

WIG STAND INSTRUCTIONS (By Ron Cumpsty, GHWG)

This method requires pieces of wood, Maple, Oak, or any other species of approximate sizes

- 1 - 5" square x 1 ¼" thick cap
- 1 - 6" square x 2 ¼" thick base
- 1 - 2" square x 9 ½" long post
- 1 - ¼" - 20 tpi rod about 2 ½" long
- 2 - nuts and washer for ¼ 20 rod



Making the Post

1. Using crossed lines find the centre of the ends of the 2" square billet.
2. Holding the billet in the standing position on a drill press drill, one hole 3/16" x 1" deep in one end and 7/64" x ½" in the other.
3. Using the drive spur on the small hole end, pre mark it using a hide or wooden mallet.
4. Holding it between centres in the lathe with the 3/16" hole to the tailstock, turn the billet round to approximately 1 5/8" diameter and taper it by approximately ¼" smaller on the headstock end. The tailstock end will become the bottom of the post.
5. Shape the post to the desired design of choice and sand to 400 grit. If friction polish is to be used as a finish then it should be applied at this time otherwise finish such as "Wipe on Poly" can be left until later. Avoid the use of oils as these may absorb into the wig.

The base mounting screw can at this time be inserted in the post as follows:

1. Using two ¼"-20 tpi nuts on the threaded portion of the screw insert where it transforms to wood screw, lock them to each other tight.
2. Grip the insert, on the rear nut, in the ½" chuck mounted in the tailstock and with the post located on the drive spur bring the point of the insert to the 3/16" hole in the post.
3. Turning the headstock by hand and at the same time turn pressure on the tailstock, screw in the insert until the nuts bottom out on the post.
4. Loosen the ½" chuck and remove the post from the lathe.
5. Using two 7/16" wrenches release the pressure on the nuts and remove them from the insert.



Making the Base

1. Mark out the centre of the 6" square x 2 ¼" block and draw a circle as large as possible. Cut roughly to size on the bandsaw or cut off the corners by hand.
2. Holding the piece in jumbo jaws, or on a glued and single screwed block on the back of the base, face off the surface to reasonably flat.
3. With the lathe running make a penciled circle at about ¾" in from the outside edge of the base.
4. Using a bowl gouge, remove material from this line to the centre at approximately 3/16" deep and clean up to smooth with a round nose scraper.
5. With the lathe still running, touch the centre with a pencil and leave a dot.
6. Using this as a reference, mark out a 2" diameter circle.
7. Create an indent in the centre area to create an area for an expansion chuck as follows. With a part off tool, plunge into the face of the base for approximately 3/16" at the 2" diameter circle and continue removing material across the face at the same depth, but stop near the centre leaving a 3/8" button.

8. Using a small skew on its side, form a 5 degree recess to accept the jaws of the Talon chuck at the edge of this recess and at this time clean up any marks on the recess still using the skew as a scraper, also cleaning up the button to a small dome shape
9. Sand this entire face to 180 grit keeping the outer edge of the recess as sharp as possible. Put this piece to one side and proceed to doing the recess in the cap underside.

Making the Cap

1. As before, cut the piece to round or octagonal and grip it in jumbo jaws or on a glued block but no screw through the mounting block this time.
2. Face off and mark out the centre as before, with a pencil dot and also mark out a 2" diameter circle.
3. Make the chuck recess as with the centre of the base, but this time do not leave a button.
4. Sand all faces to 180 grit keeping the recess edge as sharp as possible.
5. Drill a 3/16" hole 3/4" deep in the centre and countersink.
6. As with the post screw, hold the cap screw end in the Jacobs chuck, offer the wood screw end up to the hole in the cap and insert it by turning the head stock by hand and applying pressure from the tailstock until none of the wood screw thread is visible.
7. Using two 7/16" wrenches remove the nuts.
8. Remove the jumbo jaws and mount a Talon chuck or similar on the headstock and in the expansion mode hold the cap by the recess.
9. Turn the outer edge of the cap to round. Finish cap by turning to a shallow dome, also removing the previous glued mounting block.
10. Sand to 400 grit and cap is complete.



Returning to the Base

1. Holding the piece in the expansion mode in the chuck by means of the recess, using the bowl gouge turn the outer edge to round and shape to the desired design.
2. Face off the remaining surface to flat and using the base diameter of the post, mark out a circle with a sharp pencil.
3. As with the underside, remove material to the depth of about 3/16" but stop within 1/4" of the outer edge of the centre circle that matches the post base.
4. Clean up the recess with a small round nose scraper and finish the centre circle to match the post base diameter.
5. Drill a 23/64" diameter hole 1" deep in the centre of this face and countersink.
6. Sand the outer diameter and face of base to 400 grit.

The female insert can now be fitted into the hole as follows;

1. Screw the female insert onto a piece of threaded rod about 2 1/2" long with a nut and washer placed on first and the nut tightened with a 7/16" wrench.
2. With a keyed chuck in the tailstock, grip the threaded portion of the assembly to within 1/8" of the nut.
3. Put a couple of drops of cooking oil or similar on the start of the insert to lubricate. Do not saturate as it may flow and stain the base.
4. Offer the tailstock with the insert attached up to the hole in the base and as before rotate the spindle by hand, as you apply pressure from the tailstock and drive the insert to fully home.
5. Release the tension on the nut with a 7/16" wrench then release the grip of the Jacobs chuck and remove both tailstock and the threaded rod.
6. Using a 6mm Allen key in the hex socket of the insert, set the insert to just below the surface of the base.



The base assembly is complete and the post can be fitted.

Mount the female insert to the top of the post as follows;

1. Using the post and base as an assembly drill out the top post hole to 23/64" on the drill press.
2. Holding the female insert and threaded rod assembly in the chuck of the drill press, with the speed set to low and a small amount of lubricant on the insert, drive it into the top hole of the post.
3. Finish off by removing the threaded rod and setting the insert below the surface by means of the Allen key once more.

Now you are ready to complete the assembly of your wig stand.

Congratulations!!