

Semi Automatic Ultrasonic Machine BD 500 SA

Die Shaping & Polishing Machine

SPECIFICATIONS:

Die size worked	: 1.5 to 9.0 mm
Electrical supply	: 220-240V 5A 50/60Hz 1 Ph
Air supply required	: 4 Bars (60 PSI) 1/4» bore hose
Ultrasonic generator	: 500 W 20Khz
Cooling	: Air cooled
Finish	: Grey hammer with stainless steel panels
Grinding system	: Manually with grinding wheel
Needle holders	: for Ø 4 - 5 mm needles
Needles	: Ø 4 - 5 mm
Special Tools	: 20 / 8 - 20 / 12 - 20 / 16 mm

DIMENSIONS:

Width	: 770 mm
Heigh	: 950 mm
Depth	: 400 mm
Weight	: 101 Kg



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The BD 500 SA is specially developed to shape and polish natural and polycrystalline diamond dies from 1.5 mm to 9.0 mm, while maintaining accurate and consistent die geometry.

Semi automatic needle grinding reduces each machining cycle to only a few seconds resulting in a marked improvement in accuracy and a significant saving in time compared to manual needle grinding on a separate grinding machine.

The feature makes the BD 500 SA ideal for repairing dies with accurate control of reduction, entrance and exit angles, greatly enhancing the performance of the wire drawing dies in operation.

The oscillating die table allows it to perform mirror polishing and blending of the die profile with impressive results, this is particularly important when repairing relatively coarse grain PCD dies blanks.

The manually operated needle grinding takes approximately 5 to 25 seconds, depending on the size of die under repair.

Tool changing is simple, the machine is supplied with tapered steel needles, fitted into aluminium holders, for dies up to 3 mm to 3.5 mm and 8 mm, 12 mm and 16 mm hardened steel tools for larger dies sizes.



The following parameters are preset by the operator :

- drill angle to be ground
- duration of ultrasonic machining
- ultrasonic power level
- die table working pressure
- oscillating angle for the polishing operation

It is recommended, for sizing, that the BD 500 SA machine is used in conjunction with the RF 99 wire machine.

