

How's your bottom?

I can still remember those inspirational and profound words from my very first woodturning mentor, "the hardest part of woodturning is trying to figure out how to hold the wood you are turning". A simple statement to a more complex solution? Yes, we probably all started out turning bowls and know the various ways to hold a bowl blank (screw, four jaw chuck, faceplate, etc.). I think of those words often when I venture outside the bowl blank comfort zone into unfamiliar territory.

I have turned many boxes over the years and would like to share with you three of the ways I have used to hold the boxes, more specifically the bottom. A box is turned starting with the exterior, parted, and both parts hollowed. We first finish turn the top, that's the easy part as we hold the top for finish turning by the bottom which should still be held in the chuck. When I do threaded boxes, I will thread the top to the bottom and finish turn it. When I have a box that is a friction fit, I will use the bottom as a jam chuck (sometimes it helps to insert a thin piece of tissue paper between the two for a tight fit while finish turning the top).

So now we have the top finished and the bottom almost finished. How do we hold the bottom so we can finish the very bottom, you know, the part that was being held by the chuck. I want to offer you three different options for you to consider along with the pros and cons. I also want to emphasize how important it is to pin the bottom between the head stock and tail stock for as long as possible. Remember once the tail stock support is removed during the final finishing cuts to go lightly, I've read about box bottoms that gone dancing across the shop floor.

Rubber Band

The easiest and quickest method is to cover the jaws of your chuck with a thick rubber band. The down side to this is that it only works well in the expansion mode and if expanded too much could still leave a mark on the interior of the box where the edges of the jaws push through. I also wouldn't try this on a very tall box as the lateral forces applied during finish turning with a gouge may be enough to have you chasing it across the floor.



Here I have a #99 rubber band on a Talon chuck with #2 jaws.

Flexible Coupling

During my music box building days I had some issues holding the bottom of the music box for finishing. Quite often I would have to sand off the marks the chuck would make or being a little bit aggressive would unseat itself from the lathe. These music boxes were fairly deep with straight interior parallel sides. I would use the rubber band method with mixed results. I needed a stronger thicker piece of rubber. So, one day while walking the plumbing aisle at Lowes I spotted something I thought would work. It was a box of flexible couplings. I used a 2X2 but they have other sizes.



I took off the hose clamps mounted it on a set of pin or extended jaws and while turning cut it in half with a utility knife. I also rough up the surface with some sandpaper to give it a scratch pattern so it won't slip.



I use this in the expansion mode only the disadvantage is that it is not very flexible, I may get about ¼ inch to expand, however on a set of pin or extended jaws expanded into a tall straight parallel sided music box it holds it extremely well.



Rubber Bumpers

I have had the parts for this next method sitting in front of me for years and it was just recently brought to my attention. Do you have a set of Cole jaws? If not don't worry, they have a set of rubber bumpers on them and you can order an extra set as well. They have a thread count on them that is the same as the thread count on your jaws. I took off the #2 jaws on my Talon and replaced them with four of these bumpers. These will work well in the expansion as well as compression mode and not leave a tell-tale mark. Recently used them to hold medium sizes Easter eggs.

