

## Coring, My Way with the Oneway coring tool

Philosophy: Create a simple method of coring bowls which measures everything relative to the inside of the bowl remaining in the chuck, not the core which is removed.

First make a set of gauges.

Step 1: Create an offset gauge that represents the distance from the headstock to the top of the chuck. This gauge is lathe specific. I refer to this as the base gauge. The banjo can be placed at the headstock or at the far end of the lathe. But it must be located the same place all the time. I prefer to put the banjo at the far end of the lathe.

Step 2: Cut a series of depth gauges. This should include a number of gauges that represent the “cut” of the coring system,  $3/8$ ”. I do not make any core thicker than  $1\ 1/2$ ”, even though the rule of thumb is 10% of the diameter. The gauges that I made were:  $1\ 1/2$ ”,  $1\ 1/4$ ”,  $1$ ”,  $1$ ”,  $3/4$ ”, and 4 of the cut gauges –  $3/8$ ”.

Step 3: Create an offset gauge for each of the cutters. To determine the size of these gauges, place the gauge created in step 1 and the coring base on the lathe. Place the cutter in the coring base and “zero” out the cutter such that it the outside of the cut would just touch the chuck jaws. You will need one of these for each cutter. This will give you the exact distance from the headstock to make a zero thickness core. These are referred to as the cutter gauges.

### Cutting cores:

For a single core (outside bowl with a core cut out): Place the base gauge against the head stock. Select the depth gauge for the desired thickness of the outside bowl, add then add the cutter gauge. Place the coring base up against these gauges and place the cutter in the base. Slide the base towards you or away from you to center the cutter at the wall thickness that you would like on the top of the blank.. Now you are ready to lock things down and create your bowl, removing the inner core.

For multiple cores (this example will be for 2, but simply repeat for more): Place the base gauge against the headstock. Select the depth gauge for the desired thickness of the outside bowl. From here, repeat for each additional bowl. Add a depth gauge for the cutter,  $3/8$ ”. Add a depth gauge for the thickness of the second bowl. You are now ready to add the cutter gauge and place the coring base on lathe and select the cutter to remove the core of the second or inner bowl. Before setting the base locate, measure and mark the thickness of the outside bowl, measure off the cutter gap ( $3/8$ ”), and then measure and mark the thickness of the inner bowl. Now you have the location for the cutter that will remove the core of the inner bowl. Set the base such that the cutter will remove the inner core, and core away. Once the core is removed, change the cutter and the cutter gauge. Remove the depth gauge for the inner bowl and the cutter gauge ( $3/8$ ”). Add the cutter gauge for the new cutter, readjust the base and remove the inner bowl.

Selecting the cutter to use:

This is actually much simpler than I thought when I first start. For “normal” bowls that are relatively round, select the cutter based on keeping the coring base centered as much as possible. Remember that when the base is pulled forward, the cutter bottoms out with a larger tenon that will need to be snapped off. Pulling the handle of the cutter past perpendicular will cause the cutter to begin cutting on an arc going back towards the tailstock. When the base is pushed forward, the cutter will cut through before reaching bottom, leaving the bowl thicker than planned. For bowls that might be different than “round”, compare the cutter to the outside of the bowl. The coring systems do not work the best for large shallow bowls. You will be limited to the size of the core that you can remove.