

## Project 15133EZ: Tabletop Napkin Holder

With the angled bases, a leather "hinge," and a little help from gravity, the two sides of the napkin holder simply pinch together when it's placed on a flat surface.

Each base is attached to the side with box joints, or as they are sometimes called, finger joints. Readers who haven't tried this joint may think it's a bit difficult, but our instructions include a jig that greatly simplifies the process.

Most box joints are made with a dado-head cutter, but you won't need one for this project, just a table saw blade that cuts a kerf about $1 / 8^{\prime \prime}$ wide. And there is no need to worry about getting an exact number of "fingers" to fit across the width of the stock. We've avoided that by starting with wide stock and then cutting the parts to final width after assembly.

The napkin holder shown is made from walnut, but feel free to use any wood that suits your fancy. You'll need 1/4" thick stock for the sides and base. Just about any kind of leather will do for the hinge, as long as it's flexible enough to allow the sides to pinch together.

## Tabletop Napkin Holder Step-by-Step Instructions

1. Cut three pieces of $1 / 4^{\prime \prime}$ thick stock to $3-1 / 2^{\prime \prime}$ wide by $6-1 / 2^{\prime \prime}$ long (see Figure 1).
2. Label two of the pieces "side" and the remaining piece "base."
3. Set the table saw to a 10 -degree angle.
4. Use the miter gauge to cut a bevel on one end of the two side pieces and both ends of the base piece (see Figure 2).

5. Use straight grain stock that's free from knots or other defects to make the box joint jig as shown in Figure 3. NOTE: You may need to vary the jig's length and width dimensions somewhat in order to fit your table saw.
6. Install a table saw blade that cuts about a $1 / 8^{\prime \prime}$ wide kerf.
7. Set the blade height to equal the stock thickness plus about $1 / 32^{\prime \prime}$.
8. Hold the jig firmly against the miter fence, and cut a slot approximately 4 " from the end (see Figure 4).

9. Cut a key to exactly match the width and height of the jig slot, and long enough to fit securely in the jig with about 3/8" protruding (see Figure 5).

10. Glue the key to the jig.
11. Attach the jig to the miter gauge with a pair of screws.
12. Place the beveled end of a piece of stock in the jig, butting the edge up to the key (see Figure 6).

13. Make the first cut as shown.
14. Place the first cut over the key and make a second cut).
15. Continue this process across the width of the stock until all cuts are made, then do the same for all the beveled ends on the three pieces of stock. NOTE: Don't worry if the last cut results in a partial pin. When the cuts are done, you'll have fingers on one end of each side piece and both ends of the base piece.
16. Check the fit on the box joint. It should be snug, without the need for a mallet to drive the parts together. If the joint is tight, loosen the screws and relocate the jig to shorten (by less than $1 / 64^{\prime \prime}$ ) the distance between the saw blade and the key. NOTE: It's a good idea when using a jig like this to first make some trial joints in scrap stock.
17. Use the table saw (with the blade now at 90 degrees) and miter gauge to crosscut the base parts to a length of 1-3/4" (see Figure 7). NOTE: Although the 6-1/2" length results in some waste, it makes for a safer crosscutting operation.

18. Apply a thin coat of glue to the joints (see Figure 8).
19. Assemble the base parts to the sides. NOTE: The edges are offset by one slot, but no need to worry as that will be corrected later on
20. Lay out and mark the $2-7 / 8^{\prime \prime}$ base width (see Figure 9)
21. Mark a center point $4-3 / 8 "$ from the base.
22. Scribe a $2-1 / 4$ " diameter circle for the upper curve.
23. Scribe a pair of lines from the base to the circle to establish the taper as shown.

24. Use the drill press to bore a $1-3 / 4^{\prime \prime}$ diameter hole at the marked center point (see Figure 10).

25. Establish the width of the sides by using the band saw to make a pair of entry cuts (see Figure 11). Make the band saw cuts slightly on the wast side of the marked line. DO NOT, however, complete the cutout with the blade guard in this raised position. Instead, make each entry cut only about $1 / 2^{\prime \prime}$ long, then lower the blade guard and complete the cutout working from the other end

26. It's best to make the band saw cuts slightly on the waste side of the marked line.
27. Sand the edges can be sanded exactly to the line.
28. Final sand each half of the napkin holder.
29. Leave the bottom unfinished.
30. Apply two coats of penetrating oil to the remaining parts.
31. Use a sharp knife to trim the leather to the exact width of the base.
32. Glue the leather to the base (white or yellow glue works fine) to complete the project (see Figure 12).


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