

# Making Custom Screwdrivers, Version 1

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This was a “git ‘er done” project and not a “create a work of art” adventure.

I first bought the highest quality hex bits I could find. The handle was made from 1-1/8 inch diameter acetal. Using a 3/8 inch diameter ball mill, I cut 6 flutes in the perimeter on my mill. Overall length is 2 inches.



Going to my lathe, I first cut a bevel in each end. Then I drilled a 1/4 inch hole in each end to a depth of 0.9 inches. This was necessary to meet the required overall length.

I put a pencil line at 0.9 inches from the end on each bit.

With the handle secured in the chuck, I mounted the first bit in my tailstock chuck. This was taken outside and heated with a MAPP gas torch until it started to glow. With all of the acetal swarf plus oil around my lathe, using an open flame nearby would have been unnecessary risk.

With the end of the bit glowing, I quickly slipped the chuck back into the tailstock’s ramp and slid the tailstock towards the chuck. The bit smoothly melted its way into the hole. I stopped when I got to the pencil line. The fumes are an irritant so it is best to avoid them. After waiting about 10 minutes, I flipped the handle end for end and used the same procedure to install the second bit. The handle is very solidly attached to the two bits.

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Here is a single bit screwdriver I made.

I welcome your comments and questions.

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