

Common Woodworking Joints

Presented 2/28/2011 by Jerry Shivers

Mortise & Tenon Joints:

- Mortise:
 - Cut the Mortise FIRST
 - Width - Approximately 1/3 the width of the work-piece
 - Length - Make the length so that all four cuts on the Tenon are the same depth
 - Depth - Depends on the application
- Tenons:
 - Cut to fit the Mortise - "sneak up" on the fit
 - Cut the shoulders on the table saw with a combination blade
 - Finish the tenon on a table saw with a dado blade
 - If it is a 'through tenon' make the final cut on a router table with a straight bit

Biscuit Joints:

- Edge joining several boards to make a wide panel
 - Layout the various boards to get the most pleasing look
 - Use chalk to mark the boards - draw a large triangle that touches all of the boards
 - Mark the edge of one end of all the boards
 - Mark "in" and "out" on adjoining board edges for the proper jointer orientation
 - Register all of the face sides of the boards the same when cutting the biscuit slots
 - Put the first biscuit about 3½" from the marked edge and the last biscuit about 3" from the opposite end. Space the remaining biscuits about 8" apart
 - After the panel is glued, trim about ½" off the 'marked' end and cut the panel to length being careful not to cut into a biscuit
- Assembling carcass corners
 - Cut biscuit slots on the face side of one piece and the edge of the mating piece
 - Do not sand until the corners are glued

Combination Dado and Kreg-Jig Joint:

Unique way to install 'dust panels' below drawers or stationary shelves in furniture

- Completely assemble the side panels and cut 1/8" dados on the inside face of each panel
- Size the dust panels or shelves to the dado
- Apply tape to the dados during the finishing steps so the glue will adhere properly
- Assemble the dust panels and drill the Kreg-Jig screw holes in the edges - Note: be sure to reduce the hole depth by 1/8" to compensate for the depth of the dado.
- Assemble the dust panels (or shelves) to the side panels with glue and Kreg screws

Setting Up Rail and Stile Cutters

- Set up the height of the RAIL bit and cut a sample (or cut all of the rail material)
- Match the slot cutter on the STILE bit to the tenon on the RAIL profile
- Run sample through the STILE bit and check for fit - it should be FLUSH on the FACE side
- Adjust the STILE bit if necessary