

Office File Cabinet & Hutch

Mar, 2008

Construction is frame and panel. This is a large piece, but rather than being built-in, it is made as four furniture components – actually six counting the riser (stand) and the top.

The hutch has two concealed doors on slides. These require 1 3/4" clearance from the stiles and should be 3/4" (or less) thick. The shelf unit inside the hutch has to be free-standing because of the concealed doors. I put it on bottom-mounted sliders such as those used for TV's. The depth of the hutch is designed to accommodate the requirements for the concealed door hardware as well as the stuff I plan to put in it. The back as I made it is 1/4" plywood. For wall hanging, the back could be made with 1/2" plywood.

The base has two or three modules, plus the top and (optional) riser. These are two identical file cabinets at each end. Between them are either short apron pieces or an optional center drawer unit. The apron or center drawer unit is bolted to the file cabinets at the top front and back and at the rear bottom with knock-down hardware like that shown in Figure 2 .

Overall Dimensions:

Base: 48 x 30 x 30 overall. Top overhangs base by 1" at sides and front. Base w/o top is 46 x 29 x 29 1/4 ; Hutch: 44 1/2 x 23D x 41 1/2 H (including 9 1/2 " riser and 32" H hutch body).



Figure 1. Sketch of Complete Unit



Figure 2. Knock-down Joint Connector

Cut List				
<i>Hutch -Solid Wood</i>				
1.	Post (stile)	32 x 1 1/2 x 1 1/2	4	1. Mortises 1/2" W x 1"L x 3/4" D on 2 sides, 1/4" from each end, centered. 2. Grooves 1/2" W x 1/4" D for side panels 3. <i>Rear posts</i> have 1/4" x 1/4" groove for back 4. <i>Front posts</i> have corner relieved, approx 1/4" round over

2.	Front Rail	43 x 1 ½ x 1 ½	2	<p>1. Tenons on ends 1" x ½" x ¾" long;</p> <p>2. Rabbet ¾" D x ½" W for bottom/top (Note: check orientation - top should drop down into rabbet)</p> <p>3. Mortise ¼" W x 1"L x ½"D in center, exactly ¼" back from front edge</p>
3.	Rear Rail	43 x 1 ½ x 1 ½	2	<p>1. Tenons on ends 1" x ½" x ¾" long;</p> <p>2. Rabbet ¾" D x ½" W for bottom/top (Note: check orientation - top should drop down into rabbet)</p> <p>3. Mortise ¼" W x 1"L x ½"D in center, exactly ¼" back from front edge</p> <p>4. Groove ¼" x ¼" , ¼" from back edge to receive back panels</p>
4.	Center Post	30 x 2 x ¾	2	<p>30" overall incl</p> <p>1. Tenons ¼" W x 1"L x ½"D on ends, exactly ¼" back from front edge (29" between shoulders)</p> <p>2. <i>Rear post</i> has ¼" x ¼" grooves on both sides ¼" from rear edge to receive back panel</p>
5.	Side Rail	21 ½ x 1 ½ x 1 ½	4	<p>21 ½ overall incl</p> <p>1. Tenons on ends 1" x ½" x ¾" long</p> <p>2. Groove ½" W x ¼" D on top or bottom to accept side panels</p>
6.	Side risers	23 x 9 ½ x ¾	2	¾ W x ½ D rabbet at rear inside
7	Back riser	44 x 9 ½ x ¾	1	fits into rabbet on side risers

8.	Riser stops	20 x ¾ x ½	4		Glue to bottom to keep hutch in place on riser
Hutch - ¾" Cabinet Plywood					
9.	Top & Bottom	42 ½ x 21	2		Will fit into ½" deep grooves
Hutch ½" Cabinet Plywood					
10.	Side Panels	21 x 30	2		Will fit into ½" deep grooves
Hutch - ¼" Cabinet Plywood					
11	Back Panel	20 ¼ x 29 ½ x ¼"	2		Will fit into ¼" deep grooves
Hutch Doors - ¾" solid wood 20 ½ W x 30 ½ H					
20	Stiles	30 ½ x 1 ½ x ¾	4		½" mortises ¼" groove for panel
21	Center Stile	28 ½ x 1 ½ x ¾	2		½" tenons each end
22	Rails	18 ½ x 1 ½ x ¾	4		½" tenons each end ¼" groove for panel
23	Panel	9 x 28 ½	4		Cut to fit after rails & stiles
Base File Drawer Module - Solid Wood w/o top 46 x 29 x 29 ¼					
			ea	for 2	Remarks & Milling

30	Post (Stile)	29 ¼ x 1 ½ x 1 ½	4	8	<p>Two sets of mirror images. See drawing.</p> <p>(1) 1 x ½" x ¾" D mortises at ¼"-1 ¼" and 26-27"</p> <p>(2) Double ¼" x ¾" x ½" D mortises at 0"- ¾" and 13 ¼ -14", on side;</p> <p>1 x ½" x ¾" D mortise at 26 - 27" from top.</p> <p>Two sets of mirror images. See drawing.</p> <p>(3) ½" x ½" groove for sides and for back (rear stiles only),</p>
31	Front Rails (Top & Middle)	15 ½ x 1 ½ x ¾	2	4	15 ½ overall. Cut double ½ x ¾" tenons on ends
32	Front rail, Bottom	15 ½ x 1 ½ x 1 ½	1	2	15 ½" overall. Cut 1 x ½ x ¾" tenons
33	Back Rails (top & bottom)	15 ½ x 1 ½ x 1 ½	2	4	Back rails have ½" x ½" groove for plywood panel
34	Side rails	27 ½ x 1 ½ x 1 ½	4	8	<p>27 ½" overall. Cut 1" x ½" x ¾" tenons</p> <p>½" x ½" grooves for plywood panels</p>
35	Feet Trim	2" x 2"	8	16	Feet attach to stiles below bottom rail
38	Base Top	48 x 30 x ¾		1	Use existing table top
Base File Drawer Module - ½" Plywood					
40	Sides	27 x 25 ¼	2	4	
Base File Drawer Module ½" Baltic Birch					
41	Back	15 " x 25¼	1	2	

Base File Drawer Module: Drawers

Drawers are approx 12" H x 14" W x 24 1/4"D overall. 13 W x 22 1/2 inside. Fronts are edge-banded plywood. Ball bearing drawer guides fit in 1/2" clearance along cabinet sides. Dimensions assume: (1) inset fit – make fronts 1" larger & sides 3/4" longer for overlay fit; (2) Box joint construction

Solid 3/4"

50	Horiz. trim for File Drawer Front	14 x 1 x 3/4	4	8	Mitered corners
	Vertical trim File Drawer Front	12 x 1 x 3/4	4	8	Mitered corners

3/4" Oak Ply

	File Drawer Front plywood	12 W x 10 x 3/4	2	4	3/4" Ply
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1/2" Baltic Birch

51	File drawer back	14 W x 12 H x 1/2	2	4	
51	File Drawer Sides	24 L x 10 H x 1/2	4	8	

1/4" Masonite

53	File Drawer Bottom	24 x 13 1/2 x 1/4	4		1/4" masonite
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