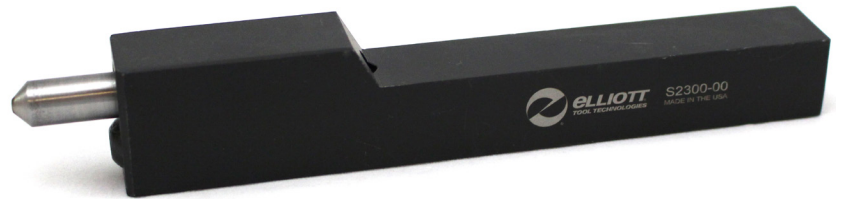


DIAMOND BURNISHING TOOLS

DBT

An economical and user-friendly tool for producing a mirror-like surface finish.



DIAMOND BURNISHING TOOLS WITH REPLACEABLE DIAMOND STEMS FOR A LOW COST METHOD TO PRODUCE AN ULTRA-SMOOTH SURFACE FINISH ON LINEAR SURFACES.

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 0.003" to 0.004" per revolution at a maximum of 750 SFM.

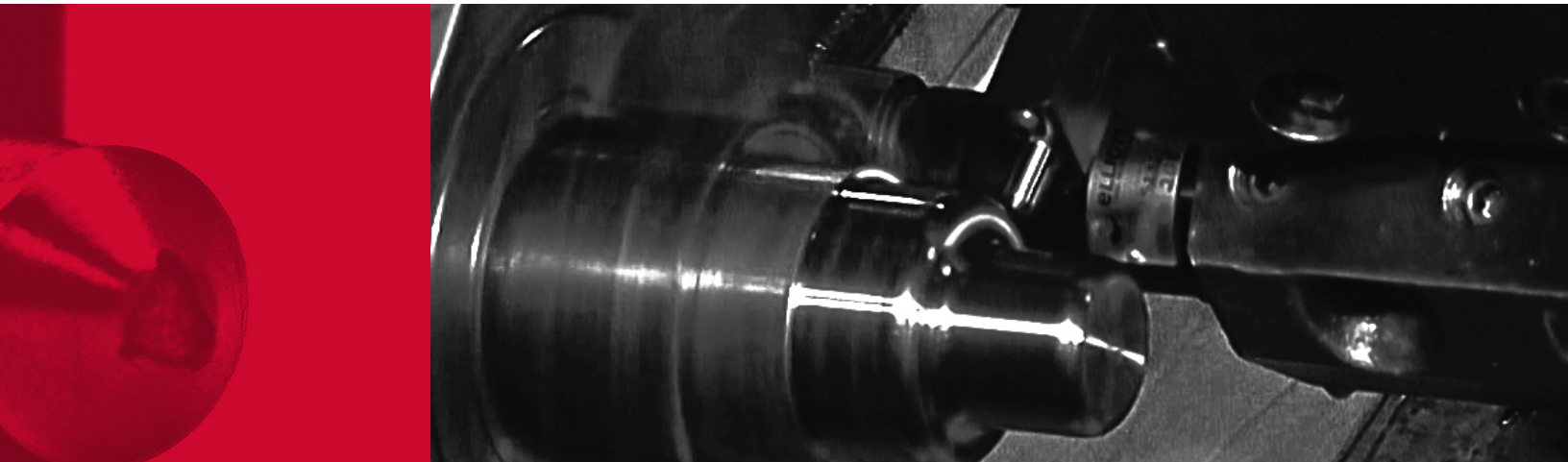
Available in inch and metric slim-line, square, offset, on-center, and boring bar styles.

Diamond Tool Kits

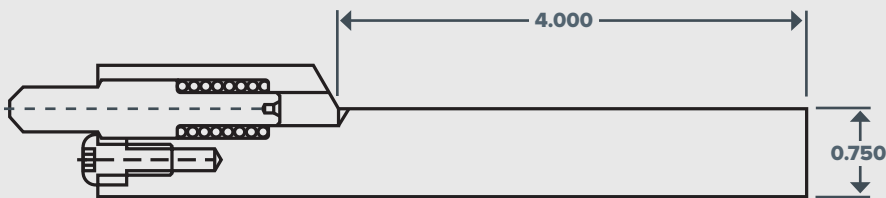
All diamond burnishing tools are also available as kits which contain: a complete tool, spare diamond stem, spring and Allen key.

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, giving significant savings compared to buying the parts separately.

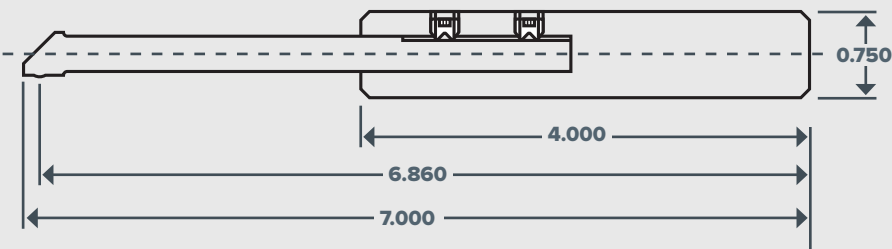


Stick tool style



The stick tool design of the S2300-00 (with the 0.750" shank) makes the tool ideal for smaller lathes and allows for close approaches. The offset design sets the tool on correct centerline.

Boring bar style



The boring-bar style tool (S2295-00) is designed for lathes or turning centers to provide an improved surface finish in bores from 0.500" to approximately 1.375" diameter x 2.800" deep. This burnishing tool can be used on most metals with a hardness below Rc40.

OUR STANDARD DIAMOND BURNISHING TOOLS:

| Tool # | Description |
|-----------|---|
| S2300-00 | 0.750" square with offset tool holder |
| S2300-00M | 20mm shank with offset tool holder |
| S2300A00 | 1.000" square with offset tool holder |
| S2300A00M | 25mm square with offset tool holder |
| S2300M00 | 1.000" x 25mm "square" shank with the diamond on center |
| S2295-00 | 0.750" square shank with boring bar arm on center |

REPLACEMENT PARTS FOR DIAMOND BURNISHING TOOLS:

| Complete Tool | Diamond Stem | Spring | Screw |
|---------------|--------------|------------|----------|
| S2300-00 | S375D1 | S375-4-165 | P8597-2N |
| S2300A00 | S375D1 | S375-4-165 | P8597-2N |
| S2300B00 | S375D1 | S375-4-165 | P8597-2N |
| S2300M00 | S375D1 | S375-4-165 | 128Y |
| S2295-00 | S2295D1 | -- | 548H |
| S2300-00M | S375D1 | S375-4-165 | P8597-2N |
| S2300A00M | S375D1 | S375-4-165 | P8597-2N |
| S2300B00M | S375D1 | S375-4-165 | P8597-2N |

STICK TOOL STYLE

OPERATING PROCEDURE

The stick style diamond burnishing tool is designed for use in turning machines. The tool should be mounted so that the diamond is perpendicular and on center to the surface being burnished.

PART PREPARATION:

100/120 RMS

FEED RATE:

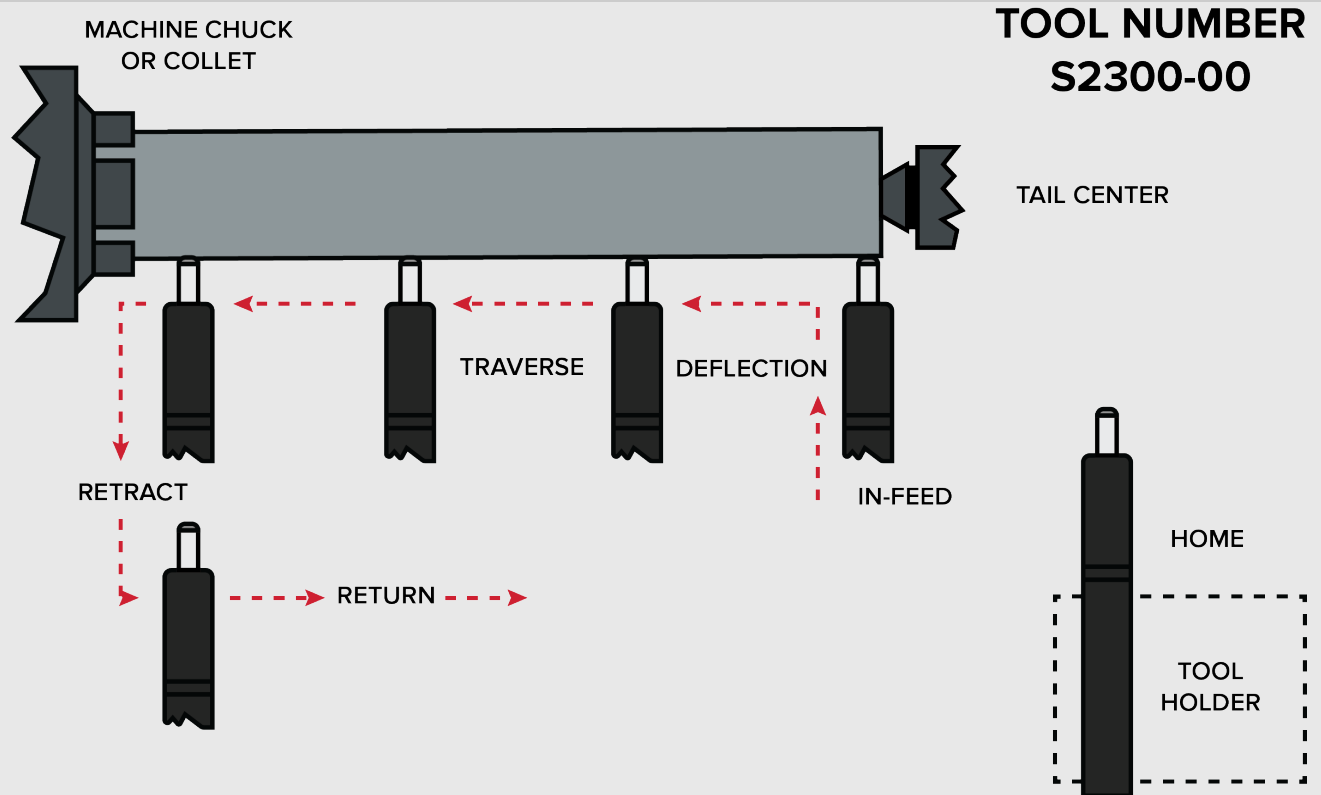
0.003"/0.004"

SPEED:

250 to 500 surface ft per min.
(750 Max)

COOLANT REQUIRED:

Water soluble or oil



BORING BAR STYLE

OPERATING PROCEDURE

The boring-bar style diamond burnishing tool is designed for turning machines to provide an improved surface finish on a machined part.

PART PREPARATION:

100/120 RMS

FEED RATE:

0.003"/0.004"

SPEED:

250 to 500 surface ft per min.
(750 Max)

COOLANT REQUIRED:

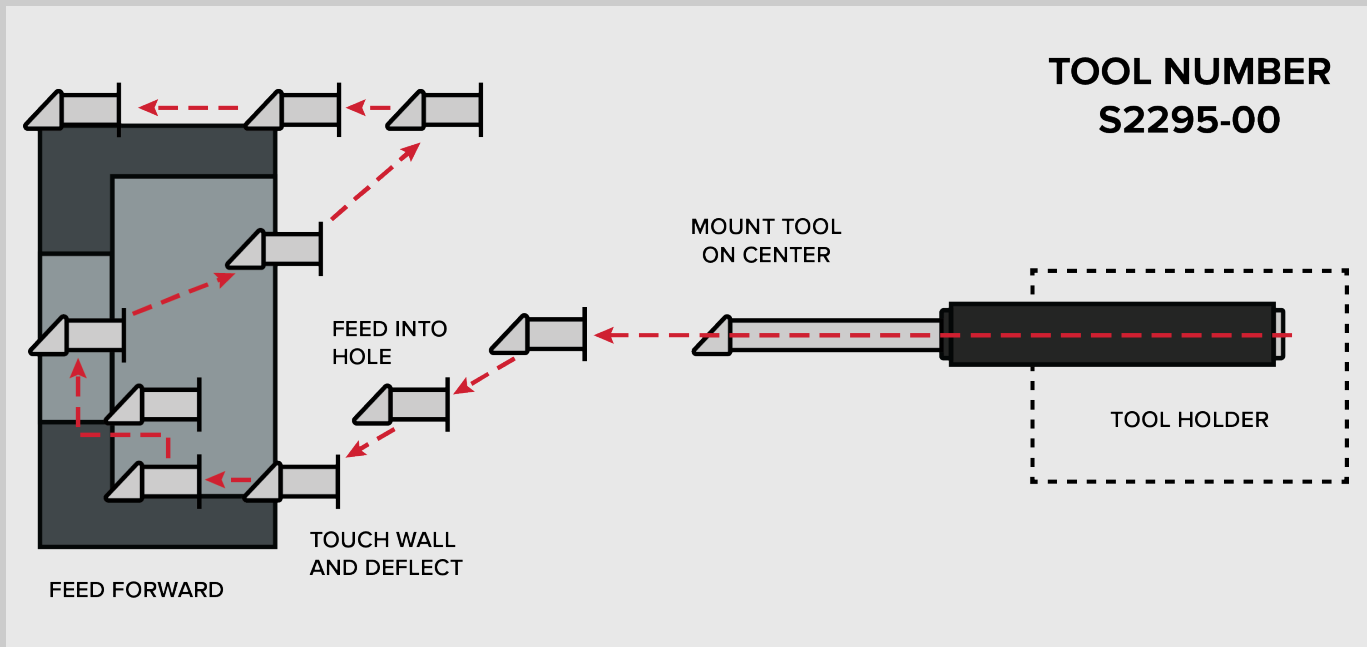
Water soluble or oil

MINIMUM HOLE DIAMETER:

0.500"

MAXIMUM TOOL REACH:

2.861"

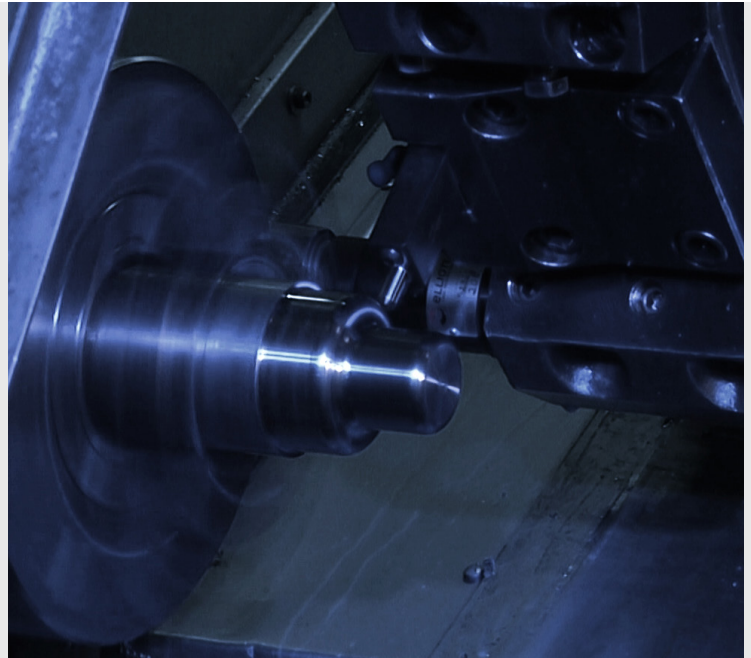


Can be used on most metals with a hardness below HRC40.

DIAMOND BURNISHING

APPLICATION

Automate your hand polishing operations...



THE JOB

Part Material:
4140

Part Diameter: 2.500"

Part Length: 1.250"

Stock Allowance:
0.0002 - 0.0005"

Pre Burnish Surface Finish:
80 μ R_a

THE SOLUTION

Tool Used:
S2300-00

Speed:
400 SFM

Feed:
0.004 IPR

THE RESULTS



Post Burnish Surface Finish:

2 μ R_a



Cycle Time:

30.68SEC



...and get **consistent ultra-smooth** surface finishes.