Diamond Burnishing Tools

Obtain an ultra-smooth surface finish
All Elliott Diamond Burnishing Tools are made with select industrial grade diamonds which will burnish turned or ground surfaces of most metals to a high-quality, 2 to 8 microinch finish. Cast iron can be burnished as low as 15 microinch finish.

Slim-line design
The slim-line design of the S2300-00 (with the 3/4” shank) makes the tool ideal for smaller lathes and allows for close approaches. The offset design sets the tool on correct centerline.

Easy to use
The tool mounts in the tool post of a lathe or turning center. The tool holder is set so that the diamond contacts the work at the center of the part at a 90° angle to its surface.

The Diamond Burnishing Tool is used in linear applications (OD’s, ID’s, and face surfaces). As the part is turned, the diamond, under spring pressure, is fed across at a feed rate of .003” to .004” per revolution at a maximum of 750 SFM. Use generous amounts of flood coolant when burnishing.

The Diamond Burnishing Tool can burnish interrupted surfaces such as key ways. This is accomplished by pre-loading the internal spring mechanism to allow a minimal amount of deflection of .005” maximum during burnishing.

Economical and affordable for all shops
The Diamond Burnishing Tool offers a low-cost method of finishing parts under Rc40 to a 2 to 8 microinch finish. It is possible to burnish harder materials, please call us for advice. The tool has a disposable diamond stem with a precision ground natural diamond mounted on the tip. When the diamond wears, the diamond stem is easily replaced.

Marketed Exclusively by:
Our standard diamond burnishing tools are as follows:

- S2300-00 - ¾" square with offset tool holder
- S2300-00M - 20mm shank with offset tool holder
- S2300A00 - 1" square with offset tool holder
- S2300A00M - 25mm square with offset tool holder
- S2300M00 - **NEW!!!!!!**
  1" x 25mm "square" shank with the diamond on center
  (pictured at right)

Diamond Tool Kits

All of the above tools are also available as kits which contain:
- a complete tool, spare diamond stem, spring and Allen key.
- The kit is in a plastic case that protects and ensures the life of the tool.
- The kit option is the most economical to purchase, saving you 10% over buying the parts separately.

S2295-00

Boring bar style diamond tool

The Elliott Boring-Bar Style Diamond Burnishing Tool is designed for lathes or turning centers to provide an improved surface finish in bores from .500" to approximately 1.375" diameter x 2.8" deep.

This burnishing tool can be used on most metals with a hardness below Rc 40.

It is possible to burnish harder materials, please call us for advice.

Marketed Exclusively by:

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