Expansion Washers

50K35.01
50K35.02

These expansion washers solve the ever-present problem of wood movement in furniture construction. Two sizes are available for use with round-head screws up to #10 (50K35.01) or #14 (50K35.02). The washers readily install in skirts or frames by routing or drilling the necessary slots in the members.

Installing Expansion Washers

These expansion washers are just under common nominal sizes to aid in installation. The #10 washers are just under 1/2″ wide by 1″ long and have a 3/16″ clearance slot. The #14 washers are just under 5/8″ wide by 1 1/4″ long with a 1/4″ clearance slot.

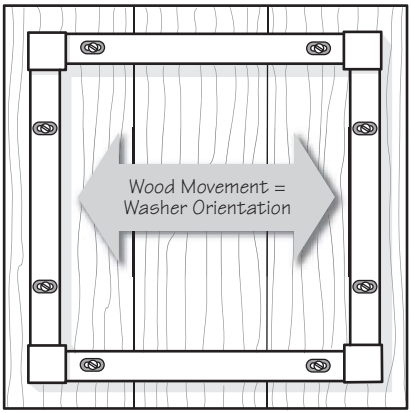

Figure 1: Four-legged table top attached to base with expansion washers.

The washers are usually recessed below the edge of the table skirt so they (and the matching screw heads) cannot be seen from the side. We recommend that the slots be counterbored such that the washer is no more than 1″ away from the table surface. Farther distances may put undue bending stress on the screw as the wood moves.

To use a router to mill the slots required for the #10 expansion washers, use a 1/2″ bit with the depth set to produce the required counterbores. 1/2″ of router travel will produce the 1″ long slots required. For the #14 expansion washers, use a 5/8″ bit, and 5/8″ router travel to produce the 1 1/4″ long slots required.

You may also use a drill bit to create the required slots. Drill what will become the supporting ledge for the washer by counterboring 1/2″ dia. holes for the #10 washer, 1/2″ apart, or, 5/8″ dia. holes for the #14 washer, 5/8″ apart. Clean the slot with a chisel. Picking up on the previously drilled hole centers, drill smaller through holes for the screw (3/16″ dia. for the #10 and 1/4″ dia. for the #14). Drill intermittently between the two smaller holes, along the same center line to create a narrower slot, cleaning it with a chisel.

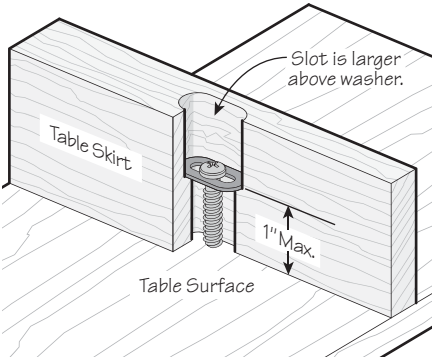

Figure 2: Maximum screw projection.

When using expansion washers, be sure to use screws that have a flat surface below the head, such as round-head screws. Flat-head or oval-head screws have tapered necks that will not slide as freely along the slotted washer.

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