NE-CUT

Board Cutter

Instructions for use

Preface

With this manual we want to give you an overview about the features and the operation of the board cutter Ne-Cut. Probably you can run this board cutter by intuition, but some aspects like adjustment and maintenance need some detailed knowledge.

Application

NE-CUT is suitable for boards up to a width of 530 mm. The maximum thickness of the board depends on the material you want to cut. You can cut FR4 up to 3 mm, aluminium depending on the alloy up to 2 mm and sheet steel depending on the alloy up to 0,8 mm.

The cut has to be done in one stroke by a normal strong man. A mechanical or electrical aid like a lever or a motor is not allowed. This might damage the board cutter irreparable.

The thinnest material you can cut is 0,1 mm (new board cutter or just sharpened blades assumed). This enables the cutter even to cut film material, clichés etc..

Technical Datas

- **Dimension (W x H x D):**
  74 cm x 29 cm x 45 cm
- **Weight:**:
  66 kg

Body

Except for the table and the hood the cutter is completely made of massive steel. The table is of sheet steel and is mounted with two screws to the body. The body of the cutter consists of the ground plate, two side parts and the lower blade holder.

Moveable parts are the exccentric shaft, the upper blade holder, the downholder and the lever. Besides of the table there are some

other add-on-parts like rear counter bar, the belonging slide beam with scale and the hood. The hood is made of transparent PVC.

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This enables you to have good control over the cutting zone without additional illumination.

Security

All dangerous parts are covered as far as technically possible and reasonable. The gap between table and downholder is only 5 mm, so it is almost impossible to get your hand into the blade while the downholder is mounted.

The only source of danger is behind the machine. Never pull the lever while you or anybody else is working behind the machine. Especially when somebody is trying to remove the cut boards from behind the machine.

Always were cut proof gloves when handling the blades. Secure the loose blades from being touched or from falling down.

Set Up

Important: Receiving the machine please immediately check for any transport damage. If you notice any transport damage please inform us and the carrier.

For transport reasons some parts of the Ne-Cut are disassembled: the rear counter bar, the belonging slide beam with scale, the lever and the hood.

First take out the filling material and then the disassembled parts. Bring the latter to the place where you want to operate the machine.

Because of its heavy weight carry the Ne-Cut only with two persons. Hold on one hand to the table and the other under the ground plate. The Operation place should be solid, even and not slippery. The room should have a non-corrosive atmosphere. A good access to the rear is important to assemble the counter bar and later on it will enable you to remove the cut boards easily.

Make sure to have enough light in the room. If necessary install a separate light source next to the machine in order to have a clear sight over the cutting area.

(1)

Mount now the add-on-parts. All you need is a set of Allen keys and a set of jaw wrenches.

Stick the lever into the opening on the right side of the eccentric axis, the chamfer pointing to the right. Tighten the lever with the headless Allen key screw (see picture1).

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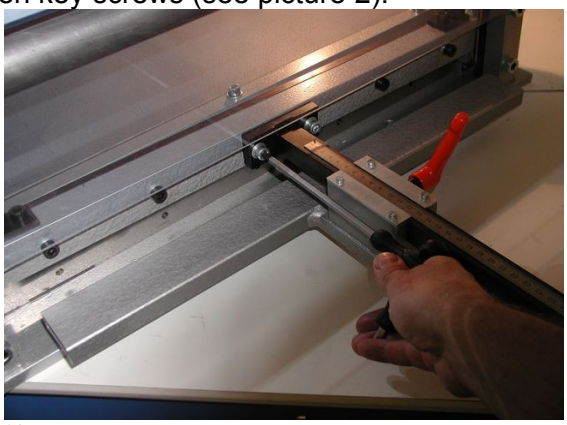
When you look from the rear to the upper blade beam you see two loosely mounted Allen key screws (see picture 2).



(2)

Unscrew them and adjust here horizontally the flange of the slide beam. Tighten the screws hand tight.

Set the counter-bar to a deliberate position. Turn the lever up and back to its home position. Take a wide board and scoop it first against the front counter bar and then against the rear counter bare.

Pull the lever until the downholder fixes the board. In this position you can adjust the height of the rear counter bar until it lies smooth against the board. Now tighten the Allen key screws.

The parallelity of the rear counter bare was preadjusted and proved before the machine left the company. However it happens sometimes that the rear counter bare does not fit after disassembly. The reason for this could be a an unevenness of the finishing coat. If you happen to notice a disparallelity after some test cuts please read chapter adjustment how to scale the counter bare again.

At last mount the hood and tighten it with four screws. The two notches of the hood belong to the rear side.

Operation

Adjust the size of the board to be cut with the rear counter bare: Loosen the orange knob by lifting and turning. Slide the counter bare to the rough dimension of the board, tighten the knob a little bit and adjust the zero position mark precisely by knocking against the skid of the counter bare. Then tight the knob firmly. Place the board against the front counter bare and push it against the rear counter bare. Pull the lever to the front and down. The downholder will clamp the board and then the blade will cut it. Pull the lever all the way back, so the downholder releases the board.

If you place the board precisely to the scale of the front counter bare, you can even perform some cuts without adjusting the rear counter bare. Or you can trim the rims of the board by sight. If you work without the rear counter bare, it can happen that the board is pushed back by the blade for about 0,1-0,2 mm. That is a general side effect of the cutting procedure and no defect of the machine. To reduce this effect we offer as an option a front parallel counter bare.

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Please make sure to take out regularly the cuts and the oddments from the ground plate of the machine. If the oddments are very small, they might stick underneath the blade. Attention: risk of injury! Lower the upper blade until the gap between upper and lower blade is closed before you remove these small parts.

Disassembly

Dismount the rear counter bare only for transport reason because you have to go through the adjustment procedure again after you mount the counter bare . This procedure is described in the chapters Set Up and Adjustment. The counter bare itself can be slid off the beam after the knob is loose.

For safety reasons always keep the downholder in its position. Nevertheless you can remove the downholder by pressing it down on the side till it comes free from the press beams which connect the downholder with the lowering mechanism. Turn away the press beams and lift the downholder. If you need to have access to the lower blade you must remove the table. Loosen the two screws which connect the table to the ground plate. After remounting the table you have to control the perpendicularity of the table and if needed readjust the scale of the front counter bare (view chapter adjustment).

After you removed downholder and table you see a square pipe which holds the lower blade. You can reach the attachment screws through the big top holes. Loosen the screws and take out the square pipe with the lower blade. If you untight the screw coupling you can remove the lower blade.

In order to remove the upper blade just loosen the screws of the upper blade beam.

Please pay attention to the alignment of the blades: do not change the angles of the blades when regrinding them and remount the blades into the same position they were before. After remounting the blades you need to readjust the gap between the two blades (see chapter Adjustment).

Attention, danger of injury! Always were cut proof gloves when handling the blades. Secure the loose blades from being touched or from falling down.

Under normal conditions it is not necessary to dismount the upper blade beam, the eccentric axis or other parts. Nevertheless if you must do so for repair reasons for example please get in touch with us.

Adjustment

Rear Counter Bare

After assembling the slide beam of the counter bare, take a preferable broad piece of board, push it against the rear counter bare and cut it. Prove the parallelity of this cut with a precise caliper gauge on the left and on the right. If the cut is not parallel, do the following:

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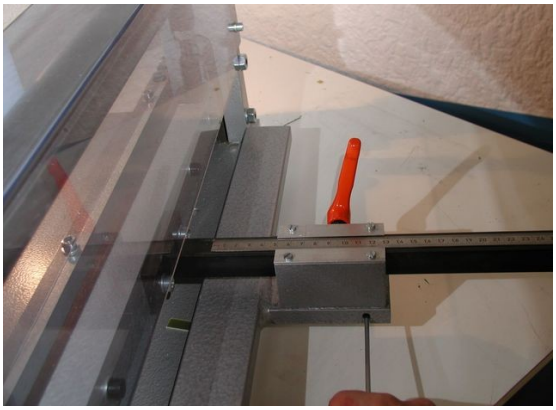
Take a jaw wrench and loosen the backmost of the two nuts underneath the counter bare.



(3)

To adjust the angle of the counter bare take an Allen key and turn the headless Allen key screws on the left and on the right of the counter bare (see picture 3).

On the side where you turn ***out*** the headless screw, the size of the cut will become ***smaller***. On the side where you turn ***in*** the screw the gap accordingly will become ***bigger***. Normally you will have to do a couple of test cuts till both sides are exactly equal.

At last tighten the nut from underneath the counter bare again and measure the size of the cut. Check if the zero position mark fits to the size of the cut. If not, loosen the screws of the metal plate and shift the zero position to its proper place.

Upper Blade

The upper blade is connected with screws to the blade beam. The only possible adjustment is the angle from left to right. This angles influences the power of the cut. The cutting goes easier when the angle is as aslope as possible. We preadjust the angle this way and you should avoid to change this since it influences the maximum thickness and width of the board to be cut as well as the shear forces attacking the boards (distortion). Change the angle by first loosening the counter nut and then turn the hexagon bolt between eccentric axis and blade holder.

Lower Blade

To disassemble the table and lower blade read chapter Disassembly. The lower blade is closely connected to its holder. To change the gap between upper and lower blade you can move the holder of the lower blade along the ground plate.

To do so use the 5 headless screws which you find between the steel bracket welded to the ground plate and the holder. First mount the upper blade and lower it down as far as possible.

For the now coming adjustment you need a distance template. You can take foil with a defined thickness of 0.1 mm or take two

sheets of normal paper. You calculate for metals a gap of 1/10 of the materials thickness. For pcb sheets you can reduce the gap.

(4)

Tighten the attachment screws of the holder just slightly and move the holder with the lower blade evenly against the template that lies before the upper blade. Tighten the attachment screws hand firm. Now loosen the counter nuts of the headless screws and turn these screws till they touch the holder (see picture 4).

Take the template out of the cutting gap.

Now cut small stripes of the thinnest material you want to cut (film material e.g.) all along the blade from the left to the right. At places where the material was not cut but only bend, turn in the nearest headless screw for some degrees and repeat the cut.

Repeat this action until your sheet was nicely cut all along the blade. Do not turn the headless screws too far, thus you may damage the blades. If the screws happen to be too far in, you have to loosen all screws and start the procedure once again. When you are done do not forget to tighten the attachment screws.

Front Scale

This adjustment is always necessary when the table was disassembled (change of blades). To assure a perpendicular cut walk through the following steps:

Check if the screws between table and ground plate are tightened.

(5)

Pull the machine over the edge of the table until you can reach the frontmost attachment screw of the

ruler. Loosen this screw carefully (see picture 5). Take a perpendicular test board, push it against

the upper blade and knock with a small plastic hammer against the ruler till the hole side of the ruler touches the board.

Tighten the attachment screw and make a test cut. Check the angle again. If you notice that the scale of the ruler does not fit anymore you will have to move the table itself. Or you can loose the other attachment screw of the ruler as well and move the ruler.

Maintenance

After use clean the machine from dust and swarfs by vacuuming especially the blades and behind the blades. Do not use compressed air to clean the machine from FR4 dust because then the fibre glass fibres are dispensed all over the room.

You can clean the hood with a smooth cloth and some non abrasive cleaner.

Clean and grease regularly all moveable parts, especially slides of the upper blade run and the rings around the eccentric axis. Depending on the amount of cuts and the material to be cut, the blades need to be exchanged or resharpened. We offer blades as spare part so you can keep a blade-set in reserve.

Warranty

We warrant the machine to be free of defects in material and workmanship under normal use according to this manual for a period of 12 months from the day of purchase. Defective parts will, at our choice, be repaired or replaced. Old parts become property of the Bungard company and must be returned to us. If defective parts cannot be exchanged at the customer's location, the machine must be returned to us for repair, shipment prepaid.

All parts subjected to wear are excluded from this warranty.

We do not warrant that the functionality of the machine will meet the customer's requirements or that the operation of the machine will to this regard be error free.

In no event will we be liable to the customer for any incidental, consequential, or indirect damages of any kind, including loss of profit, even if we could have been aware of the possibility of such damages. There is no warranty on damage due to improper handling, ignorance of this manual as well as normal wear out. We also do not warrant damaged or destroyed workpieces that might have been damaged by our machine.

This manual was edited with great accuracy . Nevertheless we exclude any liability in regard to this manual.

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