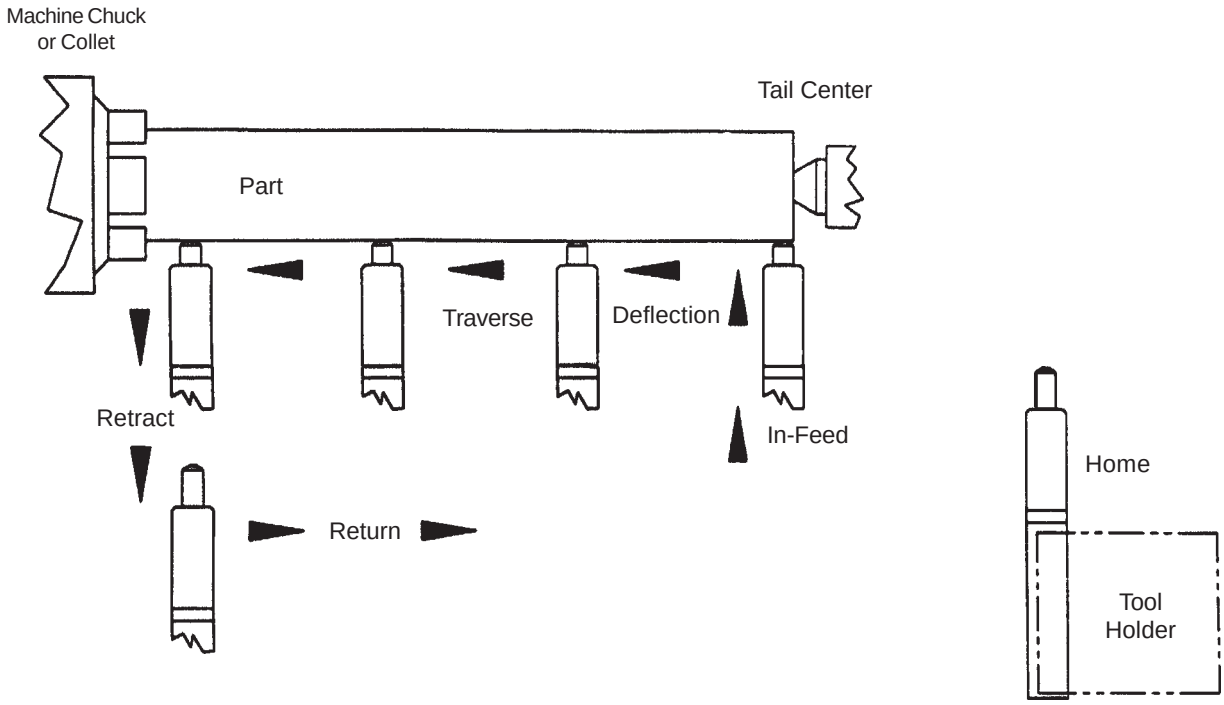
INSTALLATION AND OPERATING INSTRUCTIONS

ELLIOTT DIAMOND BURNISHING TOOL



#S2300-00

Operating Intructions:
Part Preparation - 100/120 RMS
Feed Rate - .003/.004 Max. 750 SFM
Coolant Required - water-soluble or oil

The Diamond Burnishing Tool has been designed for use in lathes and similar machines. The tool should be mounted so that the diamond is perpendicular and on center to the surface being burnished.

Standard Tool Setup:
The diamond stem is set into holder with a slight pre-load on the spring at assembly. To set up the tool, bring the diamond against the work-piece (using a piece of paper to get close) and then feed the tool in until the spring has been deflected about .025-.200". This will allow the diamond stem to "float". Make sure that the diamond stem and spring have not been compressed to a solid height as this can cause damage to the part and the diamond.

Since the diamond is spring-loaded, it is necessary that you feed the tool against the surface being burnished and remove the tool from the surface. When setting the tool this way, do **not** try to feed the diamond on or off the part or burnish an interrupted surface.

Tool Setup for Interrupted Surfaces:
With the redesign of the tool, it can be set to allow for feeding on to and off of the part or burnish over an interruption. To use the tool, adjust the spring pressure by turning the cap screw clockwise to increase tension and counter-clockwise to decrease tension. One (1) revolution of the cap screw equals approximately 8.25 pounds of load. After the tool has been set to the desired tension, move the tool into position against the work-piece and deflect the spring an additional .002" to .003". This setting will allow you to feed on to and off of the work-piece or to go over an interruption without causing damage to the diamond. Caution is important when using the tool in this manner because you need to make sure the spring pressure is **not** increased by offsetting the tool.

When using the tool for these types of applications, any adjustment in the spring pressure must be made by using the cap screw. If the tool is deflected more than .003", the diamond workpiece can be damaged.

To replace the diamond stem, remove the cap screw and the used diamond stem. Insert the new diamond stem and readjust the cap screw to remove any play in the stem.

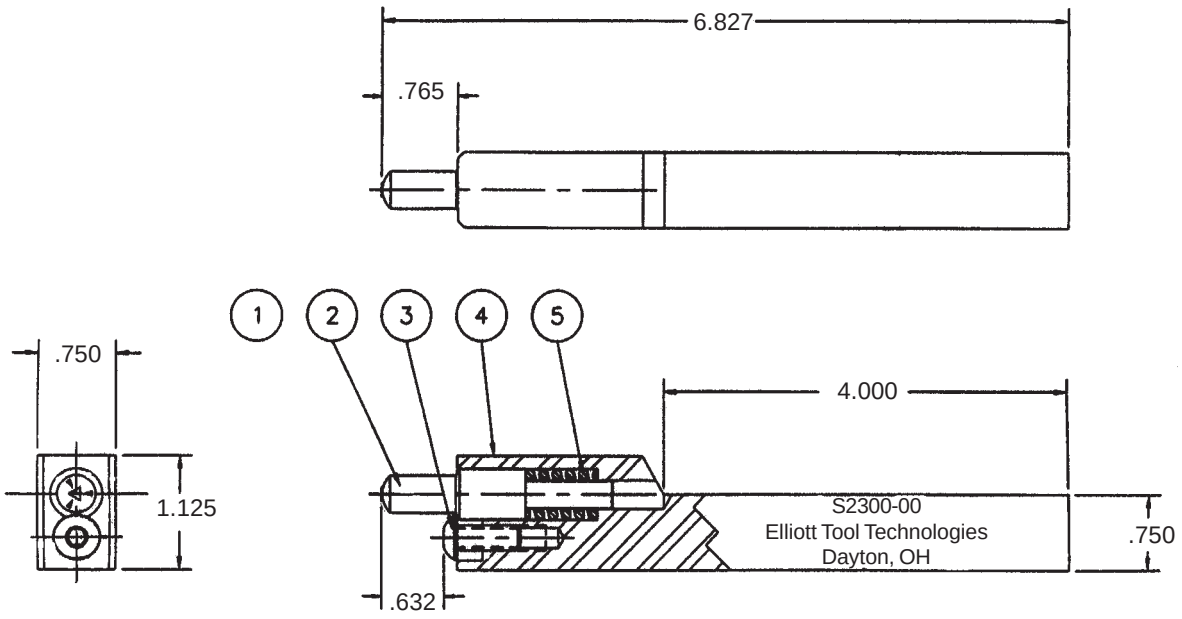
Note: When setting the spring tension, the pressure required to burnish varies with the material and pre-burnish finish. These factors will also determine what finish is attainable.

The diamond tool can burnish most materials from 100 RMS to 2-8 RMS at Rc 40 or less. Harder materials can also be burnished, but with lesser amounts of surface improvement.

Coolant must be used at all times.
The diamond's precision ground surface can be damaged if the tool is used without flood coolant on the diamond.

For additional information, please send a detailed part print and the proposed part preparation.

For technical assistance, call Monaghan & Associates, Inc. at 1-800-732-4656.



	Part Name	Part Number	Req.
6	Hex Wrench	P8369E (Not Shown)	1
5	Heavy-Duty Spring	S375-4-165	1
4	Holder	S2300D4	1
3	Button Hd. Soc. Cap Screw	P8597-2	1
2	Diamond Stem	S375D1	1
1	Assembled Tool	S2300-00	~

Part No. S2300-00

ELLIOTT TOOL TECHNOLOGIES

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