

Operating & Maintenance Instructions

145 Profile Cutter

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1. Introduction

The trimming of vacuum formed mouldings can be a laborious and skilled process. This can make it difficult, especially in a classroom environment.

The 145 is designed specifically for the trimming of mouldings, up to a thickness of 3mm (1/8").

The machine consists of a standard two pole electric motor, mounted beneath the work table. The motor is fitted with an adapter, to accept a 1/8" carbide slot drill. The cutter is covered by a spring loaded guard, which also acts as a material clamp and a guide. The fence can be moved to trim mouldings either with or without a flange.

Using the 145, mouldings can be trimmed quickly, accurately and safely.

2. Health & Safety Information

The 145 uses a rotating cutter to trim the moulding. When using the machine, always observe the following:

Never attempt to touch the cutter while it is running.

Never use the machine with the guard removed.

Always ensure that the cutter is completely covered by the guard.

Always disconnect the machine from the mains prior to adjustments.

Should there be any queries regarding Health & Safety aspects of the 145, please refer back to the manufacturer or their nominated distributor.

3. Specifications

Mechanical specification

Maximum material thickness	3mm (1/8in)
Cutter speed	2850 rev/min
Cutting tool	Carbide Slot Drill 1/8" diameter
Part Nos:	TOOL24 (CRC) 182-3747 (RS Comp)

Weights and Dimensions

Width x Depth x Height (mm)	305 x 400 x 330
Width x Depth x Height (in)	12 x 15.8 x 13
Weight	14kg (31lb)

Electrical specification

Voltage	220-240
Frequency	50/60Hz
Current - max	2.0A (Starting), 1.0A (Running)
Watts	180W

Noise Emissions

Noise Level	Minimal
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4. Positioning & Location

Your 145 should be positioned on a workbench of convenient height. Ensure that the machine is level and stable.

5. Assembly of Machine

Your 145 has reached you almost fully assembled. To prepare the machine for use, proceed as follows:

1. Fit the Footswitch (Refer also to Diagram 1 below)

- Remove the nut (3) from the footswitch connector (1) on the front panel of the machine.
- Slide the nut (3) onto the footswitch pipe (2).
- Push the footswitch pipe firmly onto the footswitch connector (1).
- Tighten the nut (3) back onto the footswitch connector (1).

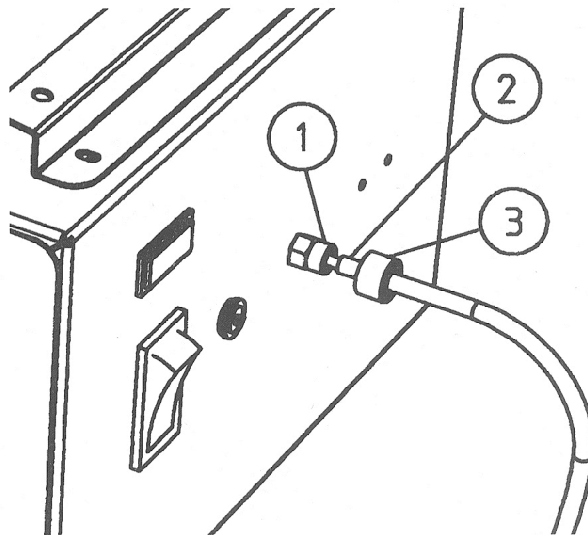


Diagram 1 – Fitting the Footswitch

2. Fit the Mains Lead:

- The mains lead connects into the IEC socket on the rear of the machine (1) in Diagram 2 below).

3. Connect the Machine to a suitable Extraction source:

There is a large hole on the side of the work table. A suitable extraction source (i.e. a vacuum cleaner) can be connected to this port. It is advisable to connect the machine to an extraction source. Should you wish to run your machine without extraction, the area beneath the table should be cleaned after each two hours of cutting.

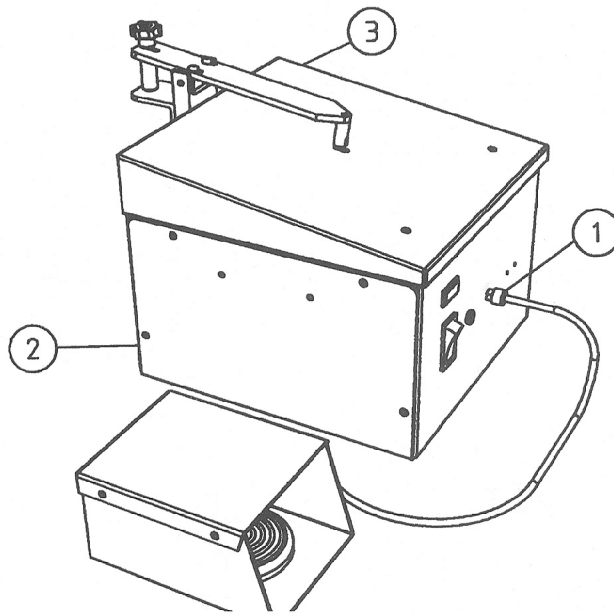


Diagram 2 – Fitting of Mains Lead & Extraction (Optional)

6. Electrical Supply & Connection

The electrical specification of your new machine is as follows:-

Voltage	230 / 240V AC 50 / 60Hz 220V AC 60Hz (North America)
Current (max)	2.0A
Watts	180W

Electrical supply to the machine must be in accordance with the details shown on the rating label. As the colours of the wires in this mains lead may not correspond with the coloured markings identified in your plug appliance, should the plug need to be changed proceed as follows:-

Standard Specification

The wire which is coloured green and yellow must be connected to the terminal which is marked with the letter E or by the earth symbol or coloured green and yellow or green.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured blue or black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured brown or red.

North American Specification

The wire which is coloured green must be connected to the terminal which is marked with the letter E or by the earth symbol or coloured green and yellow or green.

The wires which are coloured black and white must be connected to the silver coloured terminals. Polarity is unimportant.

Should there be any queries regarding the electrical requirements of the 145 please refer back to the manufacturer or their nominated distributor.

7. Machine Controls

The machine controls are shown in Diagram 3 below.

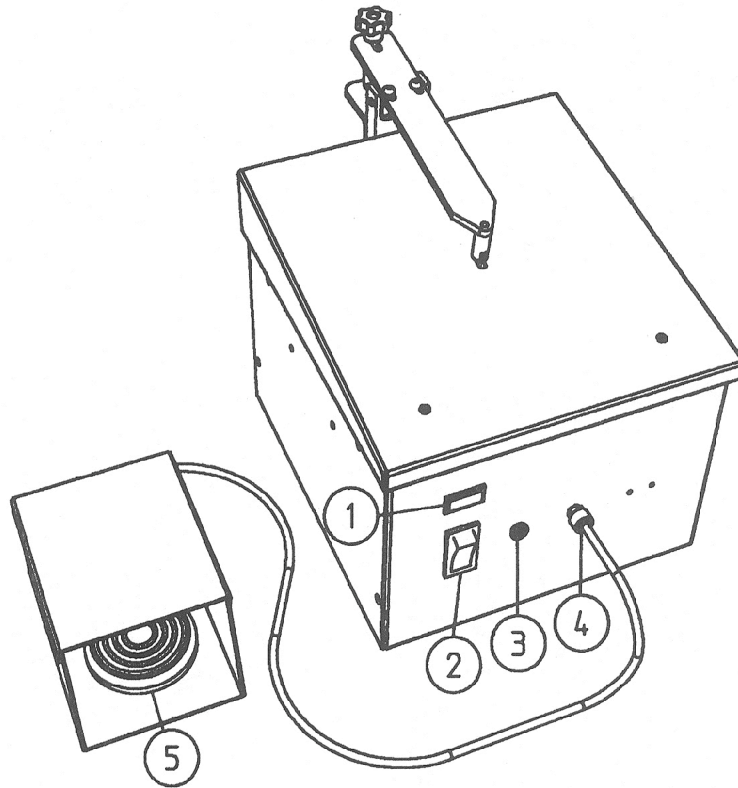


Diagram 3. Machine controls

1. Mains available indicator (Green). Indicates that power is available to the machine.
2. Mains On – Off switch. O = Off, I = On. Illuminates orange when switched on. This switch has a built in no-volt release. In the event of a power failure, manual reset is required before continuing.
3. Circuit Breaker (2.5A). Protects the motor from overload. The white button will pop out should the circuit breaker operate, push in to reset.
4. Footswitch connection – see Section 5 above.
5. Footswitch. Press the footswitch to start the motor. Release to stop the motor.

8. Guard Adjustment

Your machine is fitted with a cutter guard which also acts as a work clamp and a work guide. The features of the guard are as follows:

1. Work Guide / Clamp

This is a slotted aluminium shoe. It is sprung to support the material during cutting. Using the adjustment (2) below, it can be moved so that it will leave a flange on the moulding, or cut into the corner.

2. Flange Adjustment

Two screws secure the Work Guide Support Arm. Once these screws are slackened, the work guide can be adjusted to give the required flange.

IMPORTANT. – WORK SAFELY.

ALWAYS ENSURE THAT THE CUTTER IS COMPLETELY COVERED BY THE WORK GUIDE

3. Height adjustment

Tightening this handwheel raises the work guide. Slackening the handwheel lowers the work guide. Raise the guide for thicker materials or for cutting through flanges. Lower the guide for thinner materials.

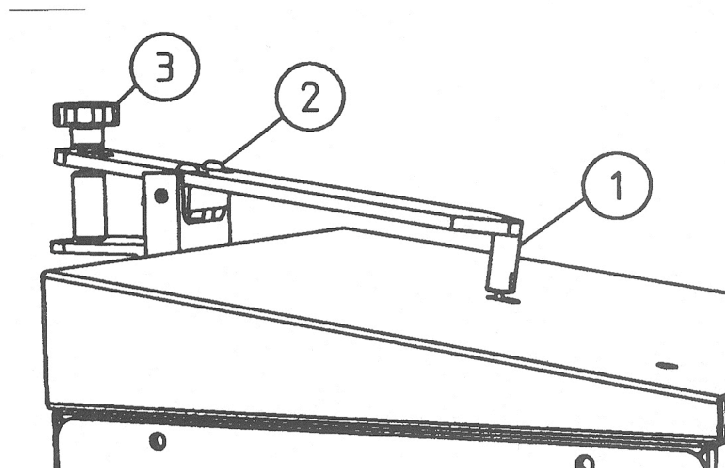


Diagram 4 –Guard Adjustments

9. To Trim a Moulding

- Set the Guard to give the required flange and clearance.
- Switch on the machine.
- Load the material.
- Press footswitch to start cutter.
- Trim moulding. To keep the flange consistent, always use the front of the work guide against the moulding, rotating it as required.
- Once the moulding has been trimmed, release footswitch and remove.
- Remove the scrap flange.
- Should any secondary trimming be required (for example car body wheelarches), orientate the moulding accordingly, reset the Guard and continue.

10.Changing a Cutter

Disconnect the machine from the Mains Supply.

Remove two screws (1) in Diagram 5 below.

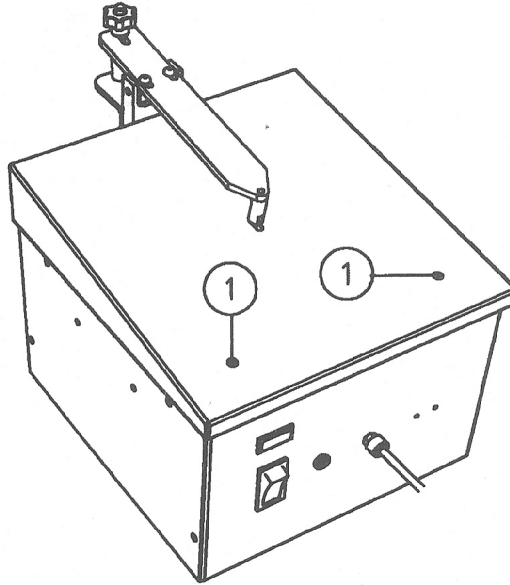


Diagram 5 – Location of Table Screws

Tilt the table back to expose the cutter area.

Using a 2mm Hexagon key, slacken the top screw of the cutter clamp (1) in Diagram 6 below.

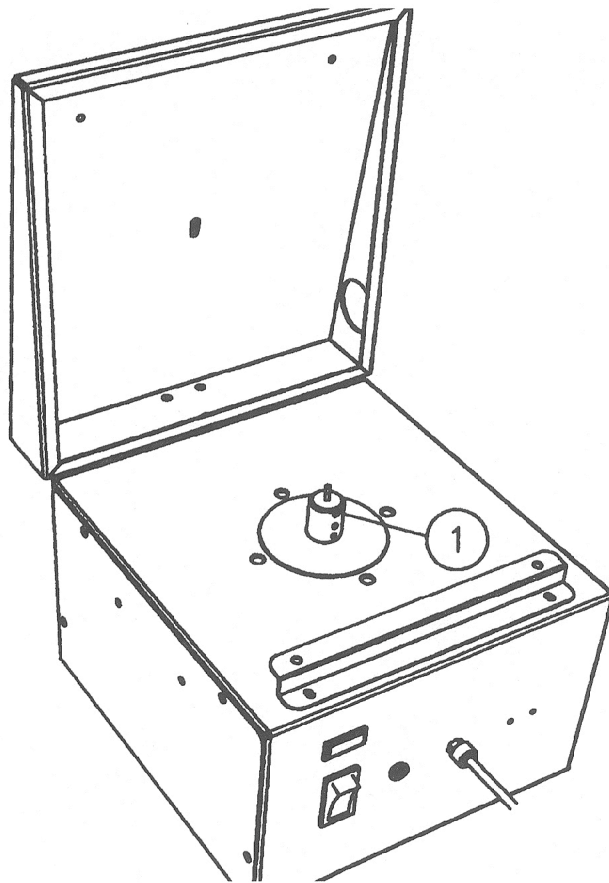


Diagram 6 – Cutter Clamp Screw

Remove the cutter and fit replacement. The cutter should be set with 18mm exposed from the cutter clamp.

Tighten screw in cutter clamp.

Close table and secure with two screws.

Check the cutter visually – it should protrude through the table by 4mm.

11.Maintenance

The only regular maintenance required is as follows:

- Changing the cutter
- Cleaning of swarf (if no extraction used).

Should there be any queries regarding the 145 Profile Cutter, please contact the manufacturer or their nominated Distributor.

12.Connection Diagram

