Cut Bowl Bottoms with Confidence

By Bill Small

With These Three Easy-to-Make Depth Gauges

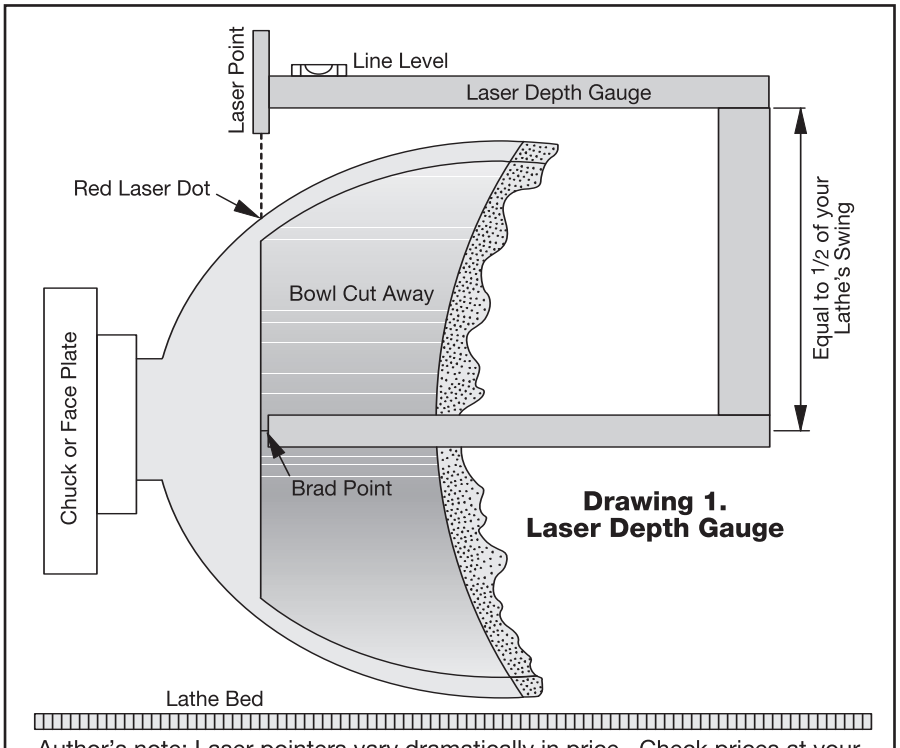
All of us have blown through the bottom of a bowl or left a chunky bottom for fear of cutting any deeper. Determining the exact thickness of a bowl bottom is particularly difficult with a natural edge bowl or one with a foot that has a recess cut into its underside. The three depth gauges described here take the guesswork out of these challenges. And the bonus: Each is easy and inexpensive to make.

Ruler Depth Gauge

If your bowl has a foot with a recess, you need another way to determine the depth of the recess (on or off the lathe). Drawing 2 shows a simple gauge made using a 6" steel ruler, two wood strips, a 10-24 x ½" thumbscrew and matching machine nut. Cut a channel in one wood strip to hold the ruler. In the other strip, drill a hole and epoxy the nut in place. Then glue together the two wood strips. Make wooden cross members of varying lengths to accommodate bowl feet of varying diameters.

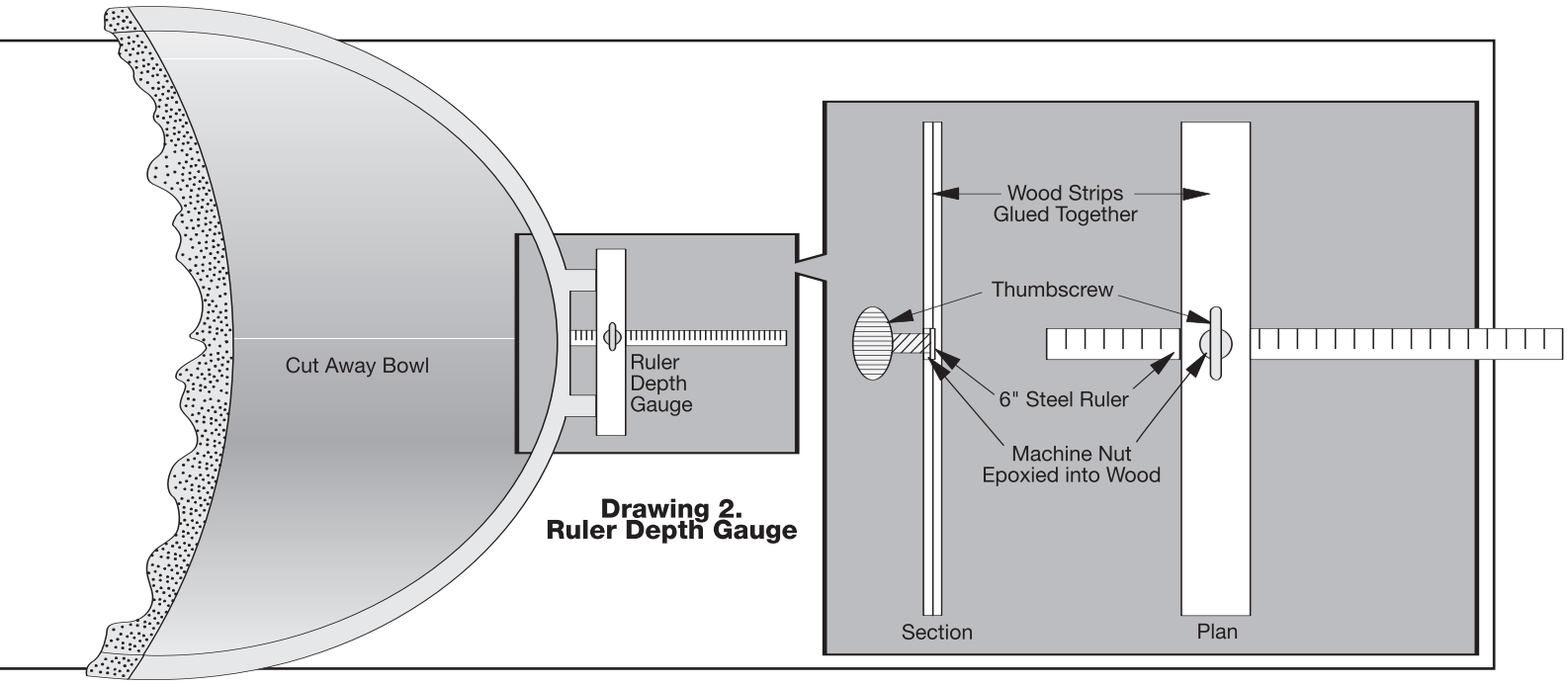
Laser Depth Gauge

Grab this C-shaped gauge to locate the inside bottom while the bowl is mounted on the lathe. You can use it when initially cutting a green wood bowl blank or when re-turning a dry blank into final form. A laser pointer (see author's note at *right*) is mounted on the frame so that the laser dot hits the outside of the bowl at the same depth as the inside cut. The key is to have the laser beam perpendicular to the lathe bed to get an accurate reading. You can achieve this alignment with a plastic line level glued to the top of the frame. A brad point helps keep the frame aligned to the bowl bottom while in use. As long as the frame is lightweight and resilient, you can build it from wood, metal, or plastic.



Drawing 1. Laser Depth Gauge

Author's note: Laser pointers vary dramatically in price. Check prices at your local office-supply store or on the Internet.

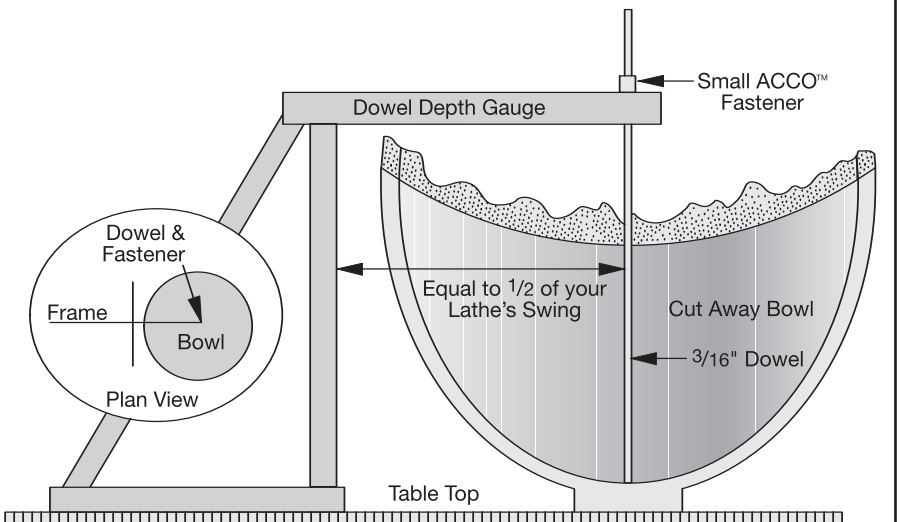


Drawing 2.
Ruler Depth Gauge

Dowel Depth Gauge

Use this gauge to locate the inside bottom when the bowl is off the lathe. Set the bowl on a tabletop with the gauge's frame extending over the bowl as shown *at right* in Drawing 3. Note that you'll need to construct the frame (made from wood, metal, or plastic) with at least three feet on the tabletop for stability.

Pass a 3⁄16" dowel through a hole in the frame and lower it until it hits the bowl bottom. Slip a small ACCO ™ fastener (available at office supply stores) over the dowel and resting on the frame. Lift up the dowel and remove the bowl. Lower the dowel until the fastener again rests on the frame. The distance between the end of the dowel and the tabletop indicates the thickness of the bowl bottom.



Drawing 3. Dowel Depth Gauge

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