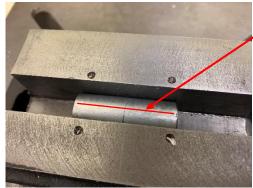
A Universal Centering Tool For a Drill Press, Version 1.0

By R. G. Sparber

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There are many ways to locate the centerline of round and flat stock held in a vise. The one I offer here is a new twist on a very old idea.



If you wanted to make a tool that finds the centerline of a rectangular solid, take a bar and drill three holes with equal distance between centers all on the same line. Install pins in the outer two holes. By rotating the bar so the pins contact the flanks of the rectangular solid, that center hole will be on center. You can then put a scribe or marker in the hole and pull the tool along the longitudinal axis.

Centerline marked. The one shown here can be bought on Amazon² if you don't want to make your own.

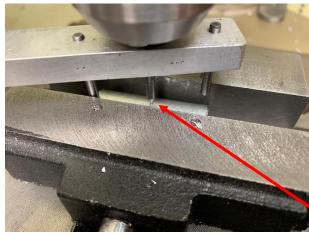
Now, we need to rethink how this tool works.

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² Search for "Eagle America 400-2048 Marking Center Finder".



Replace the pencil hole with a 3/8-inch rod about 1-inch long. This will be our pivot. Drill a hole through this rod to accept a 1/8-inch pointed rod about 2-inches long. It will be our "spud". The adjacent holes are 1/8-inch and accept 1-inch long dowel pins. You can stake the pivot and pins in place or use Loctite. It is essential that the distance between holes is the same and that all three holes are on the same line.



Mount the pivot in your drill chuck. The spud should move freely. Slide it out so it sticks out more than the pins.

Lower the tool into the gap between jaws and turn it until the pins contact the jaws. The surface of the part should push the spud up. This insures that the point of the spud rests on the surface of the part.



Then slide the spud over until it is on the line.

Clamp down the vise. You are ready to cross drill.

Acknowledgments

Thanks to Corey Renner for improving the initial design by adding the spud.

I welcome your comments and questions.

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