TRIMALCO

LARGE FORMAT CUTTERS

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APOLLO XL

MULTI SUBSTRATE CUTTER

Owners Manual for models

165/210/250/310

Introduction

Thank you for purchasing this Heavy Duty Vertical Cutter. It has been manufactured in the UK to the highest standard and if used in accordance with these instructions and properly maintained, it will give you years of trouble free performance.

We want your experience using this machine to be exceptional, so for maximum safety and productivity, please read and understand this manual thoroughly before operating.

Product warranty

The manufacturer warrants the machine purchased to be free from defects in parts and workmanship for five (5) years from the date of purchase. The manufacturer warrants that it will repair or replace any such defective machine or replace parts, providing the machine has been under normal use and service and the defective part or machine is returned to the manufacturer at the purchaser's expense. The manufacturer must authorise the return in writing. Proof of purchase must be submitted to validate warranty coverage. The warranty is in lieu of all other agreements and warranties expressed or implied.

THE MANUFACTURER DOES HEREBY EXPRESSLY DISCLAIM ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The manufacturer does not authorise any company employee or representative to assume for it any other liability than that set forth in this Product Warranty. The manufacturer shall not be liable for any damages or losses, whether incidental or consequential, direct or indirect, arising out of the use or abuse of this machine. This Warranty is valid only when the machine is used with the manufacturer's consumables and replacement parts. In any event, THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS OR ANY OTHER WARRANTY IS LIMITED TO RETURN OF THE PURCHASE PRICE PAID FOR THIS MACHINE.

Safety first !

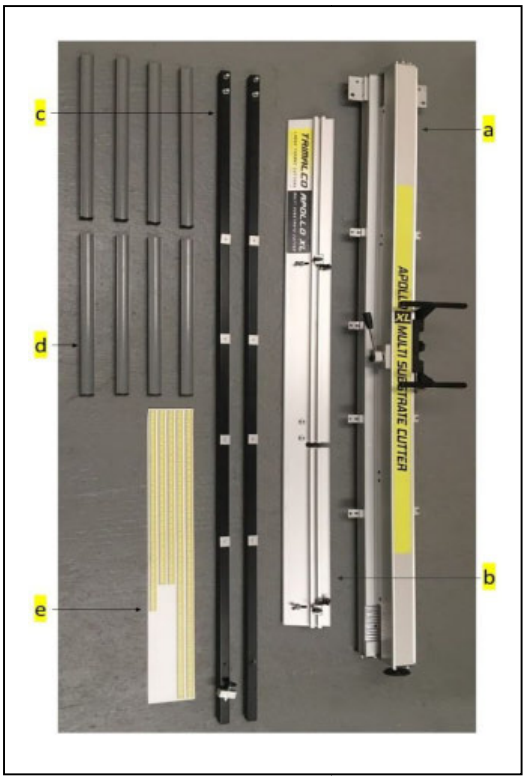
Please read through this manual before operating this Vertical Cutter. If after reviewing these pages you still have questions about the safe use of this machine, contact your supplier.

NOTE: WHEN LIFTING THE MACHINE FROM THE BOX, ENSURE THAT TWO PEOPLE ARE USED FOR LIFTING. THE VERTICAL ASSEMBLY IS HEAVY.

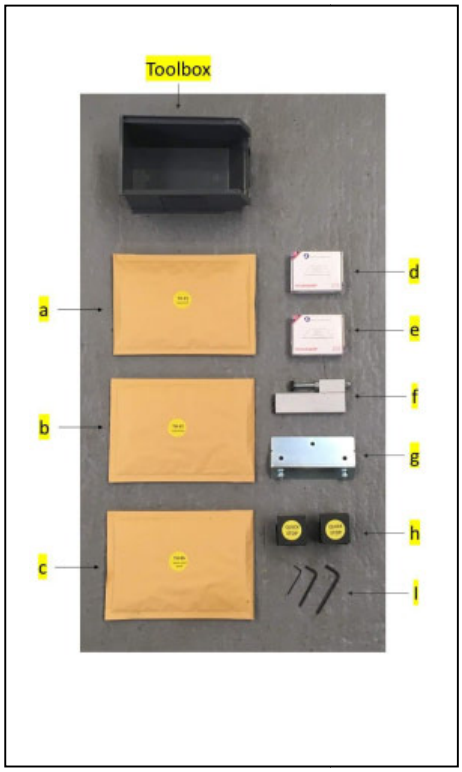
After unpacking your machine, check with the lists below and the photographs opposite to make sure that you have all the parts and that there is no damage.

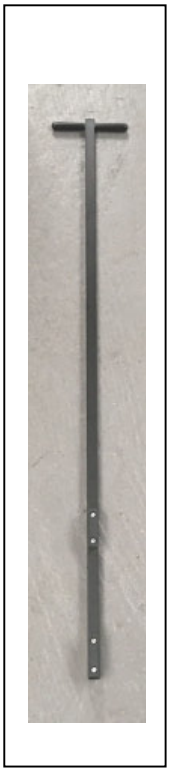
All fastenings have been loosely fixed in place to aid assembly. These can come loose in transit. Do not throw any packaging away until assembly is complete.

a) Vertical assembly
b) Horizontal assembly
c) Legs (1 x Left Hand (LH), 1 x Right Hand (RH).
d) Material supports x 6 (model 4043), 8 (model 4044), 10 (model 4045), 12 (model 4046)
e) Scale set



Toolbox
NOTE: THE CONTENTS MAY VARY DEPENDING ON THE PACKAGE YOU BUY. ANY DIFFERENCES SHOULD BE REFLECTED IN THE PURCHASE PRICE.
a)Toolholder #1,
b)Toolholder #2,
c)Toolholder #6,
d) Medium duty utility blades x 100
e) Heavy duty utility blades x 5
f) Toolholder stop,
g) Wall mount bracket
h) Quick stops x 2
i) Allen keys (2mm, 3mm, 4mm and 5mm)
g) Extension handle is included with models 4045 and 4046 only.





3.1 ASSEMBLY – Fitting the legs 3.1

BEGIN WITH THE VERTICAL ASSEMBLY LAYING FLAT ON THE FLOOR.

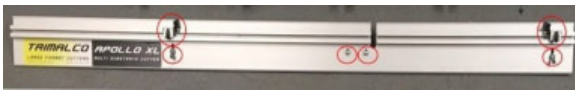
NOTE – You will find this operation easier to perform if you raise the top end of the machine. The grey plastic toolbox is ideal for this.

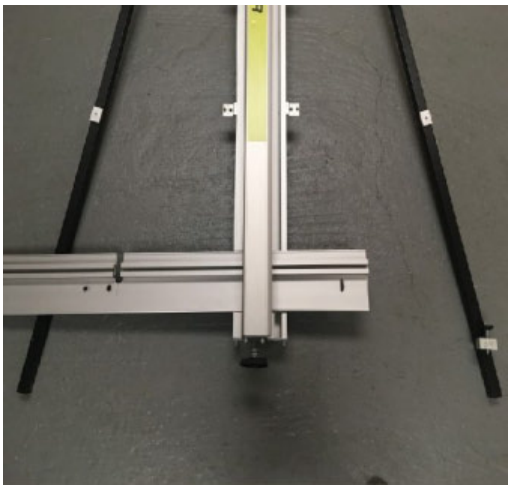
1. Fitting the LH leg – Remove the 2 x M8 screws from the top of the RH leg and hold the leg behind the RH joining bracket. Refit the screws from the front, finger tight only. (fig. 1)
2. Repeat for the RH leg

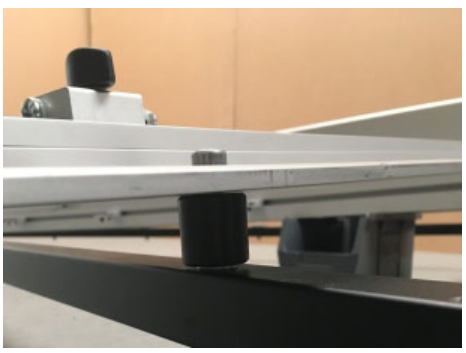
3.2 ASSEMBLY – Fitting the horizontal assembly 3.2

NOTE – Remove the toolbox from under the top end of the machine and place it under the bottom end.

1. Remove the 2 x flip stops, the 2 x M8 screws and the 2 x M10 screws after carefully noting their positions.
2. Slide the horizontal assembly through the gap in the vertical assembly. Align the two inner holes in the horizontal assembly with the two corresponding holes in the machined section of the vertical assembly and refit the 2 x M10 screws loosely. The M10 screws are fitted from the rear.
3. Align the two outer holes in the horizontal assembly with the corresponding holes in the legs and refit the 2 x M8 screw assemblies loosely. The M8 screws are fitted from the front with the black nylon spacer between the horizontal assembly and the legs.







3.3 ASSEMBLY – Fitting the wall mounting bracket 3.3

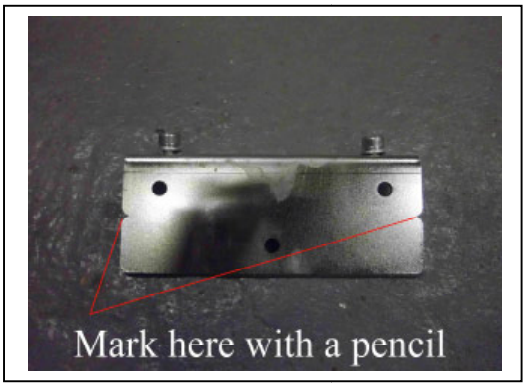
NOTE:. THE COUNTERBALANCE IS SECURED WITH A CABLE TIE TO PREVENT MOVEMENT IN TRANSIT. CUT THE CABLE TIE AND MOVE THE COUNTERBALANCE AND CUTTING HEAD TO THE BOTTOM OF THE MACHINE.

NOTE: ASSISTANCE WILL BE REQUIRED TO FIT THE FSK

NOTE: IF YOU PLAN TO FIT THE FREE STANDING KIT (OPTIONAL) GO TO SECTION 3.4

NOTE : ENSURE THE WALL IS STABLE AND THAT YOU HAVE AND USE THE APPROPRIATE FIXINGS (NOT SUPPLIED).

1. Fitting the wall mounting bracket – Raise the top end of the machine, remove the 2 x M8 screws from the wall mounting bracket and fit to the top plate as shown. Refit the 2 x M8 screws finger tight only.
2. Get help to lift the machine into position against the wall in the desired location.
3. The wall mounting bracket should lay flush against the wall.
4. Mark the position of the two V's (see photo) with a pencil. We have shown this separate from the machine for illustration purposes only.
5. Move the machine away and remove the wall mounting bracket.
6. Attach the bracket to the wall with appropriate fixings then reposition the machine and fasten to the bracket.

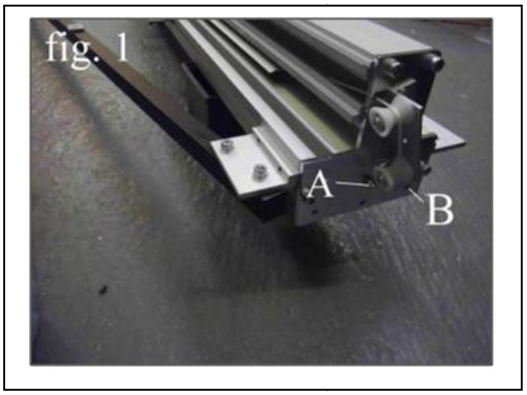


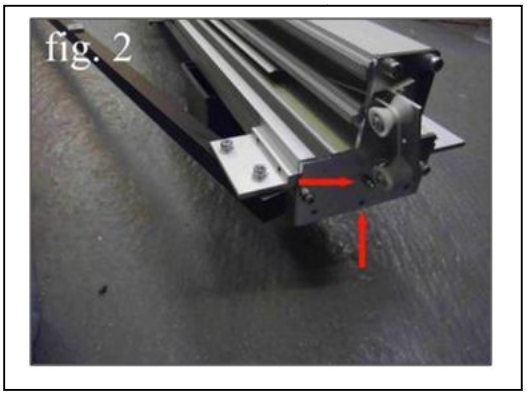
NOTE. THE FREE STANDING KIT (FSK) IS AN OPTIONAL EXTRA.

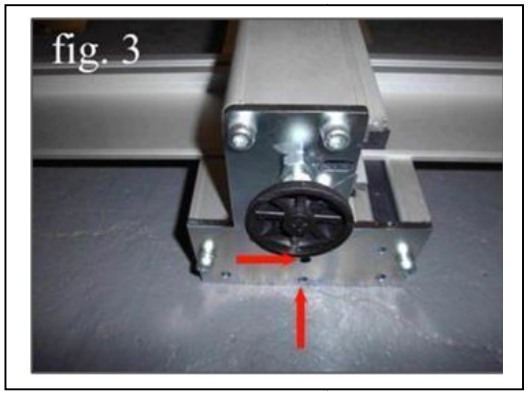
NOTE: THE COUNTERBALANCE AND CUTTING HEAD SHOULD ALREADY BE AT THE BOTTOM OF THE MACHINE (SEE SECTION 3.3)

NOTE: ASSISTANCE WILL BE REQUIRED TO FIT THE FSK

1. Remove the wall mounting bracket if you have already fitted this.
2. If you are converting your machine from wall mount to free standing. Unhook the counterbalance weight and gently lower it to the bottom of the machine. Hold on to the cord you have unhooked and gently allow the head to travel to the bottom of the machine.
3. Move the counterbalance eyebolt from position A to position B (figure 1). This is done by undoing the dome nut on the top of the bracket.
4. Remove the 2 x M8 bolts from the short top arm of the FSK
5. Get help to lift and hold the machine vertical. Attach the short arm to the **UNDERSIDE** of the top bracket. Refit the 2 x M8 bolts from the bottom, up through the short arm and through the holes in the top bracket (figure 2). The nuts are fitted to the ends of the bolts protruding through upperside of the top bracket. Leave these finger-tight for now.
6. Remove the 2 M8 bolts from the long bottom arm of the FSK.
7. Attach the long arm to the **UPPERSIDE** of the bottom bracket. Refit the bolts from the top, down through the long leg and through the holes in the bottom bracket (figure 3). The nuts are fitted to the ends bolts protruding through the underside of the bottom bracket. Leave these finger-tight for now.
8. Move the machine to its final position and tighten all bolts.







1. Loosen but do not remove the clamp plates attached to the legs. There will be 6 of these on the 165 model, 8 on the 210 model, 10 on the 250 model and 12 on the 310 model.
2. Slide the material supports into position as shown opposite.

NOTE. YOU MAY NEED TO UNDO THE GRUB SCREWS FITTED TO EACH BRACKET AS THERE IS THE POSSIBILITY THAT THEY MAY HAVE MOVED IN TRANSIT. THIS COULD PREVENT THE EASY INSERTION OF THE BACK SUPPORTS.

Use a spirit level to make sure that each support is level before tightening the M8 screw in the clamp to hold it in place. This is for aesthetic purposes only.

Once you have tightened the clamp screws you need to perform the following operations in sequence. (Working from the top of the machine down).

TIGHTEN THE 2 x M8 SCREWS REFERRED TO IN 3.1.1 AND THE 2 x M8 SCREWS REFERRED TO IN 3.1.2

TIGHTEN THE 2 x M10 SCREWS REFERRED TO IN 3.2.2 (CIRCLED BUT NOT VISIBLE)

TIGHTEN THE 2 x M8 SCREWS REFERRED TO IN 3.2.3

TIGHTEN THE TWO GRUB SCREWS IN EACH BACK SUPPORT BRACKET.

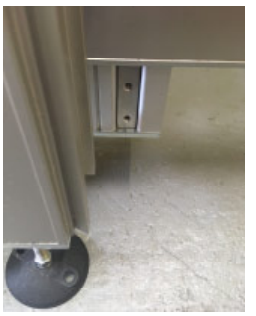
LOWER THE CENTRAL FOOT AND LOCK IN POSITION WITH THE LOCKING NUT

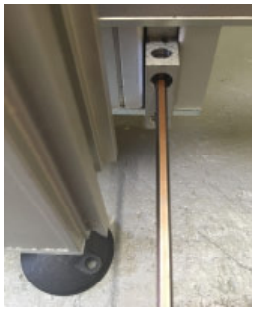
TURN THE SQUARING ARM ADJUSTERS UP TO BRING THEM IN CONTACT WITH THE BOTTOM OF THE SQUARING ARM.

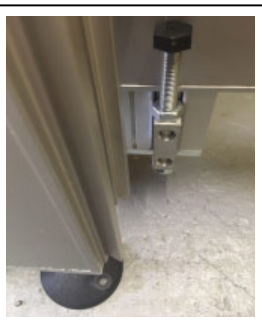
TOOLSTOP

The purpose of the toolstop is to prevent the blades from hitting the squaring arm and causing damage to both. The rear of the toolstop prevents the wheels on TH#2 and TH#5 from making contact with the squaring arm. The rod on the front of the toolstop is adjustable and this prevents the blades in TH#1 and TH#6 from doing the same. The toolstop comes fully assembled but needs to be dismantled for fitting (see photo).

1. Remove the M8 nyloc from the end of the threaded rod and remove the rod.
2. Using the 5mm Allen key provided, undo the 2 x M6 screws holding the small front block to the larger rear block.
3. Drop the larger rear block, with the 2 holes to the bottom and facing forward, into the slot in the vertical assembly, behind the squaring arm (see photo).
4. Refit the small front block and the rod.
5. The nyloc on the bottom of the rod need only be finger tight.
6. The height of the rod is adjusted by turning the M8 nut on top of the small block.
7. If you are <u>only</u> cutting 3mm thick materials with TH#1 you will need to have the rod set fairly high. If not, set it low.







COUNTERBALANCE

NOTE: WHILST IT IS POSSIBLE TO PERFORM THIS OPERATION ALONE YOU MAY FIND IT EASIER TO HAVE SOMEONE HELP.

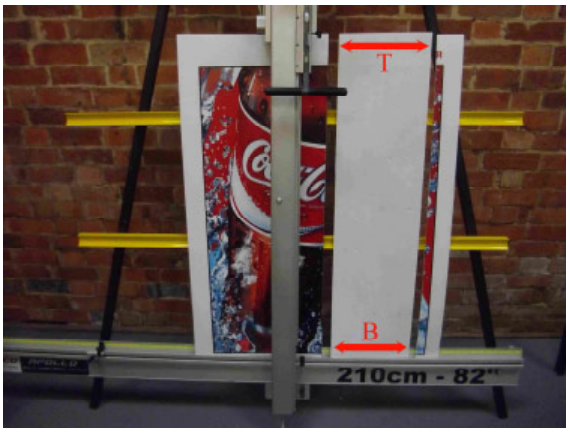
1. Pull on the counterbalance cord connected to the eyebolt on the underside of the top bracket. This will raise the cutting head.
2. Lift the counterbalance up to meet this cord and hook the cord around the pulley on the counter balance.
3. Make sure the cord goes over the two pulleys fitted to the top bracket and that it does not foul on anything.

4.1 SQUARING – Checking for squareness 4.1

TO PRODUCE ACCURATE RESULTS, THE HORIZONTAL ASSEMBLY NEEDS TO BE FIXED AT EXACTLY 90 DEGREES TO THE VERTICAL ASSEMBLY. TO DO THIS, SELECT A PEICE OF FOAMBOARD 3-6MM THICK AND AT LEAST 60 X 100CM IN SIZE. THE LARGER THE BOARD THE GREATER THE ACCURACY.

1. Read section 6.2 relating to TH#1
2. Make sure that the clamp is retracted, this is done by pulling down on the clamp handle.
3. Make sure that the cutting head with TH#1 fitted is in the parked position at the top of the machine or at least above the height of the board you are about to insert.
4. Place the board you have chosen vertically on the machine. Make sure that the bottom edge is in firm contact with the squaring arm and that the right hand edge bridges the gap in the squaring arm.
5. Clamp the board in this position.
6. Make a cut by pulling the head slowly downwards.
7. Unclamp the board and return the head to its parked position above the board.
8. Turn the board over like the page in a book (NOT top to bottom) and make a second cut.

If the machine is square, the width of the board at the top (T) will equal the width of the board at the bottom (B), if it is not follow the instructions in 4.2



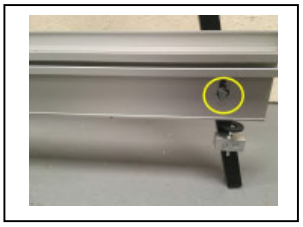
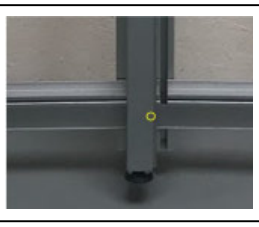
4.2 SQUARING – Adjusting the squareness 4.2

NOTE: Before making any adjustments carry out the squareness check as described in 4.1

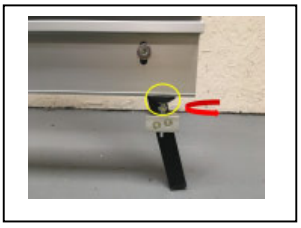
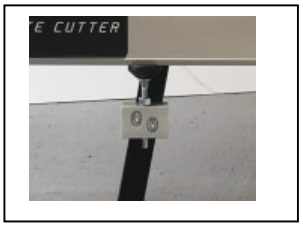
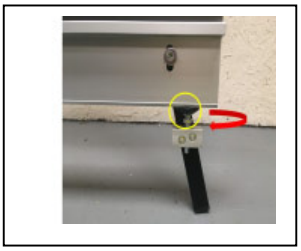
1. Slacken the 2 x M8 screws joining the legs to the horizontal assembly.
2. Slacken the right hand M10 screw joining the horizontal assembly to the vertical assembly. Leave the left hand M10 screw tight.
3. Having already measured the width of the board top (T) and bottom (B). The difference between the two measurements is twice the error. For example a difference of 4mm means the error is 2mm.

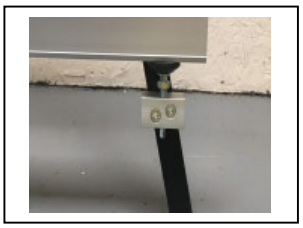
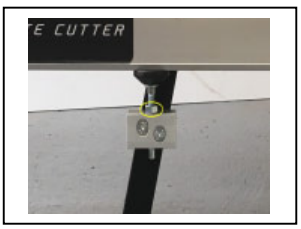
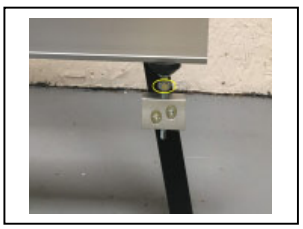
NOTE – THE adjustments you are about to make may only require one turn or less of the squaring adjusters. BE CAREFUL NOT FORCE THE ADJUSTERS TO WORK AGAINST EACH OTHER AS THIS WILL BEND THE SQUARING ARM.

4. If T is greater than B turn the LH squaring adjuster clockwise, moving it away from the bottom edge of the squaring arm.
5. Now turn the RH squaring adjuster anti-clockwise. This will raise the RH side of the squaring arm. Stop when the LH side of the squaring arm makes contact with the LH squaring arm adjuster.
6. If T is less than B turn the RH squaring adjuster clockwise, moving it away from the bottom edge of the squaring arm.
7. Now turn the LH squaring adjuster anti-clockwise. This will raise the LH side of the squaring arm. Stop when the RH side of the squaring arm makes contact with the RH squaring arm adjuster.
6. Make another cut and measure, repeating this process until T=B.
7. Tighten the screws referred to in paragraphs1 and 2.
8. Tighten the lock nuts on both squaring adjusters.

ERROR mm = (**T** mm – **B** mm) ÷ 2

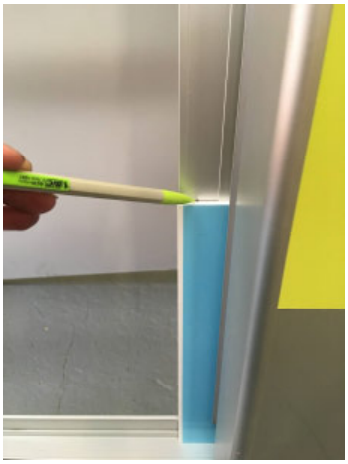




5.1 CALIBRATION – The vertical scale 5.1

NOTE : ALL SCALES ARE SUPPLIED AS A SET AND NOT FITTED TO THE MACHINE. THEY CAN ONLY BE ATTACHED AFTER THE SQUARING PROCESS HAS BEEN COMPLETED.

The vertical scale measures the height of the board on the machine and is only used for reference.

1. Take a small piece of board and accurately measure its height, let's assume that it measured 265mm. Place this board in the machine such that it lays over the groove where the scale is to be applied.
2. With a pencil, mark a fine line level with the top edge of the board adjacent to the groove.
3. Remove the vertical scale from the release paper and stick in place such that the 265mm measure on the scale lines up with the pencil mark.
4. Trim the excess from the bottom of the scale.



5.2 CALIBRATION – The horizontal scales 5.2

Material for cutting can be loaded from either side of the machine. When loading from the left, the right hand measuring scale reads the measurement from the cut line to the right hand edge of the board. When loading from the right, the left hand scale reads the measurement from the cut line to the left hand edge of the board.

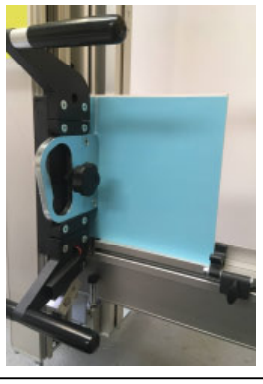
NOTE: ALL TOOLS CUT ON THE SAME LINE

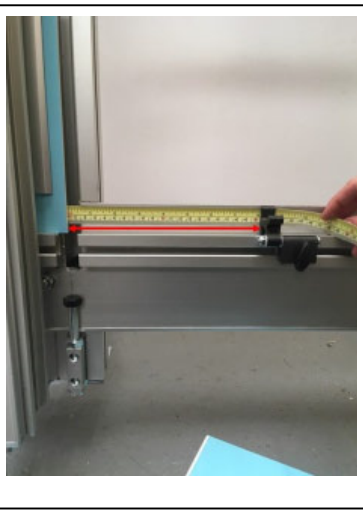
FITTING THE RIGHT HAND SCALE (scale reads left to right)

1. Set the RH flip stop to approximately 200mm. Slide a piece of board from the left up to this stop and make a cut.
2. Accurately measure the size of this board. Let's assume that it was 205mm
3. Remove the RH scale from its backing and stick in the recess such that the 205mm measure on the scale lines up with the left hand edge of the production stop.
4. Trim the excess from both ends of the scale.

FITTING THE LEFT HAND SCALE (reads right to left)

5. Set the LH flip stop to approximately 20cms. Slide a piece of board from the right up to this stop and make a cut.
6. Accurately measure the size of this board. Let's assume that it was 212mm
7. Remove the LH scale from its backing and stick in the recess such that the 212mm measure on the scale lines up with the right hand edge of the production stop.
8. Trim the excess from both end of the scale.

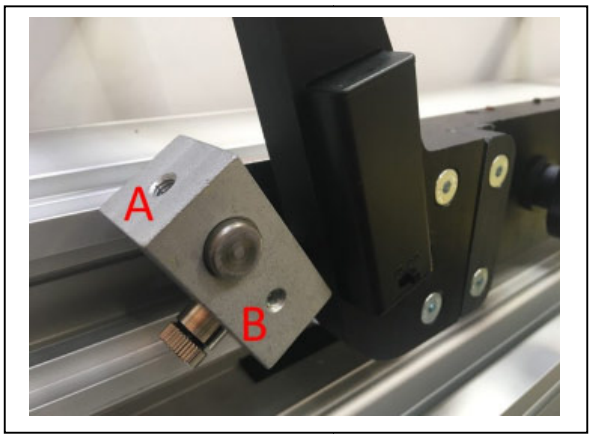




CAUTION: NEVER LOOK DIRECTLY AT THE LASER SOURCE

NOTE: THE LASER IS ALREADY FITTED TO THE CUTTING HEAD, THE BATTERIES ARE FITTED AND THE LASER HAS ALREADY BEEN FOCUSED.

1. Clamp a piece of 3mm PVC in the machine and set toolholder TH#1 at a depth so that it will only just cut the surface of the board and not all the way through.
2. Move the head downwards to the bottom of the machine creating a score line in the 3mm PVC.
3. Remove the toolholder and bring the cutting head up to a comfortable working height. 1m to 1.2m should be perfect.
4. Turn on the laser using the switch on the front of the battery box.
5. If the laser line is not parallel with the cut mark. Undo the grub screw B with the 3mm Allen key provided and turn the laser module within the mounting block until it is parallel. Tighten the grub screw A.
6. If the laser line is not centred on the cut line. Undo the grub screw marked A with the 3mm Allen key provided and slide the mounting block left or right until it is centered. Tighten the grub screw.



REPLACING THE BATTERIES

7. Carefully remove the battery box from its holder. It is held in place with a magnetic strip.
8. Slide the battery cover on the rear to expose the batteries.
9. Replace the 2 x AAA batteries and refit the cover.
10. Refit the battery box in its holder.

The Cutting Head runs vertically on a set of four nylon bearings. The two bearings on the back are fixed, the two on the front are fully adjustable.

If the cutting head has excessive side to side movement, take the 2mm Allen key supplied and whilst moving the head up and down tighten the four grub screws on the front of the cutting head until any movement is eliminated.

These bearings are guaranteed for 20 years and it is unlikely that they will need replacing.

There is a counter balance housed in the spine assembly which is connected to the cutting head through a series of pulleys and a nylon cord. The counter balance allows the cutting head to be suspended at any height. This helps with tool changes and minimises the effort required to lift the cutting head.

NOTE: NEVER USE OILS TO LUBRICATE THE SLIDEWAY AS THESE MAY DAMAGE THE NYLON BEARINGS. SILICONE SPRAY IS FINE FOR THIS PURPOSE.

Toolholder TH#1 has been specially developed to cut PVC Foamboard up to 13mm thick. The unique triple blade system allows you to cut the material in one pass.

Follow these instructions for optimum safety, cut quality and performance.

⚠ CAUTION: EXERCISE EXTREME CARE WHEN HANDLING BLADES.

FITTING THE BLADES

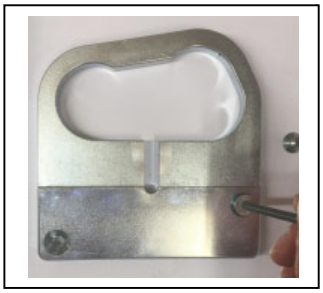
1. Remove the toolholder clamp plate by undoing the two countersunk screws visible in the LH image.
2. Place three blades in the toolholder. Their positions are clearly indicated. Remember that you can use both ends of the blade.
3. Refit the clamp plate and tighten the two countersunk screws.

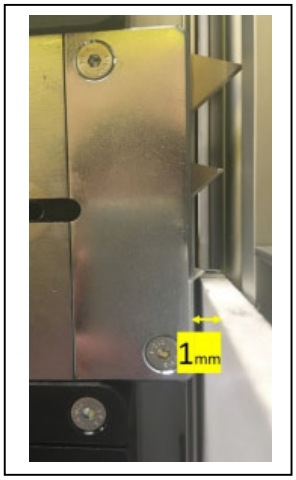
INSERTING THE TOOL CARTRIDGE AND SETTING THE DEPTH

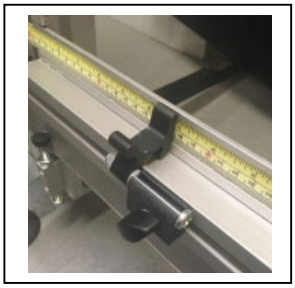
4. Remove the retaining knob.
5. Place the Toolholder between the nylon bearing surfaces and replace the retaining knob. DO NOT tighten at this stage.
6. Clamp a sample of material, the same as you are about to cut, at a comfortable working height.
7. Slide the Toolholder forward until the front of the Toolholder is about 1mm away from the face of the material.
8. Tighten, BUT DO NOT OVERTIGHTEN the retaining knob.
9. Toolholder TH#1 is now ready for use.

MAKING THE CUT

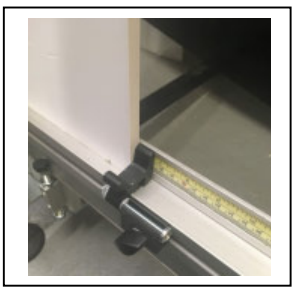
10. Move the cutting head to a resting position above the height of the material to be cut.
11. Set the productions stop to the appropriate dimension.







12. Insert the foam PVC and slide it gently against the production stop and apply the clamp.
13. Grasp both handles on the cutting head and firmly pull/push downwards in a slow steady manner to make the cut. Complete the cut by pushing the head down to its bottom resting place.
14. Unclamp the material and remove it from the machine.
15. Return the head to its resting position above the height of the material you are cutting.



HINTS AND TIPS ON CUTTING PVC

a) New blades take more than 10 cuts before they are at their best.
b) The blades never seem to dull on this material. Unless you damage them , they will last for months
c) The speed at which you are able to cut varies enormously between brands and between batches. The direction of cut, the temperature of the room and the temperature of the material can also make a difference. There is only one thing you need to remember and that is:- If you can hear a clicking noise when you are cutting then you are actually tearing the material. You need to slow down until the cut is silent.

BRAND NAMES - Foamalux, Forex®, Sintra®, Komacel®

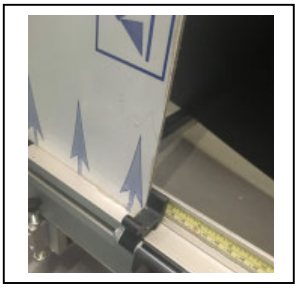
Toolholder TH#2 has been specially developed to cut aluminium composite materials (ACMs) up to 4mm thick. The cutting wheels are already fitted to the cartridge. Follow these instructions for optimum safety, cut quality and performance.

INSERTING THE TOOL CARTRIDGE AND SETTING THE DEPTH

1. Remove the retaining knob.
2. Place the Toolholder between the nylon bearing surfaces and replace the retaining knob. DO NOT tighten at this stage.
3. Clamp a sample of material, the same as you are about to cut, at a comfortable working height.
4. Slide the Toolholder forward until the gap between the two wheels is centred above the material.
5. Tighten, BUT DO NOT OVERTIGHTEN the retaining knob.
6. Toolholder TH#2 is now ready for use.

MAKING THE CUT

7. Move the cutting head to a resting position above the height of the material to be cut.
8. Set the productions stop to the appropriate dimension.
9. Insert the ACM and slide it gently against the production stop and apply the clamp.
10. You may also want to use the other production stop and the 2 x Quick stops for added lateral support. See Hints and Tips opposite.
11. Grasp both handles on the cutting head and firmly pull/push downwards in a slow steady manner to make the cut. Complete the cut by pushing the head down to its bottom resting place.
12. Unclamp the material and remove it from the machine.
13. Return the head to its resting position.



REPLACING THE BLADES

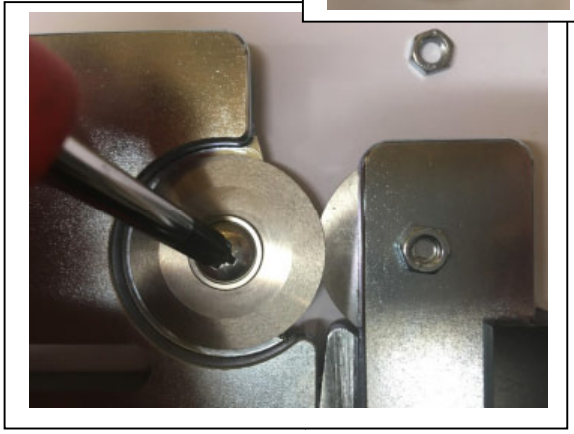
⚠ CAUTION: EXERCISE EXTREME CARE WHEN HANDLING BLADES.

14. Undo the locknut and remove the spindle screw holding each wheel in position.
15. Remove the bearings from the old wheels and insert them into the new.
16. Fit this assembly onto the spindle (bevelled edge outward) and tighten the spindle screw.
17. Adjust the spindle screw as necessary to allow the wheels to turn freely and then tighten the locknut.

HINTS AND TIPS ON CUTTING ACM

a) A set of wheels, unless damaged, will typically last from 3-12 months.
b) All ACM's have a relatively wide dim. tolerance. +/- 2mm on width, +/- 3mm on length and +/- 5mm corner to corner are typical. This cutter will cut a straight line +/- 1mm. Always remember that if the board is not square to start with, cutting it in half means you will then have two boards, neither of which are square.
c) Twin wheel cutters like this perform like a guillotine. Expect one side of the cut to be very slightly rounded. A slight hook at the start and finish of cut is also normal.
d) Some ACM's can be tough to cut. We always recommend blocking the material with the two production stops and two quick stops to give added lateral support.
e) This twin wheel cutter can work successfully on MDF and some plastics. As long as you refrain from using excessive force feel free to experiment.

BRAND NAMES - Alucobond®, Alumalite™, Alupanel®, Dibond®, Reynobond®



NOTE. TOOLHOLDER TH#3A IS AN OPTIONAL EXTRA FOR V GROOVING ALUMINIUM COMPOSITES.

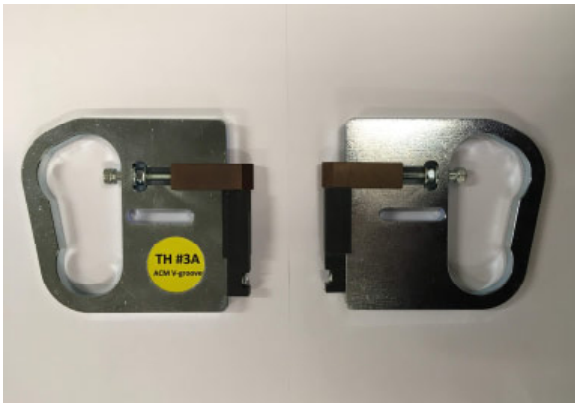
Toolholder TH#3A has been specially designed to cut a strip of material from the surface of aluminium composite sheets enabling bending and folding of the substrate for a wide variety of applications. Follow these instructions for optimum safety, cut quality and performance.

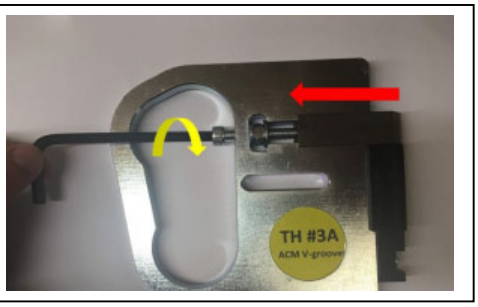
INSERTING THE TOOL CARTRIDGE AND SETTING THE DEPTH

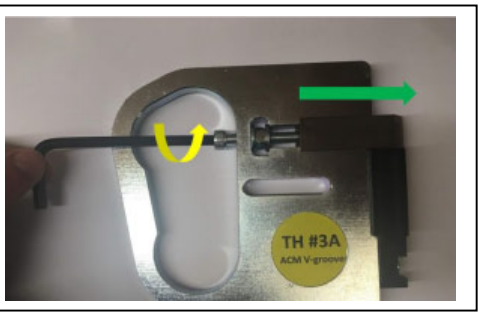
1. Remove the retaining knob.
2. Place the Toolholder between the nylon bearing surfaces and replace the retaining knob. DO NOT tighten at this stage.
3. Clamp a sample of material, the same as you are about to cut, at a comfortable working height.
4. Position the cutting head so the V groove blade is resting on top of the material and the plastic spacer is up against the surface of the material.
5. Tighten, BUT DO NOT OVERTIGHTEN the retaining knob.
6. Turn the depth adjustment screw using the 5mm allen key supplied with the Multi Substrate Cutter. Turn clockwise to decrease the depth of cut or anti-clockwise to increase it. As a general rule, allow a minimum of 0.5mm of the material's plastic core, plus the aluminium skin, to remain after the material has been cut.
7. Tighten, BUT DO NOT OVERTIGHTEN the retaining knob.

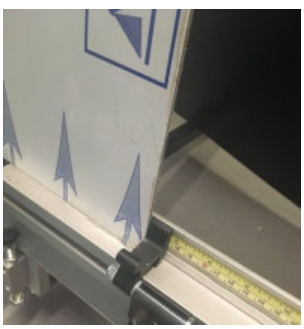
MAKING THE CUT

8. Move the cutting head to a resting position above the height of the material to be cut.
9. Set the production stops to the appropriate dimension.
10. Insert the ACM and slide it gently against the production stop and apply the clamp.







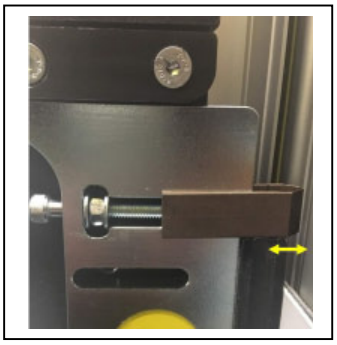


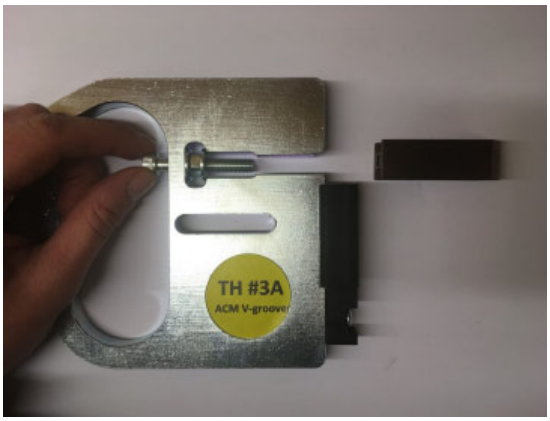
Position the cutting head so the V groove blade is resting on top of the material and double check that the plastic spacer is up against the surface of the material.

11. Grasp both handles on the cutting head and pull/push downwards in a slow steady manner to make the cut. Complete the cut by pulling/pushing the head down to its bottom resting place.
12. Unclamp the material and remove it from the machine and bend as required.
13. Return the head to its resting position.
14. IMPORTANT – ALWAYS ENSURE THAT THE PLASTIC SPACER IS IN FIRM CONTACT WITH THE MATERIAL SURFACE BEFORE STARTING EACH CUT.

CHANGING THE BLADE

15. Turn the blade depth adjustment screw anti-clockwise until the blade is free to be removed.
16. Fit the new blade with the cutting edge facing downwards and turn the blade depth adjusting screw clockwise to engage.
17. Reset the blade depth as above.



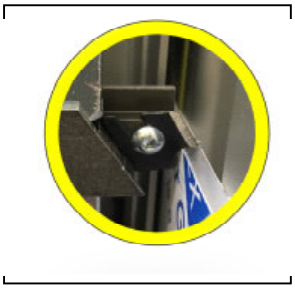


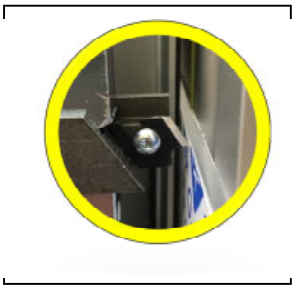
NOTE. TOOLHOLDER TH#3B IS AN OPTIONAL EXTRA FOR SCORING FRACTURE SENSITIVE ACRYLICS AND OTHER FRACTURE SENSITIVE RIGID PLASTICS.

1. Remove the retaining knob.
2. Place the Toolholder between the nylon bearing surfaces and replace the retaining knob. DO NOT tighten at this stage.
3. Clamp a piece of material, the same as you are about to score, at a comfortable working height. NOTE – THERE IS NO NEED TO REMOVE THE PROTECTIVE FILM FROM THE PLASTIC.
4. Position the cutting head so the tip of the scoring blade is resting on top of the material (fig.1).
5. Tighten the securing knob.
6. Pull back the spring loaded blade holder and position the tip of the scoring blade 1mm below the top edge of the substrate. You are now ready to create the score line.

MAKING THE SCORE

7. Move the cutting head to a resting position above the height of the material to be scored.
8. Set the production stops to the appropriate dimension.
9. Insert the acrylic and slide it gently against the production stop and apply the clamp.
10. Repeat steps 4 – 6 above.
11. Grasp both handles on the cutting head and pull/push downwards in a slow steady manner to make the score. Complete the cut by pulling/pushing the head down to its bottom resting place. NOTE – MOVING SLOWLY WILL CREATE A SMOOTHER EDGE.
12. One pass should be enough for materials up to 3mm thick. Three or more passes may be required when scoring thicker materials. This is achieved by pulling the blade back against the spring and lifting





the head back to the start position and repeating from step 6 as often as required.

RUNNING THE SCORE LINE

13. Unclamp the material, remove it from the Apollo and snap by hand. NOTE – USING THE EDGE OF A TABLE OR SIMILAR WILL MAKE THIS JOB EASIER. PLACE THE SUBSTRATE SO THAT THE SCORE LINE IS ON THE EDGE OF THE TABLE AND APPLY PRESSURE TO THE PART OVERHANGING THE EDGE TO START THE RUN AND SEPERATE THE TWO PIECES. (fig. 5).

REPLACING THE BLADE

14. Using the 2mm allen key supplied with the Multi Substrate Cutter, loosen the M3 screw and slide out the old blade.
15. Fit the new blade and tighten the M3 screw.

NOTE. TOOLHOLDER TH#3C IS AN OPTIONAL EXTRA FOR SCORING GLASS.

CAUTION: REMEMBER TO ALWAYS WEAR EYE PROTECTION, GLOVES AND PROTECTIVE CLOTHING WHEN HANDLING GLASS.

GLASS SHOULD NOT EXTEND BEYOND THE LEFT HAND SIDE OF THE MACHINE WHEN SCORING.

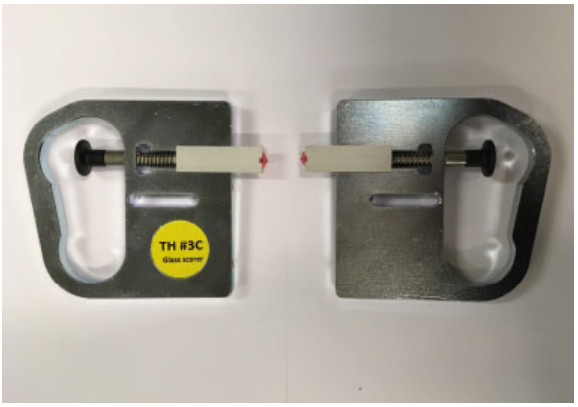
1. Remove the retaining knob.
2. Place the Toolholder between the nylon bearing surfaces and replace the retaining knob. DO NOT tighten at this stage.
3. Use a piece of 3mm or 5mm PVC as a backing board. Place it so that the right hand edge is flush with the right hand edge of the spine extrusion. This will prevent the glass damaging the painted surfaces of the support arms and the silicone rubber grip strips. It will also assist with running the score line.

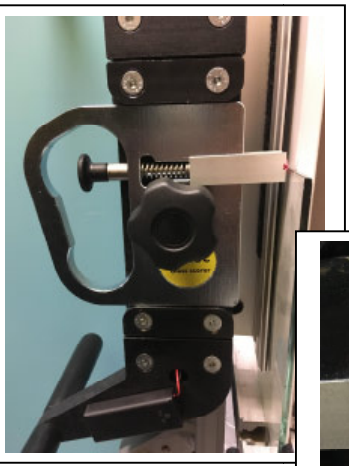
MAKING THE SCORE

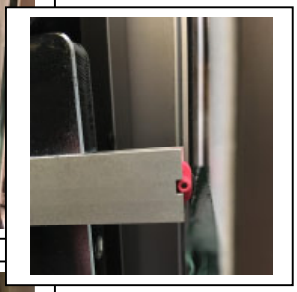
4. Move the cutting head to a resting position above the height of the material to be scored.
5. Set the production stops to the appropriate dimension
6. Slide the glass from the left on top of the PVC backing board and gently against the production stop.
7. Gently apply the clamp.
8. Position the cutting head so the cutting wheel is resting slightly above the top of the glass and the plastic holder touching the front of the glass.
9. Tighten the securing knob.

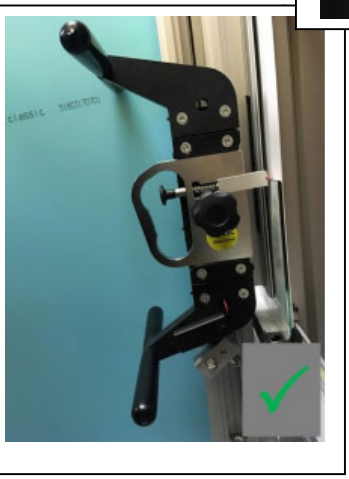
MAKING THE SCORE

10. Pull/push the cutting head down the full length of its travel in one firm continuous movement. You will hear and see the score produced.









11. The best score is one without flaking. FLAKING INDICATES THAT TOO MUCH PRESSURE IS BEING USED. THE PRESSURE CAN BE DECREASED BY TURNING THE KNOB ANTI CLOCKWISE AND INCREASED BY TURNING IT CLOCKWISE.
12. Unclamp the glass and move it so that the score line is on the edge of the PVC backing board. Re-apply the clamp.

RUNNING THE SCORE LINE

13. Apply bending pressure with your thumb at the lower right corner of the glass. For narrow strips use a set of glazier's pliers.

REPLACING THE WHEEL

1. Gently prise the plastic cartridge from the aluminium holder.
2. Refitting is a reversal of the removal.

NOTE. TOOLHOLDER TH5 IS AN OPTIONAL EXTRA FOR CUTTING SHEET ALUMINIUM.

THIS TOOL OPERATES IN EXACTLY THE SAME WAY AS TH #2. SEE SECTION 6.3

Toolholder TH#6 has been specially developed to cut anything that can be cut with a Stanley type knife up to 20mm (3/4") thick. This would typically include recyclable honeycomb boards, foamboard and corrugated plastic sheets.
Follow these instructions for optimum safety, cut quality and performance.

⚠ CAUTION: EXERCISE EXTREME CARE WHEN HANDLING BLADES.

FITTING THE BLADES

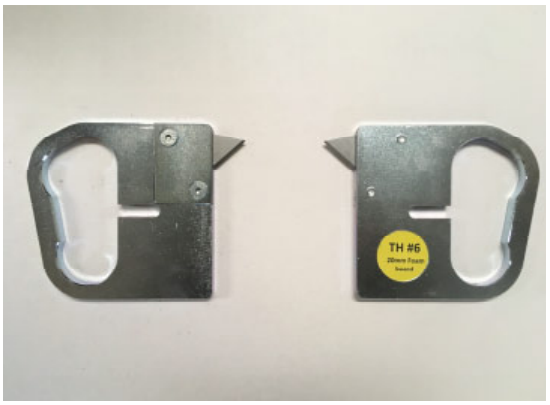
1. Remove the toolholder clamp plate by undoing the two countersunk screws.
2. Place the heavy duty utility blade in the toolholder. The position is clearly indicated. Remember you can use both ends of the blade.
3. Refit the clamp plate and tighten the two countersunk screws.

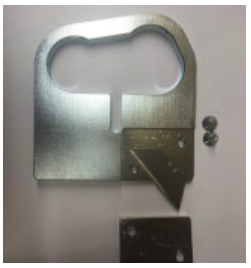
INSERTING THE TOOL CARTRIDGE AND SETTING THE DEPTH

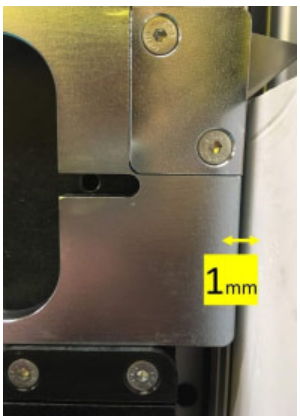
4. Remove the retaining knob.
5. Place the Toolholder between the nylon bearing surfaces and replace the retaining knob. DO NOT tighten at this stage.
6. Clamp a sample of material, the same as you are about to cut, at a comfortable working height.
7. Slide the Toolholder forward until the front of the Toolholder is about 1mm away from the face of the material.
8. Tighten, BUT DO NOT OVERTIGHTEN the retaining knob,
9. Toolholder TH#6 is now ready for use.

MAKING THE CUT

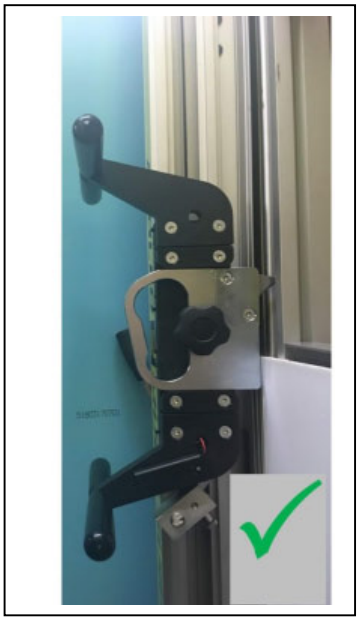
10. Move the cutting head to a resting position above the height of the material to be cut.
11. Set the productions stop to the appropriate dimension.







12. Insert the substrate and slide it gently against the production stop and apply the clamp.
13. Grasp both handles on the cutting head and firmly pull/push downwards in a slow steady manner to make the cut. Complete the cut by pushing the head down to its bottom resting place.
14. Unclamp the material and remove it from the machine.
15. Return the head to its parked position above the height of the material you are cutting.



HINTS AND TIPS ON CUTTING WITH THE TH#6

a) Blade life will vary enormously depending on the substrate being cut. As a general rule anything made from paper is highly abrasive and need s the blade to be extremely sharp. Quality of cut can deteriorate after no more than 5-10 cuts. Plastics are much less abrasive an a longer blade life can be expected.
b) As long as you refrain from using excessive force, feel free to experiment.

BRAND NAMES OF FOAMBOARD - - Fome-cor®, Foam-X®, Gatorfoam®, KAPA®
BRAND NAMES OF CORRUGATED PLASTIC - Coroplast®, Correx®, Omni-Flute™
BRAND NAMES OF HONEYCOMB BOARD - BioBoard™ , Falconboard™ , Re-board,® X-board,

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