

# Ultrasonic Die Polishing Machine BD 500 M

## Die Polishing Machine

### SPECIFICATIONS:

Die size worked	: 0.10 to 3.0 mm
Electrical supply	: 220-240V 3A 50/60Hz 1 Ph
Air supply required	: 4 Bars (60 PSI) 1/4" bore hose
Ultrasonic generator	: 500W 20Khz
Finish	: Grey hammer with S.S panels
Cooling	: Air cooled
Needle holders	: for Ø 4 - 5 mm needles
Needles	: Ø 4 - 5 mm
Special tool	: 20 / 8 - 20 / 12 - 20 / 16 mm

### DIMENSIONS:

Width	: 512 mm
Height	: 750 mm
Depth	: 400 mm
Weight	: 65 Kg



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The BD 500 M is designed to polish Diamond and P.C.D. dies in the range from 1.5 mm to 9.0 mm.

The machine comprises a self contained bench unit housing the ultrasonic generator, ultrasonic head and oscillating die table assembly. The working part of the machine is fitted with an acoustic enclosure which can easily be swung open to afford access to the die table.

All the controls are clearly arranged on the front panel to optimise ease of operation. The die table is supported in air bearings which enables the die pressure to be finely controlled depending on the size of die under repair. The angle of the die table oscillation can be readily adjusted on the front panel and set to the required angle for mirror polishing.

For dies up to 3.5 mm diameter, 4 - 5 mm diameter hardened steel consumable needles are fitted into aluminium alloy tools. Needle changing is simple and clean without the need for solder or brazing and up to 20 dies can be worked with a single needle.

For dies above this size, 8 mm, 12 mm and 16 mm diameter hardened steel tools are screwed directly into the transducer.

Mirror polishing of the entire profile can be carried out without operator supervision, the working period being controlled by a process timer.



The surface finish of large P.C.D. dies can be maintained without size enlargement if drawing rings have not been allowed to develop. The unit is supplied complete and ready to use, with a complete range of ultrasonic tools and accessories.

To maintain accurate and consistent die geometry during the shaping process, we recommend the use of the BD 500 SA Ultrasonic Machine, which features an integral needle grinding facility. We also recommend for final sizing the RF 99 wire machine.

