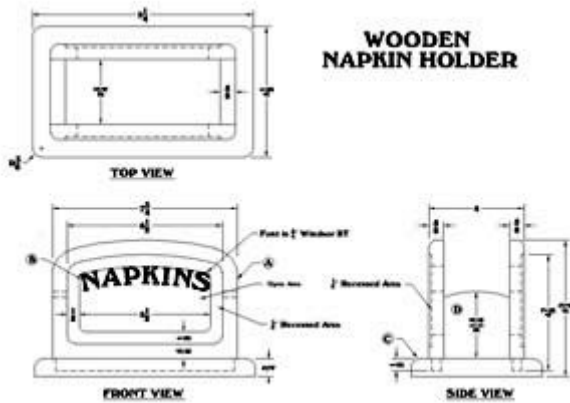


NAPKIN HOLDER



This attractive wood napkin holder will look great on your table or counter top. It is made of solid walnut with the word "NAPKINS" as part of its unique design. This project is easy and fun to make and would be a great birthday or Christmas gift.

A. Materials List:

QUANTITY	LETTER	NAME	SIZE	MATERIAL
2	A	Front/Back	5/8" x 5 1/2" x 7 3/4"	Walnut
2	B	Letters	1/2" x 3/4" x 5 1/2"	Walnut
1	C	Base	3/4" x 5 1/2" x 9 1/4"	Walnut
2	D	Sides	5/8" x 2 13/16" x 2 3/4"	Walnut

B. Patterns:

1. Scale front/back (A), letters (B), and sides (D) to the drawing dimension sizes. This can be accomplished by measuring the print out and dividing that size into the dimension size of the drawing. This will give a multi-factor that can be used to figure the enlargement size for the patterns. This can easily be done at home if you have a copier capable of making enlargements. If not, most companies that do duplicating can make the enlargements required for the patterns.
2. Trace the pattern enlargements onto poster board or Mylar, and use a pair of scissors to cut out the patterns.

C. Cutting Procedures:

1. The stock required for this project can be cut from a 3/4" x 6" x 32" walnut board.
2. Use a jointer to straighten one edge of the board.
3. Use a table saw to rip the board 5 1/2" wide and then use a jointer to remove the saw marks.
4. Use a radial arm saw to cut off the base (C) to length of 9 1/4". Also cut off the two front/back boards (A) to a length of 7 3/4" each, and the two sides (D) 2 3/4" each.
5. Scribe a 3/8" radius at each corner of base (C). Use a band saw to cut the radii, and then use a spindle sander to smooth out the corners.
6. Plane the remainder of the board to 5/8".
7. Trace the front/back pattern (A) and the pattern (D) onto their respective boards. Use a band saw to cut the outside shapes. Use a spindle sander to sand the outside shapes.
8. Use a hand router and a 5/8" straight bit to recess the inside areas of the front/back (A). The depth of cut should be 1/8". A router jig will be required to successfully route out the area. To make the jig, plane a pine board to 3/8" thick. Rip four 3" wide strips from the board. The size of the front/back (A) recessed areas to be routed is 3 3/4" high x 6 1/2" wide. If you use a 5/8" diameter bit and a router with a 6" base the inner dimensions of the jig should be 9 1/8" x 11 7/8". The inside shape of the jig should be the same shape as the area to be recessed, with the exception of the two bottom corners, which should be square. Cut lap joints for the corners of the jig, then glue and nail them together. Sand the top surface of the jig so that it is perfectly flat. Attach 1/2" thick x 5" wide boards onto the bottom of the jig, on all four sides. These boards should fit snug over the outsides of the front/back (A) to help keep the jig from moving.
9. Use a vacuum table to secure the front/back (A). Place the jig over the top of the front/back and then route the area to be recessed. Route out the perimeter first and then route the interior area. Be sure that the router base stays flat on the jig at all times. If the router base is a different diameter, the dimensions will need to be adjusted accordingly.
10. Hand sand the recessed area until it is smooth and flat.
11. A CNC Milling Machine could be used to recess the shape described above, if one is available.
12. Use the letters pattern (B) to draw the letters and the inside shape.

1. The letters (B) and the inside shape should be cut out using a scroll saw. The tops of the letters should remain attached to the top of the recessed area. Drill small holes in the insides of the letters "A", "P", "K", and "S". Remove the jig saw blade and insert it into the holes in order to cut out the inside shapes of the letters. When completed, there should be a 1/2" wide border around the letters and the opening beneath the letters. **NOTE:** The thickness of the letters and the 1/2" wide border around the letters should be the same thickness. Also, the area beneath the letters is cut out.
2. Use a router and a round over bit to route the exterior edges of the front/back (A) and the top of the base (C). Do not route the bottom edges of the front/back (A)
3. Use a radial arm saw with a dado blade to cut the tenons for the bottom of the front/back (A). The cut should be 1/8" deep on both sides. Use a band saw to cut 1/8" notches on the edges to complete the tenons.
4. Use a mortise machine with a 3/8" mortise bit to cut two mortises 3/8" x 1/2" x 7 1/2" into the top surface of the base (C) to accommodate the tenons in the front/back (A). The mortises should be 3" apart.

D. Wood Napkin Holder Sanding Procedures:

1. Hand sand all parts with 80 grit sandpaper.
2. Repeat the sanding procedure with 120 grit sandpaper.
3. Finish sand with 220 grit sandpaper.
4. Carefully sand the letters so they will not be snapped off.
5. A spindle sander with a small diameter spindle could be used to sand the cut out edges below the letters.
6. Use 220 sandpaper to slightly round off all corners of the project.

E. Assembly Procedures:

1. Place wood glue in the mortises of base (C) and on the tenons of the front/ back (A). Insert the tenons into the mortises.
2. Place glue on the side and bottom edges of the sides (D) and position them flush with the ends of the front/back (A).
3. Use hand screw clamps to clamp the assembly together.
4. Use a nail gun and 1" brads to secure the assembly.
5. Immediately clean up any excess glue with a damp rag.
6. Allow the glue to dry over night.

F. Finish Procedures:

1. Use plastic wood dough to fill all nail holes, cracks and imperfections.
2. After the wood dough is dry, hand sand the patched areas flush with 220 grit sandpaper.
3. If stain is desired, apply with a brush and allow it to penetrate for 5-10 minutes and then remove it with a clean rag.
4. Allow stain to dry 6 hours and then repeat the process with a second coat.
5. Apply a clear finish coat such as Varathane, Polyurethane, lacquer, etc. using a pure-bristle brush. Allow to dry 12 hours.
6. Lightly had sand finish with 220 grit sandpaper.
7. Apply second coat of clear finish.
8. If additional finish coats are desired, repeat steps #5 & 6.
9. Allow to dry 24 hours before using the wood napkin holder.

Notes:

1. Match the color of the wood dough to the stain color.
2. Use a tack rag after each sanding procedure to remove the dust