

When Biscuit Joints Go Bad



Now that I've dyed, finished and polished all my raised panel cabinet doors, I see shallow but distinct oval depressions every 6" or 7" along every edge joint, exactly where I cut slots for biscuits before gluing up. I centered the slots in the 3/4" birch stock and glued up before thickness planing to 5/8" for flush panels. What happened, and is there anything I can do about it?



Talk about depression.... Unfortunately, all you can do about this particular disaster is to tell your customer the dimples in your panels are custom design details, and charge a little extra for them. Then make sure it doesn't happen next time.

As you know, biscuits are compressed during manufacture in order to insure they'll expand when moistened by wood glue, guaranteeing a very tight fit in the slots cut by your biscuit joiner. This expansion, abetted by increased moisture content in the surrounding wood, creates enough pressure to distort the solid wood on either side of the biscuit—rarely if ever enough to cause problems through more than 1/4" of wood, but often visible as raised biscuit-shaped ovals if the biscuits are less than 1/4" from the surface. If you plane or sand a joined panel while such moisture-induced swelling is present, it's easy to imagine what will happen when the wood finally returns to its dry dimensions: you'll see permanent biscuit-shaped depressions where you removed the temporarily swollen wood.

There are three ways to avoid the problem. First, be sure your biscuits are always more than 1/4" below the surface. Second, when that's not feasible (as in the case of your 5/8" panels), give the joined wood several days to dry before planing or sanding. Third (perhaps most practical), ***don't put any glue on your biscuits***. If they don't swell, there won't be any pressure to telegraph through to the surface, and you'll have nothing to worry about. In joints like those in your panels, you use biscuits for accurate surface registration rather than for strength, since clean edge butt joints are plenty strong enough to need no reinforcement—so the biscuits don't need to be glued. Installing them dry keeps adjacent surfaces aligned while you apply clamp pressure, which is all you're trying to accomplish.