

A Speed Drive For A C-Clamp, Version 1.1

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This monster C-clamp is a mixed blessing. It can reach into places that my smaller C-clamps won't go. But will you look at that length!



It takes me a long time to turn that threaded rod by the crossbar from closed to open by hand.

Come to think of it, all of my C-clamps are tedious to adjust.

There has to be a better way!



With the crossbar approximately centered, I push my "Speed Drive" against the end of the threaded rod. By slowly pulling the trigger, the clamp quickly adjusts to the desired position.

You can see a video at <https://www.youtube.com/watch?v=y4z7yG4PX00&t=11s>

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The Speed Drive consists of two parts: the hex drive and a hockey puck.

A low-quality hex drive bit is ideal because it cuts easily. If you only have hardened bits, use a bench grinder to remove the end. I'll talk about the overall length of the hex drive later.



This poor hockey puck had a hard life on the ice. Those cuts and gouges landed it in the trash. But now it gets a second life.

I mounted the puck in my 3-jaw chuck on my lathe and drilled a 1/4-inch through-hole. Take it slow because if the puck grabs tightly to the drill, it can come flying out of there.

Next, I step drilled out to 1/2-inch using a 3/8-inch first. Then I used my boring bar to open the hole out to approximately 5/8-inch.

Measure the length of the remaining 1/4-inch hole.



With the hex drive mounted in your electric screwdriver², the back of the puck should touch the face of the chuck while



the other end of the hex drive is flush with the bottom of the bored out hole in the puck.

Using a press or even a bench vise, push the hex bit into the puck. It should be a tight fit.

² If you do not own an electric screwdriver, you may want to consider buying one. They save SO much time!



With the crossbar centered, push the tool against the top of the threaded rod. The bored out hole provides clearance for the top of the threaded rod. The soft surface of the puck contacts the crossbar to prevent side motion while also enabling the turning puck to couple with the threaded rod.



I had a backup plan involving the sawing of a V into the face of the puck. The V would grab the crossbar better but would mean that the user must first align the V to the bar. I'm glad I didn't need to do that. The fussier the tool, the less I use it.

Acknowledgments

Thanks to Marv Klotz for asking the question that inspired me to think of this tool.

I welcome your comments and questions.

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