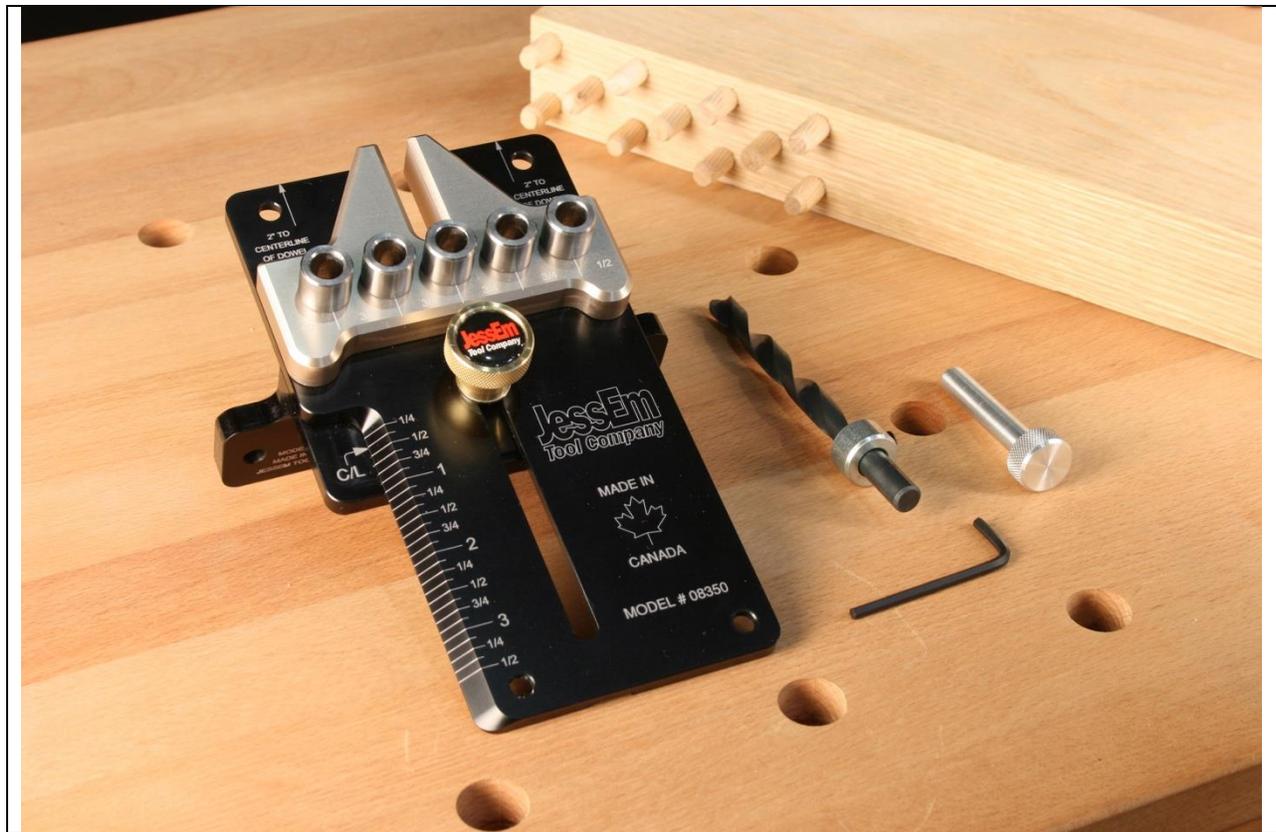


## Doweling Away

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You read a lot about box joints – dovetails – loose tenons – mortise & tenons, and biscuits in the woodworking literature..... and then there are dowels. A few years ago, for reasons that escape me now, I bought a doweling jig from Jessem and over time I've a) figured out how to use it properly, b) managed to make my share of stupid mistakes, c) used it for a variety of joint challenges; and d) learned to recognize some potential problems with dowels.





Overall, however, the Jessem jig has become my tool of choice. It supports dowels of  $\frac{1}{4}$ ,  $\frac{3}{8}$ , and  $\frac{1}{2}$  inch diameters. I've used it to join shelves to cabinets, to make a six foot board from two 3-foot boards; to reinforce miters in a picture-frame like construction, to join aprons to table legs, to align boards for a panel glue-up, etc. A couple of bullet points I've learned along the way:

1. Depth of holes is critical. Too short and the joint won't close because the dowel will prevent the two sides from coming together. Too deep and you'll have a  $\frac{6}{8}$  dowel connecting to a  $\frac{2}{8}$  dowel when you wanted a  $\frac{4}{8}$ - $\frac{4}{8}$  joint.
2. A big weakness of the doweling approach is the difficulty in doing a dry run. Once you put a  $\frac{1}{4}$  inch dowel into a  $\frac{1}{4}$  inch hole, never mind 3 or 4 of them, you can't get them out. My solution was to create a bunch of dowels in various diameters and lengths that have been sanded down to be slightly undersize in diameter. I use these to test that the joint will come together (proper hole depth), that the alignment is pretty close, and then can pull the dowels out with little trouble. I keep these in a separate container for reuse, since the sanding down task is unpleasant.
3. I've learned to mark two sides of every piece of wood for reference before drilling. In this way I am always aligning from the same face side and the same edge side with the dowel jig. This obviously minimizes mismatches.



If you look online for those that have tested joint strength I don't think you will find any statistical difference between dowels and mortise/tendon approaches. A lot will depend on the details – type of wood, type of glue, joint geometry (depth and thickness).