

CROPOMATIC

component lead cutting machine



*the science of successful
component lead cutting*

1 Assembly

PCB's are assembled on a low cost mild steel plate drilled as a copy of the circuit board but with slightly larger holes. Components are then assembled with long leads for ease of insertion, passing through both the circuit board and the plate. If small boards are used several can be assembled on one plate. The long leads protrude from the underside of the plate.



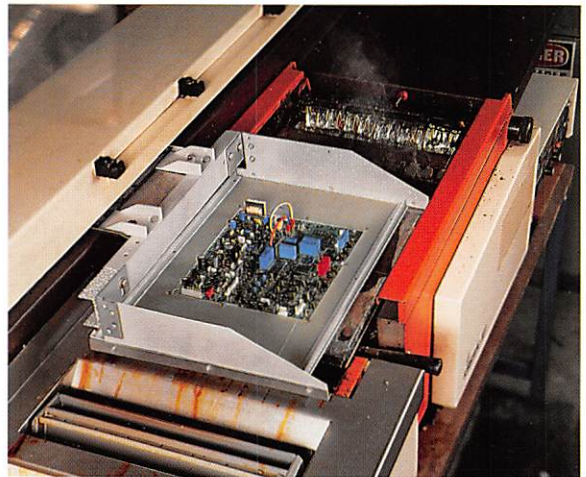
2 Cropping

When assembly is complete the assembled plate is placed onto the **CROPATIC** and the automatic cycle is initiated. 5000 pins are lowered onto the board gently but firmly holding all the components in place. Then, spring loaded, serrated cutters operating in a zig-zag pattern against the underside of the plate neatly and evenly shear all the leads to a consistently accurate length equal to the thickness of the plate used.



3 Soldering

After cutting, the circuit board is lifted off the plate and taken to the flow soldering machine. The clean, bright metal of the leads cut by the **CROPATIC** speeds up and improves "wetting" during the flow soldering operation, so dry joints are virtually eliminated.



t h e b e n e f i t s

Complimentary to surface mount and automatic insertion technologies

Even for boards heavily populated with surface mount, or auto inserted components with bent leads on the underside of the PCB, the remaining leads of the hand assemble components can still be efficiently cut on the **CROPOMATIC** by providing slots in the tooling plate to isolate and protect them from the cutting action.

Speed with economy of labour

The **CROPOMATIC** cuts a single board of 406mm x 254mm or a combination of small boards up to this area in 45 seconds. It is a non skilled operation and can be performed by individual assembly staff or the flow solder machine operator.

Accurate finished lead length

The accurate, burr free cut, produced by the **CROPOMATIC** enables production of professional looking boards which conform to Ministry and other critical lead length specifications.

No necessity to pre-form

If pre-forming is to be carried out, this can be done by leaving longer lead lengths for easier assembly. Or components can be used straight from stores without any lead preparation whatsoever.

Flexibility of assembly system

Any assembly system can be used, the plates providing positive support, especially if many small boards are on one plate.

No setting up

The machine never has to be set or altered irrespective of the shape of the circuit board or the components that go on it.

Low capital cost per operator

Only one machine per assembly shop is normally required.

Long cutter life

The cutters operate in two alternate directions, evenly distributing the wear on each face. They can also be inverted to give a further full life, and can be resharpened time and again. Replacements if required, are inexpensive.

450 installations, 15 year proven service

t h e b e n e f i t s

computerised plate service

At **Cosarnia Ltd** we have a fully computerised plate making facility which allows us to offer a fast cost effective service to our **CROPOMATIC** users.

We can work direct from customers CAD file or by automatically scanning the actual PCB for hole size and positions.

Finally the plates are produced on a CNC punching machine which can produce up to 14,000 holes or slots per hour.

technical specifications

Dimensions:	Height: 1270mm Depth: 940mm Width: 610mm
Weight:	180 kilo
Power Supply:	415 Volts, 3 Phase, 50HZ
Consumption:	420 Watts
Cycle Time:	45 seconds
Plate Size:	457mm x 305mm (18" x 12")
Cropping area:	406mm x 254mm (16" x 10")
Cropping area using double pass:	Up to 406mm x 560mm (16" x 22")
Maximum component height:	50mm (2")
Lead Length	Equal to plate thickness
Plate thickness stocked	0.6, 0.75, 1.0, 1.25, 1.6 & 2mm
Blades	Cobalt Tool Steel
Blades Guarantee	1 year sharpening, 5 year life.

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