

The new BD 140 VGA evo2 has been specifically developed to reshape and repolish natural and polycrystalline wire drawing dies from 0.10/0.20 to 2.50 mm. This machine will maintain a precise die geometry and produce a mirror polish on the die profile, both of these features are essential to ensure a high quality die repair, maintain good die performance and maximise die life.

The BD 140 VGA evo2 thanks to its new Ø 4 mm needles (length: 80 mm) can both shape and polish up to 30 to 40 dies using the cycle counter and operating time settings. The ultrasonic frequency between the generator and head is maintained a constant level which is a feature of the Balloffet machines.

The automatic cycle starts with the grinding system and produces a needle angle which is pre-set by the operator. The dies to be worked are loaded on to the machine and dosed with the required amount of diamond powder slurry. The head will lower and begin the ultrasonic die repair process.

The operator can previously set the following parameters:

- The needle angle to be ground
- The ultrasonic cycle time
- Number of working cycles
- Die table pressure
- No. of grinding cycles
- The granulometry of the abrasive mixture to be used
- and the needed quantity.

The machining cycles, grinding cycles, working time, will be set on the touch control screen placed on the machine control panel. This new interface allows a quick machine handling with a user-oriented ergonomics.

The dies can be loaded into the magazine and be worked without operator assistance. The machine will stop when the needle has been fully utilised. The finished dies are placed at the front of the machine before commencing a new die repair.

For shaping, the die geometry can be closely controlled and consistently reproduce an 'as new' Balloffet die profile.

Each needle, 4.0 mm standard diameter, is firmly fixed in the conical aluminium needle holder using the Balloffet needle press. This obviates the requirement to specially prepare the needle prior to use, and takes only a few seconds to fit, ensuring a perfect ultrasonic transmission during the life of the needle.

The 2.5 mm and 3.0 mm needles (length 62 mm) can still be used for the smallest diameters.



It is necessary to use the special Balloffet diamond powder. The particle shape and concentration are critical to the performance of the machine for shaping and polishing. The diamond powder pot is readily changed.

The touch control screen also allows:

- The manual control of the machine
- The input / output status
- A diagnostic mode

We can assist in the use of this machine for dies above 2.5 mm diameter upon request.

### **SPECIFICATIONS:**

Die size worked	: 0.10/0.20 to 2.5 mm
Casing sizes	: 25 to 28mm from 6 to 14 mm thick
Electrical supply	: 220V 8A - 50/60 Hz 1 ph
Ultrasonic power	: 140 W - 20 KHz
Grinder	: Automatic, special wheel
Needle holders	: 4.0 mm (2,5 mm and 3,0 mm)
Needle	: Ø 4.0 XL ( Ø 2.5L and Ø 3.0L)
Compressed air supply	: 4 bar - 1 /4" fitting

### **DIMENSIONS:**

Width	: 1100 mm
Depth	: 1140 mm
Height	: 480 mm
Weight	: 160 Kg