

Aluminum Tool Handles

Contributed by: Doug Swanson

A.K.A "alankulwicki7"



This tutorial was downloaded from

<http://www.penturners.org>

The International Association of Penturners - 2015

Aluminum Tool Handles by Doug Swanson AKA alankulwicki7

I recently ordered a few new gouges from Thompson Tools. Doug Thompson is a great guy to deal with and I will definitely order from him again. Since I'm on a tight budget and needed handles for my new tools, I decided to build my own. At first I was going to make some nice wood handles but then I thought aluminum would look nice.



The ends of the tools were machined to 1/2" and 3/8" respectively so I needed something with a 1/2" ID. After a little searching, I found some 1" diameter aluminum tubing with .25" wall thickness at speedymetals.com. It came in 12" and 18" lengths so I ordered a few of each.

Here is a list of what materials I used:

- Aluminum tubing (1" dia. with a .25" wall thickness at desired length)
- (2) 1/4-20 x 1/4" long set screws (I used 3/8" long set screws for the 3/8" handle)
- 1-1/4" OD x 1" ID clear tubing (available in the plumbing dept at most hardware stores)
- 1/2" dia. steel tube (in the welding material section at the hardware store)

Here is a year 2015 price list:

- Aluminum tubing (18"-\$5.71, 12"-\$3.78)
- Set screws (\$.29 each)
- Steel tube (\$5.75)
- Clear tubing (\$1.25/ft.)



I got started by making handles for the 1/2" tools. First, I marked the tube with where I wanted to put the set screws. Then I used a center punch to mark the holes.



To drill the holes I used a small pilot hole and then changed the bit to 13/64".



Then I tapped the holes using my 1/4"-20 tap. It's not perfect but it will work!



Now it's time to test fit the handle to the tool. Perfect fit!



I could have left the aluminum as is but I wanted it to look nice. Using a chuck and a 60 degree live center I mounted the handle in my lathe and polished it up using sand paper. I used 150 grit and then just jumped up to 400 grit because I wasn't too concerned about a perfect finish. You can see how much nicer the finished handle looks in this picture.



Not wanting any sharp edges, I used my oscillating belt sander and squared up the tubing. Then I put a 45 degree bevel on each end.



At this point I could have called it a finished tool handle but it felt a little small in my hand. I thought of options for making the handle bigger. Here are a few options: leather grip for an aluminum softball bat, friction tape for hockey sticks, or clear plastic tubing, etc. Obviously I chose the clear plastic tubing! It was a fairly tight fit but I managed to slide it on as far as I needed. Then I trimmed the excess with a sharp utility knife.



That's it for the 1/2" handles. Now on to the 3/8" detail gouge. Using the same aluminum tubing, I just had to make a little sleeve to fit the smaller diameter gouge. Fortunately, the 1/2" steel weldable tube fit the bill perfectly. It fit inside the aluminum handle and the gouge fit inside the steel. I also used 3/8" long set screws for this handle because I wanted them to make good contact with the gouge.

I marked the locations.



Then I drilled holes large enough to not cause any interference with the set screws. After I drilled the holes, I cut off the steel tube so it was just long enough to support the tang on the gouge (I just used the mark just to the left of the new holes).



Now for the hard part: pounding the steel tubing into the aluminum handle! It took some muscle but I finally got it. Then I ran the end on the sander again to make it even.



Viola! Three finished handles for about \$20 and an hour of labor!



I've used them a fair amount of time since I made them and they feel pretty good in my hands. The balance seems good right now but I can always add a little weight with bb's, bird shot or by inserting some 1/2" steel rod in them.