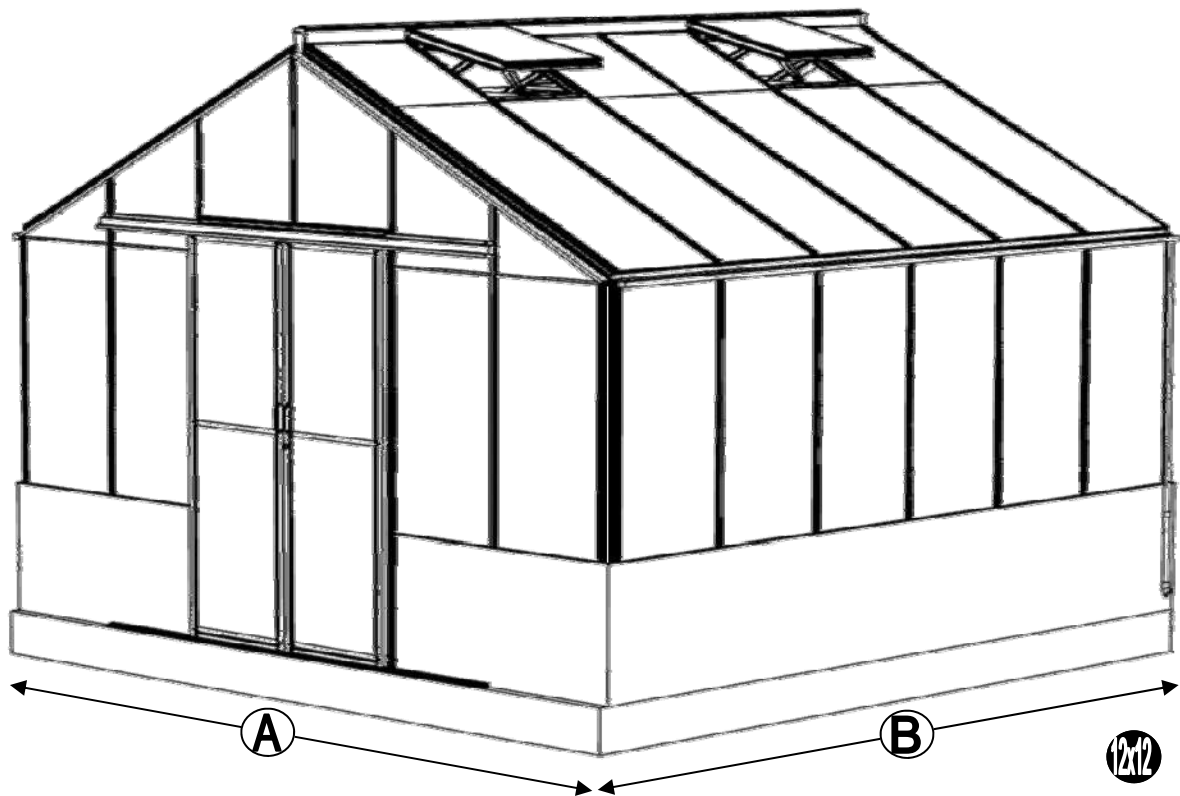


Regal DWARF Assembly Instructions



NOMINAL SIZE	A (mm)	B (mm)
12 x 8	3820	2610
12 x 10		3230
12 x 12		3850

NOMINAL SIZE	A (mm)	B (mm)
6ft extension	-	1860
8ft extension		2480
10ft extension		3100
12ft extension		3720



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

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

Safety Warning

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

Site Preparation

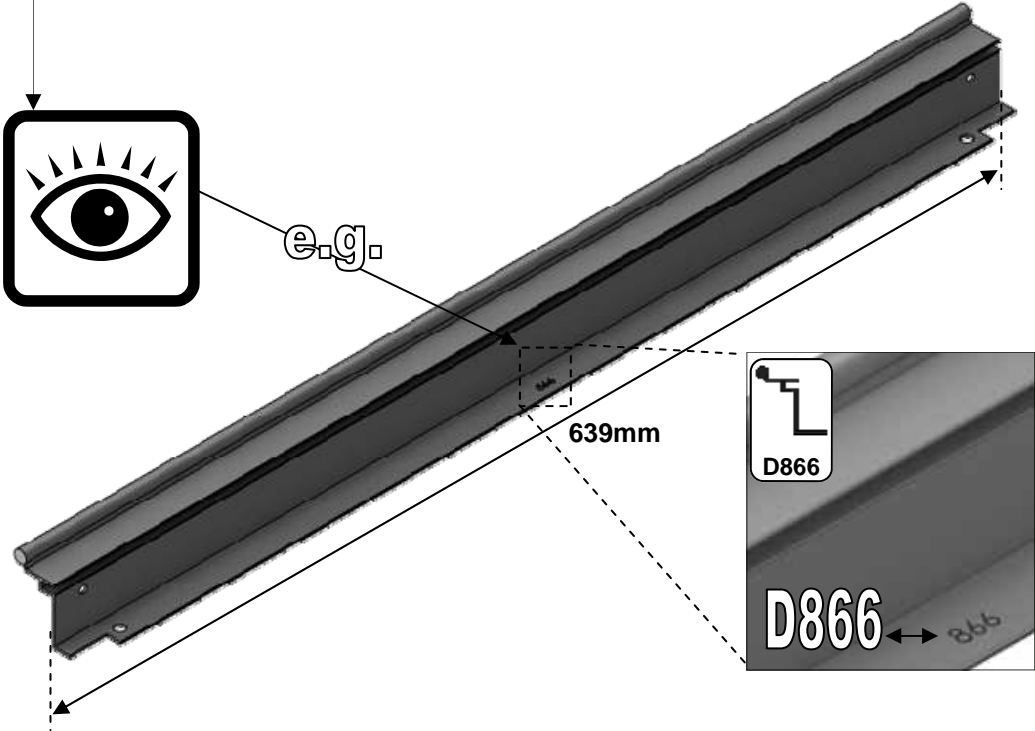
- When selecting a site for your greenhouse, it is vital that you choose as flat and level an area as possible.
- A concrete or slabbed base will provide the most solid foundation for your greenhouse.
- **IMPORTANT:** Do **not** fix your building down until the building is fully assembled, including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

Additional Considerations

- Please bear in mind that assembling your greenhouse can be time consuming. You may need to spread the construction over two or more days. We recommend that you avoid leaving the building partially glazed. If you ever have to leave your greenhouse half assembled and not anchored down, weigh it down with slabs or bags of sand to stop the wind moving it.
- You will find it helpful to prepare a large, clean and clear area in which to work in. A garage floor or flat lawn area is ideal.
- If you have arranged for someone to install your greenhouse for you, please check that all components are included. Most parts are numbered and can be identified by a stamped number (without the 'D') or removable label. Alternatively, the components can be identified by lengths detailed in the packing list (see diagram below).
- Anchoring down your greenhouse should be the final stage of construction (including glazing).
- Once installed your greenhouse requires little maintenance, but to maintain the smooth running of your door(s) WD40 or similar can be applied to the door wheels and lower door guides.

Guarantee

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



KEY SYMBOL	KEY DESCRIPTION
	EXTERNAL VIEW
	INTERNAL VIEW
	THINK
	THIS SECTION RELATES TO ANOTHER (e.g. 1 to 5)
	CORRECT
	DO <u>NOT</u> 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	Most components should have a 'D' code punched into their metal surface. Identify and separate all like for like components prior to assembly. The 'parts list' also separates parts into the various sections shown below. Parts can also be identified by their profile pictures and stated lengths etc..
	BASE	Base dimensions and recommendations. Ensure that your base is level as this will make assembly of the building, especially the glazing of the roof much more straight forward.
	PREPARATION	Tools required. IMPORTANT: Use WD40 or similar in the glazing bar channels and insert the black glazing rubber prior to frame assembly.
	SIDES	Take the side glazing bars 'D609' with the rubber inserted and the diagonal braces 'D604', use 10mm bolts to join them to the gutter and 15mm bolts to the cills (note how the head of the bolts slide into each glazing bar during construction).
	FRONT	Again insuring that the gable framework is rubbered-up follow the diagrams to assemble each end of the building. Make sure that you have inserted the extra bolts utilised in sections 4, 5 and 10. On the roof and side corner bars not every rubber channel will require rubber unless it is to be utilised in a partition (see separate manual and section P).
	REAR	
	JOINING THE FOUR SIDES	Take the two sides (1) and both gables (2 & 3) and join them together on your base. It is a good idea to tie some ladders to the sides to support them if you do not have anyone to hold them for you.
	ROOF	Attach ridge and then the rubbered-up roof bars ensuring that they are fully butted up to the ridge and down onto the gutter. If you have <u>cresting</u> then it is a good idea to fit it before glazing, see section (15). Some tubular braces are supplied to add extra strength, they can be fitted now or later with crop head bolts.
	VENT	Once the vent is glazed add silicone to the vent sides and top. Stand the vent/s on their hinge (vent top) and then leave the silicone to set.
	VENT SLAM	The slam bar 'D079' can be moved up and down between the roof glazing bars so that it can be butted down onto the pane of glass beneath, the autovent will be attached to it later on (9).
	DOOR	Construct the door using the diagrams and then leave to one side ready for attachment in section (10).
	GLAZING	Layout the bar capping and covers around the building like a sundial checking that all is present and correct. You can also place the roof capping 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.
	VENT ATTACHMENT	Take the assembled vent and slide the vent hinge 'D866' into the end of the ridge allowing the vent the pivot open and closed. Vent stops go either side of the vent to stop any lateral movement (so insert stop / vent / stop). Attachment of the Bayliss XL autovents.
	DOOR ATTACHMENT	Utilise the bolts inserted in section (2) to attach the upper door track. The lower door runner 'D860' and ramp threshold 'D087' push down and lock together.
	ANCHORING DOWN	Now that the greenhouse is finished and the door and vent/s are operating without interference then you need to anchor the building down using 2" rawl plugs and screws. Use a 7mm masonry bit in a hammer drill to create the holes.
12 13 14	OPTIONAL LOUVRE	They attach to the building during the glazing process (8) like a piece of glass with a black separator above and below them.
	OPTIONAL SHELIVING	Robinsons integral cantilever staging and shelving attaches to the inside of the greenhouse frame using either square head bolts (insert four into each side glazing bar 'D609' during construction of the sides (1)) or rectangular 'crop head' bolts which can be fitted retrospectively (both sets of bolts accompany the shelving/staging). This system allows the height of either the staging or the shelf to be set at an operator specific height. Commonly the staging brackets are set 900mm from the cills though you can alter this to suit the end user/s. The aluminium shelf / staging slats come in two lengths; (4'):1240mm 'D2002' and (6'):1860mm 'D2003'. These slats can combine to create any length of staging required, i.e. 4'+6' = 10' etc...
	OPTIONAL STAGING	
15	FINISHING TOUCHES	Now that the main body of the structure is complete you can add; ridge caps, downpipe fittings, eave bungs. Images showing cresting and finial attachment, this is often easiest to do after section (5) rather than using the vent apertures later on (i.e. before glazing).

Section Ref	Part No.	Section	Size (mm)	12 8	12 10	12 12
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1	D021		2514	2		
	D022		3134		2	
	D023		3754			2
	D014		2517	2		
	D015		3137		2	
	D016		3757			2
	D604		1316	4		
	D609		1160	6	8	10
	RUBBER		1000 (1m)	14	19	24
	D174		N/A	4	8	8

2 + 3	D030		3836	1		
	D600		1270	1		
	D677L		1309	1		
	D677R		1309	1		
	D608		1160	4		
	D601		1460	4		
	D603		1756	2		
	D604		1316	2		
	D629		2356	2		
	D679		2052	1		
	D034		3750	1		
	D653		1270	1		
	D604		1316	4		

Regal DWARF

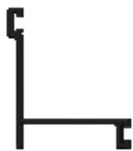











Section Ref	Part No.	Section	Size (mm)	12 8	12 10	12 12
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2 + 3	D111		N/A	2		
	D035L		2082	2		
	D035R			2		
	RUBBER		1000 (1m)			
	D174		N/A			

5	D001		2517	1		
	D002		3137		1	
	D003		3757			1
	D033		2082	6	8	10
	RUBBER		1000 (1m)	25	34	42




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











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

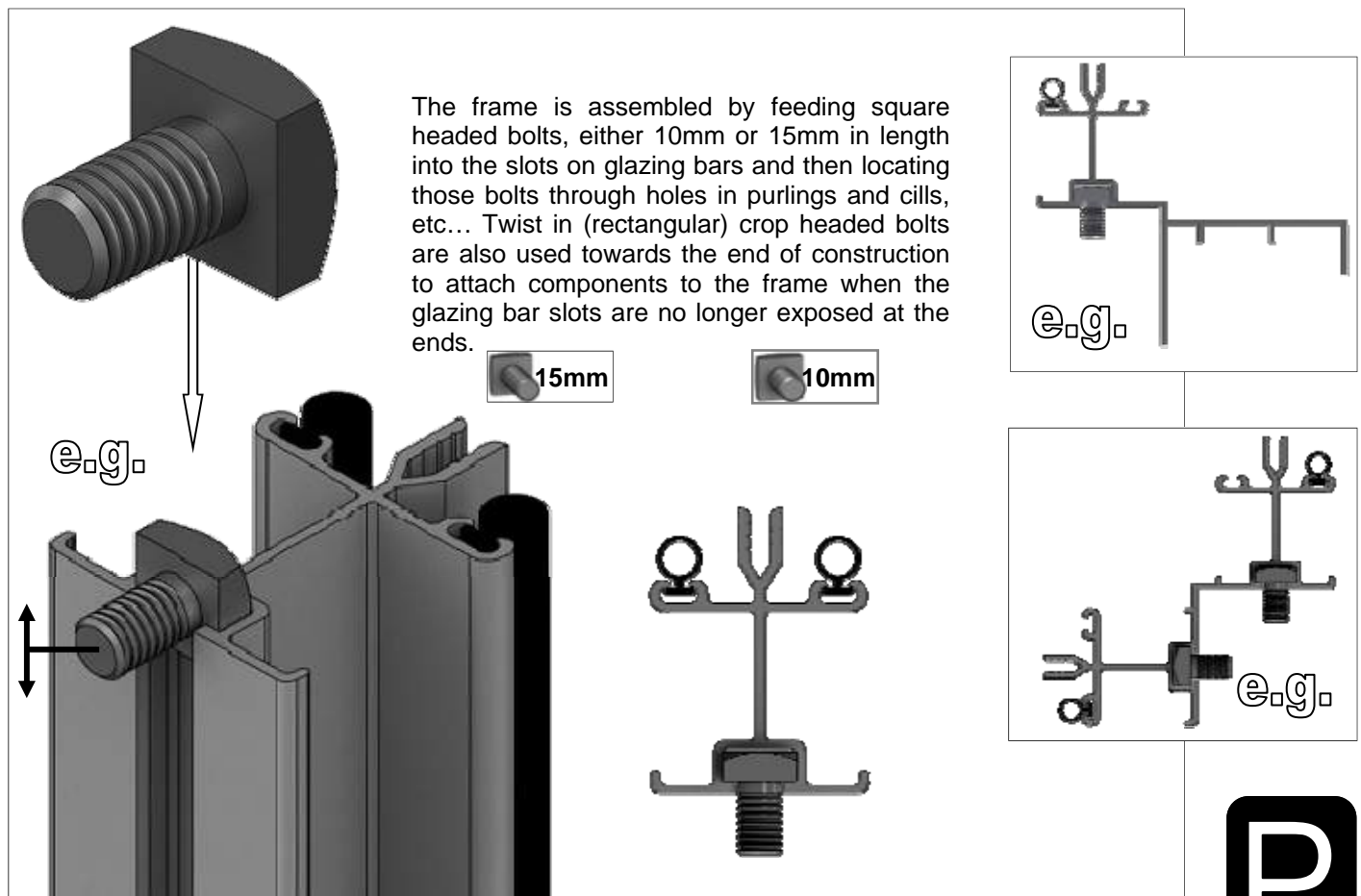
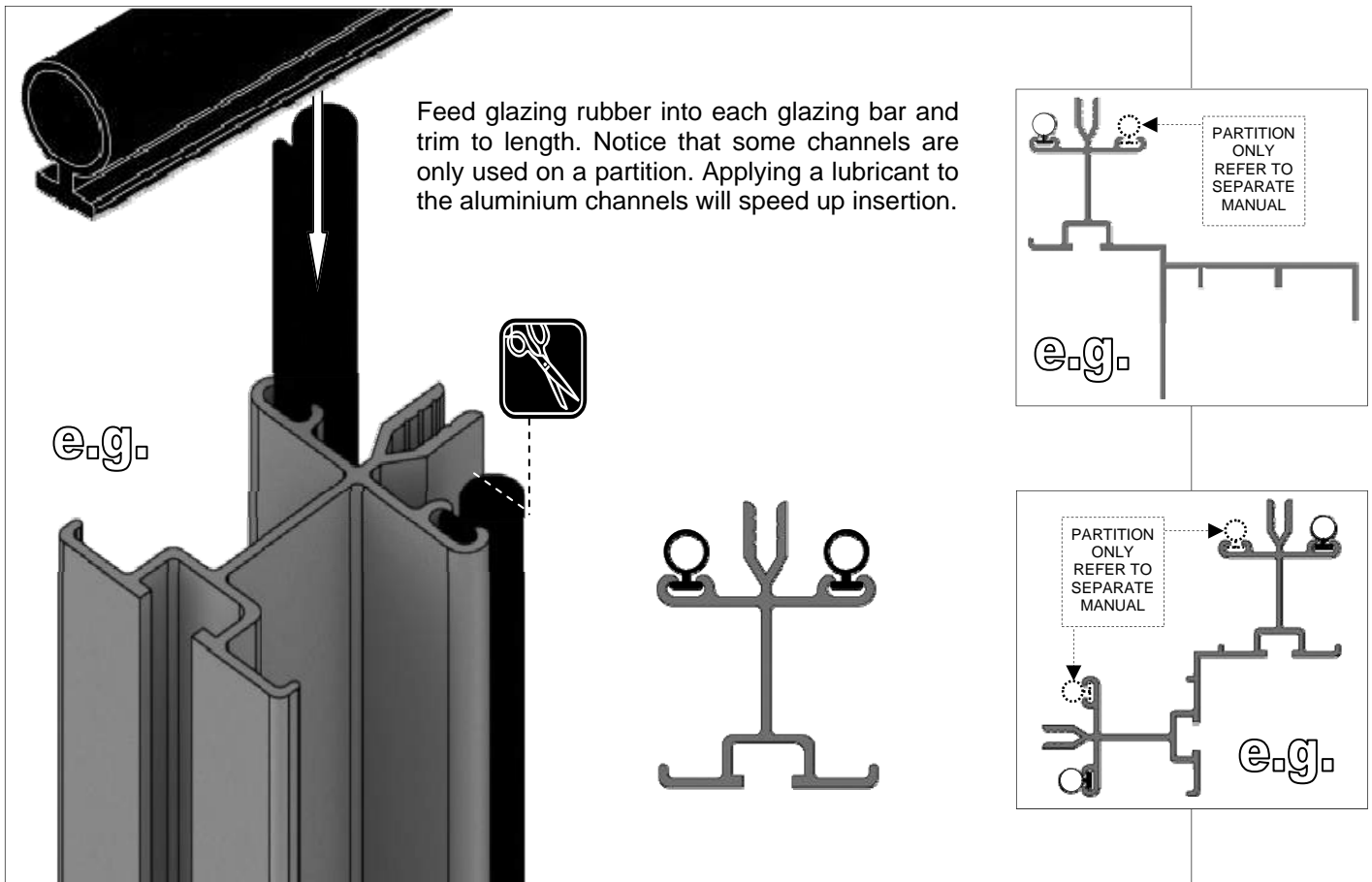
MAIN FRAME QUANTITIES VENTS / DOORS etc SEPERATE		10mm	37	43	49
		15mm	46	48	50
		m6	83	91	99

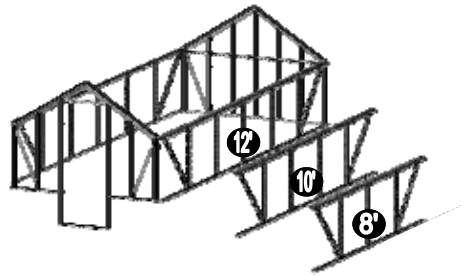
Section Ref	Part No.	Section	Size (mm)	12 8	12 10	12 12
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8	2/3	D611		1460	4		
	3	D612		1756	2		
	1	D618		1144	6	8	10
	2	D680		457	2		
	3	D681		2052	1		
	2	D682		746	1		
	5	D870		601	6	8	10
	5	D877		1490	6	8	10
	2/3	D610		1160	4		
	1	D620		1144	4		
	2	D814		1883	2		
	5	D871		601	4		
	5	D888		1490	4		
	2/3	D614		1162	4		
	2/3	D615		1462	4		
	3	D616		1758	2		
	1	D619		1144	10	12	14
	3	D683		2054	1		
	2	D684		748	1		
	2	D685		459	2		
	2	D836		1883	2		
	5	D880		2092	10	12	14

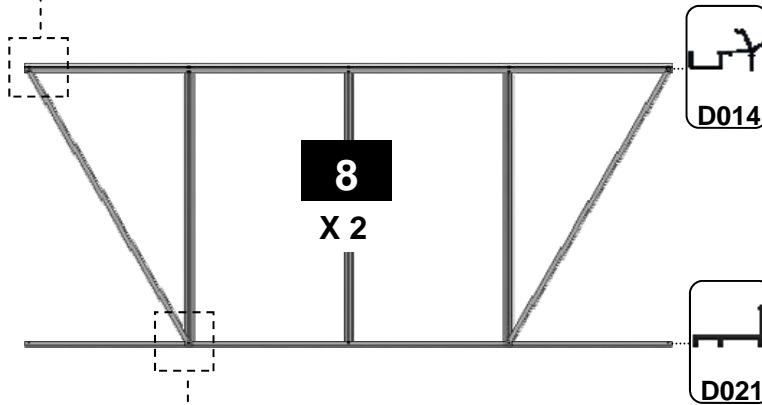
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	D865		1210	1
	D861		2450	1
	D088		1207	1
	D086		2510	1
	D085		2510	1
	D627		114	2
	D163		90	2
	D150		N/A	1
	D154		N/A	2

Regal DWARF



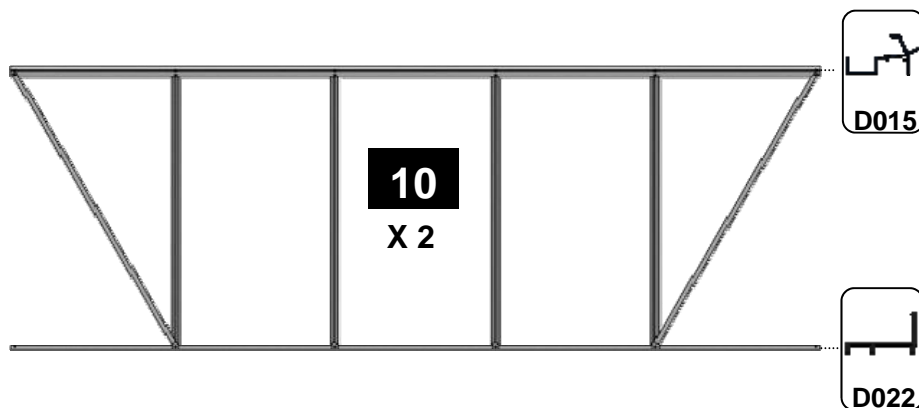


e.g. ①

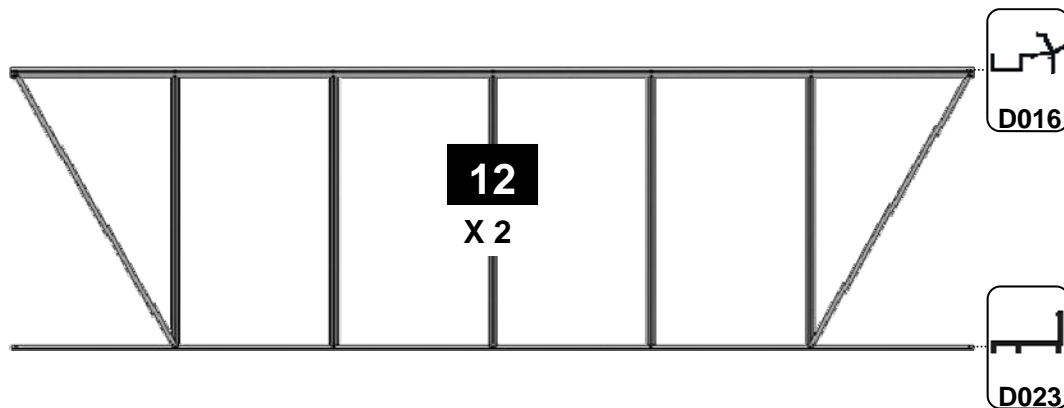


8 X 2 DWARF		
Part No	mm	Quantity
D014	2517	2
D021	2514	2
D609	1160	6
D604	1316	4
D174		4
M6-10mm		6
M6-15mm		10
M6-NUT		16
Rubber	1000	14

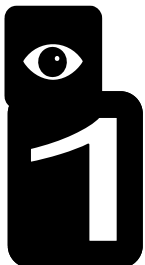
e.g. ②

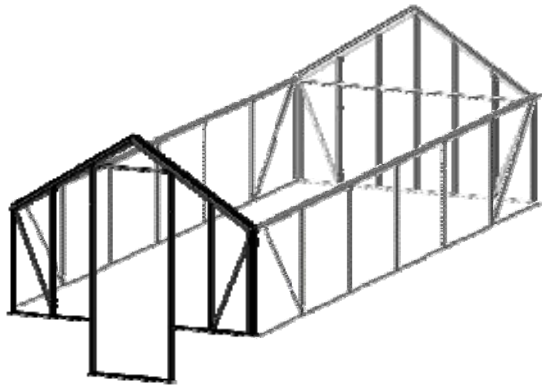


10 X 2 DWARF		
Part No	mm	Quantity
D015	3137	2
D022	3134	2
D609	1160	8
D604	1316	4
D174		8
M6-10mm		8
M6-15mm		12
M6-NUT		20
Rubber	1000	19









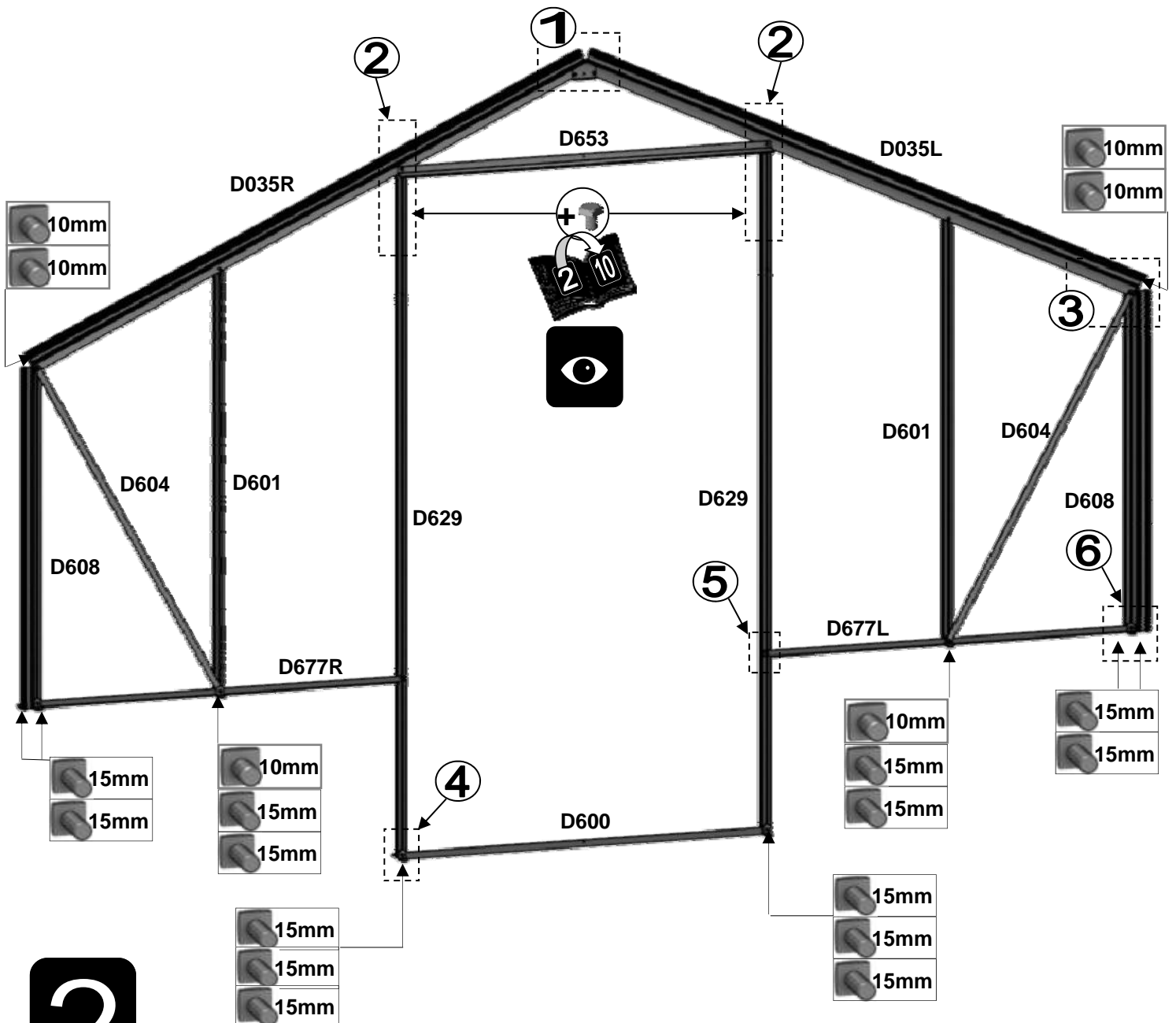
12 X 2 DWARF		
Part No	mm	Quantity
D016	3757	2
D023	3754	2
D609	1160	10
D604	1316	4
D174		8
M6-10mm		10
M6-15mm		14
M6-NUT		24
Rubber	1000	24

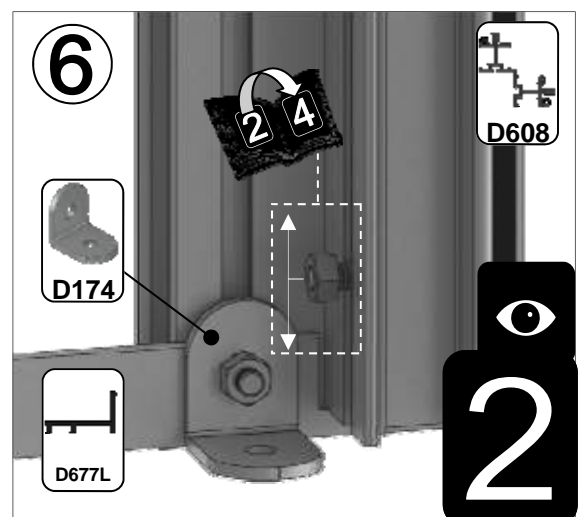
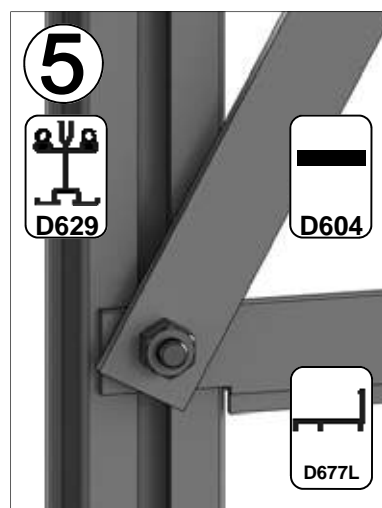
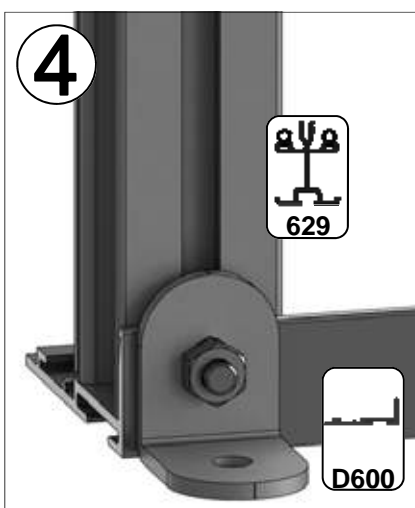
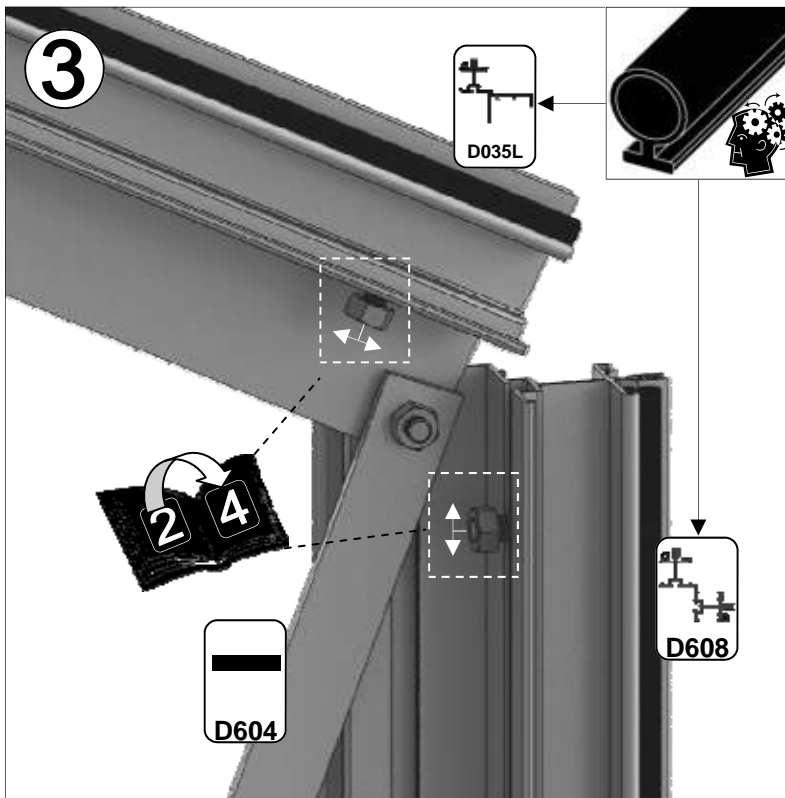
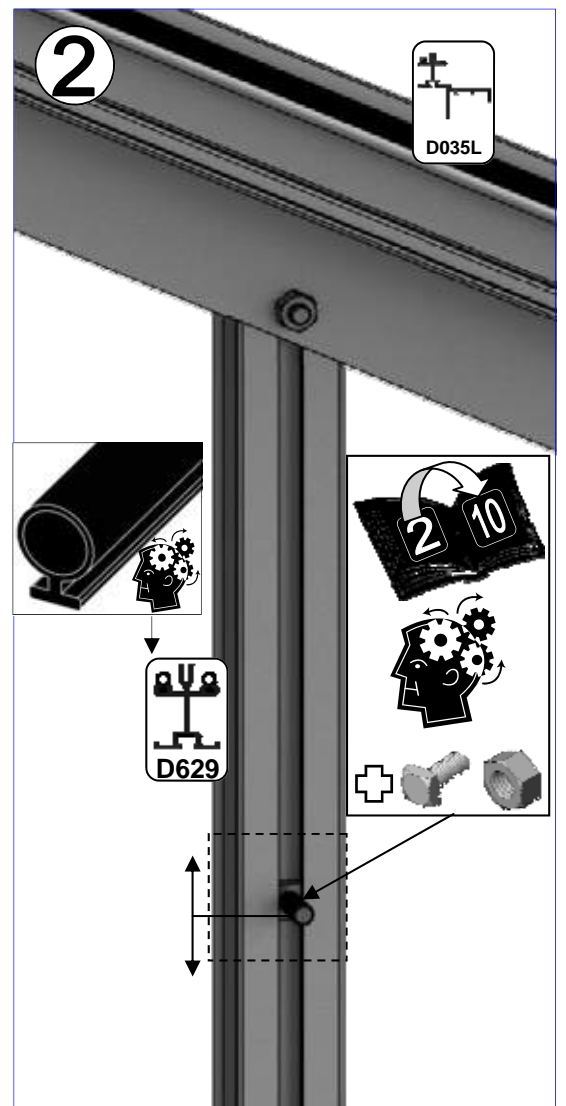
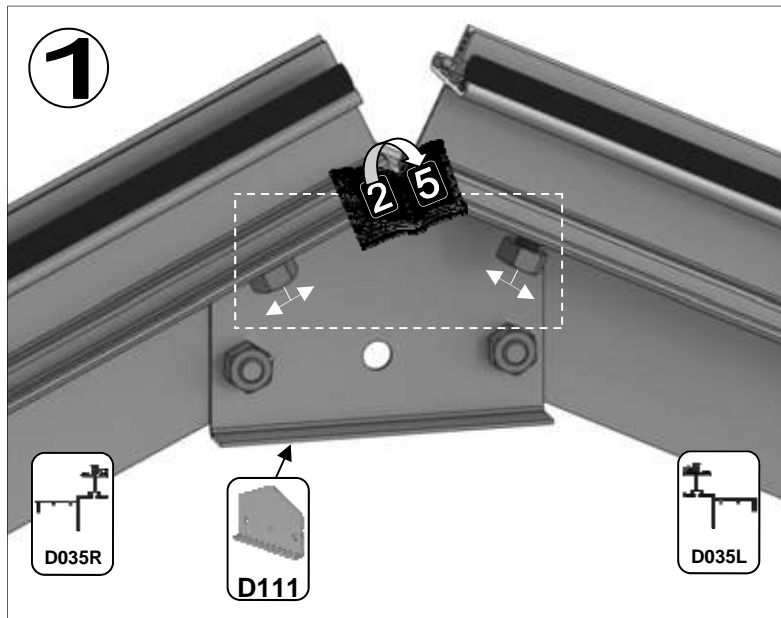


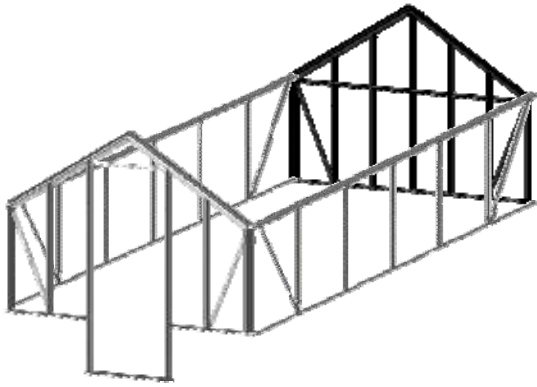


Part No	mm	Quantity
D035L	2082	1
D035R	2082	1
D600	1270	1
D601	1460	2
D604	1316	2
D608	1160	2
D629	2356	2
D653	1270	1
D677L	1309	1
D677R	1309	1




Part No	mm	Quantity
D111		1
D174		4
D227		25m
M6X10		8
M6X15		18
M6NUT		26

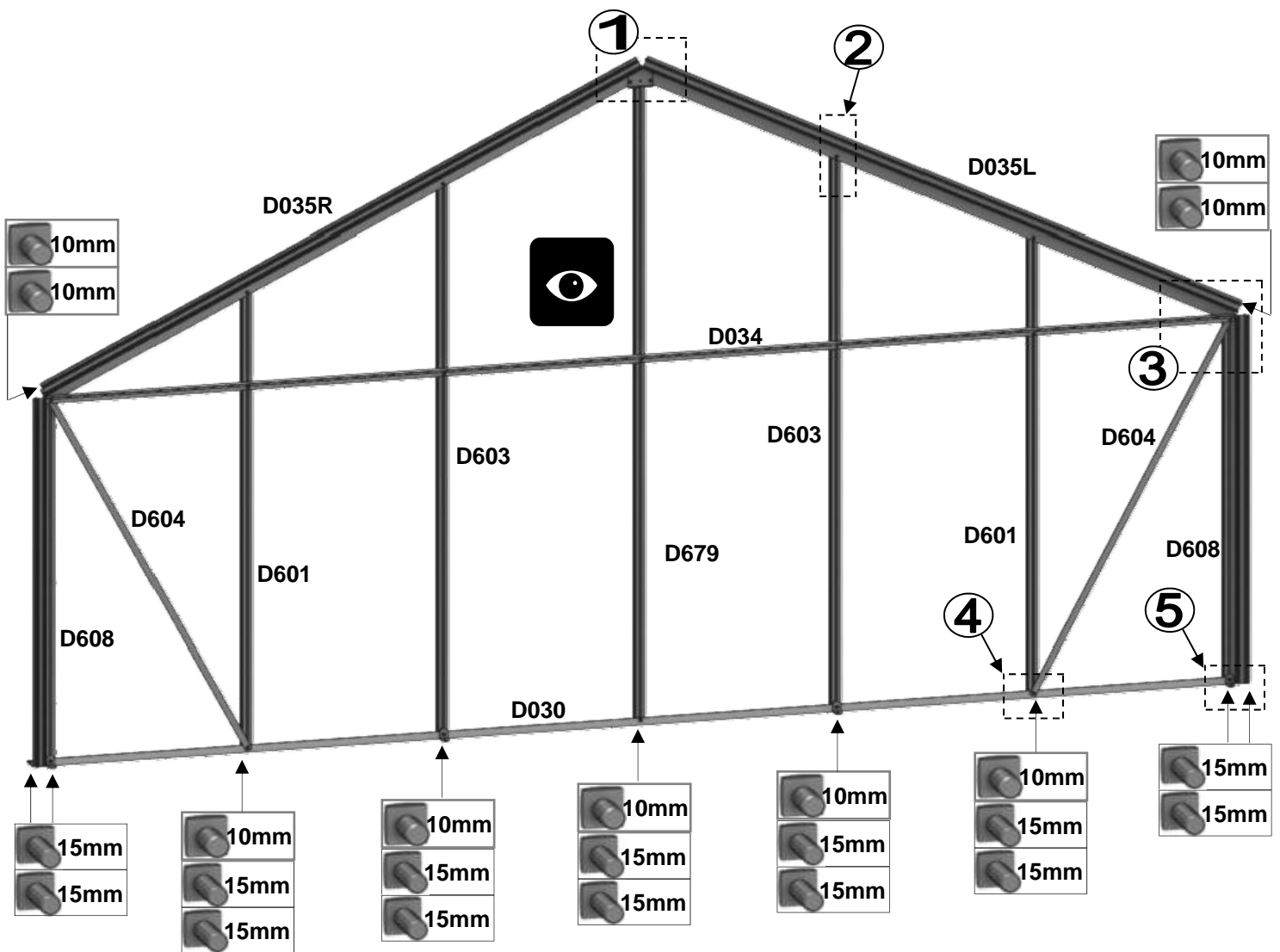




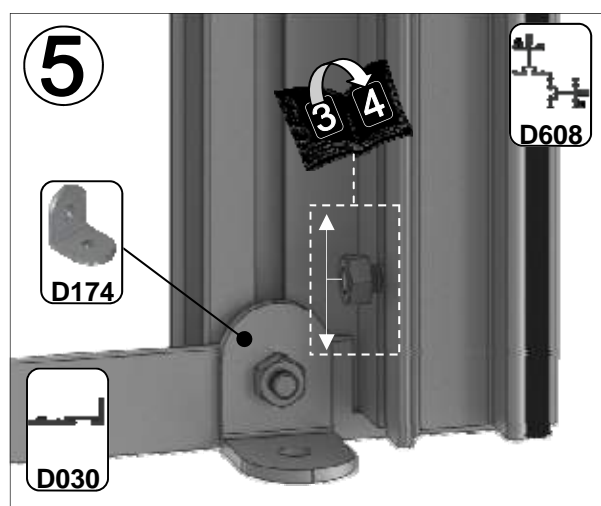
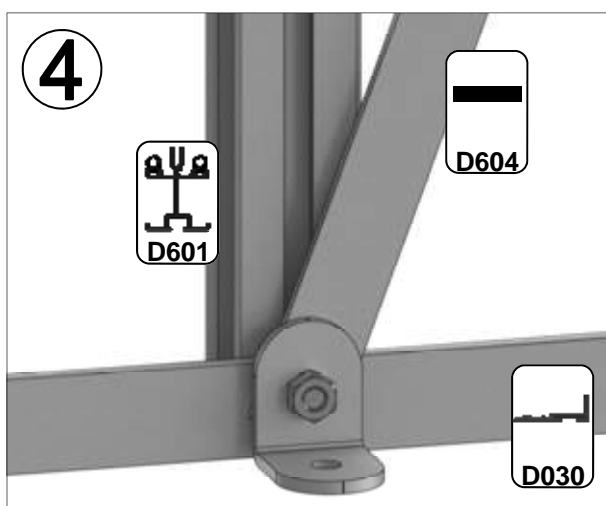
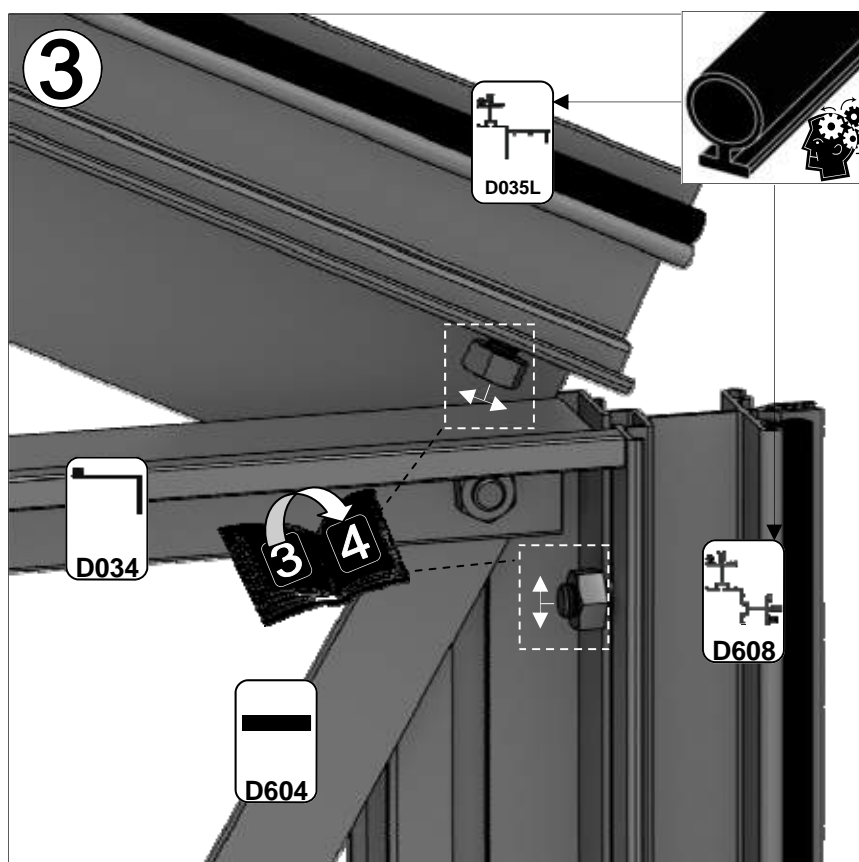
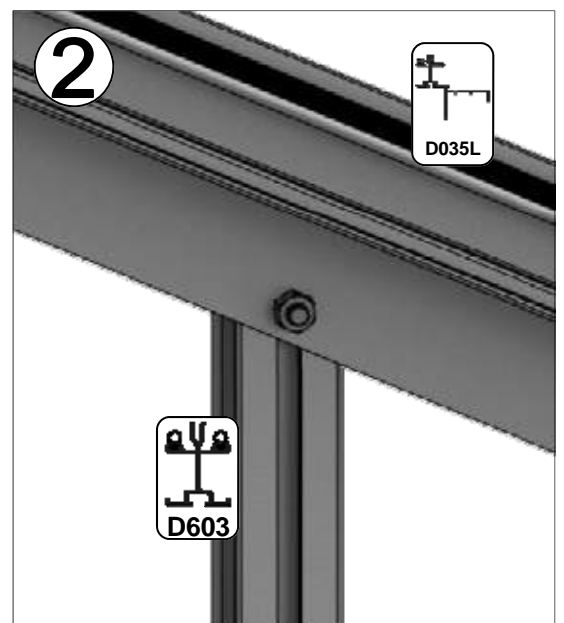
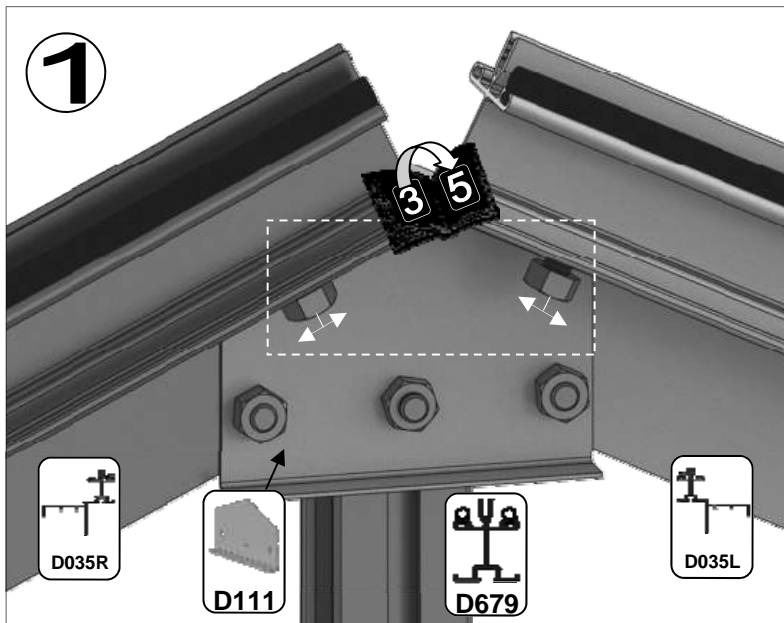


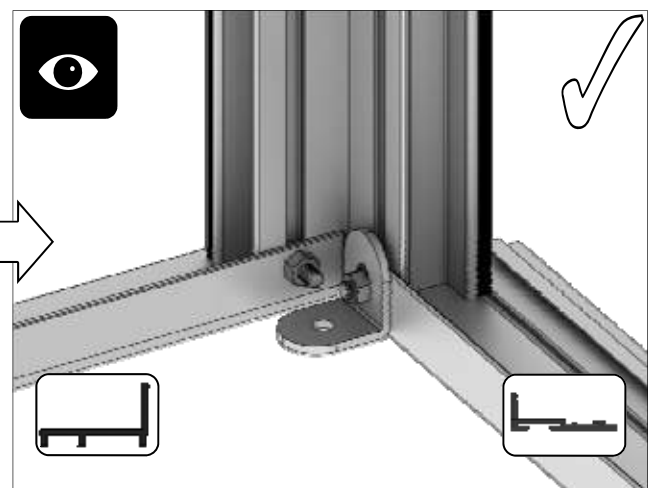
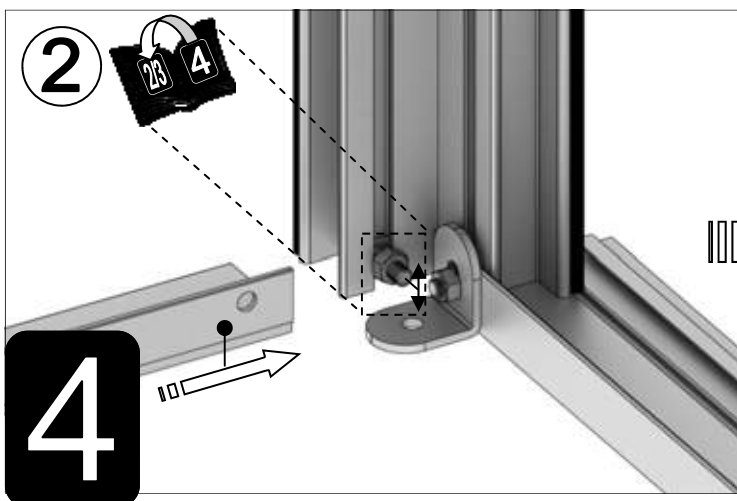
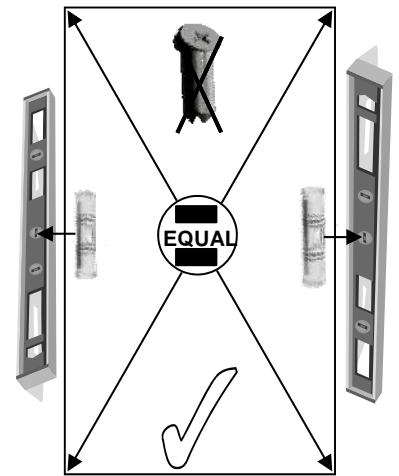
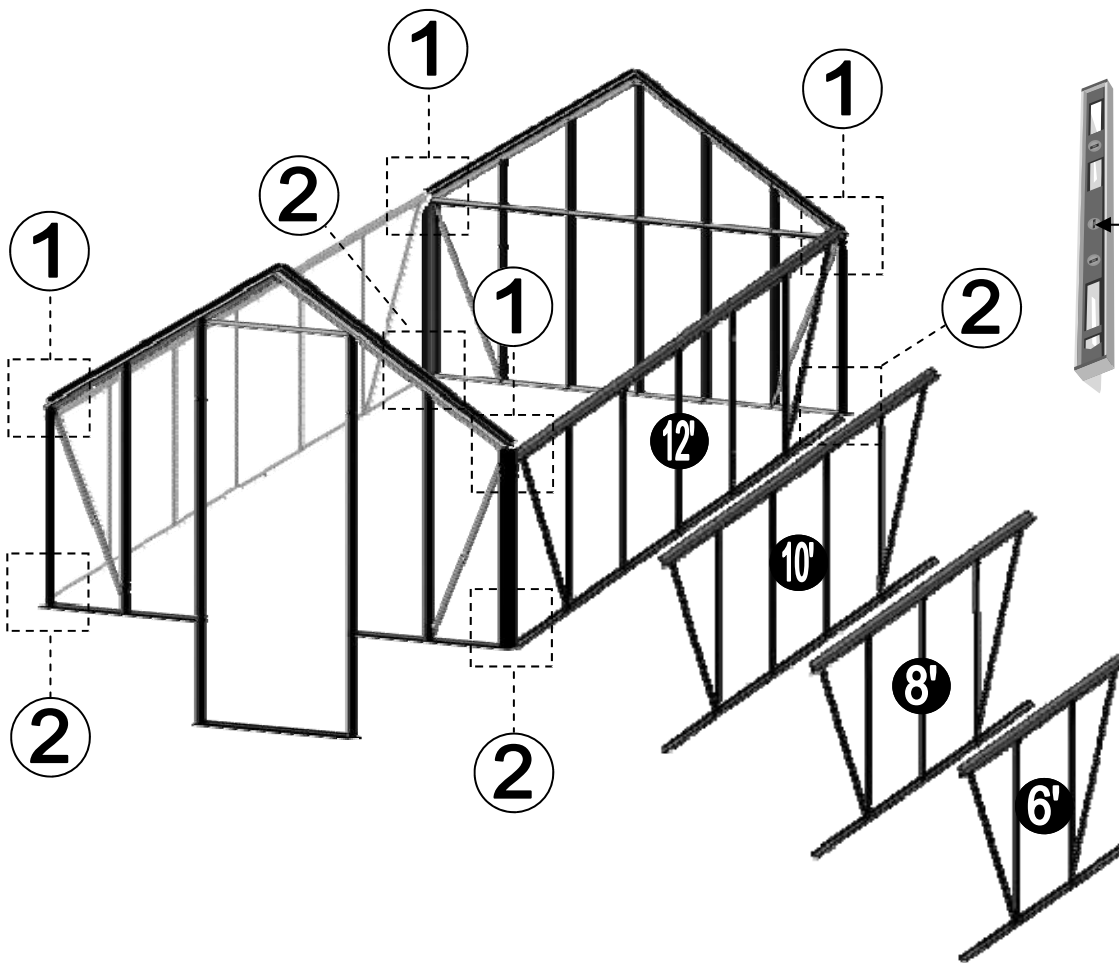
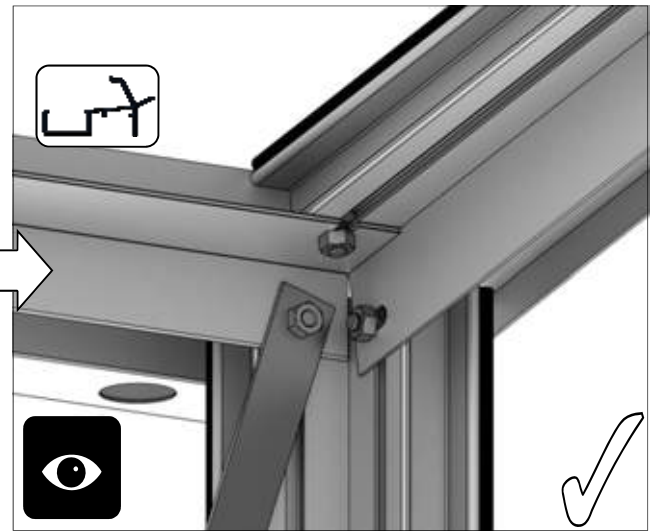
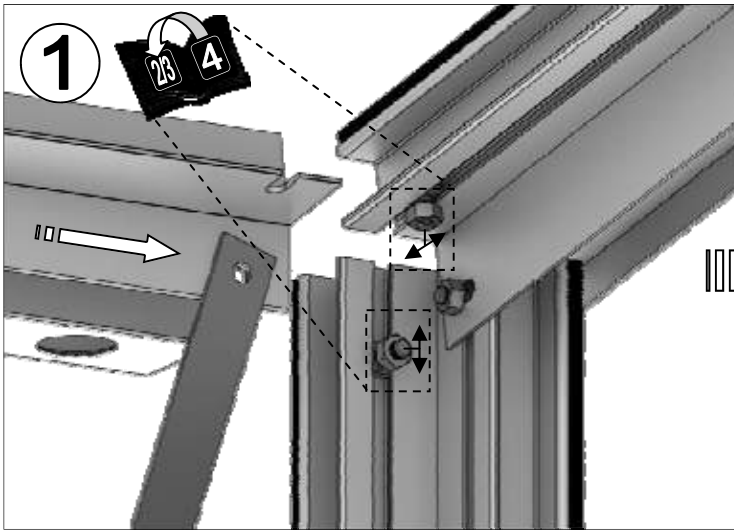
Part No	mm	Quantity
D030	3836	1
D601	1460	2
D603	1756	2
D604	1316	2
D608	1160	2
D679	2052	1
D35L	2082	1
D35R	2082	1

Part No	mm	Quantity
D111		1
D174		6
D227		26m
M6X10		11
M6X15		18
M6NUT		29





3

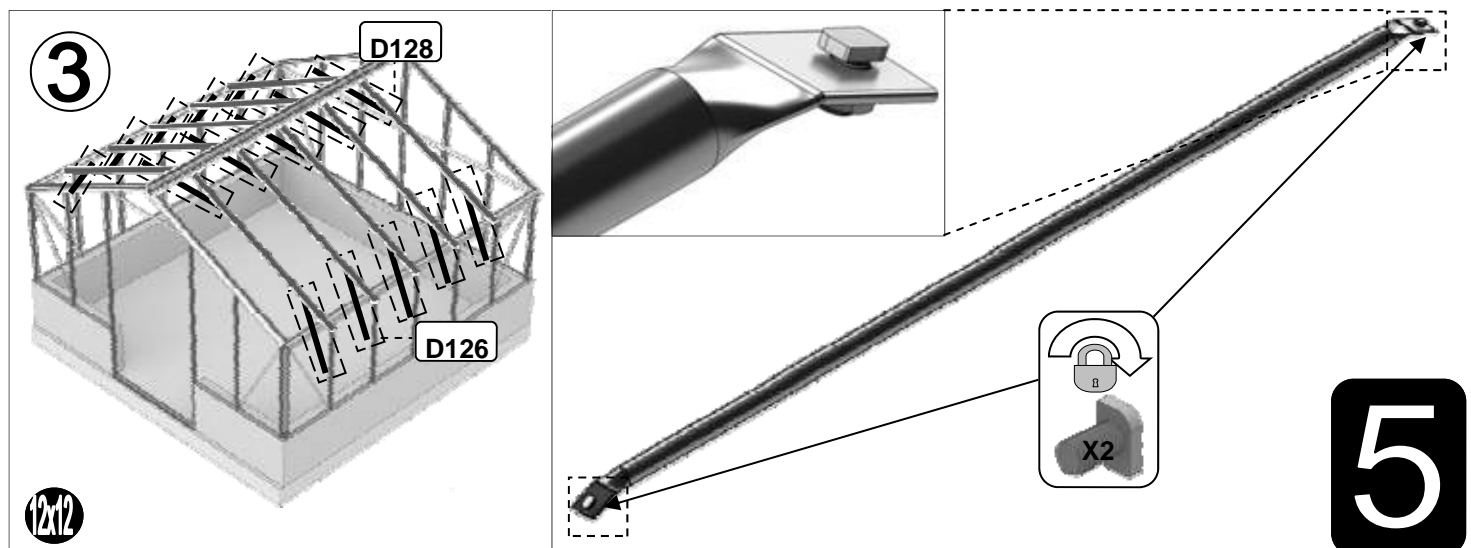
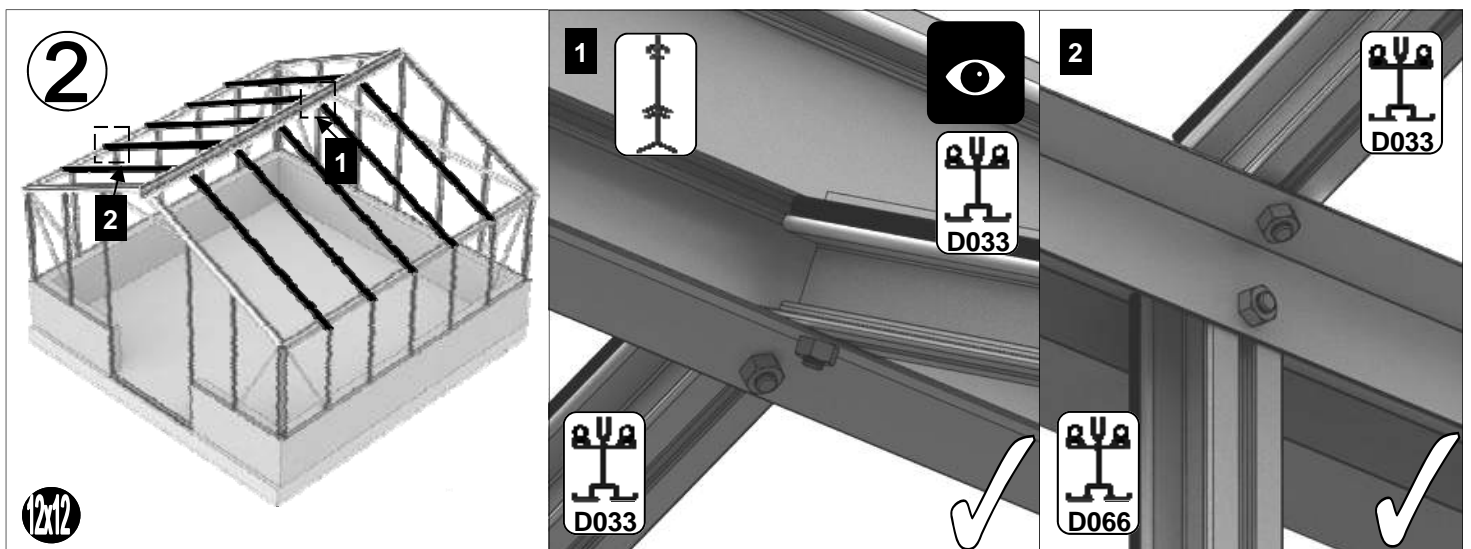
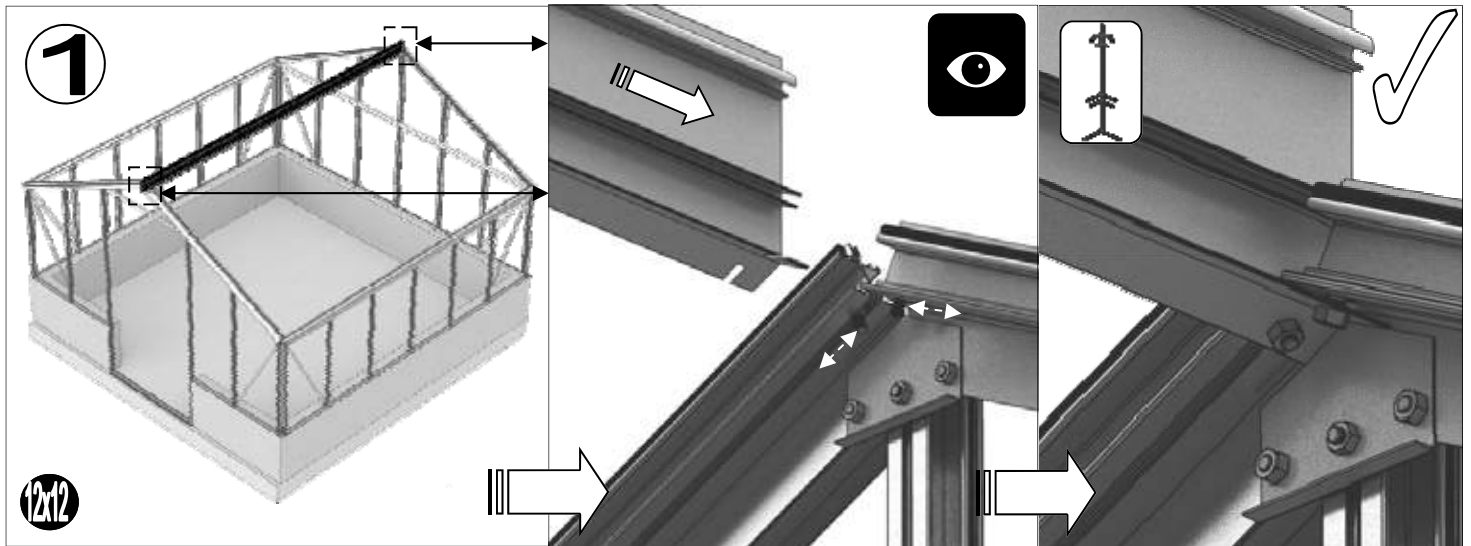


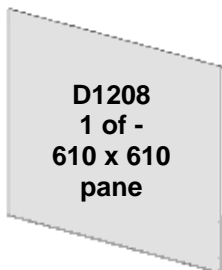
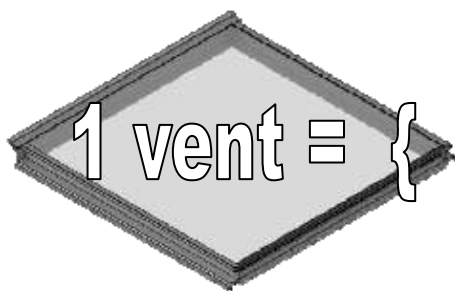


8'		
		12
Part No	mm	Quantity
D001	2517	1
D033	2082	6
D126	445	6
D128	1015	3
RUBBER	1000	25

10'		
		16
Part No	mm	Quantity
D002	3137	1
D033	2082	8
D126	445	8
D128	1015	4
RUBBER	1000	34

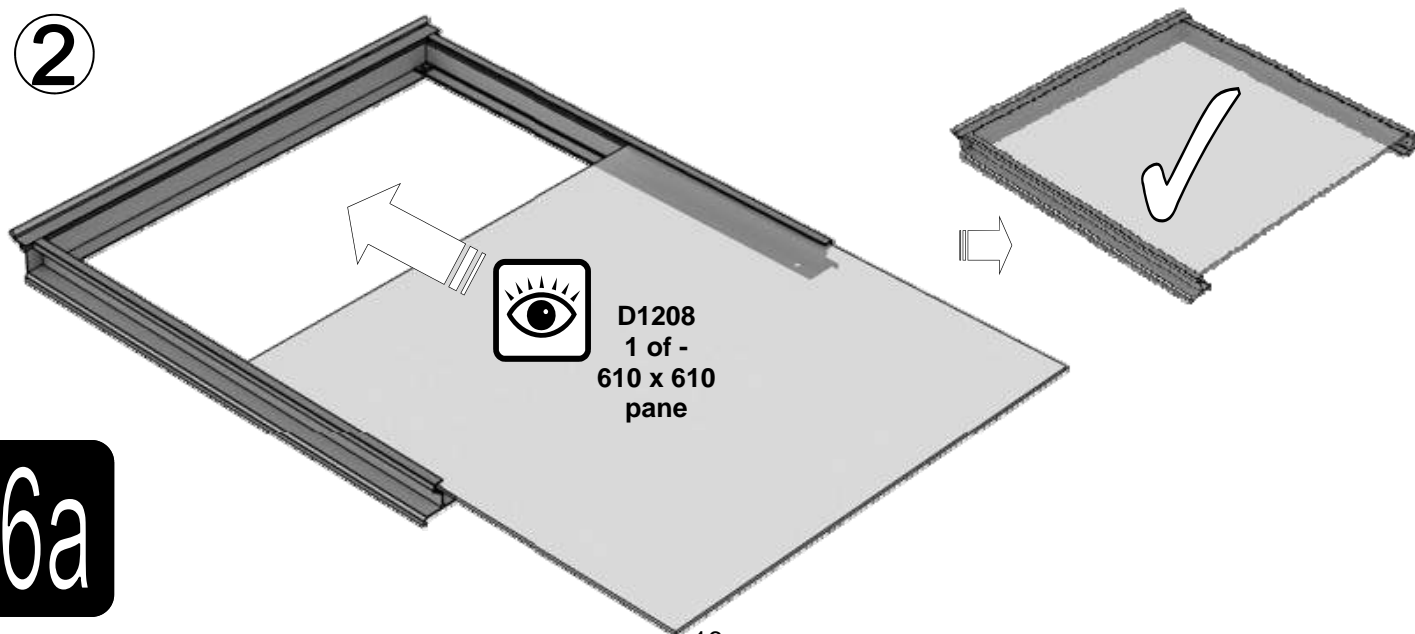
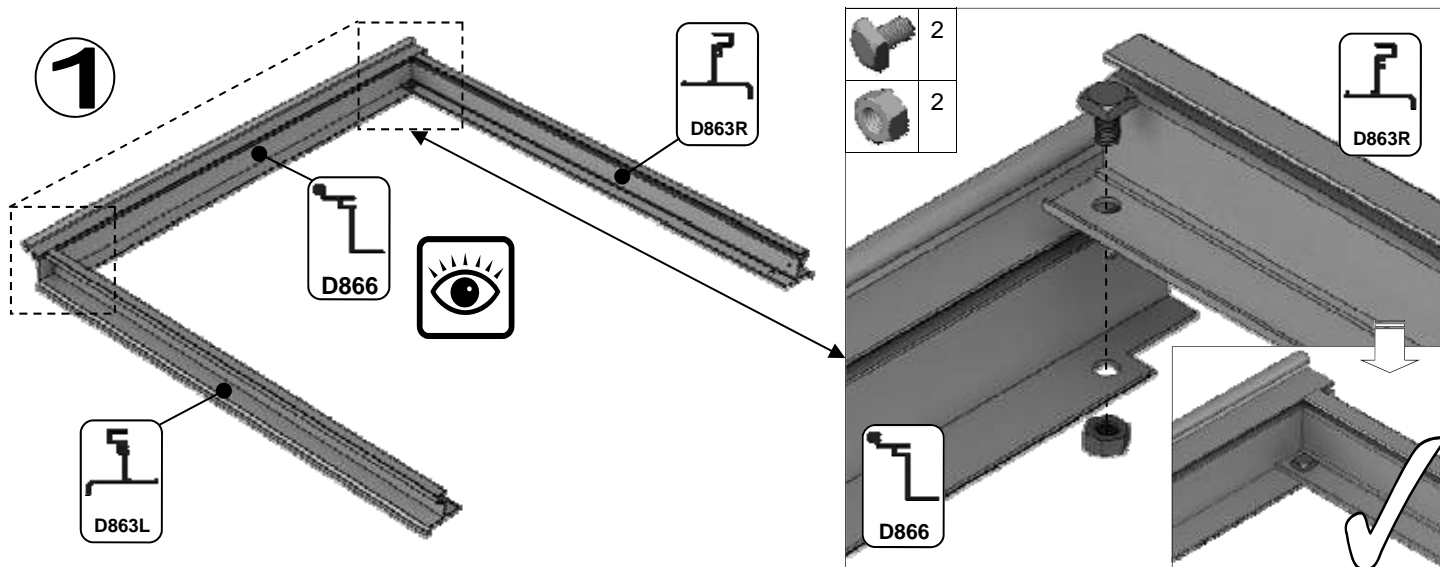
12'		
		20
Part No	mm	Quantity
D003	3757	1
D033	2082	10
D126	445	10
D128	1015	5
RUBBER	1000	42






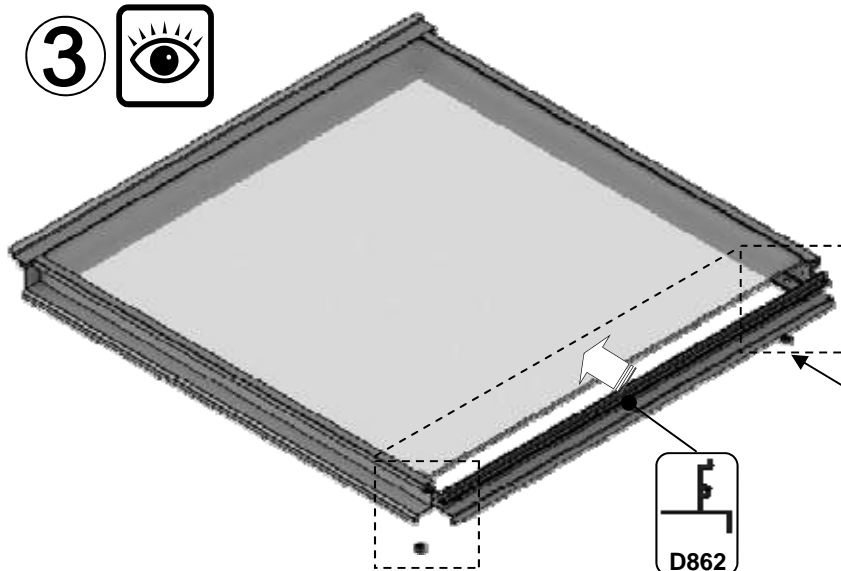
Part No		mm	Quantity
D866		639	1
D863L		613	1
D863R		613	1
D862		593	1

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

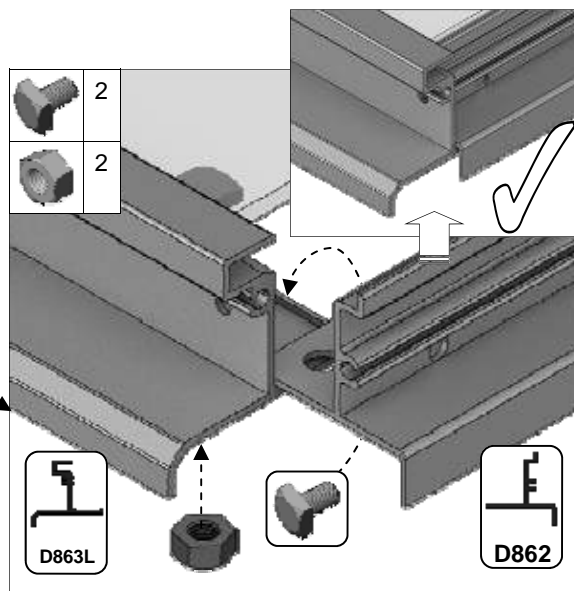


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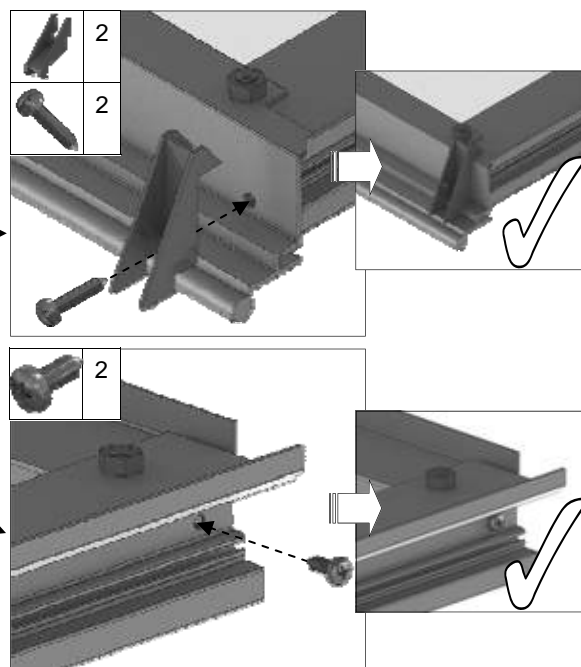
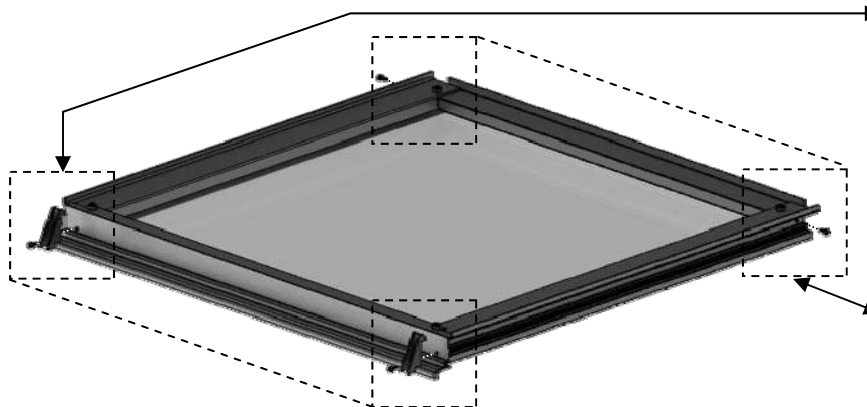
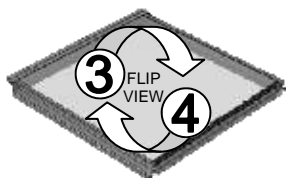
3 



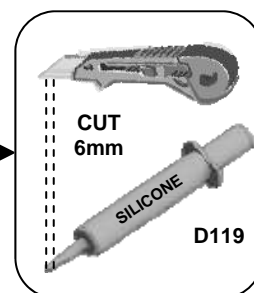
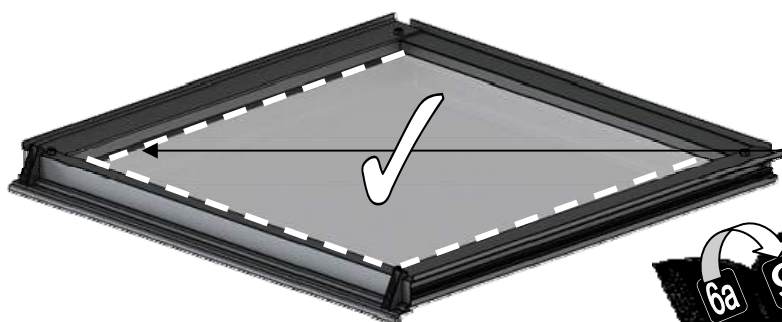

D862



4 









5 



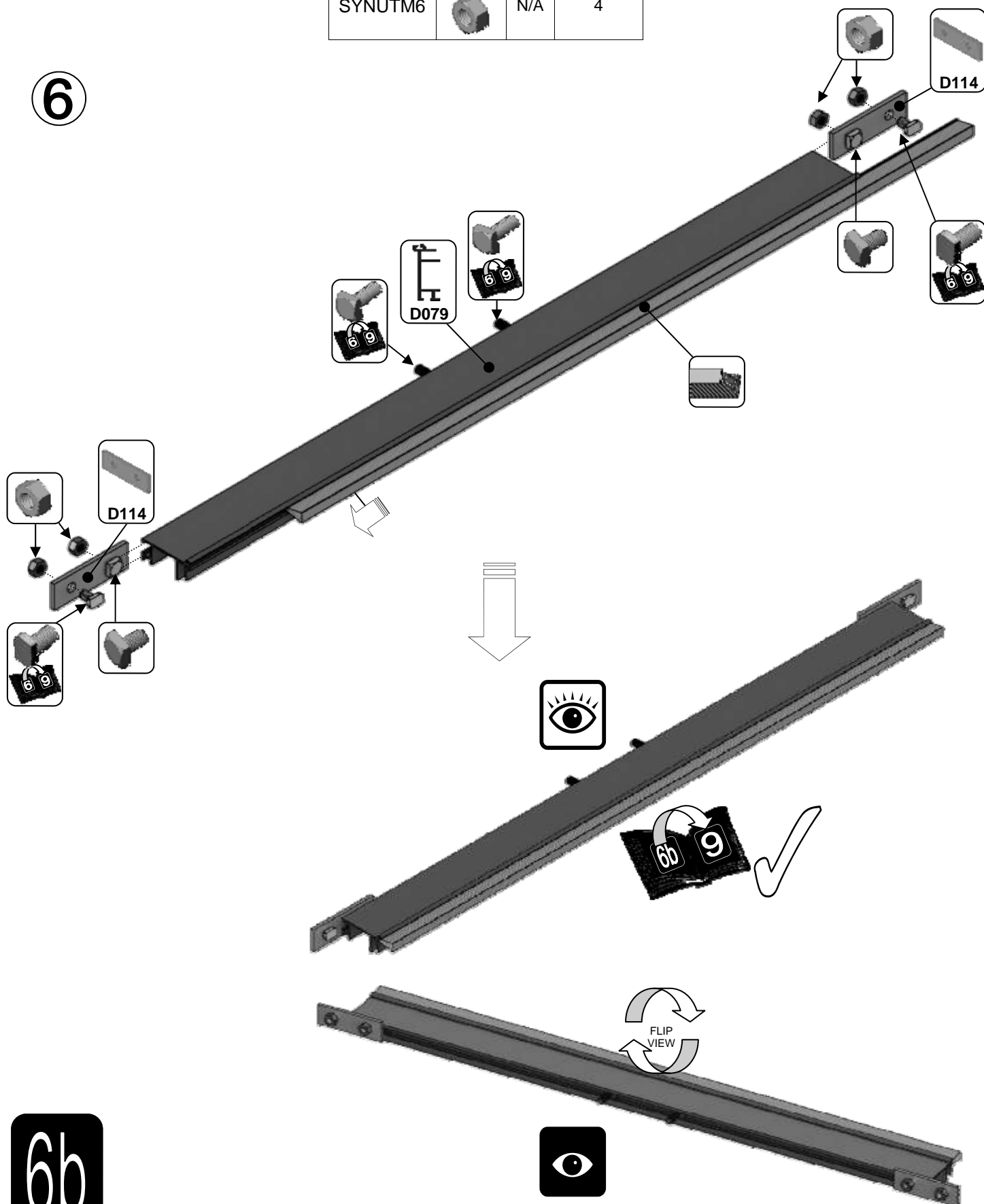
6a

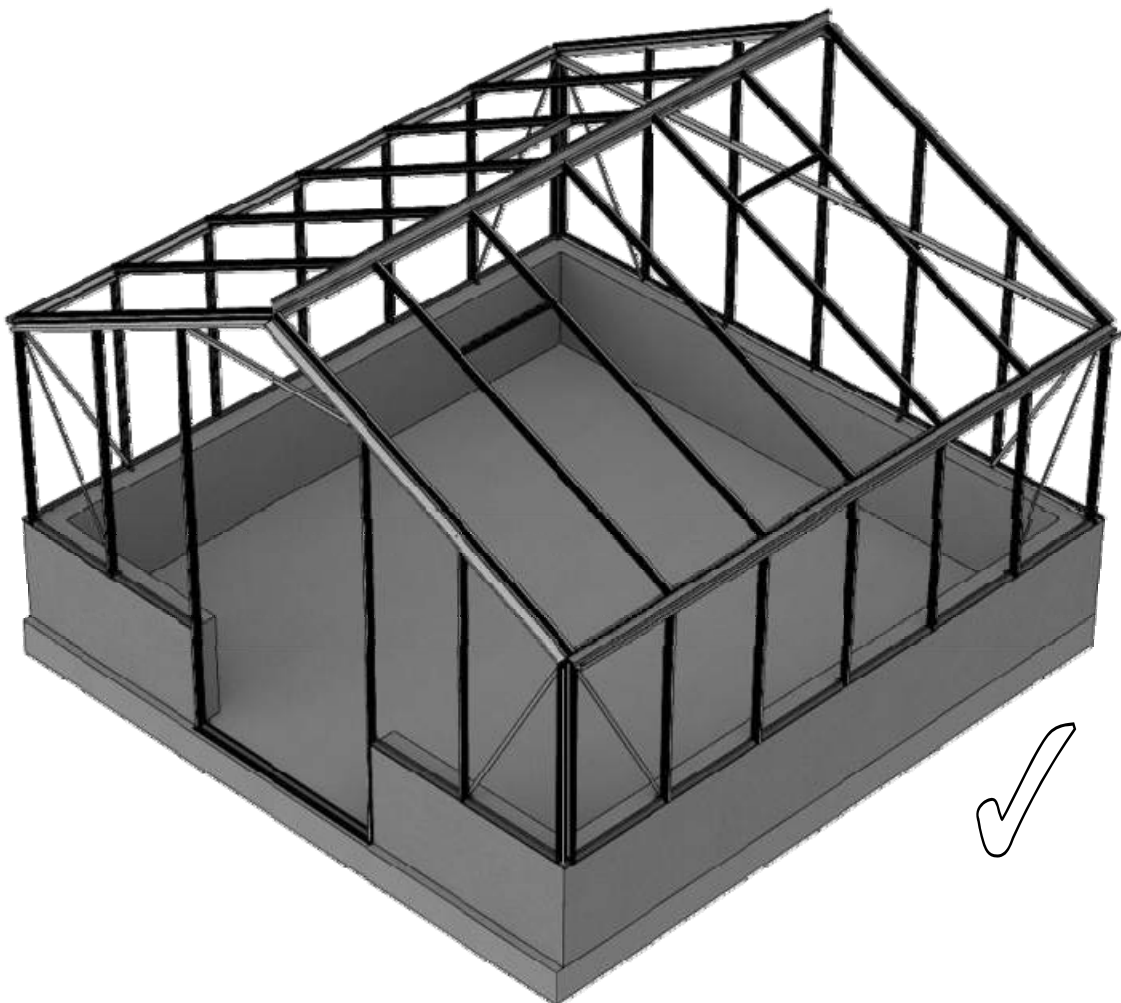
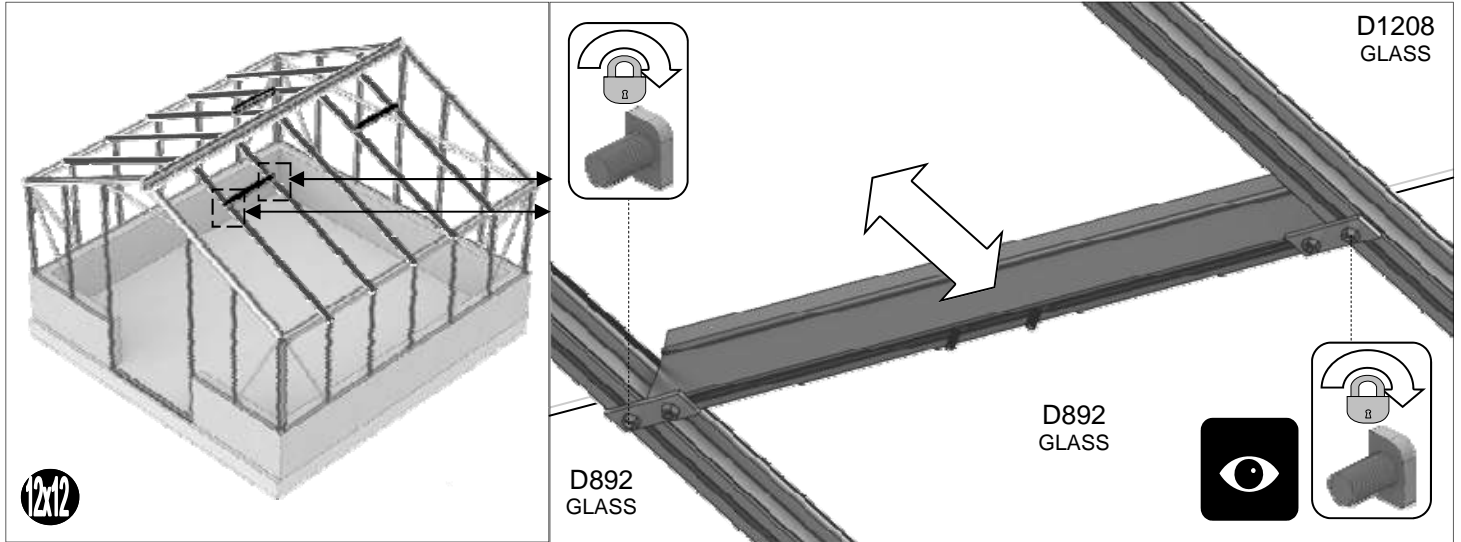
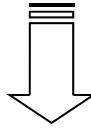
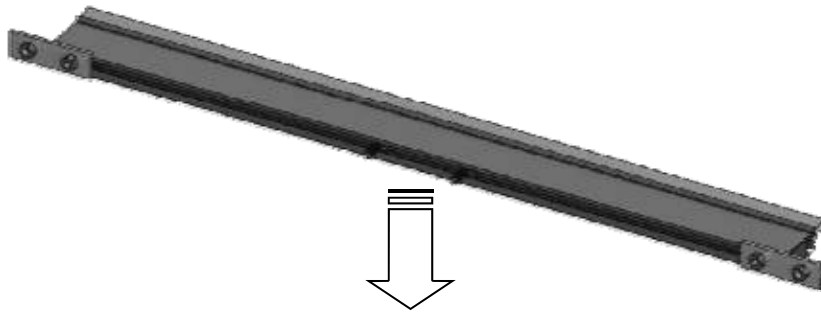
1 vent
slam bar = {

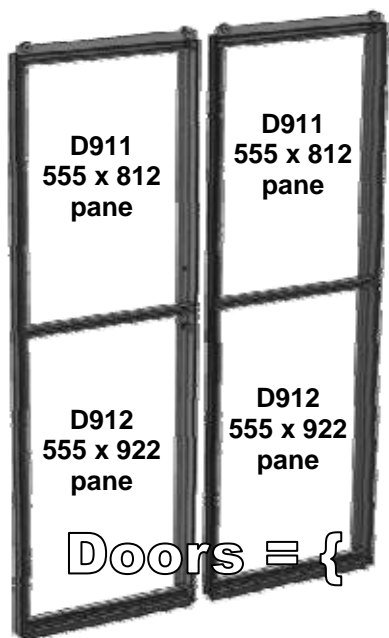
Part No		mm	Quantity
SY-BOLM6X11		10	2
SY-BOLM6X15		15	2
SYBOLM6X11CROP		10	2
SYNUTM6		N/A	4

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

6

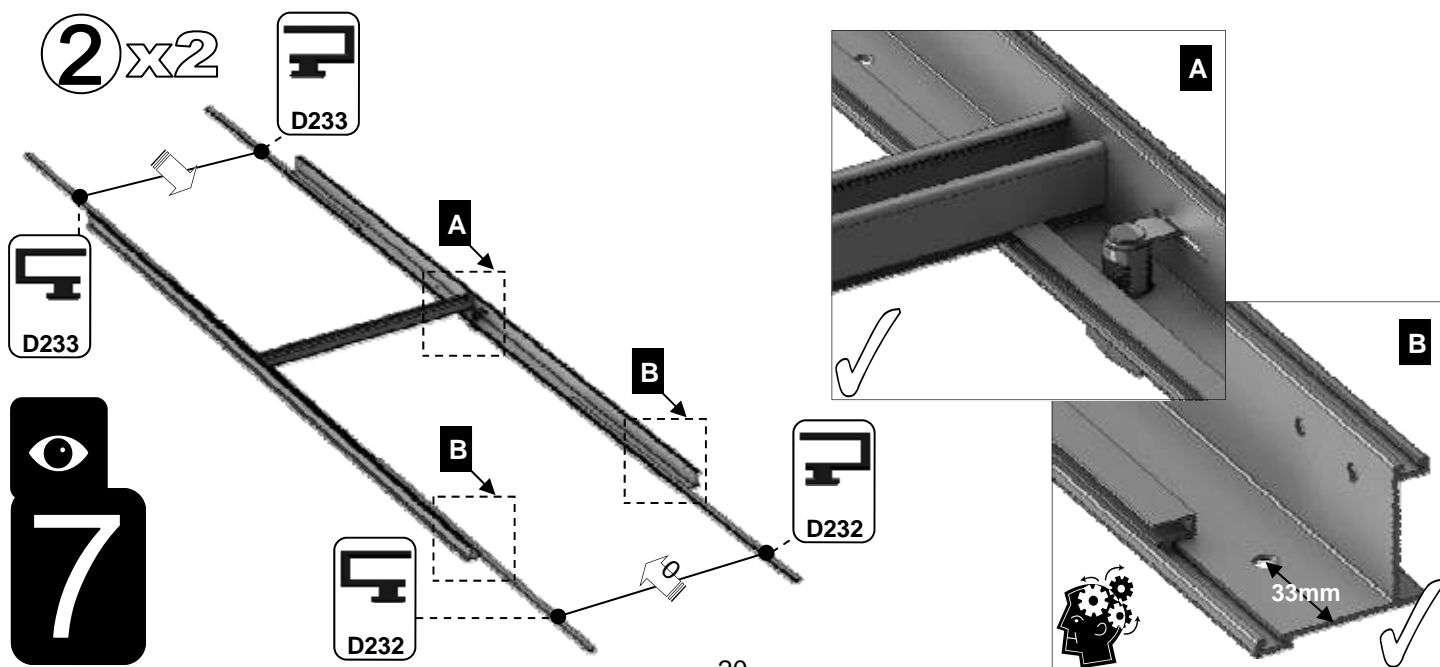
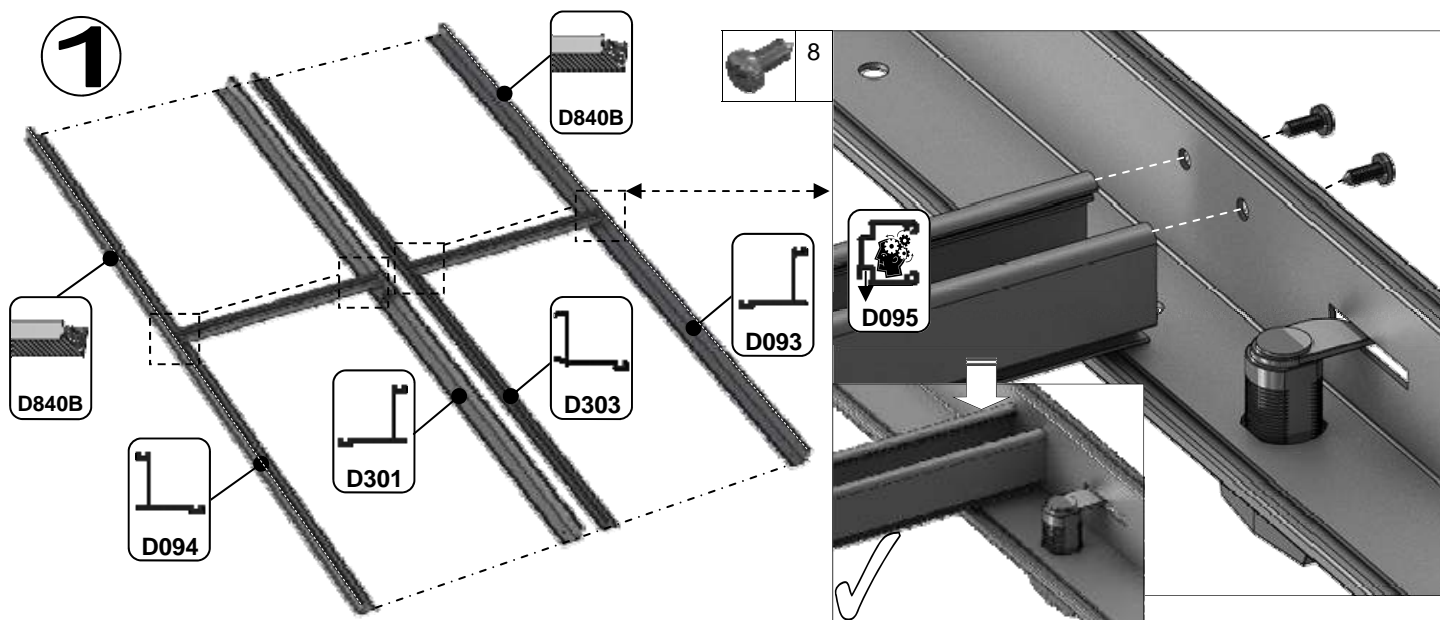


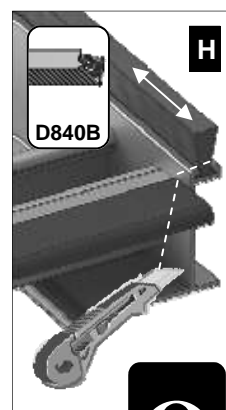
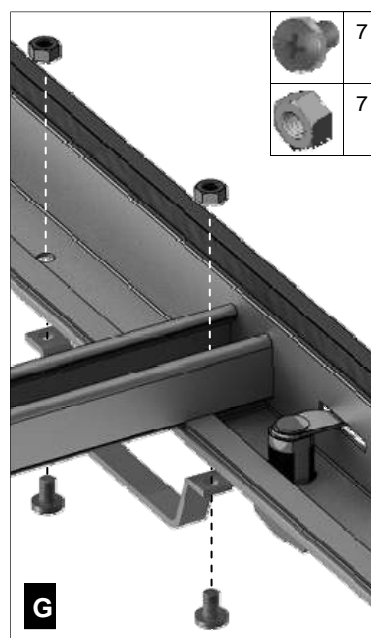
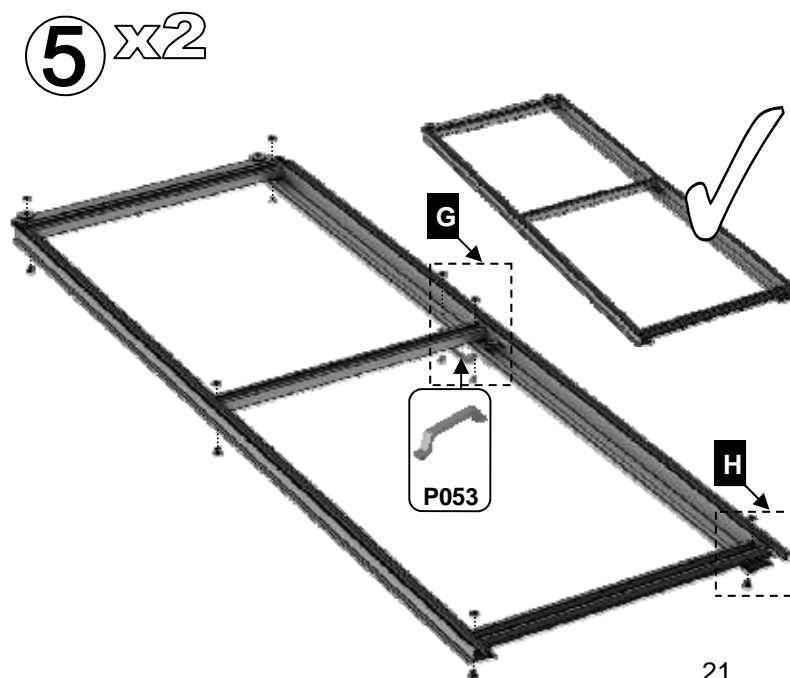
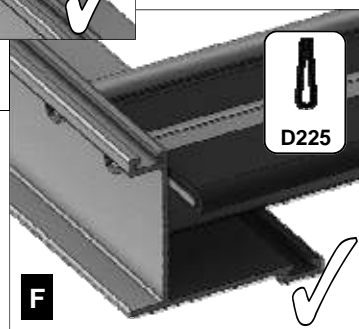
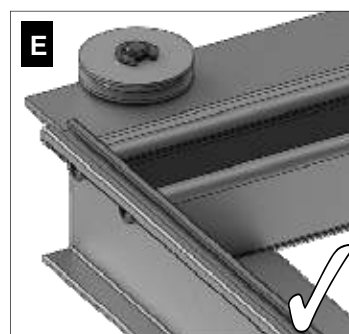
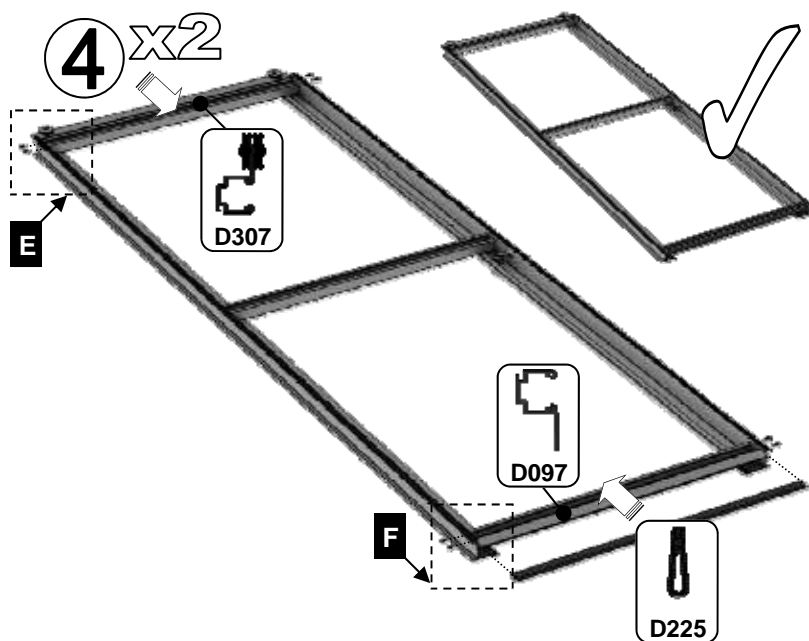
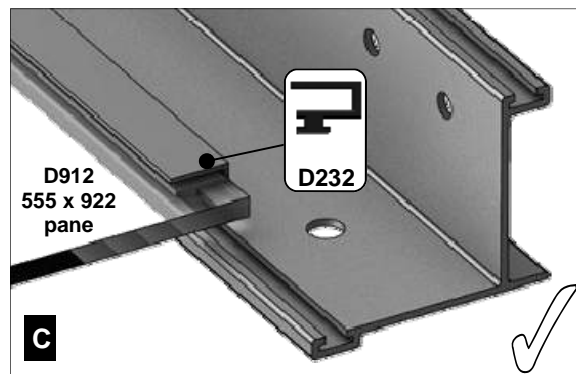
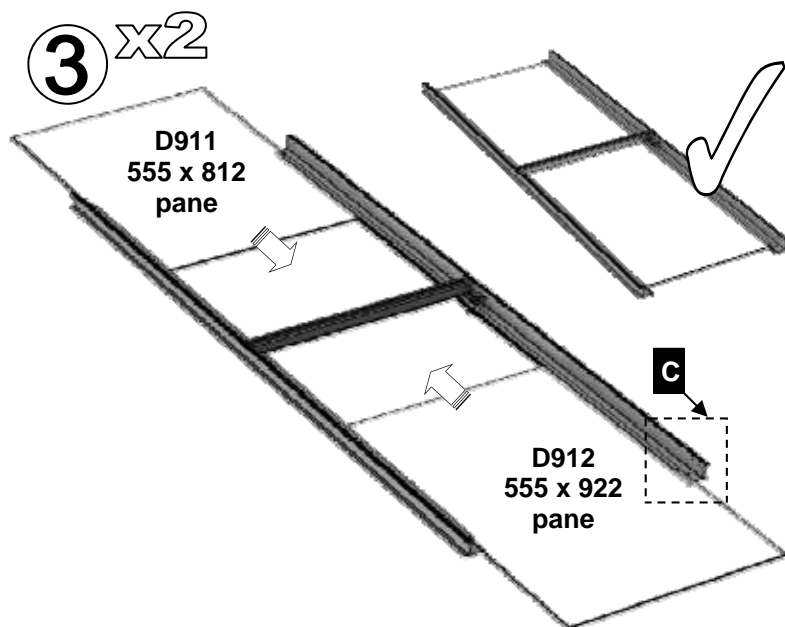







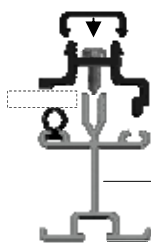
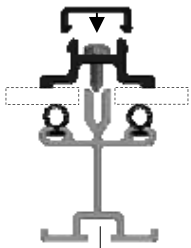
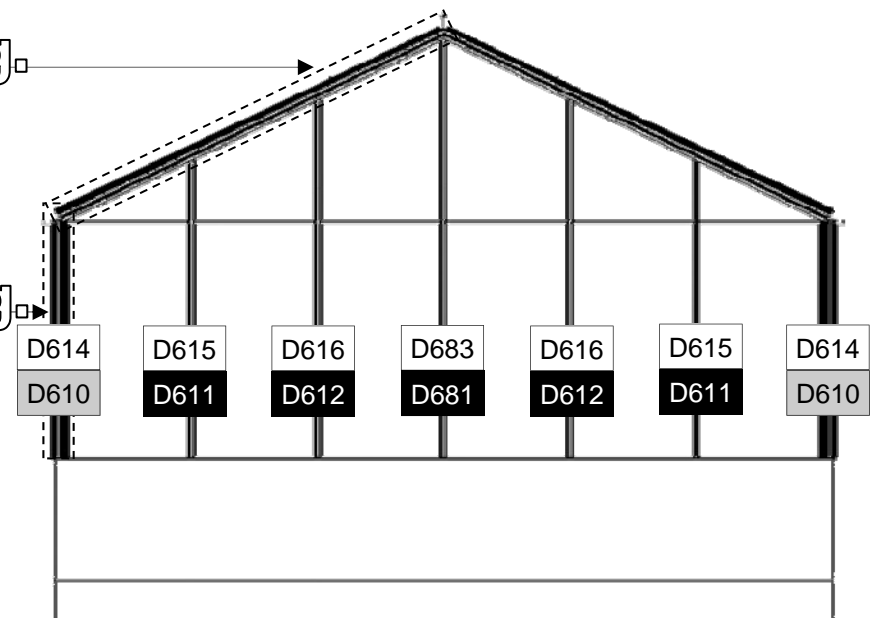
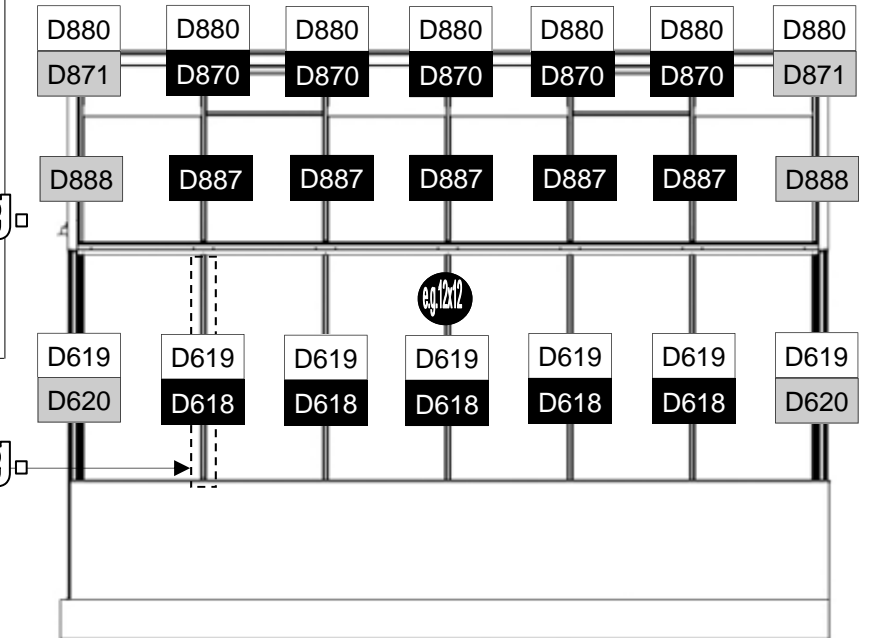
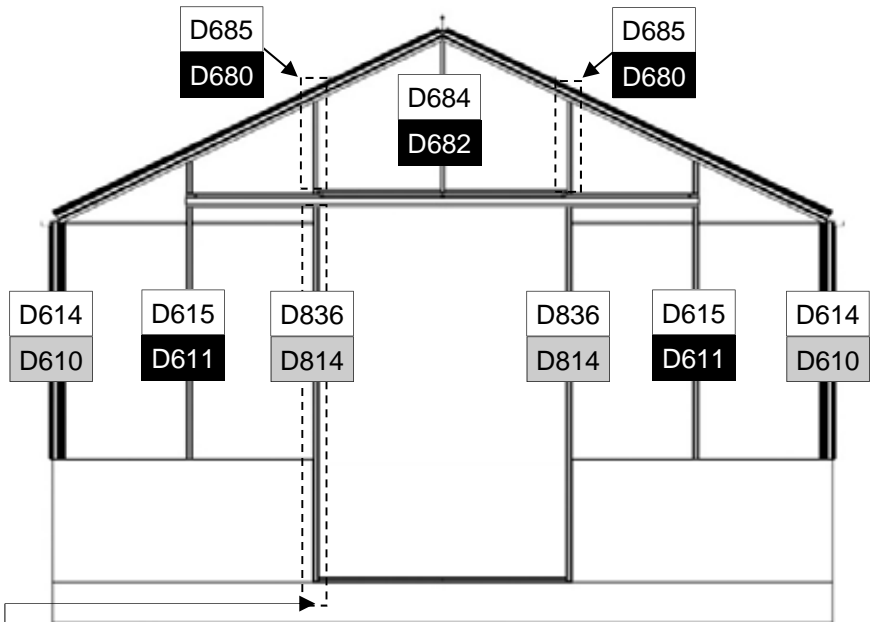
Part No		mm	Q
D094		1824	1
D090 + D347 lock = D301		1824	1
D092 + D156 strike = D303		1824	1
D093		1824	1
D096 + D217 wheel = D307		611	2
D095		611	2
D097		611	2

Part No		mm	Q
D232		905	4
D233		797	4
P053		N/A	2
D225		610	2
D840B		4000	1
D263 PACK x 2		N/A	14
		N/A	14
D261 PACK		N/A	24



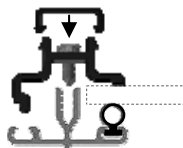


PART No	Section	Size (mm)
D611		1460
D612		1756
D618		1144
D680		457
D681		2052
D682		746
D870		601
D877		1490
D610		1160
D620		1144
D814		1883
D871		601
D888		1490
D614		1162
D615		1462
D616		1758
D619		1144
D683		2054
D684		748
D685		459
D836		1883
D880		2092

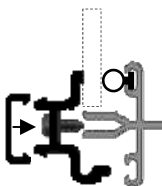


e.g.

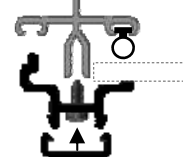
e.g.

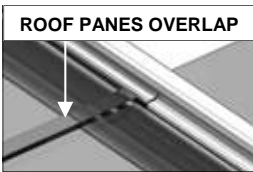


e.g.



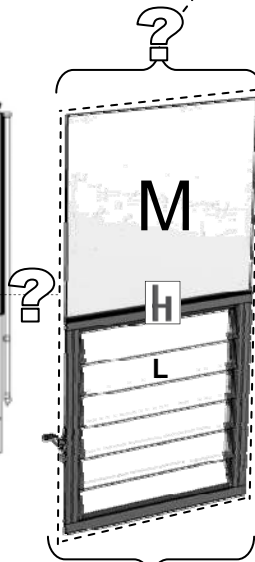
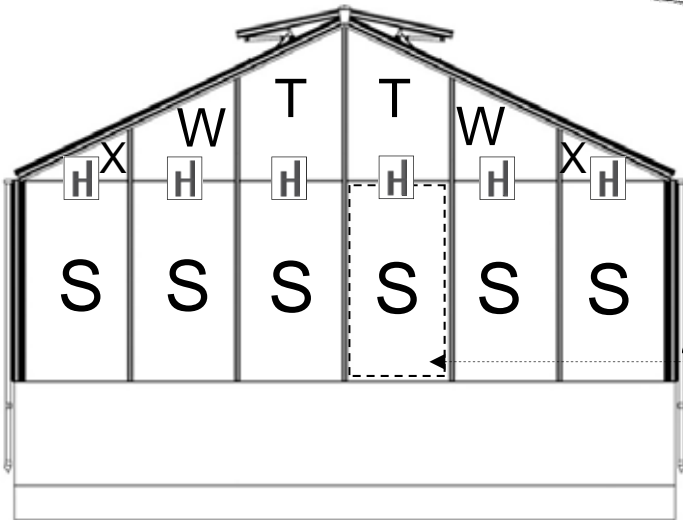
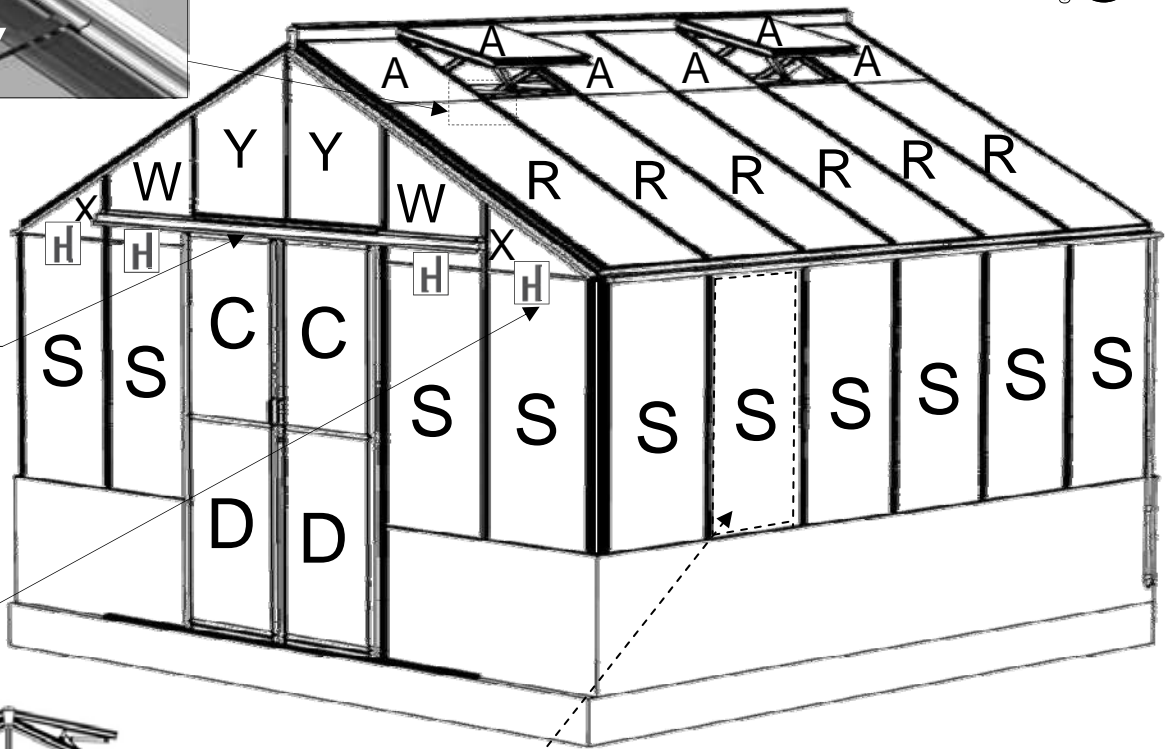
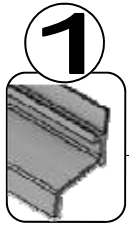
e.g.



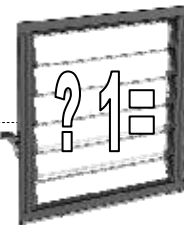


REGAL DWARF TOUGHENED GLASS

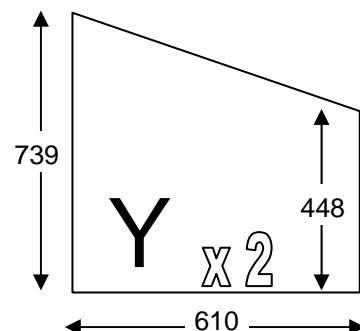
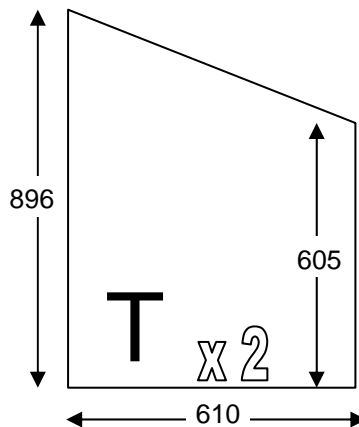
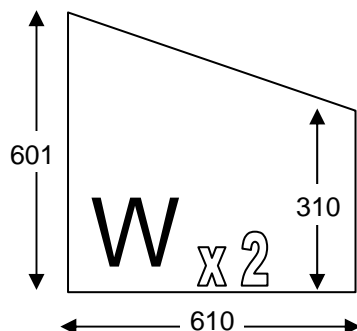
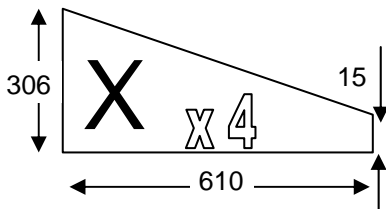
12x12

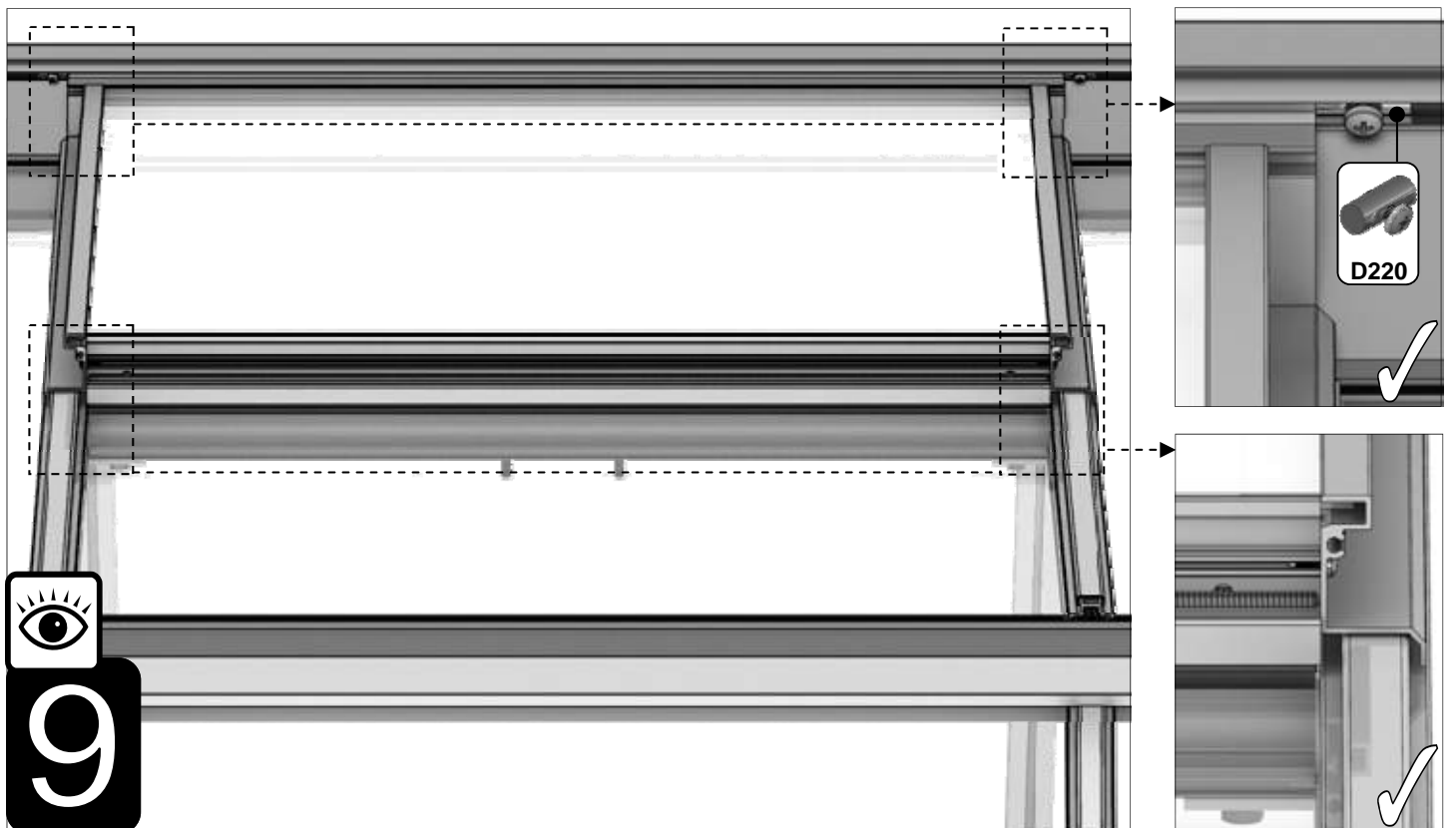
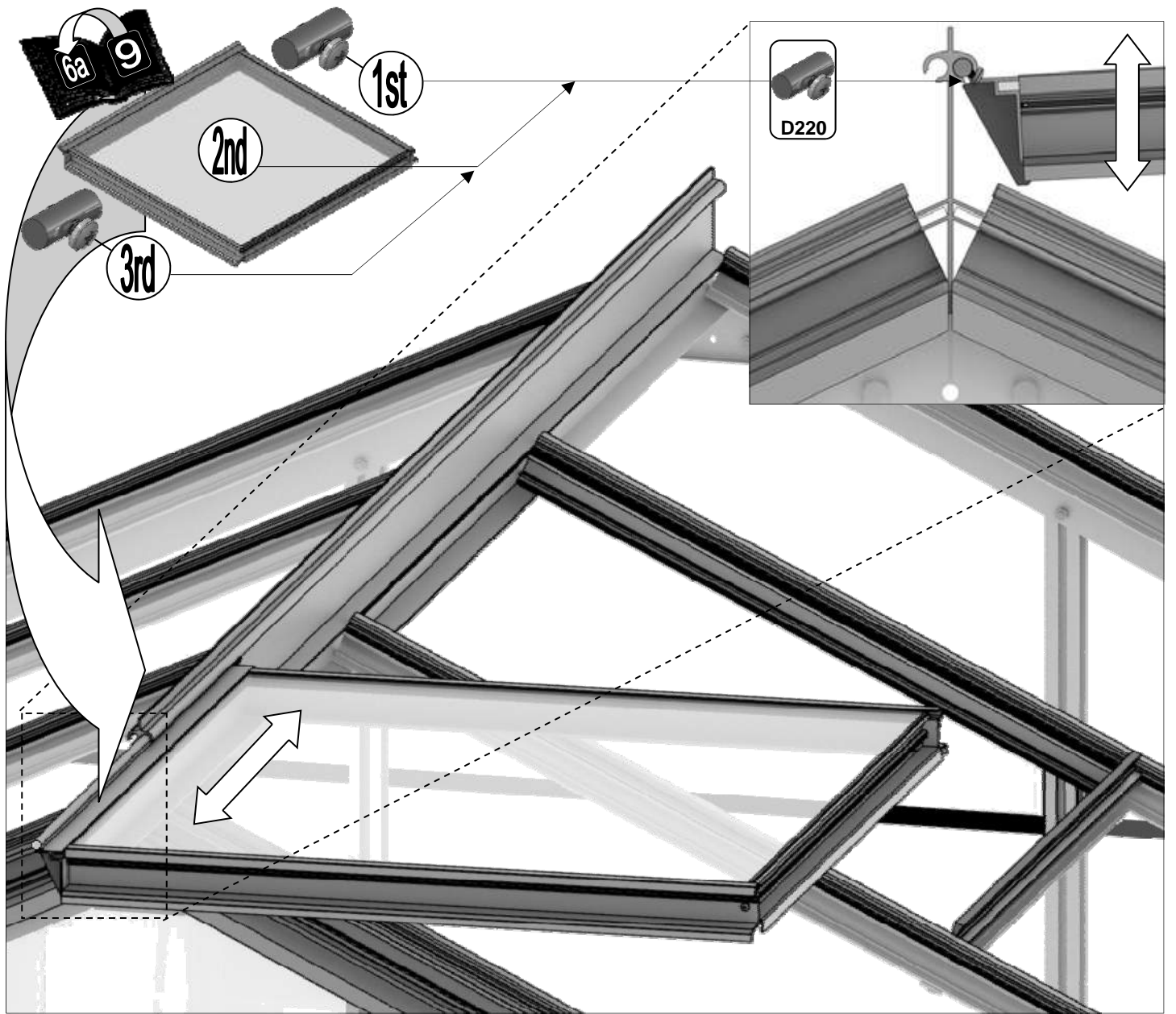


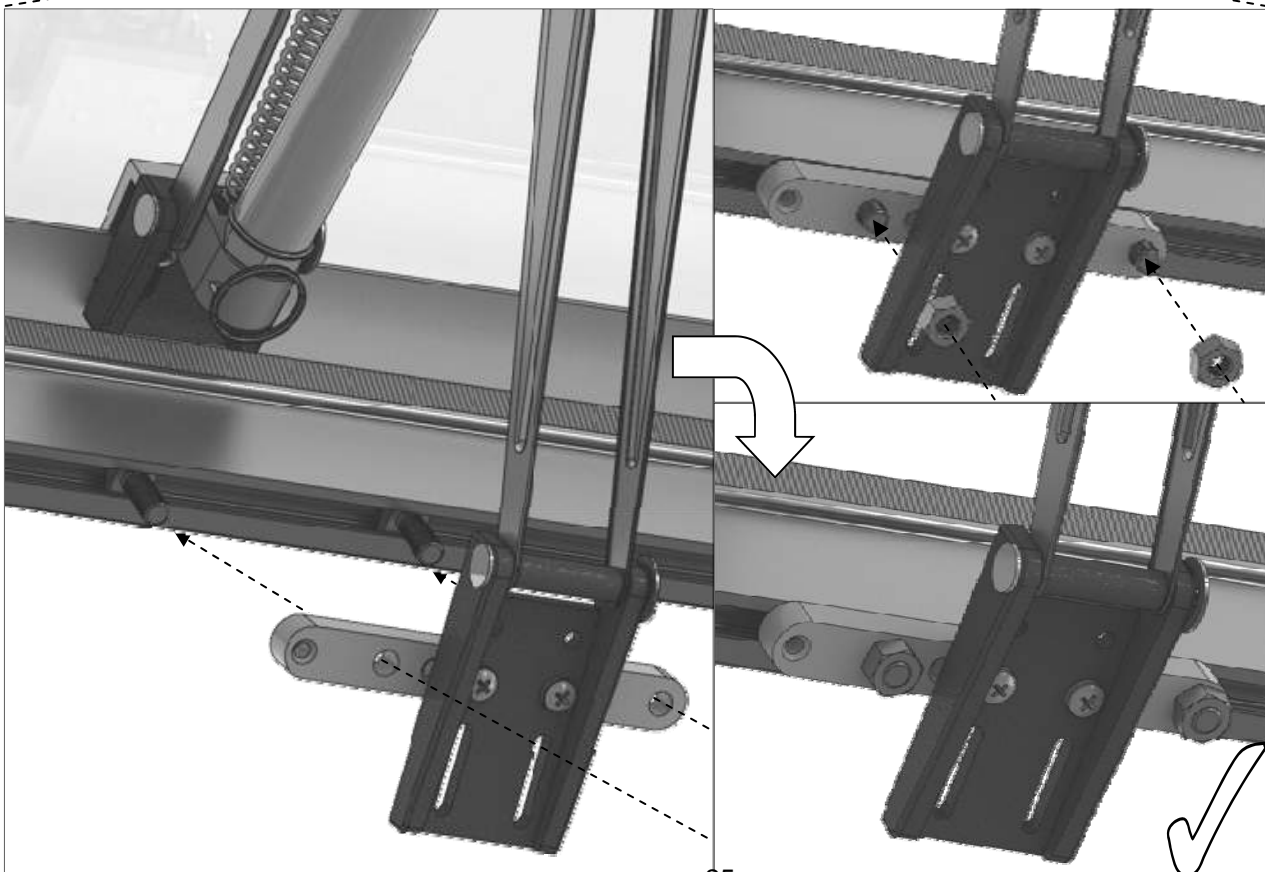
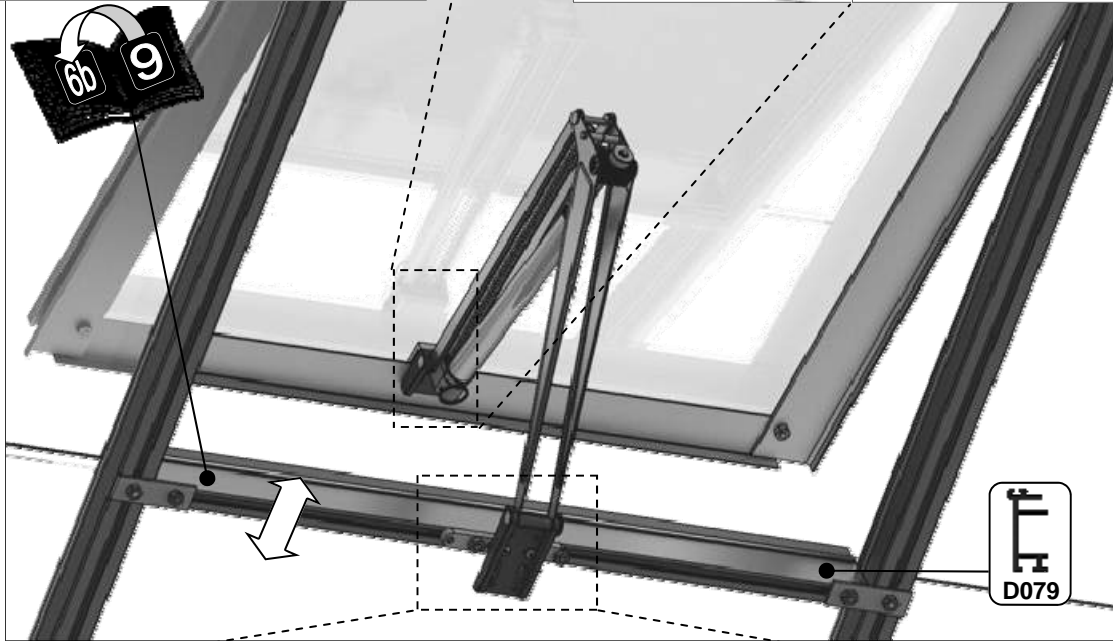
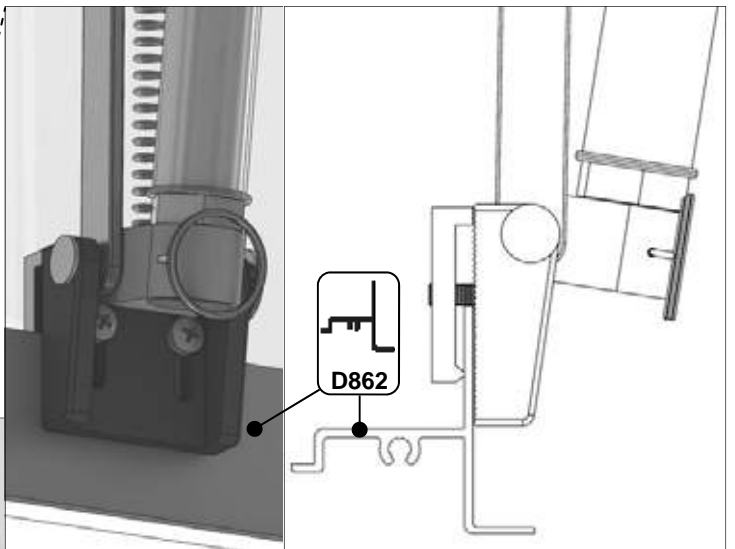
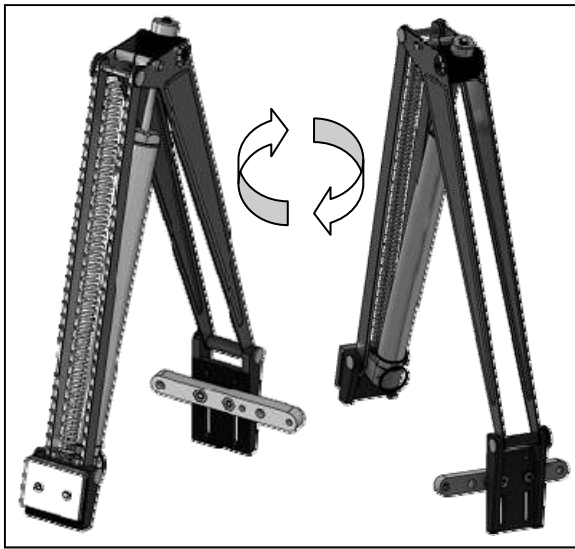
PART No		Size (mm)	8'	10'	12'
D1216	S	610 X 1162	18	20	22
D892	R	610 X 1500	8	10	12
D1208	A	610 X 610	8	10	12
D911	C	555 X 812	2		
D912	D	555 X 922	2		
D900	X	ANGLE	4		
D908	W	ANGLE	2		
D623	Y	ANGLE	2		
D890	T	ANGLE	2		
D223/B		1210	1		
D236/B	H	610 long	10		






D624	M	610 X 550	1
D729	L	525X 100	6
D236/B	H	610 long	1

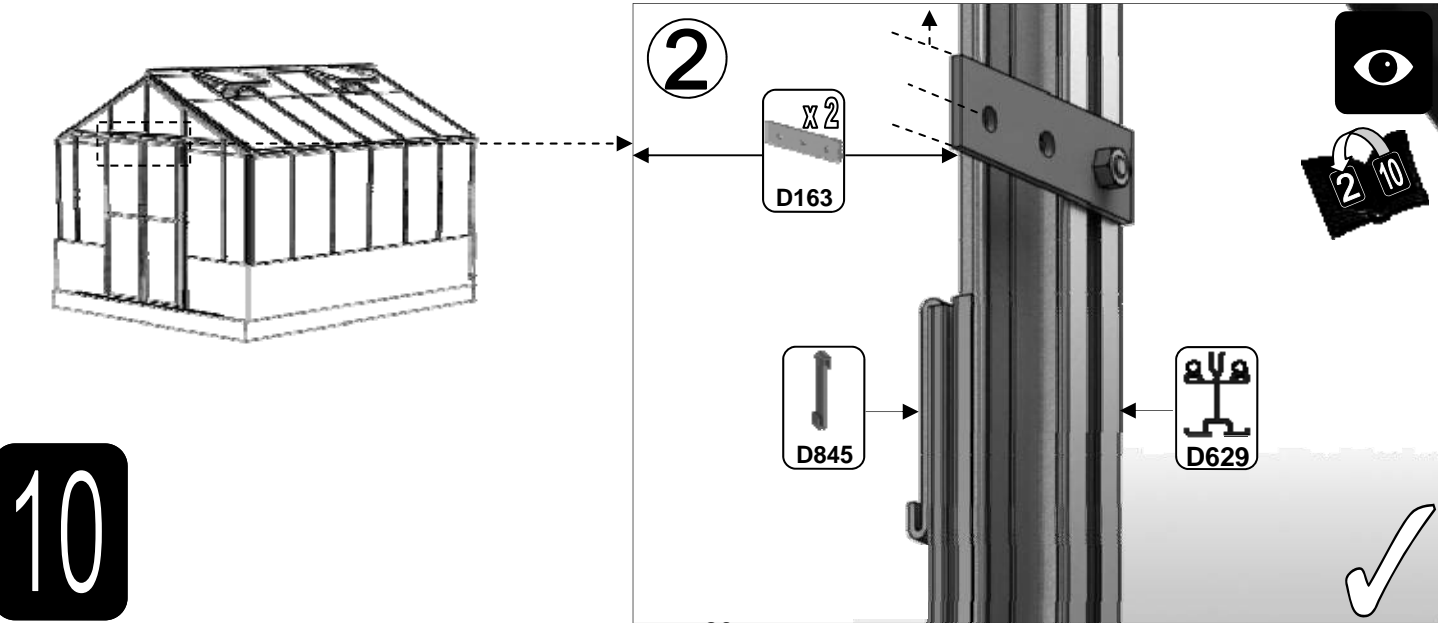
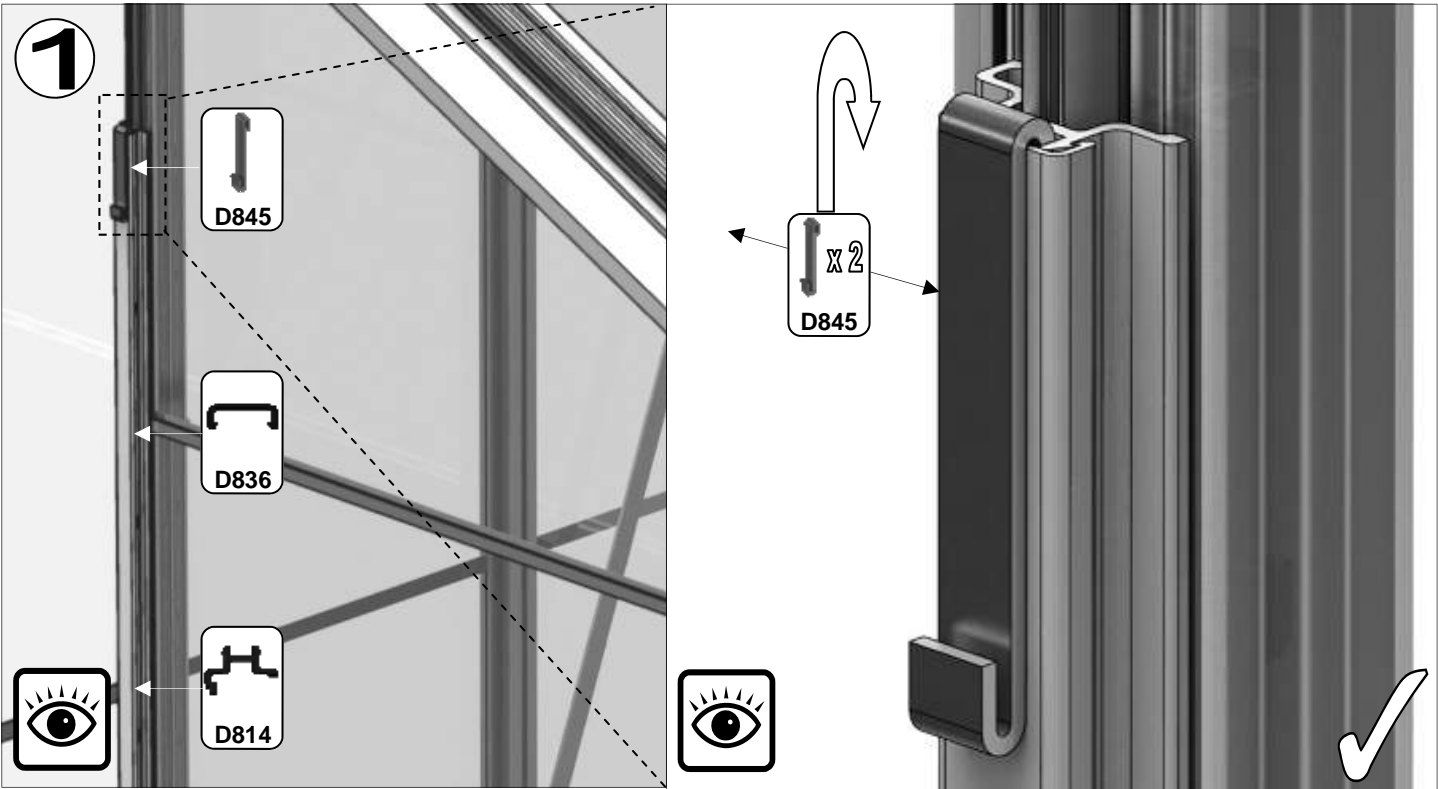
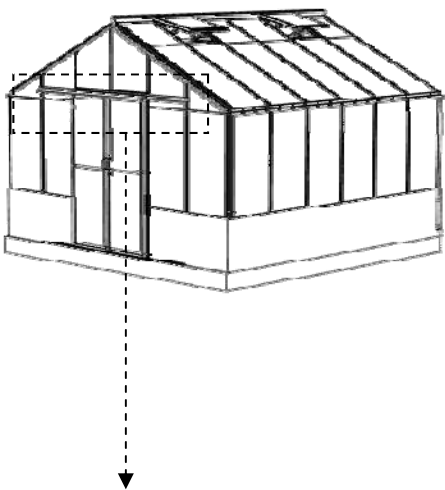


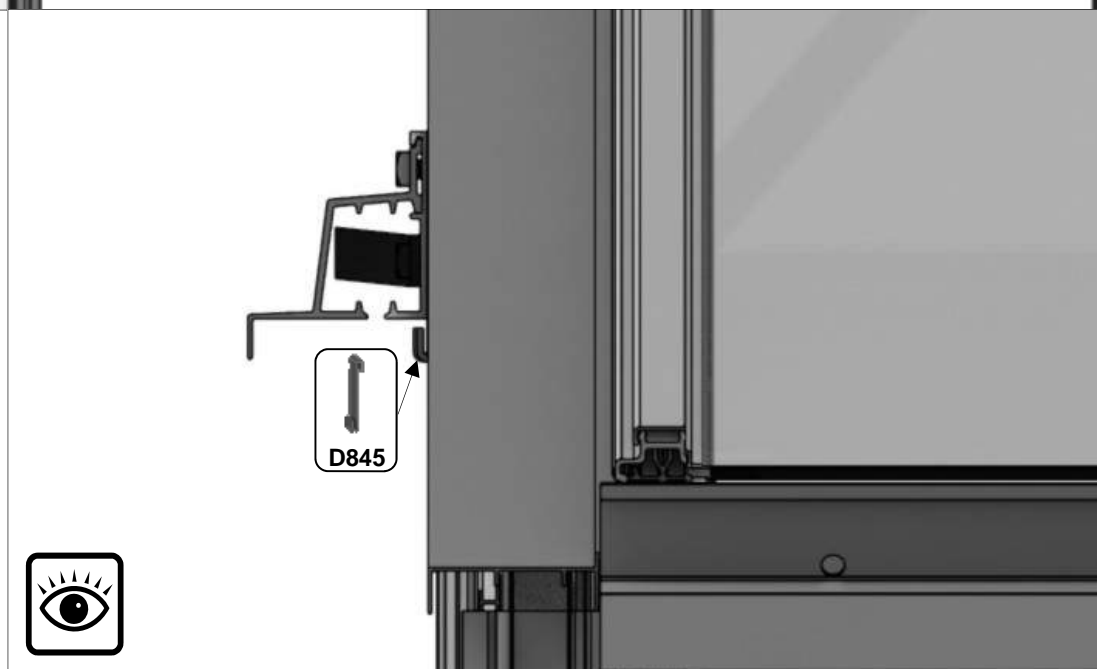
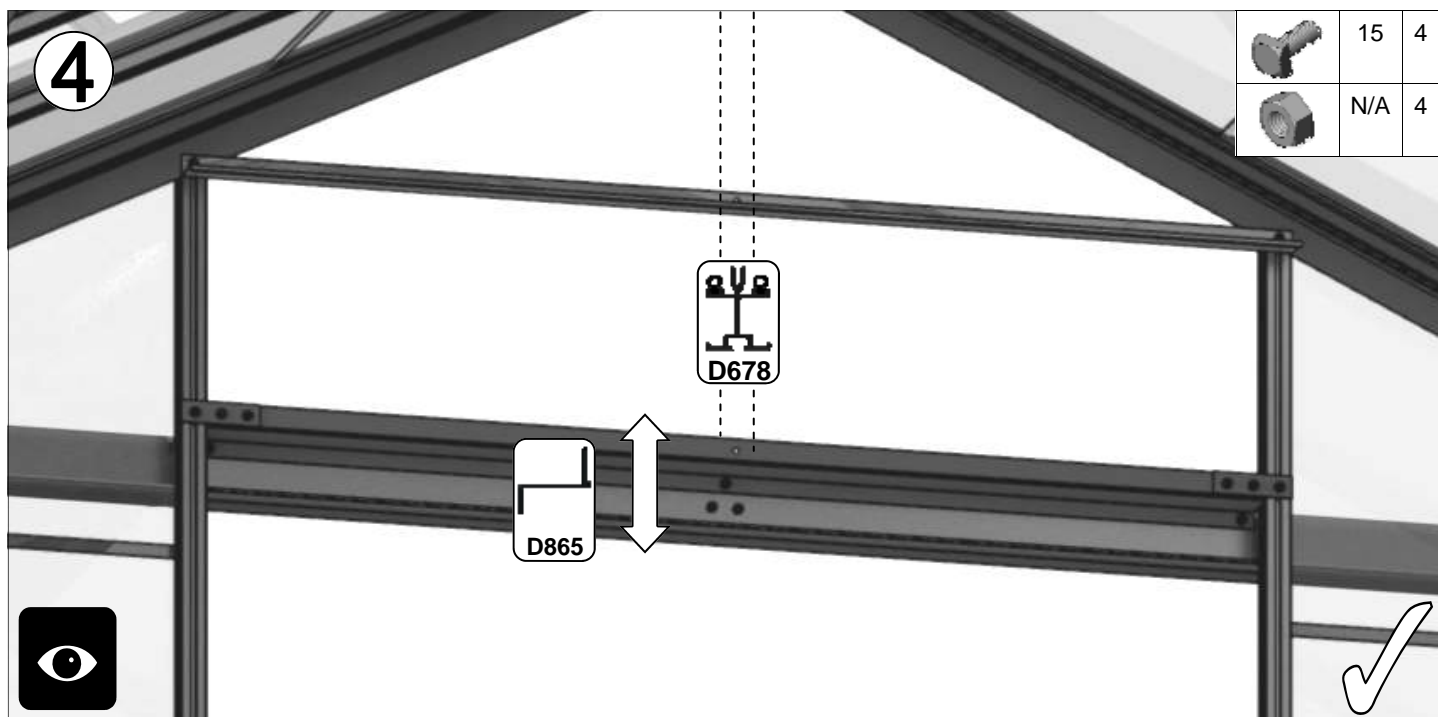
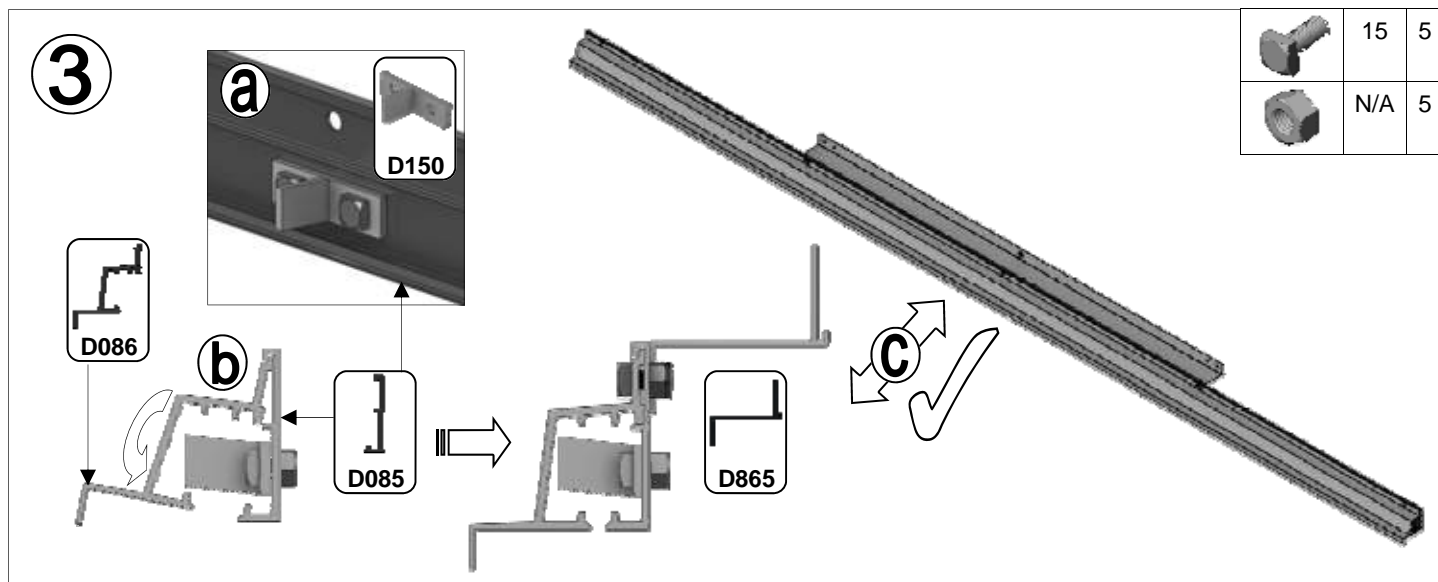






Part No		mm	Q
D865		1210	1
D086		2510	1
D085		2510	1

Part No		mm	Q
D163		90	2
D150			1
D154			2
D845			2
SY-BOLM6X15			15
SYNUTM6			15

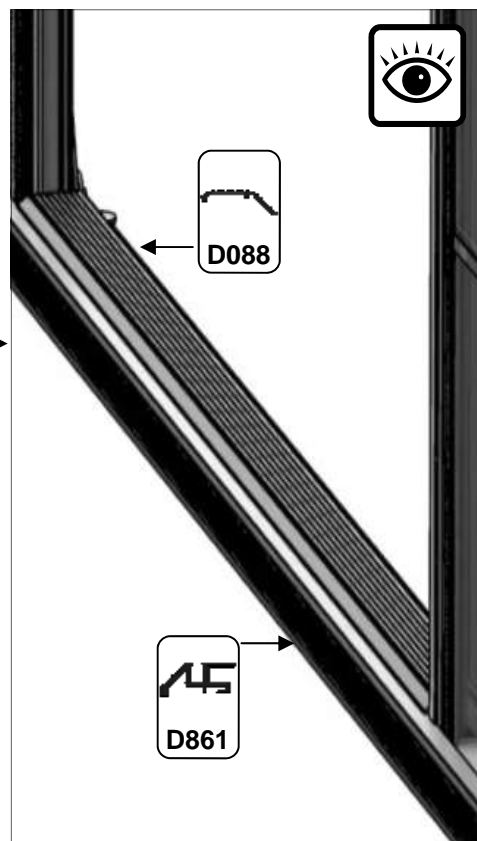
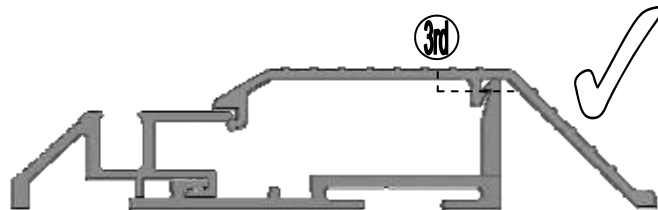
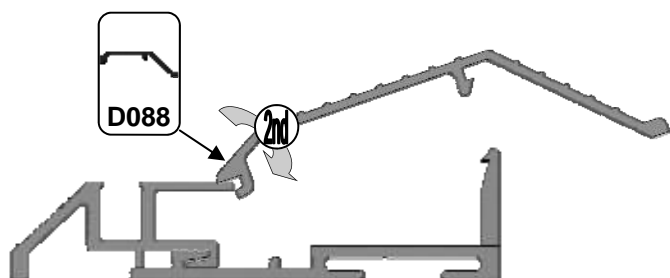
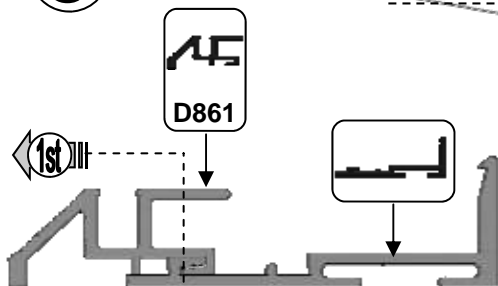
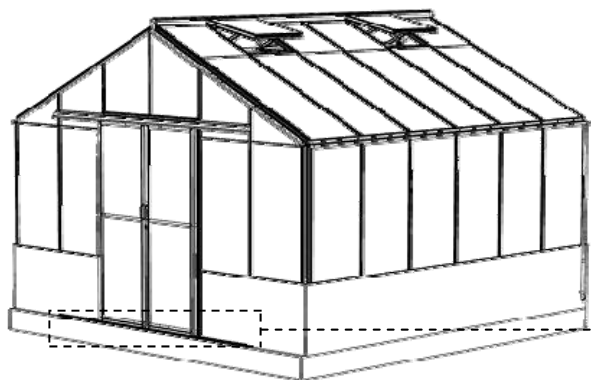




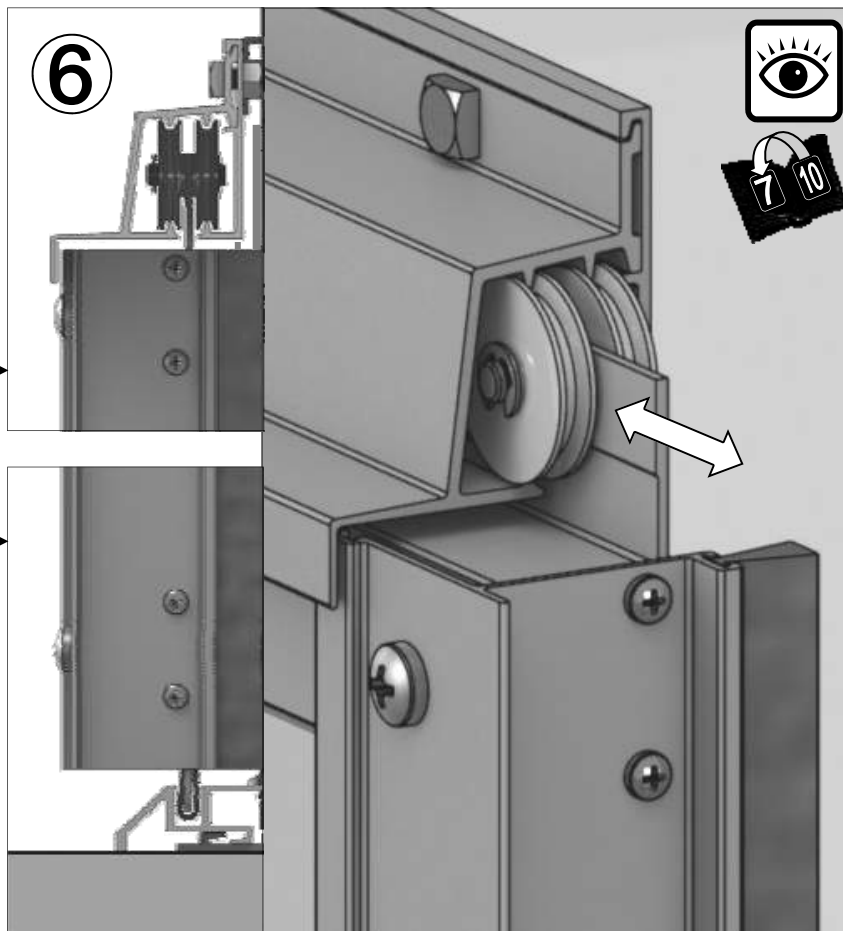
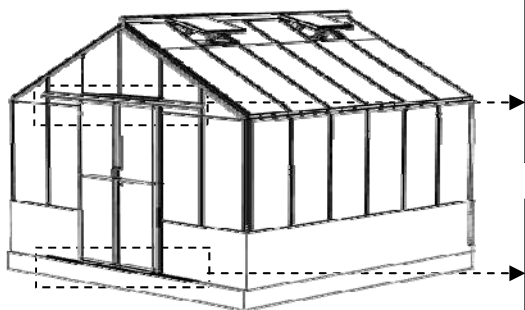
10

Part No		Q
D861		1
D088		1

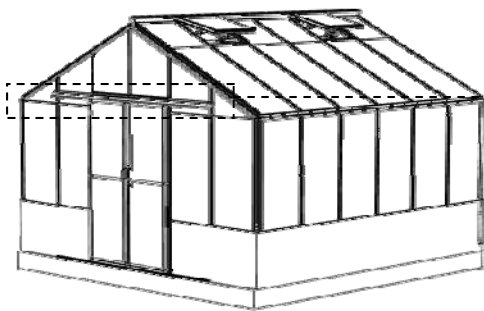
5







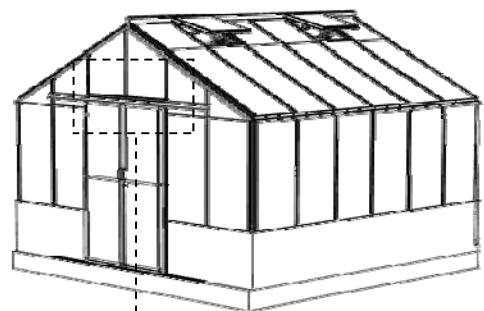
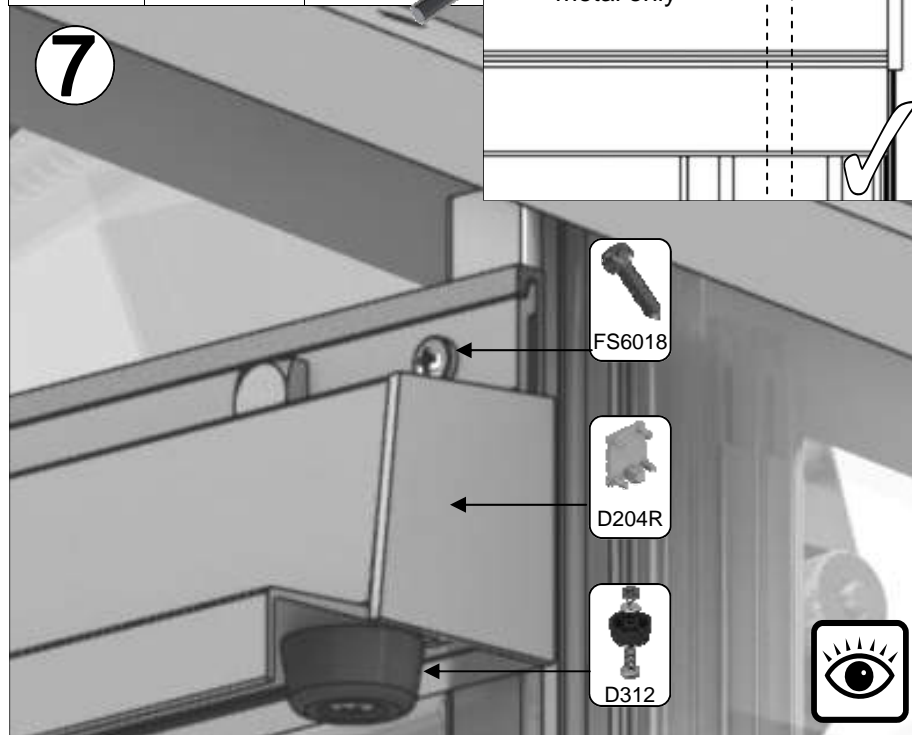
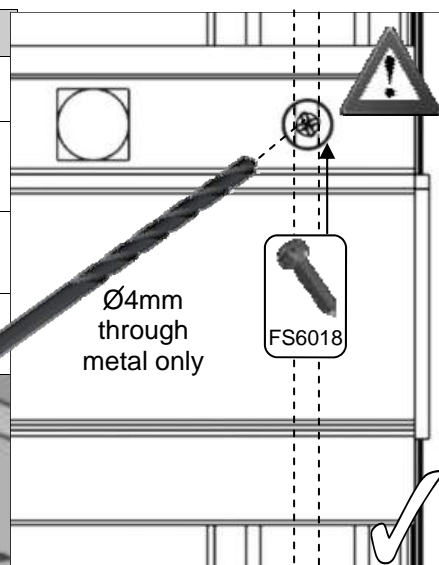
6









10

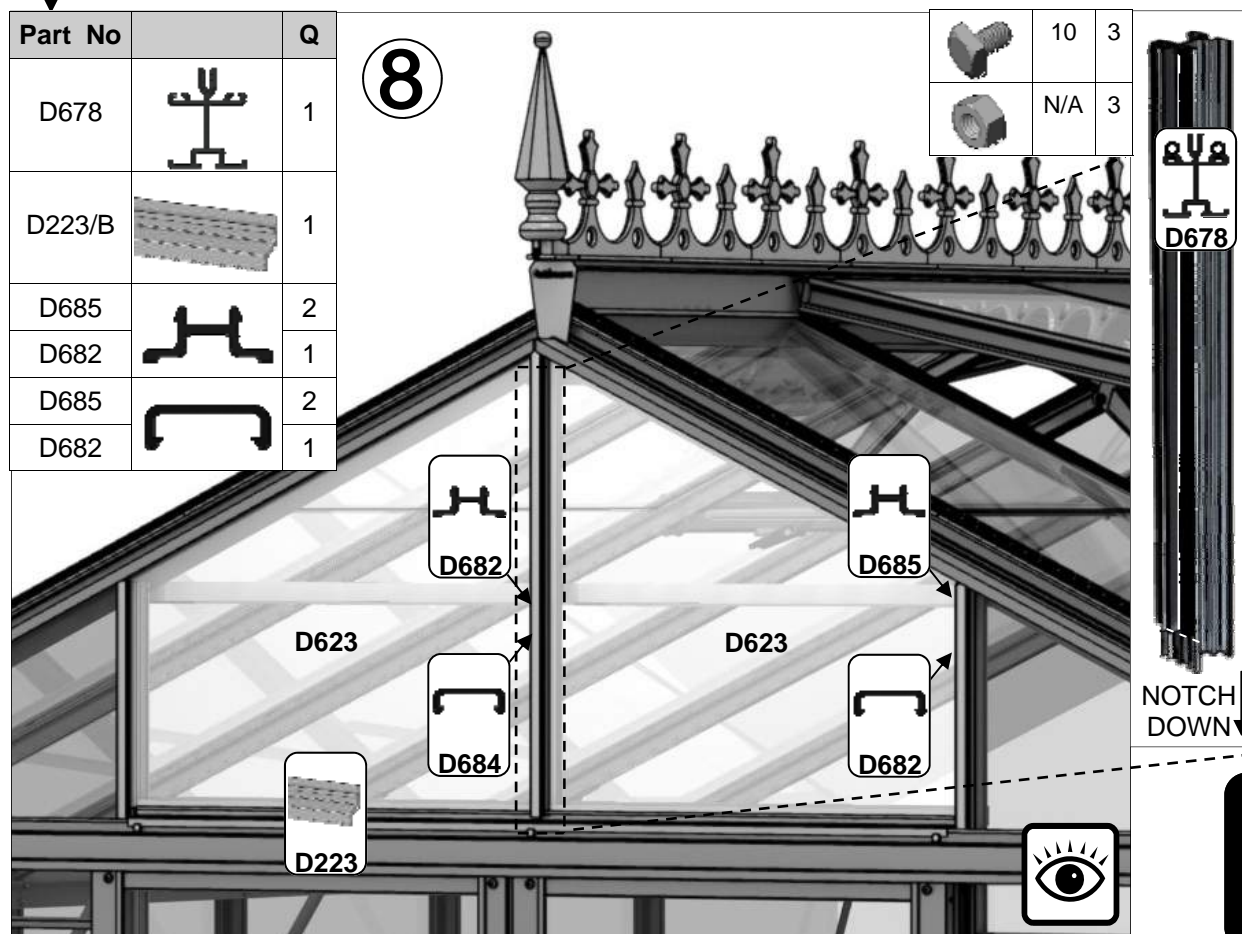


Part No		Quantity
FS6018		2
D312		2
D204L /B		1
D204R /B		1

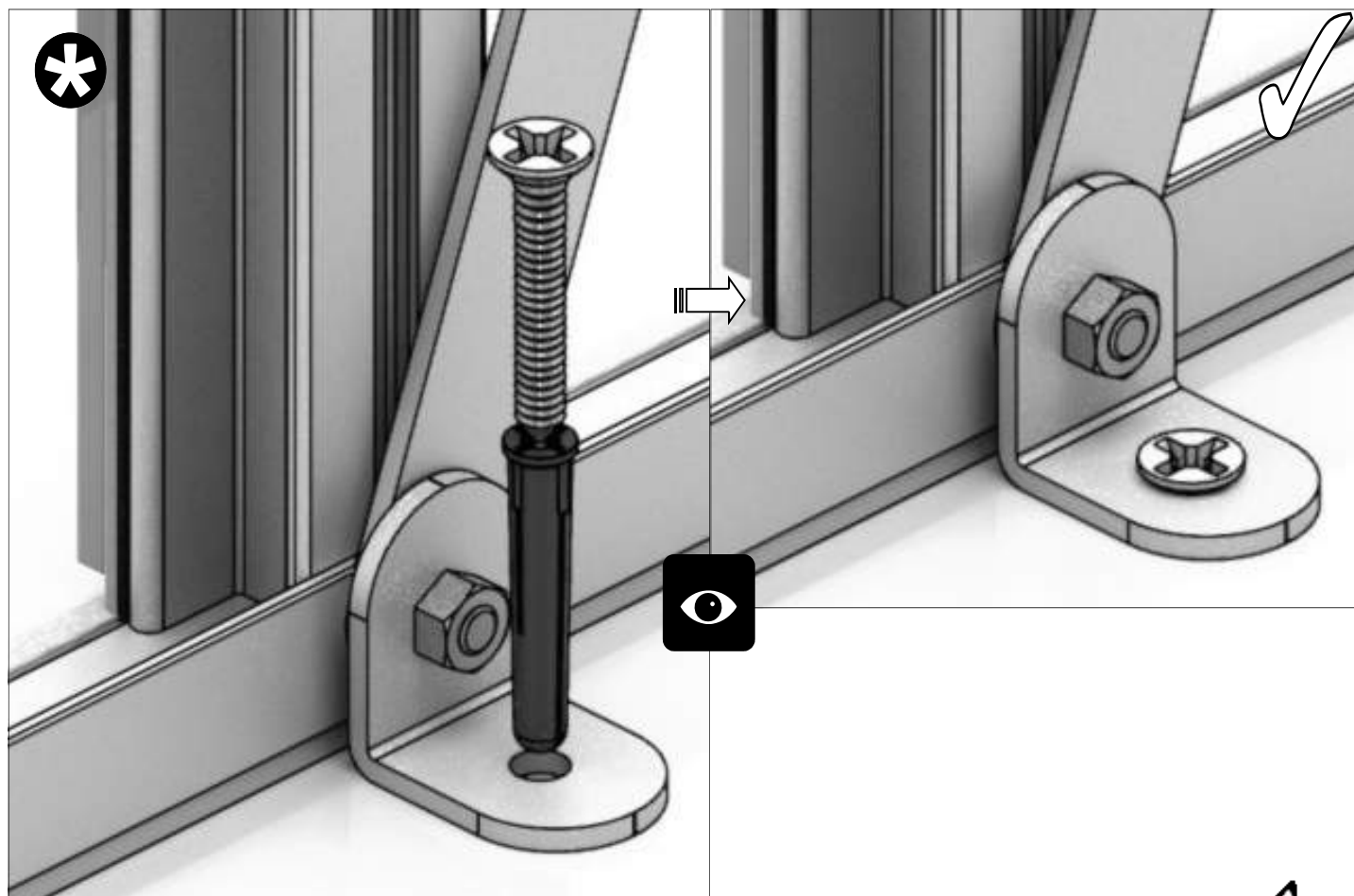
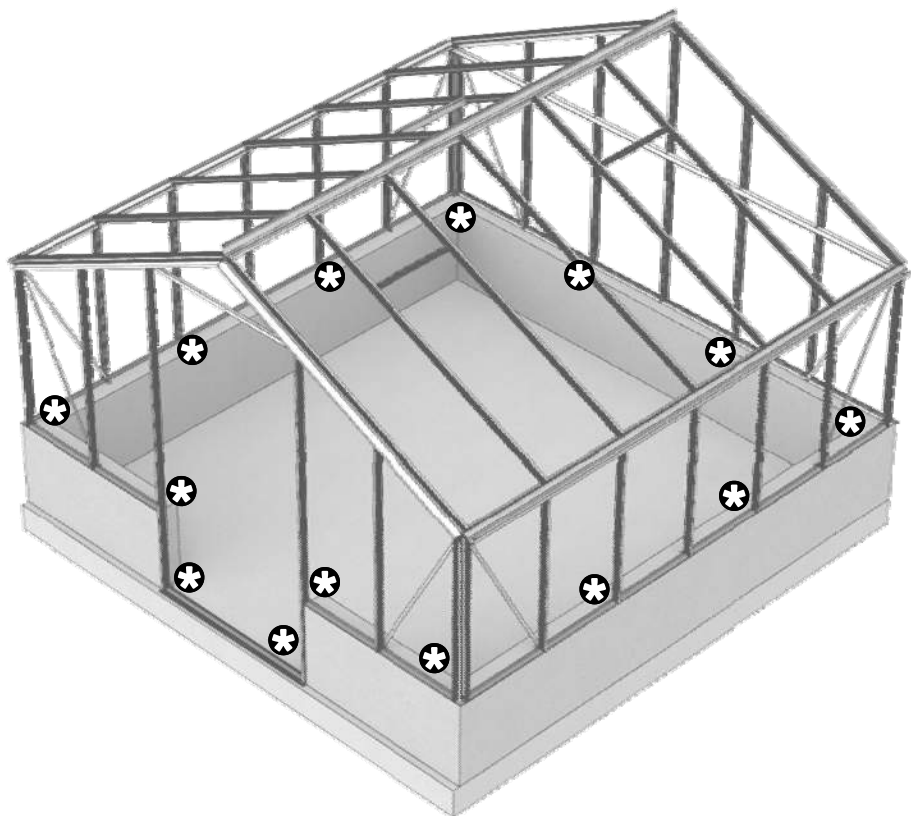
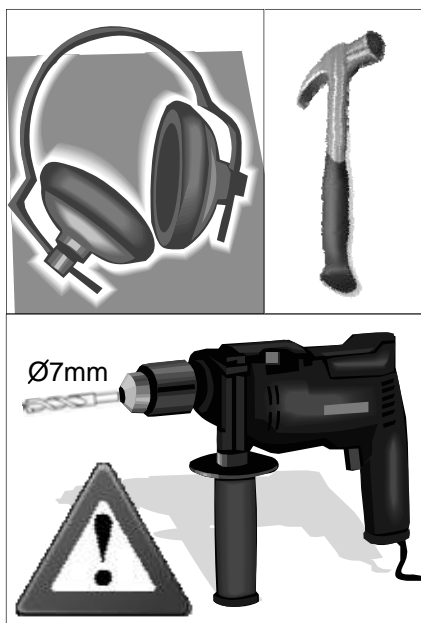


Part No		Q
D678		1
D223/B		1
D685		2
D682		1
D685		2
D682		1

8

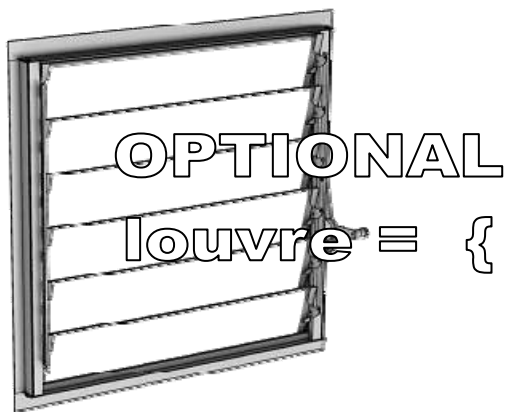


10

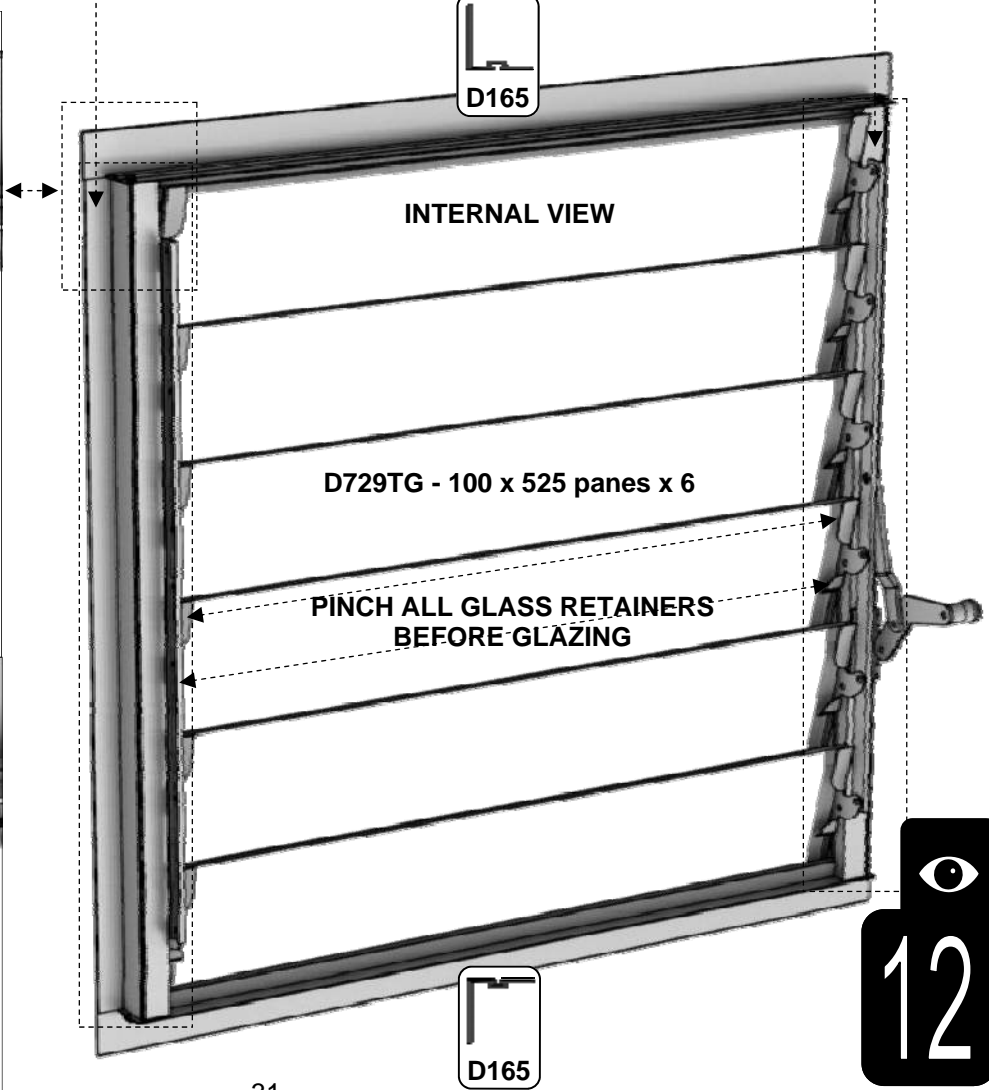
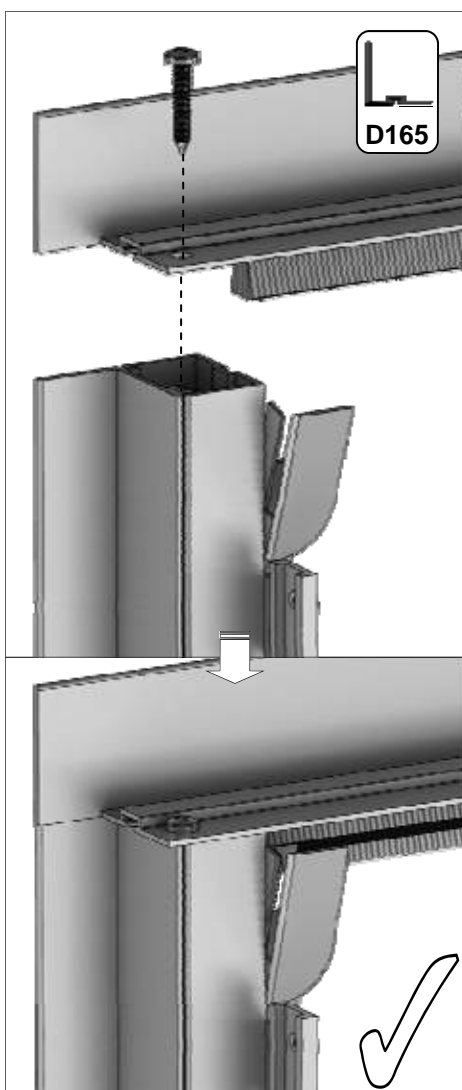
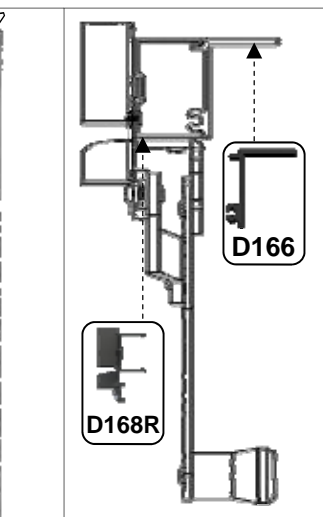
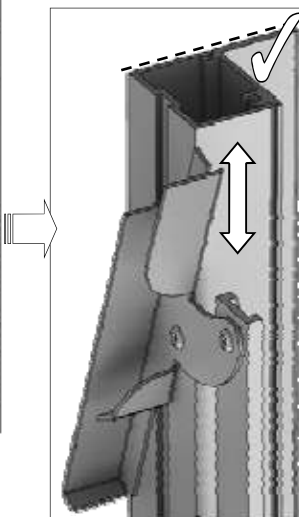
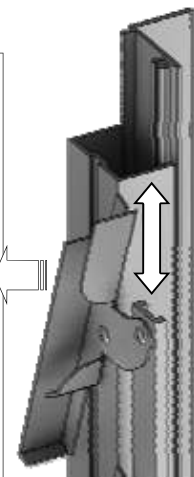
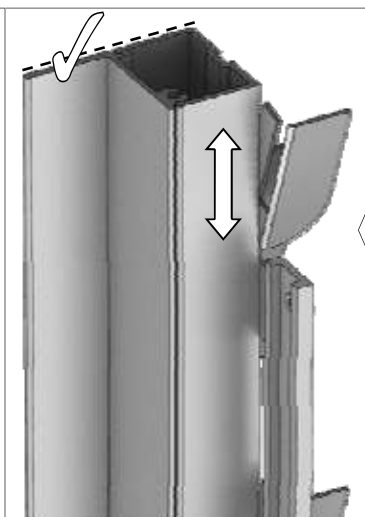
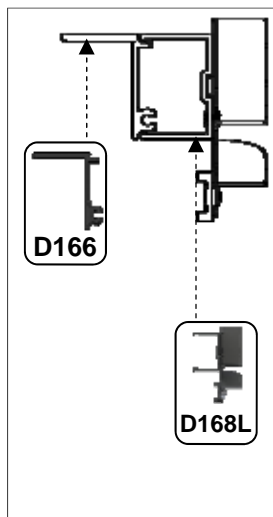


11

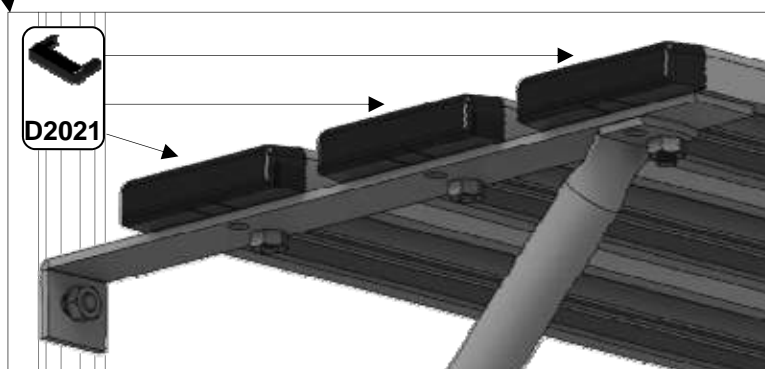
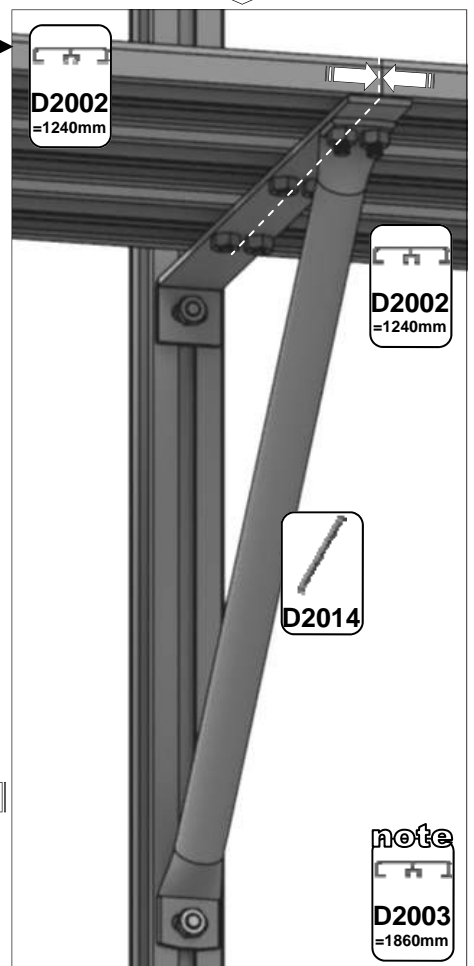
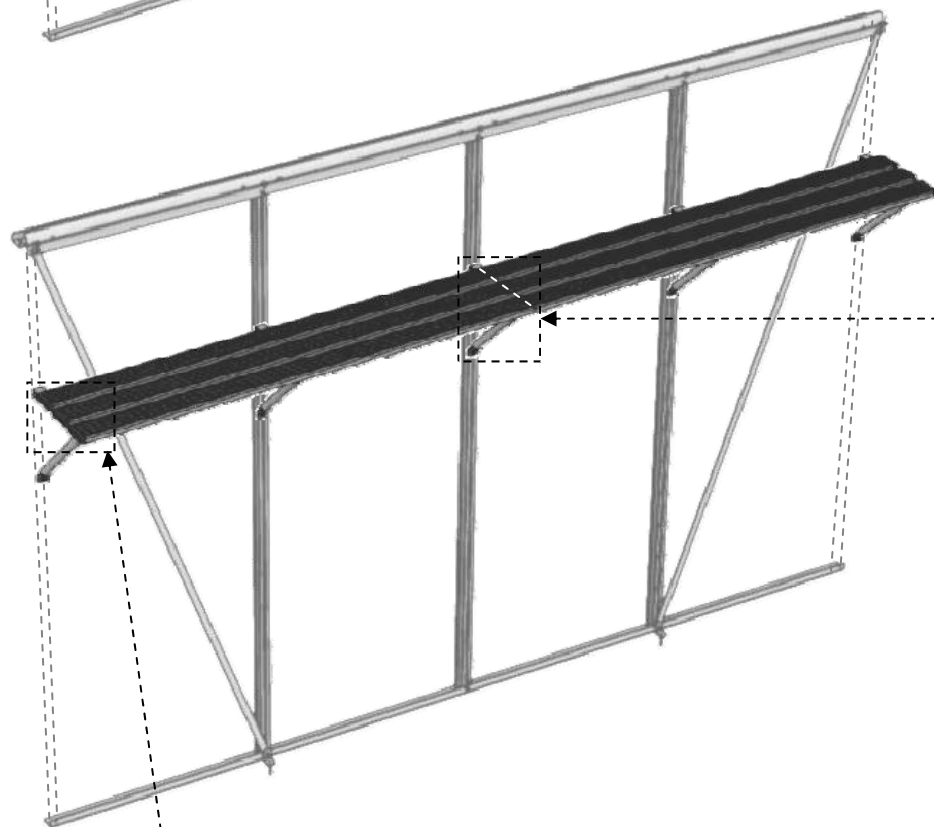
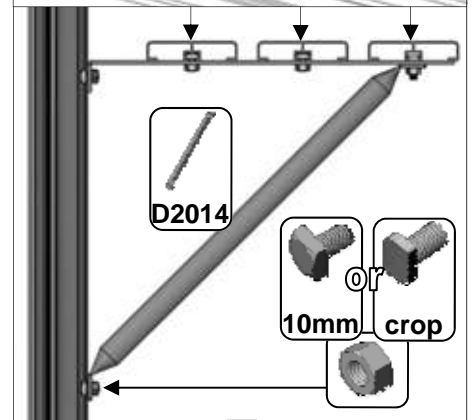
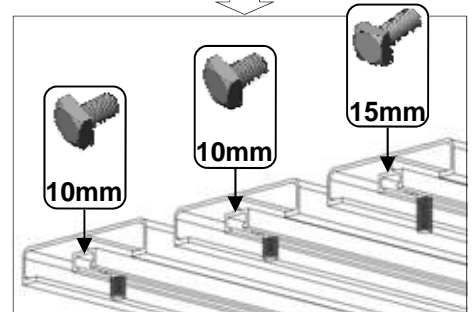
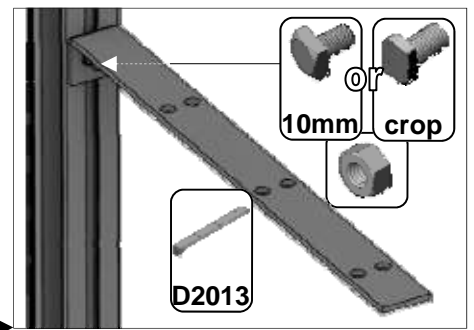
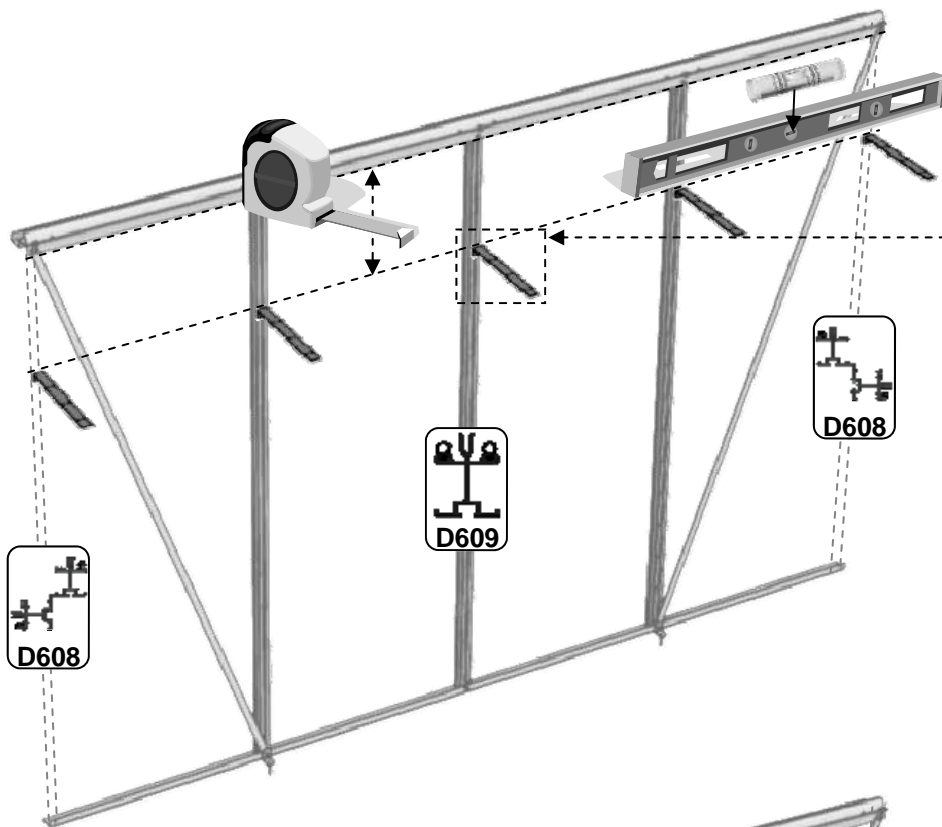




Part No		mm	Quantity
D168L		552	1
D168R (handle)		552	1
D165		612	2
D166		552	2
FS6013		12	4

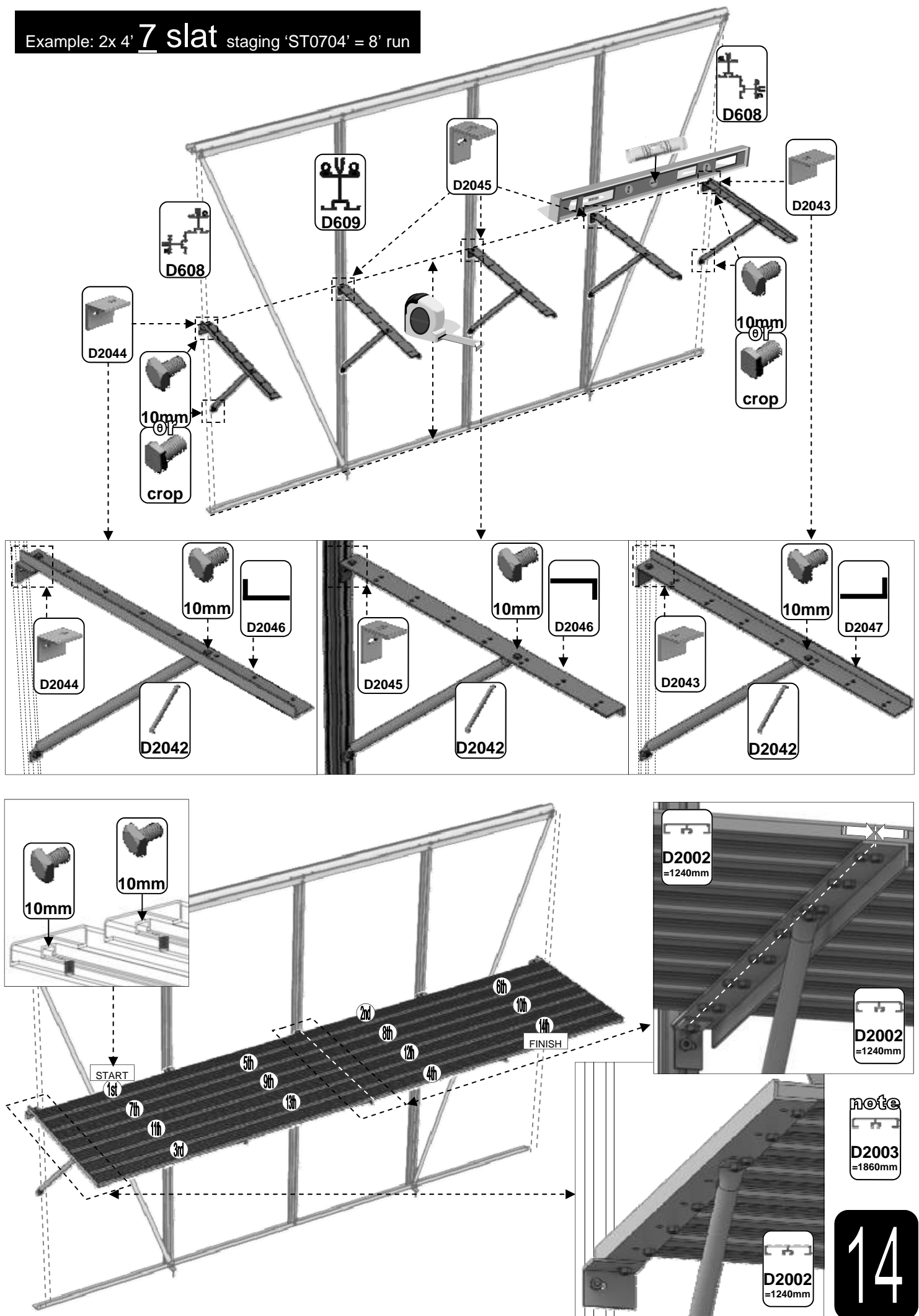


Example: 2x 4' **3** slat shelves 'ST0304' = 8' run

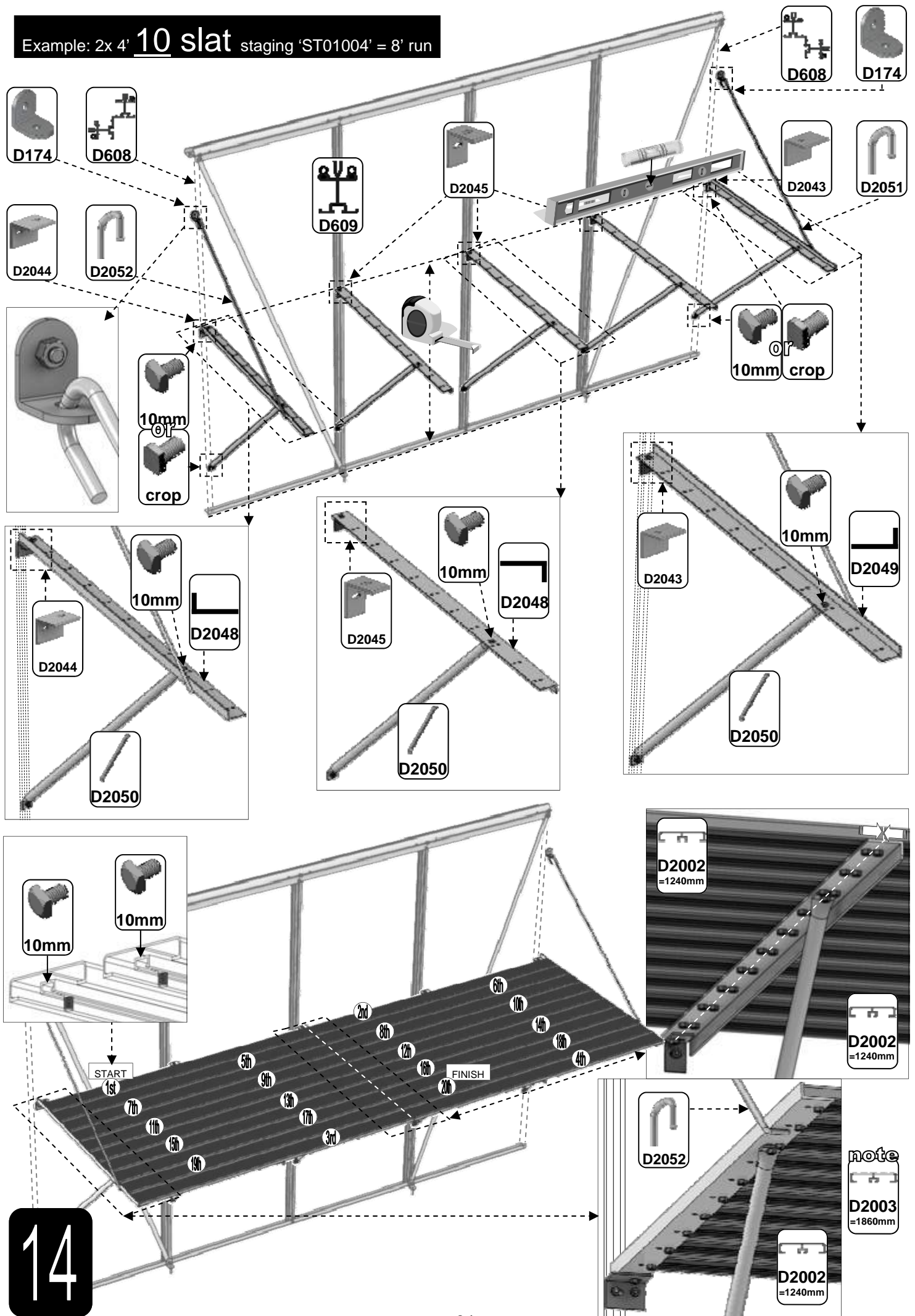


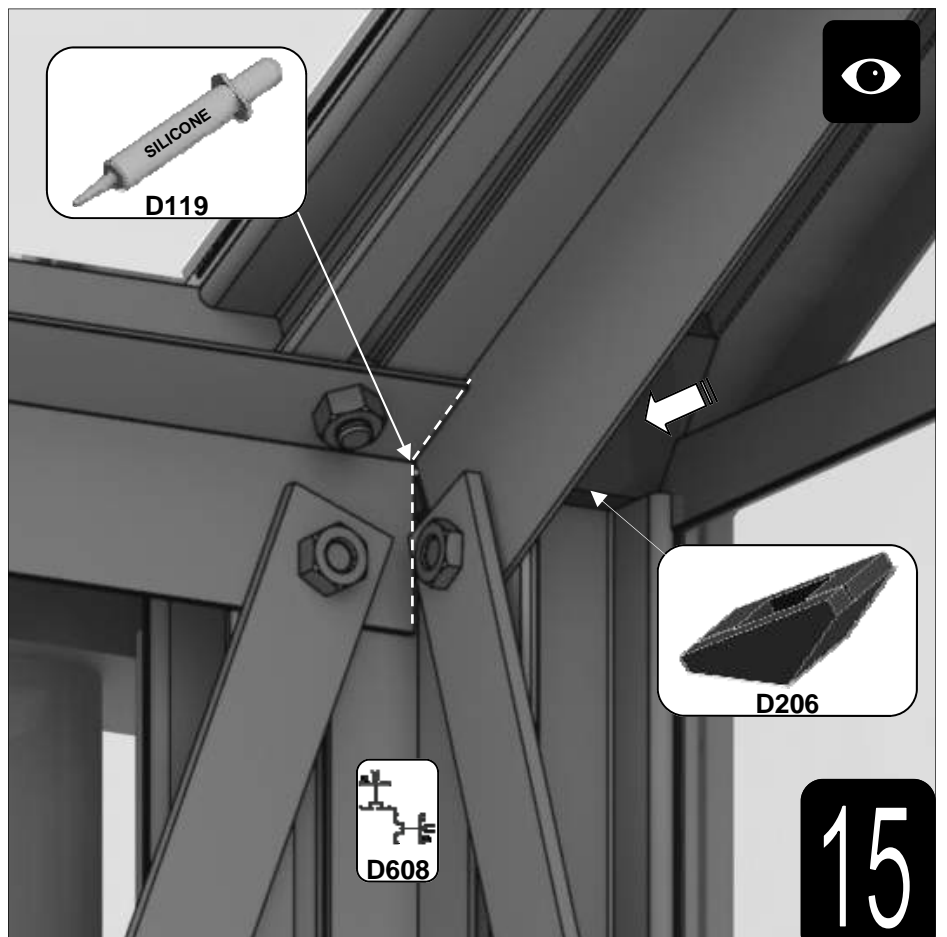
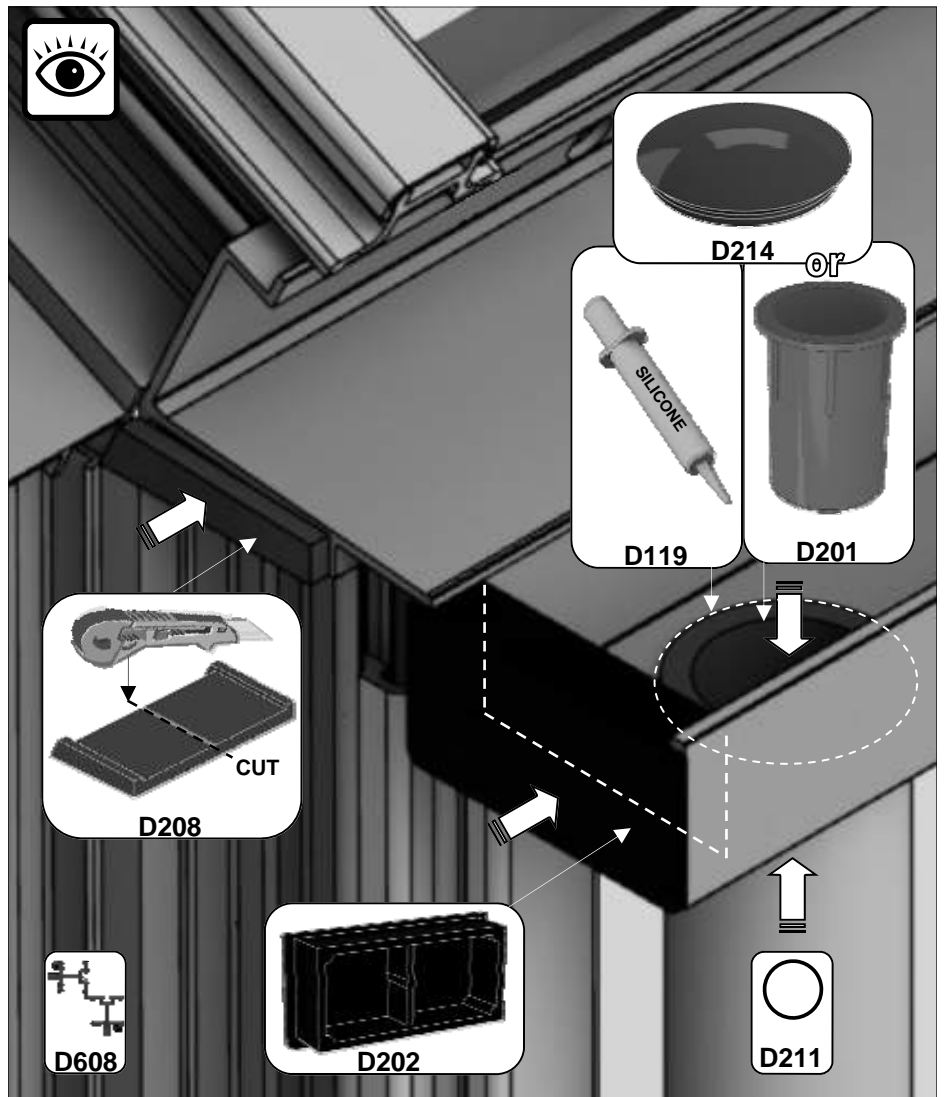
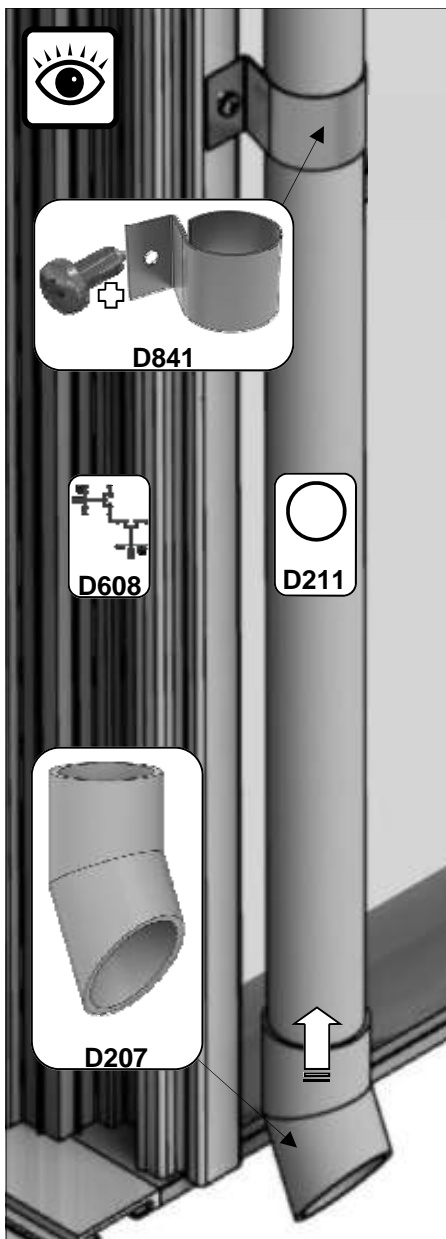
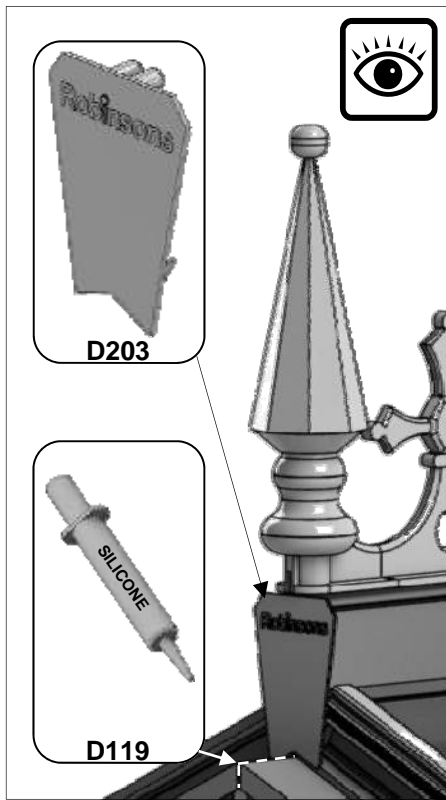
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Example: 2x 4' **7** slat staging 'ST0704' = 8' run

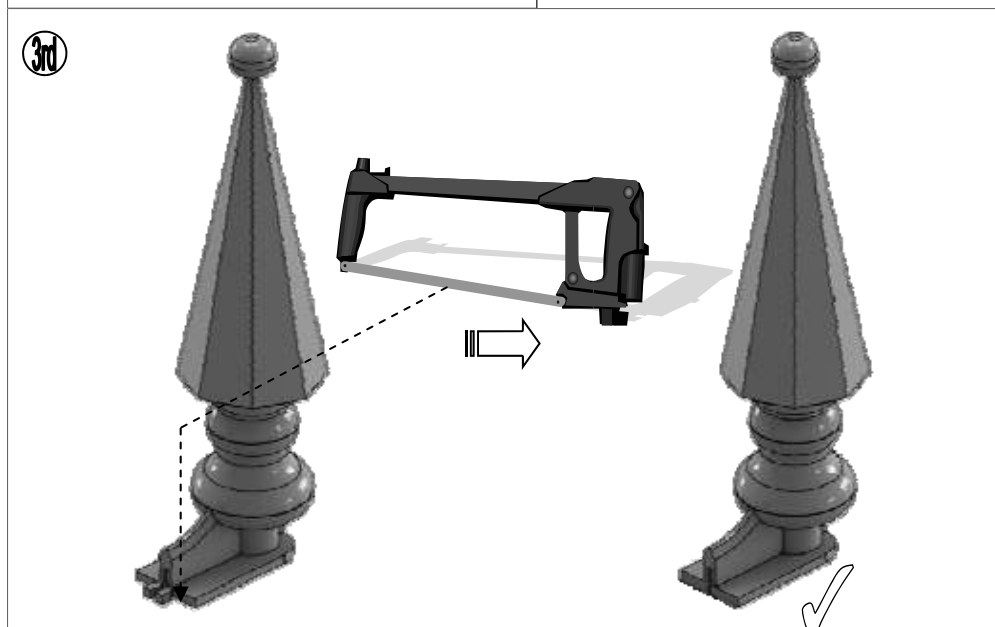
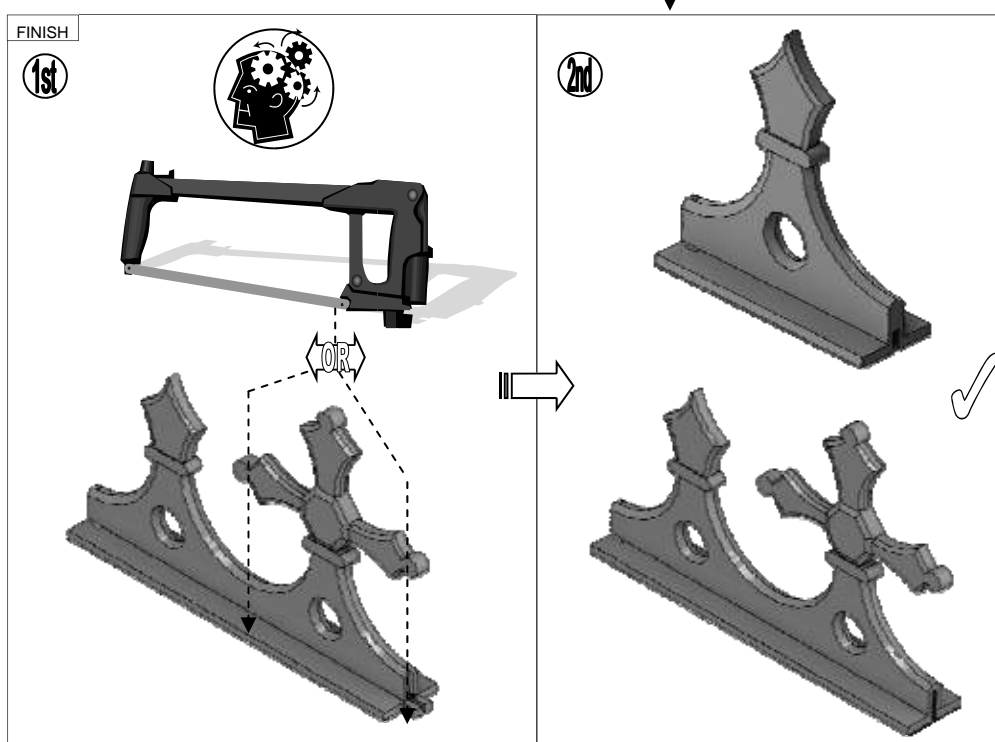
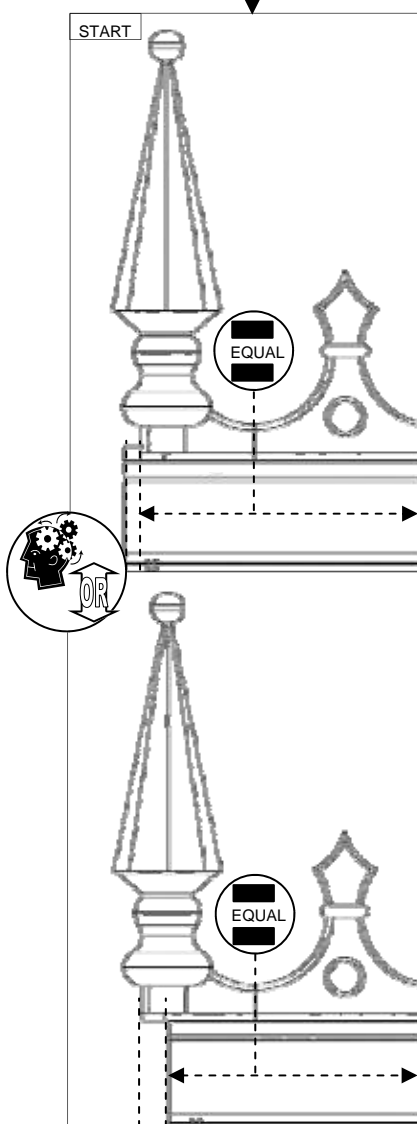
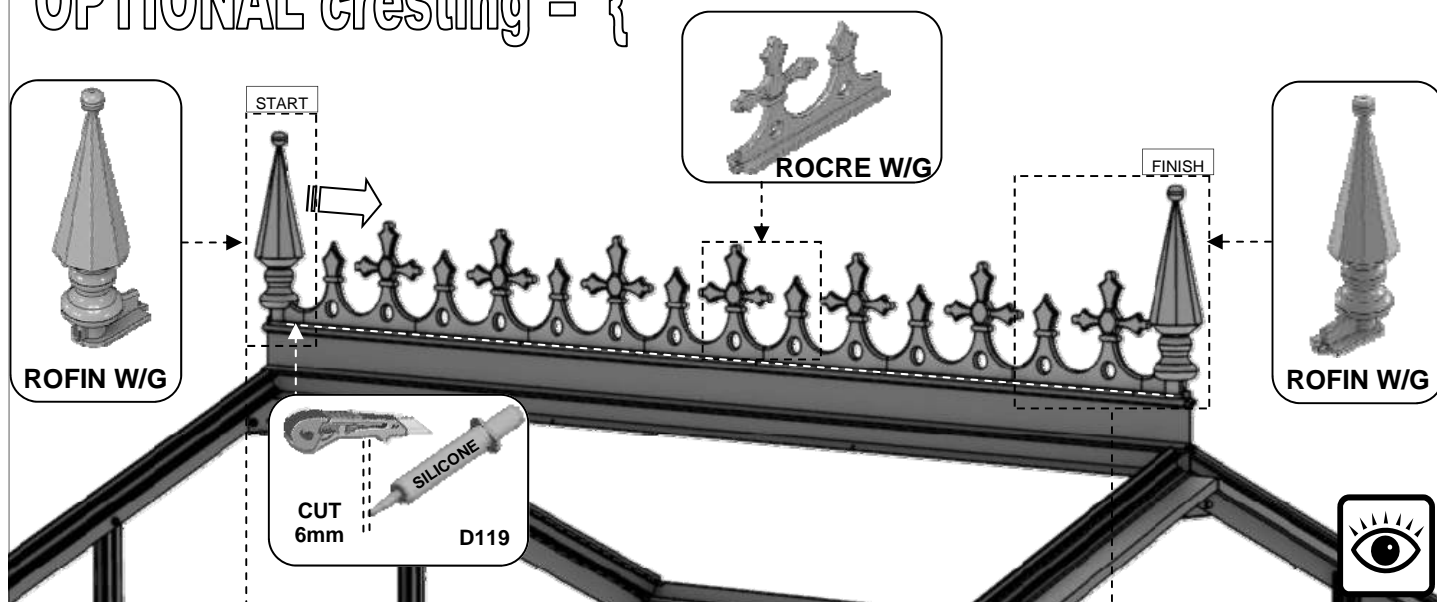


Example: 2x 4' **10** slat staging 'ST01004' = 8' run



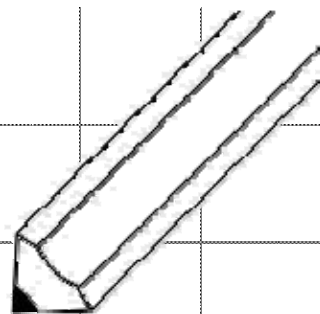


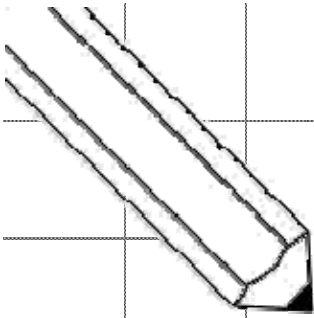
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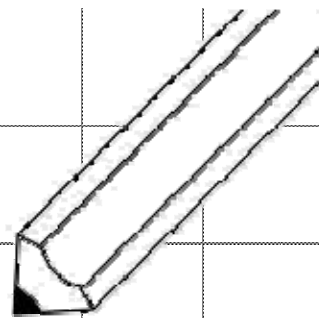


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Please be aware that this is a new multi-national manual. If you spot any errors or have any constructive comments regarding the manual please email james@thegreenhousepeople.co.uk and I will make the necessary amendments. In addition any photographs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

Here's how you can earn £30 and have your new greenhouse feature in our next brochure....

We are always interested to hear how you went on assembling your greenhouse, and we are particularly interested to see photos of the finished article.

We like to see where you've put it, how you're using it and how it looks in your garden. Often we glean ideas from this which we can pass on to other gardeners as useful tips.

It is always nice if we can include 'real' greenhouse photos in the brochure, so if you send us a photo of your greenhouse to us and it is good enough to get into our next brochure, **we will send you a £30 reward.**

Please send your photos to:

Photo competition

Robinsons Greenhouses

Blythe Park

Cresswell

Stoke-on-Trent

Staffs

ST11 9RD

Or better still, email us on james.durose@greenhousepeople.co.uk

Please write on the reverse of photos your name and address and if you would like them back, please write 'please return' on them too.

We wish you all the best with your new greenhouse, and we look forward to seeing your photos in the near future!

THIS GREENHOUSE BOX WAS PACKED BY:

DATE: _____



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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