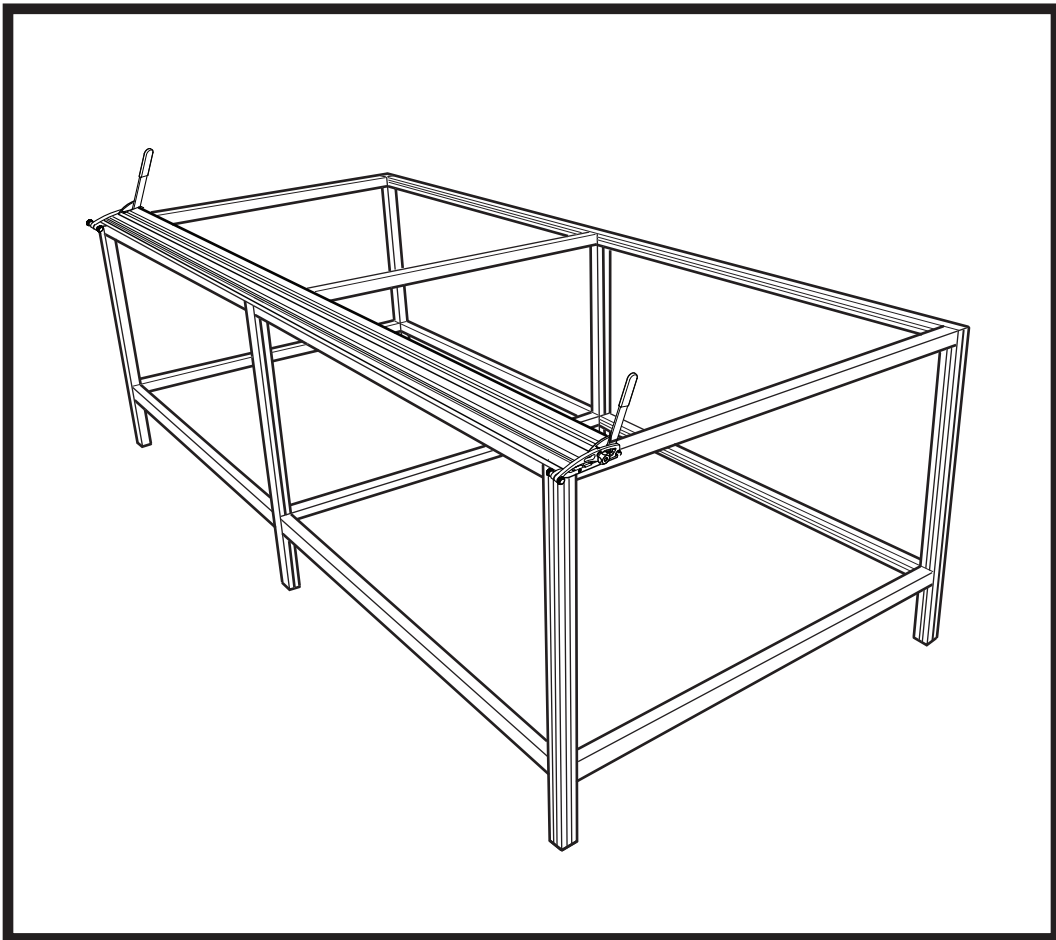


# Evolution Bench

*Inspired Design – Precision Engineering*

## ASSEMBLY INSTRUCTIONS

Thank you for choosing the Keencut Evolution Bench. Every effort has been made to bring you a precision engineered product with the promise of many years of valuable service. In order to obtain maximum benefit from your machine please read these instructions carefully. For advice and assistance or replacement parts please contact your distributor or Keencut.



You should have;

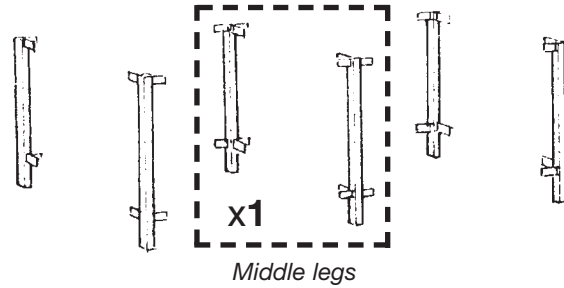
ITEM	Quantity x Size in Cm				
	EB160	EB210	EB260	EB310	EB360
Beam A (Front to back)	4x125	6x125	6x125	6x125	6x125
Beam B (Side to side)	3x182	6x114	6x139	6x164	6x189
Leg	4 x 87	6 x 87	6 x 87	6 x 87	6 x 87
Bench Edge Extrusion	1x182	2x114	2x139	2x164	2x189
LH Bracket	1	1	1	1	1
Centre Bracket	0	1	1	1	1
RH Bracket	1	1	1	1	1
Fixing Block	2	2	2	2	2
End Fixing Screws	4	4	4	4	4
Base Bracket Screws	8	10	12	14	16
Joining Bracket	16	28	28	28	28
Grub Screw	48	84	84	84	84
Worktop Fixing	6	11	11	11	11
Long Screw	6	11	11	11	11
Height Adjuster	4	6	6	16	6
4mm Hexagon Wrench	1	1	1	1	1
Spacer	1	1	1	1	1
4mm Hexagon Driver Bit	1	1	1	1	1

The Order of assembly is important – the following diagrams are for quick reference only and are to enable the reader to familiarise themselves with the general assembly of the Evolution Bench, the detailed assembly is described in 4 stages.

### Stage 1

Fix the brackets to the legs.

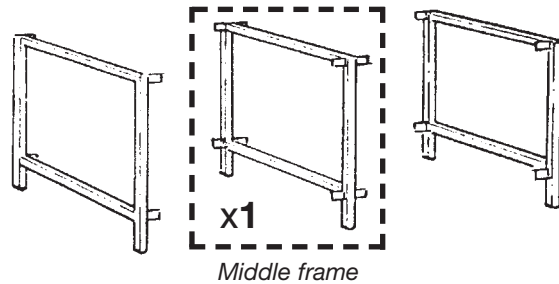
*The 160 Evolution Bench has only 4 legs, please disregard the middle pair of legs.*



### Stage 2

Construct the end frames.

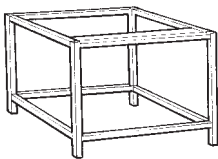
*Disregard the middle frame if you are building a 160 Evolution Bench.*



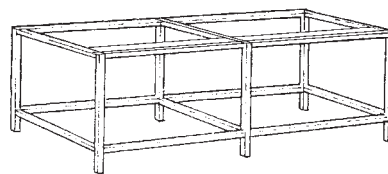
### Stage 3

Join the end frames and cross beams to produce the bench.

#### 160 Evolution Bench

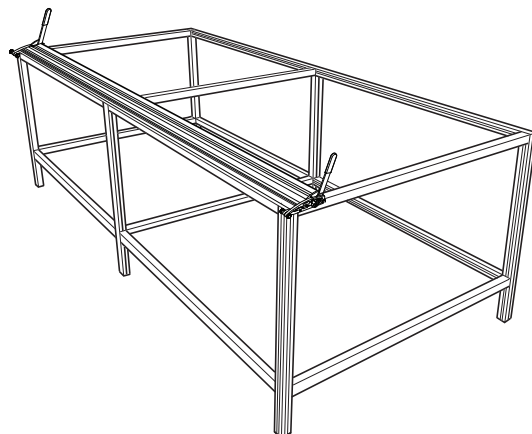


#### 210, 260, 310, 360 Evolution Bench



### Stage 4

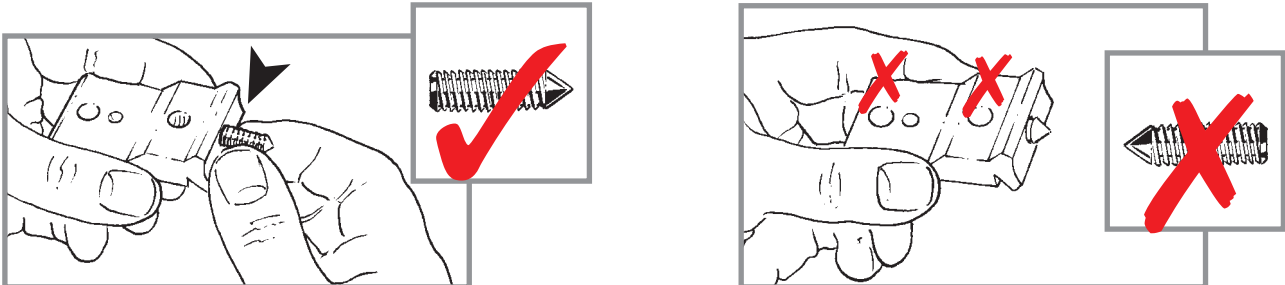
Attach the Evolution to the Bench.



**NOTE:**  
The following instructions will assume the Evolution Bench has six legs (210, 260, 310 & 360). If you are constructing a 160 Evolution Bench please omit the **middle** frame.

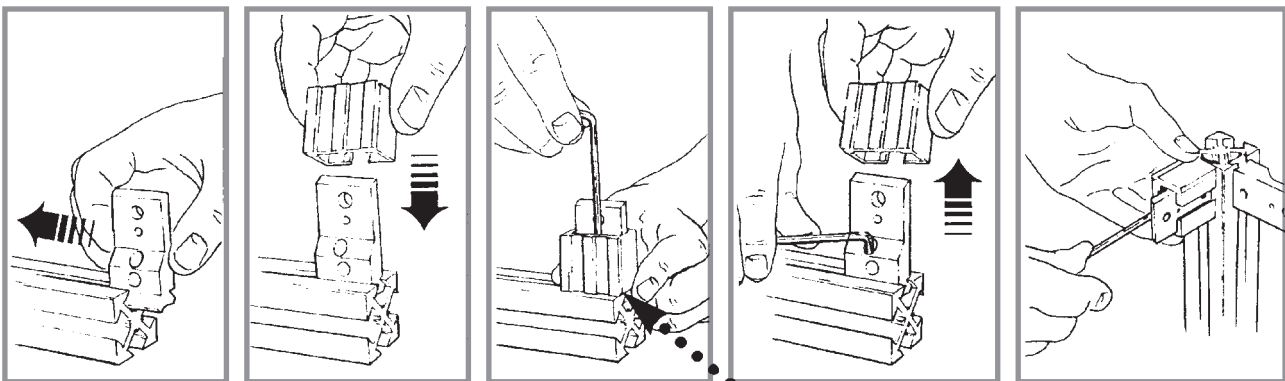
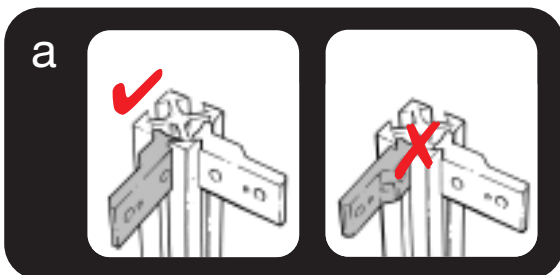
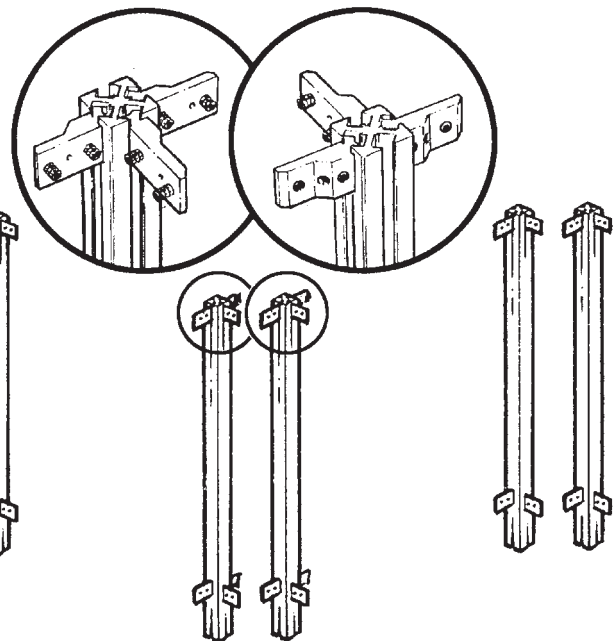
**Stage 1**

- Put a grub screw backwards into each of the joining brackets – **do not** place screws in the other holes.



- Using the spacer, fit the brackets to the top of each leg as shown – ensure:

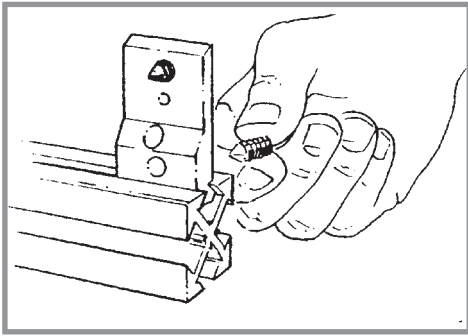
- The brackets are fitted the correct way round.
- The spacer is slightly above the top level of the leg, so when constructed the top level of the leg is not above the beam.
- The grub screws are tightened fully.



- Attach brackets to the bottom of the legs (and the same way round as shown above), using a tape measure or spacer to position them to suit your requirements.

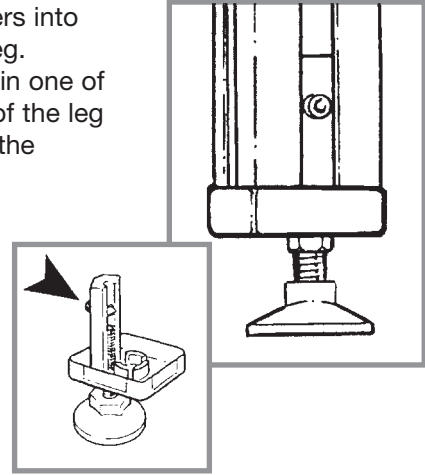


- Put grub screws in each of the two large holes of the bracket, only screw them in 2 or 3 turns.



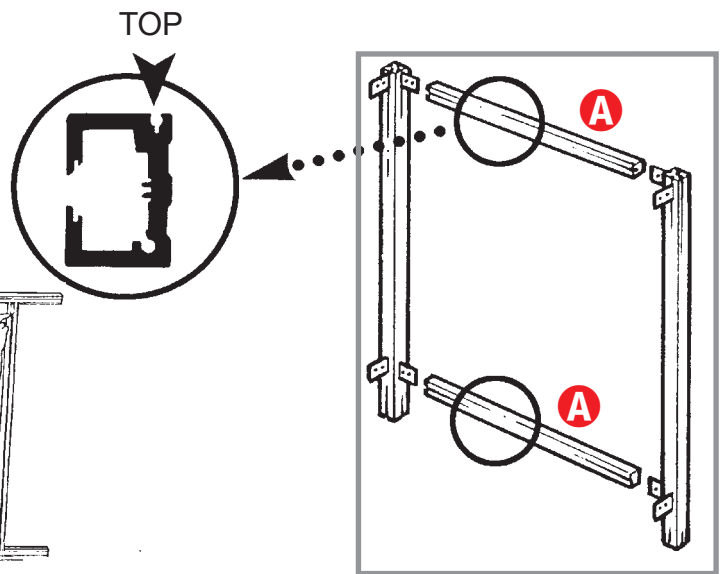
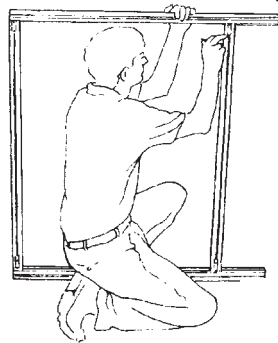
- Fix the height adjusters into the bottom of each leg. Position the adjuster in one of the internal grooves of the leg (ie. the same groove the brackets are fitted).

Position the bottom of the aluminium bracket level with the bottom of the leg and tighten the grub screw fully.



## Stage 2

- Fit the two Beams **A** between each pair of leg assemblies ensuring the small groove in the beam is uppermost.
- Pulling the two legs together (to close any gaps between the end of the beam and the legs) tighten all the grub screws.

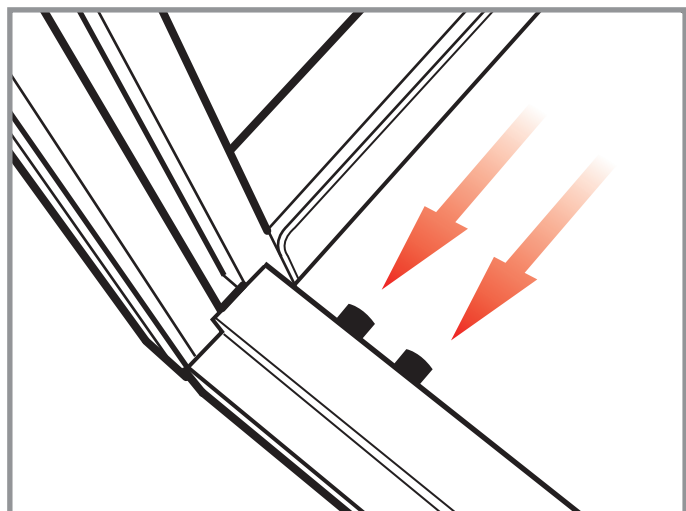
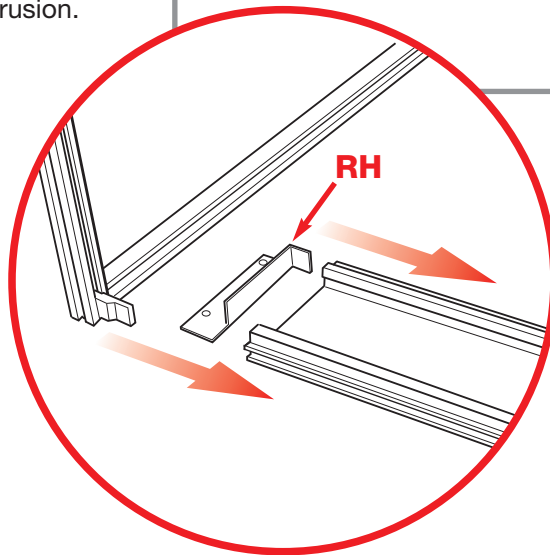
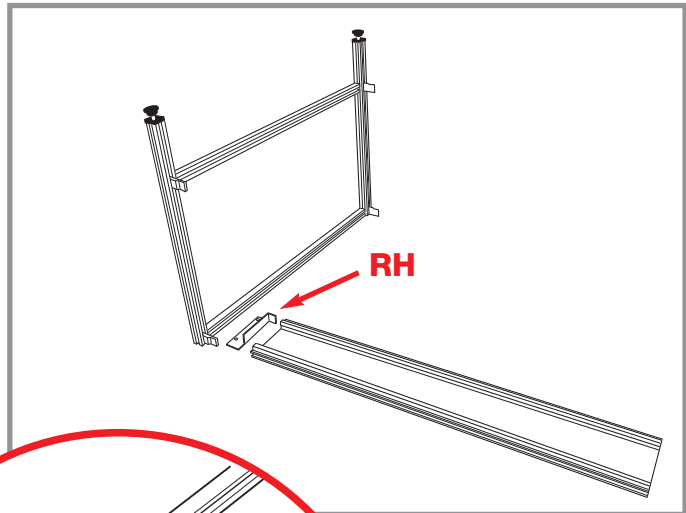


**NOTE:**

Once the frames have been assembled check that all the brackets are in the correct position and facing the correct way (i.e. flat face to the inside of the bench as shown in Stage 1, part2) continue to Stage 3. This part of the assembly is carried out by constructing the bench upside down, check you have enough space and manpower to turn the bench over when complete.

**Stage 3**

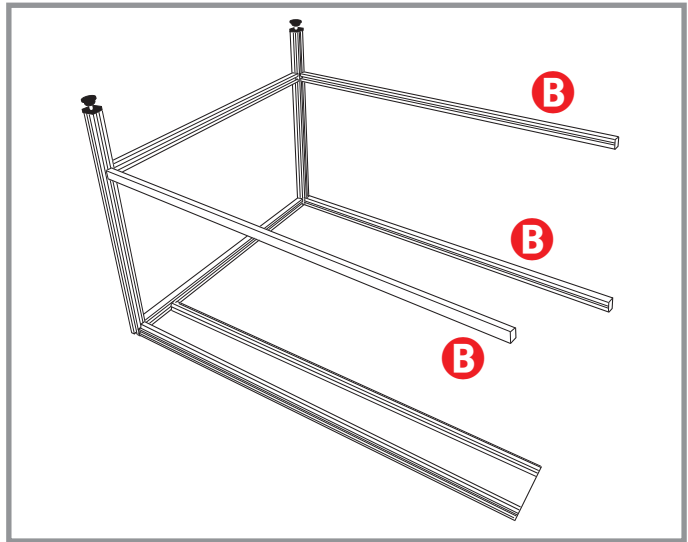
1. Lay one of the Bench Edge Extrusions flat side down on the floor together with the RH Bracket and the RH end frame as shown.
2. Push the tongue into the hollow in the Bench Edge Extrusion.
3. Push the Bench Edge Extrusion/RH Bracket onto the Joining Bracket on the End Frame.
4. Tighten both Grub screws ensuring there is no gap between the Bench Edge Extrusion and the Leg.

**PLEASE NOTE!**

For the grub screws to lock the bench securely it is important to use a hand wrench to completely tighten the screws.

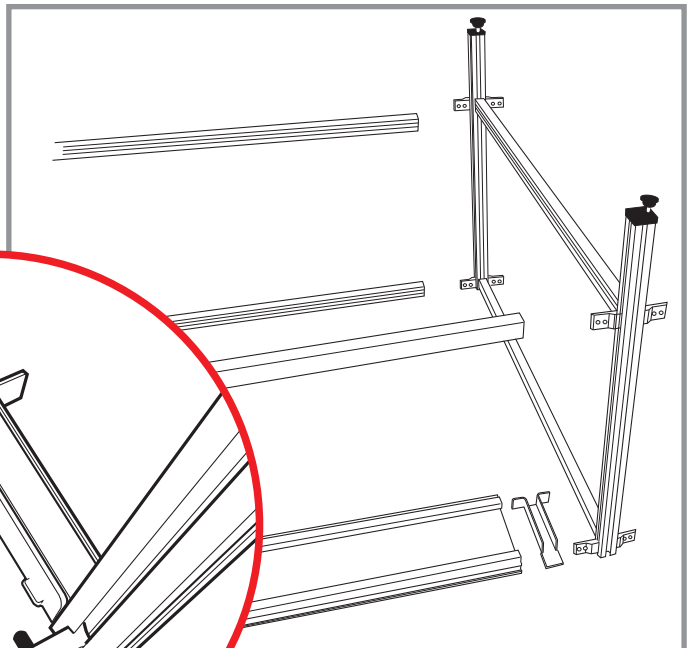
5. Position three Beams **B** on the Joining Brackets but do not tighten the bracket screws at this stage.

If you are assembling a 160 Evolution bench go straight to instruction 10.

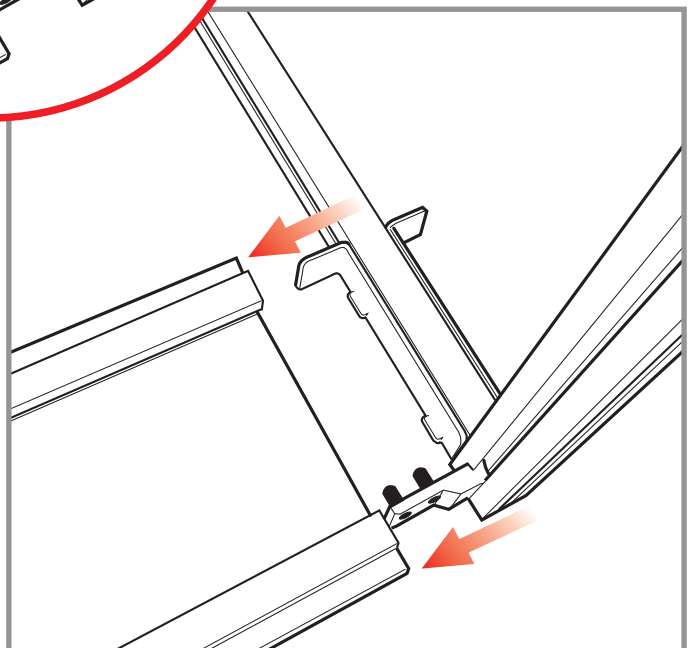
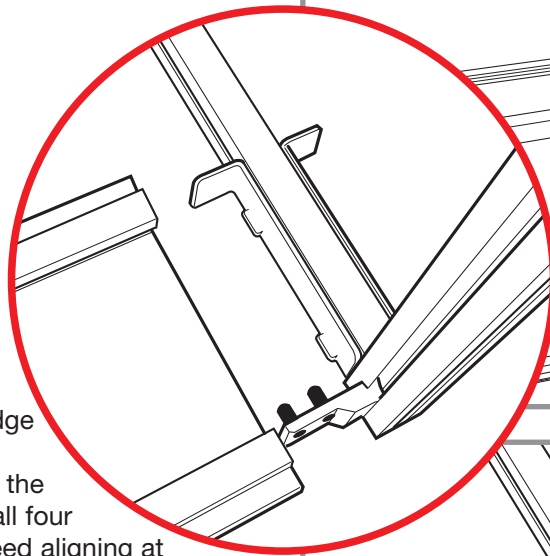


6. Align the Centre Frame as shown.

Place the Centre Frame in the Centre Bracket and push the tongue into the hollow in the Bench Edge Extrusion.



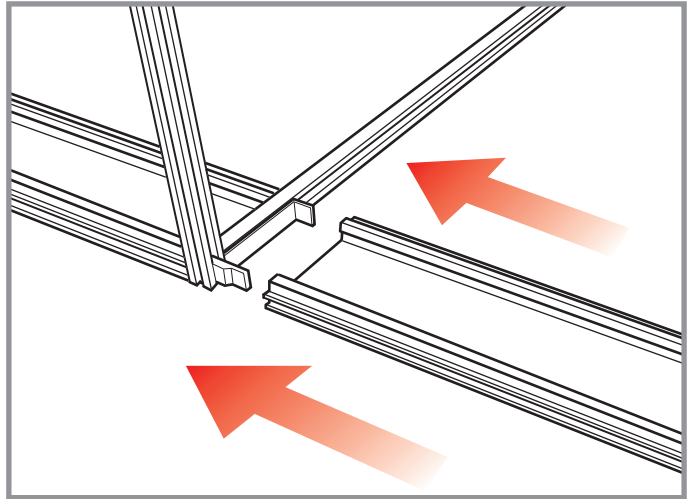
7. Push the Bench Edge Extrusion onto the Joining Bracket on the Centre Frame. As all four Joining Brackets need aligning at the same time just insert each of them 1 cm (1/2") into the ends of the beams and when all of them are positioned correctly push the Centre Frame on fully. Tighten all the Joining Bracket Screws on this half of the bench.



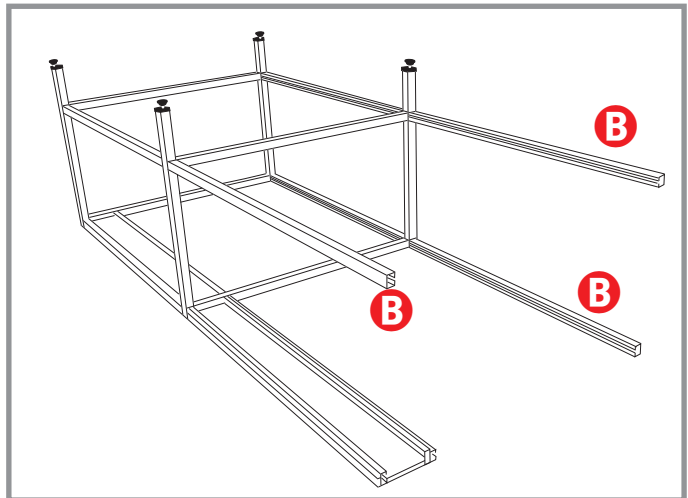
**PLEASE NOTE!**

For the grub screws to lock the bench securely it is important to use a hand wrench to completely tighten the screws.

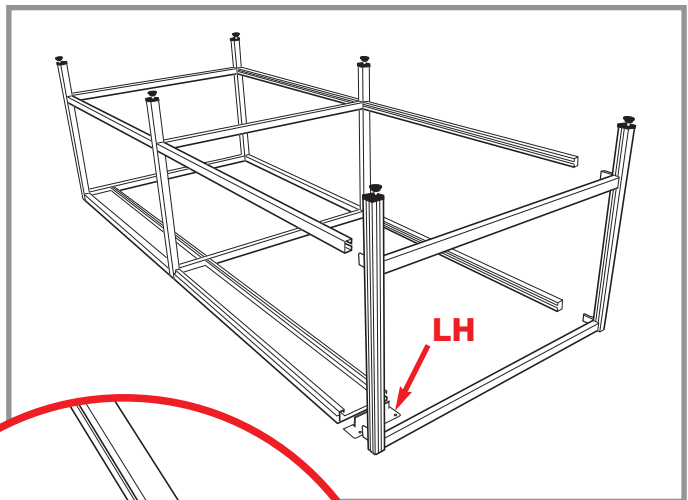
8. Place the second Bench Edge Extrusion into position and tighten both Screws



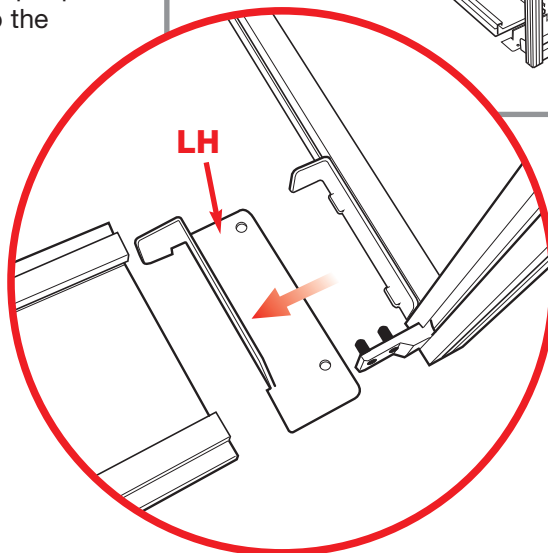
9. Position the remaining three Beams **B** on their Brackets but do not tighten the screws.



10. Slide the tab on the LH Bracket into the Bench Edge Extrusion then fit the LH End Frame, as before insert each of the brackets 1cm (1/2") into the ends of the beams and when all of them are positioned correctly push the End Frame on fully. Tighten all the Joining Bracket Screws.



11. Turn the bench over to stand on its feet, it is recommended at least two people carry out this operation due to the weight of the bench



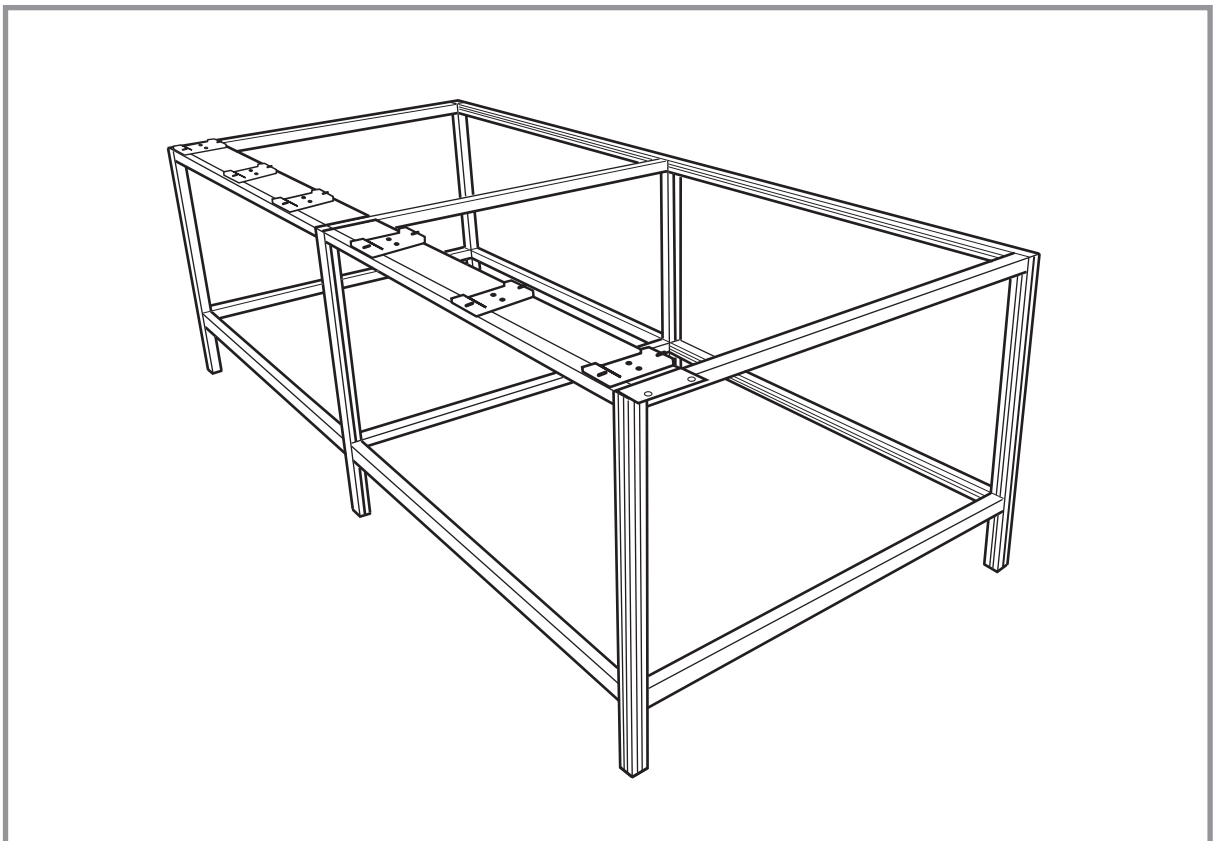
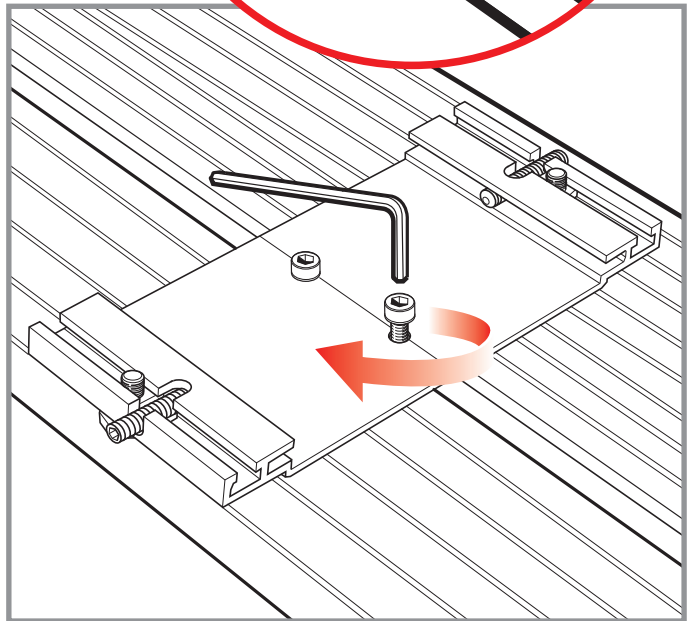
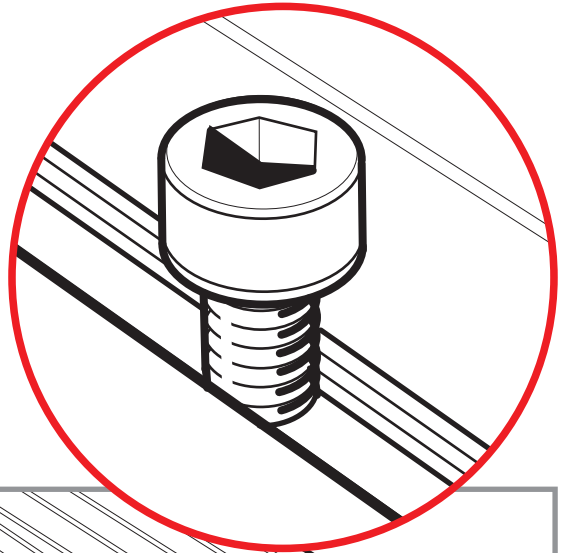


## Stage 4

1. Now refer to your Evolution Instruction Manual to fit the cutter onto the bench. Set the Table in its working position and use the Height Adjustable feet to get the table to within 3mm of flat (as explained in the Evolution Manual). Instead of using the woodscrews supplied with the Evolution use the Allen screws provided with the bench.

The groove that runs down the middle of the Bench Edge Extrusion has teeth that match the thread form of the screw. Make sure the screw is held vertical with the short end of the Allen key and hold it vertical for the first few turns.

On the 210 & 310 sizes of Evolution Bench the Centre Bracket will prevent the middle Base Bracket fitting into its measured position, just move the Base Bracket to one side so to clear the Centre Bracket.



When the cutter has been fitted to the bench install the worktops (not supplied) they are held in position using the Worktop Fixings and the long cross head screws.

Worktop sizes are listed below, they must be 18mm (3/4") thick for the top surface to be level with the base of the cutter

Evolution Bench Size	One piece worktop cms (in.)	Two piece worktop cm. (in.)
160	194 x 120 (76 <sup>3</sup> / <sub>8</sub> " x 47 <sup>1</sup> / <sub>4</sub> " )	
210	244 x 120 (96" x 47 <sup>1</sup> / <sub>4</sub> " )	122 x 120 (48" x 47 <sup>1</sup> / <sub>4</sub> " )
260	294 x 120 (115 <sup>3</sup> / <sub>4</sub> " x 47 <sup>1</sup> / <sub>4</sub> " )	147 x 120 (58" x 47 <sup>1</sup> / <sub>4</sub> " )
310	344 x 120 (135 <sup>1</sup> / <sub>2</sub> " x 47 <sup>1</sup> / <sub>4</sub> " )	172 x 120 (67 <sup>3</sup> / <sub>4</sub> " x 47 <sup>1</sup> / <sub>4</sub> " )
360	394 x 120 (155" x 47 <sup>1</sup> / <sub>4</sub> " )	197 x 120 (77 <sup>1</sup> / <sub>2</sub> " x 47 <sup>1</sup> / <sub>4</sub> " )
<b>Note: 120 cm (47<sup>1</sup>/<sub>4</sub>" ) wide gives a 7.5 cm (3") overhang at the back of the bench.</b>		

