OP1.1 BASIC SETTINGS

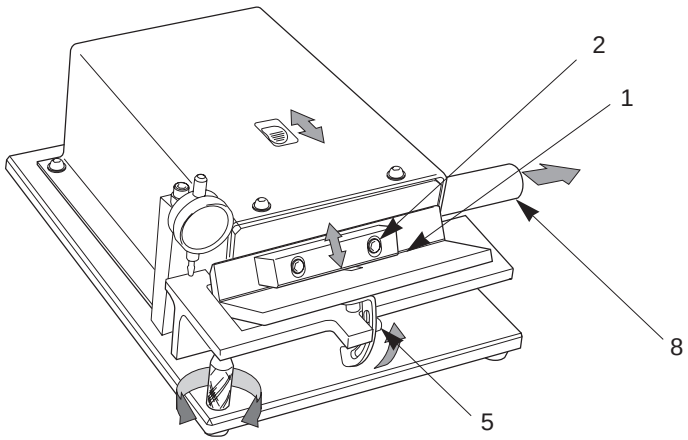


Fig 9. General Settings

WARNING: ISOLATE MACHINE FROM POWER SUPPLY BEFORE CARRYING OUT ANY MAINTENANCE

1. Position sample board between the adjustable guide block and positioning table.
2. Loosen two hex screws to release guide block and adjust until clearance meets 0.2mm (board installed)
3. Tighten screws and check clearance with feeler gauges.
4.The unit is supplied with the cutter set to neutral - ie. level with the face of the positioning table. See OP1.2 for adjustment to Positioning Table.
5. To adjust the angle of the bevel loosen hex screw and select the required angle using the set tools supplied.
6. Position the tool between the the fixed base plate and the pivoted positioning table as in Fig 8, page 9.
7. On completion, tighten lock screw.
8. A vacuum facility must be attached to the 30mm port located on the right hand side of the unit. This must be operational before starting the BevelCut motor.

OP1.2 ADJUSTMENTS

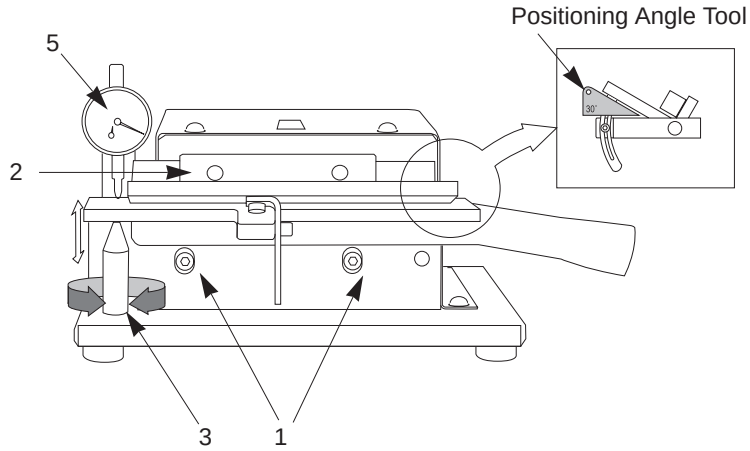


Fig 8. Cutter Height Adjustment

WARNING: ISOLATE MACHINE FROM POWER SUPPLY BEFORE CARRYING OUT ANY MAINTENANCE

IMPORTANT: It is important to establish how much adjustment, to the depth of cut, is required. Always start adjustments from zero.

1. Loosen two hex head screws just enough to allow movement of the positioning table.
2. Position a straight edge rule across the cutter face/positioning table.

NOTE: Use a matchstick or similar to rotate the cutter tool until one of the blades is at full height

3. Using the knurled adjuster, lower or raise the table until the cutter is in contact with the straight edge.
4. Tighten two screws
5. Once satisfied, reset the dial gauge to zero.
6. Run a test board and from the result determine the amount of additional adjustment required.
7. Repeat items 1,3 & 4 using the dial indicator to meter the exact adjustment.

MT2.1 MAINTENANCE

WARNING: ISOLATE MACHINE FROM POWER SUPPLY BEFORE CARRYING OUT ANY MAINTENANCE

Bevelcut has been designed for very low maintenance. However, it is vital that regular inspection of the cutter be carried out by the operator.

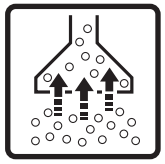
DAILY

1. Check Cutter condition
2. Check & empty vacuum dust bag

MONTHLY

1. Check Motor Drive Brushes for wear (replace if necessary)

2. Remove cover, clean dust deposits found inside cover and around motor. Dust buildup can cause premature bearing failure.



Sawdust Vacuuming

The dust produced while working can be detrimental to health, inflammable or explosive. Suitable safety measures are required.
Examples: Some dusts are regarded as carcinogenic. Use suitable dust/chip extractionand wear a dust mask.
Dust from PCBs can burn or explode. Always keep the workplace clean, as blends of materials are particularly dangerous

0.4 LAYOUT & CONTROLS

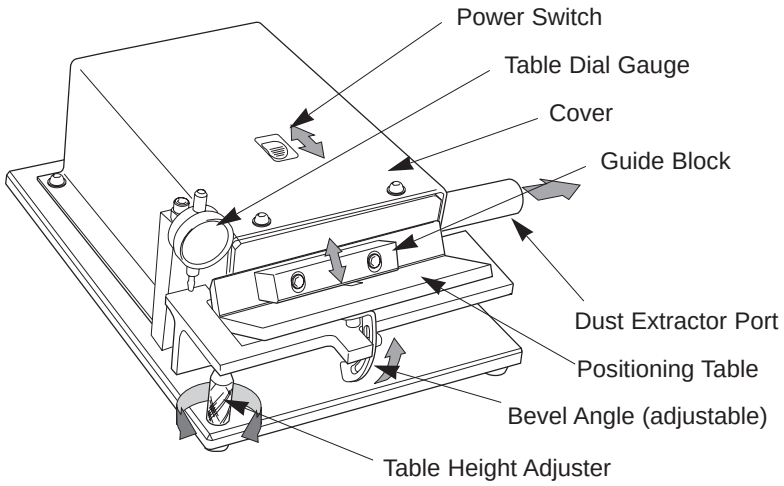


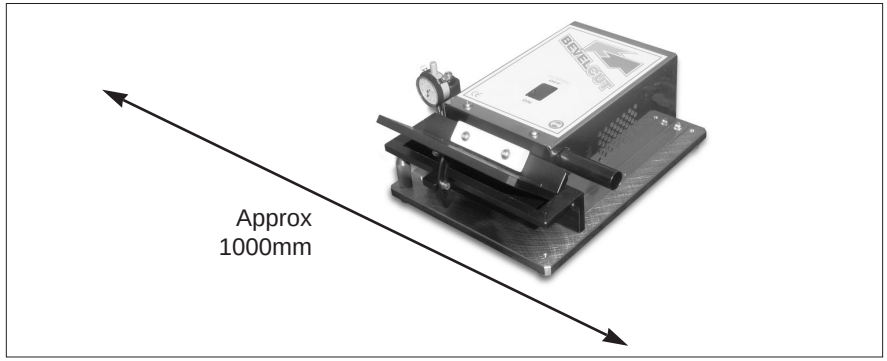
Fig 8. Blade Removal

WARNING: DO NOT ATTEMPT TO OPERATE THIS ITEM UNTIL COMPLETELY FAMILIAR WITH THIS MANUAL.

1. The BevelCut Unit is simple to set up and operate.
2. Boards are located between guide block and the positioning table.
3. With the machine running the board is fed through the guides with a light but firm pressure.

NOTE: A Vacuum supply must be available and activated before the BevelCut unit is turned on - a 30mm extractor port, built onto the BevelCut unit, must be connected to the Vacuum supply.

0.3 INSTALLATION



1. Uncrate the Bevelcut machine and position it on a workbench with sufficient work space around it (see figure 1).
2. Ensure all components are present (See Check List Section 0.2)
3. Locate the unit close to a 13 amp power socket
4. Consideration should be made for stacking space adjacent to the unit for panels and finished pcb's.
5. Read & Fully understand the Safety Instructions (below) and Operator Manual before turning the unit on.

SAFETY INSTRUCTIONS

1. Read this instruction manual carefully BEFORE operating the machine. Do not attempt to operate the machine until you are totally familiar with its safe operation.
2. Do not operate the machine with any safety guards or safety switch mechanisms removed.
3. Do not tamper or modify any safety guards or devices.
4. Do not perform any setting up procedures with the machine switched on.
5. Do not place hands near the cutter whilst machine is in use.
6. Do not wear loose clothing, jewellery or unrestrained hair styles whilst operating this machine.
7. Always disconnect the power supply from the machine BEFORE carrying out repairs or maintenance.
8. Always wear safety glasses or a face shield and ear protection when operating this machine
9. Always wear gloves when replacing cutters
10. This machine MUST be operated by only ONE person at a time.
11. Ensure effective exhaust of dust before operating this unit

MT2.2 CUTTER REMOVAL

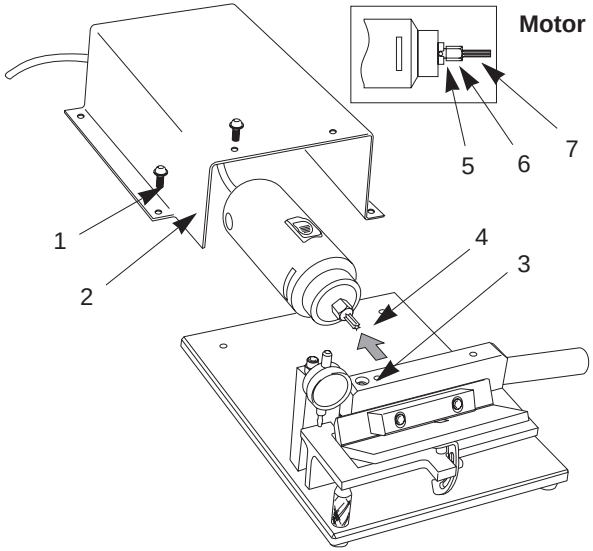


Fig 9. Cutter Removal

WARNING: ISOLATE MACHINE FROM POWER SUPPLY BEFORE CARRYING OUT ANY MAINTENANCE

1. Remove six Cover securing screw
2. Lift cover away (it is necessary to feed the power cable through the grommet at the rear of the cover)
3. Loosen the 10mm hex socket clamp screw.
4.Withdraw the motor assembly from the clamp block.
5. Install Rotor locking tool bar.
6. Use chuck spanner in conjunction with rotor locking tool to release the cutter tool.
7. Use protective gloves to withdraw and handle cutter tool.

NOTE: NEVER handle cutter tool with bare hands. Worn cutter tooling will compromise finish quality.

8. Installation is the reverse of removal - Ensure the power switch is located at the top when repositioning the motor.
9. the cutter tool must be located fully home in the chuck
10. Locate motor fully home to shoulder before tightening clamp screw. Do not over tighten clamp screw or damage to motor will occur.

MT2.3 MOTOR BRUSHES

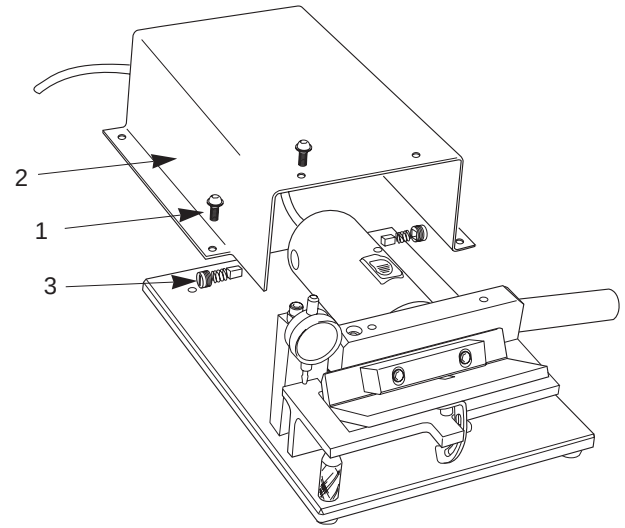


Fig 12. Brush Replacement

WARNING: ISOLATE MACHINE FROM POWER SUPPLY BEFORE CARRYING OUT ANY MAINTE-NANCE

1. Remove six cover retaining screws.
2. Feed power cable through grom-met at rear of cover and position cover to one side.
3. Remove brush holders (2 off) and replace brush elements.
4. Reassembly is the reverse of removal.

0.2 TECHNICAL DATA

Specification

Length	325mm
Width	305mm
Height	165mm
Weight	15.4Kg

Y!

Cutter Speed	20,000rpm
Cutter diameter & angle	6mm Carbide
Board positioning	Hardened & Ground Slideway
Cutter depth adjustment	Adjustable Table
Exhaust Vacuum Requirements	250cfm (minimum)
Electrical supply	Single phase 240V x 6amp

CHECK LIST

The following equipment has been packed and checked before despatch. Uncrate the Bevelcut *CAREFULL* **Do not handle Bevelcut roughly. Ensure that all of the equipment is unwrapped from its individual packaging before discarding the packaging.**

IMPORTANT NOTICE
The guarantee on this equipment will be invalidated if damage occurs either through negligence, mishandling or incorrect installation.

Packing List

- **Bevelcut machine with Cutter (fitted).**
- **Set of Allen key tools**
- **Cutter chuck locking tool & spanner**
- **Preset Angle Tools**

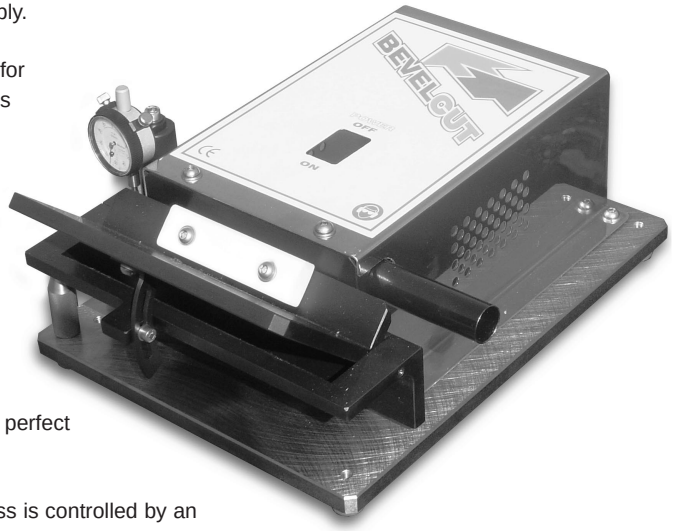
CE

0.1 INTRODUCTION

Design Principles

Bevelcut has been designed to apply a precision, controlled bevel to PCBs. **BevelCut** provides quality assurance where exacting standards are required for precise PCB installation, quality finish and reliable processing where edge contact applications are crucial.

Bevelcut will eliminate the need for time consuming and often inacurate manual finishing methods, providing a clean, consistent edge for more accurate assembly.



Bevelcut is designed for simplicity and effortless operation, achieving clean-cut results without damaging board or components which are installed. **Bevelcut** has a variable depth and angle positioning table which provides quick and accurate adjustment to achieve perfect results.

Varying board thickness is controlled by an adjustable guide ensuring the boards consistent relationship with the cutter.

Construction

The unit consists of a zinc plated steel chassis with polished stainless steel cover. The fixed speed carbide cutter provides exceptional accuracy for any pcb material. The bench-top design is supplied with 13 amp single phase cabling ready for installation and set up which can be carried out in less than 5 minutes.

SY3.1 FAULT FINDING

PROBLEM	REASON	SECTION
BEVELCUT NOT WORKING	*Check fuse in switch or plug* *Check cable is installed* *Check power switch is **ON***	IN 0.4
BEVELCUT POWERS UP BUT DOES NOT CUT	*Cutter tool is loose in chuck* *Positioning table is too high*	MT2.2 OP1.2
INTERMITTENT TRIMMING & ROUGH EDGES	*Damaged or worn blades* *Not enough pressure applied to locate board*	MT2.2
BOARD WILL NOT ENTER GUIDES	*Adjust Guides*	OP1.1
BOARD ENTERS GUIDE BUT LABOURS PAST CUTTER	*Positioning table too low **or** adjust guide clearance*	MT2.2 OP1.1
LARGE ACCUMULATION OF DUST	*Dust extraction inoperative or receptical full*	CHECK
EXCESSIVE VIBRATION	*Worn bearings or overtightened motor clamp*	MT2.2

SY3.2 SPARE PARTS LIST

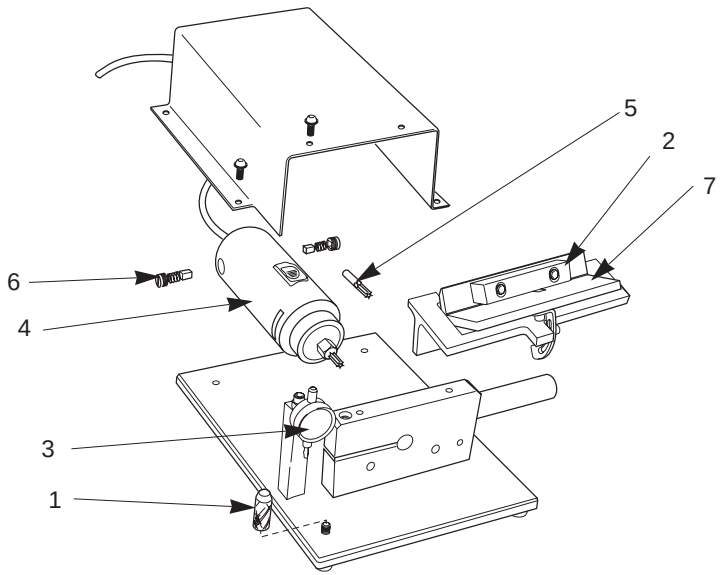


Fig 11. Spare parts

DESCRIPTION	PART NO	QTY
1 KNURLED WHEEL/ ADJUSTER	ED0118	1
2 GUIDE BLOCK	ED0132	1
3 DIAL GAUGE	ED0140	1
4 MOTOR ASSEMBLY	ED0142	1
5 CUTTER TOOL	ED0116	1
6 MOTOR BRUSH KIT	ED0108	2
7 POSITIONING TABLE ASSY	ED0110	1

Contents

CE

BevelCut
Board Profiler

Instruction Manual
Operator Manual
Maintenance Schedule
Systems Support

Details about this unit:

Ref/Serial Number ----------

Inspection Date ----------

Special Notes regarding this particular unit

Supplied by: Seetrax CAE Ltd

SY 3.3 WARRANTEE

General
Replacement will be furnished of parts found to be defective in workmanship or material, under normal one-shift conditions, within six months from the date of shipment, upon receipt of the defective goods at our factory. All necessary items or equipment furnished by us with this equipment are subject to the warranty issued by, or considered standard practice, by the representative manufacturers and is warranted or guaranteed by us accordingly.
There will be a charge for service calls made by our technicians if the calls are proven to be unnecessary due to the failure of your maintenance department to follow corrective measures on problems given during telephone conversations with our engineering department. These charges will be made at our normal service charge rate.
No claims will be entertained for loss of production whether related to the use or equipment or delivery of equipment or consequential loss or damage to business incurred by the buyer. No allowance will be made for repairs or alterations unless specifically authorised by the manufacturer.
Exemptions
Carbide cutters supplied with is machine are not covered by this warranty.
This warranty will be invalidated if non-Genuine Parts are used on the equipment.
Important
Always quote the Units Serial Number - found at the front of this manual and on the side of the machine - when ordering parts or service.

Noise/Vibration Information

Measured values determined according to EN50 144
Typically the A-weighted sound pressure level of the product is 82dB (A)
The noise level when working can exceed 85dB (A)
-Wear Ear Protection!-
The typical weighted acceleration is 4,0m/s^2

Declaration of Conformity

We declare under our sole responsibility that this product is in conformity with the following standards or standardization documents: EN 50 144 according to the provisions of the directives 89/336/EEC, 98/37/EC

Subject to change without notice

OPERATORS MANUAL

(INCORPORATING SERVICE, MAINTENANCE & SPARES SCHEDULES)

MANUAL

Supplied by:

Bevelcut SERVICE & SPARES
Tel: 01425 489666