

Tool Tip Use Valve-Guide Brushes To Clean Threads

BY THE EXCHANGE STAFF

From an installer's perspective, nothing is as frustrating as finding a mounting hole in a freshly rebuilt alternator that won't easily accept the fastener. This can happen when a heavily corroded housing is cleaned in a shot blaster, and the mounting holes look clean, but are in fact, still partially restricted. Both threaded and unthreaded holes are susceptible to this, especially when you are dealing with an aluminum housing.

It is true that threaded holes can be checked with a bolt and cleaned with taps or thread chasers when it is required. But the downside of taps is that they will unnecessarily remove some good aluminum from the hole and increase the chances of its being stripped by the installer.

A faster, easier and safer way to clean all mounting holes without removing good aluminum is by using a modified set of valve-guide brushes and a drill. Valve-guide brushes are sold individually or can be purchased as a set, with sizes varying from $\frac{1}{4}$ inch to $\frac{1}{2}$ inch (see Figure 1). They are made of twisted wire with a handle on the end and are constructed to be turned by hand. If the handle portion is removed, these brushes can be easily chucked into any variable speed drill. A set of these brushes can be purchased from most tool vendors for \$15 to \$40,

depending on how long you would like them to last. All you have to do is cut off the handles, and they are ready to clean mounting holes.

Use the smallest size possible for the hole that you are cleaning. Run the drill slowly, and the spiral turns of the wire will move the brush into the hole (see Figure 2). Go half way in and back out by reversing the drill. This is enough to clean most mounting holes. Going through twice will clean even the most corroded holes. Keep in mind that if the brush binds up in the hole, it will grab with all of the force that the drill can offer. Go slowly, especially the first few times you use it.

This method cannot fix damaged threads, but these brushes will clean metal dust, aluminum oxide and other debris from good threads and can clean unthreaded holes just as well. This will save your installers time by making it easy to turn mounting bolts in by hand. Happy installers make for repeat customers. It is a sure and quick way to make any rebuilt unit look better and install easier.

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Figure 1—An assortment of valve guide brushes.



Figure 2—Cleaning a threaded hole