

## TIP 53 — Mill Vise Modifications/Steven Lang

GM Engineer Steven Lang has tuned up his vise like a racing Corvette to get more than stock performance out of it. Here are a couple of things he has done:



*Photo 1—The back of the slot is extended as seen from the bottom of the vise.*

1. **Easier Barrel Release for Moving Adjuster from Slot to Slot**—To make it easier for the adjuster barrel to drop out of its retaining slot to move to another position, Steven has machined off about .100" deep in the area between the slots. You could do the whole inside surface, but this is really the only area that matters. In the photo above, you can see the area machined as the part where the black finish has been machined off.
2. **Extending the moveable jaw travel**—By opening up the slot further to the rear and putting a chamfer in the top surface so the hold-down bolt can extend further back, Steven has increased the clamping range to over 2.5". See photo below for how far the jaw will now open.



*Photo 2—Seen from the top of the vise, a chamfered area allows the hold-down screw to extend farther back.*

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*Photo 3—shows the new jaw opening to be as much as 2.5".*

- 3. Slotting the vise jaws to hold short work without using parallels**—No need for a photo here. Steven found it handy in a lot of operations when holding small parts to be able to hold them up high in the jaws without using parallels to raise them up. To do so he milled slots about .080" deep and .080" wide all the way across the top inner edge of each jaw. This provides a parallel resting place for the part to be clamped that works similar to the function of parallels but requires no extra support pieces.

NOTE: Machining this slot does eliminate the V-groove Sherline has provided to help locate round parts horizontally in the vise jaws.

From Steven Lang,  
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