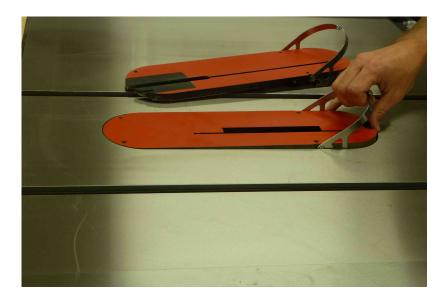
Instructions for Using the Dowel Shaper TS

****Remember, using a table saw is dangerous. The Dowel Shaper TS is an accessory for your table saw and all safety precautions must be taken to avoid injury.

Step 1

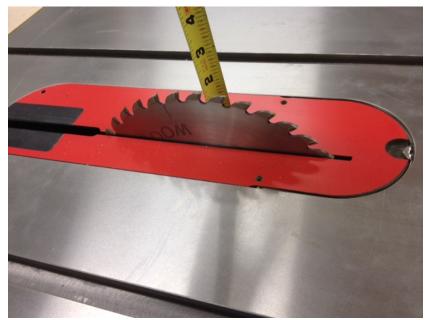
- -Make sure blade is set to exactly 90 degrees to table
- -Align fence 90 degrees to table and parallel to blade



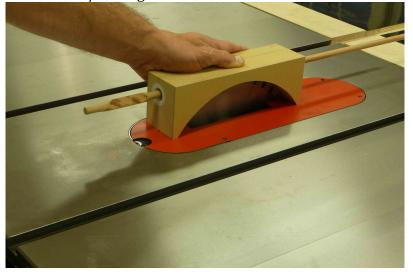
-Use of zero clearance insert will limit chip collection and may clog Dowel Shaper TS. It is better to use dado insert, or drill several large holes in throat plate for chips to escape.

Step 2

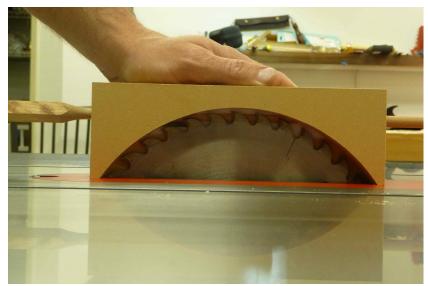
Prepare at least 10 test blanks and all material to be used to make given size dowels. The blanks should be about 18 inches long and 1/8" larger than desired finished size (3/8" square to produce $\frac{1}{4}$ " dowels). Be sure that blanks will rotate freely in infeed hole of Dowel Shaper TS without too much slop.



-Raise blade to 2 3/16" high



-Position Dowel Shaper TS against blade with a properly sized dowel inserted in the Dowel Shaper TS. This stage will position the Dowel Shaper TS in approximately the correct right/left position. The edge of the blade teeth should be in contact with the dowel, but the blade should not be in contact with any part of the Dowel Shaper TS.



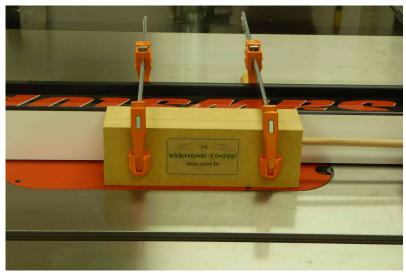
-Move block forward and back and center over blade, make sure blade has uniform clearance around entire portion exposed above the table



-It may be helpful to mark the front and back position of the Dowel Shaper TS with tape or pencil line



-While holding block against blade, slide fence to left until it first contacts the Dowel Shaper TS



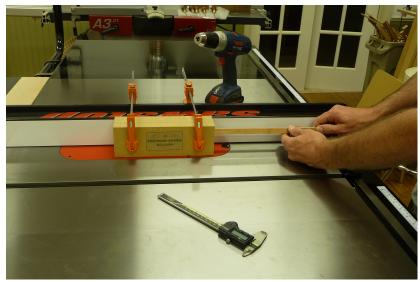
-Clamp Dowel Shaper securely to fence (****#1 safety rule*******)

*The size of finished dowel is determined by the distance from the outfeed hole centerline to the left side of the blade. Increasing the distance from the blade by moving the fence to the left will increase the size of the dowel. Too large and it won't fit into the outfeed hole, will be too tight and cause binding, or could break inside the shaper. To make a smaller dowel, move the centerline closer to the blade by moving the fence to the right. Too small and the dowel will be unsupported, rough, and inconsistent in size. The Dowel Shaper TS is designed to ideally make dowels about .005 of an inch smaller that the nominal listed size. For example, a 3/8" dowel should ideally finish at .370 inch in diameter. This provides the best

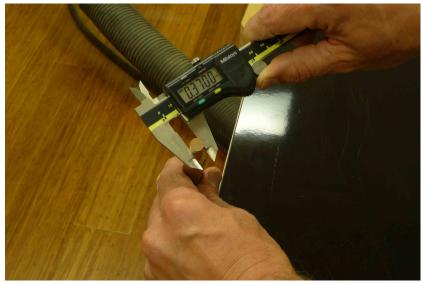
finish and fits perfectly in the Dowel Center Drill and in the groove formed by a core box bit when making dowel hinges.

Step 5

- -Turn on dust collection
- -Start saw



-Insert one end of test blank in infeed hole, rotating by hand



-Remove from Shaper and measure with caliper. If close to desired size, secure in chuck of drill



-With drill running at full speed, insert into infeed and turn dowel by advancing blank past blade



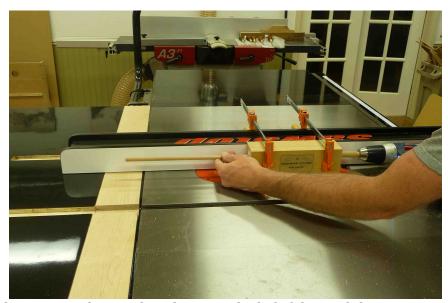
-Shut down saw, and wait for saw to stop -Remove finished dowel



-Measure diameter several places along dowel (both ends will be less consistent in size so do not rely on measurements near the ends)

-Adjust fence as needed (moving fence to right makes dowel smaller, to left makes dowel larger)

-Once proper size is achieved, run all stock of this size



-When turning longer dowels, it may be helpful to stabilize spinning dowel as it exits the Dowel Shaper.

Trouble shooting

- -We have over heated the outfeed hole by attempting to turn an oversized dowel and caused some melting, but it does not seem to affect performance
- -If a dowel breaks, remove Dowel Shaper TS from table saw, and drive it out with another (undersized) dowel, punch or rod
- -It is ok to carefully clean outfeed hole with properly sized drill bit, just make sure to remove broken dowel fragments first, and remove from saw before drilling

Have fun, and be careful!