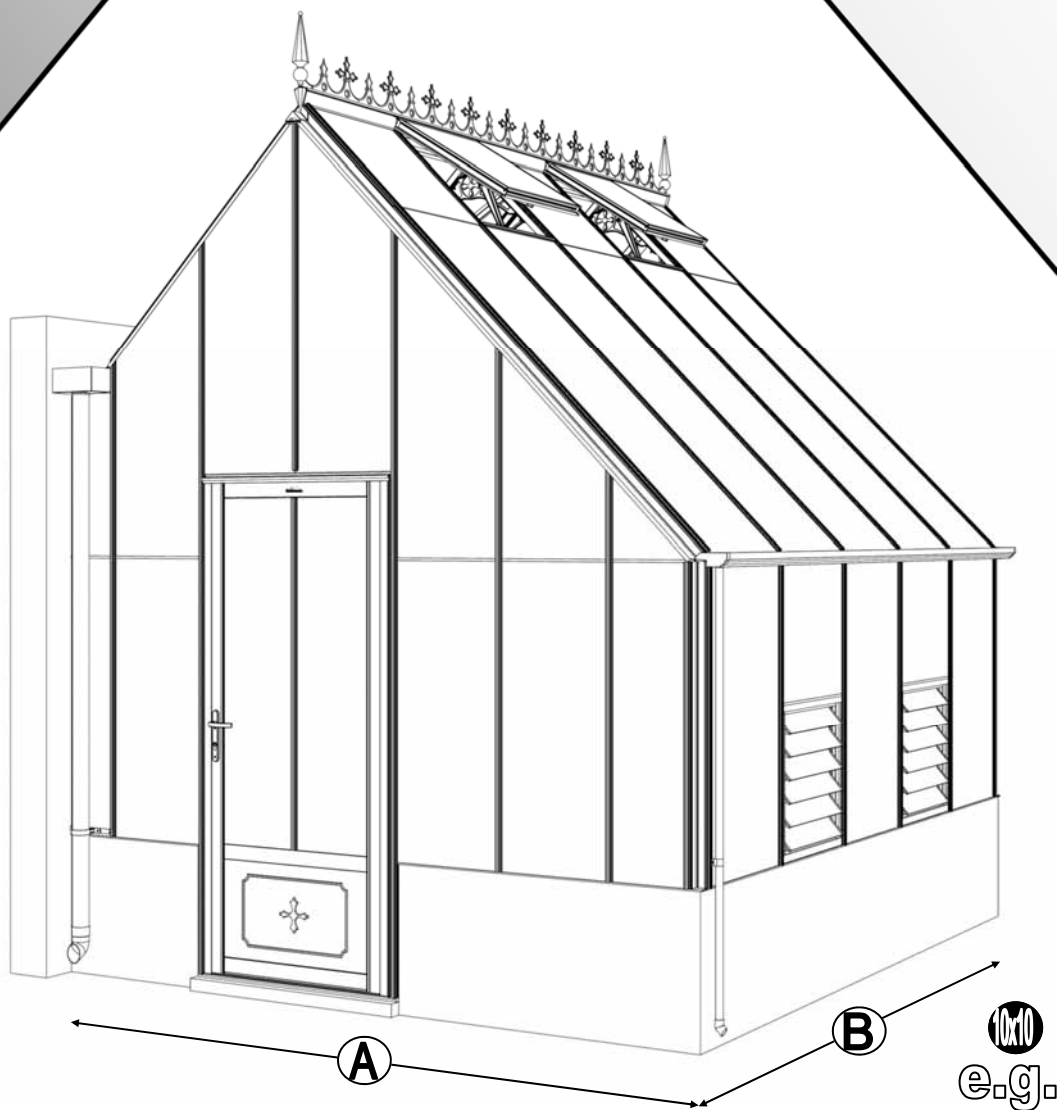


Robinsons
ALUMINIUM GREENHOUSES

Victorian 10 'ROYDON' 3/4 SPAN Dwarf Assembly Instructions



NOMINAL SIZE	A (mm)	B (mm)
10 X 6	2929	1990
10 X 8		2610
10 X 10		3230
10 X 12		3850



Issue 05/25

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**-side, **2**-door gable, **3**-plain gable, **4**-joining the sides, **5**-louvre, **6**-roof, **7**-vent, **8**-glazing, **9**-vent attachment, **10**-door attachment, **11** anchoring down, **12** finishing touches, **13** optional shelf, **14** optional staging. If you need to contact us for assistance please refer to the relevant section/s. If your building is longer than 12', i.e. has an extension then please also refer the separate extension manual.

Safety Warning

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

Site Preparation

- When selecting a site for your greenhouse, it is vital that you choose as flat and level an area as possible.
- A concrete or slabbed base will provide the most solid foundation for your greenhouse.
- IMPORTANT: 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 6 7a 7b 8 9 10 11 12 13 14	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. 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	Tools required. IMPORTANT: Use WD40 or similar in the glazing bar channels and insert the black glazing rubber prior to frame assembly.
	SIDE	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). Please also remember to slide in your 22mm bolts for attaching the decorative eave spandrels 'DV100' in section 6.
	DOOR END 2LH / 2RH?	2L = Door end on the left, 2R = Door end on the right, 3L = Plain end on the left, 3R = Plain end on the right.
	PLAIN END 3LH / 3RH?	Again ensuring that the gable framework is rubbered-up follow the diagrams to assemble each end of the building. Make sure that you have inserted the extra bolts utilised in sections 4 and 6. 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).
	JOINING THE SIDES	Take the side (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. Check that the D234 foam is still attached to your wall bars 'DV471' (also detailed on page 20).
	LOUVRE	They attach to the building during the glazing process (8) like a piece of glass with a black separator above them. If you are fitting an optional auto-louvre then you need to carefully drill (3mm bit) out the rivets which mount the handle to the frame. You can then either utilise those holes or create more to mount the unit.
	ROOF	Attach the ridge and then the rubbered-up roof bars ensuring that they are fully butted up to the ridge and down onto the gutter. Attach your cresting before you glaze the building to give yourself more room to work. Utilise the 22mm bolts slid into the side (section 1) and roof bars to attach your DV100 and DV101 spandrels. 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.
	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).
	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. Note that on the long side of the roof the glass overlaps one another. 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 each of 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 hex / square head bolts (insert four into each side glazing bar 'D609' during construction of the side (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	

Section Ref	Part No.	Section	Size (mm)	10 6	10 8	10 10	10 12
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1	D043		1894	1			
	D021		2514		1		
	D022		3134			1	
	D023		3754				1
	DV213		1897	1			
	DV210		2517		1		
	DV211		3137			1	
	DV212		3757				1
	D604		1316	2			
	D609		1160	2	3	4	5
	RUBBER		1000	5	7	9.5	12
	D174		N/A	2	2	4	4

2 + 3	DV461 (LH)		2937	1?			
	DV464 (RH)			1?			
	DV303L			1?			
	DV303R		1319	1?			
	DV538 (LH)			1?			
	DV541 (RH)		708	1?			
	D1122 (LH)			1			
	D1126 (RH)		241	1			
	D608		1160	2			
	DV066L			1			
	DV066R		1505	1			
	DV239L			1			
	DV239R		2960	1			
	DV310L			2			
	DV310R		1972	2			
	DV312L			1			
	DV312R		2438	1			
	DV259		2879	1			
	DV264		1398	1			
	DV471		1840	2			
	DV271L			1?			
	DV271R		1249	1?			
	DV467 (LH)			1?			
	DV470 (RH)		2864	1?			
	DV532 (LH)			1?			
	DV535 (RH)		711	1?			
	DV307		1350	2			
	DV250L			1			
	DV250R		1345	1			
	DV252L			1			
	DV252R		2451	1			
	DV275		904	1			
	DV104		N/A	2			
	DV548		N/A	2			
	DV105		N/A	2			
	D163		90	2			

Section Ref	Part No.	Section	Size (mm)	10 6	10 8	10 10	10 12
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2+3	RUBBER		1000	73			
	D174		N/A	7			

4	D1070		3857				1
	D1071		3237			1	
	D1072		2617		1		
	D1073		1997	1			
	D1076		3757				1
	D1077		3137			1	
	D1078		2517		1		
	D1079		1897	1			
	D1082		N/A	2			
	D1089		N/A	4	5	6	7
	EV0329		13	4			
	SYSCR2		50	8	10	12	14
	SYRAWL		50	8	10	12	14

6	DV204		1897	1			
	DV201		2517		1		
	DV202		3137			1	
	DV203		3757				1
	DV253		1345	2	3	4	5
	DV255		2450	2	3	4	5
	DV100		N/A	2	3	4	5
	DV101		N/A	2	3	4	5
	RUBBER		1000	16	23	31	38

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

Victorian 10' ROYDON 3/4 Span Dwarf

Section Ref	Part No.	Section	Size (mm)	10 6	10 8	10 10	10 12
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Section Ref	Part No.	Section	Size (mm)	10 6	10 8	10 10	10 12
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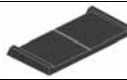
12	1	D618		1144	2	3	4	5
	5	DV653		1378	2	3	4	5
	2 / 3	DV403L/R		1505	1 + 1			
	2 / 10	DV479		1384	1			
	2 / 3	DV610L/R		1972	2 + 2			
	3	DV612L/R		2438	1 + 1			
	2	DV639L/R		2960	1 + 1			
	5	DV655		1880	2	3	4	5
	3	DV659		2879	1			
	2 / 10	DV664		1373	1			
	2 / 3	D815		1830	2			
	5	D870		601	2	3	4	5

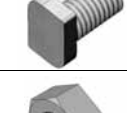
12	DV219A (RH)		N/A	1			
	DV218A (LH)		N/A	1			
	EV0329		13	4			
	D1124		227	2			

8	2 / 3	D610		1160	2			
	1	D620		1144	2			
	5	D871		601	2			
	5	DV650		1345	2			
	5	DV652		1871	2			

12	2 / 3	D614		1162	2			
	1	D619		1144	4	5	6	7
	2 / 3	D827		1832	2			
	2 / 10	DV480		1384	1			
	2 / 3	DV611L/R		1972	2 + 2			
	3	DV613L/R		2438	1 + 1			
	2 / 3	DV615L/R		1505	1 + 1			
	2	DV640L/R		2960	1 + 1			
	5	DV656		1378	4	5	6	7
	5	DV658		2481	4	5	6	7
	3	DV665		2879	1			
	2 / 10	DV670		1373	1			

10	D522		N/A	10			
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12	D119		N/A	1			
	DV120		N/A	4			
	D589		N/A SLIM	1			
	D584		1500	1			
	D591		N/A	1			
	D636		N/A	1			
	D583		N/A	1			
	D208		N/A	1			
	D1088 PLASTIC		2000 BIG	2			
	D1090 PLASTIC		N/A BIG	2			
	D1091 PLASTIC		N/A BIG	2			
	D1092 PLASTIC		N/A BIG	2			

MAIN FRAME QUANTITIES VENTS / DOORS etc SEPERATE		FS6505 HEX 12mm	78	83	88	93
		FS6506 HEX 16mm	27	30	33	36
		FS6507 HEX 22mm	16	24	32	40
		HE569 M6X11 CROP	20	20	20	20
		FS6504 M6 NUT	101	157	173	189



[illegible]

LENGTH: 1 mm

OVER ALL LENGTH 'L' = BASIC GREENHOUSE LENGTH + EXTENSION IF REQUIRED, e.g. 14 LONG = 6+8EXT			
BASIC GREENHOUSE	LENGTH	GREENHOUSE EXTENSION	EX. LENGTH
6 LONG	1990mm	+ 8 LONG EXT.	2480mm
8 LONG	2610mm		
10 LONG	3230mm		
12 LONG	3850mm		

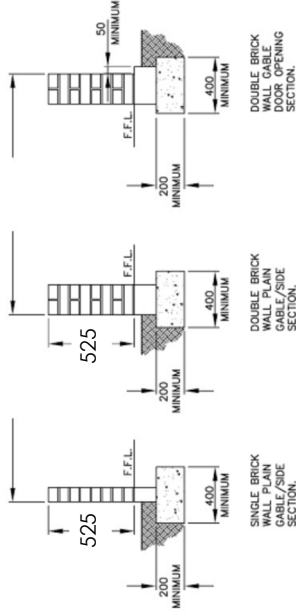
CONCRETE STRIP FOOTINGS SHOULD BE A MINIMUM OF 400mm WIDE X 200mm DEEP. IF THE SITE IS ON MADE UP GROUND IT IS IMPORTANT THAT THE FOOTINGS ARE CUT INTO THE COMPACTED GROUND BELOW, WHERE THE GROUND IS LIABLE TO MOVEMENT SUCH AS HEAVY CLAY OR LOOSE SANDY SOIL REINFORCING SHOULD BE ADDED TO THE CONCRETE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

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.

THE TOP COURSE OF BRICKS SHOULD BE LAID FROG DOWN. IF ENGINEERING BRICKS ARE USED FOR THE TOP COURSE PLEASE ENSURE THEY ARE 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 FLEETON TYPE BRICKS ARE NOT SUITABLE.

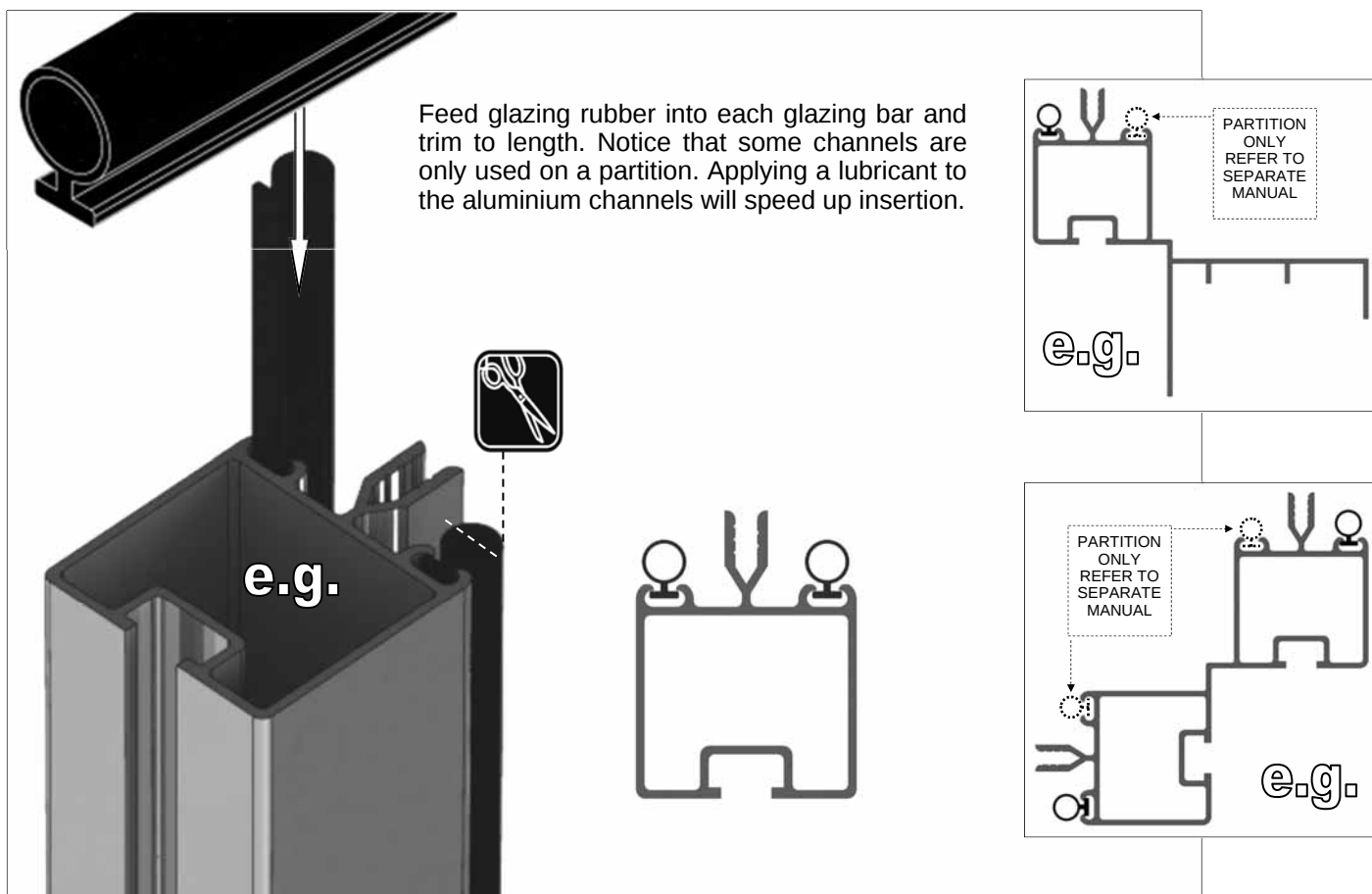
THE DOOR THRESHOLD REQUIRES BRICK WORK ACROSS THE OPENING WHICH SHOULD BE LEVEL WITH THE FINISHED FLOOR LEVEL (F.F.L) OF THE GREENHOUSE. THE OPENING FOR THE DOORWAY AND THE HEIGHT TO THE TOP OF THE WALL FROM THE THRESHOLD LEVEL REQUIRE THE HIGHEST ACCURACY AND ARE MOST IMPORTANT SO THAT THE DOOR FITS 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.

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ROYDON

3/4 SPAN VIC V-TYPE BRICKWORK
DOOR AT ONE END ONLY PLAN



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 purlings 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).

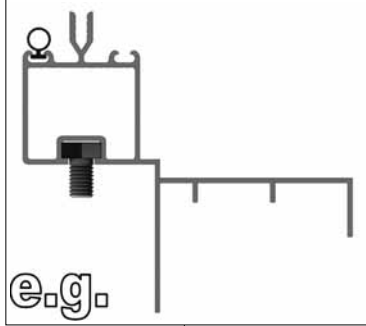
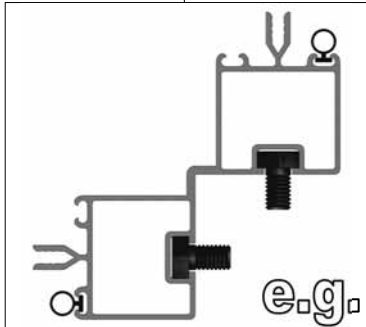
Twist in (rectangular) crop headed bolts are also used towards the end of construction to attach components to the frame retrospectively when the glazing bar slots are no longer exposed at the ends.

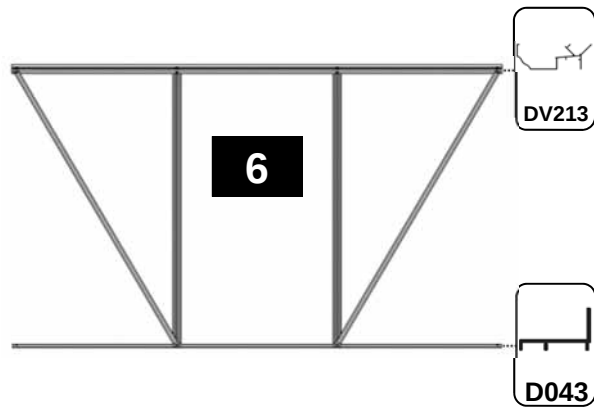
If an image in the manual shows a square headed bolt please interpret it as the new HEX headed replacement.

e.g.

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

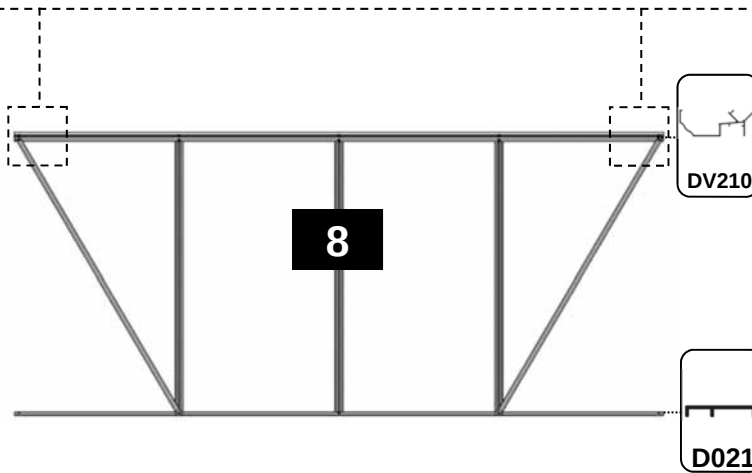
e.g.

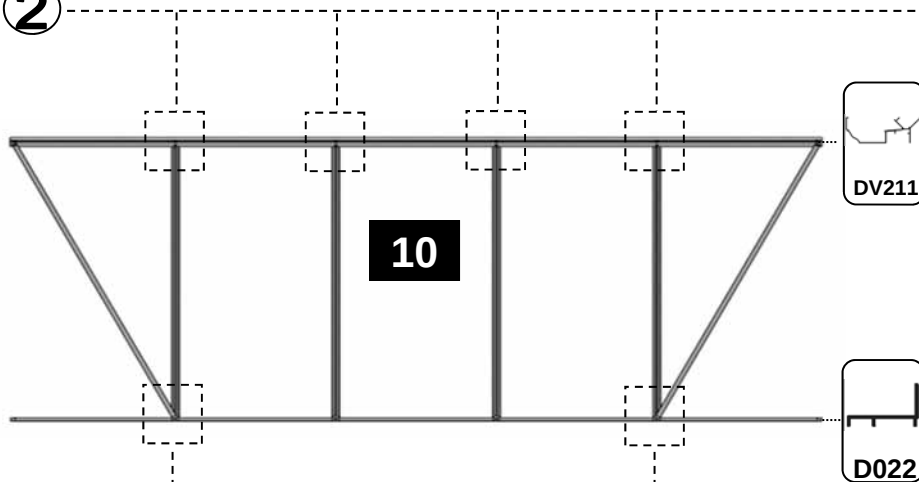
6 DWARF SIDE		
Part No	mm	Quantity
DV213	1897	1
D043	1894	1
D609	1160	2
D604	1316	2
D174		2
12mm BOLT		2
16MM BOLT		4
22MM BOLT		4
NUT M6		6
Rubber	1000	5

e.g. ①



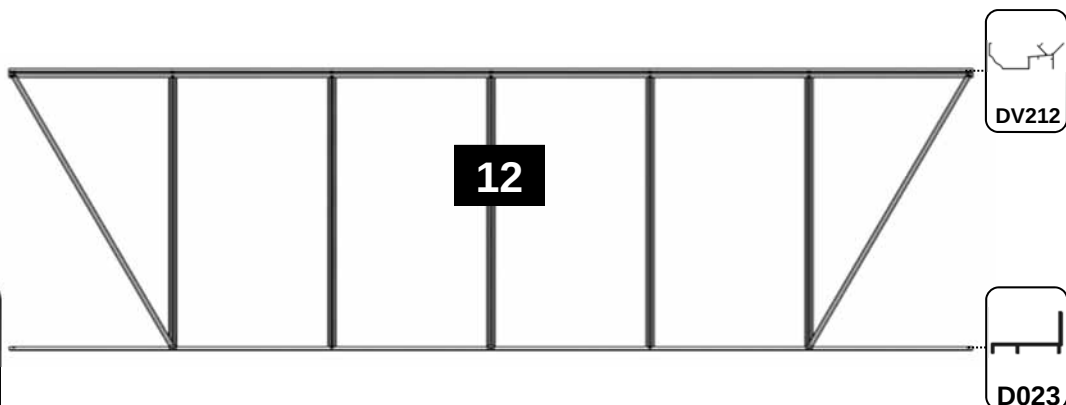
8 DWARF SIDE		
Part No	mm	Quantity
DV210	2517	1
D021	2514	1
D609	1160	3
D604	1316	2
D174		2
12mm BOLT		3
16MM BOLT		5
22MM BOLT		6
NUT M6		8
Rubber	1000	7

e.g. ②



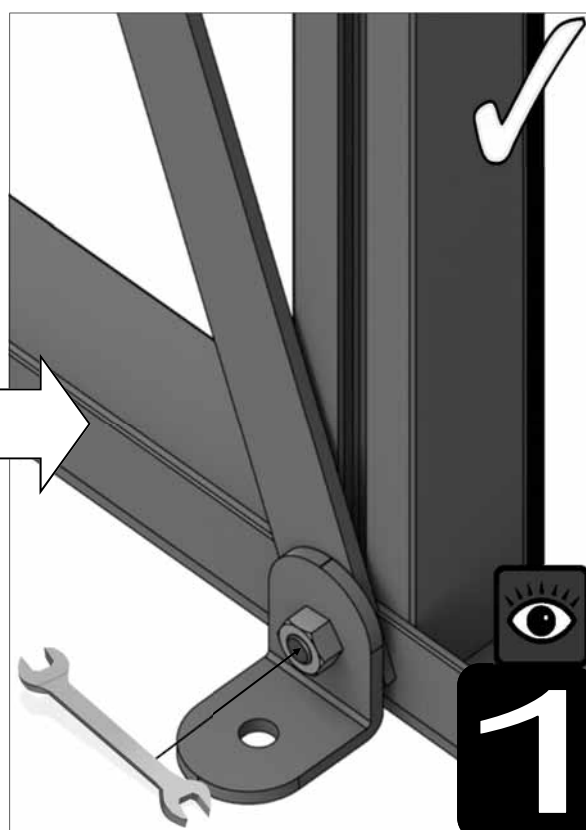
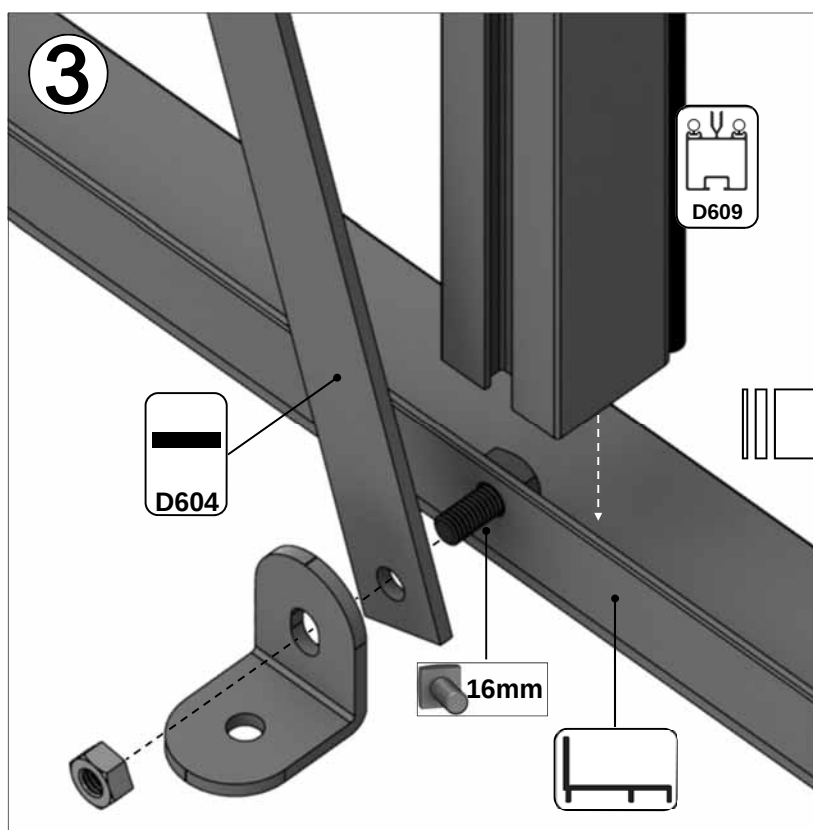
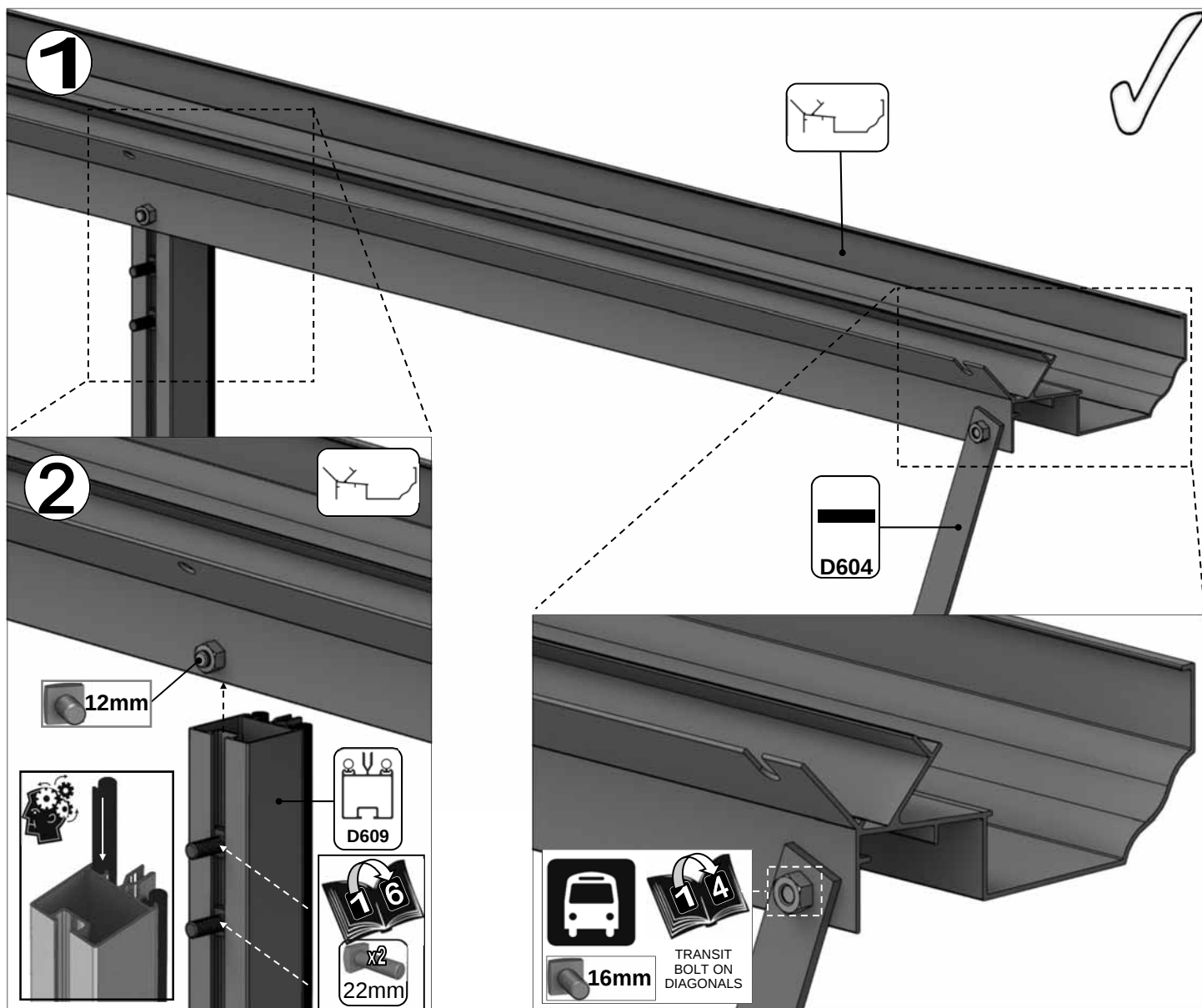
10 DWARF SIDE		
Part No	mm	Quantity
DV211	3137	1
D022	3134	1
D609	1160	4
D604	1316	2
D174		4
12mm BOLT		4
16MM BOLT		6
22MM BOLT		8
NUT M6		10
Rubber	1000	9.5

e.g. ③

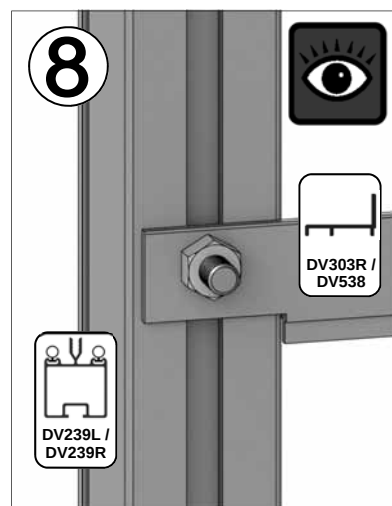
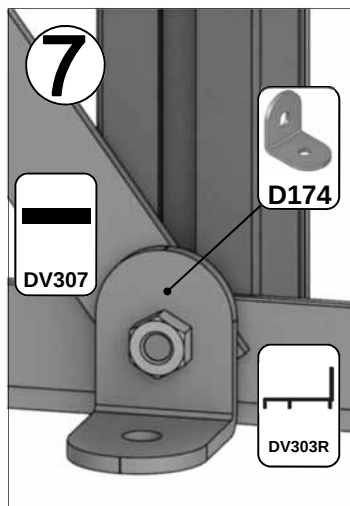
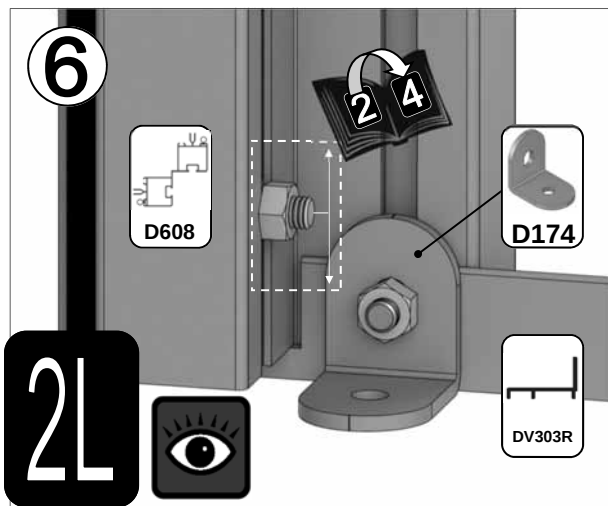
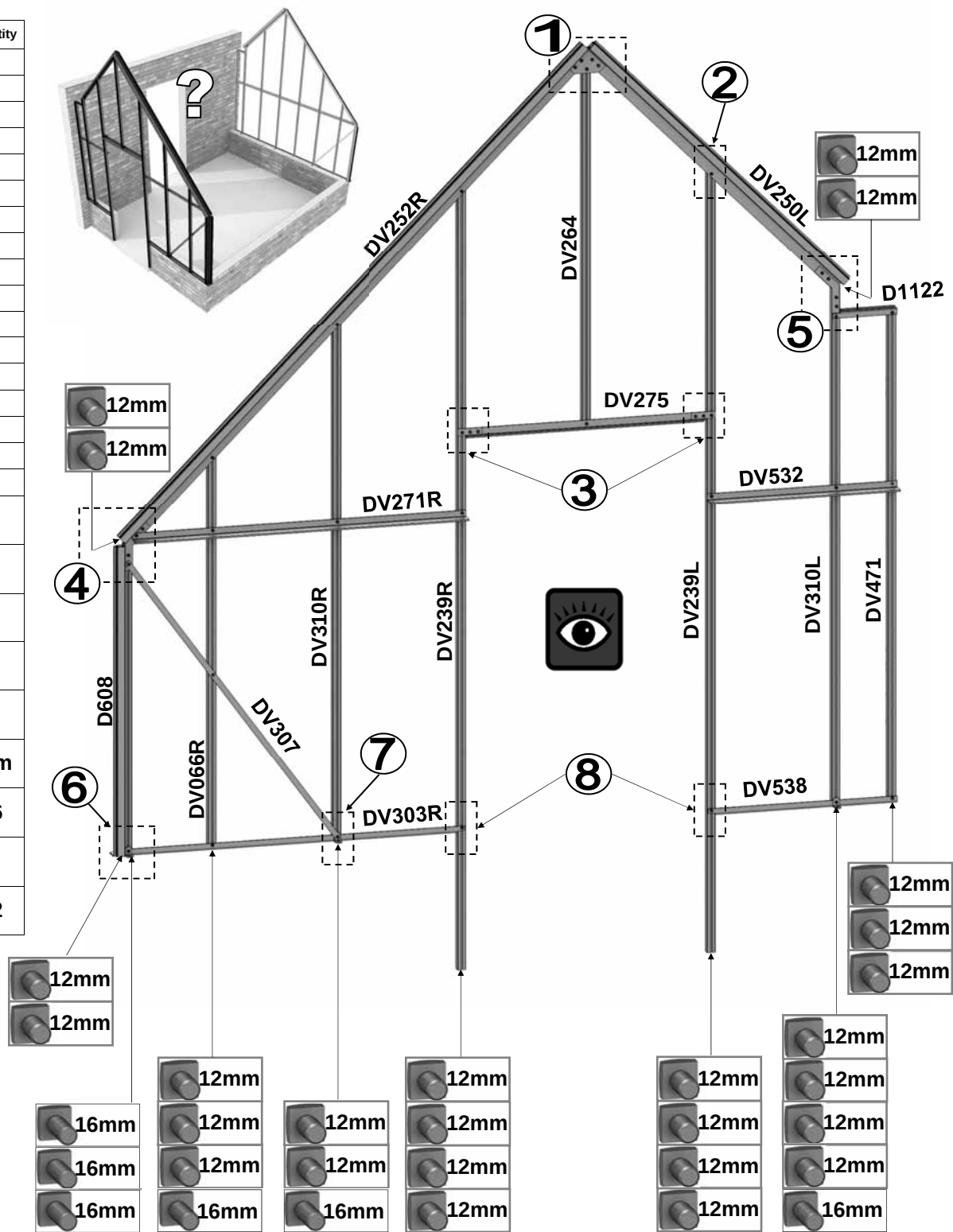


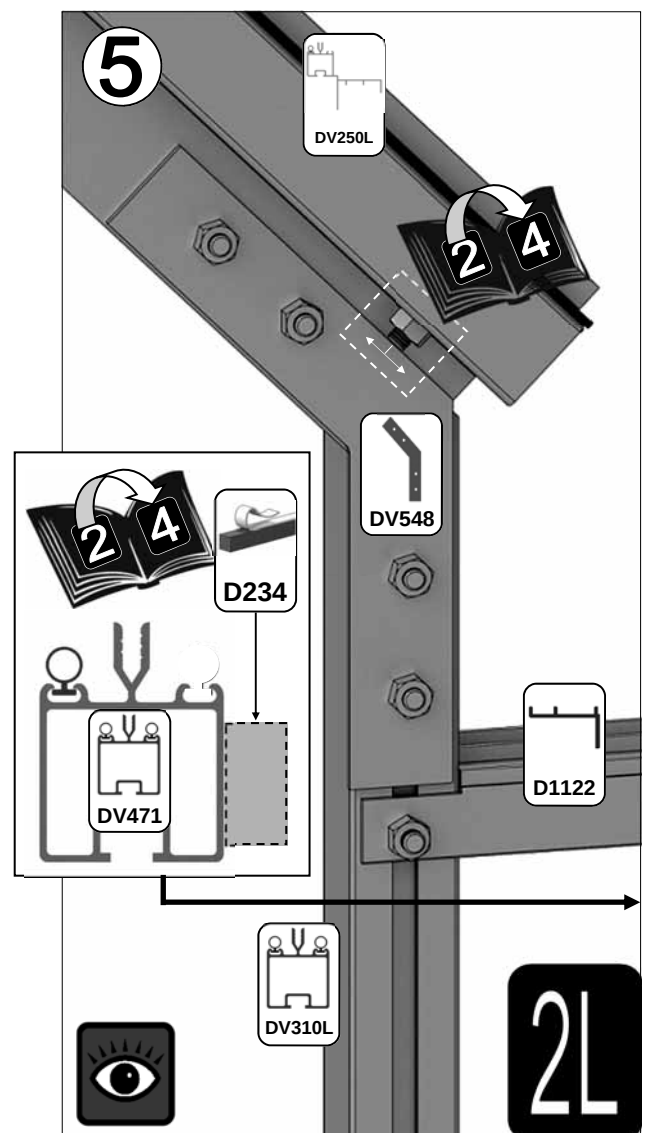
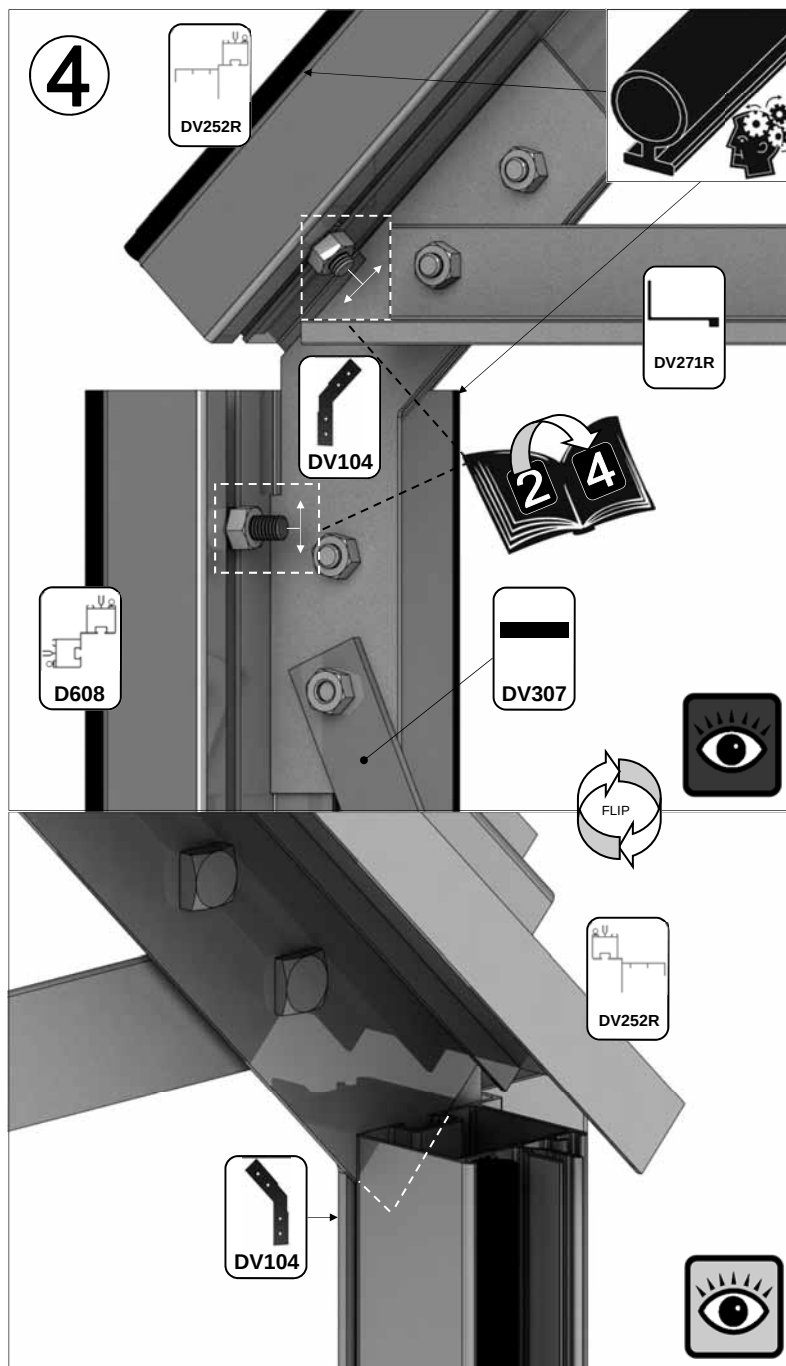
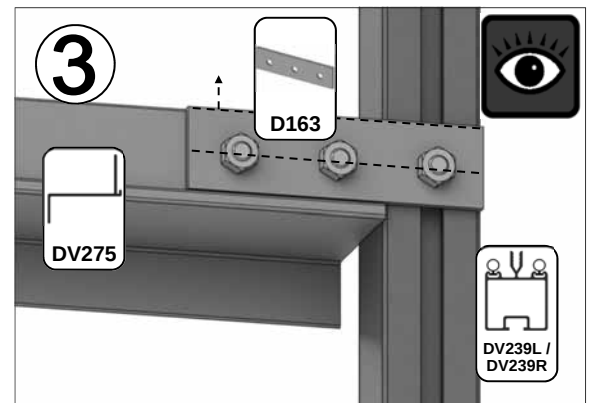
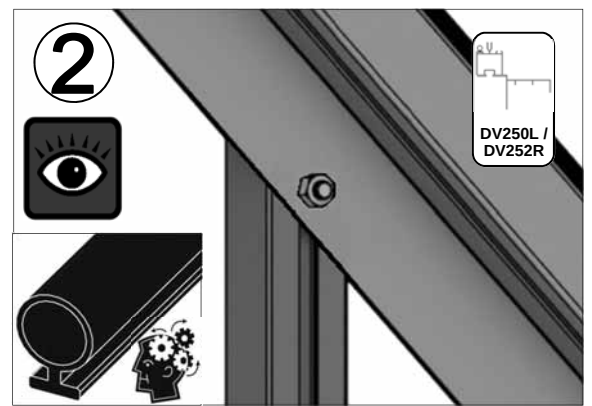
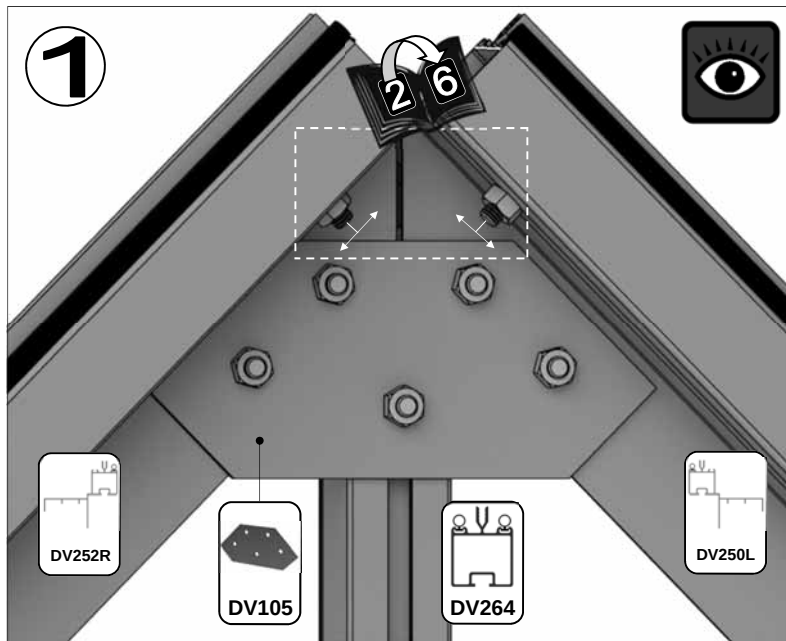
12 DWARF SIDE		
Part No	mm	Quantity
DV212	3757	1
D023	3754	1
D609	1160	5
D604	1316	2
D174		4
12mm BOLT		5
16MM BOLT		7
22MM BOLT		10
NUT M6		12
Rubber	1000	12



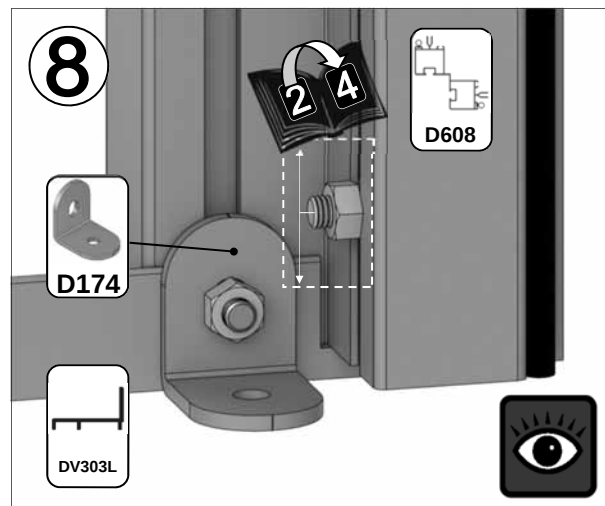
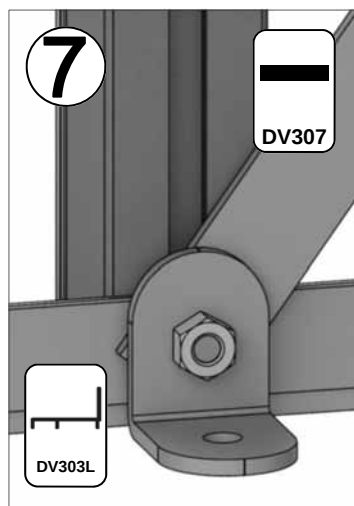
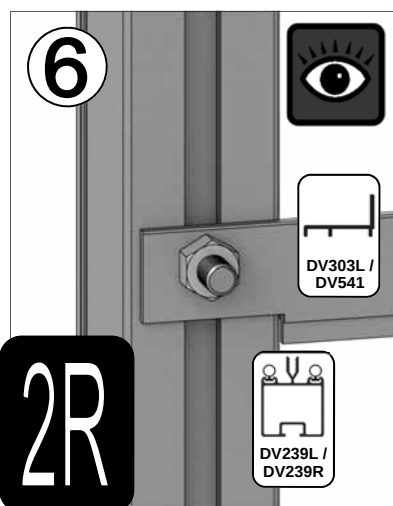
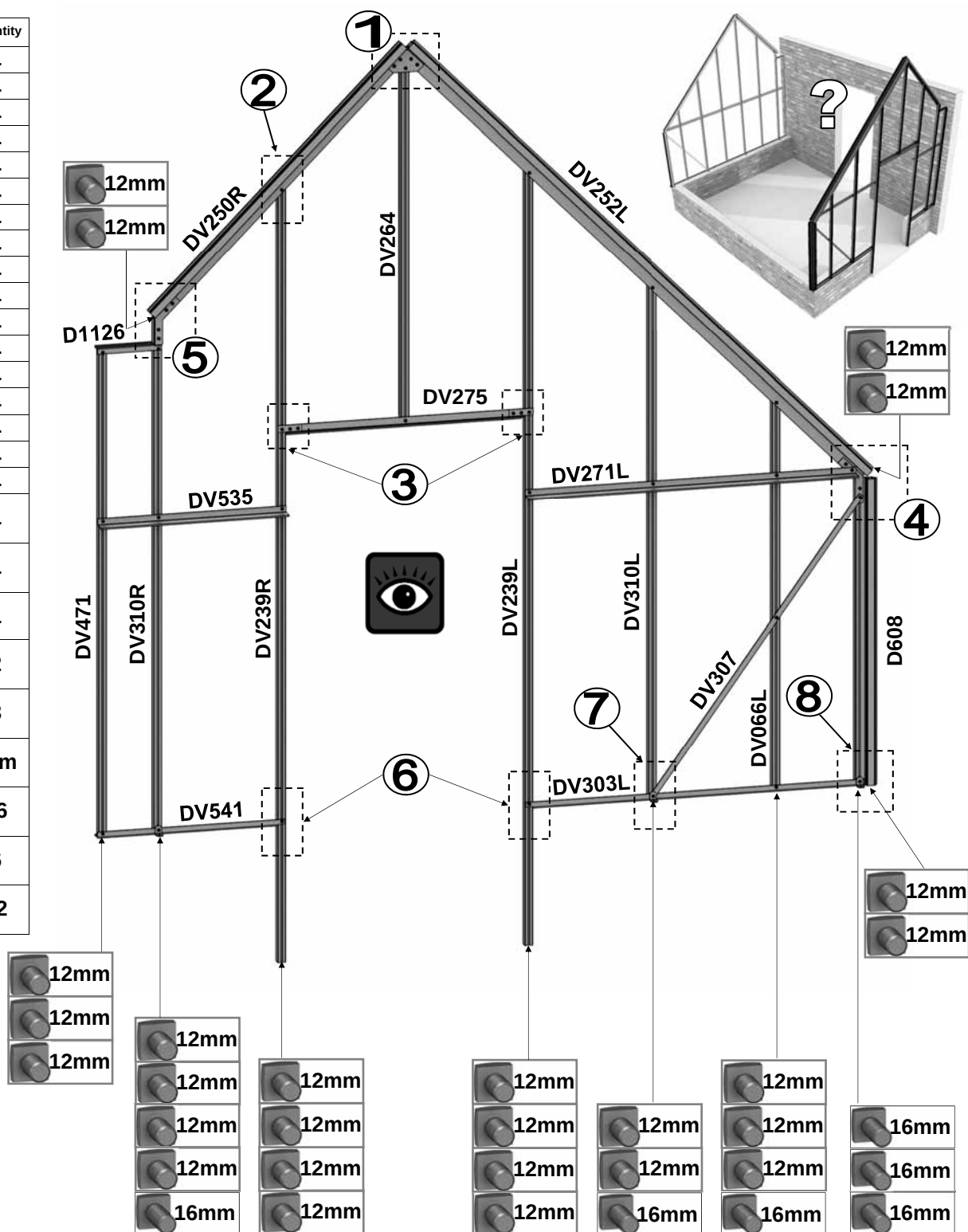


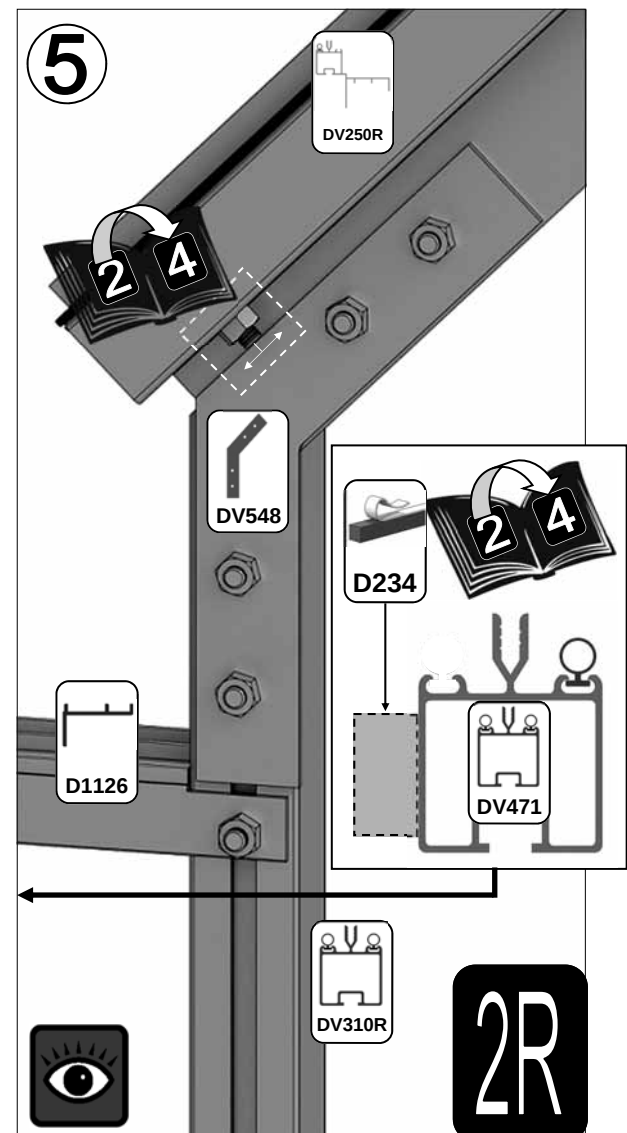
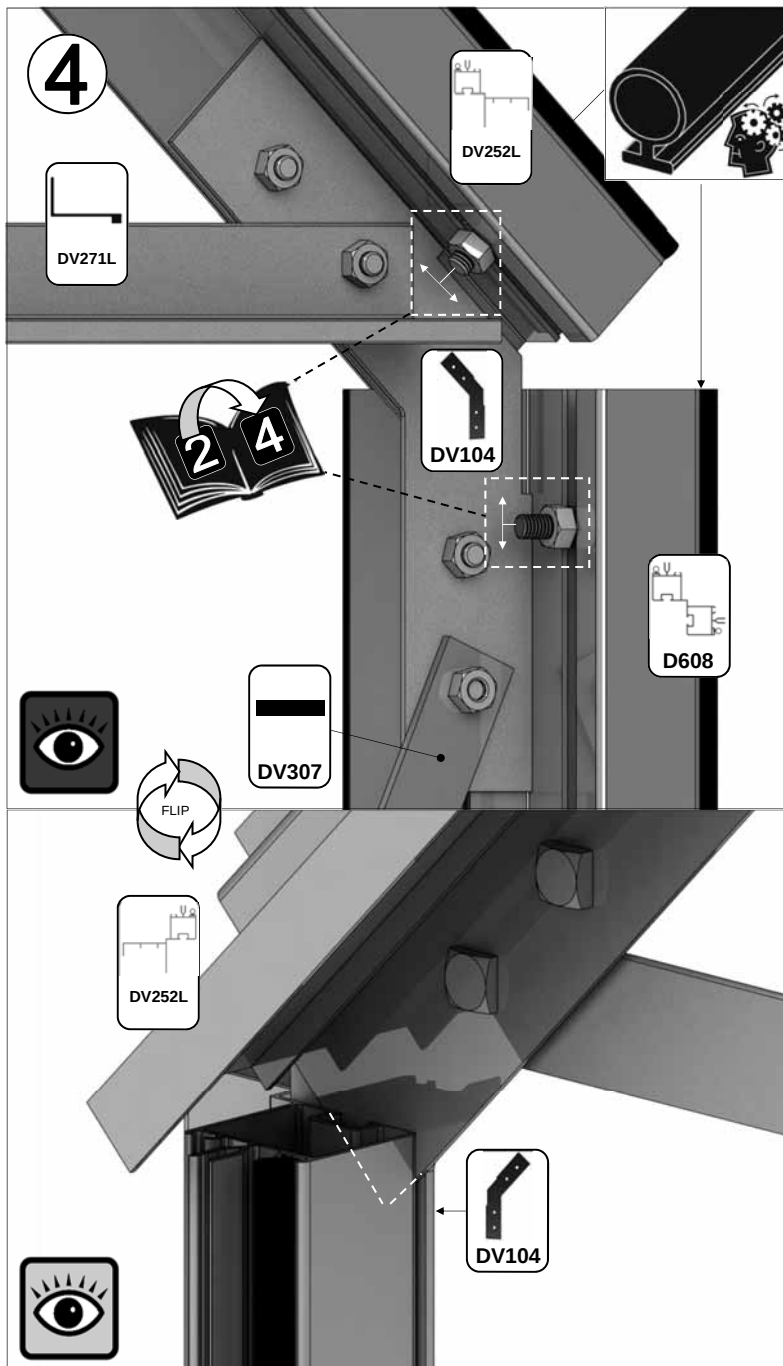
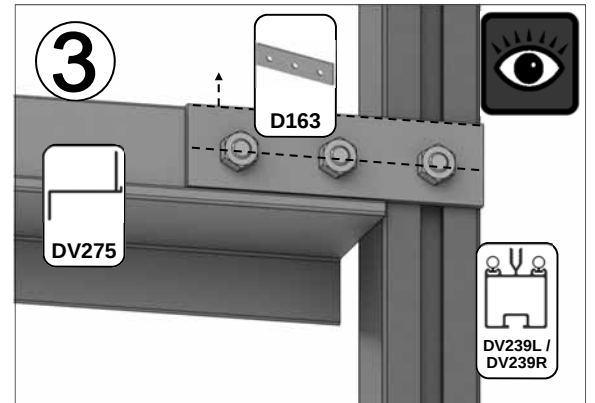
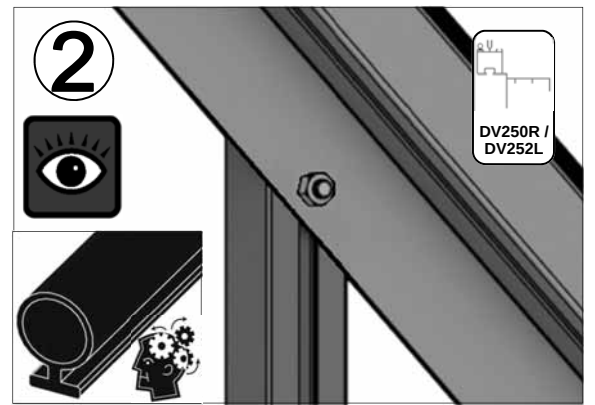
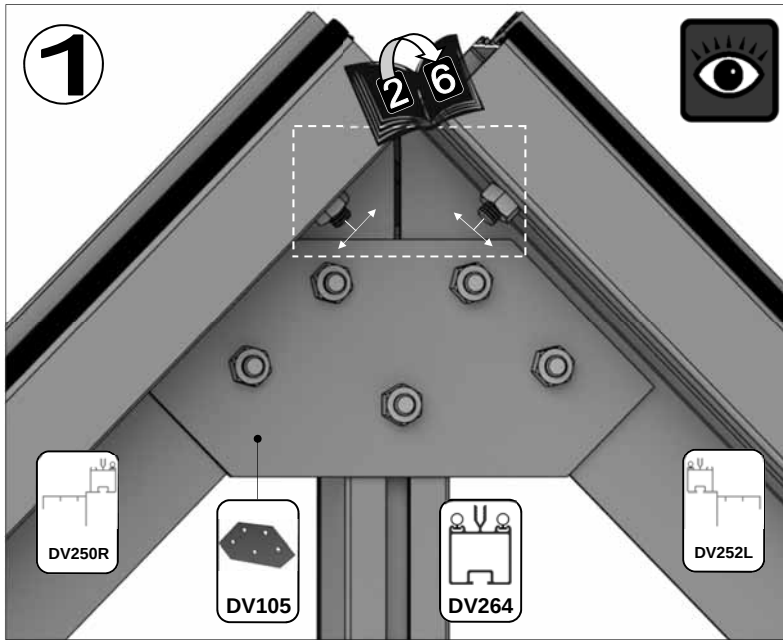
Part No	mm	Quantity
D608	1160	1
D1122	241	1
DV066R	1505	1
DV239L	2960	1
DV239R	2960	1
DV250L	1345	1
DV252R	2451	1
DV264	1398	1
DV271R	1249	1
DV275	904	1
DV303R	1319	1
DV307	1350	1
DV310L	1972	1
DV310R	1972	1
DV471	1840	1
DV532	711	1
DV538	708	1
DV104		1
DV105		1
DV548		1
D163		2
D174		3
D227		36m
M6X12		36
M6X16		6
M6NUT		42



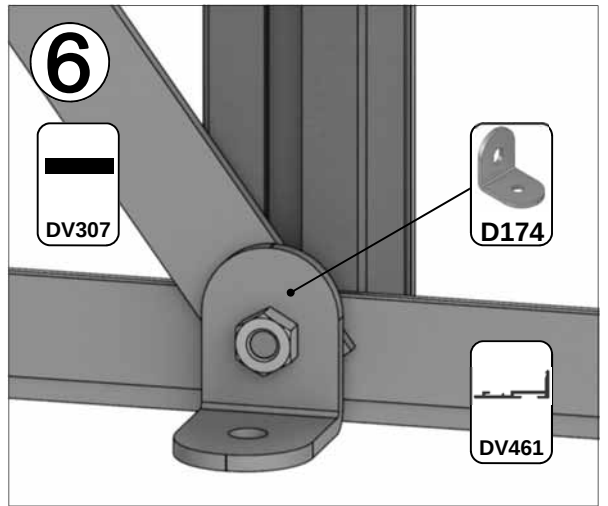
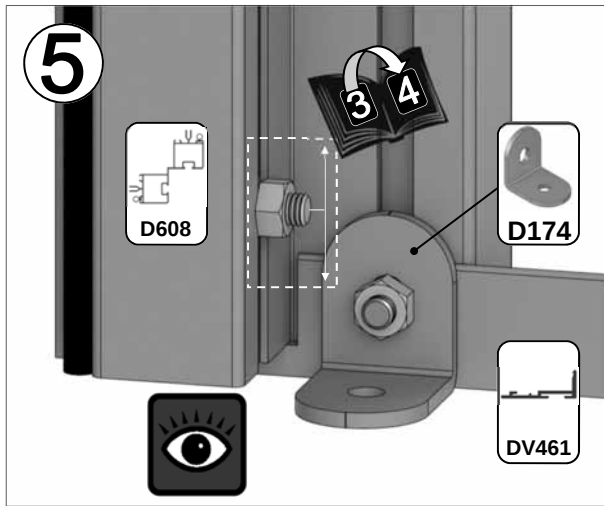
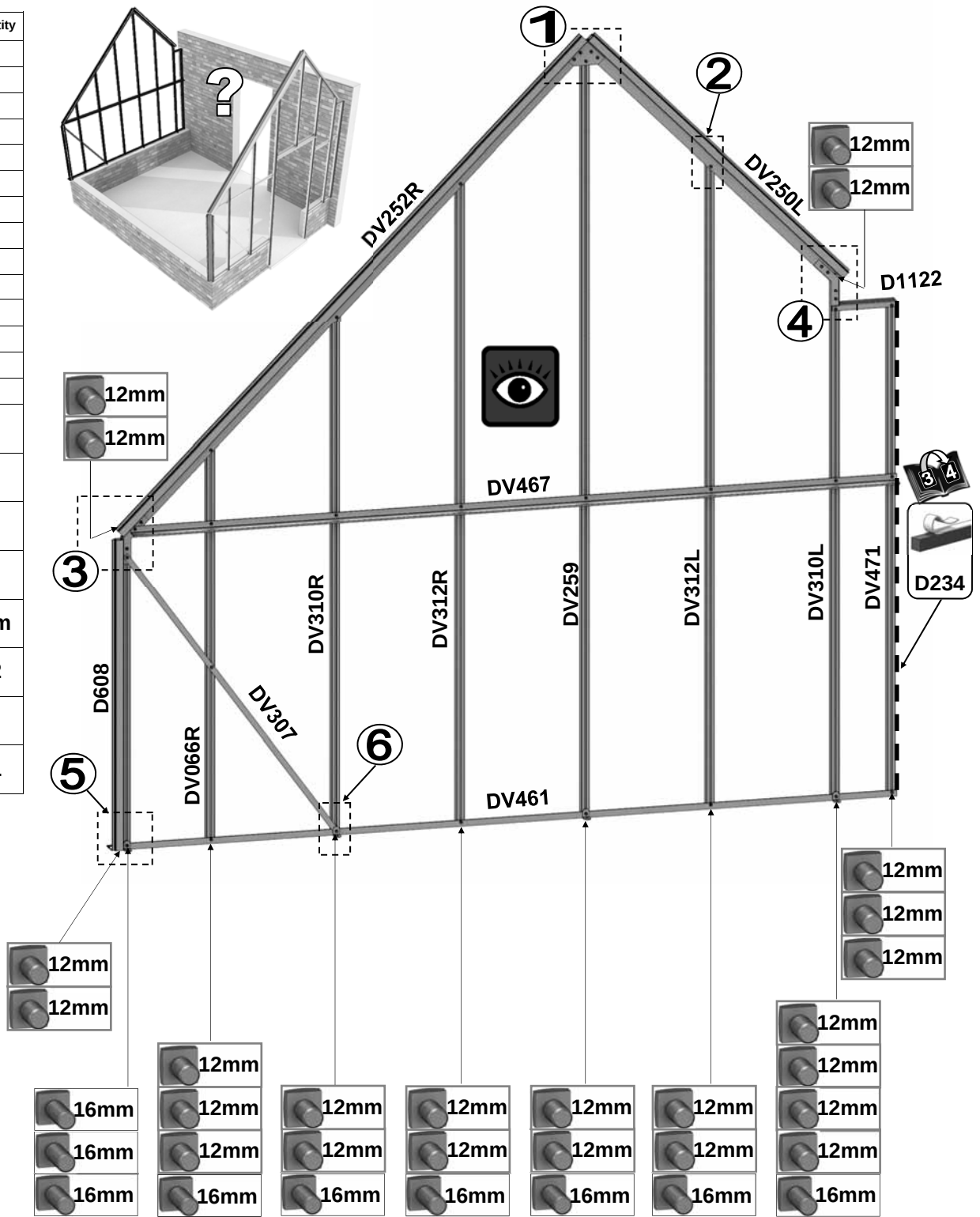


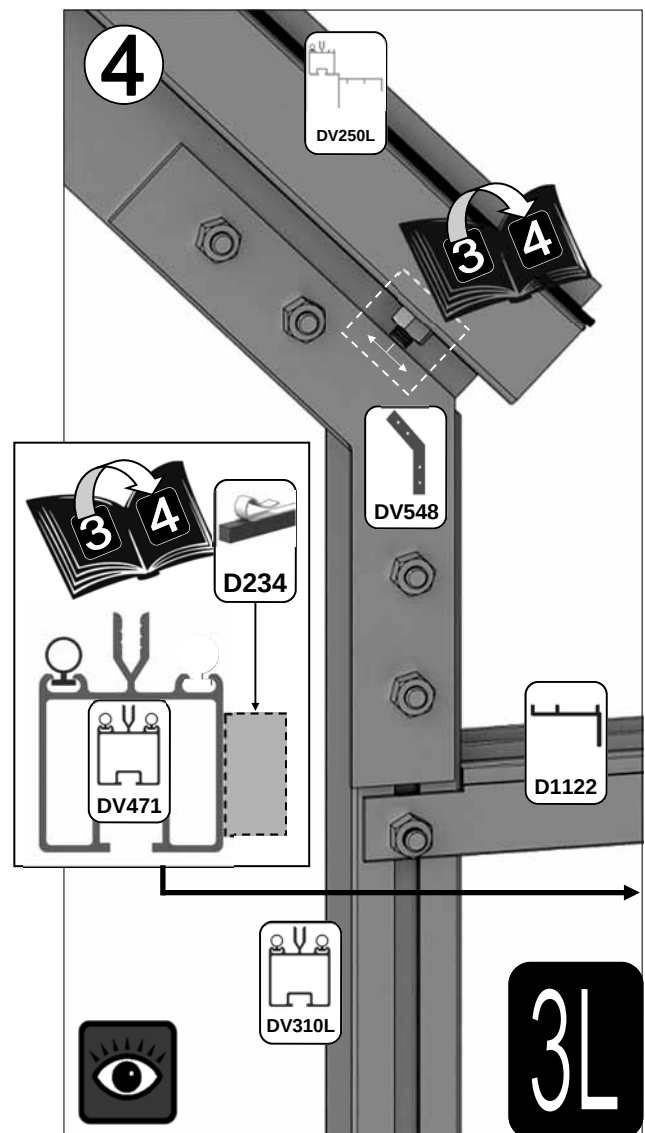
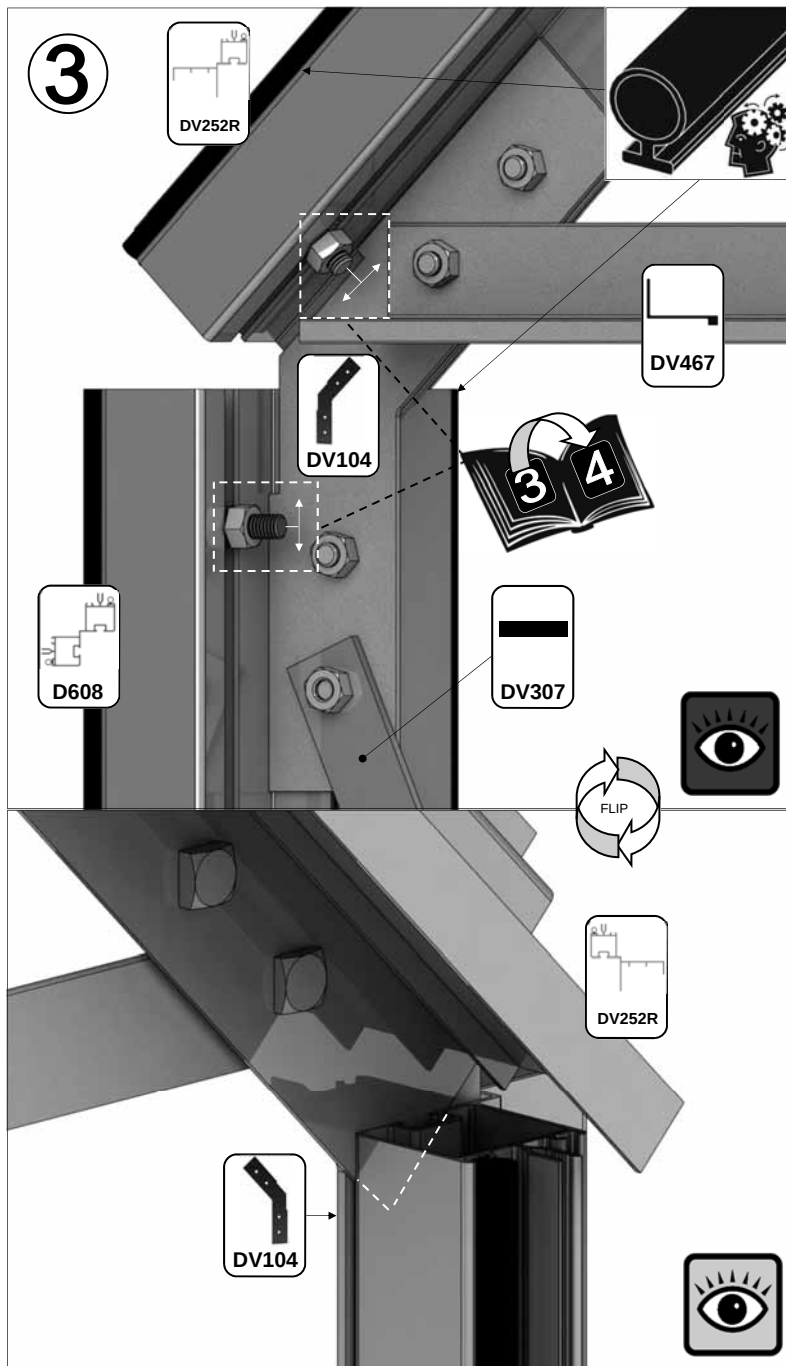
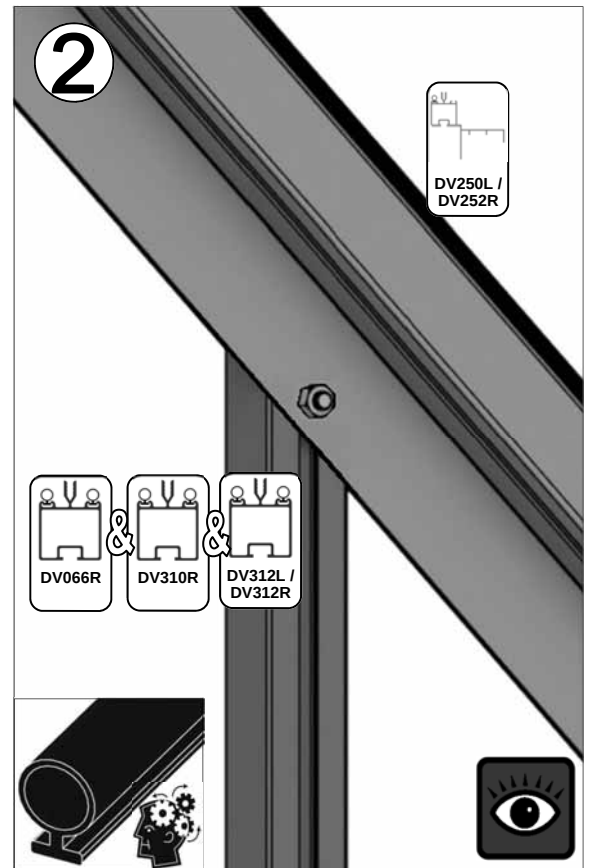
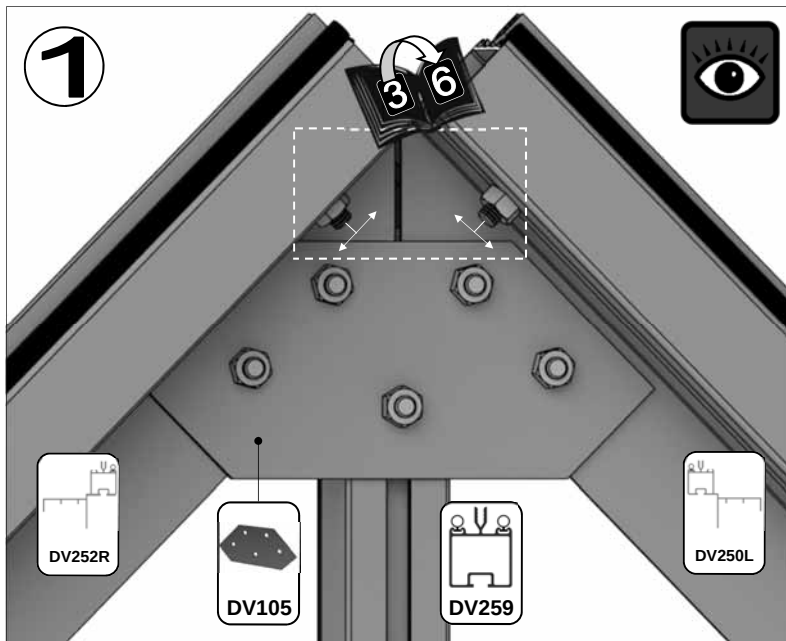
Part No	mm	Quantity
D608	1160	1
D1126	241	1
DV066L	1505	1
DV239L	2960	1
DV239R	2960	1
DV250R	1345	1
DV252L	2451	1
DV264	1398	1
DV271L	1249	1
DV275	904	1
DV303L	1319	1
DV307	1350	1
DV310L	1972	1
DV310R	1972	1
DV471	1840	1
DV535	711	1
DV541	708	1
DV104		1
DV105		1
DV548		1
D163		2
D174		3
D227		36m
M6X12		36
M6X16		6
M6NUT		42



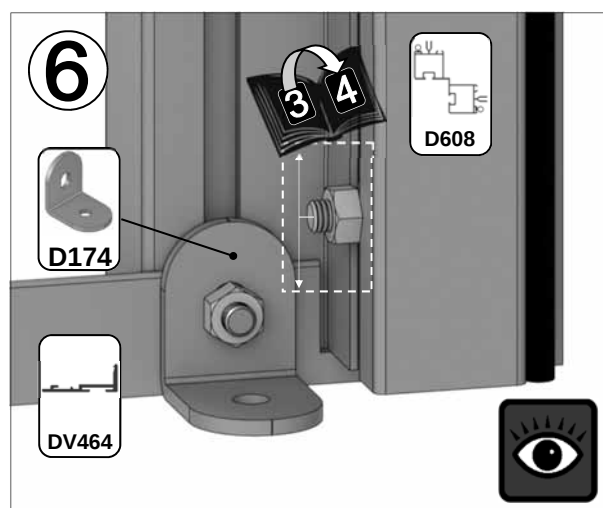
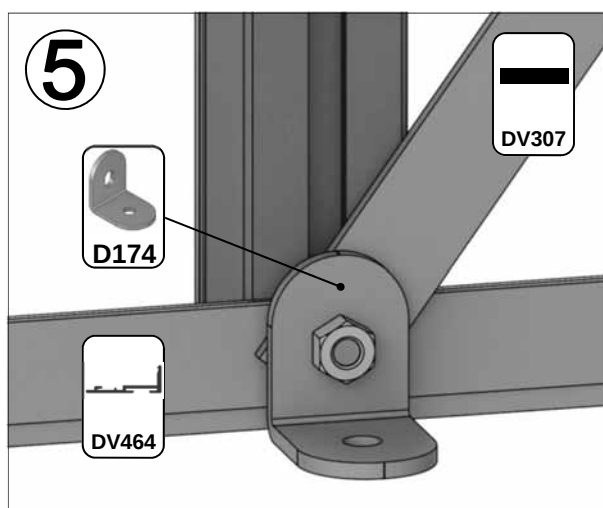
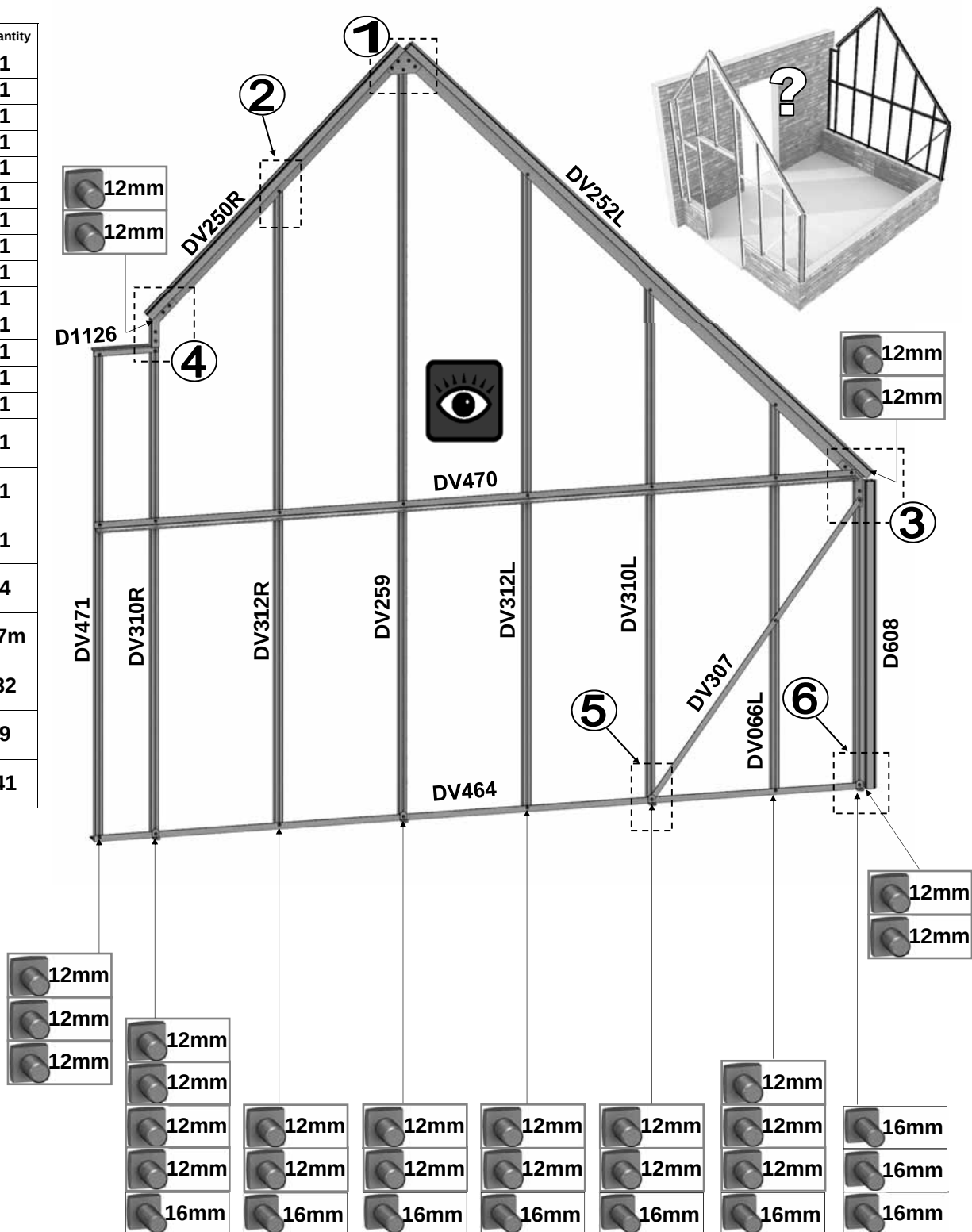


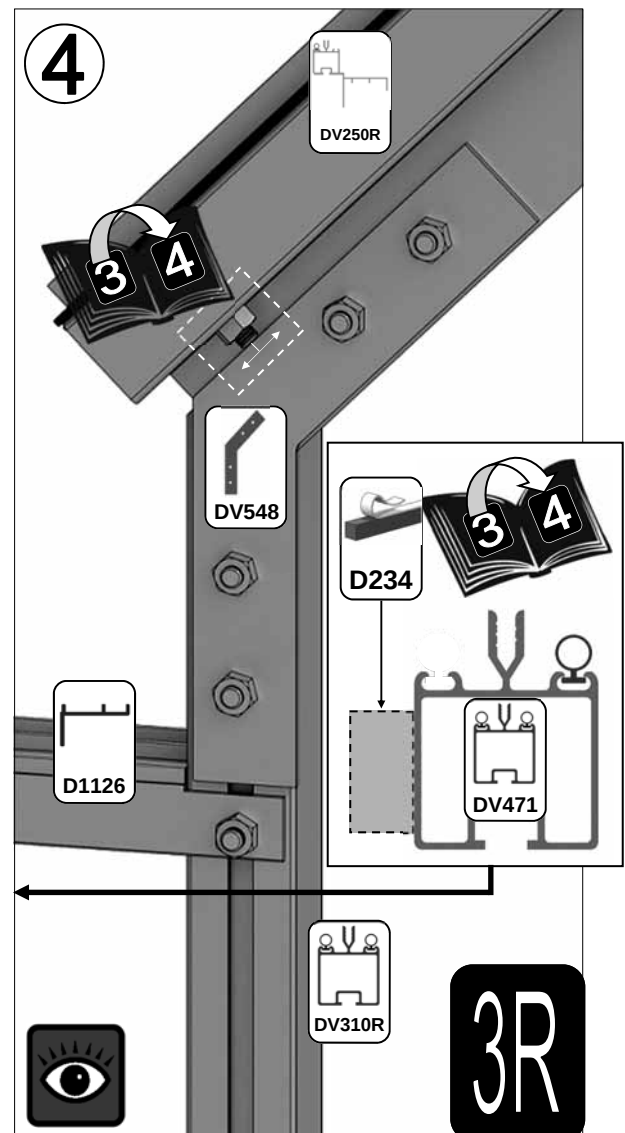
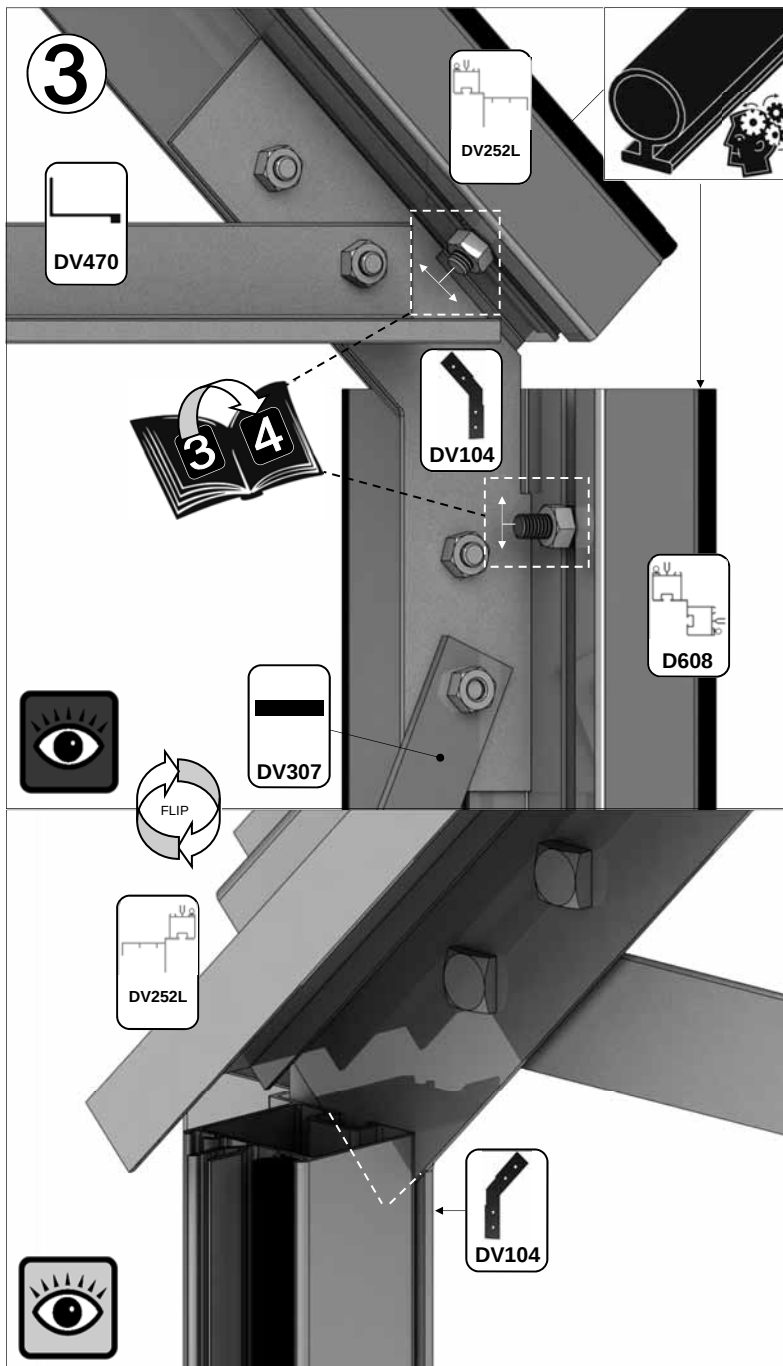
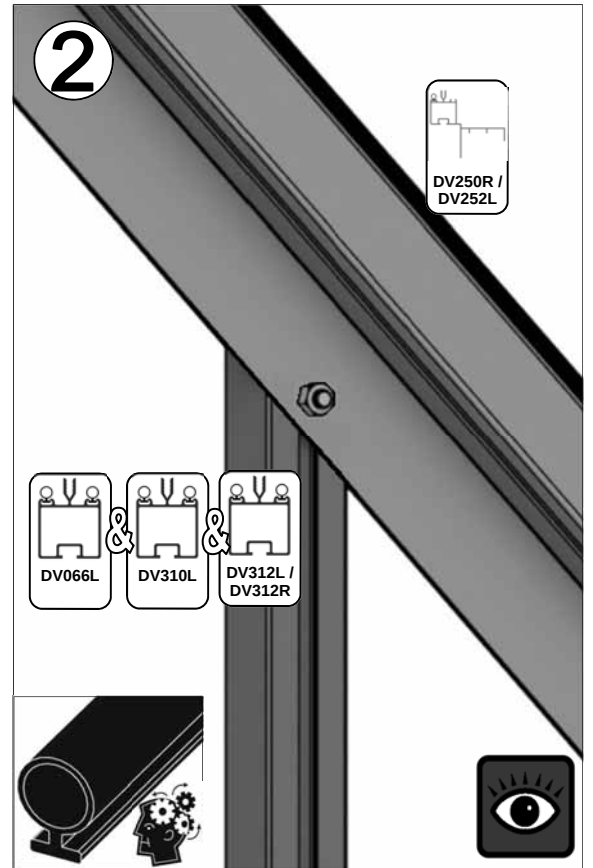
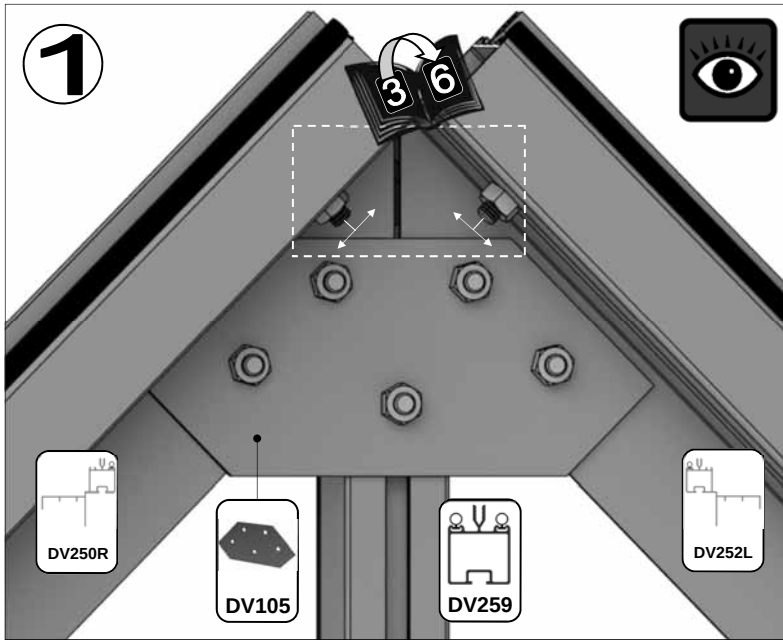
Part No	mm	Quantity
D608	1160	1
D1122	241	1
DV066R	1505	1
DV250L	1345	1
DV252R	2451	1
DV259	2879	1
DV307	1350	1
DV310L	1972	1
DV310R	1972	1
DV312L	2438	1
DV312R	2438	1
DV461	2937	1
DV467	2864	1
DV471	1840	1
DV104		1
DV105		1
DV548		1
D174		4
D227		37m
M6X12		32
M6X16		9
M6NUT		41

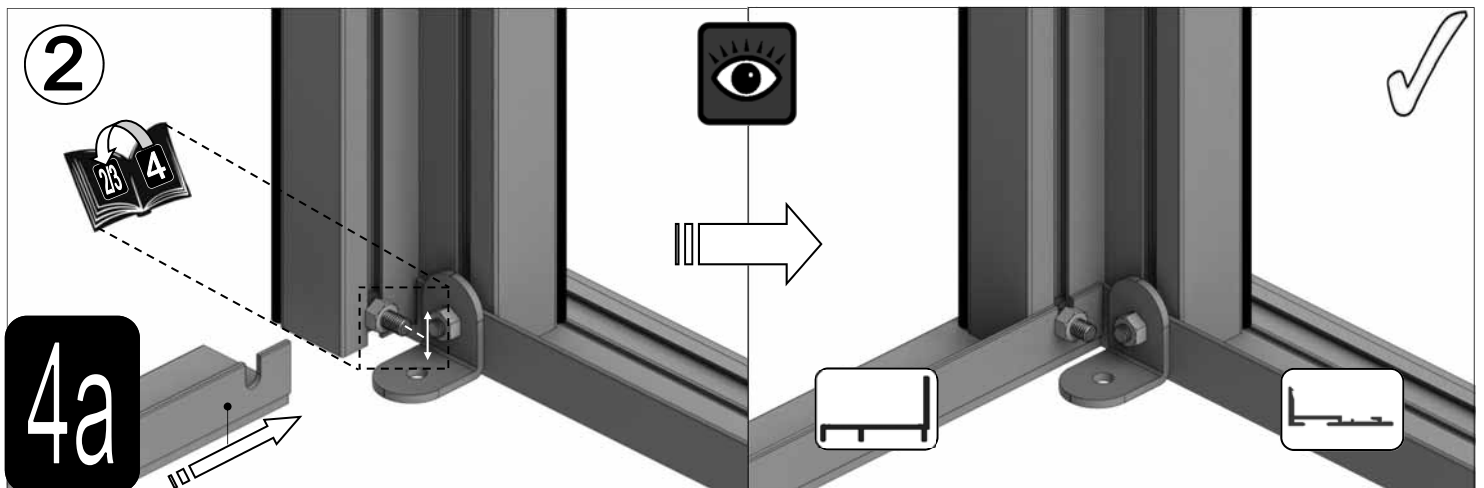
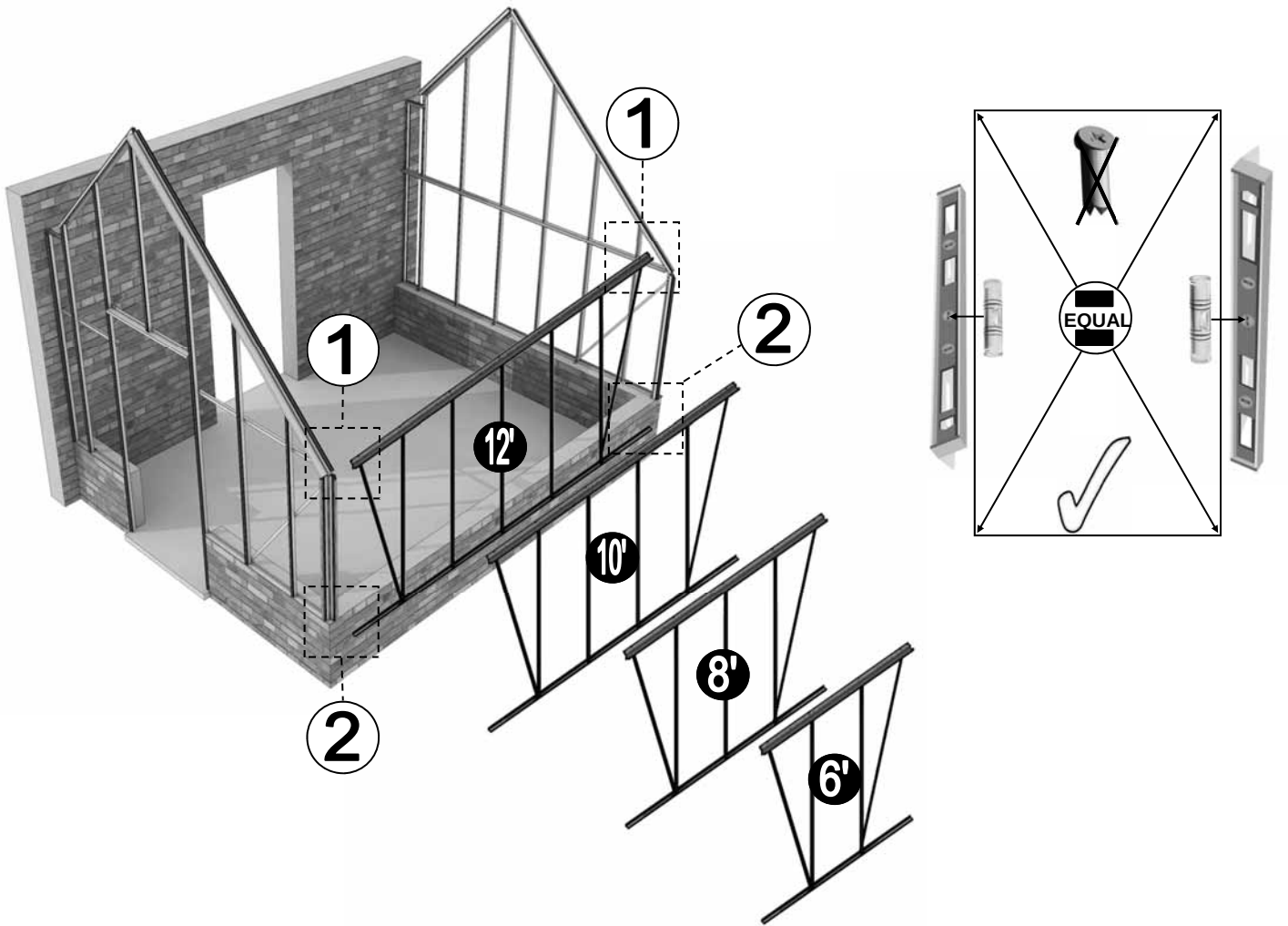
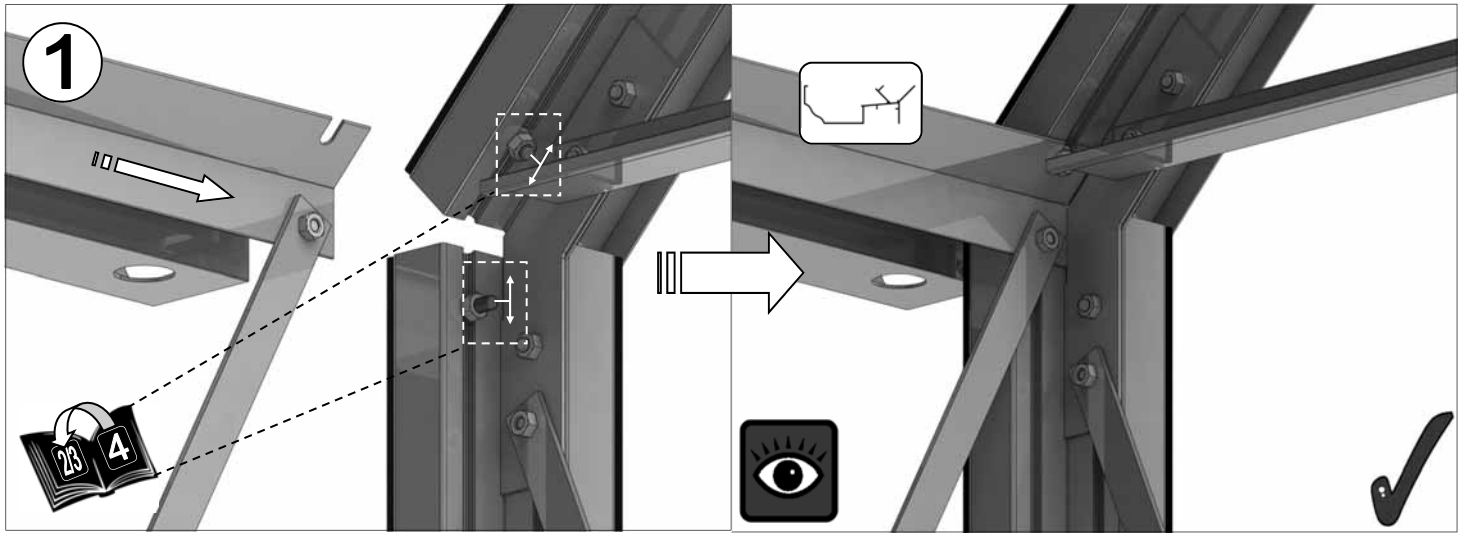




Part No	mm	Quantity
D608	1160	1
D1126	241	1
DV066L	1505	1
DV250R	1345	1
DV252L	2451	1
DV259	2879	1
DV307	1350	1
DV310L	1972	1
DV310R	1972	1
DV312L	2438	1
DV312R	2438	1
DV464	2937	1
DV470	2864	1
DV471	1840	1
DV104		1
DV105		1
DV548		1
D174		4
D227		37m
M6X12		32
M6X16		9
M6NUT		41







6'		
Part No	mm	Quantity
D1073	1997	1
D1079	1897	1
D1082	N/A	2
D1089	N/A	4
BOLM6X16		8
NUTM6		8
EV0329	13	4
SYSCR2	50	8
SYRAWL	50	8

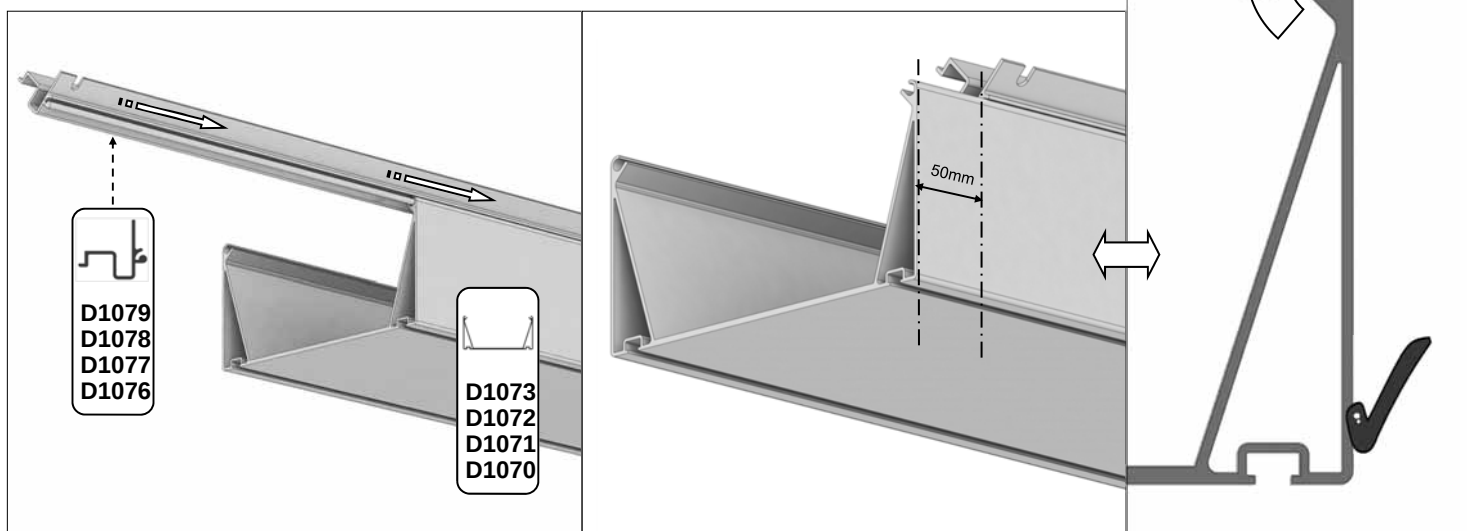
8'		
Part No	mm	Quantity
D1072	2617	1
D1078	2517	1
D1082	N/A	2
D1089	N/A	5
BOLM6X16		10
NUTM6		10
EV0329	13	4
SYSCR2	50	10
SYRAWL	50	10

10'		
Part No	mm	Quantity
D1071	3237	1
D1077	3137	1
D1082	N/A	2
D1089	N/A	6
BOLM6X16		12
NUTM6		12
EV0329	13	4
SYSCR2	50	12
SYRAWL	50	12

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

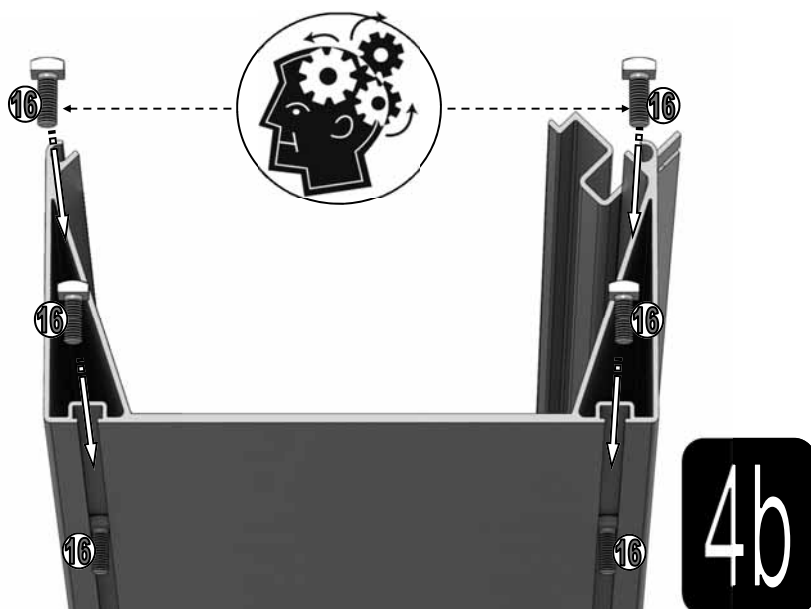
It is intentional that your valley gutter e.g. D1073 is 100mm longer than its corresponding flange e.g. D1079. The valley gutter should protrude away from the flanges by 50mm at either end. This allows the valley gutter to extend beyond the frame minimising any chance of leaks.

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.



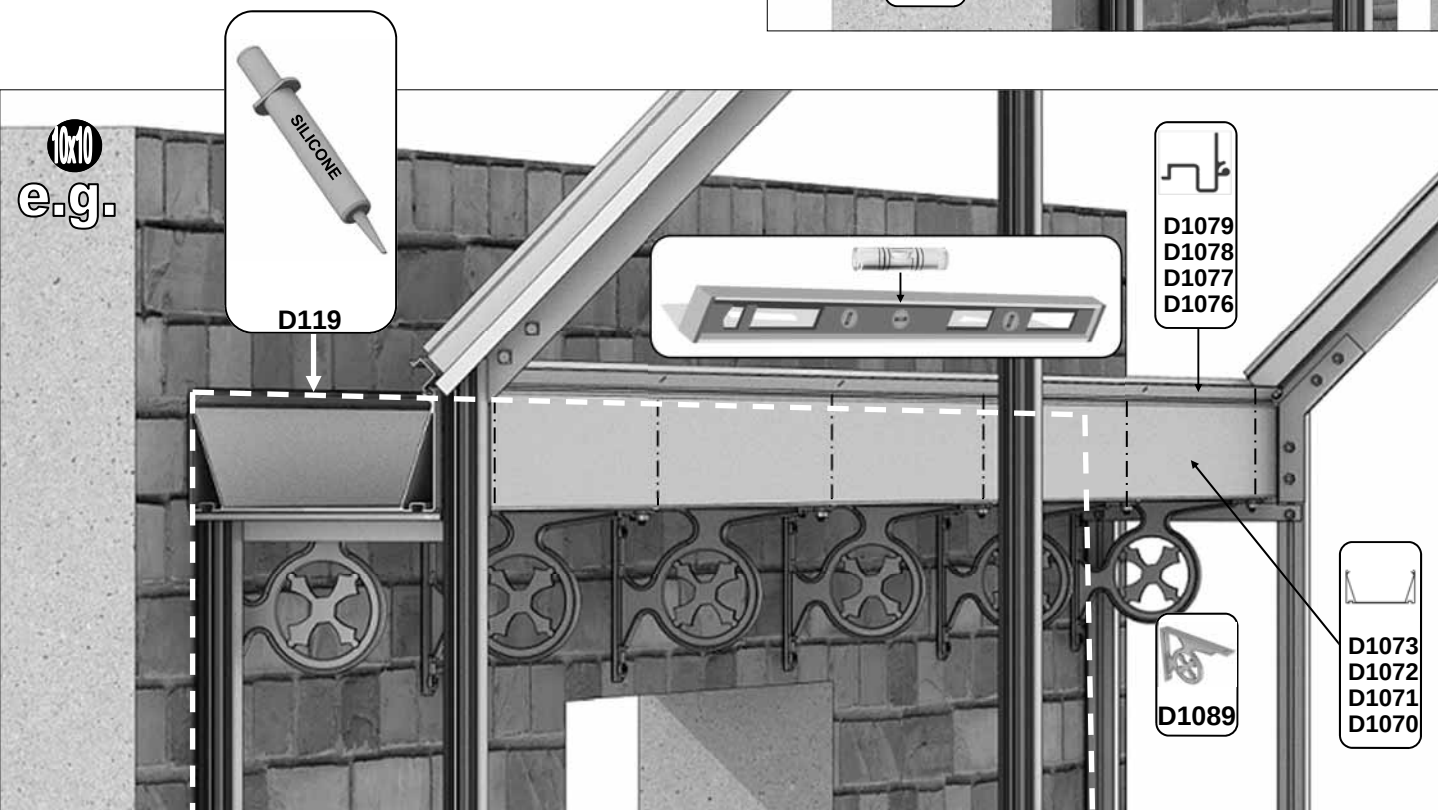
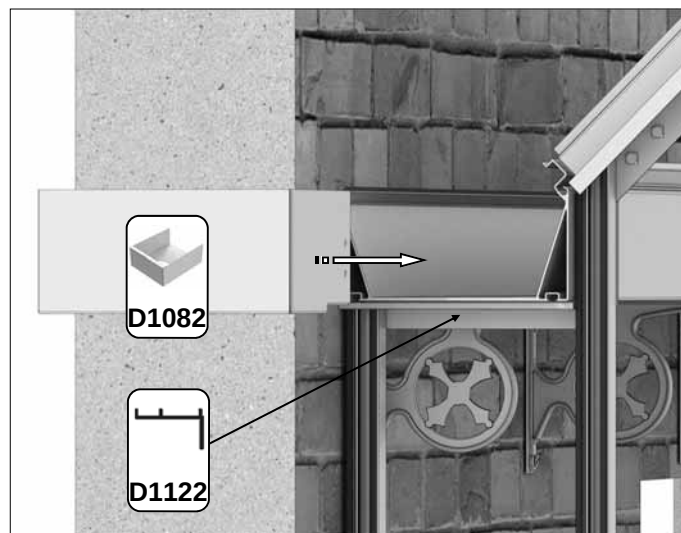
One 16mm bolt needs to be slid into each of the valley gutter bolt channels (see right) to enable each support castings D1089 to attach.

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

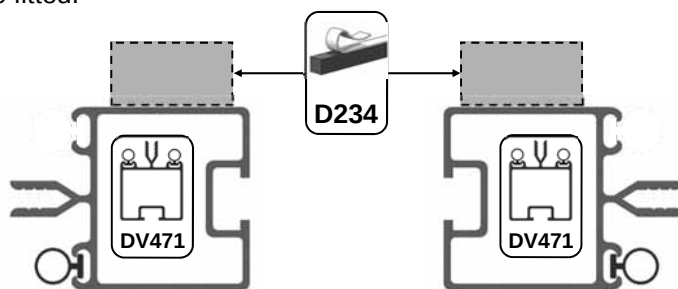
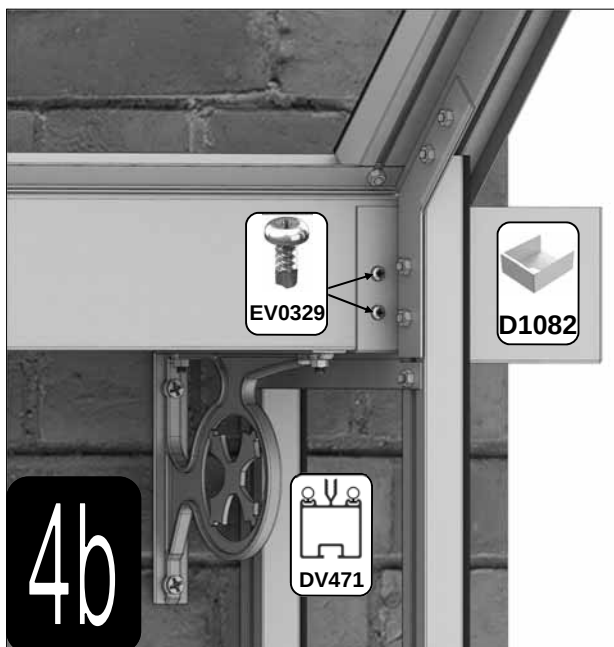


Insert the valley end caps D1082 (see right) into either end of the valley gutter until they abut parts D1122 (shown) and D1126.

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.

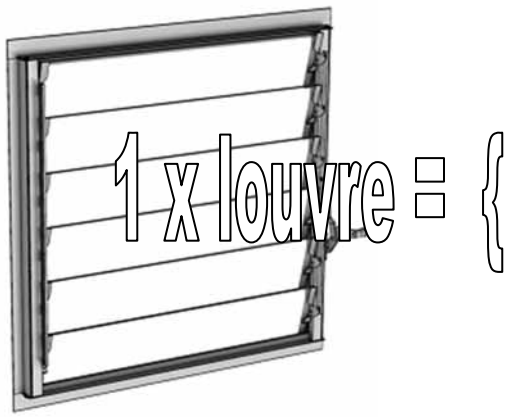


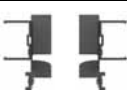
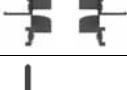
Self tapping EV0329 screws (see below) are used to secure the valley end caps D1082. You can add silicone to the D1082 end caps now or later when the valley downpipes are fitted.

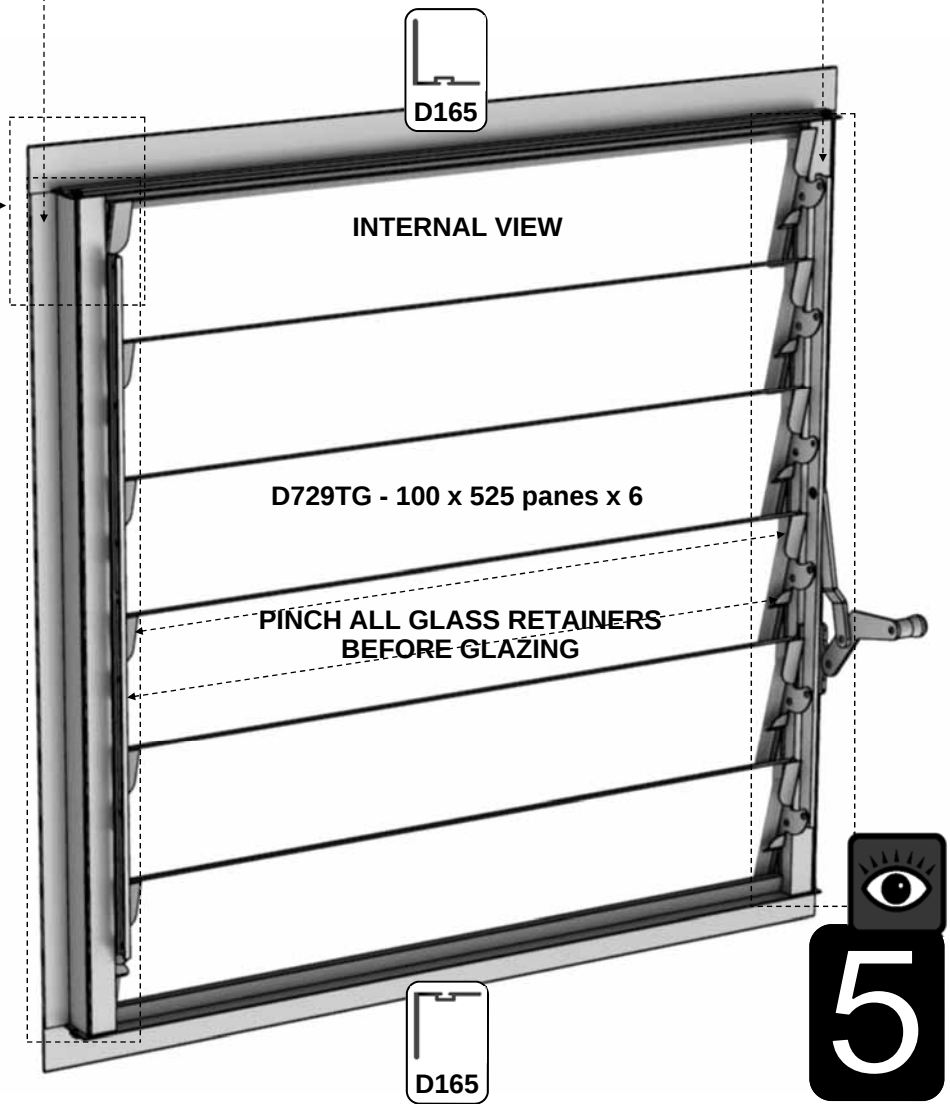
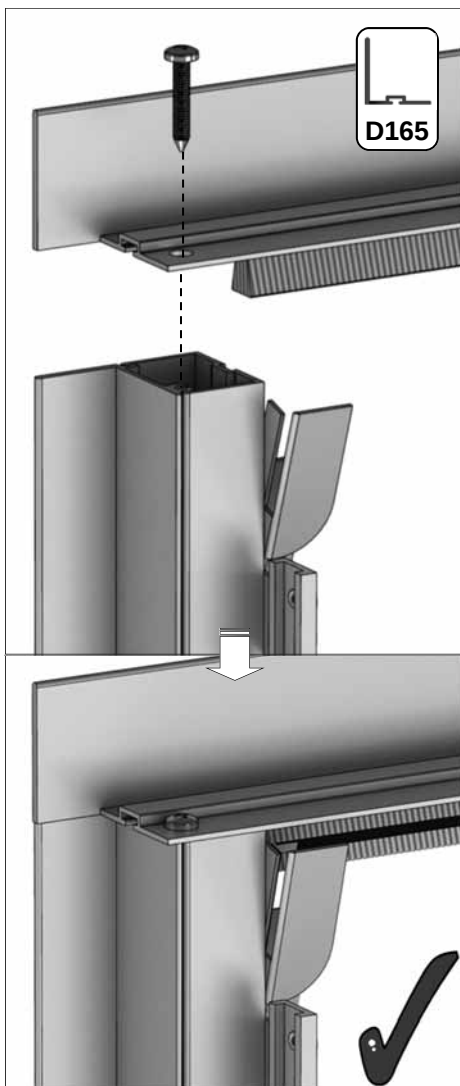
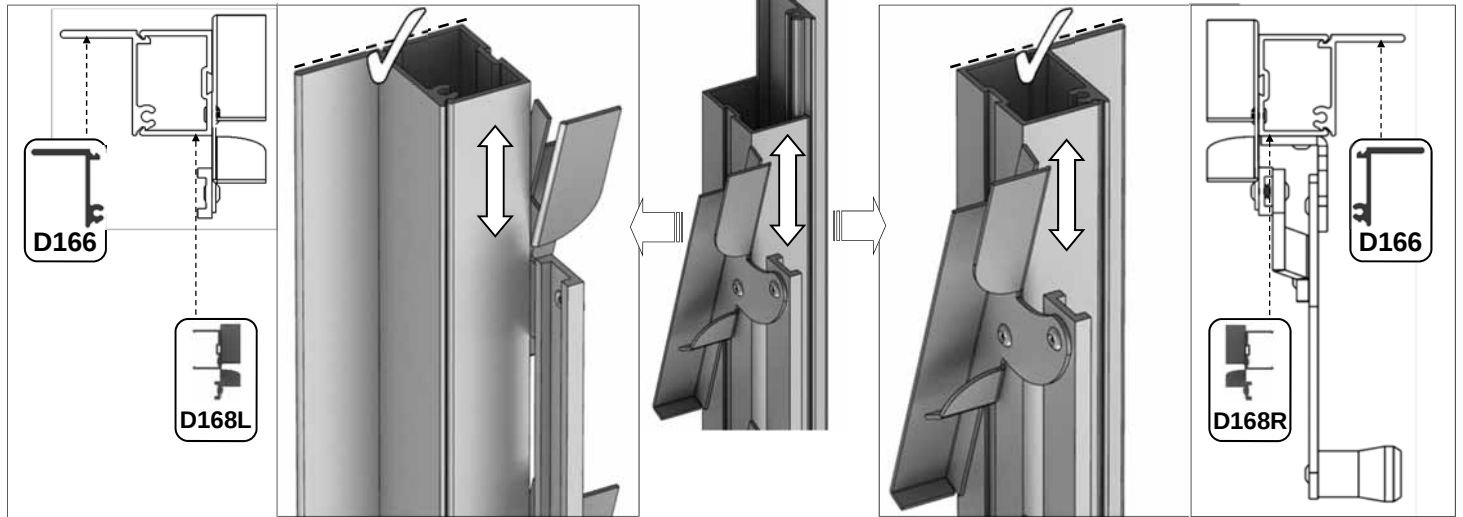


There are various methods for attaching your wall bars DV471.

- 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.



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

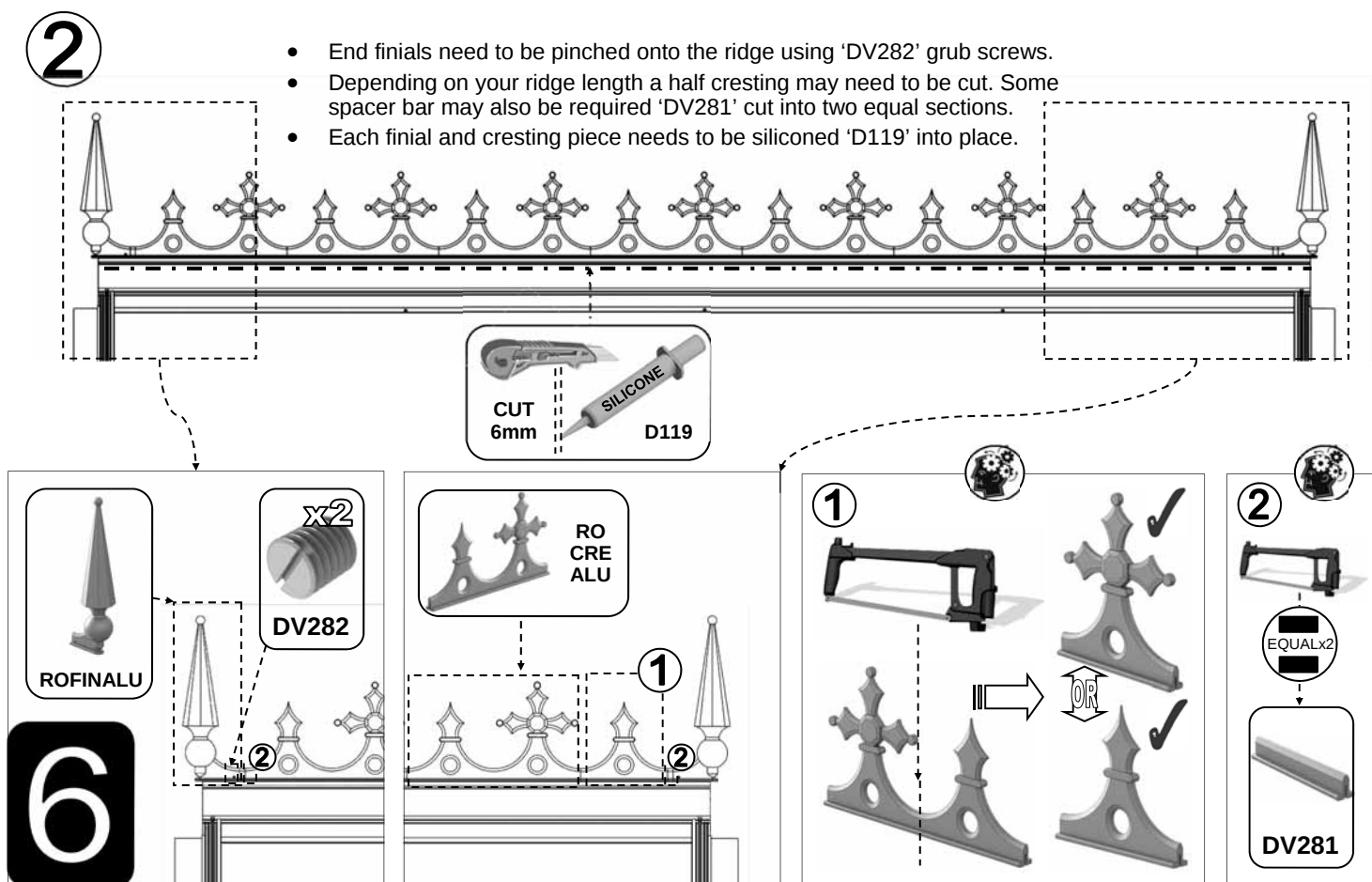
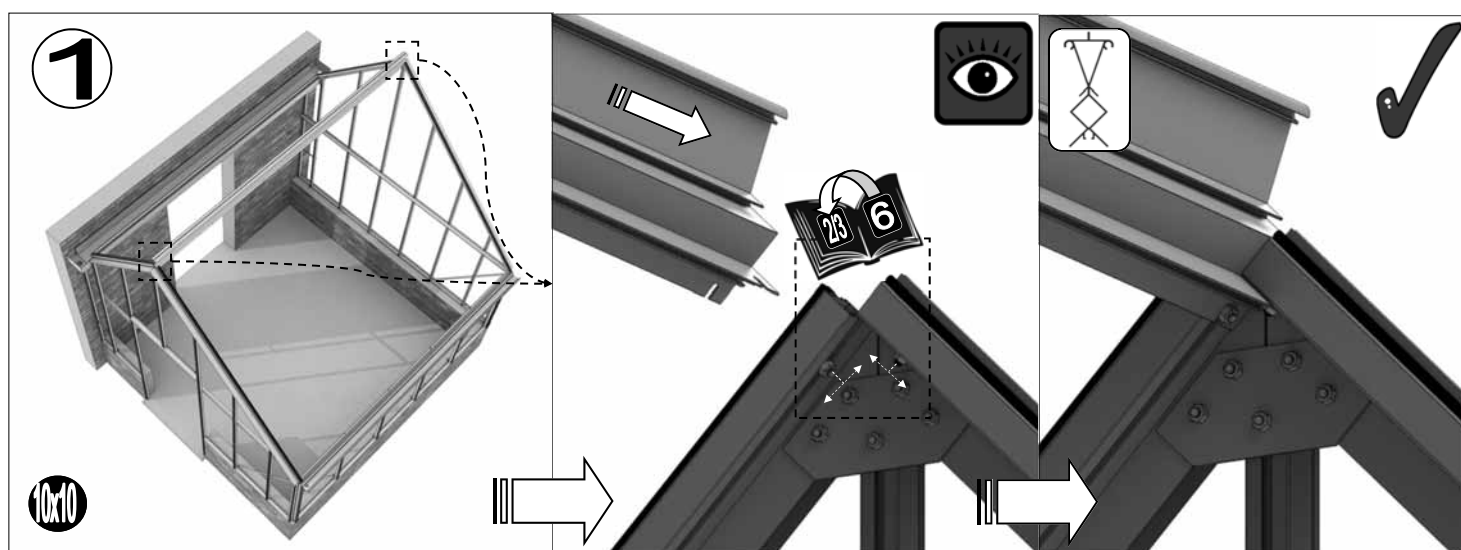


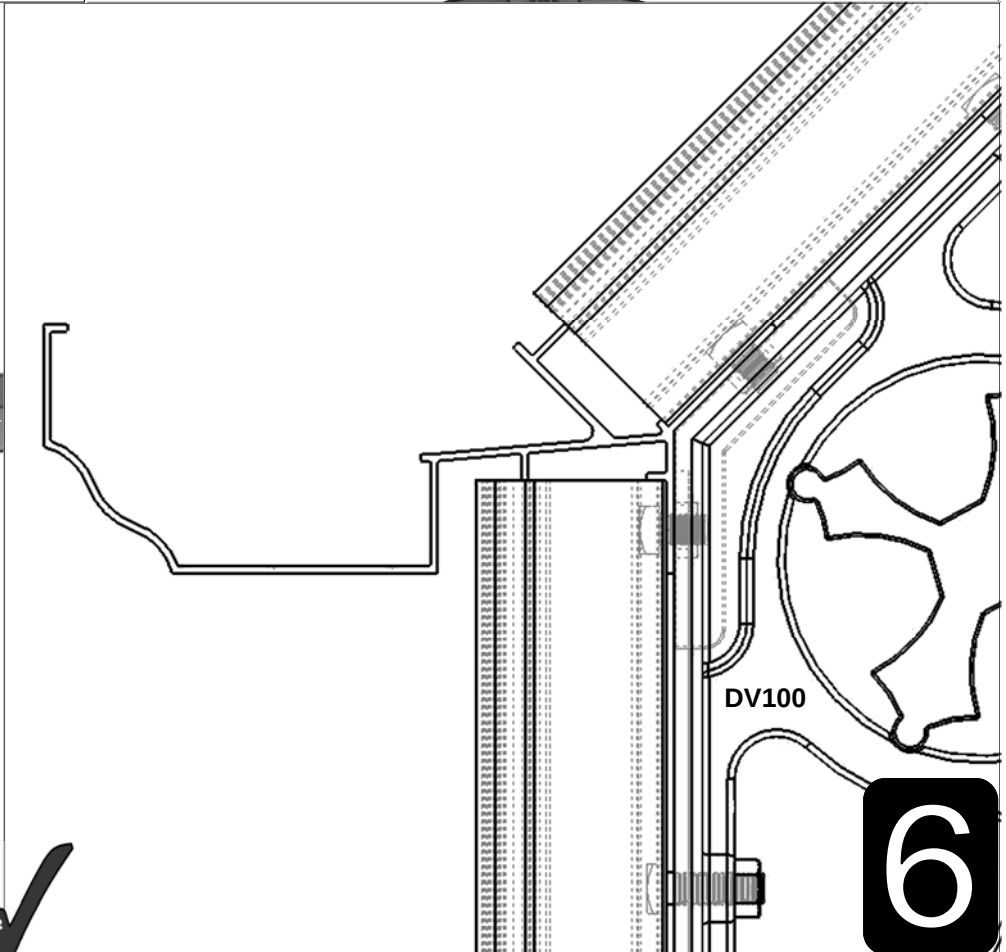
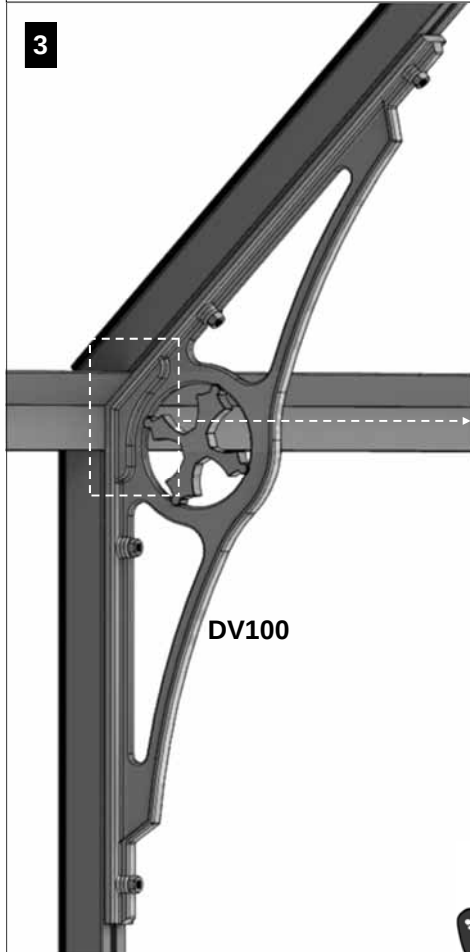
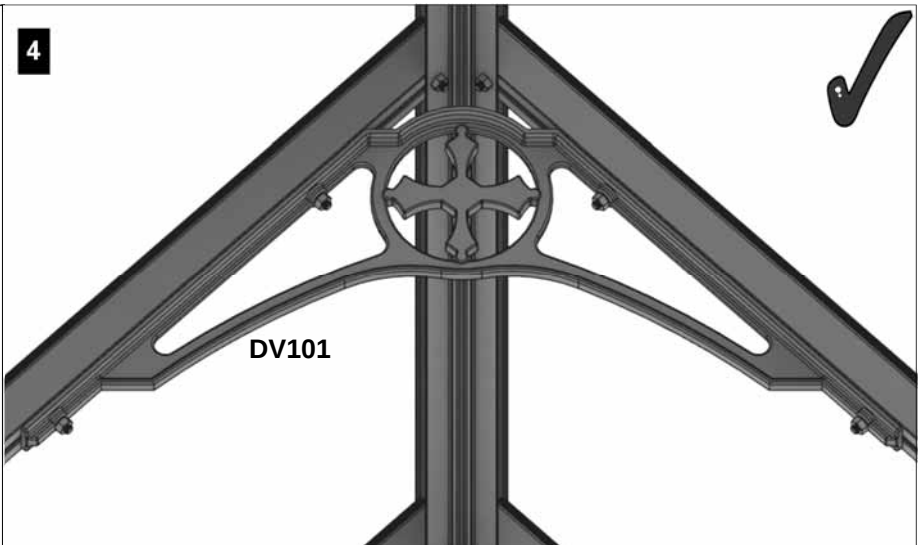
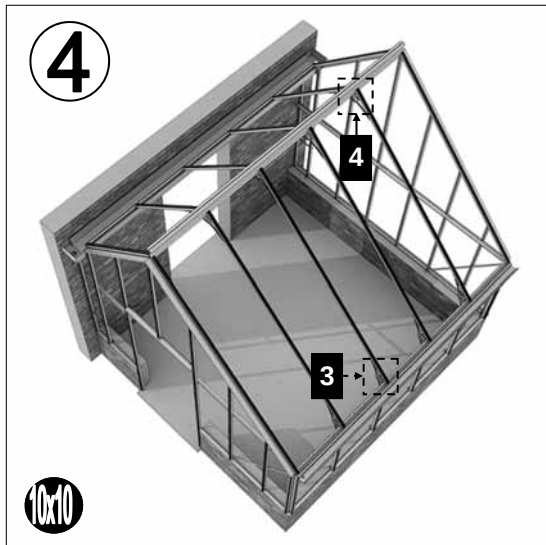
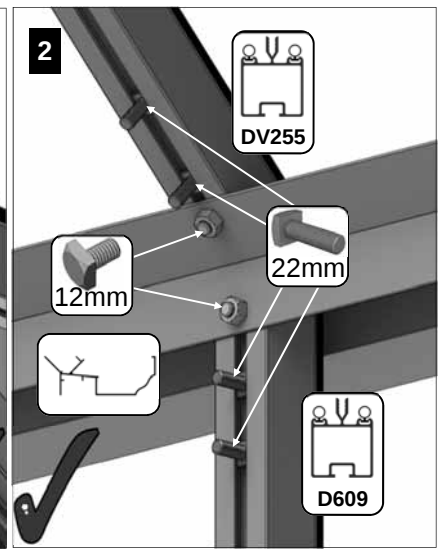
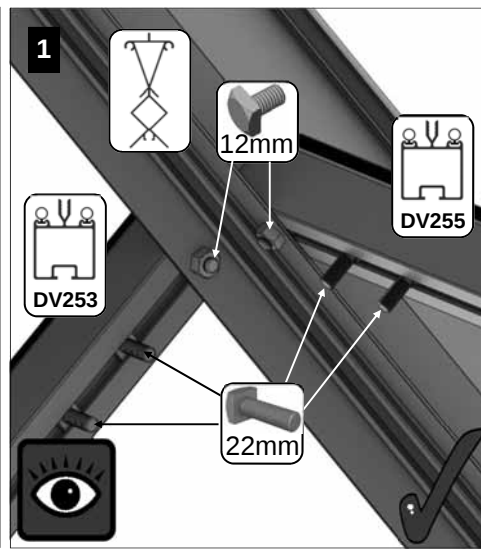
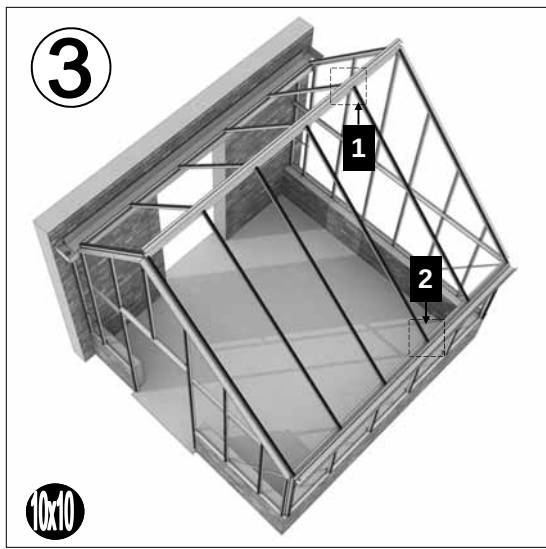
6'		
Part No	mm	Quantity
DV204	1897	1
DV253	1345	2
DV255	2450	2
DV100	n/a	2
DV101	n/a	2
RUBBER	1000	16
BOL M6 X 12		8
BOL M6 X 22		12
NUT M6		24

8'		
Part No	mm	Quantity
DV201	2517	1
DV253	1345	3
DV255	2450	3
DV100	n/a	3
DV101	n/a	3
RUBBER	1000	23
BOL M6 X 12		12
BOL M6 X 22		18
NUT M6		36

10'		
Part No	mm	Quantity
DV202	3137	1
DV253	1345	4
DV255	2450	4
DV100	n/a	4
DV101	n/a	4
RUBBER	1000	31
BOL M6 X 12		16
BOL M6 X 22		24
NUT M6		48

12'		
Part No	mm	Quantity
DV203	3757	1
DV253	1345	5
DV255	2450	5
DV100	n/a	5
DV101	n/a	5
RUBBER	1000	38
BOL M6 X 12		20
BOL M6 X 22		30
NUT M6		60

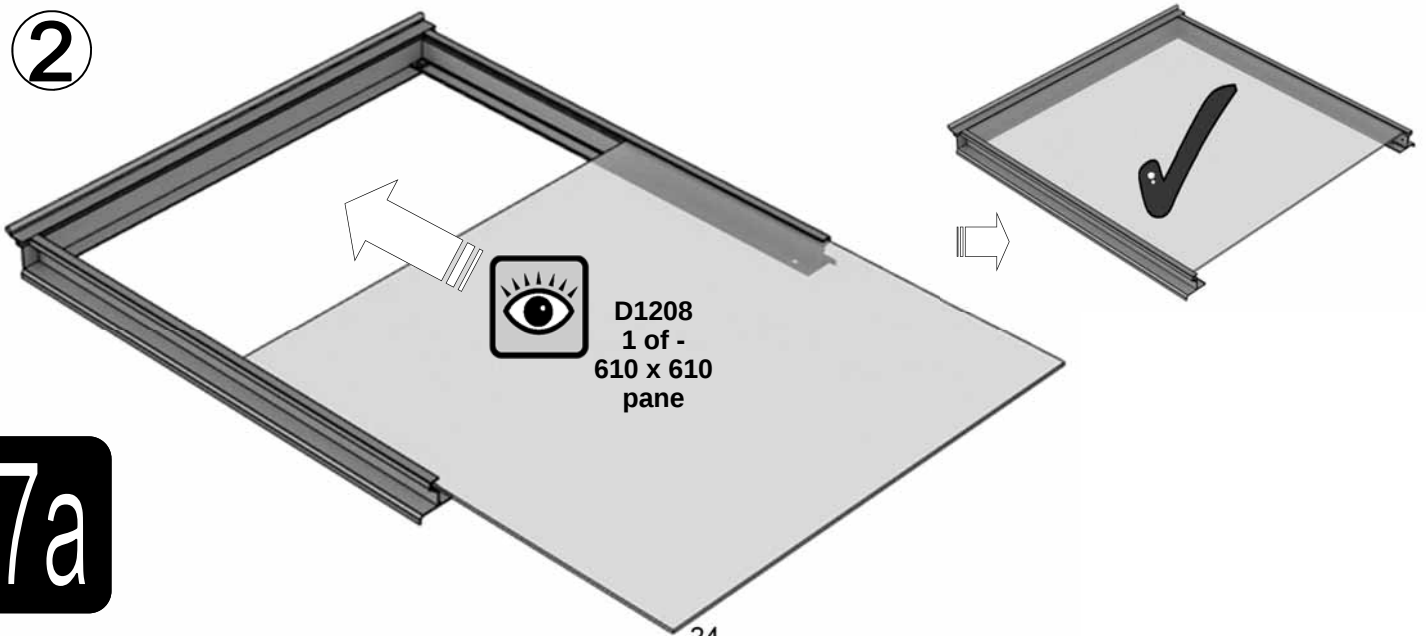
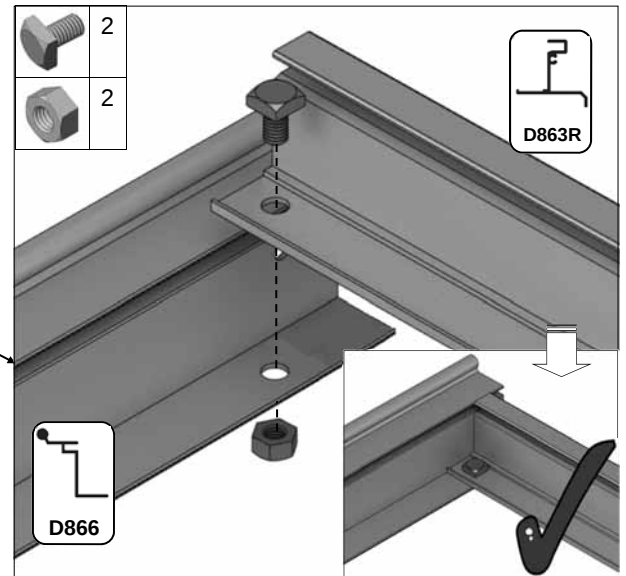
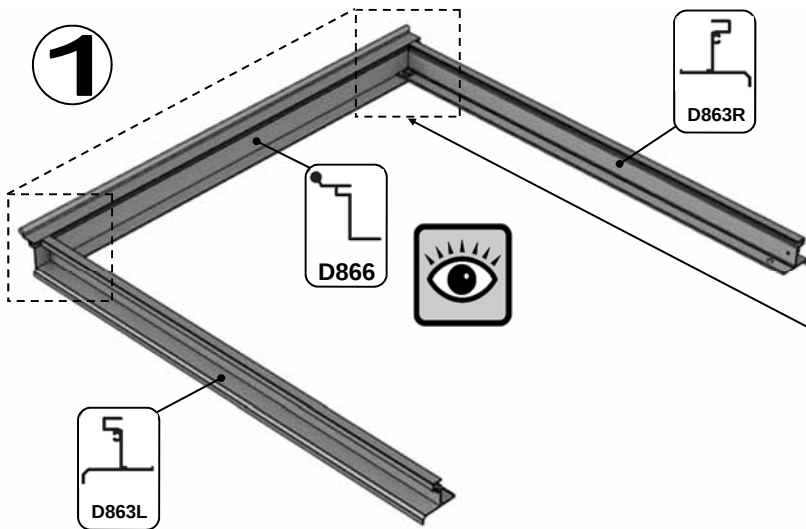




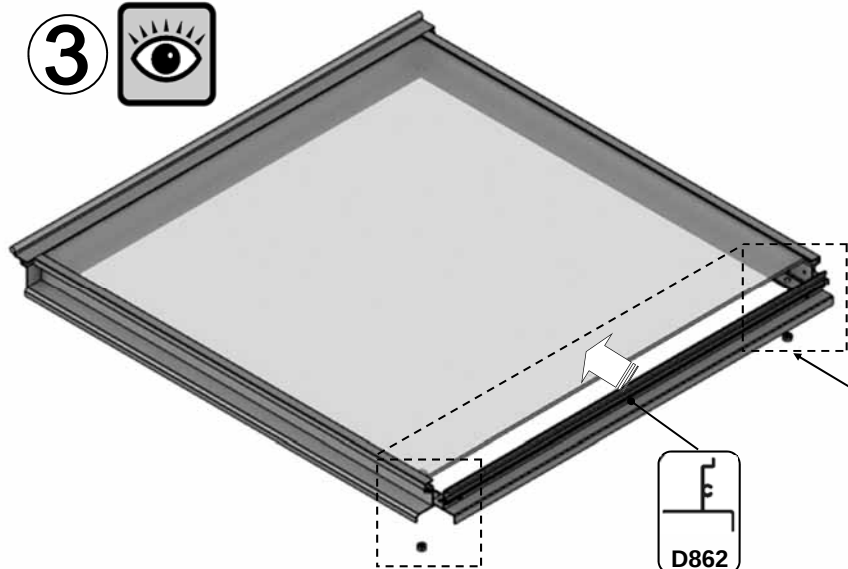


Part No		mm	Quantity
D866		639	1
D863L		613	1
D863R		613	1
D862		593	1

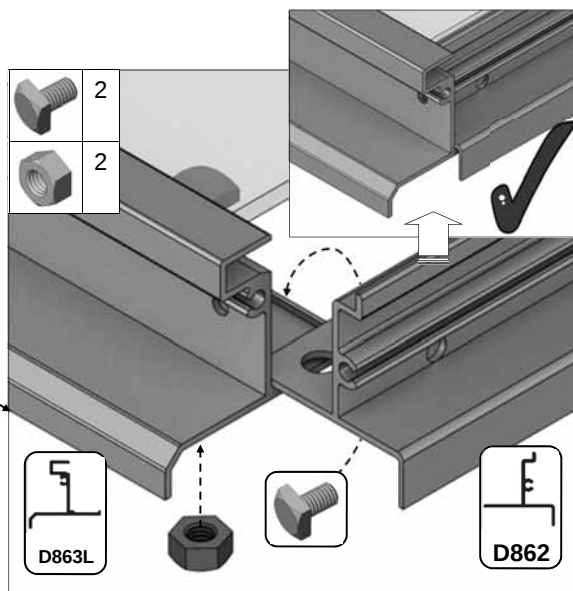
Part No		mm	Quantity
D220 PLUS FS6060 SCREW		N/A	2
D205		N/A	2
M6X12		12	4
NUT M6		M6	4
8 X 12 S/T FS6017		10	2
8 x 19 S/T FS6018		19	2



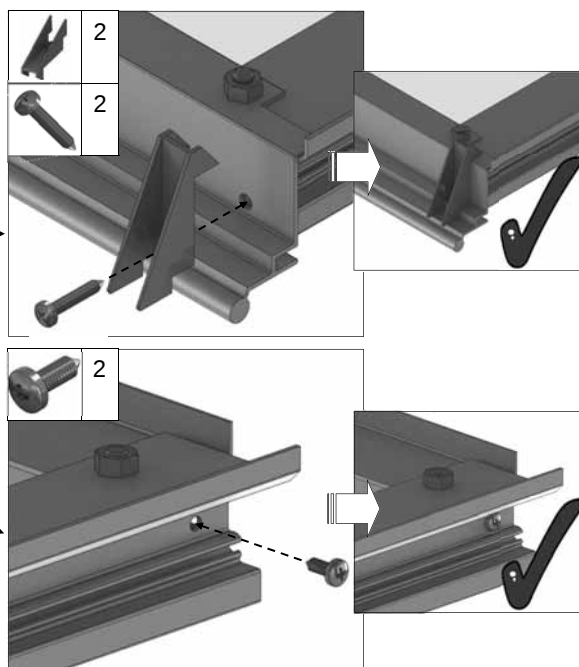
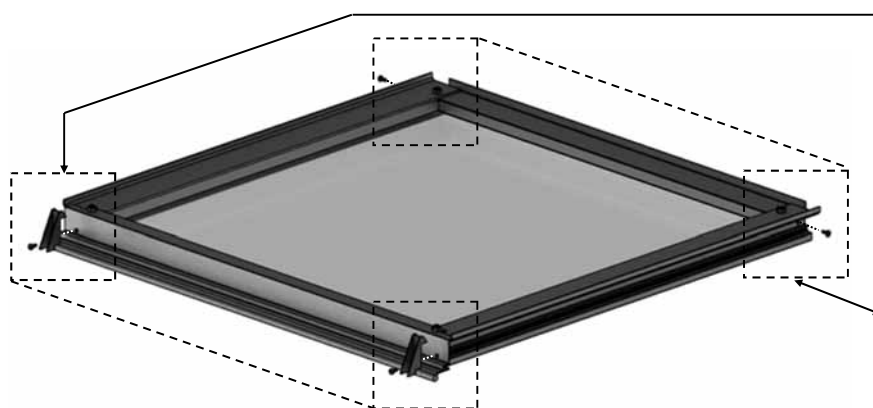
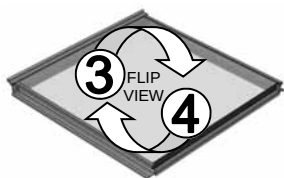
3 



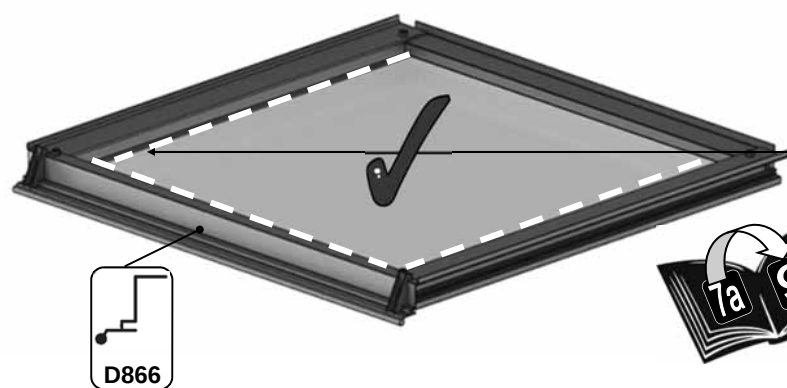

D862



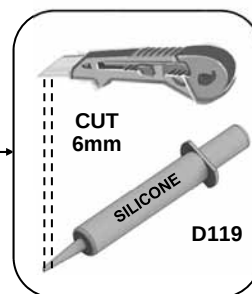
4 



5 




D866



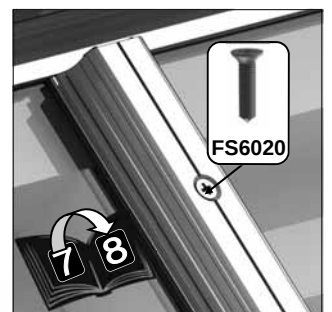
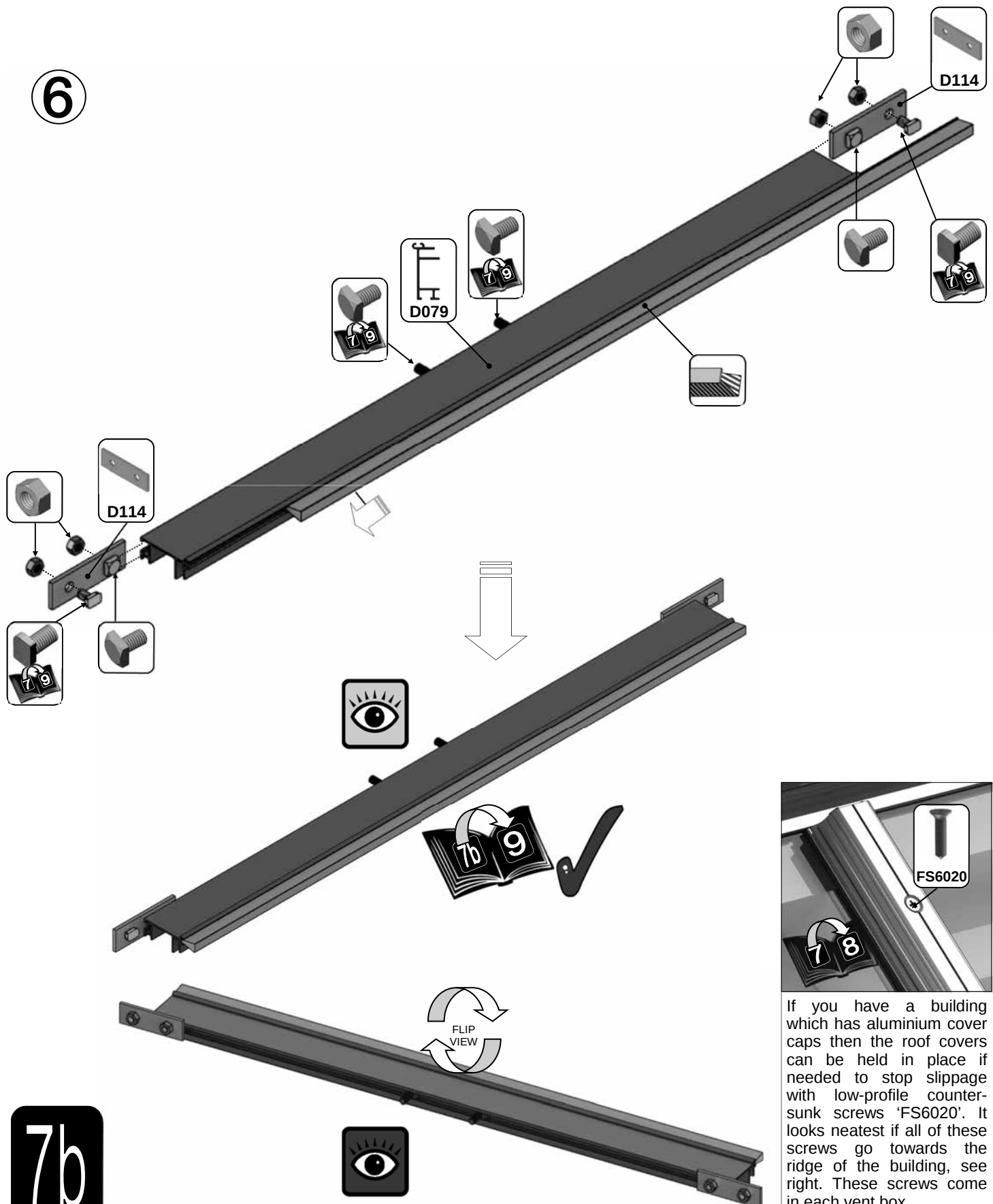
7a

1 vent
slam bar = {

Part No		mm	Quantity
M6X12		12	4
M6 CROP		10	2
NUT M6		N/A	4

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

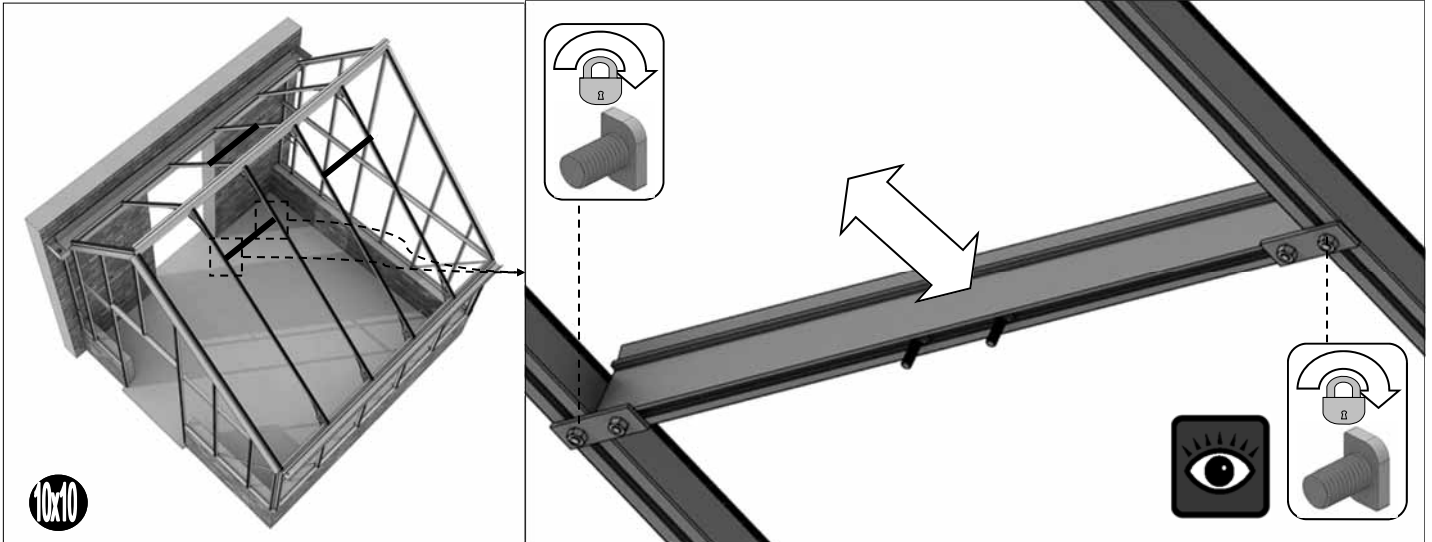
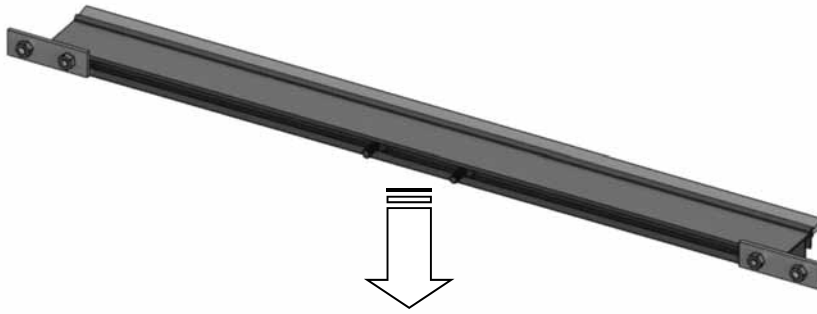
6



If you have a building which has aluminium cover caps then the roof covers can be held in place if needed to stop slippage with low-profile countersunk screws 'FS6020'. It looks neatest if all of these screws go towards the ridge of the building, see right. These screws come in each vent box.



7b



GLAZING (plans pto):

Glass and aluminium can potentially cause injury. Please ensure you wear protective goggles, gloves, headgear and suitable footwear when assembling and glazing the building. Please remember that glass is fragile and should be handled with extreme care. Always clear up and dispose of any breakages immediately.

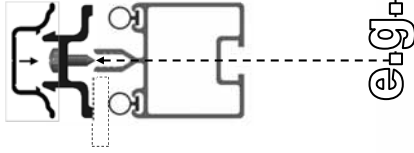
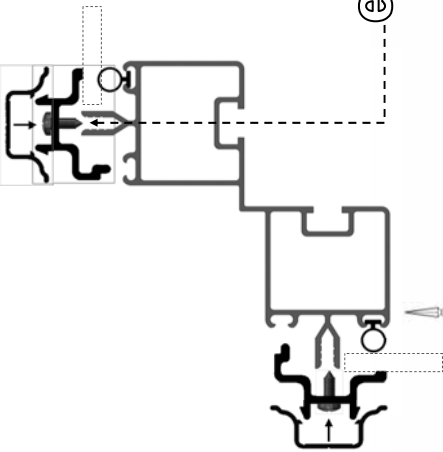
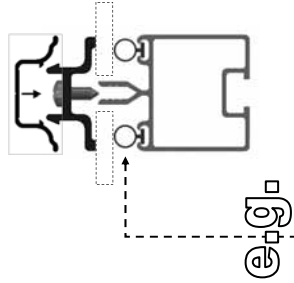
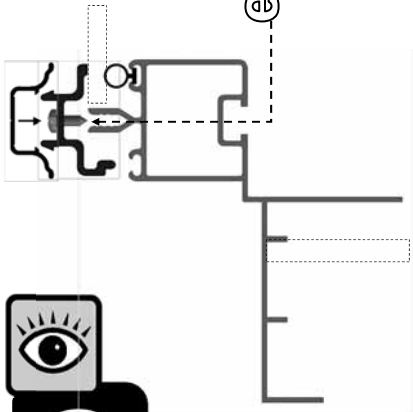


Robinsons plastic / aluminium cover strips - On a Robinsons building the glazing capping is in two parts. The lower plastic capping screws into the glazing bars pressing the glass down onto its rubber beading. The upper plastic / aluminium covers then need to be applied to cover the heads of the self-tapping 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.

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

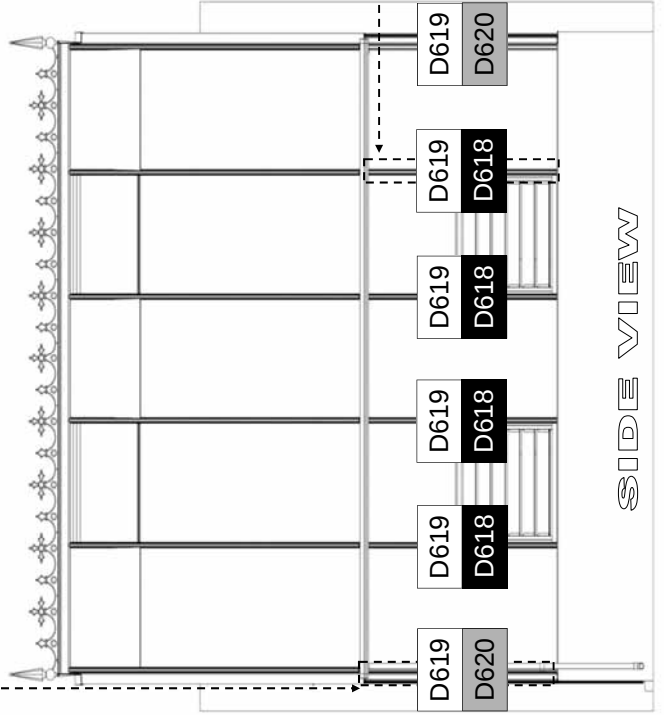
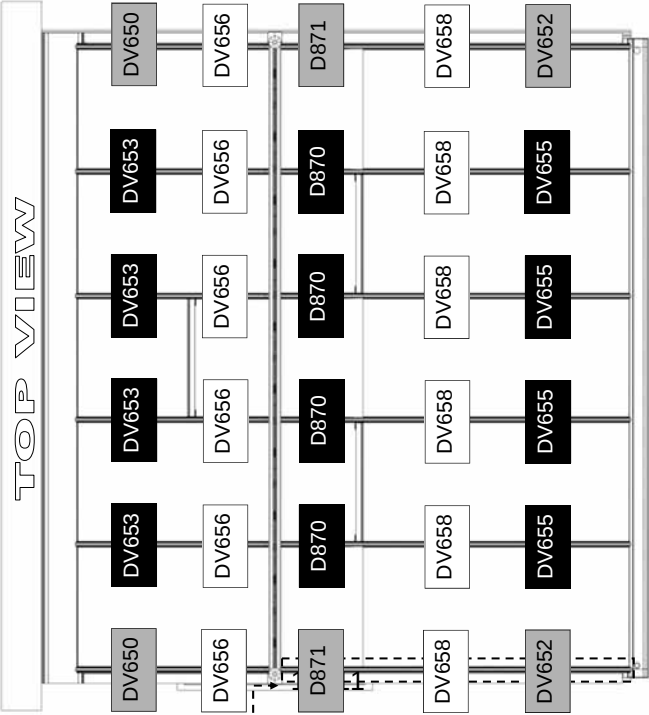
IMPORTANT: On the roof sections please make sure that you place a screw around 25mm / 1" from the bottom of each capping strip (create a hole in the plastic if required) and that the screws are nice and tight to avoid any glass slippage.



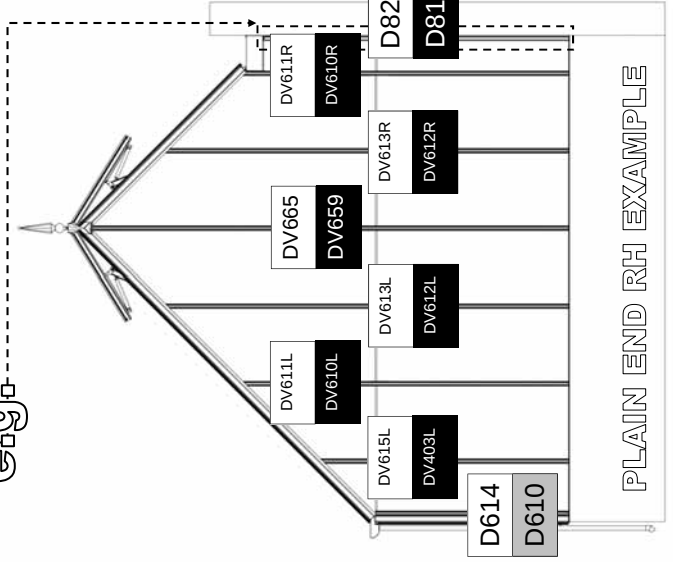


PART No	Section	Size (mm)
D618		1144
DV403/R		1505
DV479		1384
DV610L/R		1972
DV612L/R		2438
DV639L/R		2960
DV653		1378
DV655		1880
DV659		2879
DV664		1373
D815		1830
D870		601
D610		1160
D620		1144
D871		601
DV650		1345
DV652		1871
D614		1162
D619		1144
D827		1832
DV480		1384
DV611L/R		1972
DV613L/R		2438
DV615L/R		1505
DV640L/R		2960
DV656		1378
DV658		2481
DV665		2879
DV670		1373

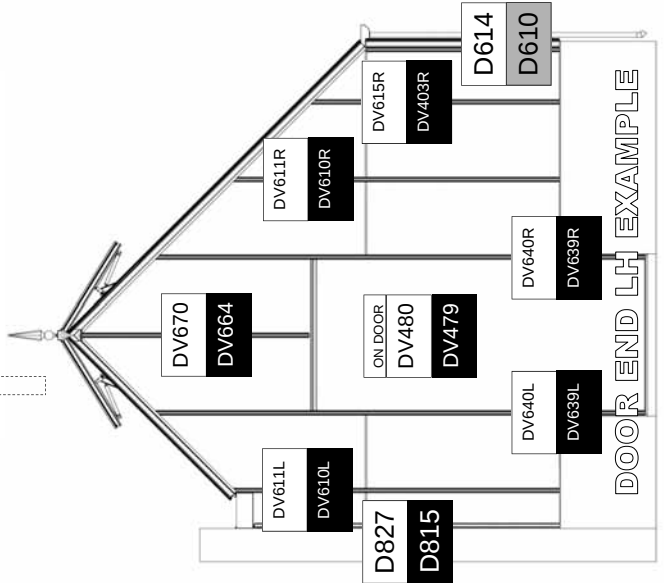
TOP VIEW



SIDE VIEW



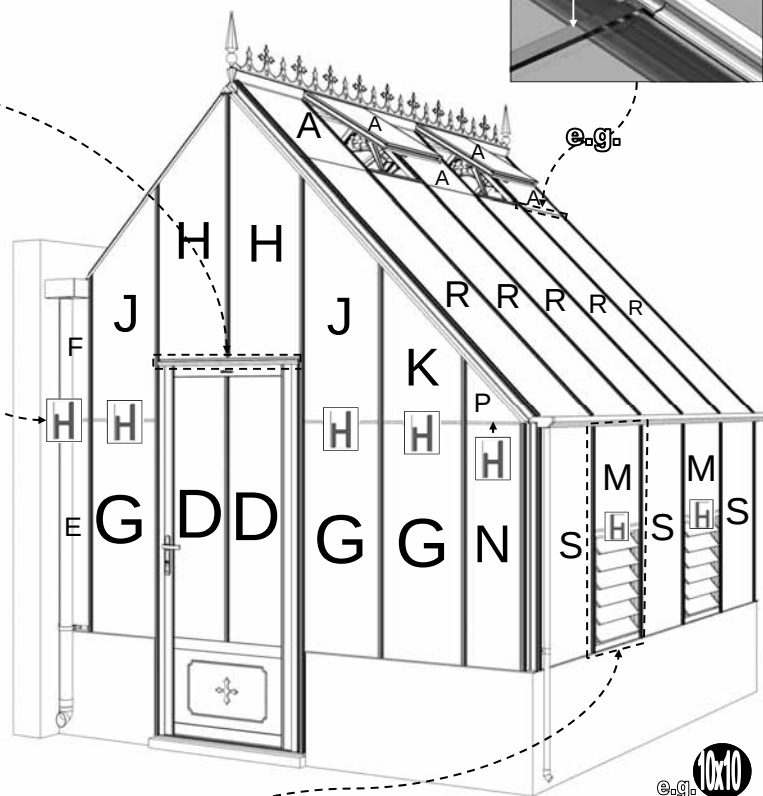
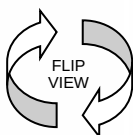
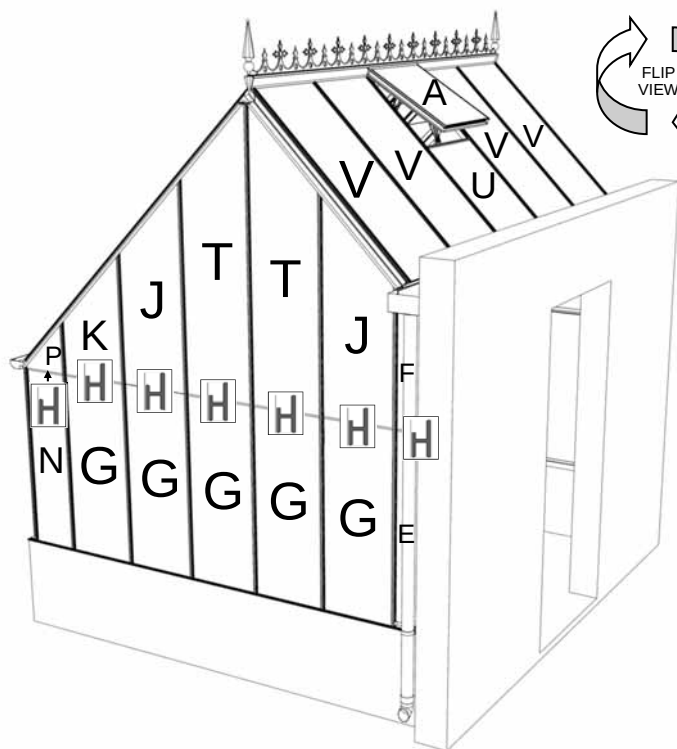
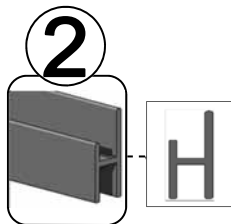
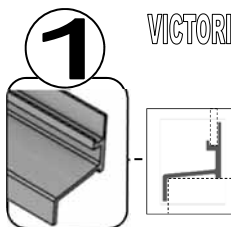
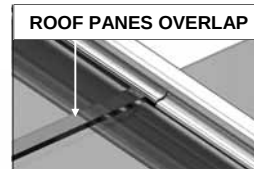
PLAIN END RH EXAMPLE



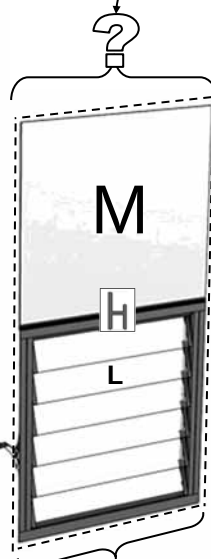
DOOR END LH EXAMPLE



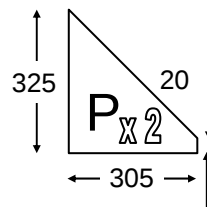
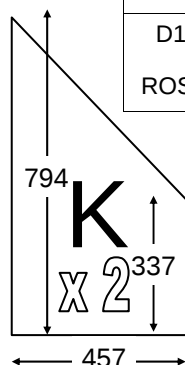
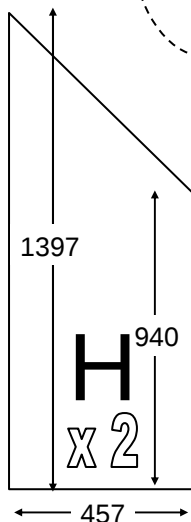
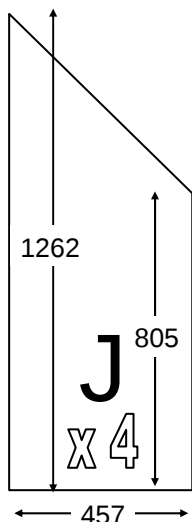
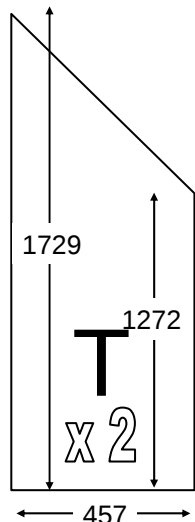
VICTORIAN ROYDON 10 TOUGHENED GLASS

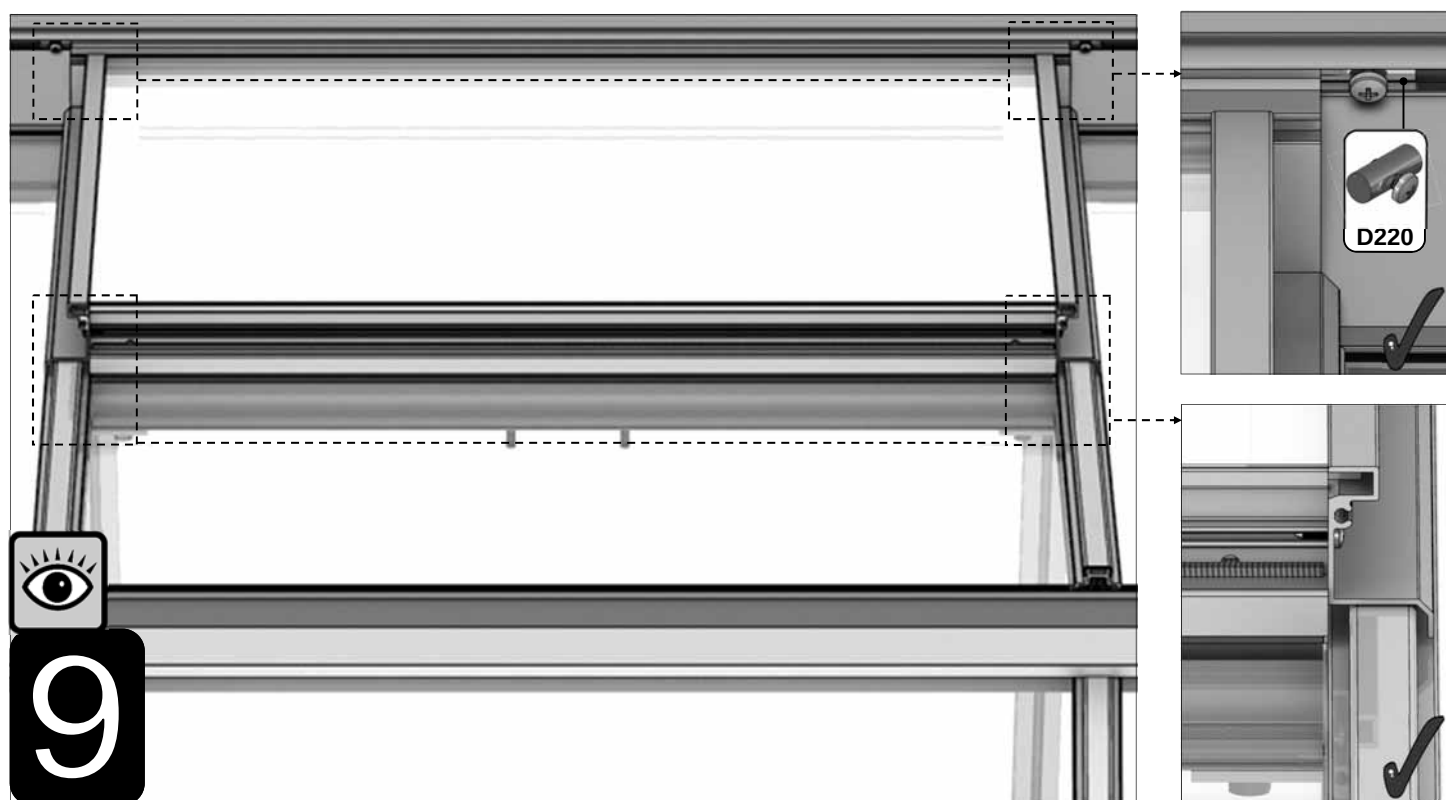
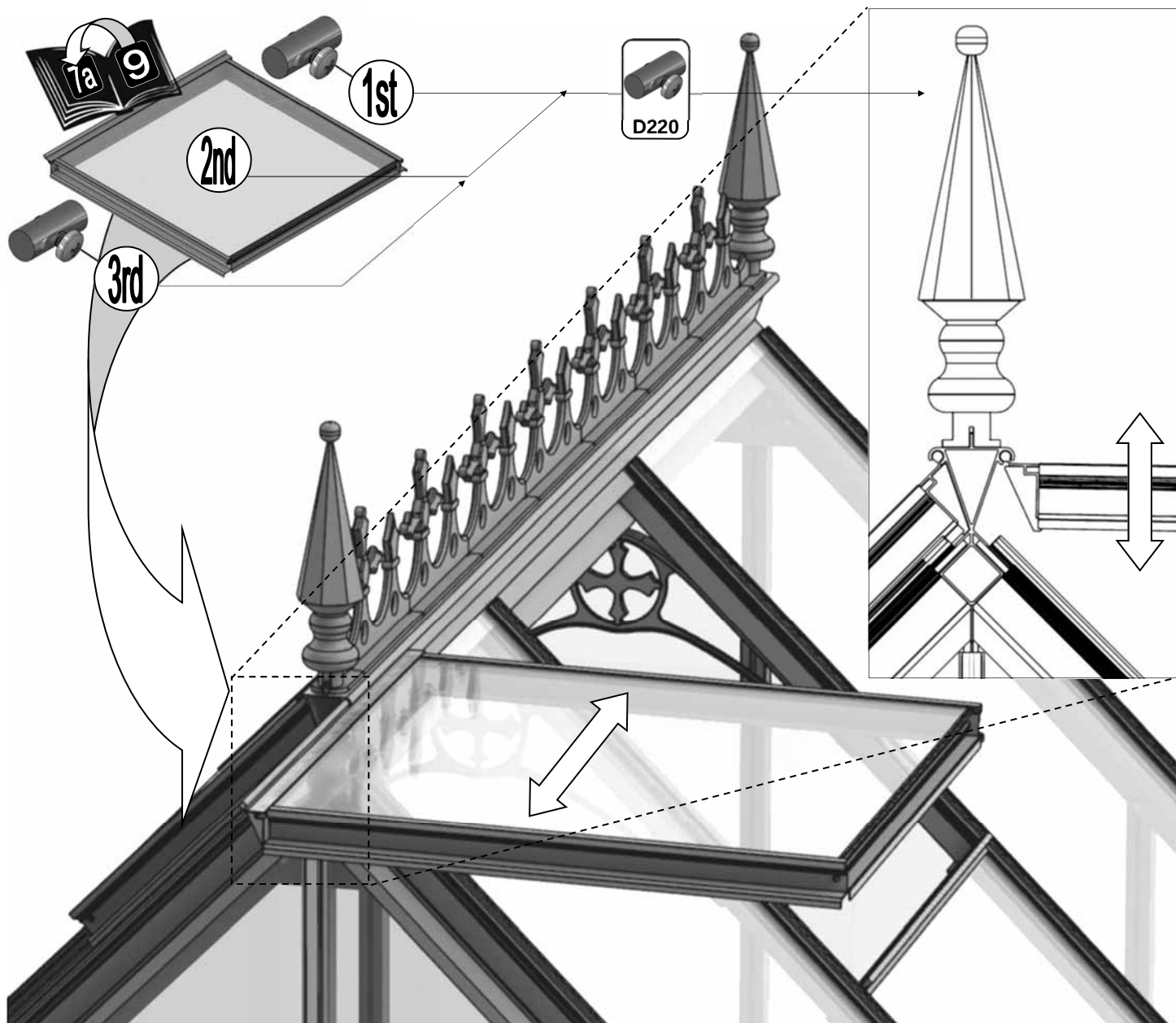


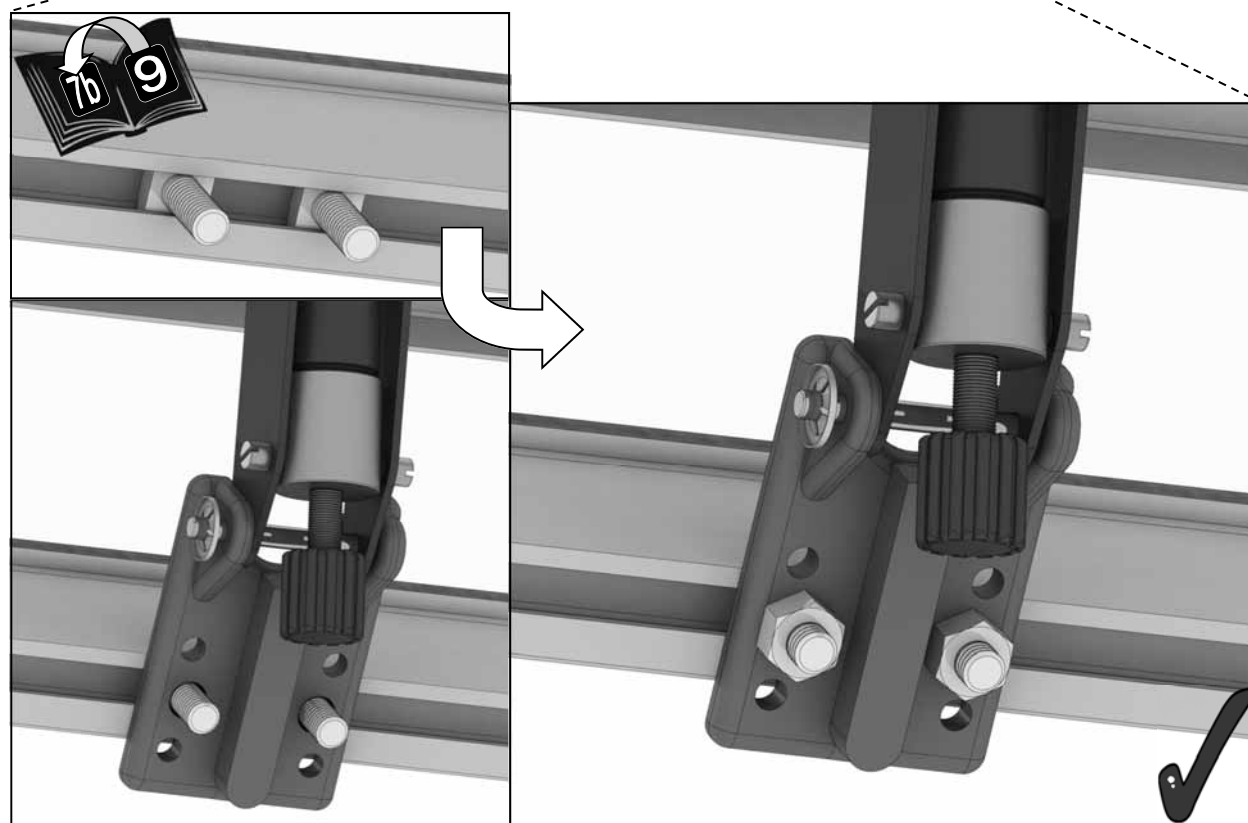
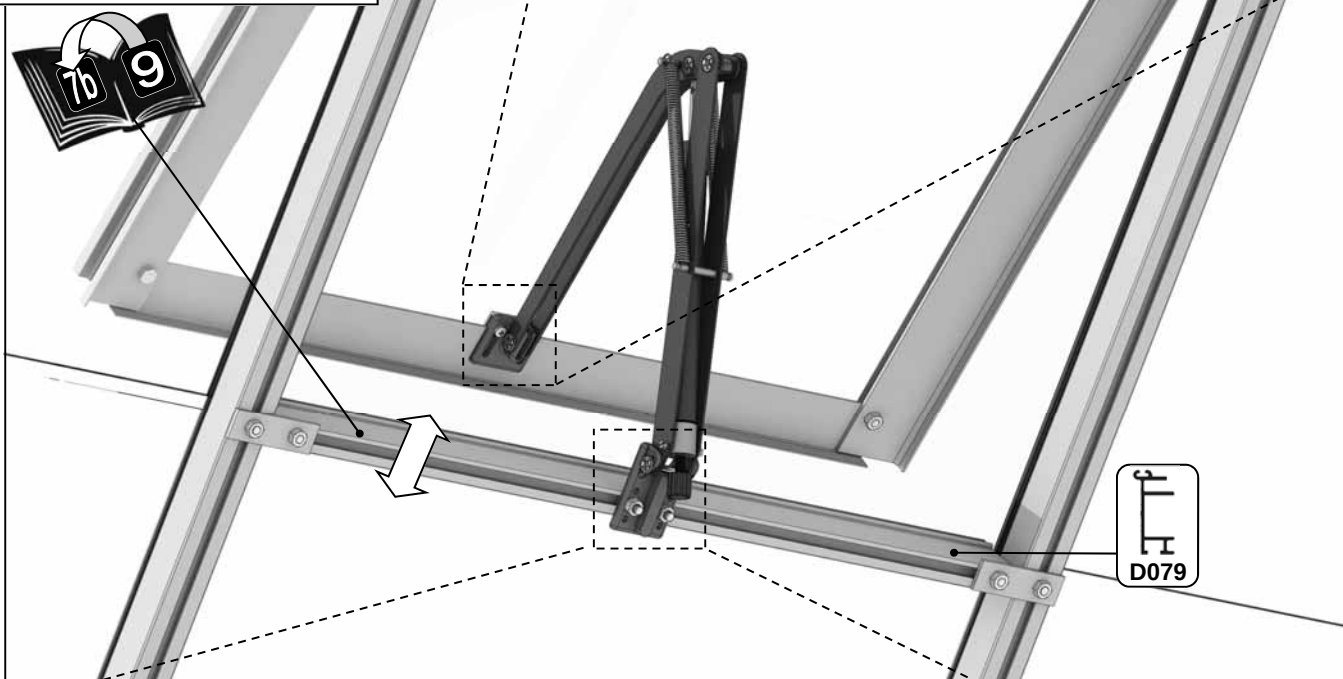
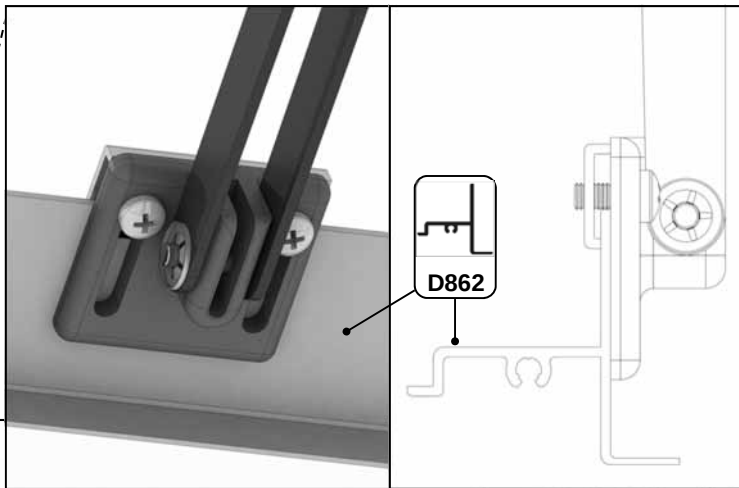
D624	M	610 X 550	1
D729	L	525 X 100	6
D101 / ROSEPS	H	610 long	1

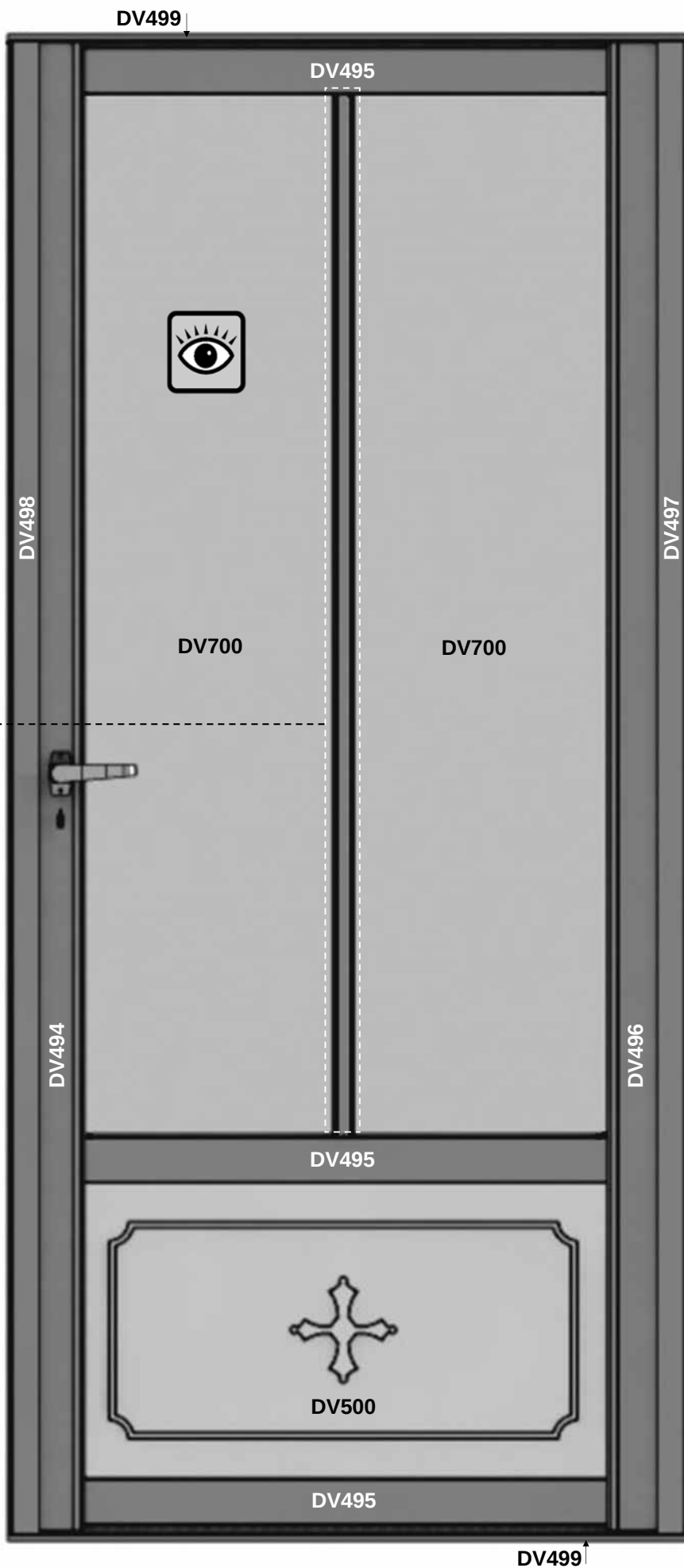
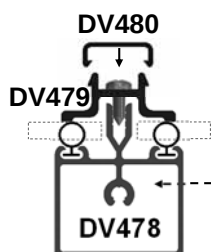
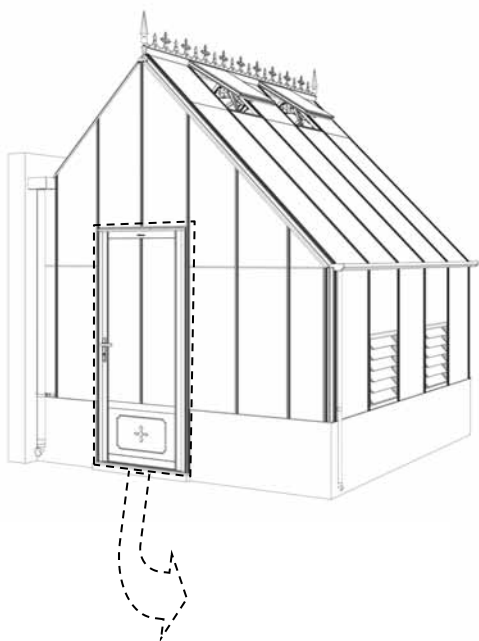


PART No		Size (mm)	6'	8'	10'	12'
D1216	S	610 X 1162	2	3	3	4
610x1890	R	610 X 1890	3	4	5	6
DV706	V	610 X 1384	2	3	4	4
D1208	A	610 X 610	4	5	6	8
DV720	U	610 X 790	1		2	
DV692	E	200 X 1162	2			
DV752	F	200 X 676	2			
D625	N	305 X 1162	2			
D769	G	457 X 1162	8			
DV700	D	357 X 1384	2 (fitted)			
DV507	P	ANGLE	2			
DV713	K	ANGLE	2			
DV714	J	ANGLE	4			
DV716	T	ANGLE	2			
DV717	H	ANGLE	2			
D223/B		Cut to 904mm	1			
D101 / ROSEPS	H	610 long (inc cuts to 457&305mm)	10 + (1 per louver)			

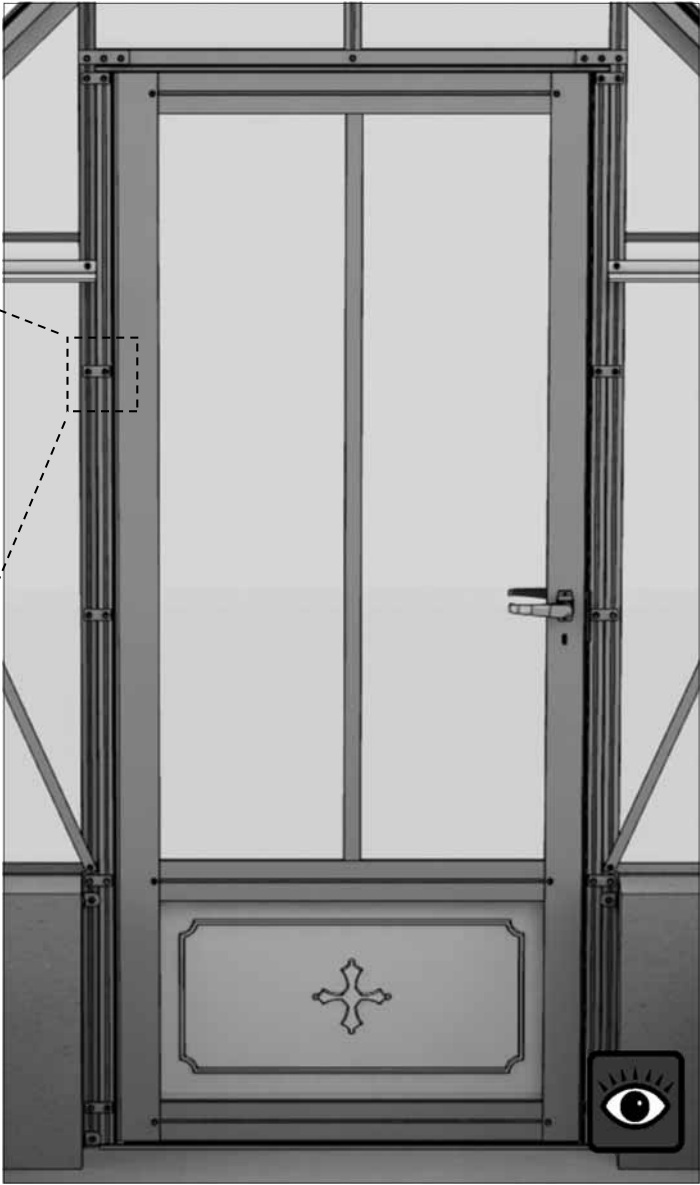
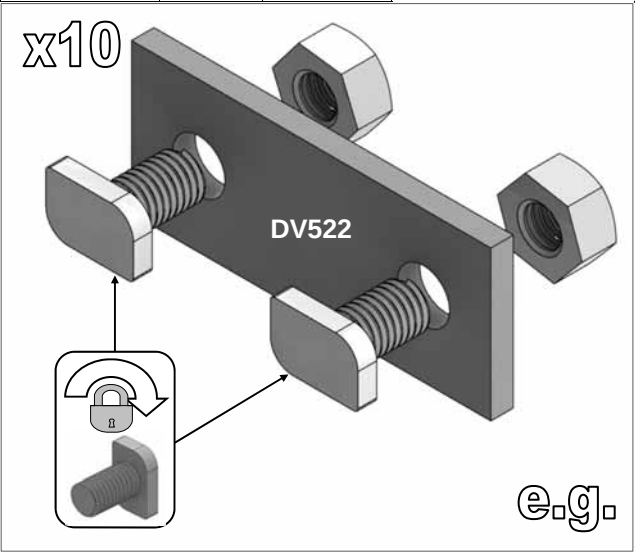


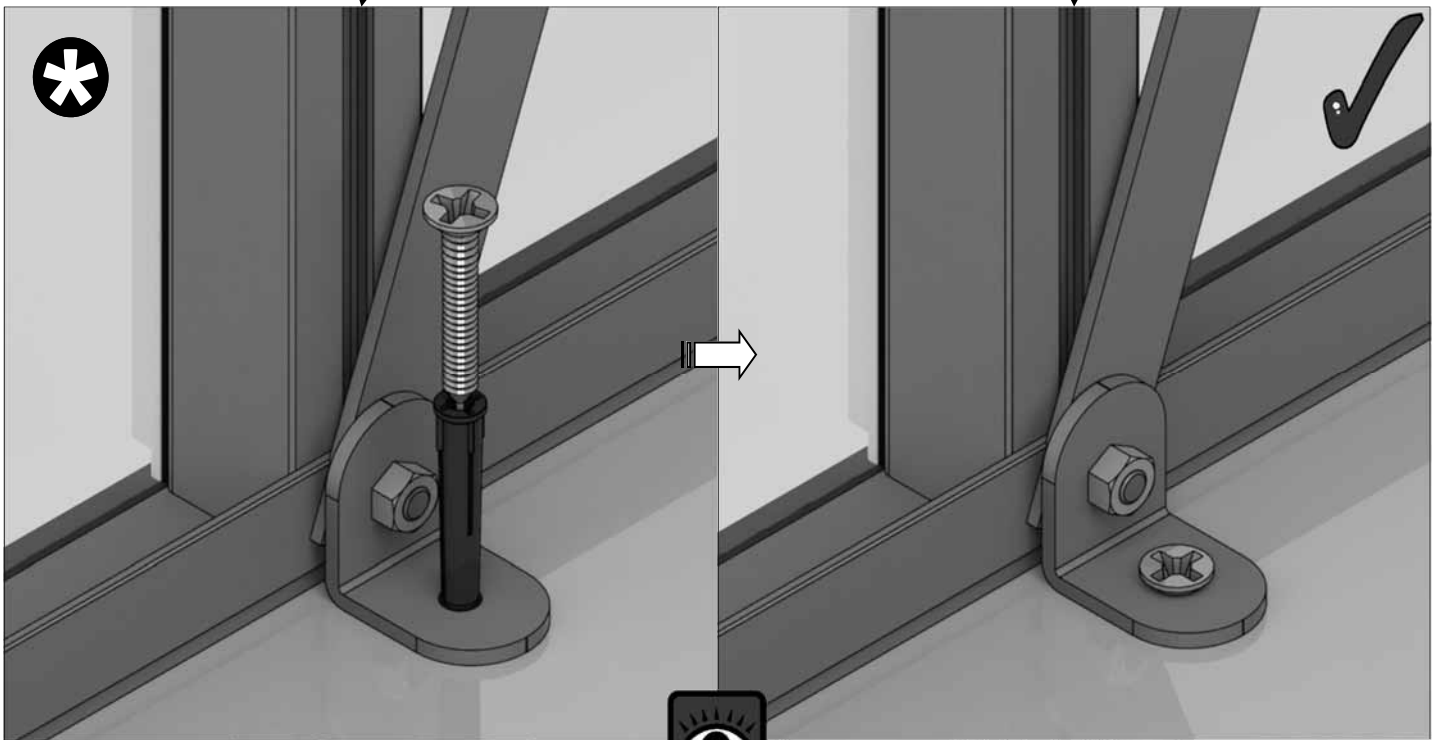
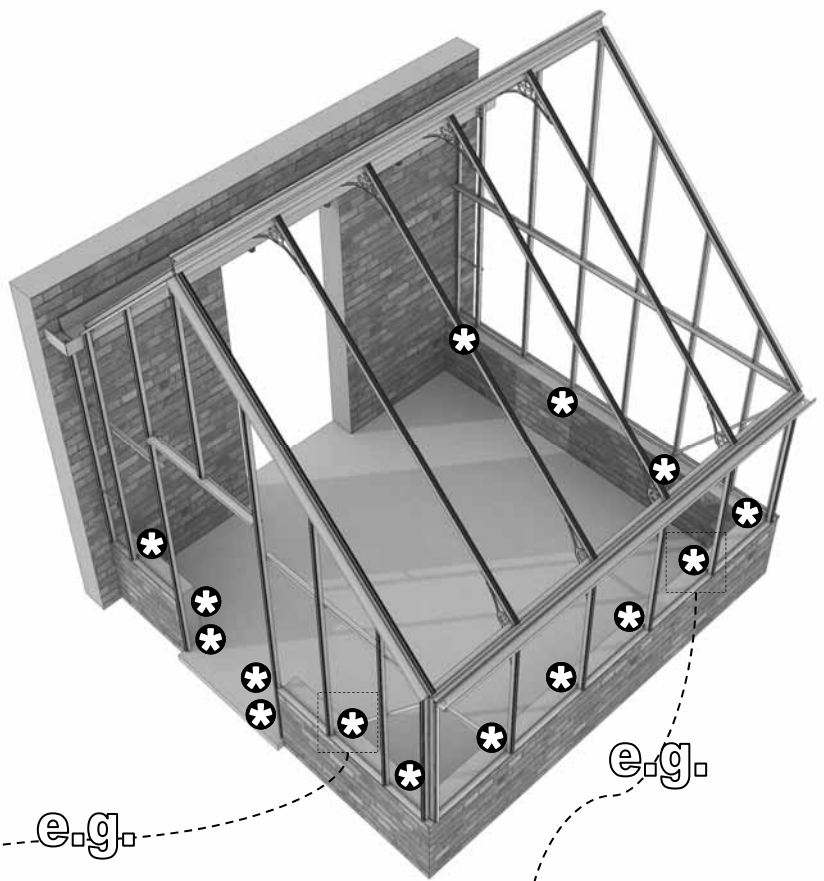
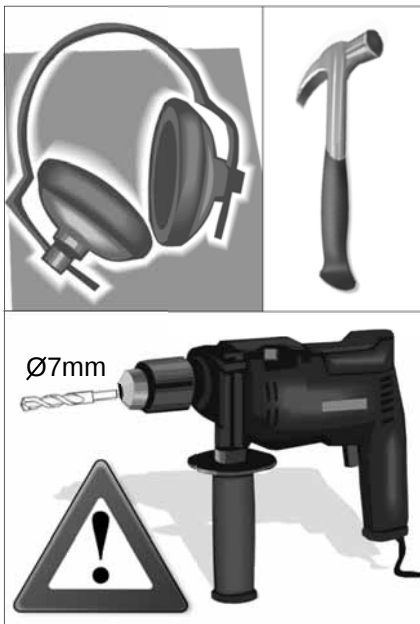




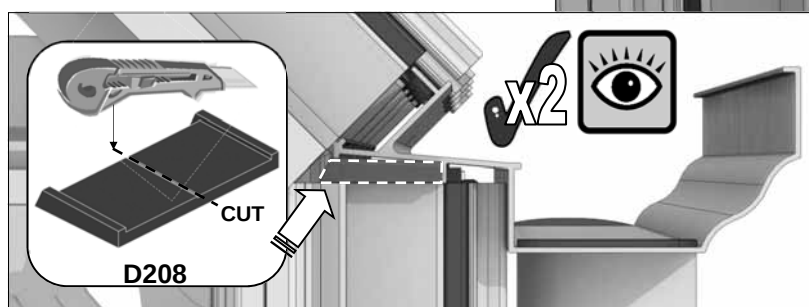
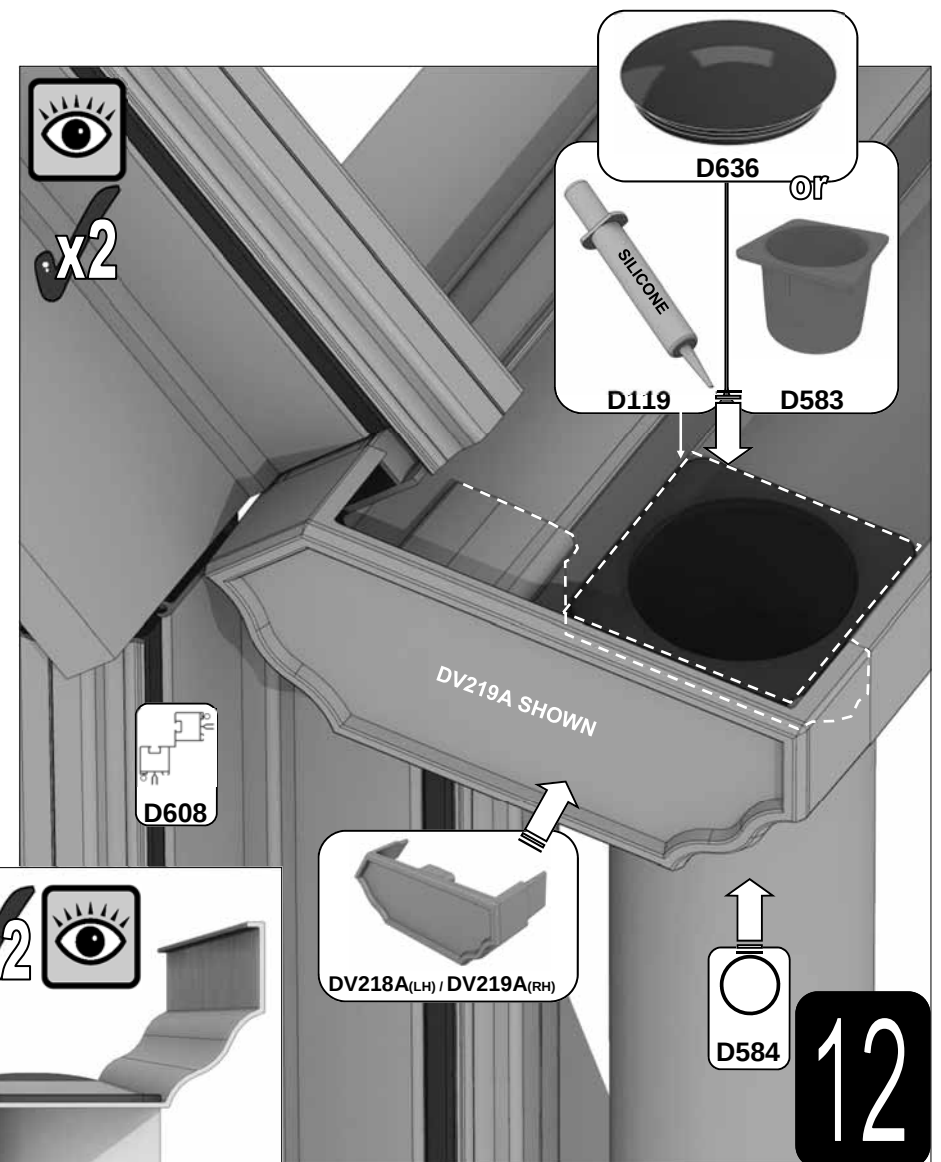
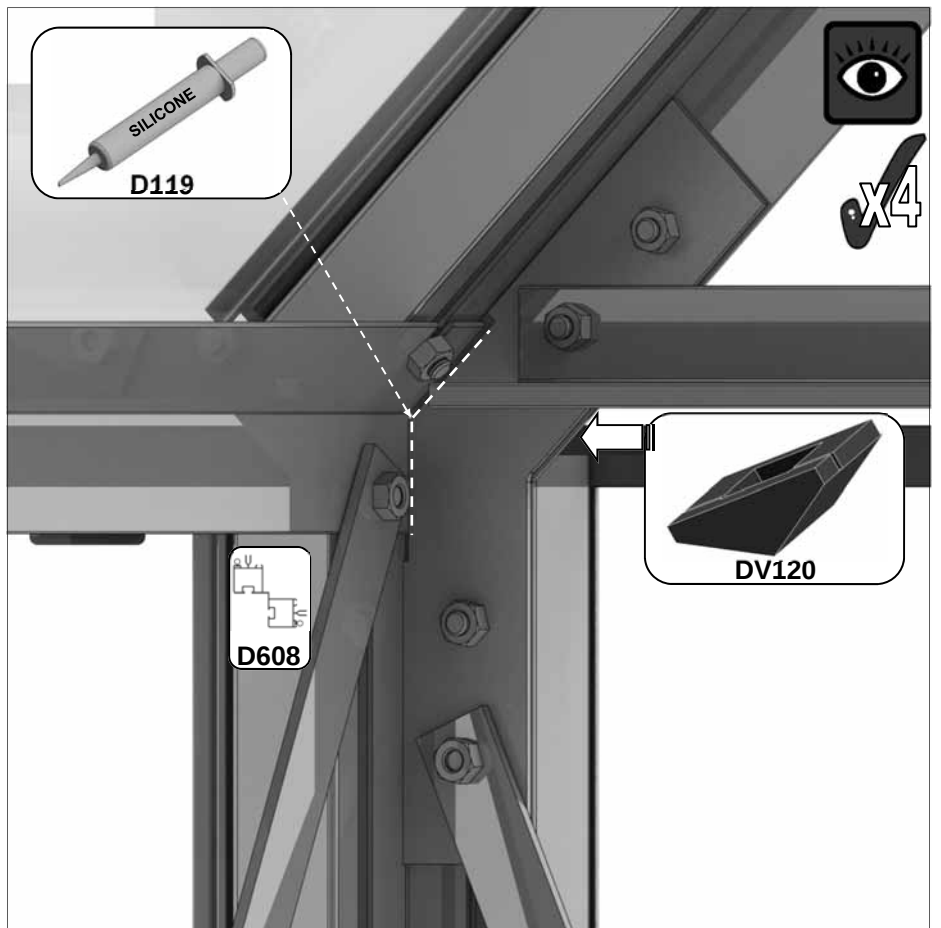
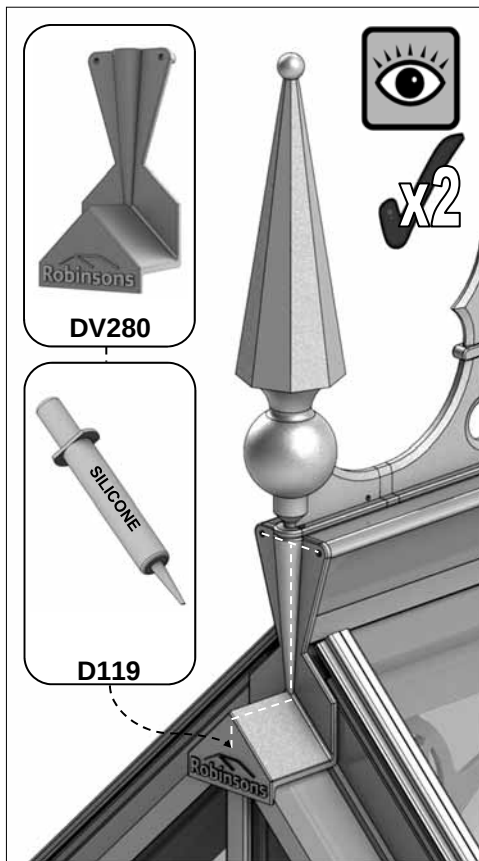


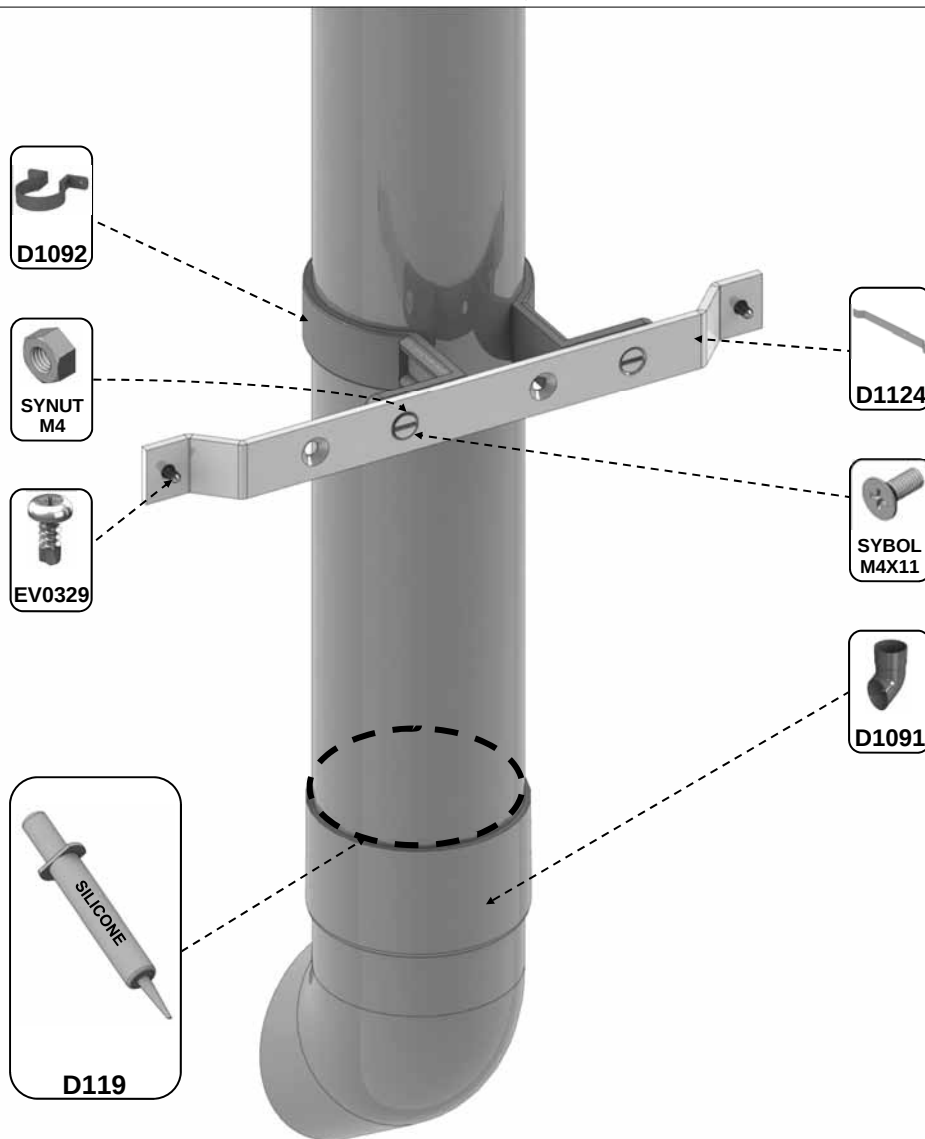
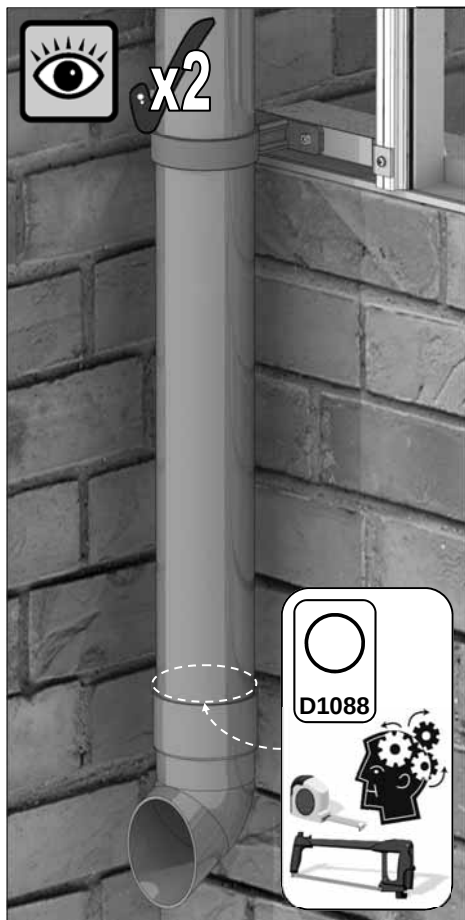
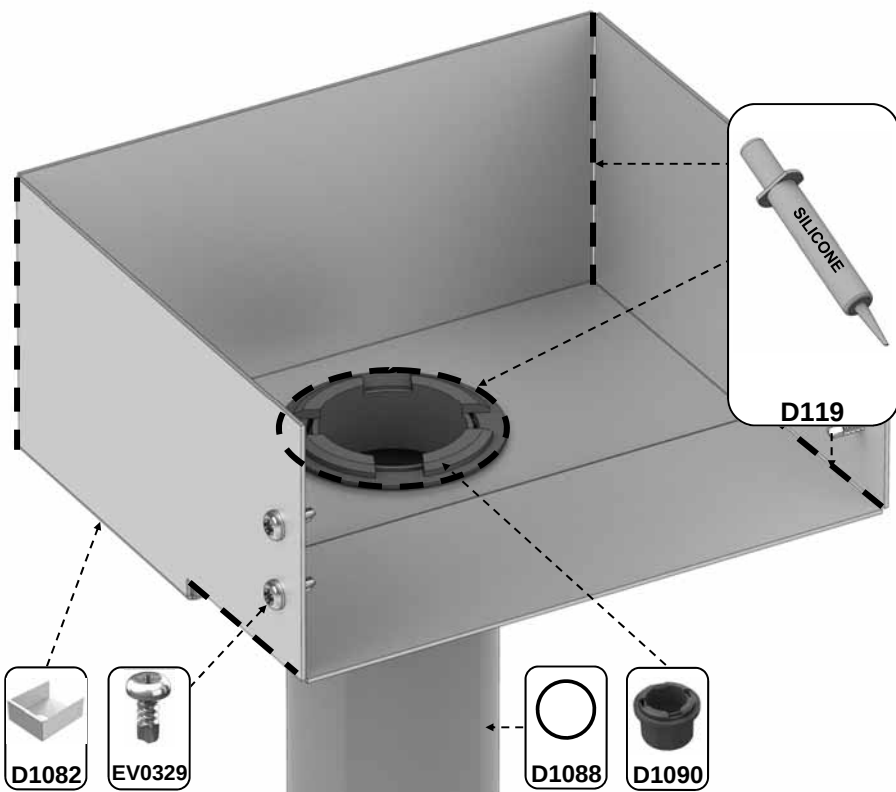
Part No		Quantity
D522		10
BOL M6 CROP		20
NUT M6		20



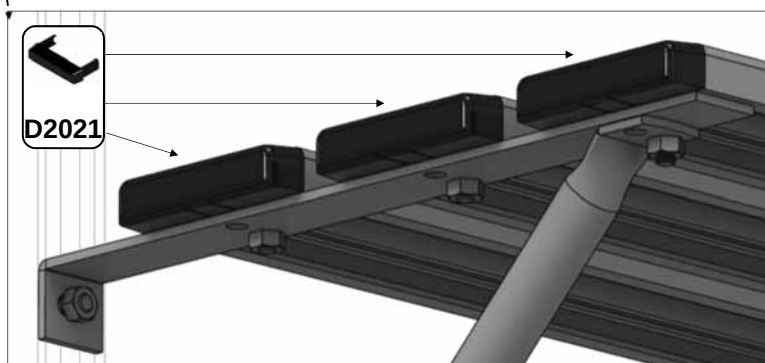
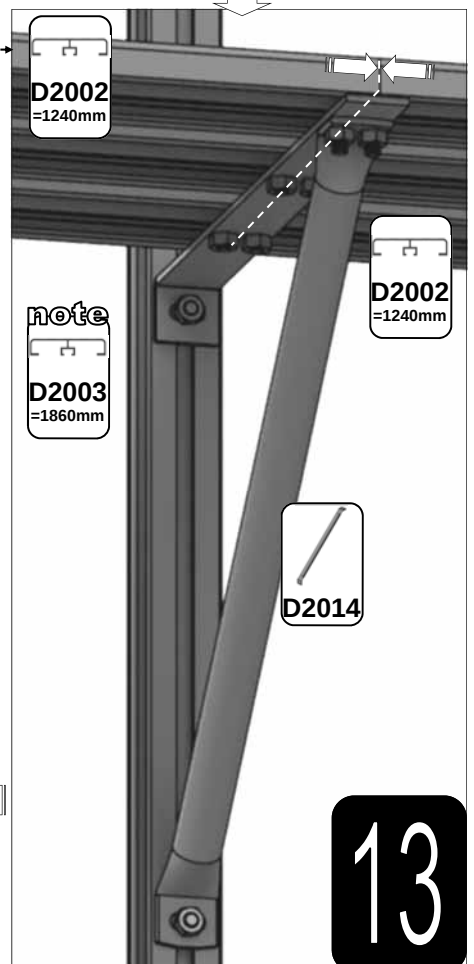
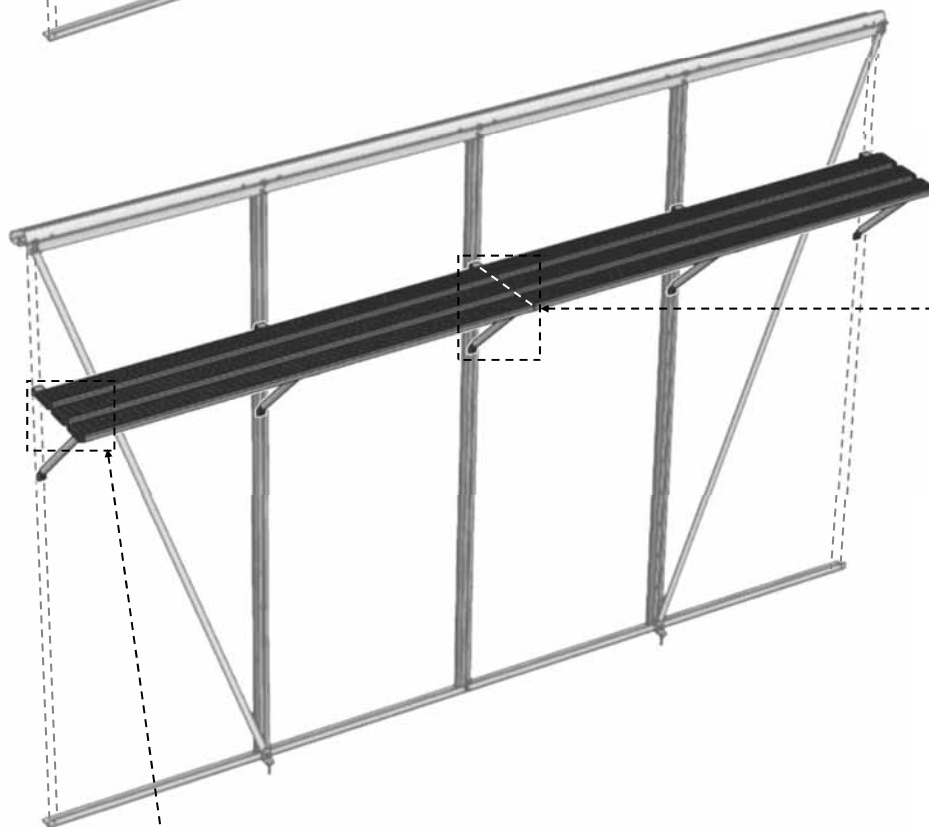
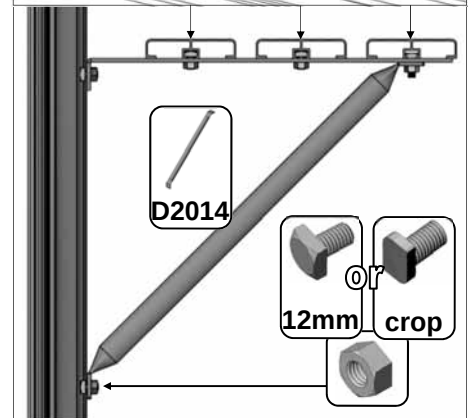
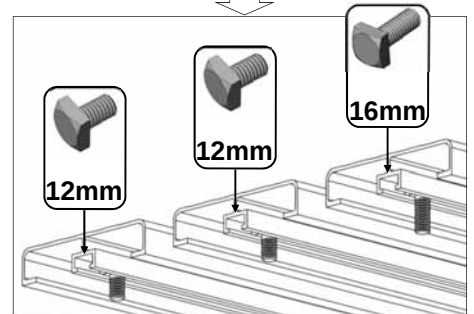
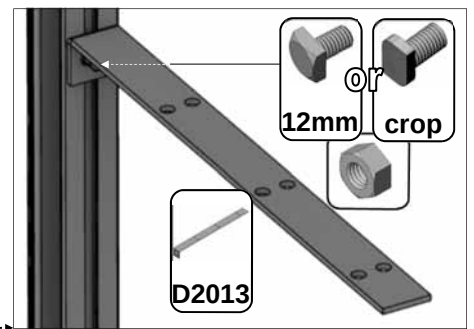
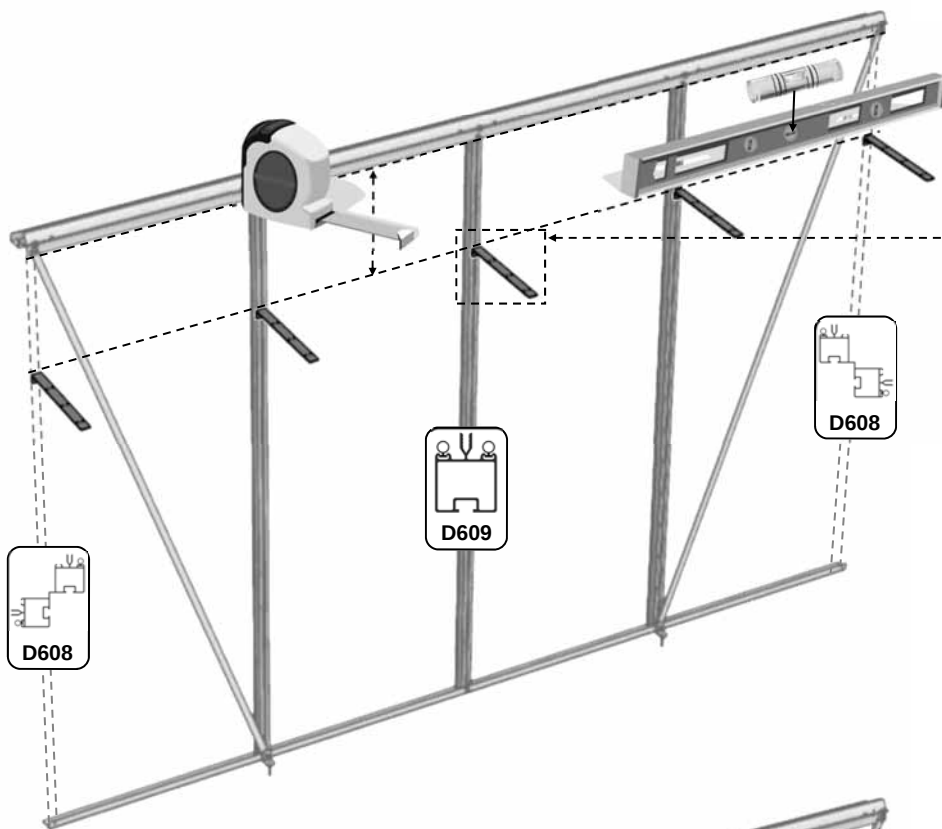


11

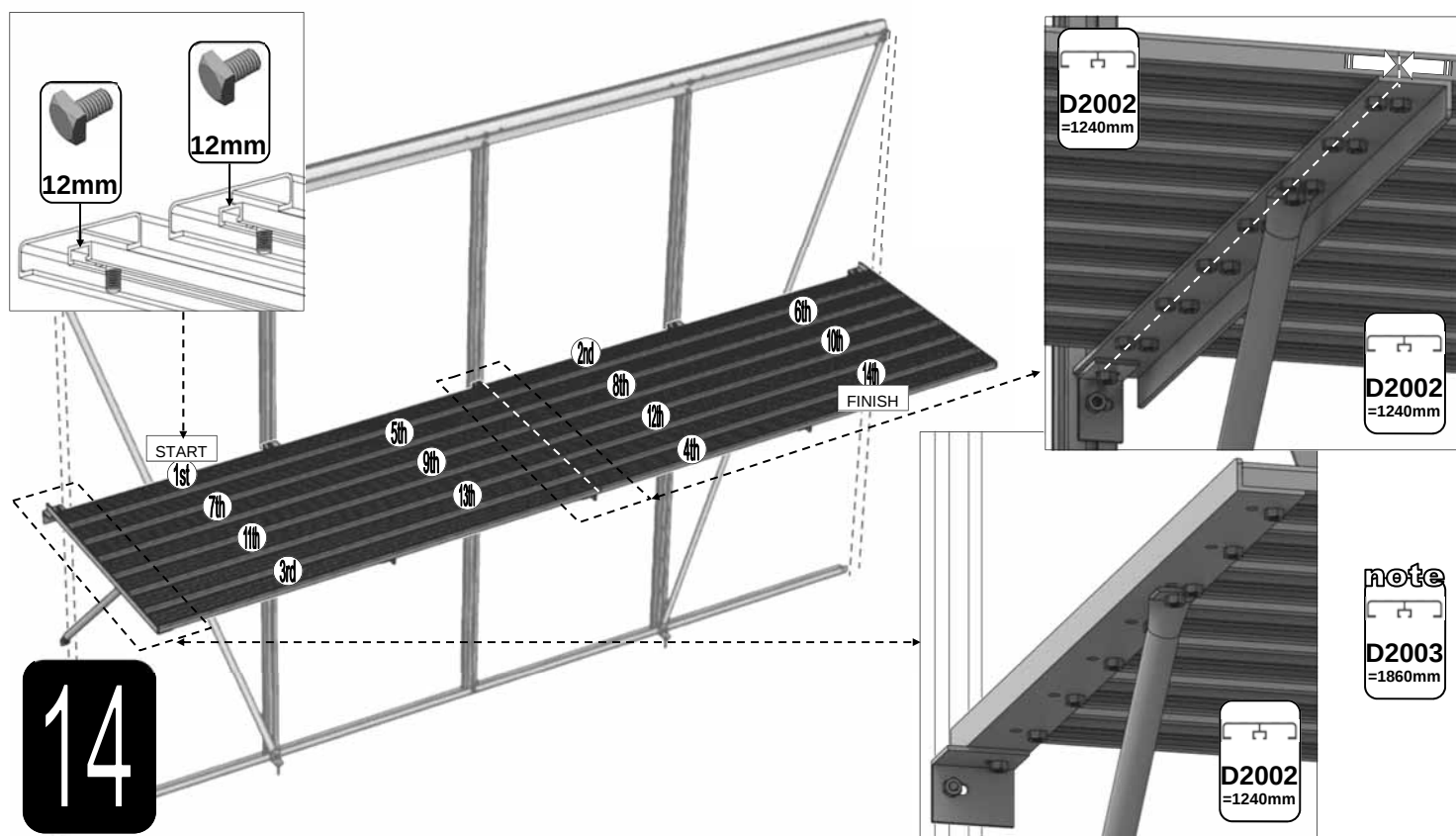
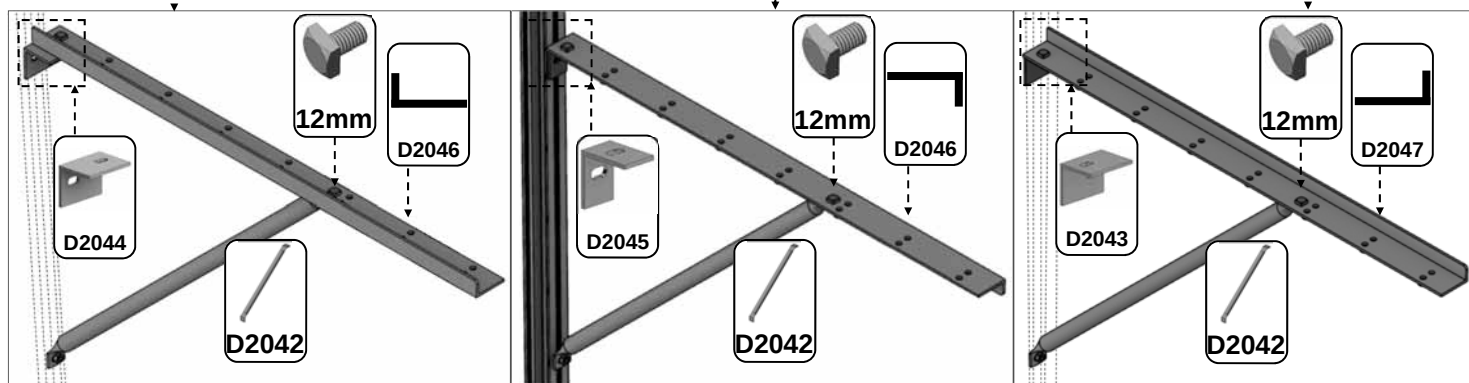
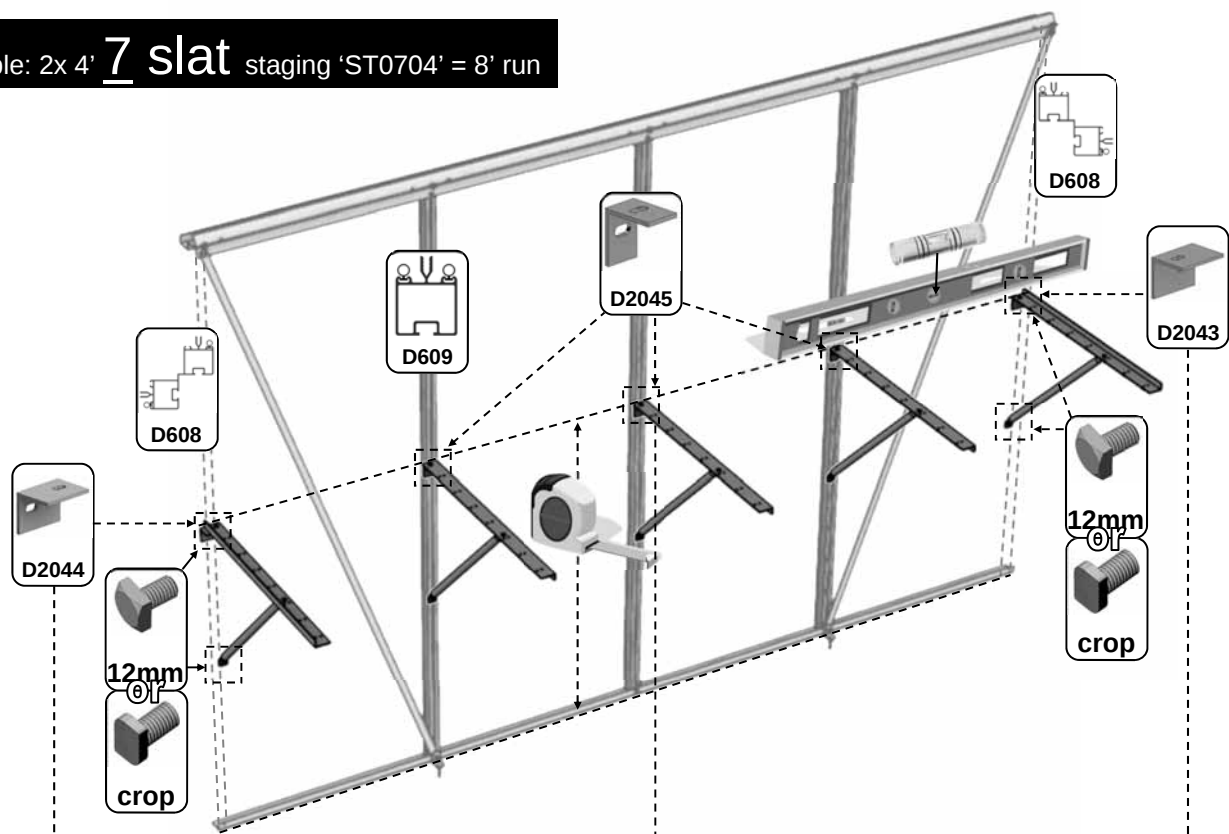




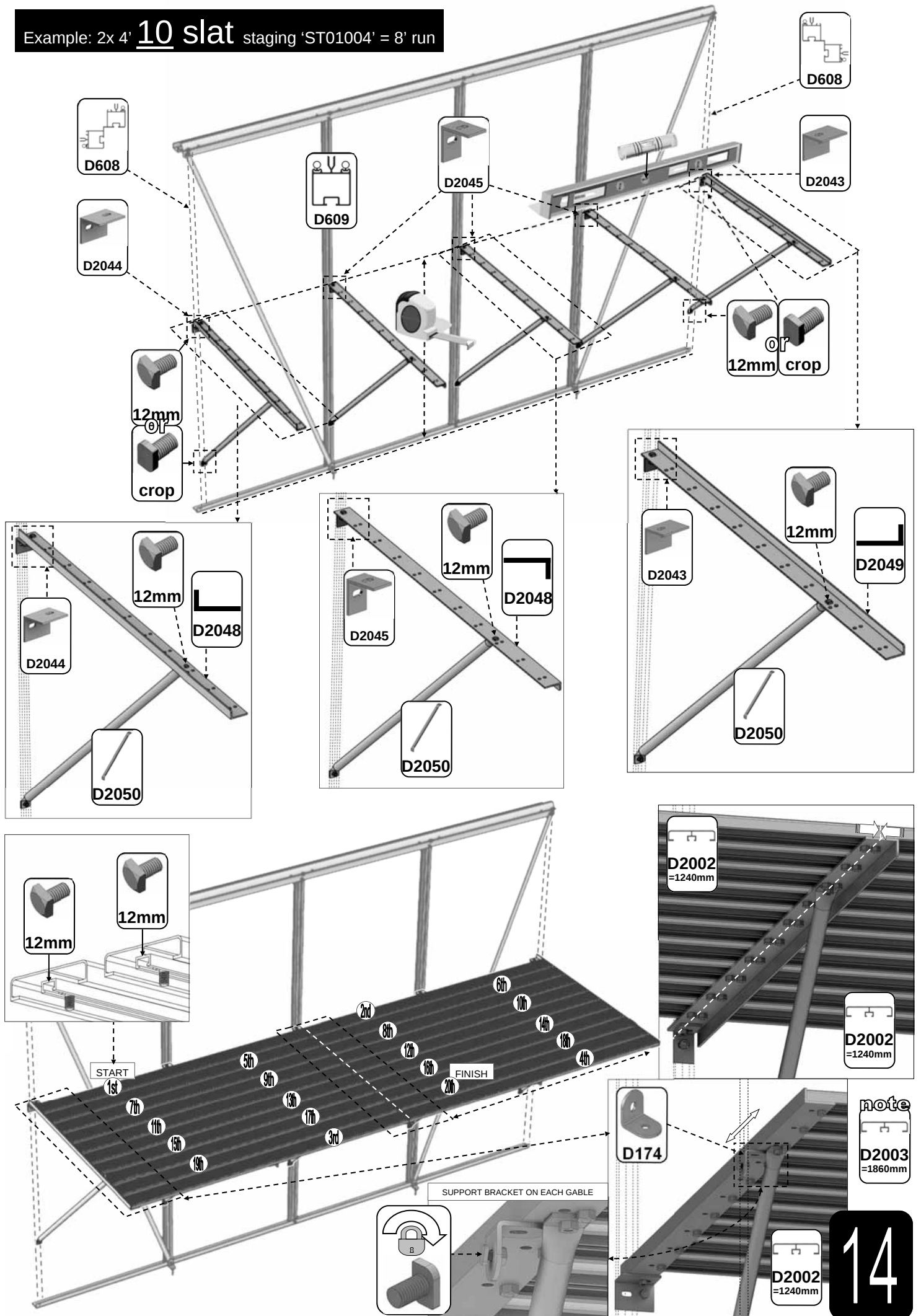
Example: 2x 4' 3 slat shelves 'ST0304' = 8' run



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.

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.

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