

## Proper Reamer Care

Proper maintenance of Sonnax reamers is the best way to ensure their consistent performance and long life. Follow these easy steps.



Watch the step-by-step video at [www.sonnax.com/reamer\\_care](http://www.sonnax.com/reamer_care)

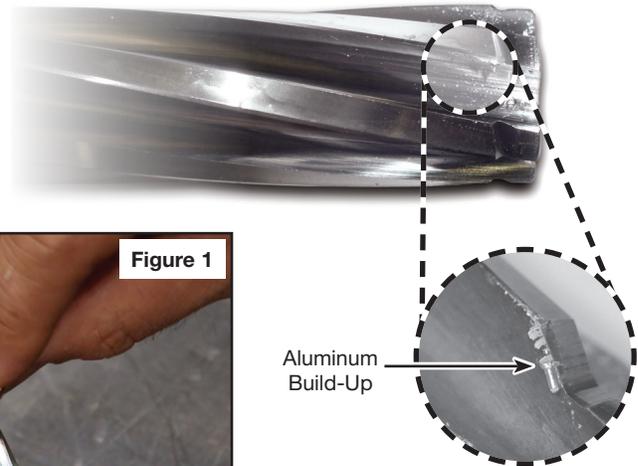
### 1. Check for Build-Up After Each Use

Aluminum build-up can occur along reamer cutting edges every time a bore is reamed. Debris may not always be present in large amounts and may be very hard to see, but over time it will accumulate. Too much will make it difficult or impossible for the tool to cut correctly.

Use an eye loupe to examine the edges in detail or feel for build-up along the edges with a penny (Figure 1).



Figure 1



### 2. Remove Build-Up

If you identify or suspect build-up, extend the life of your reamer by cleaning it off with a fine-grit diamond honing tool such as the Sonnax EZ-LAP-HONE.



**CAUTION:** This technique is for removing build-up only, NOT for re-sharpening. Over-aggressiveness with the hone will ruin the reamer.

1. Place the tool along one cutting edge of the reamer and draw it forward smoothly three to four times (Figure 2).
2. Inspect the edge. If it's clean, keep going around the reamer, cleaning each cutting edge until all build-up is removed. Multi-diameter reamers can be cleaned the same way, just be sure to stay away from the guide nub (Figure 3). That is not a cutting edge.

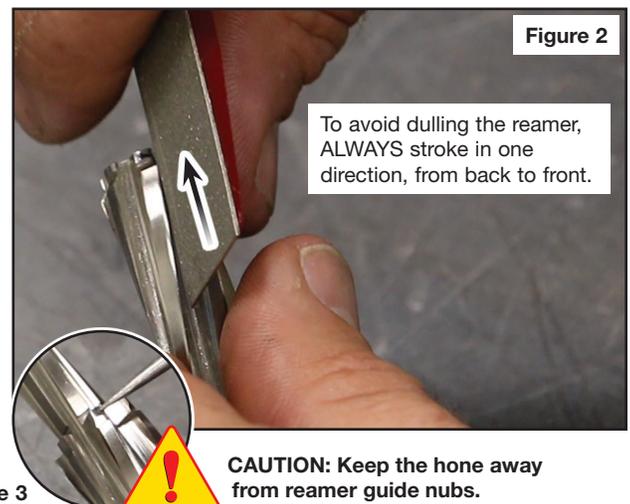


Figure 2

Figure 3

**CAUTION:** Keep the hone away from reamer guide nubs.

### 3. Clean & Store Reamer

1. When you're done with the hone, clean the abrasive off the reamer in a solvent tank or with low-speed compressed air.
2. Lightly oil the reamer to prevent corrosion. The same oil you use for reaming is recommended.
3. Return the reamer to its protective case, otherwise it can roll around, get nicked and dull, etc.

### General "F-Tool" Reaming Instructions

#### 1. Bore Preparation

- Clean the bore thoroughly in a solvent tank.
- Generously lubricate the bore and reamer with cutting fluid (i.e. Mobilmet S-122, Lubegard® Bio-Tap, Tap Magic™, etc.). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilmet S-122) during the reaming process.
- The reamers should be turned using a low RPM, high-torque drill regulated to a maximum of 200 RPM.
- Examine the bore after cleaning for surface finish, debris and burrs. Flashing and burrs on the exit side of land and in bores must be carefully removed. A small piece of Scotch-Brite™ material attached to a wire and powered with a drill motor is ideal for the task. However, Scotch-Brite™ is a very abrasive material and

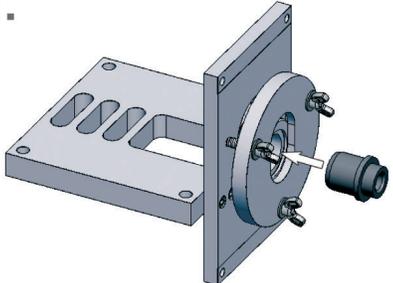
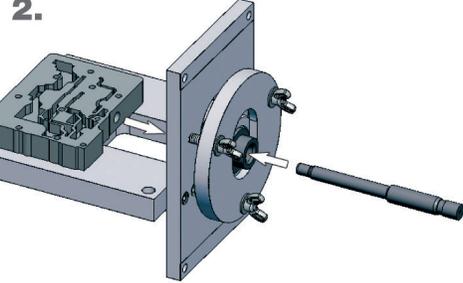
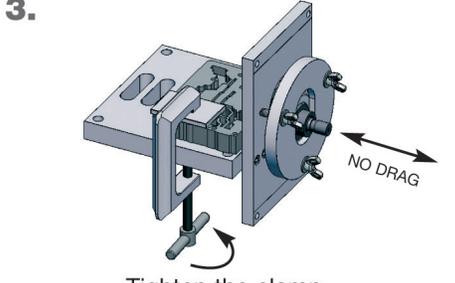
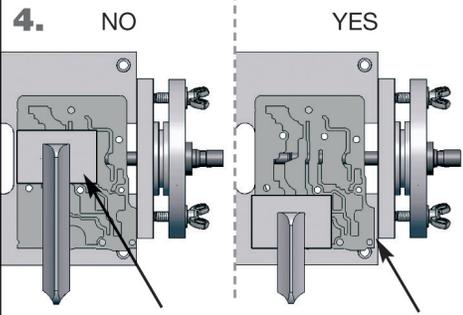
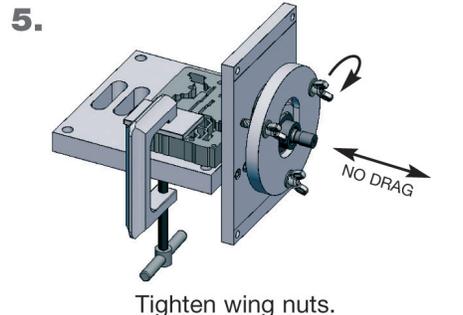
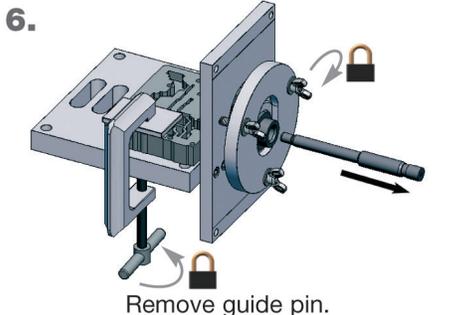
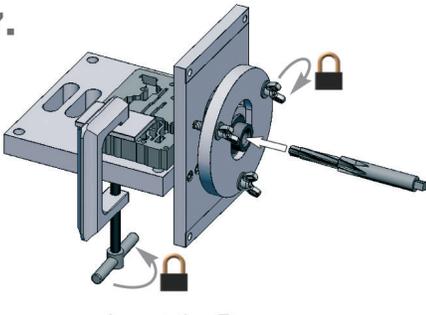
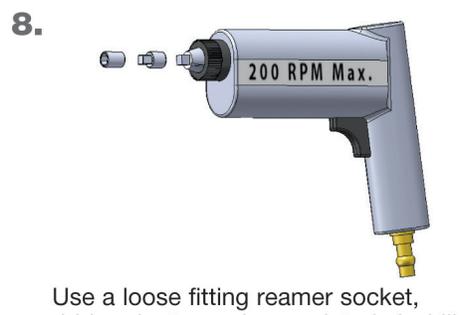
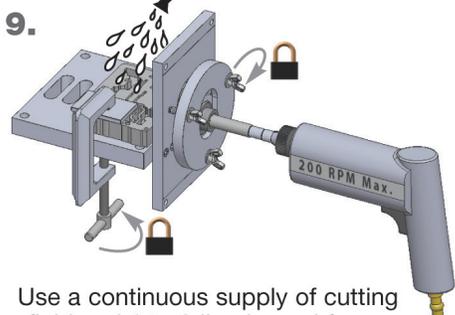
all residual Scotch-Brite™ debris must be removed afterward to ensure particles do not migrate or remain embedded in the surface. Cleaning this material out should involve several progressive steps using solvent on a lint-free rag.

#### CAUTIONS AND SUGGESTIONS:

- Turning the reamer backward will dull it prematurely.
- Pushing on the reamer will result in poor surface finish and inadequate and sporadic material removal.
- Never use a crescent wrench, ratchet or pliers to turn the reamer.
- A dull reamer will cut a smaller hole. Reamers can be sharpened, but should only be done by a professional tool sharpener. Actual life of a Sonnax reamer before resharpening or replacing averages 50-70 bores.

#### 2. Bore Reaming

Use the associated "F-Tool" kit and VB-FIX reaming fixture as illustrated below to ream the bore.

<p><b>1.</b></p>  <p>Insert the reamer jig.</p>	<p><b>2.</b></p>  <p>Align the guide pin and valve body.</p>	<p><b>3.</b></p>  <p>Tighten the clamp. Guide pin must move freely.</p>
<p><b>4.</b></p>  <p>Do not clamp over bore. Leave gap.</p>	<p><b>5.</b></p>  <p>Tighten wing nuts. Guide pin must move freely.</p>	<p><b>6.</b></p>  <p>Remove guide pin. Do not loosen Clamp or wing nuts.</p>
<p><b>7.</b></p>  <p>Insert the Reamer.</p>	<p><b>8.</b></p>  <p>Use a loose fitting reamer socket, a wobble adapter and a regulated air drill.</p>	<p><b>9.</b></p>  <p>Use a continuous supply of cutting fluid and 1 to 3 lbs. inward force.</p>