TRIMALCO

LARGE FORMAT CUTTERS

www.trimalco.com made in the UK

ATHENA A3

INTEGRATED CUTTING SYSTEM

Owners Manual for models

70/110/160/210/260/310/360

Introduction

Thank you for purchasing this Table Top 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 Table Top 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 MACHINE COMES FULLY ASSEMBLED AND THE LONGER MODELS ARE VERY 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.

Your machine comprises of the following items:

ATHENA A3 CUTTER
A3 FIXINGS BAG
CUTTER RAIL ACCESSORY BAG

Fastenings can come loose in transit. Do not throw any packaging away until installation is complete.

CHECKING THE WORK TABLE FOR INSTALLATION

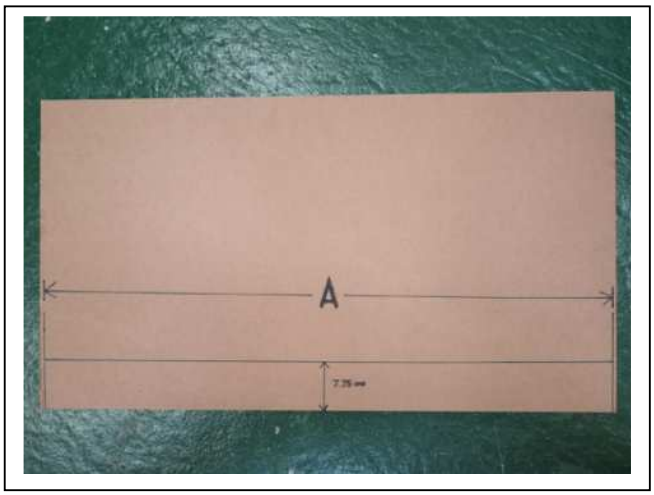
The cutter can be fixed to one of our purpose built tables or it can be fitted to an existing table. The table needs to be rigid with a flat worktop made from MDF or similar and capable of accepting the fixing screws. The table top needs to be flat to within 3mm (1/8")

To enable the flip-over storage function to operate, the cutter must be fitted along the front edge of the worktop.

If the cutter is to be mounted along the front edge, draw a line 7.75 cms (3.1") in from, and parallel, to the front edge. The line "A", should be the overall length of the cutter.

✂ 70cms (28")	A = 90cms (36")
✂ 110cms (44")	A = 130cms (52")
✂ 160cms (64")	A = 180cms (72")
✂ 210cms (84")	A = 230cms (92")
✂ 260cms (104")	A = 280cms (112")
✂ 310cms (124")	A = 330cms (132")
✂ 360cms (144")	A = 380cms (152")

Should you wish to use the cutter say 15cms (6") from the front edge then draw the line 15 + 7.75 = 22.75cms (9.1") from, and parallel to, the front edge.



CHECKING AND ADJUSTING THE WORKTOP FOR FLATNESS

You can check the flatness of the worktop by stretching a thin piece of strong thread between two blocks of the same height. Measure the highest and lowest part of the worktop under the thread, the difference should not exceed 3mm (1/8"). If the difference is greater it will be necessary to adjust the flatness with a new top or by using spacers under each locating bracket.

CHECKING AND ADJUSTING THE WORKTOP FOR FLATNESS (continued).

Adjust the surface flatness by adding packing pieces, made from 1.5mm-3mm (1/16" – 1/8") thick rigid material such as PVC Foamboard, under the mounting plates during installation (see 3.3).

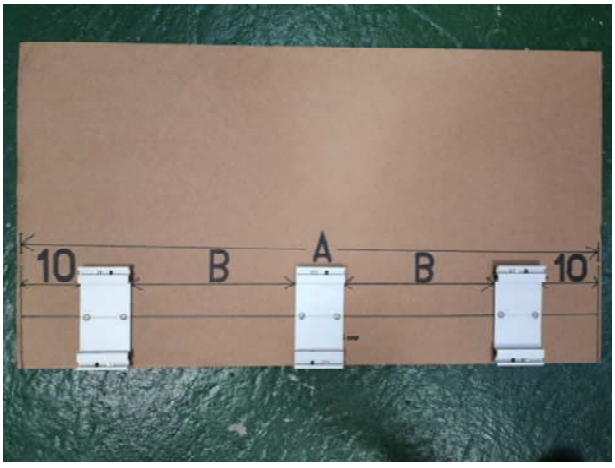
THE BASE LOCATING BRACKETS & MOUNTING PLATES

The base locating brackets and mounting plates are designed to hold the base of the cutter firmly in place and provide a means to adjust the base for both flatness and alignment of the cutting groove. Before fitting the brackets, check that the tips of the grub screws are aligned with the inside of the bracket. These are factory set but may have moved in transit. Check that the jacking screws are present and are finger tight.

IF YOU ARE FITTING THE ATHENA 3 TO THE ATLAS FOR ATHENA TABLE PLEASE PROCEED TO 7.1

POSITIONING THE BASE LOCATING BRACKETS & MOUNTING PLATES

Position a bracket & plate 10 cms (4") inboard from either end of the line drawn as described in 3.1, ensuring that the centre of the bracket is aligned with the pencil line and fix to the worktop using the screws provided. Position the remaining brackets accurately along the line with equal spacing (B) between each bracket. Check that all brackets are aligned correctly and if not, remove any incorrectly positioned brackets slightly to one side of the original position to create new screw holes.



3.5 BEFORE SET UP 3.5

FITTING THE CUTTER ASSEMBLY

Lift the cutter assembly and place it centrally on the locating brackets. The larger cutters are heavy and this will require two people.

Remove the clear stretch wrap and gently manoeuvre the assembly until it is located properly on each of the brackets.

Tighten the grub screws at the back of each bracket (see 4.1 picture 1) by 8 full turns and then tighten the front grub screws (see 4.1 picture 2) up fully (approx 7-8 turns).

4.1 SET UP 4.1

ADJUSTING THE CUTTING GROOVE ALIGNMENT

The cutter bar is guaranteed to be straight to within 0.4mm (.016”) along its full length. If you need to adjust the cutting groove in the base to match this, the base brackets provide the means to do so.

Adjust the straightness of the base by adjusting the front and rear grub screws in the base locating brackets.

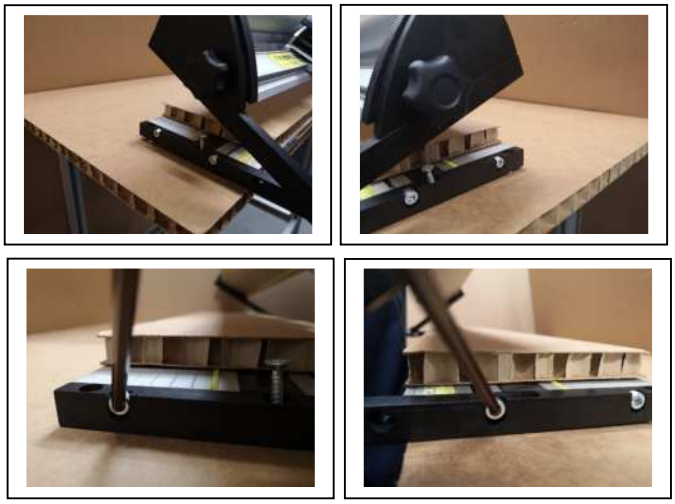
To move the cutting groove towards the back of the table, loosen the rear grub screw in the nearest bracket and tighten the front grub screw until the groove is aligned. Tighten the rear grub screw. To move the cutting groove towards the front of the table, loosen the front grub screw and reverse the sequence above.

ADJUSTING THE CUTTING GROOVE ALIGNMENT (cont).

If you find that there is insufficient base alignment using the adjusting screws it is probable that one or more of the brackets need to be removed and realigned on the table top.

THE ROTATING MECHANISM

Insert two of the four wood screws provided in the front holes of the fixed arm and screw them into the worktable but do not tighten.



Loosen by one full turn anti clock-wise, the four hexagon screws (two at each end) joining the fixed arms to the cutter base. Now fully insert the two wood screws.

When not in use, the cutter bar can be rotated to a safe position under the cutting table leaving the work surface free for performing other procedures.

NOTE: ASSISTANCE MAY BE REQUIRED, THE LONGER VERSIONS OF THESE CUTTERS CAN BE HEAVY

Carefully rotate the bar and place the remaining two wood screws into the two holes towards the rear of the fixed arms. Now tighten all four hexagon screws.

THE INTEGRAL LEVELLING ADJUSTMENT

It is essential that the material being cut is held securely in the cutter during the cutting process. There are two silicon cords on the underside of the cutter bar and one in the base to assist with this.

There is an integral levelling adjustment that allows the cutter bar to sit flat on any thickness of material. Place the material to be cut under the cutter bar and release the both knobs (RH shown opposite). The cutter bar will settle and sit on the surface of the material. Raise the cutter bar using the yellow lift handle and lower again to ensure correct alignment. Now tighten both knobs.

CHECKING AND ADJUSTING FOR FLATNESS AND GRIP

Check the grip of the cutter bar using a sheet of copy paper. Starting at one end, raise the cutter bar and place the paper under it. When lowered, the weight of the cutter bar should grip the paper. Try to pull the paper free, you should feel resistance. If there is not sufficient resistance, note its position and work your way along the cutter repeating the paper test and noting where it is not clamping.

Adjust the clamping using the jacking screws in the locating brackets next to the areas where the clamping is insufficient. Turning the screws clockwise as you look down on them will lift the base. Adjust the front and back screws by the same amount until the resistance is sufficient. You may find that two or three adjacent brackets need to be adjusted if a wide area does not provide sufficient clamping.

BUILDING UP THE TABLE TOP SURFACE

Once the cutter has been installed, all that remains is to raise the level of the surrounding surface by 19mm (3/4”). The best way of doing this is to add a new work top made from MDF or similar.

The worktop should not extend beyond the edges of the base extrusion.

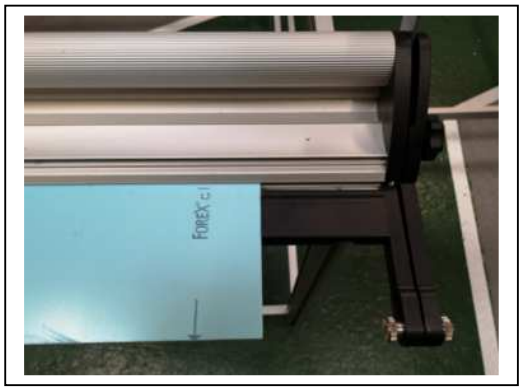
INSERTING THE MATERIAL TO BE CUT

Use either lift handle to raise the cutter bar. Place the material to be cut on the base and then lower the cutter. To align the edge of the cutter bar with your crop marks, slightly raise the cutter bar and adjust the position of the material at both ends. The blade will cut close to the edge. This small gap is intentional and allows easier alignment when cutting to the edge of an image.

Check that the width of the cutting bar (front edge to back) is lying flat on the surface of the material to be cut. If not, loosen both tilt adjustment knobs, raise and then lower the cutter to settle it into position and tighten both knobs. The cutter is now ready to cut all materials of that thickness.

The flip stop is provided to prevent tough materials such as PVC Foamboard from moving during cutting.

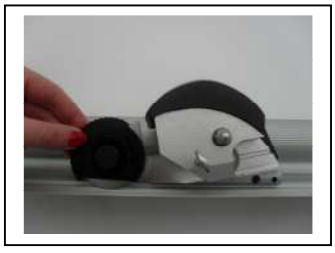
If you are cutting a small piece of board, place it against the flip stop and place scraps of the same thickness material along the length of the cutter bar to support it.



BLADES AND BLADEHOLDERS

All cutters come with two different blade holders as standard. One blade holder accepts Medium Duty Blades as well as a Scoring Blade for acrylic and other rigid plastics. A separate blade holder takes a rotary blade which is ideal for textiles and thinner materials.

To fit a blade holder, loosen the BLADE CLAMP THUMB SCREW and insert a cartridge. The utility blade and scoring blade cartridge is inserted from the rear of the holder and the textile blade cartridge is inserted from the front.



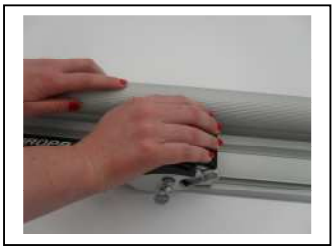
Wherever possible it is our policy to use standard blades. Each cutter comes with 100 x Medium Duty Utility Blades, 1 x Scoring Blade and 1 x Textile Wheel. All of these blades are available from your distributor.

USING THE UTILITY BLADE HOLDER

Blade depth is important and should be set so that the blade will cut through the thickness of material being cut plus 1mm. Avoid setting the depth too deep so that the blade tip hits the bottom of the cutting groove.

The utility blade can be located in any one of four positions allowing materials up to 19mm (3/4") thick to be cut. Fine adjustment of the blade depth can be carried out by undoing the BLADE CLAMP THUMB SCREW and moving the cartridge itself.

To cut lightweight materials, place your right hand on the cutter head, depress the cutter and pull the cutting head towards you. To cut heavyweight materials, place your left hand on cutter bar and apply downward pressure, place your right hand on the cutter head, depress the cutter with the palm of your hand and push away from you to cut. Multiple passes may be needed for thicker materials.



The cutting head requires no dexterity and can be easily used with the right and left hands.

USING THE SCORING BLADE HOLDER - The scoring blade should be located in the cartridge as shown opposite. To score fracture sensitive plastics such as acrylic use the same technique as used for cutting heavyweight materials (see above). To break, move the material so that the score line runs along the front edge of the table and using the cutter as a clamp, apply downward pressure to the overhanging plastic to break. (SAFETY GLASSES AND GLOVES SHOULD BE WORN)

USING THE ROTARY BLADE HOLDER

The rotary cutter blade holder supplied with this machine is used to cut textiles, thin paper and other flimsy material. It uses a circular blade to press down onto the substrate to be cut. The substrate being cut is supported by a plastic cutting strip embedded in the base of the machine. The blade guard makes it safe to handle but be careful as the blade is very sharp.

To change the cutting channel, first raise the cutter bar using the Lift and Hold lever. Then loosen both of the hinge location screws until the underside of the screw clears its location recess. Push the cutter bar back until the underside of the location screw lines up with the rear recess and tighten the hinge location screw. Repeat at the other end. The cutter bar is now positioned over the plastic cutter strip.

The cutting strip can also be removed, turned around or flipped over allowing four tracks to be used before the strip requires replacement. Replacement strip are available from your dealer.

CHANGING THE ROTARY BLADE

Blades can be replaced by undoing the knurled brass knob on the rear of the unit.

CLEANING AND LUBRICATION.

Regularly clean your Cutter rail using a dry cloth, stubborn stains can be removed with a cloth dampened with a little water/detergent.
Silicon spray can be used to lubricate the cutting head slideway.

NEVER USE OIL OR SPIRITS TO LUBRICATE OR CLEAN THE CUTTER RAIL, SOME OF THE PLASTIC COMPONENTS AND BEARINGS MAY BE DAMAGED

CUTTING HEAD BEARINGS

The bearings used to control the sliding motion of the CUTTING HEAD are made from a high-quality polymer and under normal use will last for an extremely long time. As they settle into position you may find a slight amount of side play, this can be removed by tightening the two adjustment screws.
Place the long end of the 2mm Allen key provided into any of the two grub screws and very gradually tighten with one hand while moving the cutting head along the cutter bar with the other. Once you feel the sliding motion begin to tighten, undo the screw the smallest amount, allowing the cutting head to slide easily.

Repeat this for the other screw.

7.1 FITTING TO THE ATLAS TABLE 7.1

POSITIONING THE BASE LOCATING BRACKETS & MOUNTING PLATES

Position a bracket & plate assembly 10 cms (4”) inboard from either end of the Athena Support Beam. Position the remaining assemblies along the length of the Athena Support Beam with equal spacing between each. If one of the bracket assemblies coincides with a centre frame beam simply move that bracket to either side of the it.

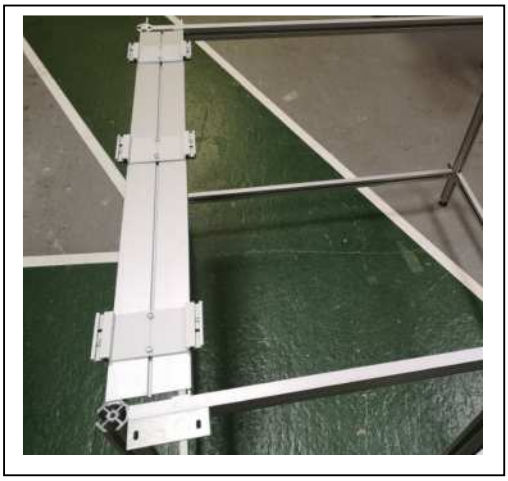
FITTING THE CUTTER ASSEMBLY

Lift the cutter assembly and place it centrally on the locating brackets. The larger cutters are heavy and this will require two people. Remove the clear stretch wrap and gently manoeuvre the assembly until it is located properly on each of the brackets. Slide the assembly left or right so that the holes in the fixed arms line up with holes in the support brackets fitted to the table. Insert the four button head screws and nuts (included with the table) at this point but do not tighten.

Loosen by one full turn anti clock-wise, the four hexagon screws (two at each end) joining the fixed arms to the cutter base (see 4.2). Now tighten the four button head screws fully insert the two wood screws.

Tighten the grub screws at the back of each bracket (see 4.1 picture 1) by 8 full turns and then tighten the front grub screws (see 4.1 picture 2) up fully (approx 7-8 turns).

The cutter bar is guaranteed to be straight to within 0.4mm (.016”) along its full length. If you need to adjust the cutting groove in the base to match this, follow the instructions in 4.1



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