

A Long Machinist Clamp, Version 1.0

By R. G. Sparber

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While calibrating my new ball screws on my RF-30 mill/drill, I ran into a problem. How can I wring together a 10-inch long stack of Jo blocks? The answer came from Bob and Terry Sanders, of [Toolcraft](#), in Glendale, AZ. These guys know a lot about machining.

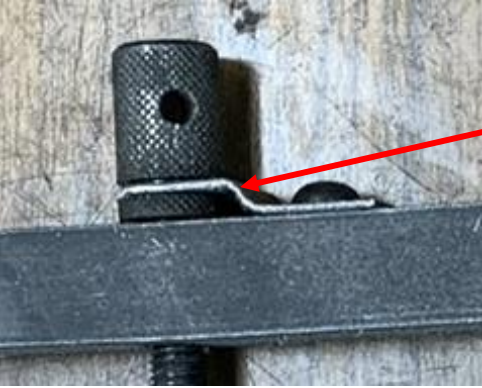
They suggested clamping the stack using a modified machinist vise.

You can see that I also clamped down the first and last block to ensure that all of the clamping force is along the major axis and none of the Jo blocks lift. I gently snugged the two C-clamps, tightened the machinist clamp, and then tightened the C-clamps.

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My machinist vise consists of two jaws joined together with lengths of 1/4-28 threaded rod.



I separated the retaining paw from the jaw using a small chisel and ball peen hammer. The paw is secured with a U-Drive screw which I could reuse.



My version of this end was cut from 1/2 inch hex CRS. I cut the groove and drilled and tapped a center hole to a depth of 1/2 inch. Then I silver soldered the end to a 15-inch long 1/4-28 ready-rod. Locktite Red would have probably held, but soldering is quicker and stronger.



The hex permits me to drive each rod with my electric screwdriver.



I welcome your comments and questions.

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