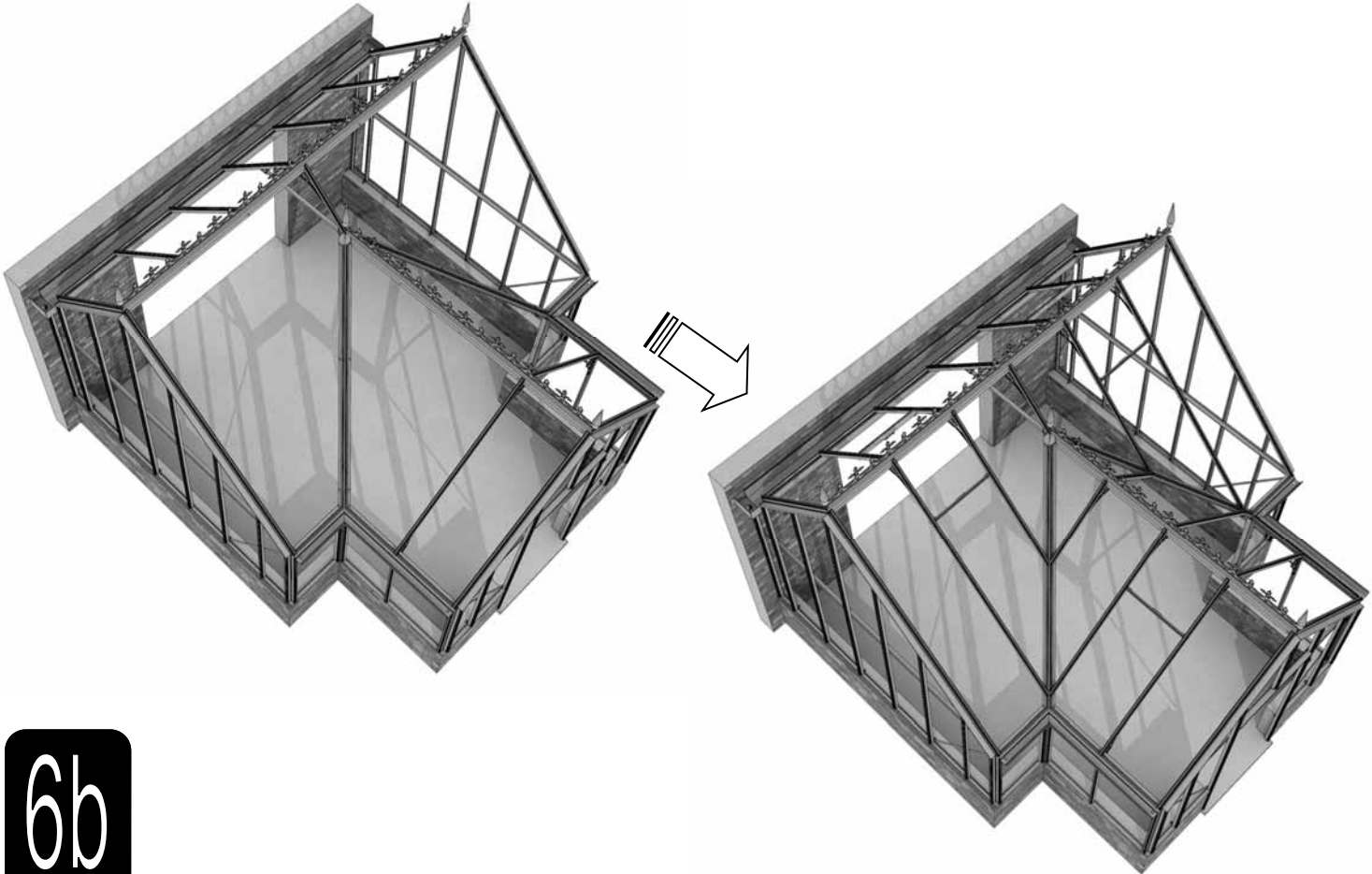
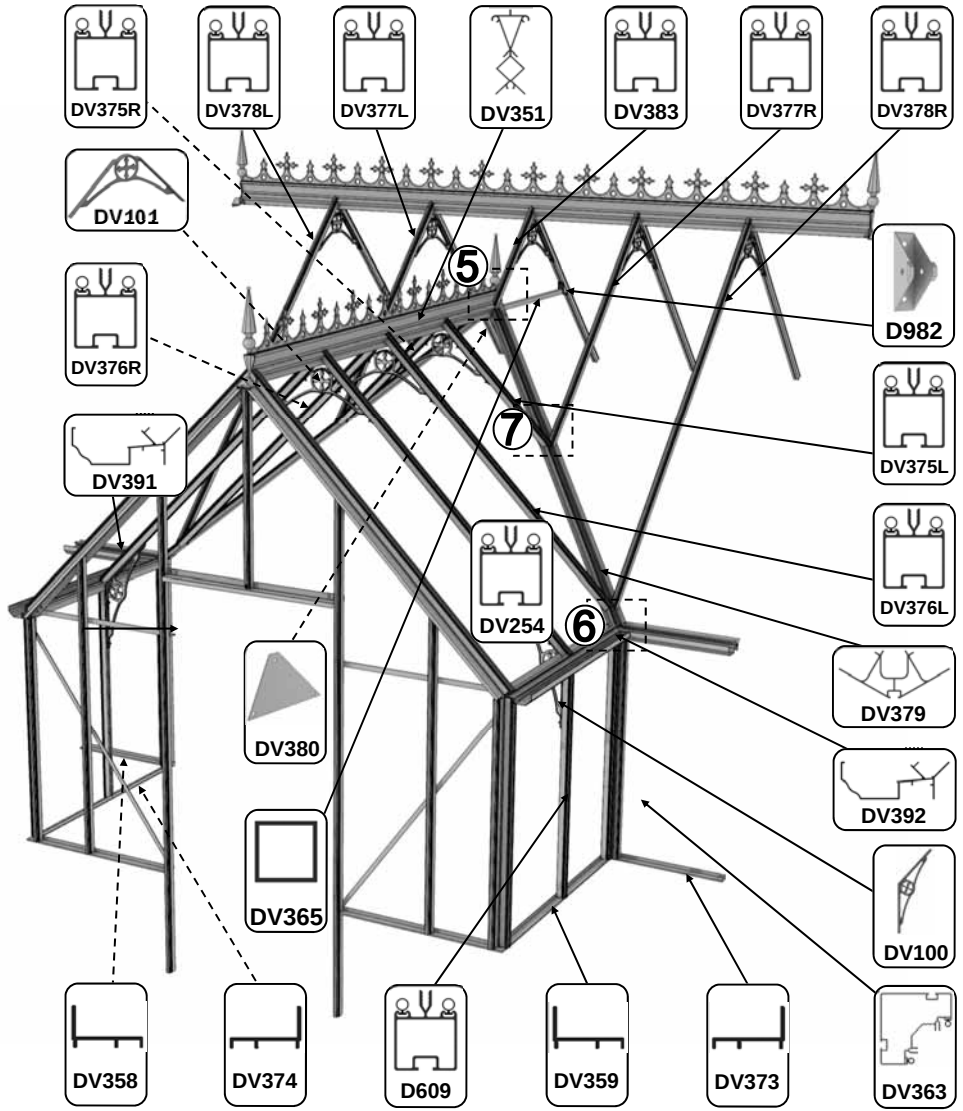


- End finials need to be pinched onto the ridge using 'DV282' grub screws.
- Depending on your ridge length a half cresting may need to be cut. Some spacer bar may also be required 'DV281' cut into two equal sections.
- Each finial and cresting piece needs to be siliconed 'D119' into place.

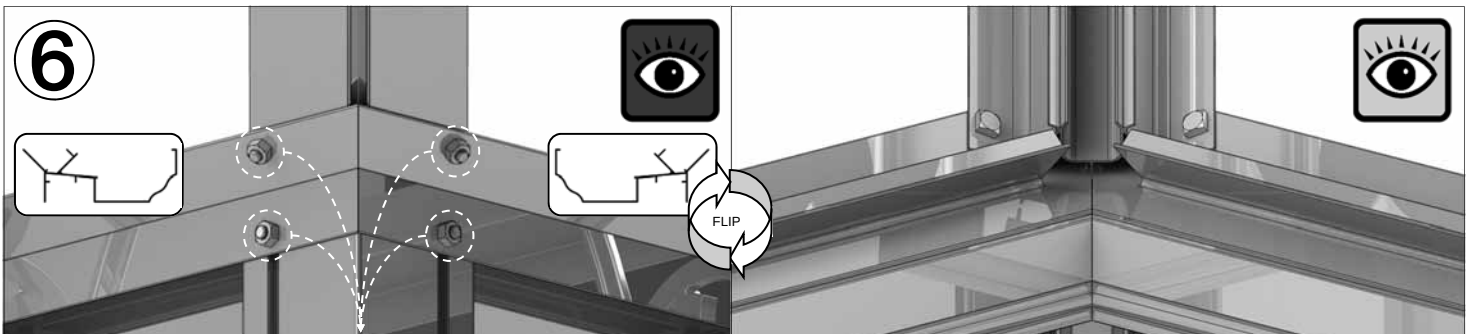
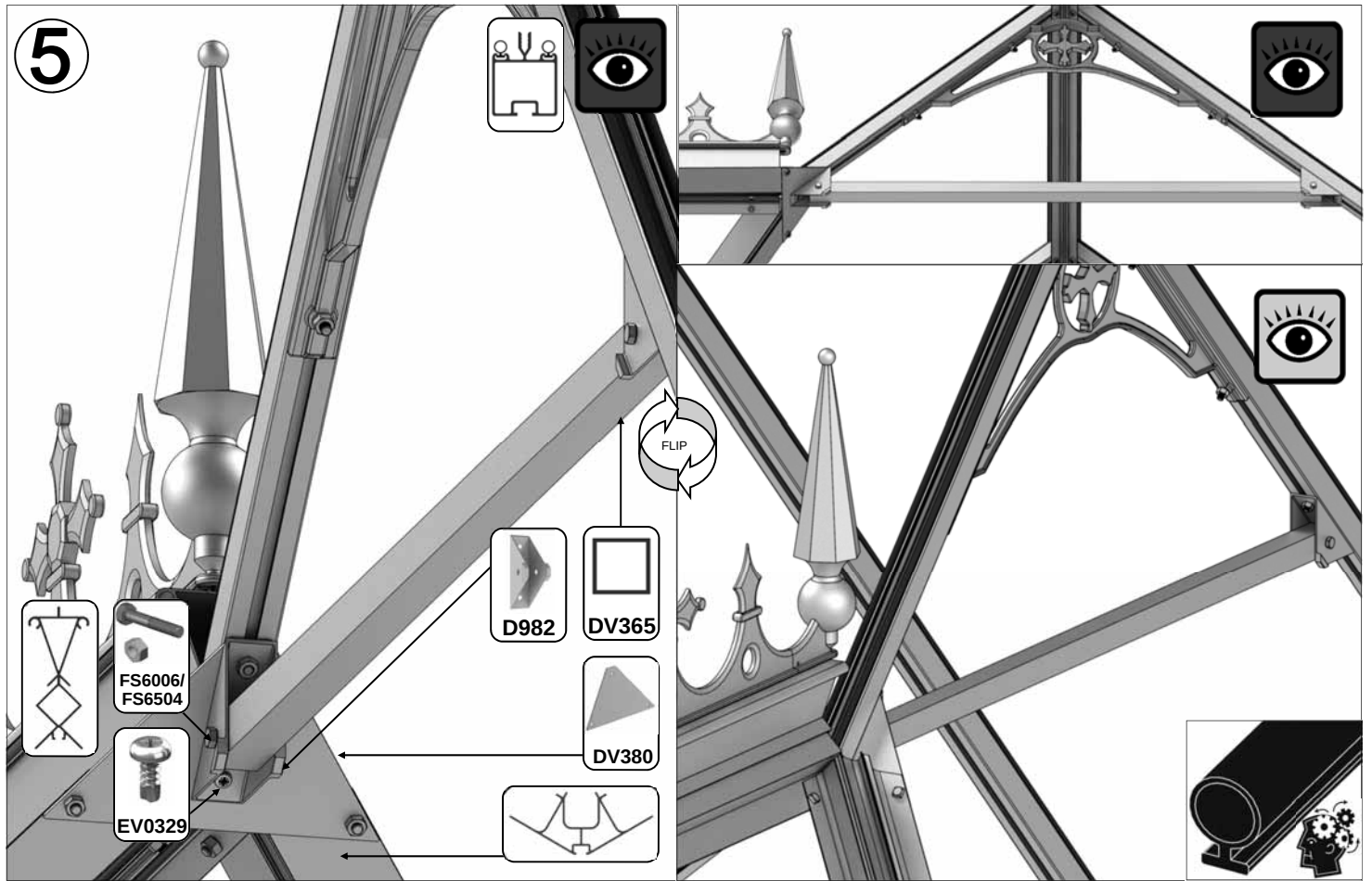




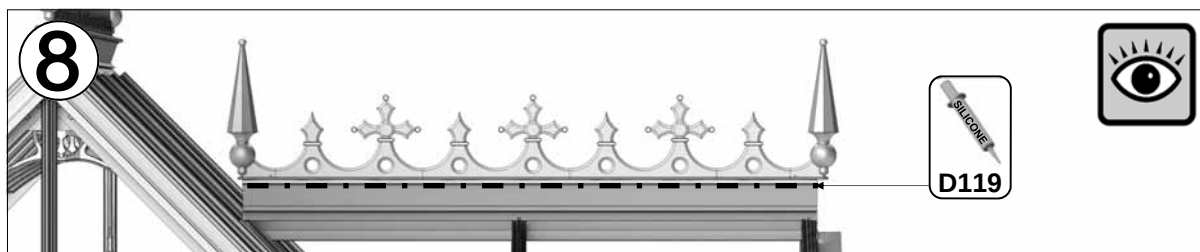
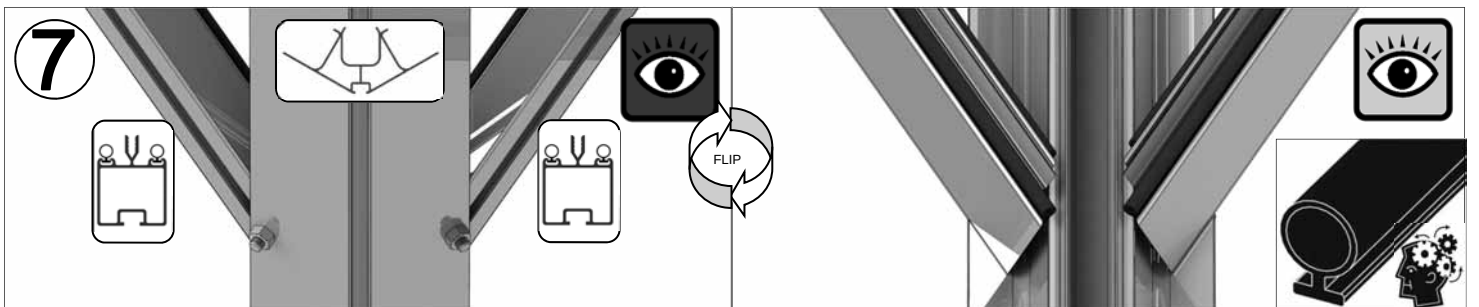
PORCH ROOF		14x12
Part No	mm	Quantity
D982	100	2
DV101	n/a	8
DV254	1790	2
DV351	2470	1
DV365	882	1
DV375L	830	1
DV375R	830	1
DV376L	1708	1
DV376R	1708	1
DV377L	1492	1
DV377R	1492	1
DV378L	2368	1
DV378R	2368	1
DV379	2212	2
DV380	n/a	1
DV383	661	1
D227 Rubber	1000	35
BOL M6X12		34
BOL M6X22		26
NUT M6		70



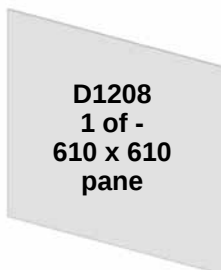
6b



IMPORTANT: Because your porch gutter sections are welded together to eliminate the chance of any leaks the holes circled above can vary slightly in their locations. They may therefore require slight alteration to marry up with DV363 and DV379. Using an 8mm drill bit to enlarge the standard 7mm holes will for example give a little more play to aid fitting.

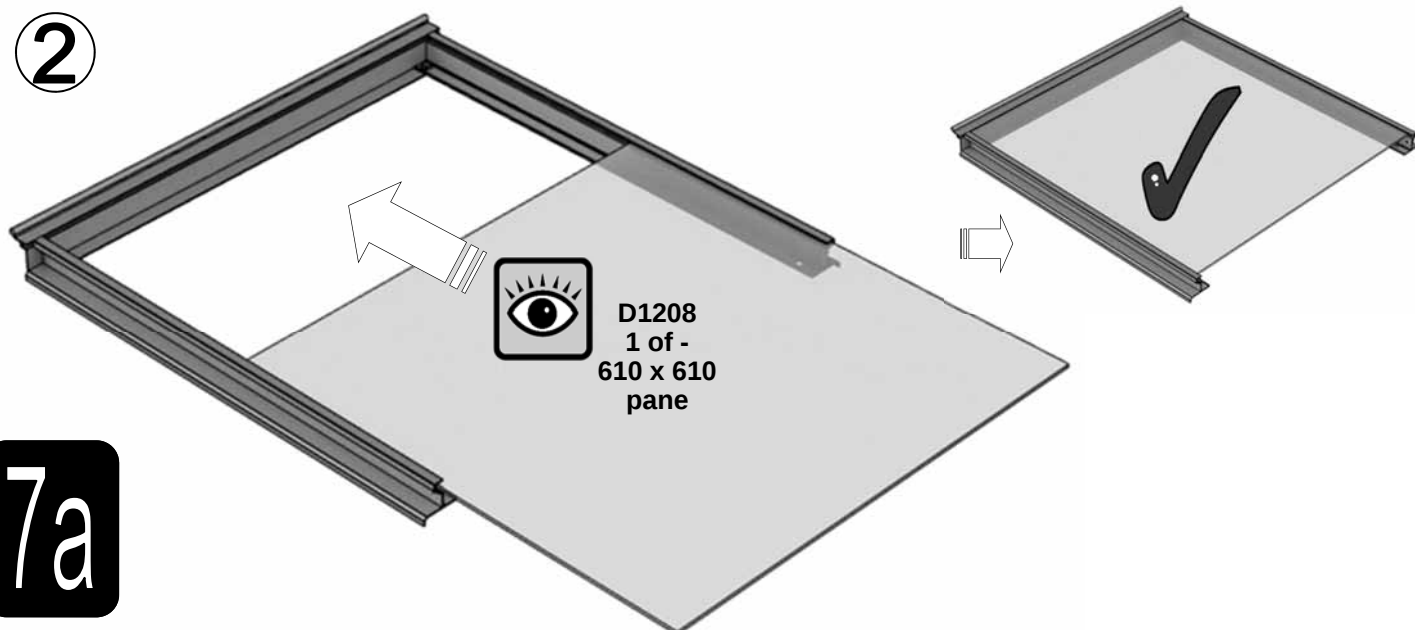
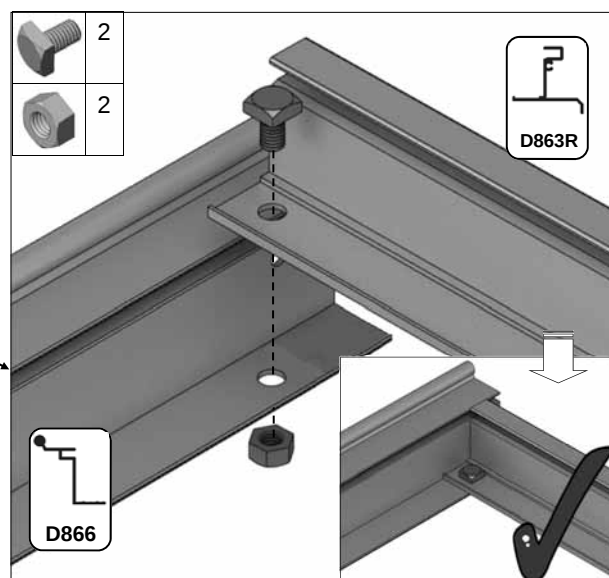
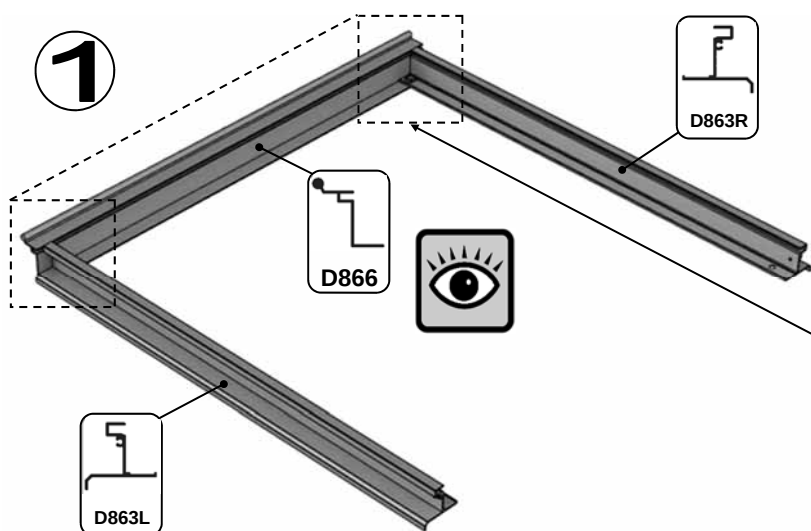


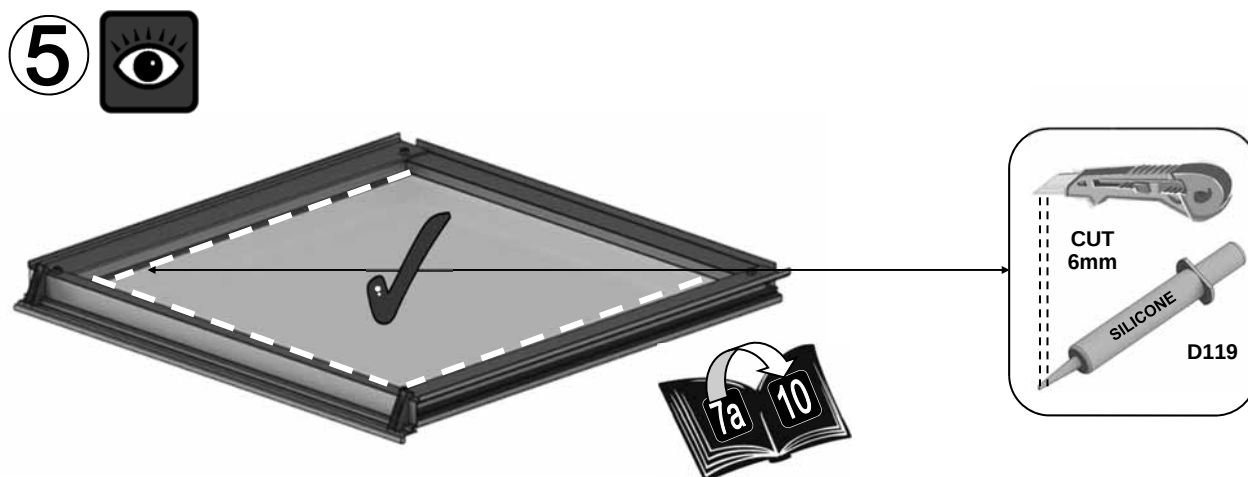
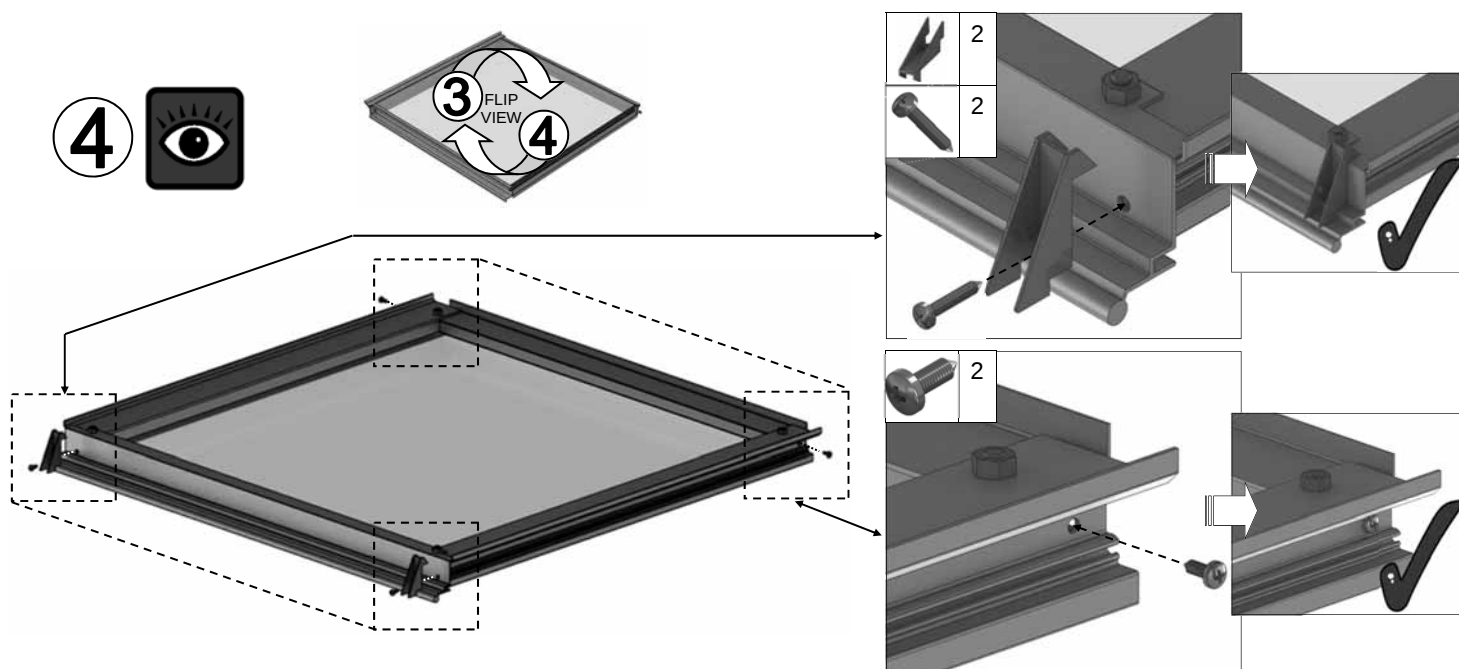
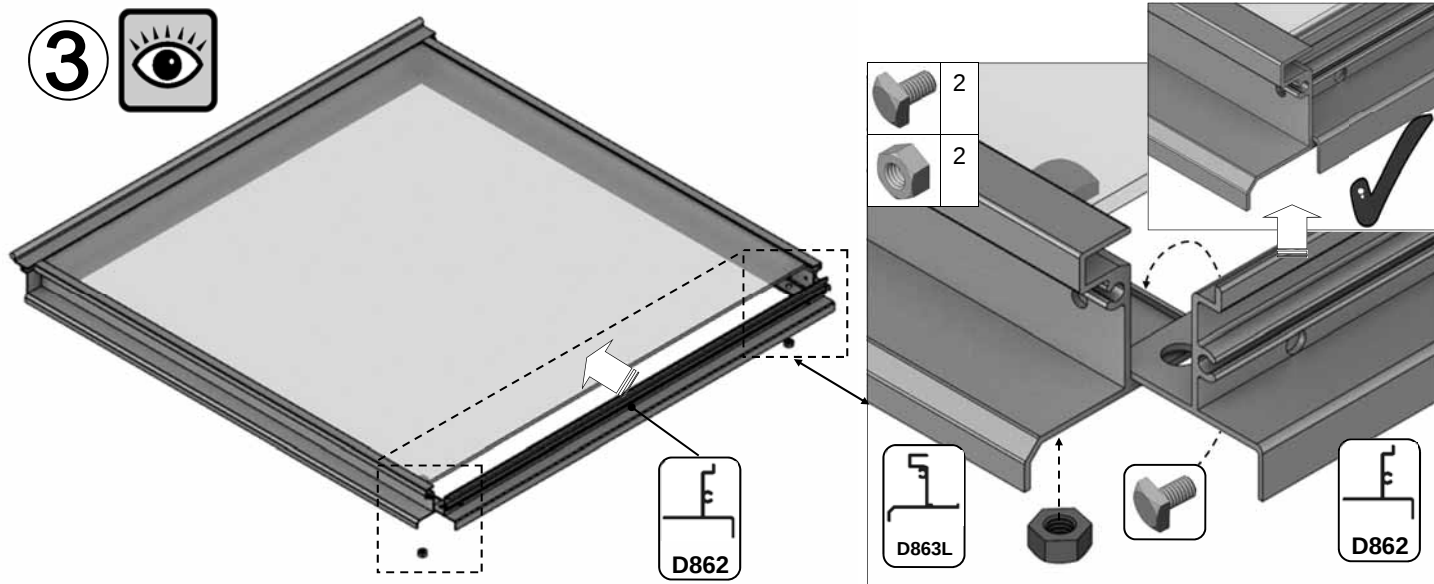
6b



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

Part No		mm	Quantity
D220 PLUS SCREW		N/A	2
D205		N/A	2
BOL M6X12		12	4
NUT M6		M6	4
8 X 12 S/T FS6017		10	2
8 x 19 S/T FS6018		19	2





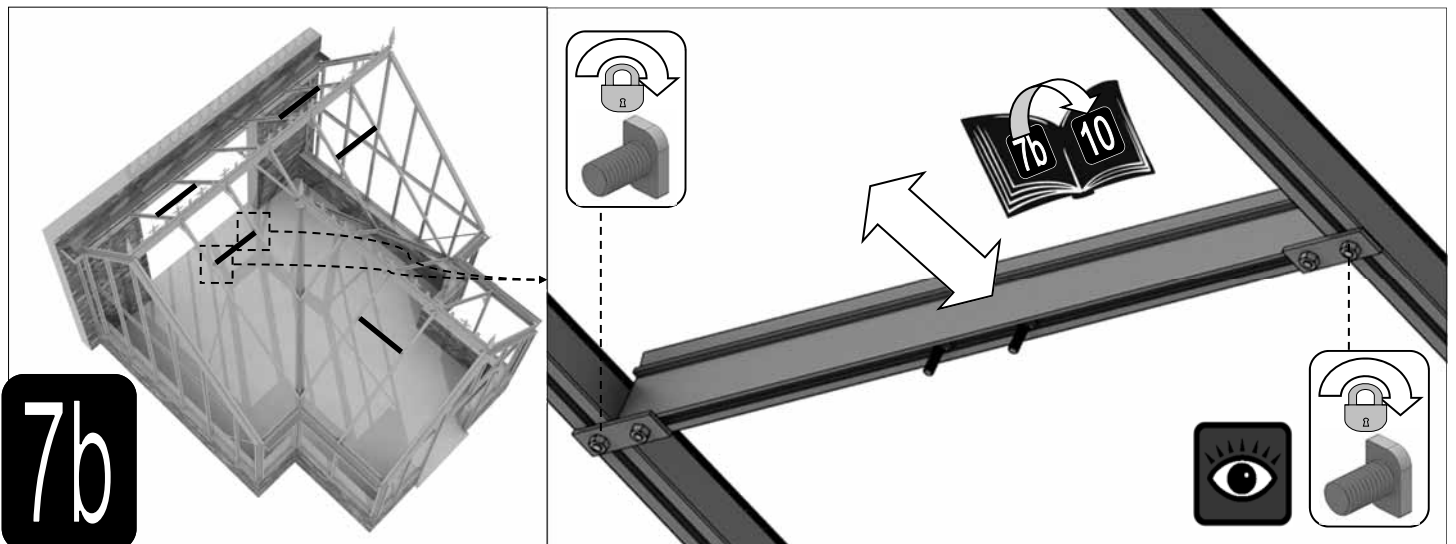
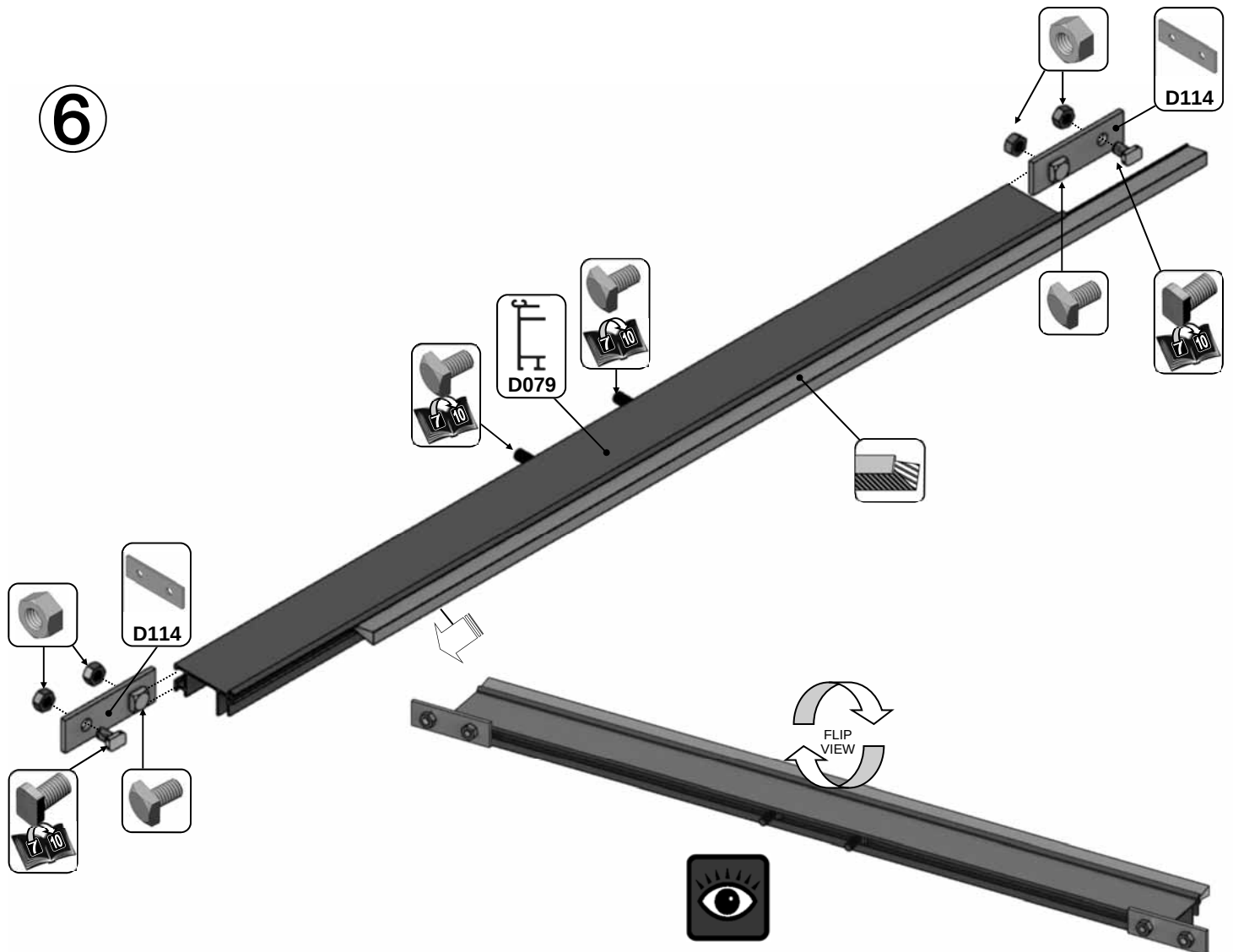
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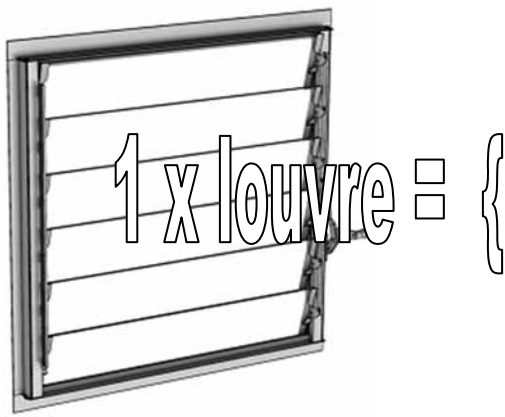
1 vent
slam bar = {

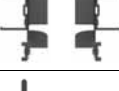
Part No		mm	Quantity
BOLM6X12		12	4
BOL M6 X11CROP		10	2
NUT M6		N/A	4

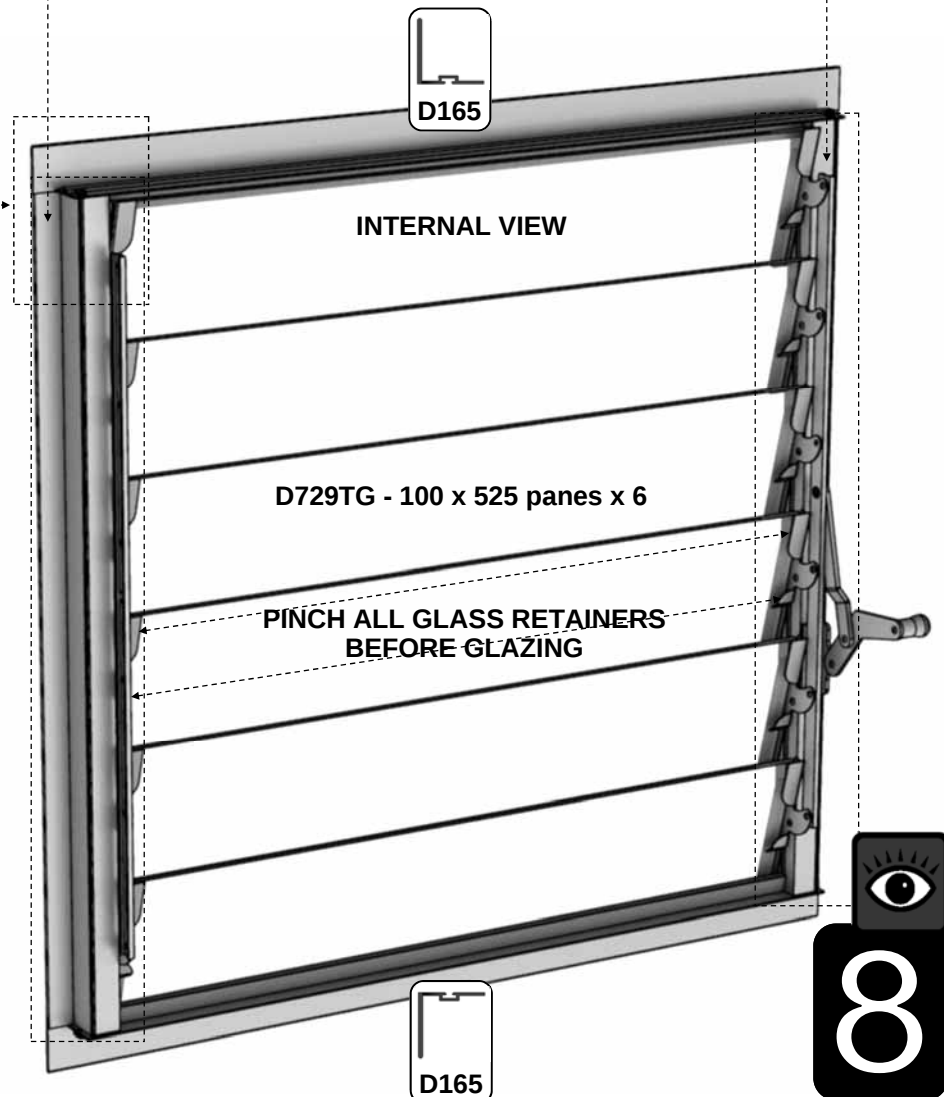
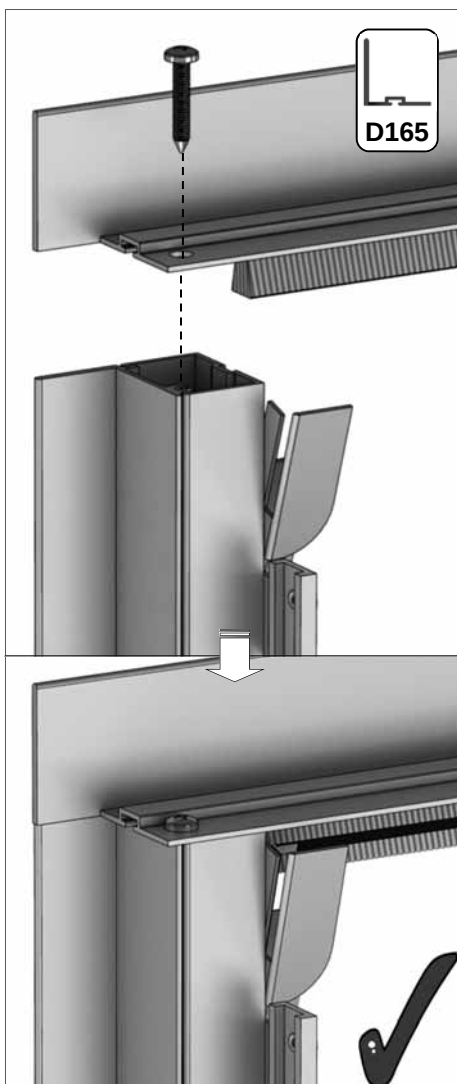
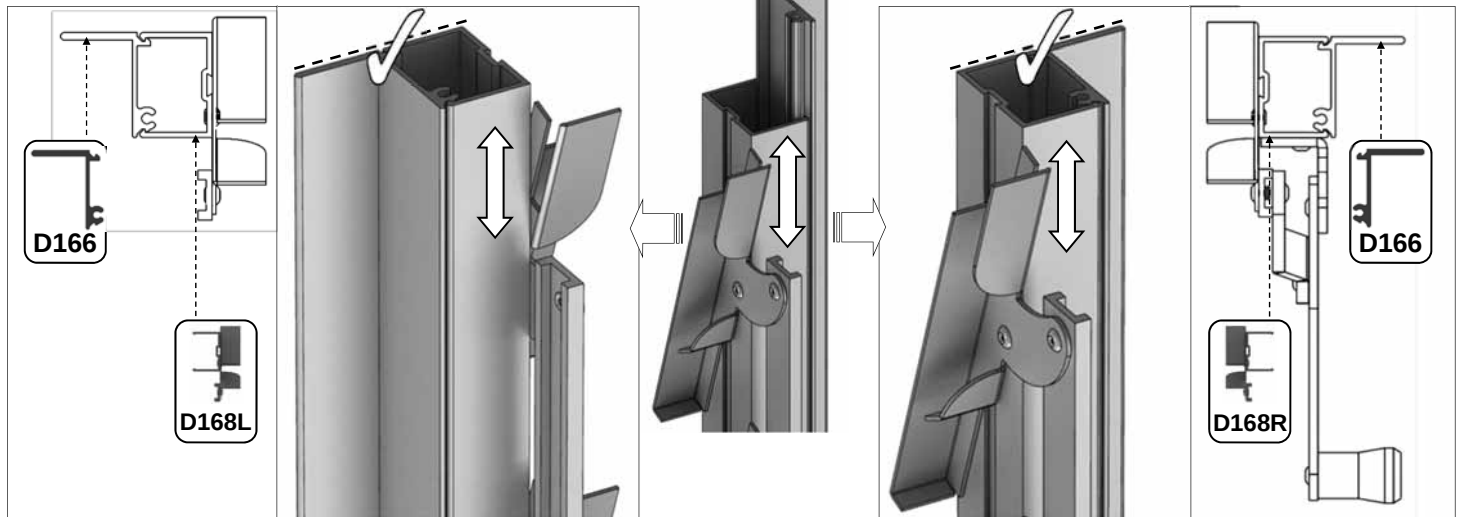
Part No		mm	Quantity
D079 PLUS FLUFF		590	1
D114		N/A	2

6





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



CAPS AND COVERS			14x12
PART No	SECTION	SIZE (mm)	QUANTITY
D618		1144	6
D815		1830	2
D870		601	4
DV403L/R		1505	2 + 2
DV479		1384	1 FITTED
DV610L/R		1972	2 + 2
DV612L/R		2438	2 + 2
DV637L/R		2489	1 + 1
DV653		1378	5
DV654		1821	2
DV659		2879	2
DV663		905	1
DV675L/R		863	1 + 1
DV676L/R		1741	1 + 1
DV677L/R		924	1 + 1
DV678L/R		1799	1 + 1
DV683		680	1
D610		1160	4
D620		1144	4
D871		601	2
DV650		1345	2
DV651		1790	2
DV652		1871	2
D614		1162	4
D619		1144	10
D827		1832	2
DV480		1384	1 FITTED
DV611L/R		1972	2 + 2
DV613L/R		2438	2 + 2
DV615L/R		1505	2 + 2
DV638L/R		2489	1 + 1
DV656		1378	7
DV657		1821	4
DV658		2481	2
DV665		2879	2
DV669		905	1
DV679L/R		863	1+1
DV680L/R		1741	1+1
DV681L/R		1525	1+1
DV682L/R		2400	1+1
DV684		680	1

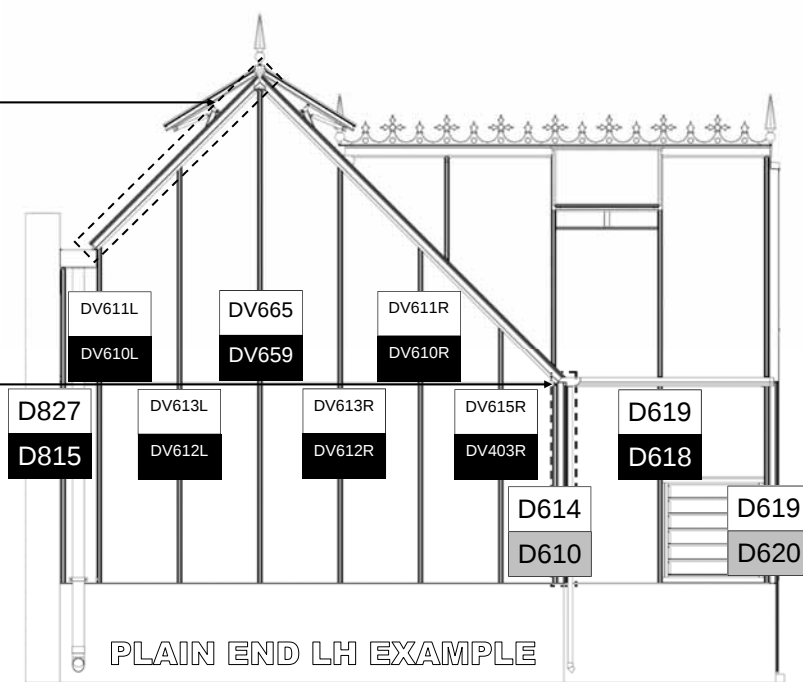
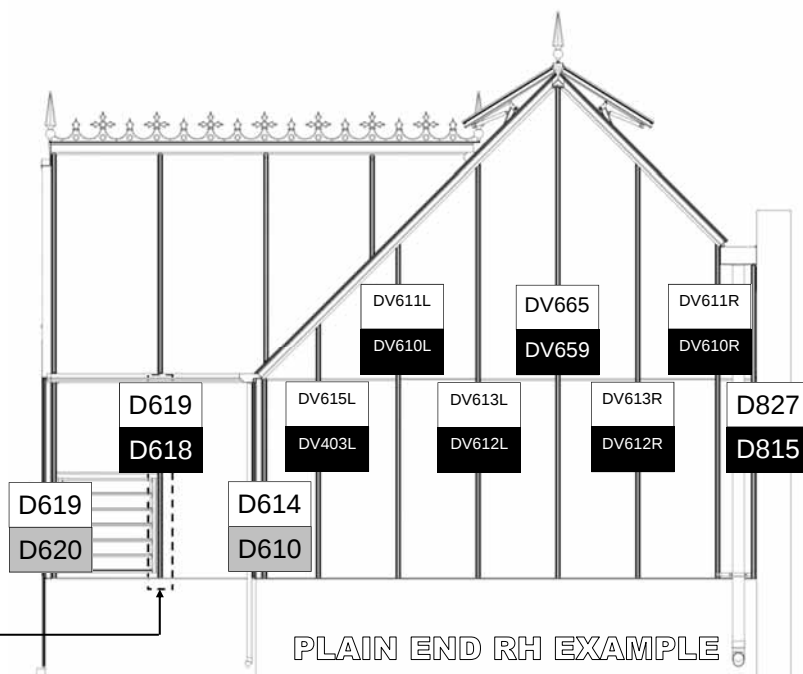
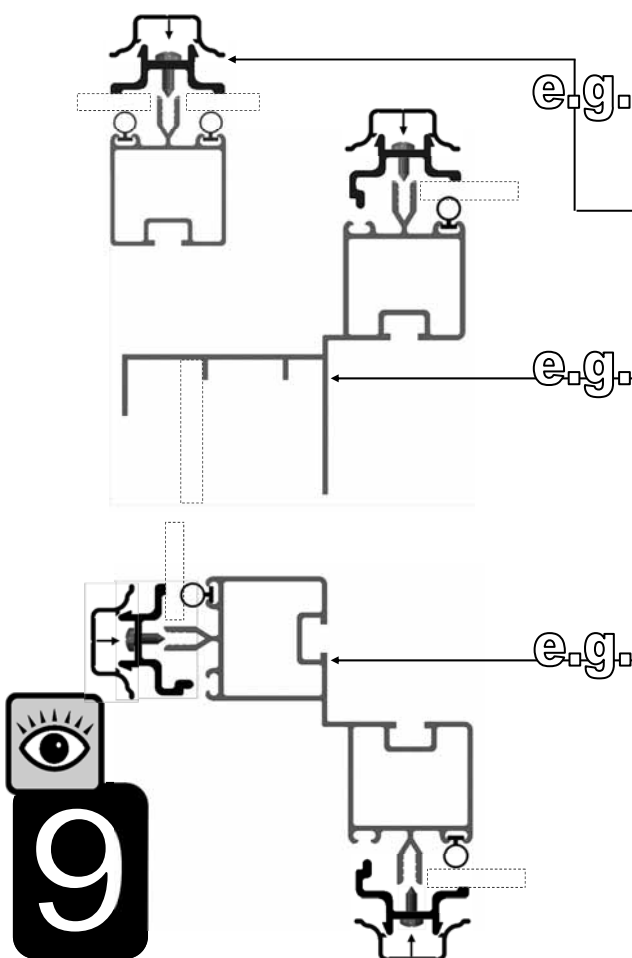
GLAZING (plans pto):

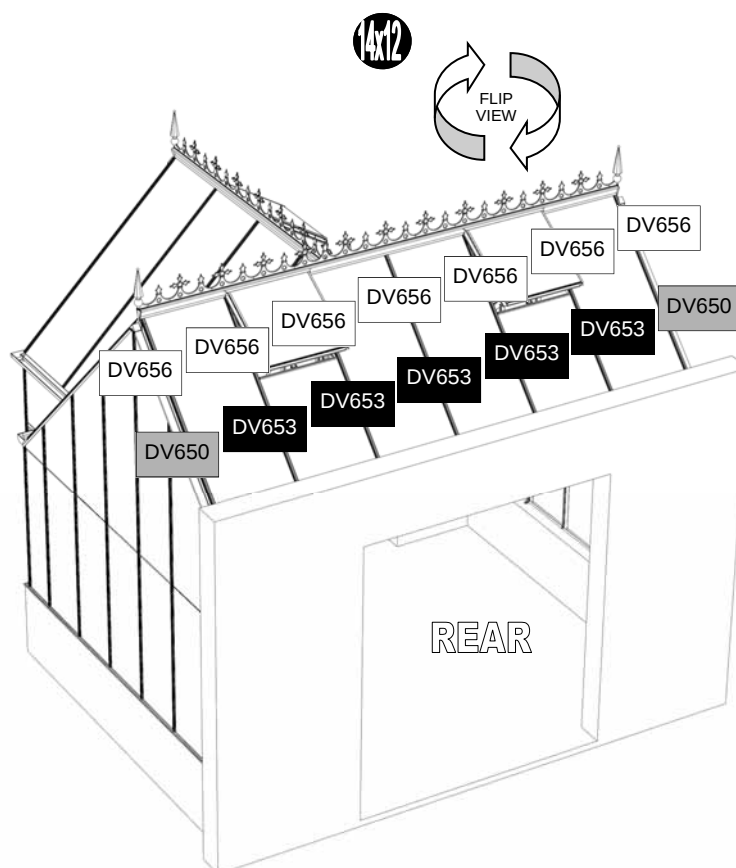
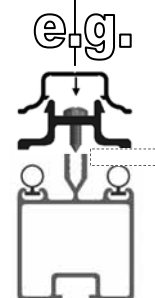
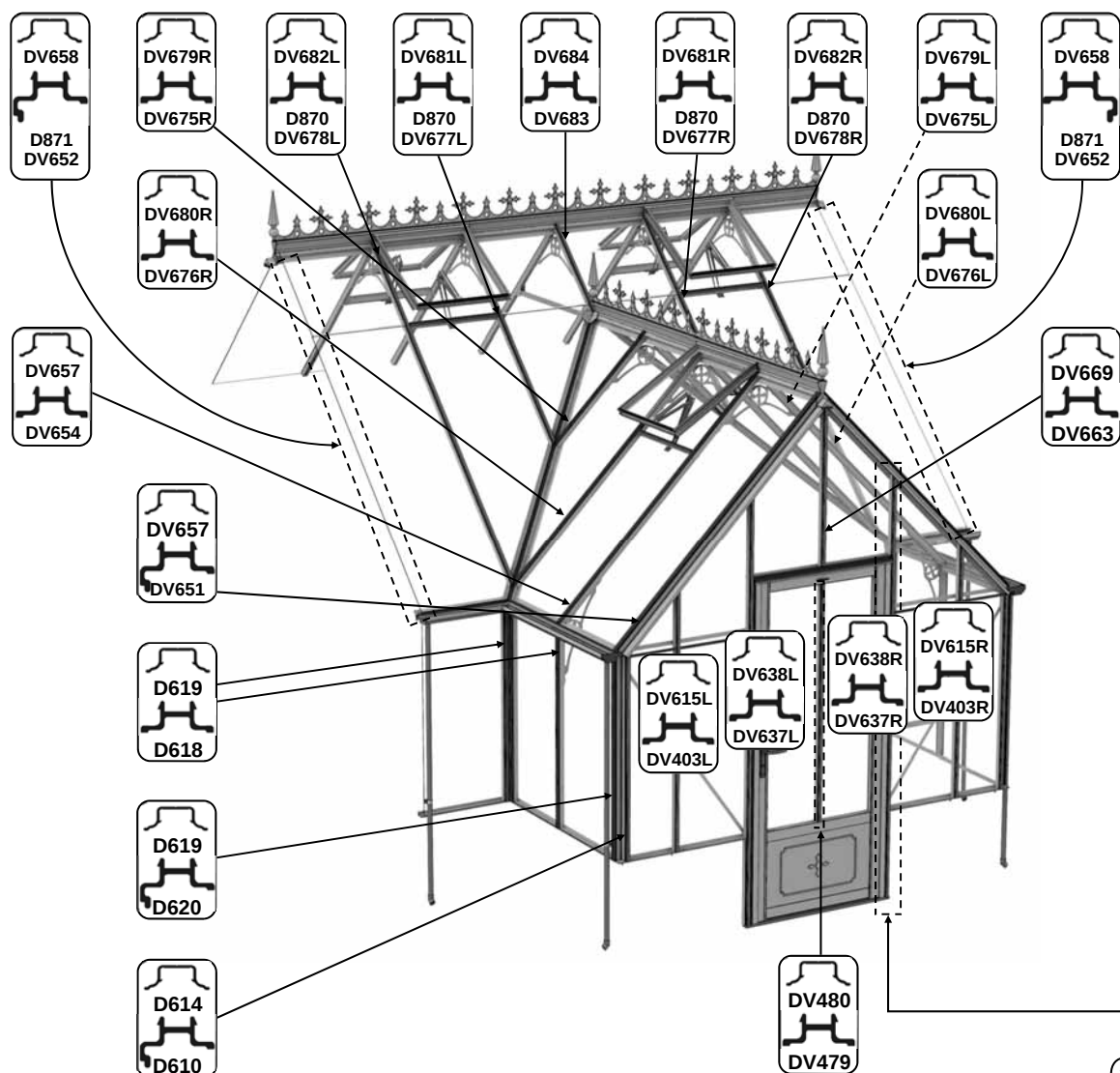
Glass and aluminium can potentially cause injury. Please ensure you wear protective goggles, gloves, headgear and suitable footwear when assembling and glazing the building.



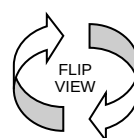
Layout the plastic bar cappings and covers around the building like a sundial checking that all is present and correct. You can place the roof cappings / covers in the gutters so they are closer to hand.

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.





14x12



GLASS		14x12	14x20
PART No		Size (mm)	QUANTITY
D624	M	610 X 550	2? IF LOUVRES
D625	N	305 X 1162	4
D729	L	525 X 100	12? IF LOUVRES
D769	G	457 X 1162	12
D1208	A	610 X 610	9
D1216	S	610 X 1162	2? IF NO LOUVRES
DV507	P	ANGLE	4
DV692	B	200 X 1162	2
DV700	D	357 X 1384	2 FITTED
DV701	W	521 X 1162	4
DV704		610 X 1890	n/a
DV705	U	610 X 1828	2
DV706	R	610 X 1384	4
DV713	K	ANGLE	4
DV714	J	ANGLE	4
DV715	H	ANGLE	2
DV716	T	ANGLE	4
DV720	V	610 X 790	2
DV725	E	ANGLE	2
DV726	X	ANGLE	2
DV727	Z	ANGLE	1
DV728	Y	SPECIAL ANGLE	2
DV729	C	ANGLE	2
DV730	I	ANGLE	2
DV732	O	ANGLE	1
DV752	F	200 X 676	2
D223/B		Cut to 904mm	1
D101 / ROSEPS		610 long (inc cuts to 457&305mm)	19 (inc louvers)

GLAZING:

Please remember that glass is fragile and should be handled with extreme care. Always clear up and dispose of any breakages immediately.

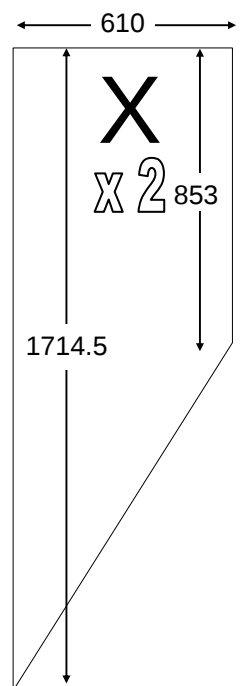
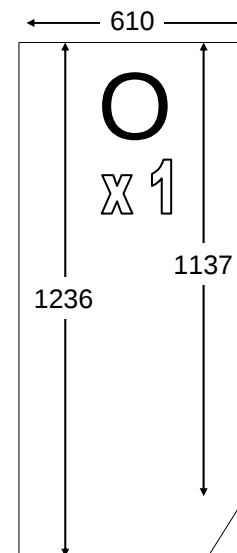
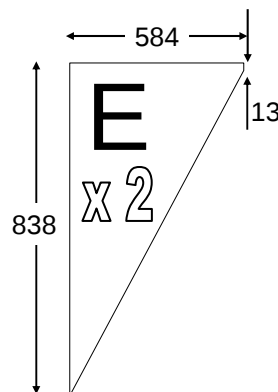
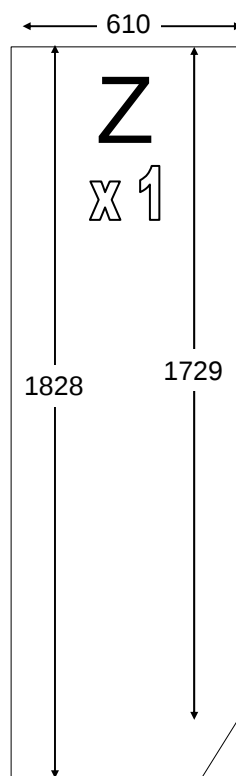
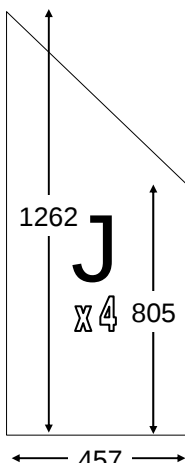
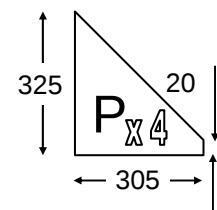
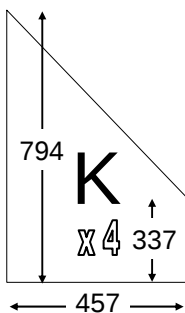
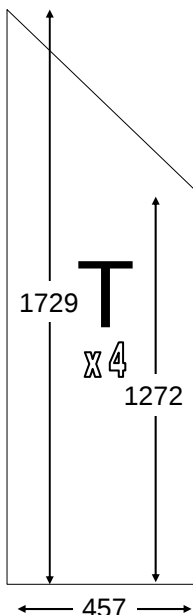
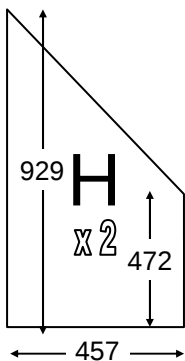
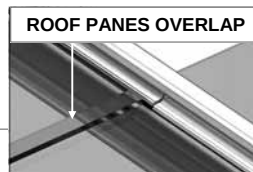
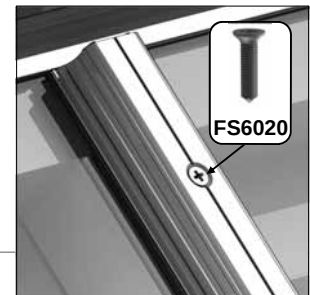
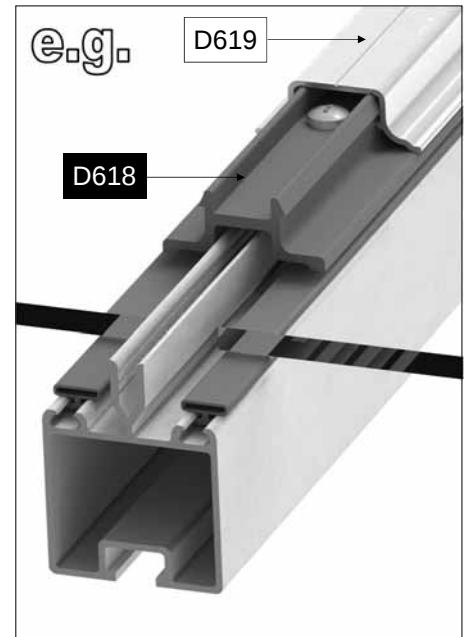
Use the capping e.g. D618 and the self tapping screws to then hold the glass in place. The covers then enclose the screw heads giving a neat finish e.g. D619.

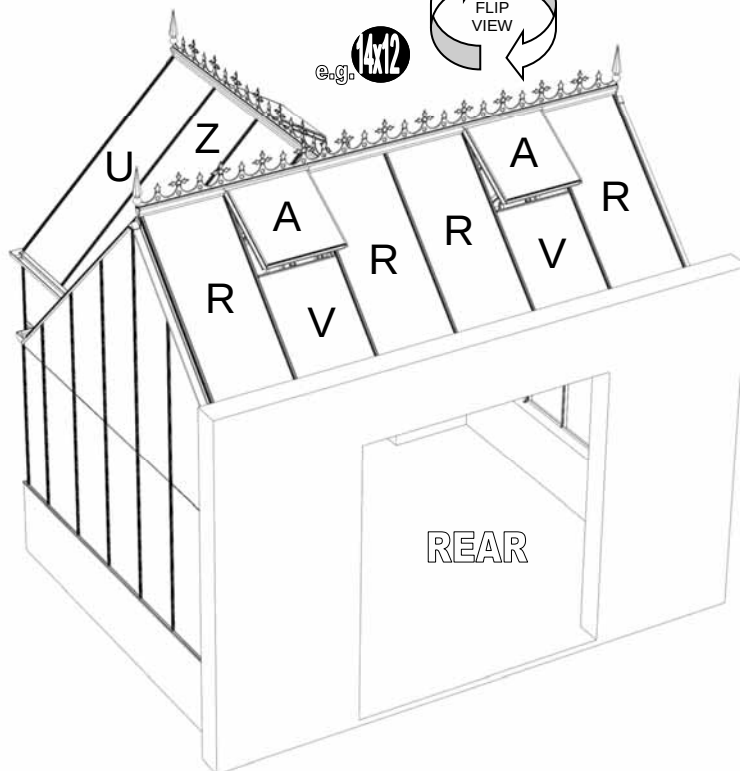
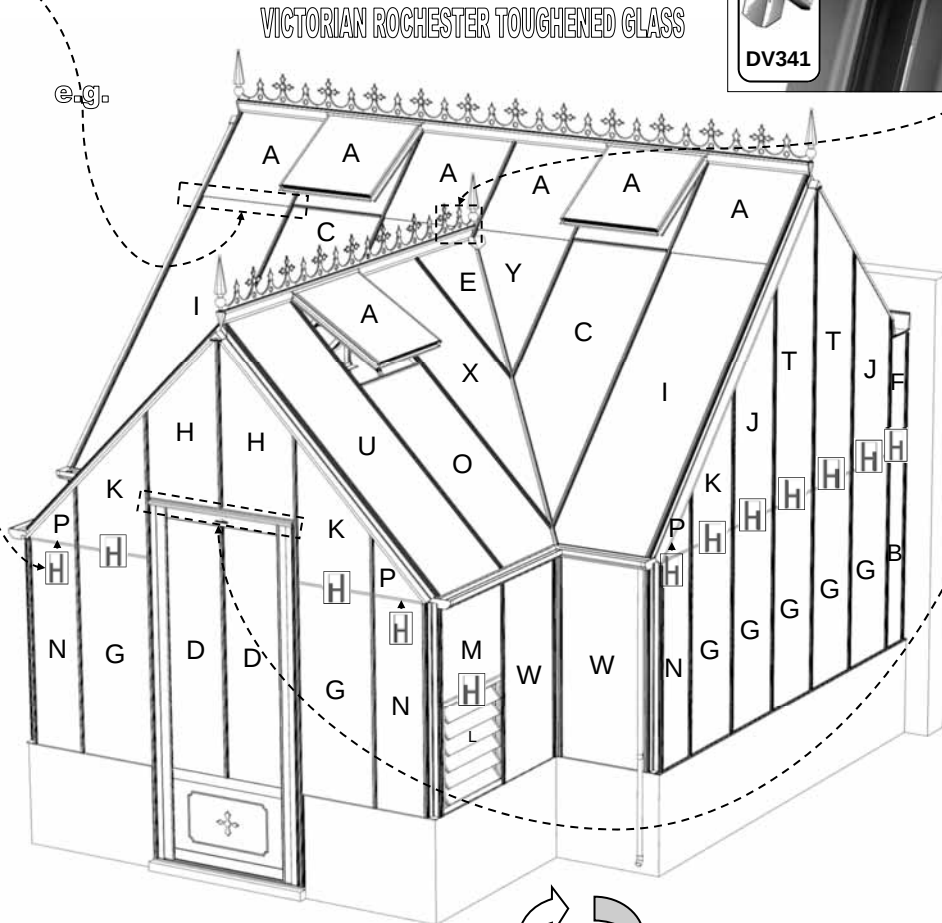
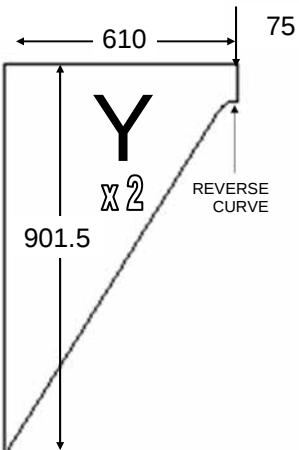
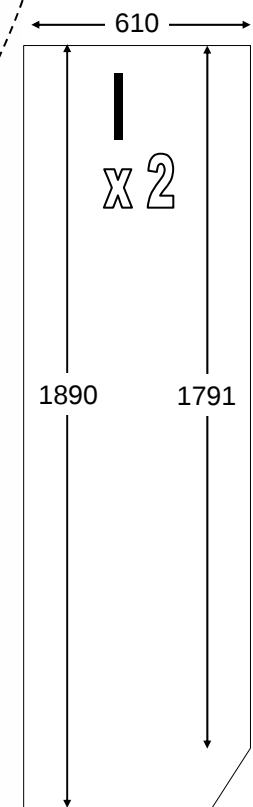
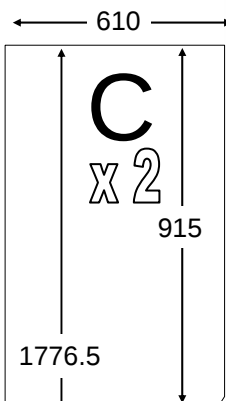
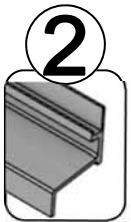
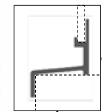
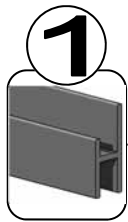
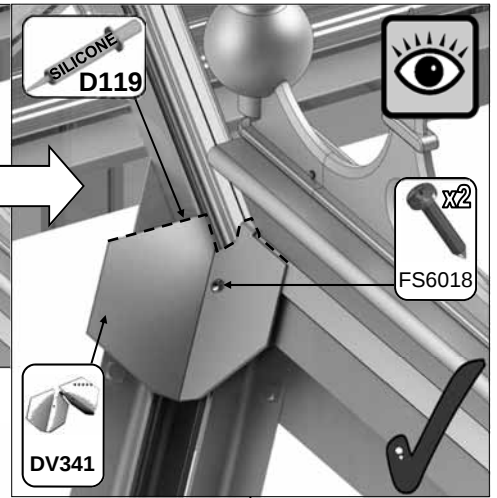
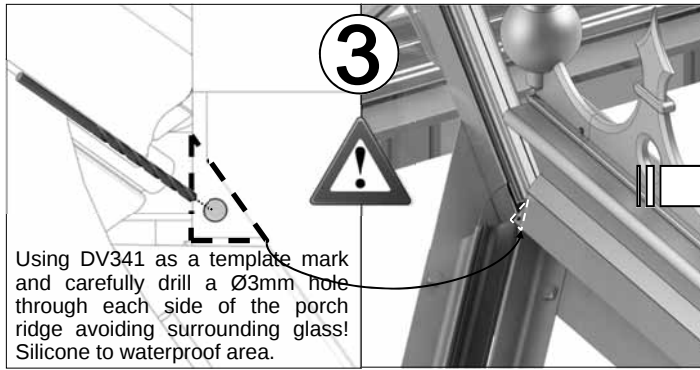
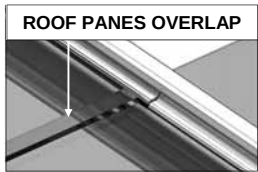
IMPORTANT: On the roof sections please make sure that you place a screw around 25mm / 1" from the bottom of each capping strip (create a hole in the plastic if required) and that the screws are nice and tight to avoid any glass slippage.

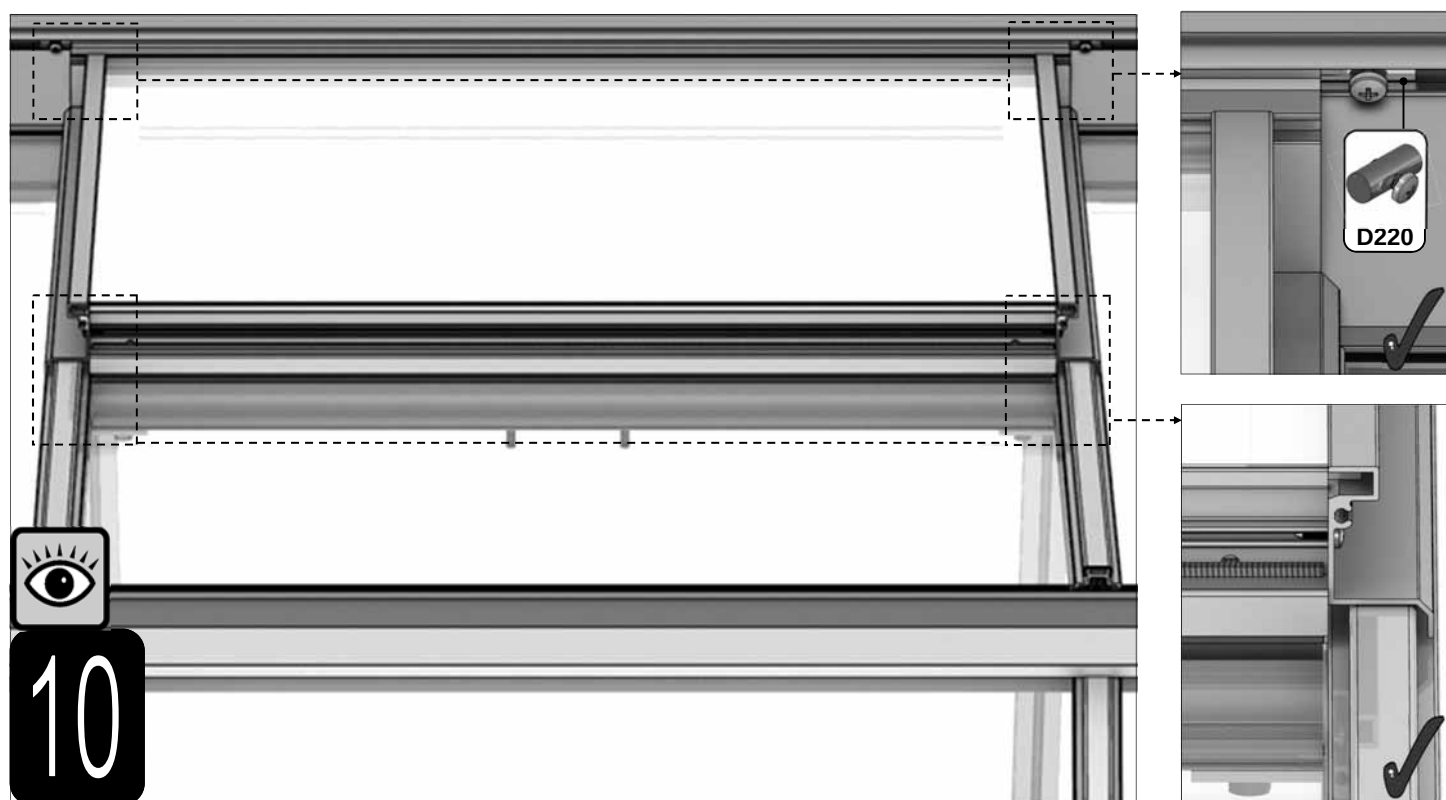
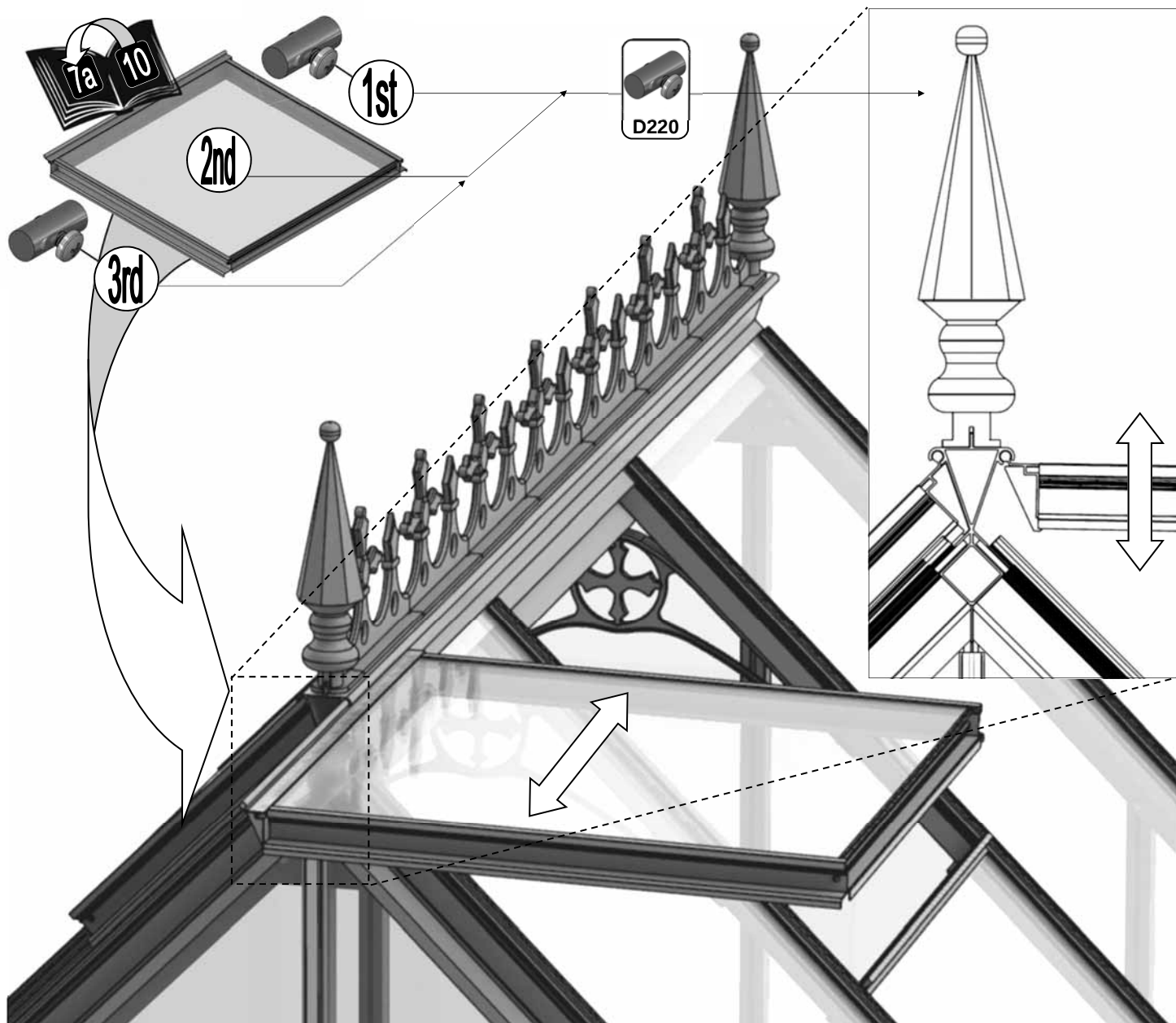
If you have a building which has aluminium cover caps then the roof covers are held in place with low-profile countersunk screws 'FS6020' (in vent boxes). It looks neatest if all of these screws go towards the ridges of the building, see right.

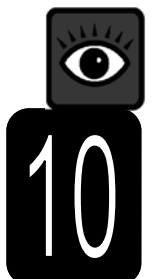
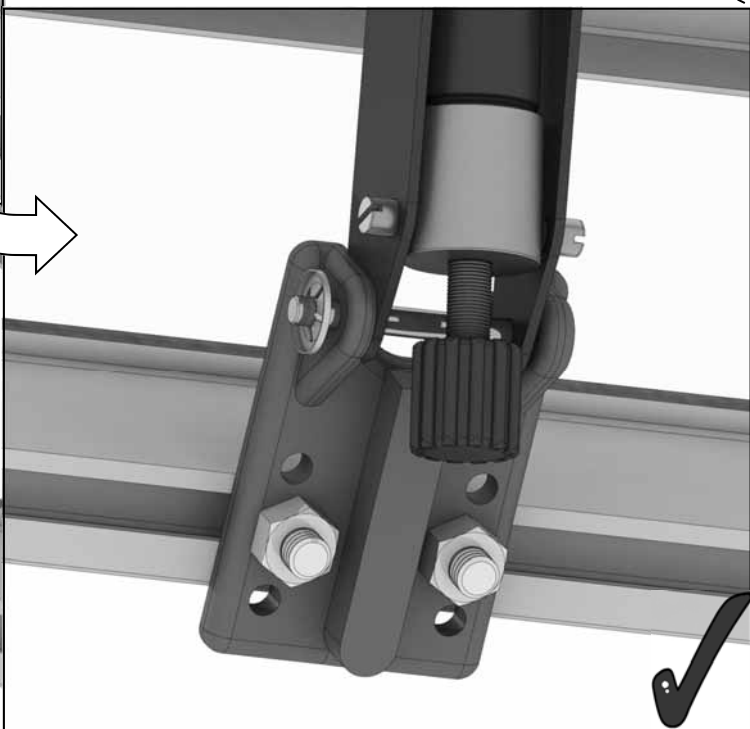
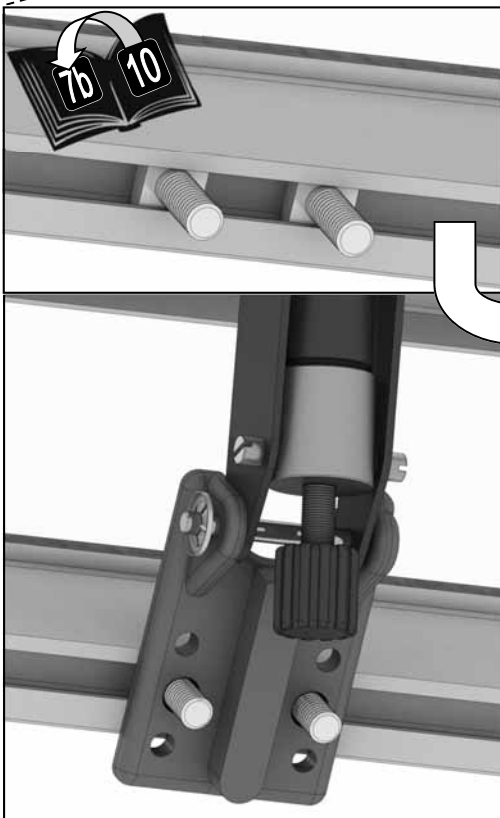
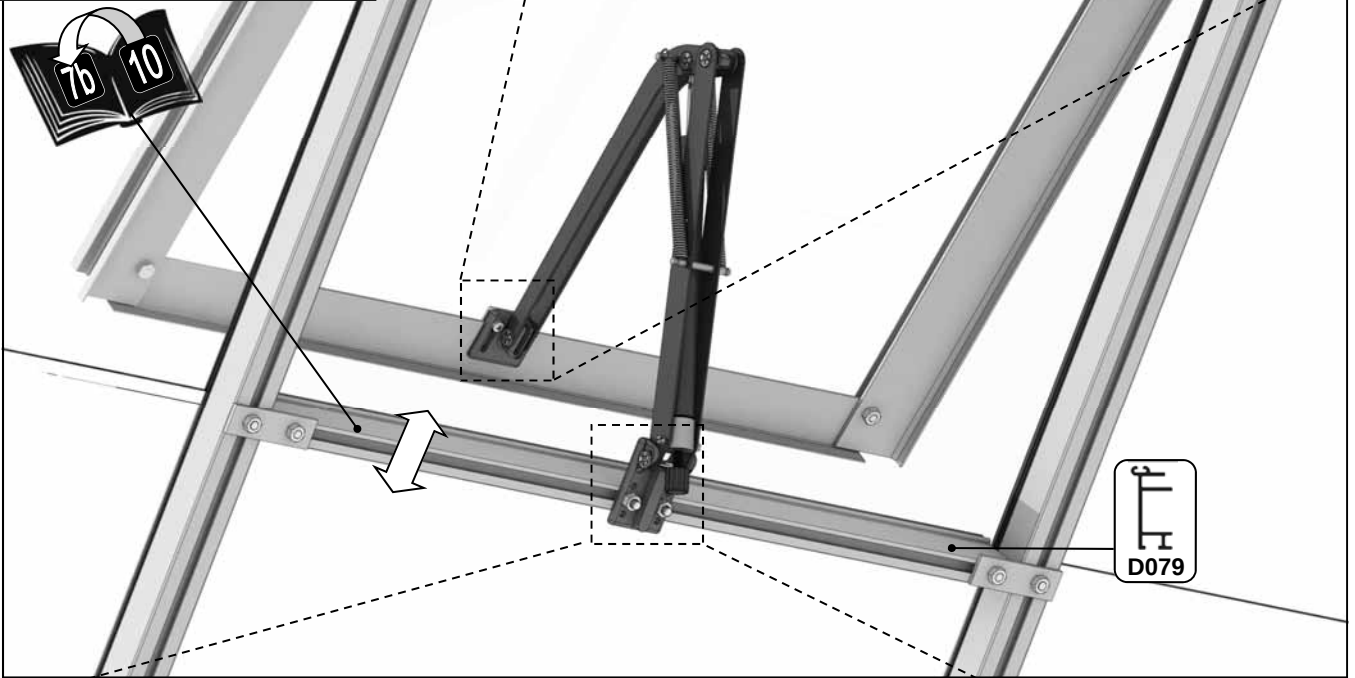
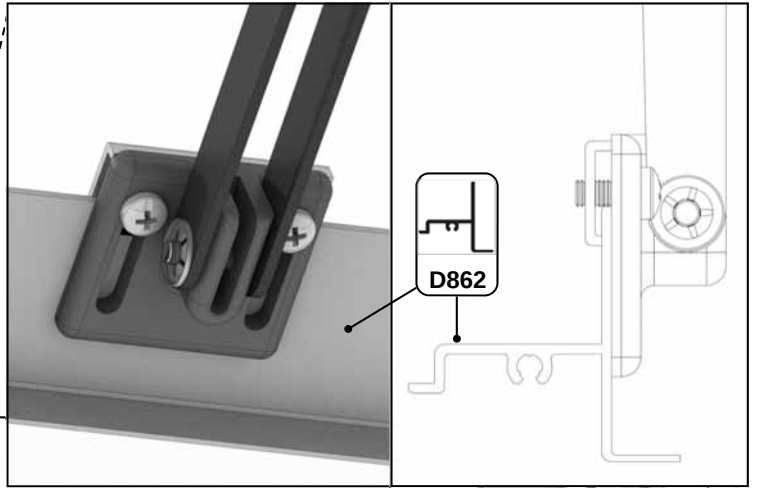
IMPORTANT:

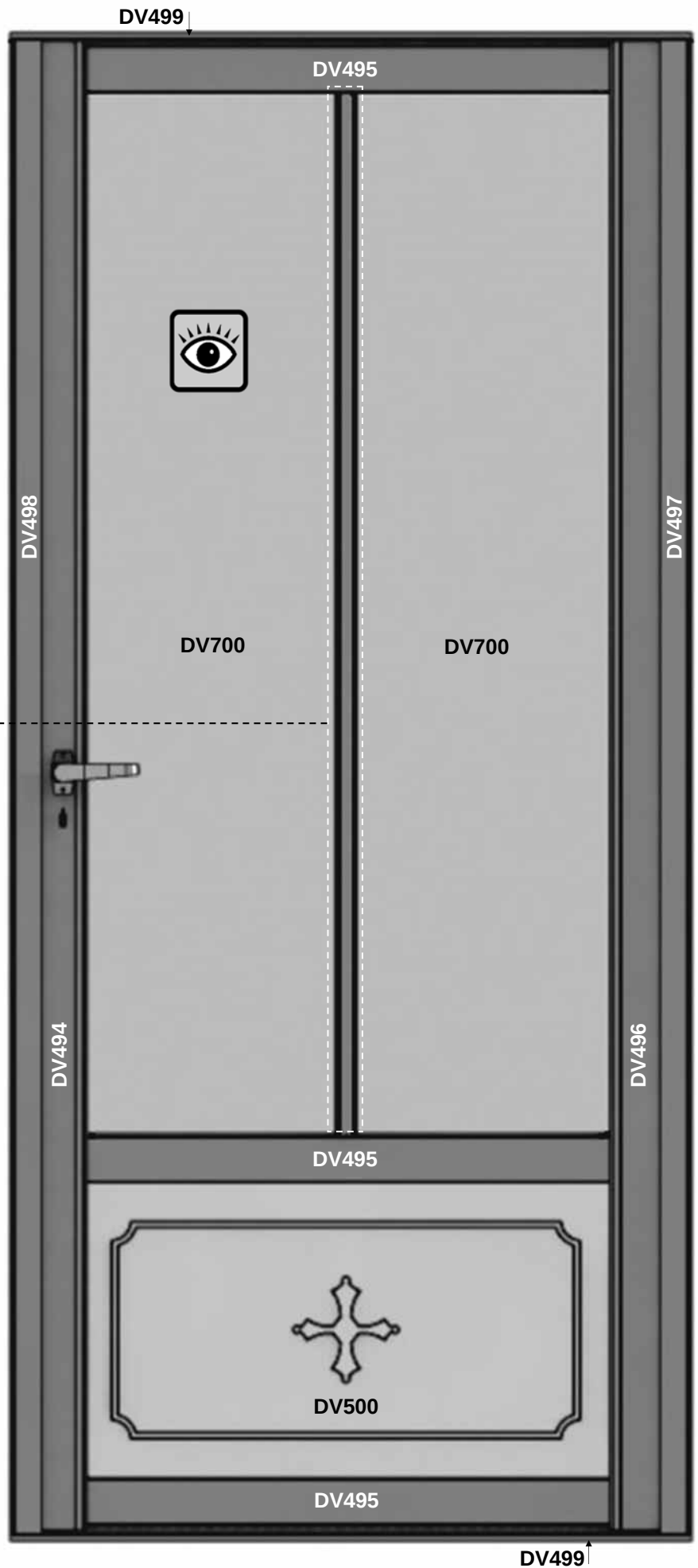
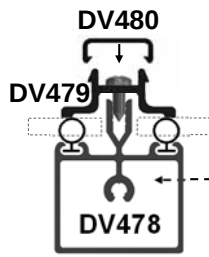
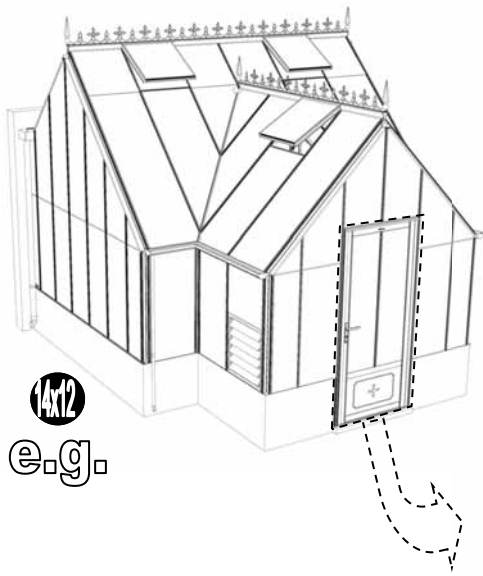
On the long side of the roof the smaller upper roof pane **overlaps** the lower roof panes by 5-10mm.



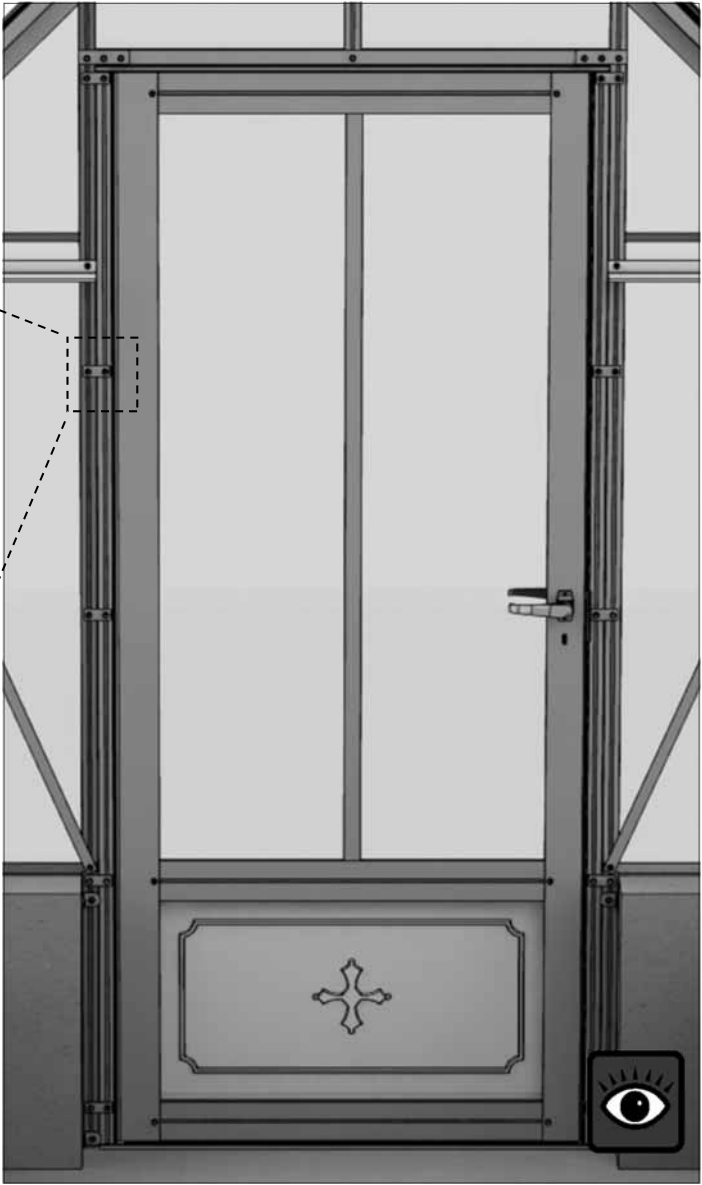
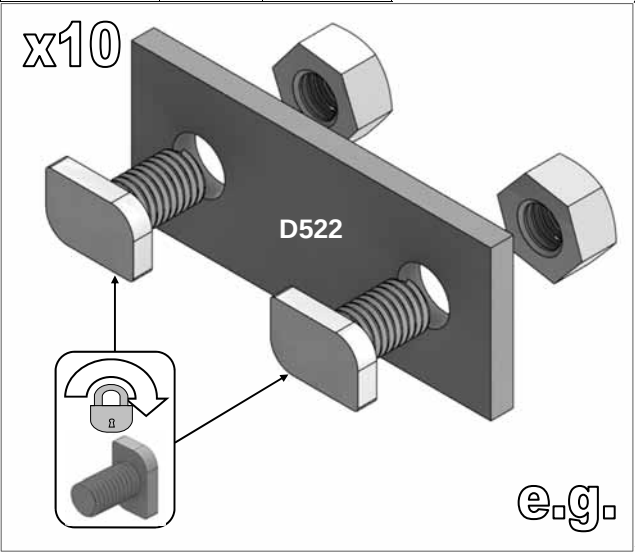


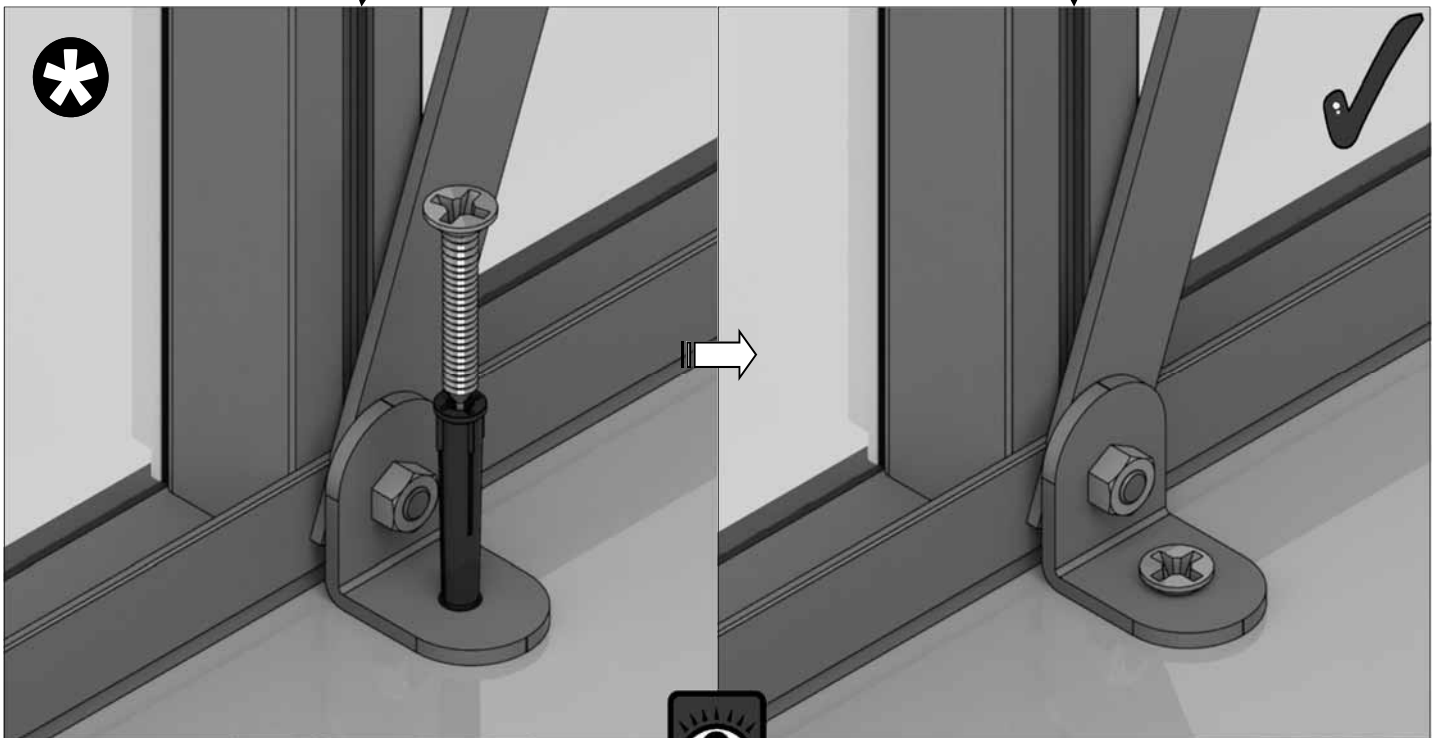
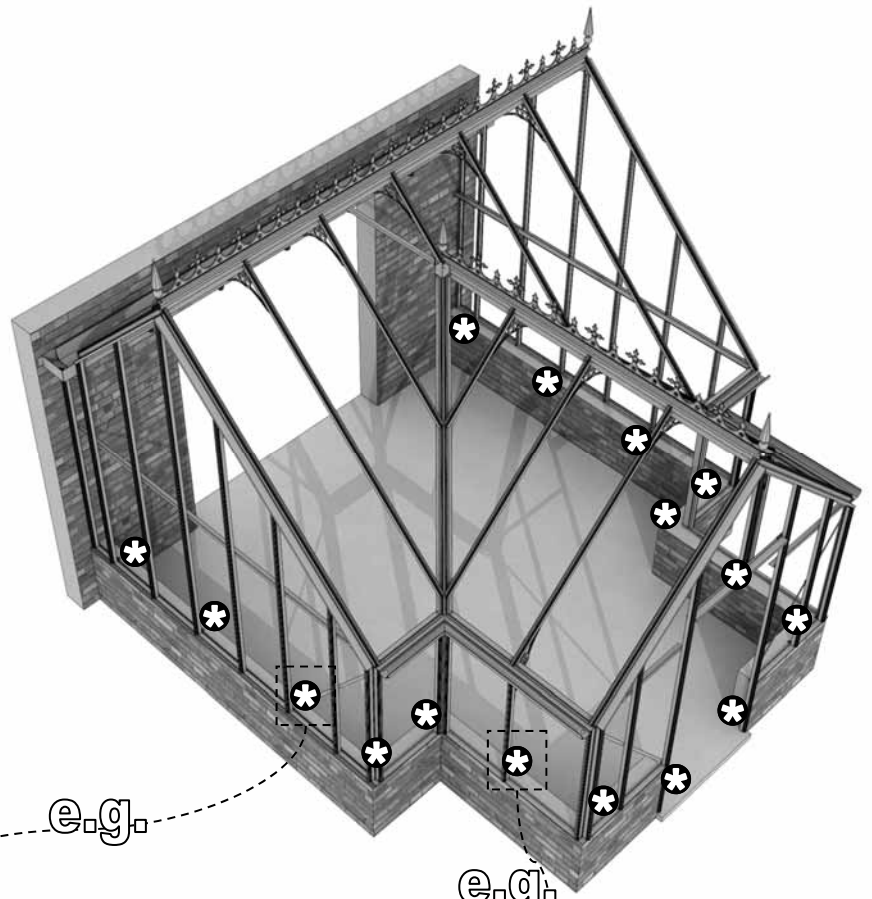
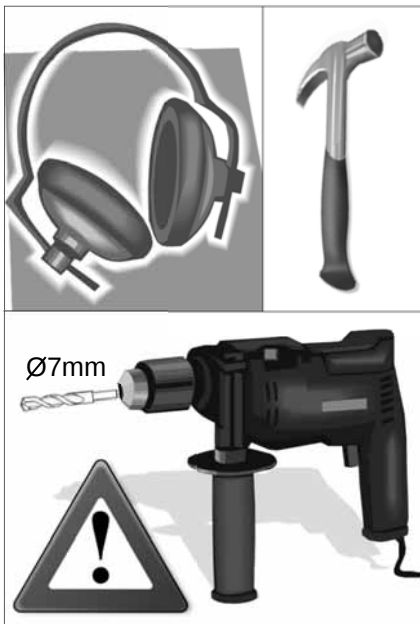




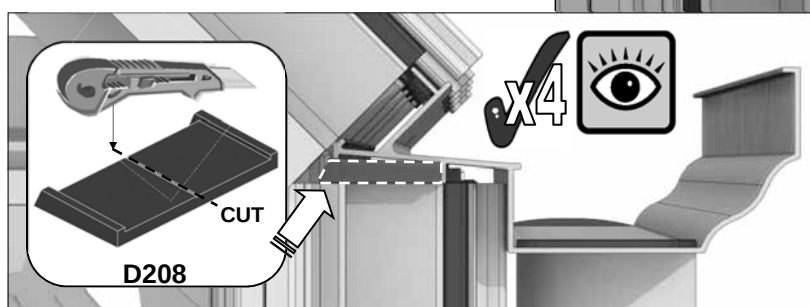
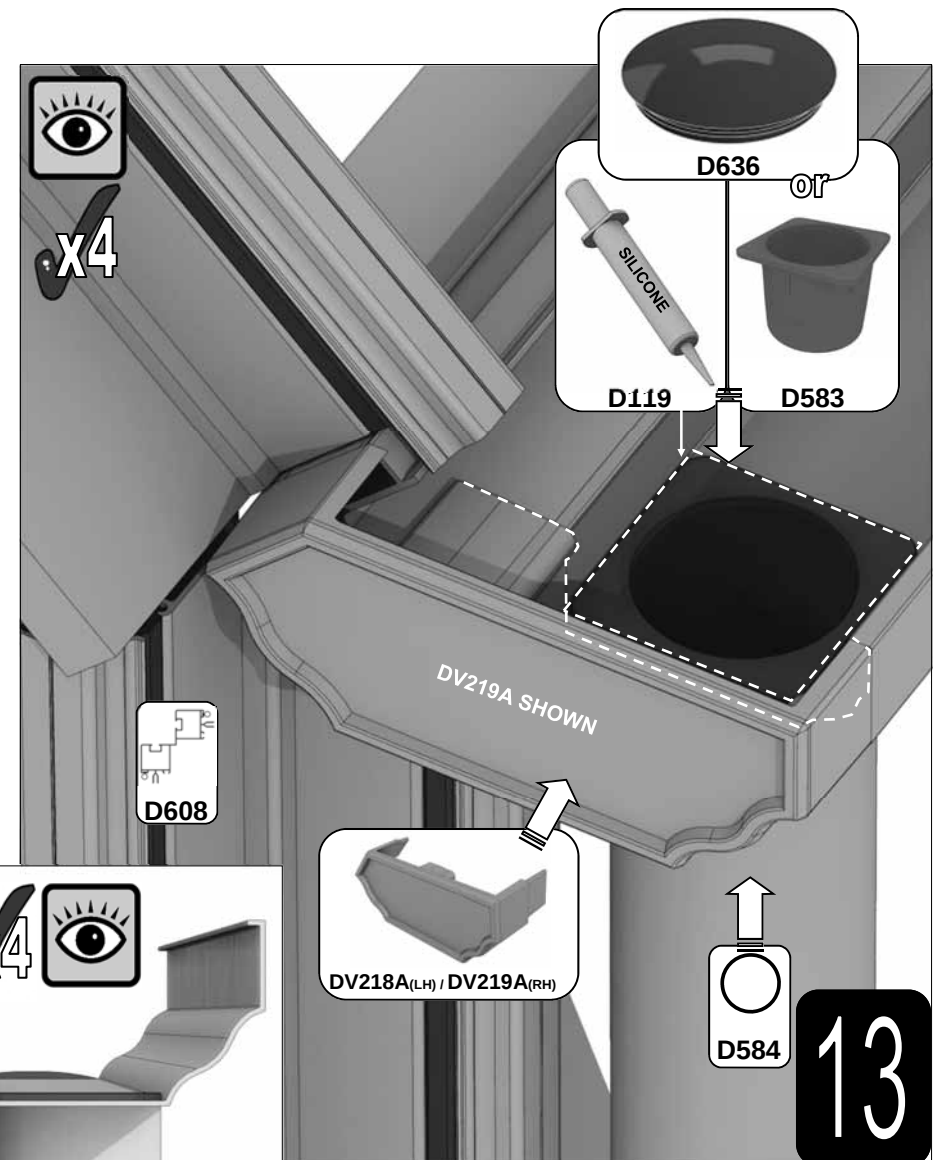
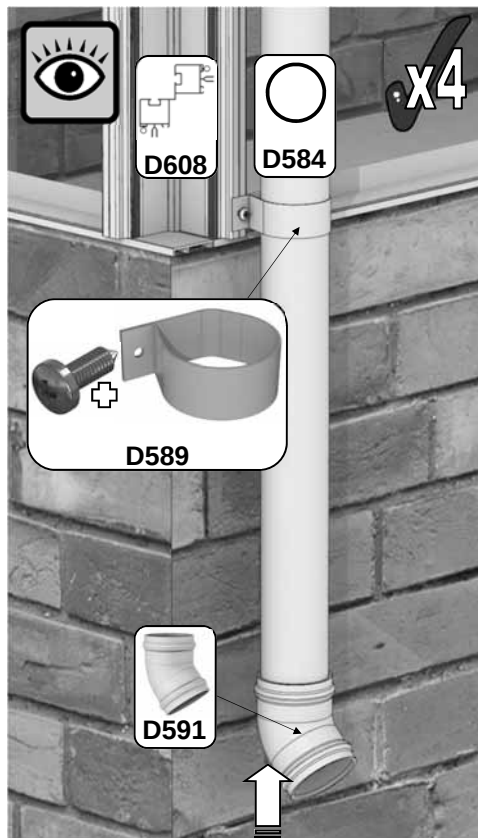
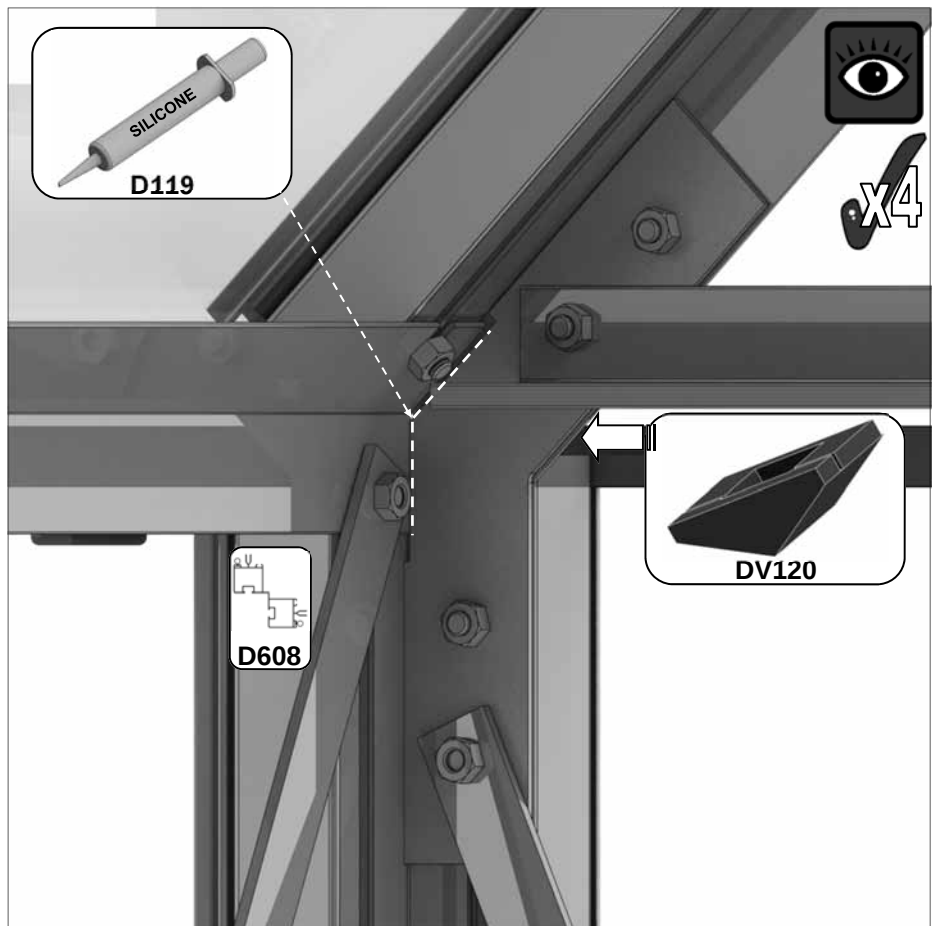
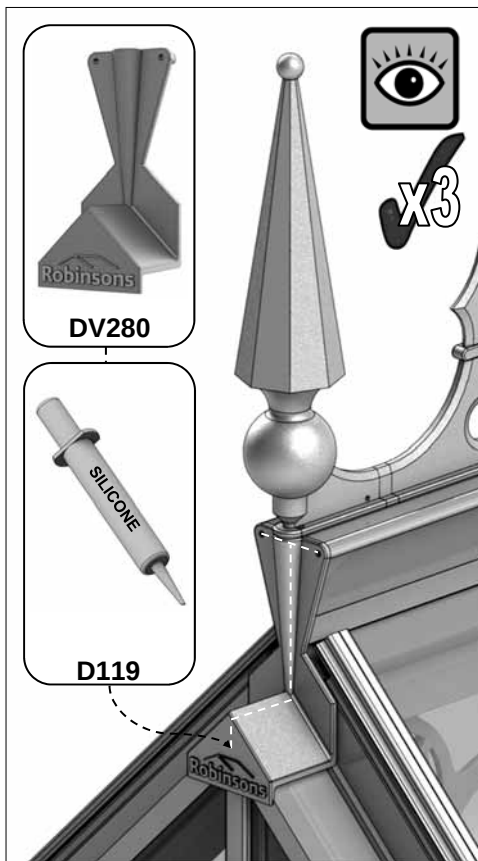


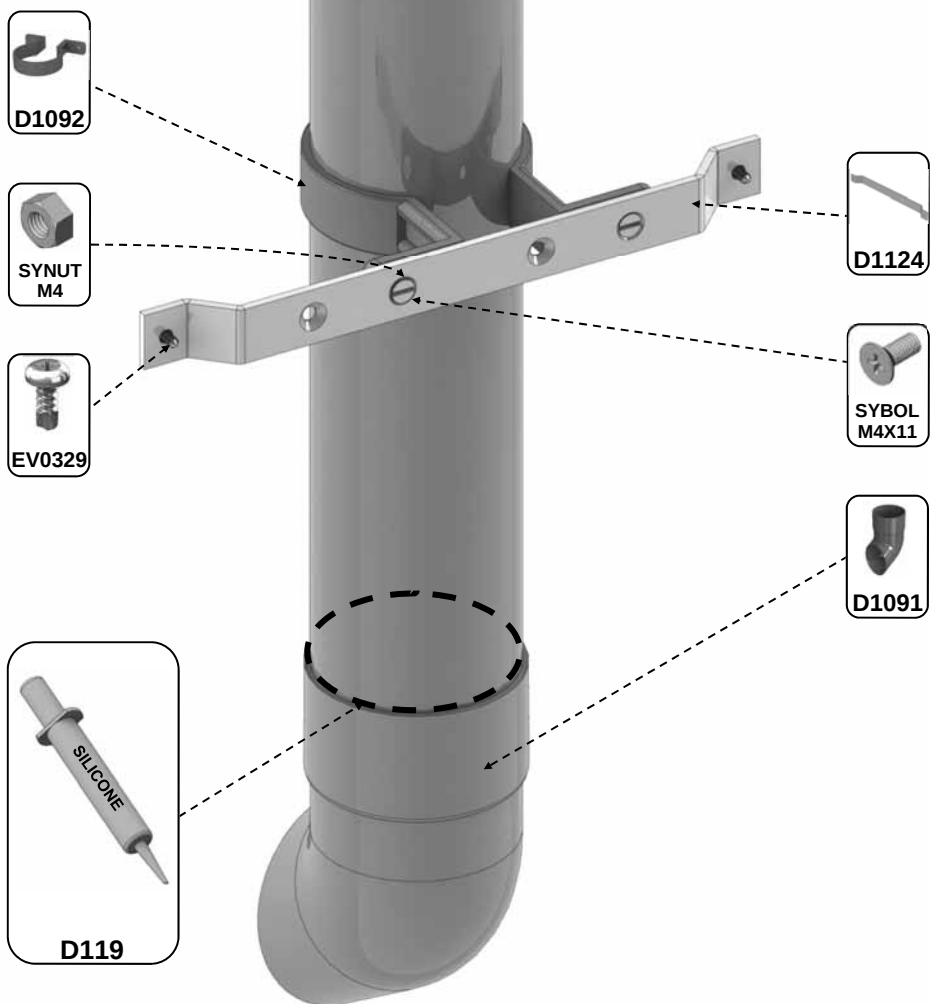
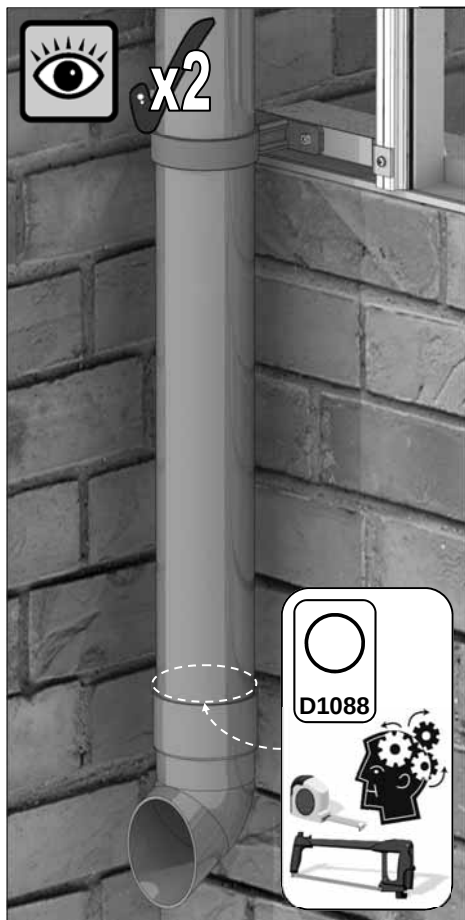
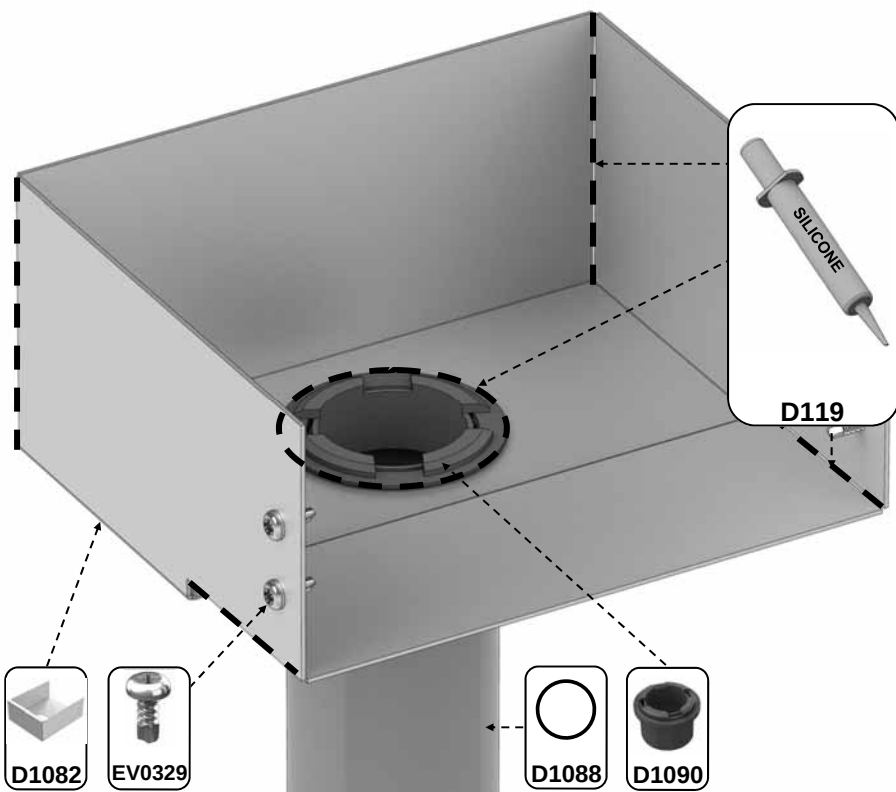
Part No		Quantity
D522		10
BOLM6 CROP		20
NUT M6		20



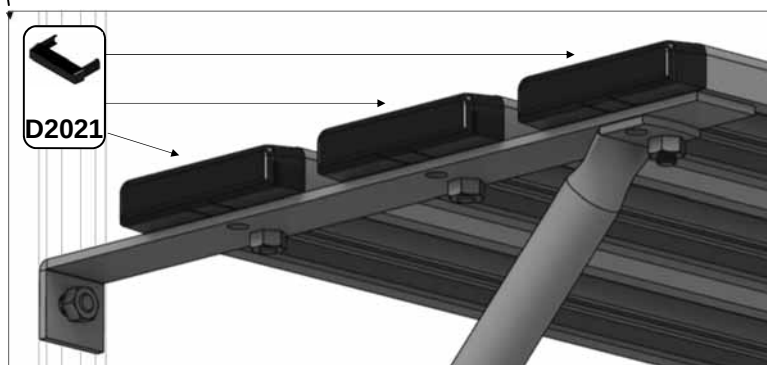
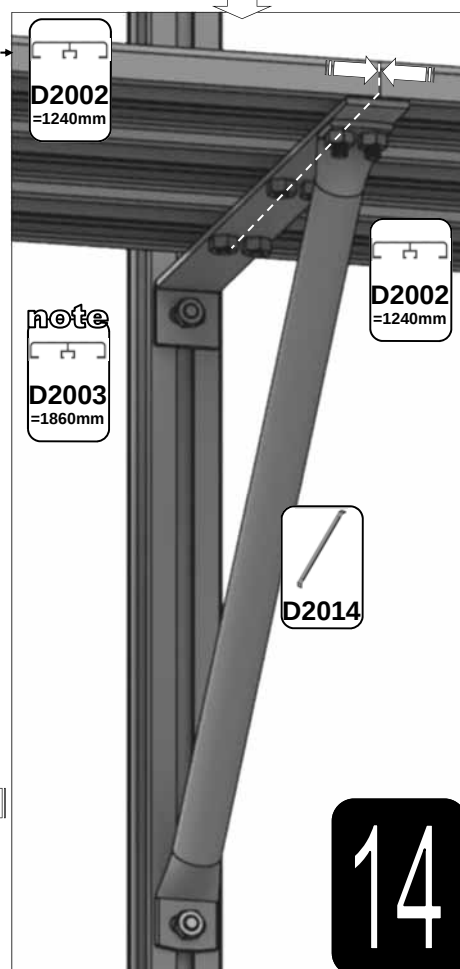
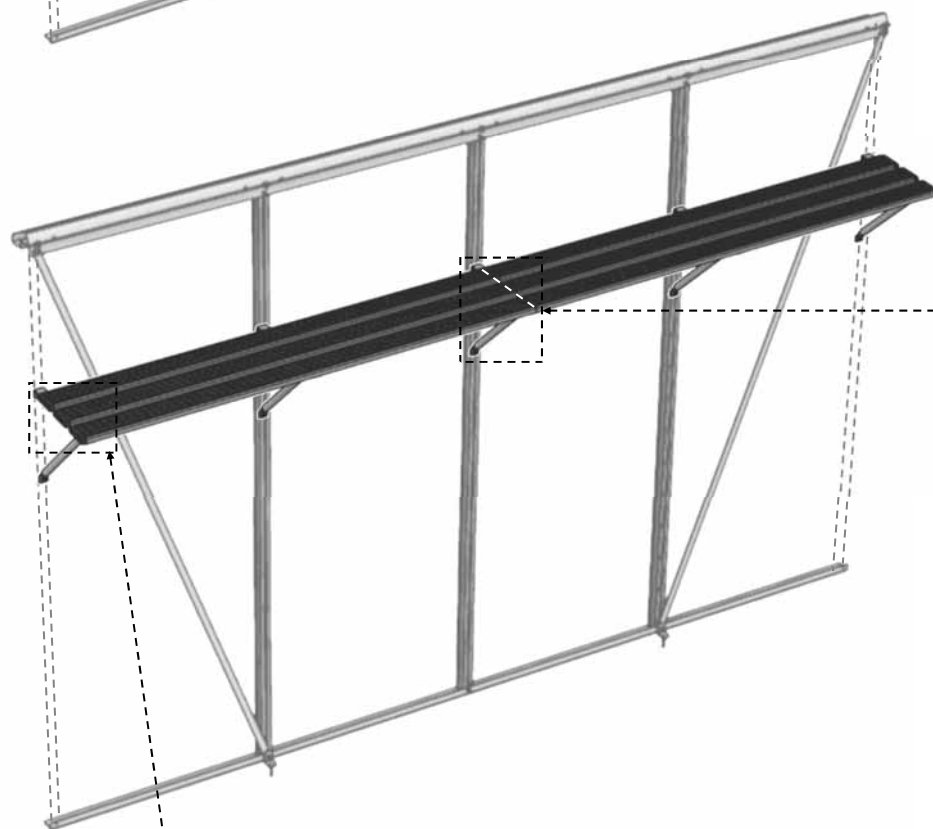
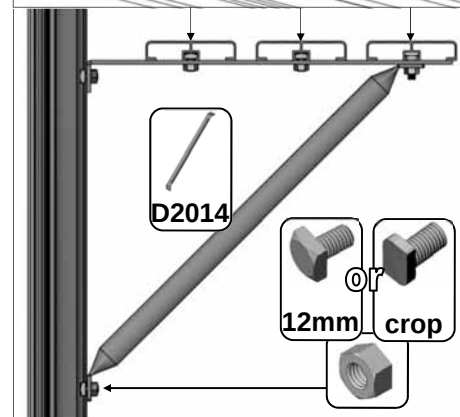
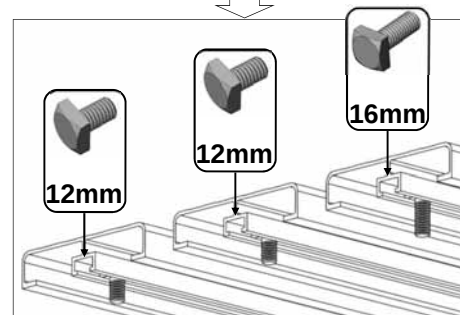
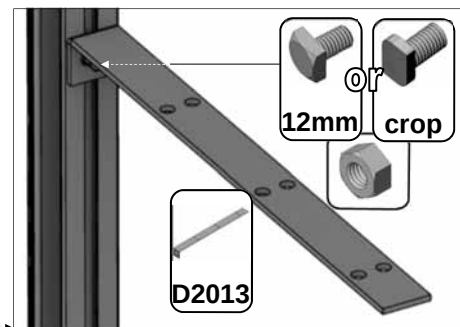
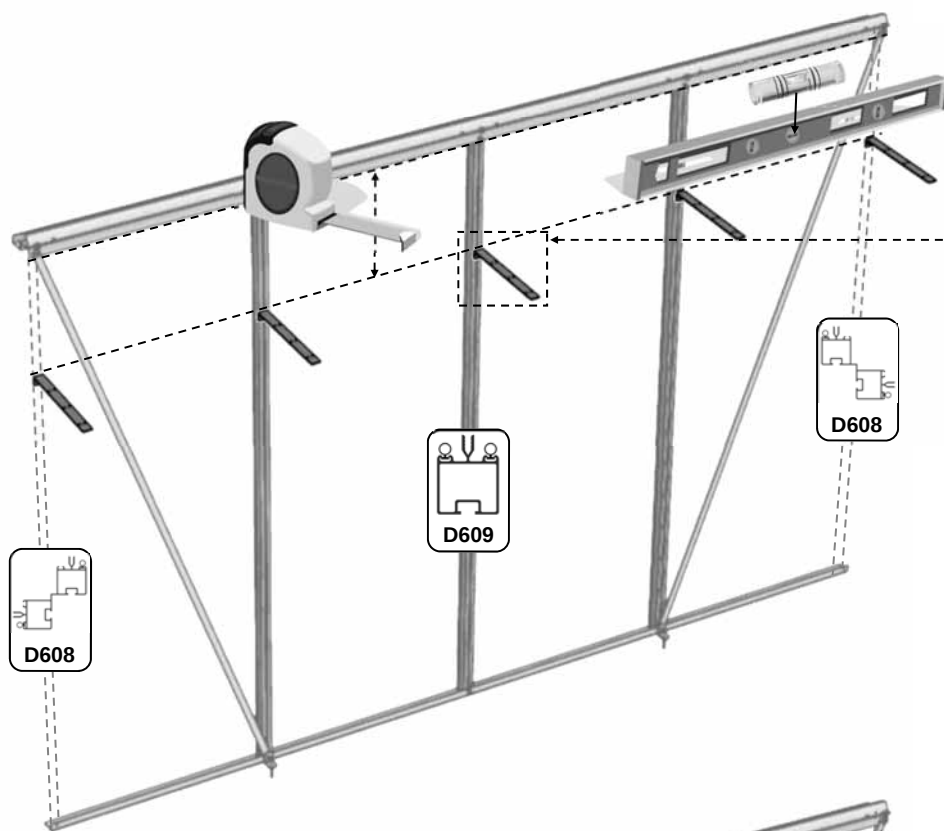


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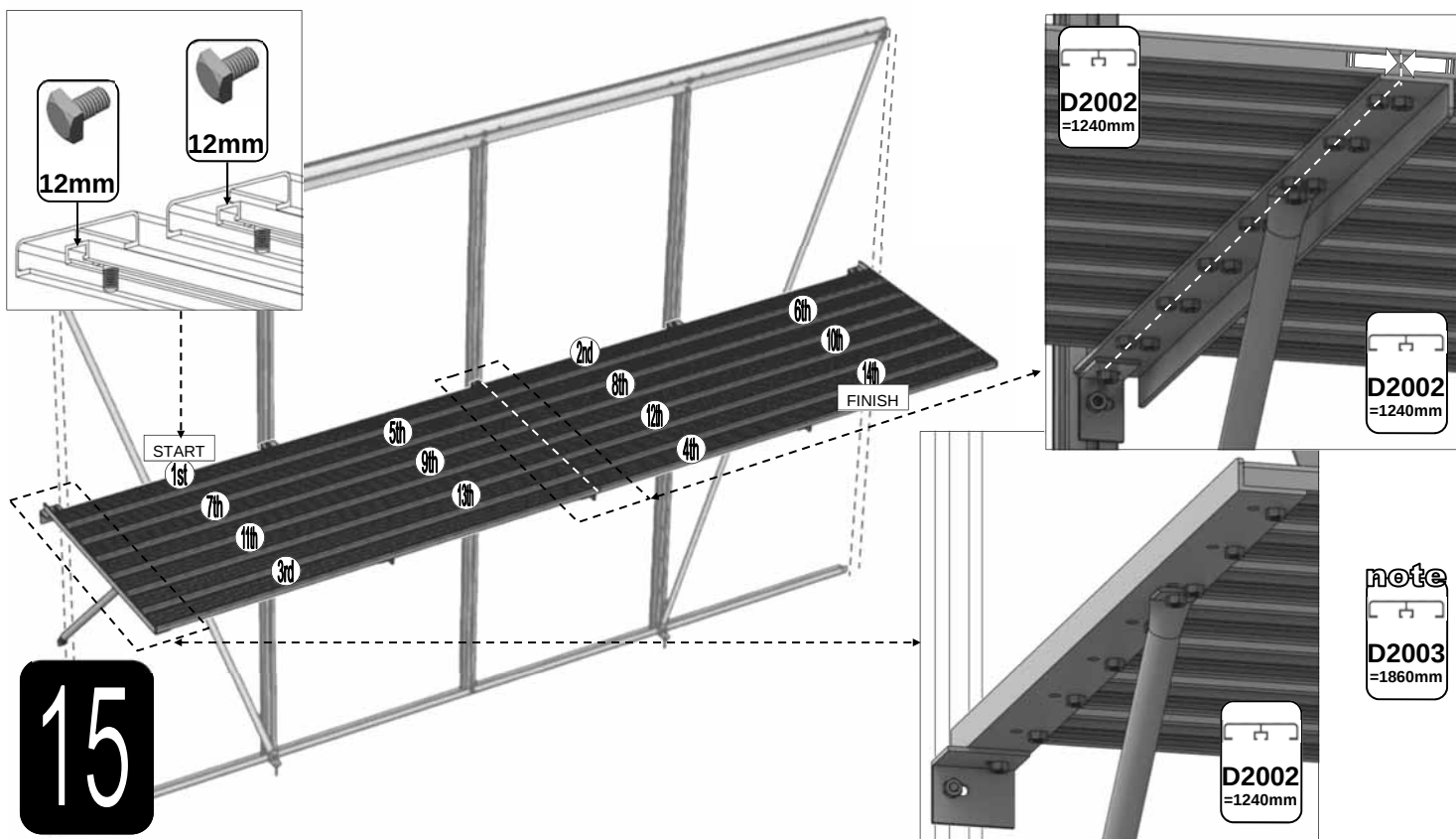
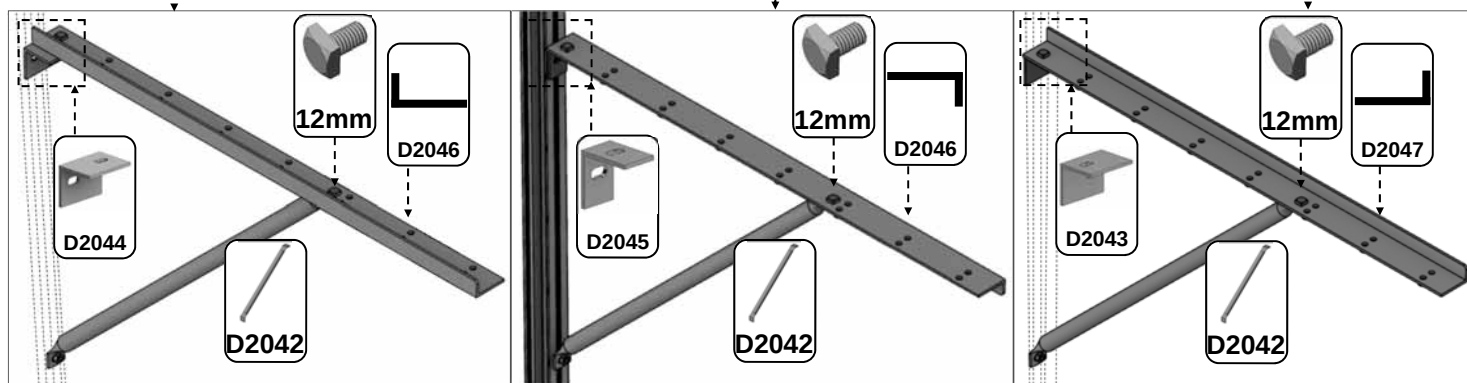
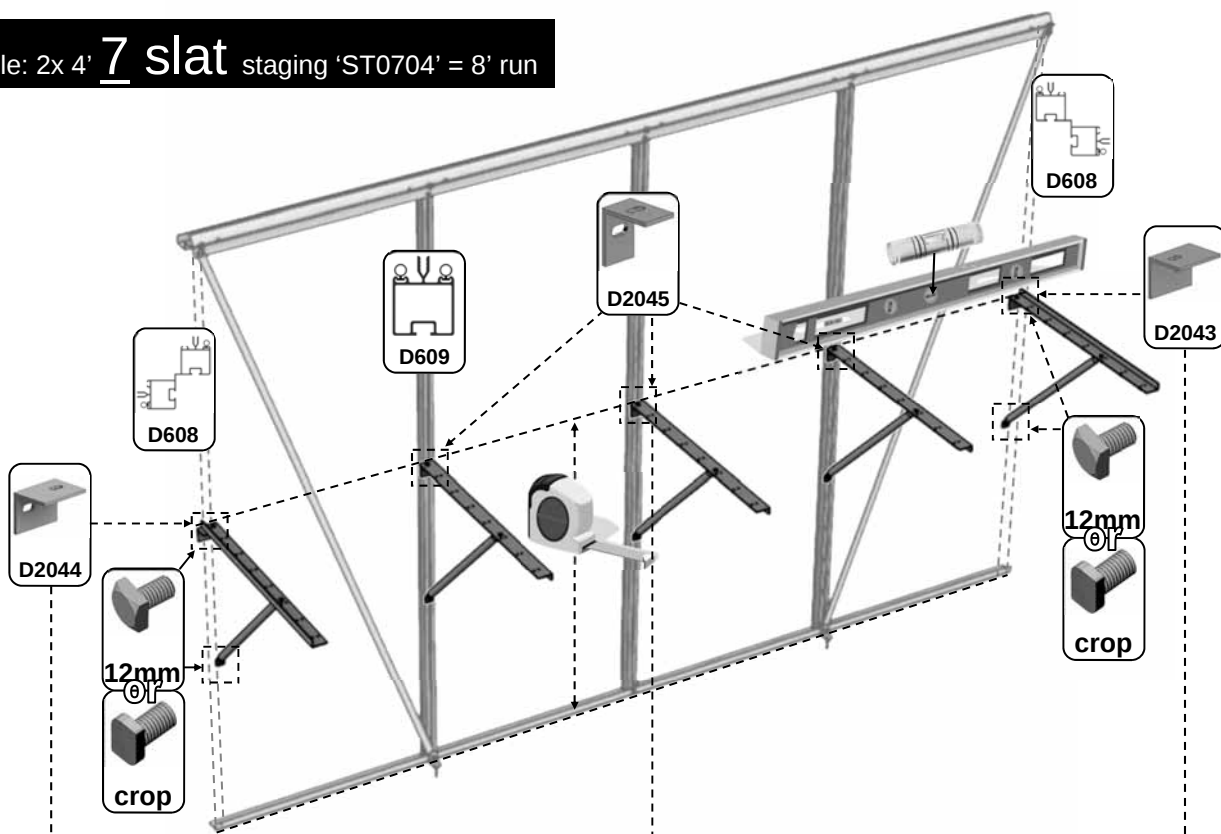




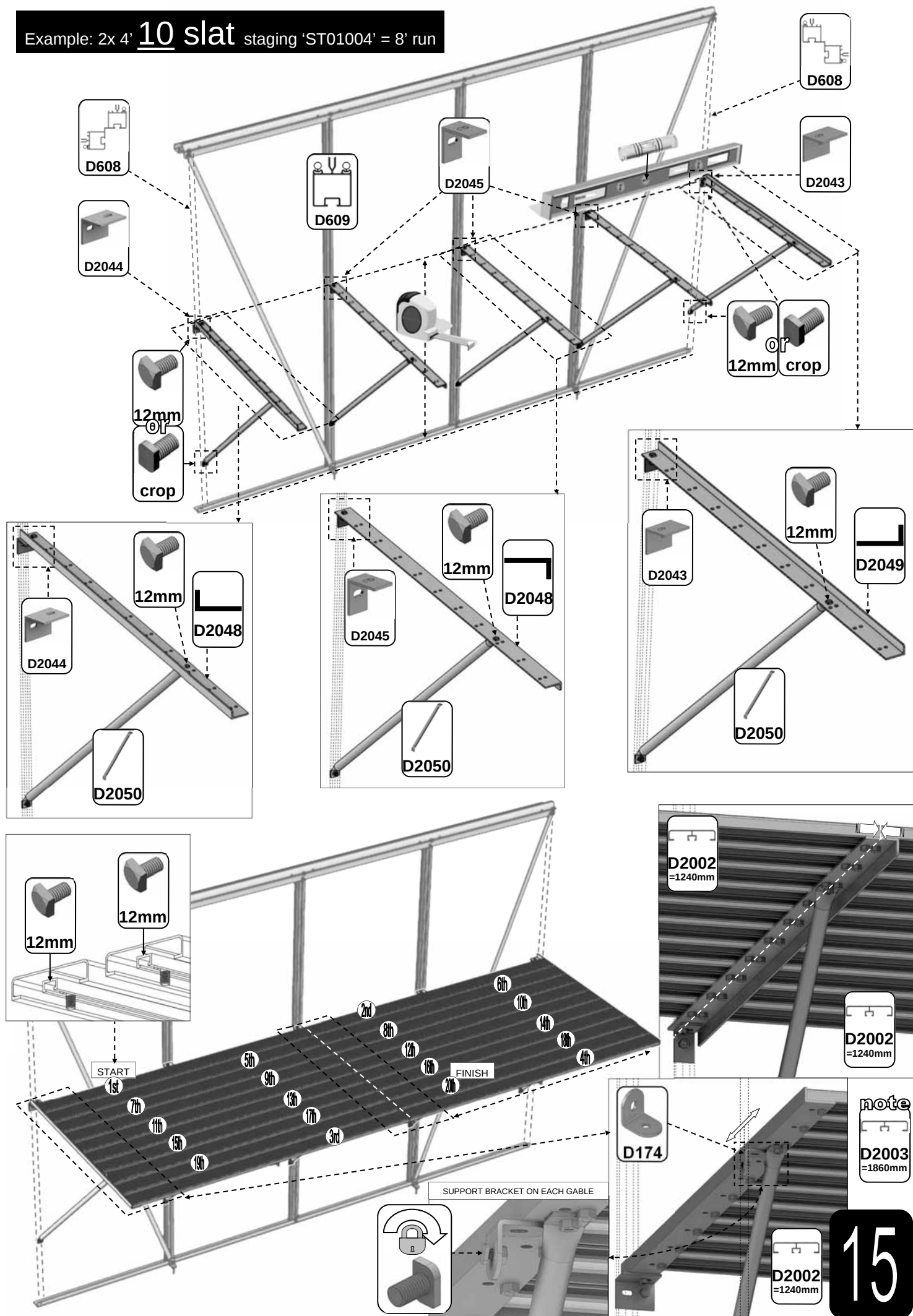
Example: 2x 4' 3 slat shelves 'ST0304' = 8' run



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



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



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.



www.robinsonsgreenhouses.co.uk

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

Our address is Robinsons Greenhouses, Unit 19 Blythe Park, Cresswell, Stoke-on-Trent, Staffordshire, ST11 9RD