ultimate tool stand

An easy-to-use space saver with more functions than a Swiss army knife.

by Dave Munkittrick

An easy-to-use space saver with more functions than a Swiss army knife.

For those of us who share shop space with a car or a washer and dryer, elbowroom is always a problem. This tool stand is the answer. A 2 ft. by 6-ft. section of floor space is all you need to store it. When you're ready to work, just roll it out, lock it down (these casters won't budge) and plug it in. It not only stores three benchtop power tools, it provides a working platform that actually improves their performance. In seconds you can shift from a chop saw station to a huge router table and then to a portable planer stand with infeed and outfeed support.

A dead-flat torsion box is the foundation of this tool stand. This torsion box is a sandwich made from two skins of medium-density fiberboard (MDF) and a grid core (Fig. A). It offers incredible strength and resistance to sagging. It simply won't twist out of shape no matter how uneven your shop floor is.

Downdraft Sanding Table

Glue Up Table

Chop Saw Stand

Huge Router Table

Portable Planer Stand

T-Slot Clamping System

Outfeed Table

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FIG. A – Exploded View

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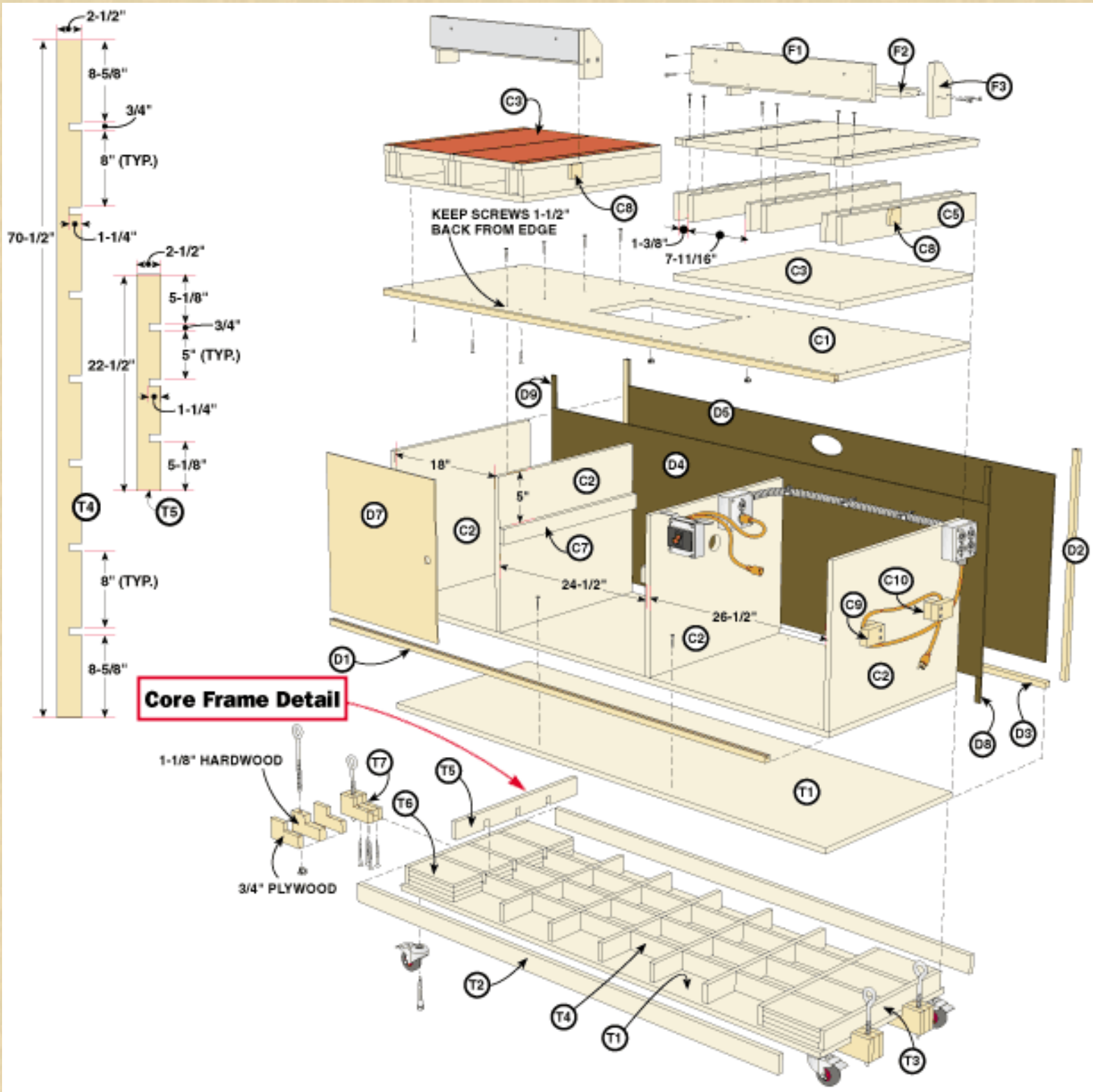
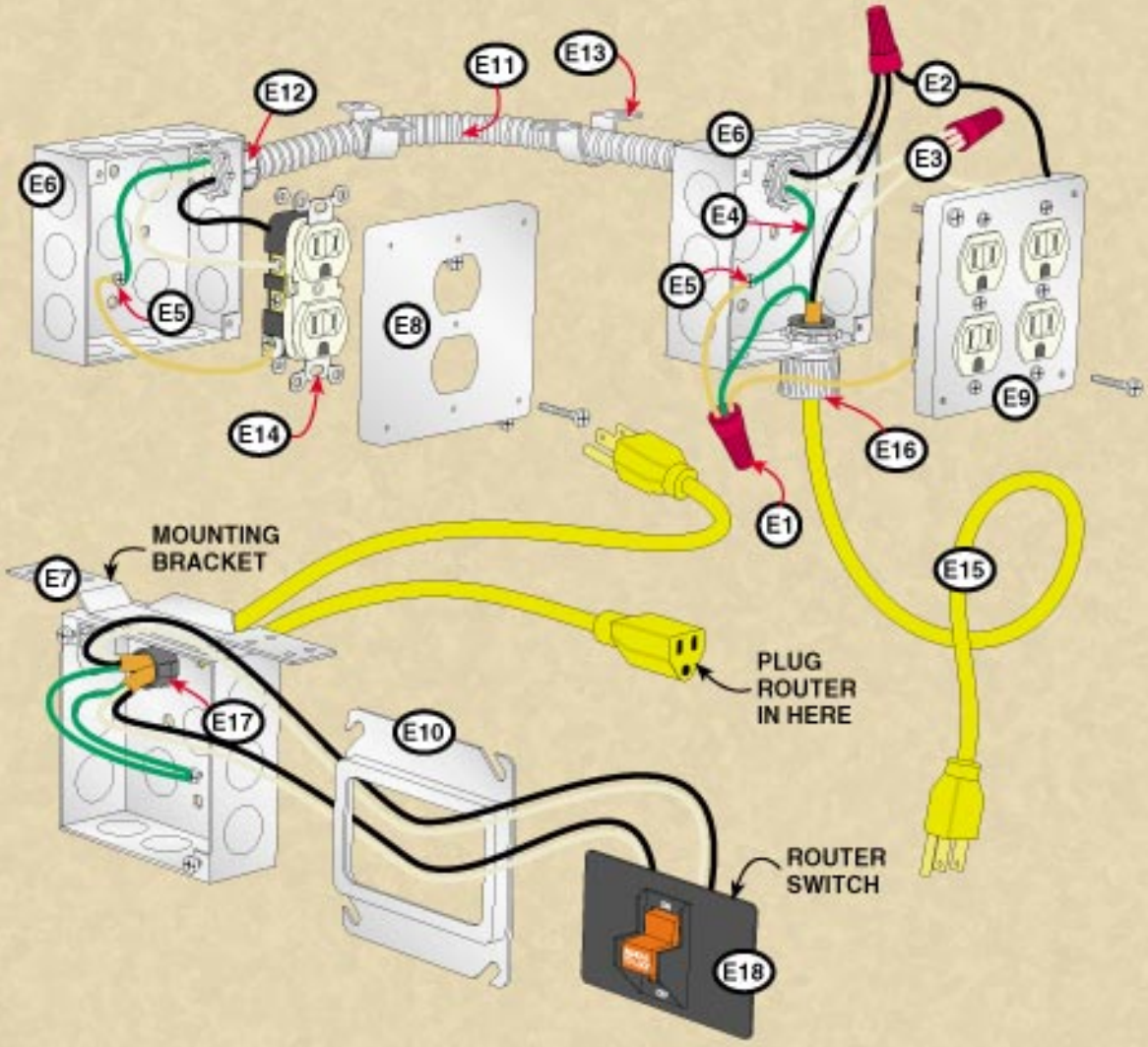
Core Frame Detail



TIP - MDF is prone to splitting when screws are driven into it. To minimize the problem, keep the screws in about 1-1/2 in. from the front and back edges of the top and bottom. This keeps the sides and dividers from splitting. Also, the pilot holes should be made a little deeper than usual and countersunk for the screw heads.

FIG. B – Electrical Connections



Part	Description
E1	Red wire connectors
E2	#12 THHN black wire, stranded or solid
E3	#12 THHN white wire, stranded or solid

E4	#12 THHN green solid wire
E5	Ground screws, #10-32
E6	4-in. square x 1-1/2-in. deep metal junction box
E7	4-in. square x 1-1/2-in. deep metal junction box with an attached mounting bracket
E8	4-in. sq. raised cover for one-duplex receptacle
E9	4-in. sq. raised cover for two-duplex receptacle
E10	Single-gang plaster ring, raised 1/2-in.
E11	1/2-in. flexible metal conduit
E12	1/2-in. flexible conduit connector
E13	1/2-in. flexible conduit straps
E14	Duplex 15-amp 120-volt receptacle
E15	12/3 SJ cord set, round cord (remove female end)
E16	Strain relief cord connector
E17	Plastic push-in connector for two cords
E18	Router switch

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Building The Ultimate Tool Stand

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GETTING STARTED

$300 buys all the material you need to construct the ultimate tool stand. We used 3/4-in. MDF to build ours.
The only tools you need are a circular saw, a router, a drill, a tablesaw and an accurate straightedge. A pneumatic nail gun makes assembly a lot easier.

Butt Joints, screws and glue make for simple, sturdy construction.

DIMENSIONING THE TOOL STAND

There are two things to consider when dimensioning your tool stand:

1. The height of the bed on your chop saw.
2. The height of your tablesaw.

The tool stand consists of two boxes permanently fixed to the top to form a tool well (Fig. A). The 4-1/2-in. height of each box was determined by the height of our chop saw's bed mounted on a 1/2-in. plywood base. Adjust the width of the ribs (C5) to match the height of your own chop saw. The 34-in. height of the tool stand is just below our tablesaw so it can be used as an outfeed table. If you need a different height for your saw, adjust the length of the sides and dividers (C2) accordingly.

ACCURATE MACHINING OF PARTS

Any part that's a little bit out of square or not exactly the right size will have a ripple effect on the outcome of this project. Sides and dividers that are not square or exactly the same size will result in an uneven top. Out-of-square tops and bottoms make for

Rough cut sheet stock down to a manageable size with a circular saw. A piece of 1-1/2-in. foam board makes an excellent backer. Make sure the blade is set to cut only slightly deeper than the thickness of the stock you're cutting! Remember, MDF is dusty stuff, use dust control whenever possible.

poor-fitting inserts.

THE SQUARE TEMPLATE
Here's a recipe to guarantee square, perfectly sized parts:

First, rough cut the tops, bottoms and sides about 1/2-in. oversize with a circular saw (Photo 1). Then rip all the pieces to finish width on your tablesaw. *Organize your work so the fence is set just once for each dimension.* This guarantees that every piece is exactly the same width.

Each piece must be crosscut perfectly square. One surefire way to get a square end is to use a straightedge and a router with a flush-trim bit (Photo 2). Once you've created a perfectly square 24 in. by 72-in. piece, use it as a template for routing the other three 24 in. by 72-in. pieces. Simply clamp the finished piece over the rough one making sure the edges are exactly flush and the ends to be cut overhang about 1/4 in. Then trim the ends with a router and a flush-trim bit.

Use a 24 in. by 24-in. piece as a template for trimming the ends of the other 24 in. by 24-in. pieces. The smaller parts can be accurately cut on your tablesaw or chop saw.

Make a part template FROM MDF. Square a straightedge on a rough-cut end, then rout a perfectly square crosscut with a flush-trim bit. Once you have one 24 in. by 24-in. piece perfectly square you can use it as a template for making other square cuts.

USE THE CARCASS AS AN ASSEMBLY TABLE
There are two problems with building a large torsion box:

1. It will only be as flat as the surface you build it on.
2. It can be a bear to clamp up.

We've solved both of these problems for you.

Create a flat surface on which to build the torsion box by building the carcass first. Assemble the carcass top, bottom (C1) and sides (C2) using glue and screws. The dividers (C2) are fastened with screws only, so the interior divisions can be altered for future needs. Be sure all the edges are flush as you build. Use a perfectly square back (D4) to square up the cabinet. Laid on its back, the assembled carcass now provides the dead-flat surface needed to build the torsion box.

Gang all the torsion box core pieces together and notch them on the tablesaw. Mark the common ends of each core piece so they can be assembled in the same orientation they were cut.

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Building The Ultimate Tool Stand (continued)

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THE TORSION BOX

The torsion box is designed to resist twisting. It consists of a web core made up of MDF strips notched for easy assembly (Fig. A). To ensure each piece is notched the same, gang cut the notches on the tablesaw (Photo 3). Glue and screw the sides (T2) and ends (T3) first to create a frame. Assemble the core grid (T4 and T5) inside the frame along with the corner blocks (T6) (Photo 4). Place the torsion top (T1) over the core grid and tack it in place. Be sure all the edges are flush (Photo 5). Then weight the top for clamping pressure (Photo 6). Once the glue has set, remove the weights, flip over the torsion box assembly and glue on the bottom (T1).

With the torsion box complete, add the casters and the levelers (T7). The carcass is then screwed down onto the torsion box (Fig. A).

BUILDING THE BOXES

There are four boxes that complete the tool stand. Two of the boxes are permanently fixed to the top to form the tool well (Fig. A). The other two, the downdraft table (Fig. C) and the router table box (Fig. D) are used as inserts between the fixed end boxes. Assemble the fixed boxes with glue and screws (Photo 7). Add plastic laminate for a durable top. Or, skip this step and simply treat the surface with a couple coats of polyurethane (it's a great way to use up that old can that's been opened a few too many times).

Cut the 3/8-in. T-slots in the top with a dado

Spread glue on all the edges of the torsion box core. The torsion box can only be as flat as the surface on which it is built. Build it on the carcass laid on its back (which will be dead flat). Lay the bottom of the torsion box on the carcass and assemble the core grid. The corner blocks are attachment points for the casters.

blade on your tablesaw. Attach the fixed boxes to the top and be sure to keep all the edges flush (Fig. A).

DOWNDRAFT BOX

Assemble the downdraft box from the inside out (Fig. C). First, glue and screw the two inside ribs (C5) to the filler pieces (C6) to create the interior structure. Then attach the bottom. Use the spacer stick to attach the outside ribs. Note: The sides of the insert boxes are inset 1-in. so they will clear the chop saw fence stop blocks (C8).

Drill a 3-in. hole into the center of one filler piece for a dust collector fitting. Perf-board makes a great template for drilling the 1/4-in. holes in the top. Use a countersink to widen the opening of each hole.

ROUTER TABLE BOX

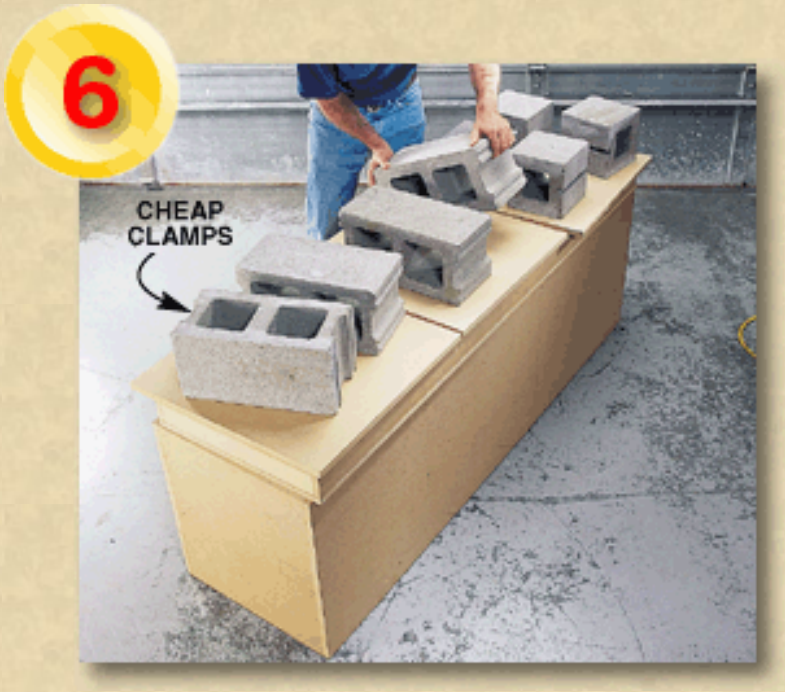
Assemble the router table box. Note: The bottom of the router table box is cut 2-in. narrower than the top, making it flush with the outside ribs (Fig. D). This allows the router table to be lifted in and out of the well with the router attached.

The router is mounted onto a table insert that sits flush to the top. This allows you to lift the entire router out of the table for changing bits. Make two 8 in. by 16-in. access holes, one in the bottom of the router table and the other in the top of the carcass. These holes allow room for a pair of hands to adjust the router.

TOOL BASES

The chop saw is screwed to a piece of 1/2-in. plywood sized to fit into the well. To make positioning of the saw and the auxiliary fences easier, line up the front edge of the saw base with the front edge of the tool stand well. Behind the saw, drill two 1/4-in. holes through the base and the carcass. Mount T-nuts to the underside of the carcass top (Fig. A) and secure the saw with T-

Tack the top onto the core grid. Be sure all the edges are flush.



Clamp the top onto the grid with weights and extra sheet stock. The extra sheet stock helps distribute the weight of the blocks evenly.

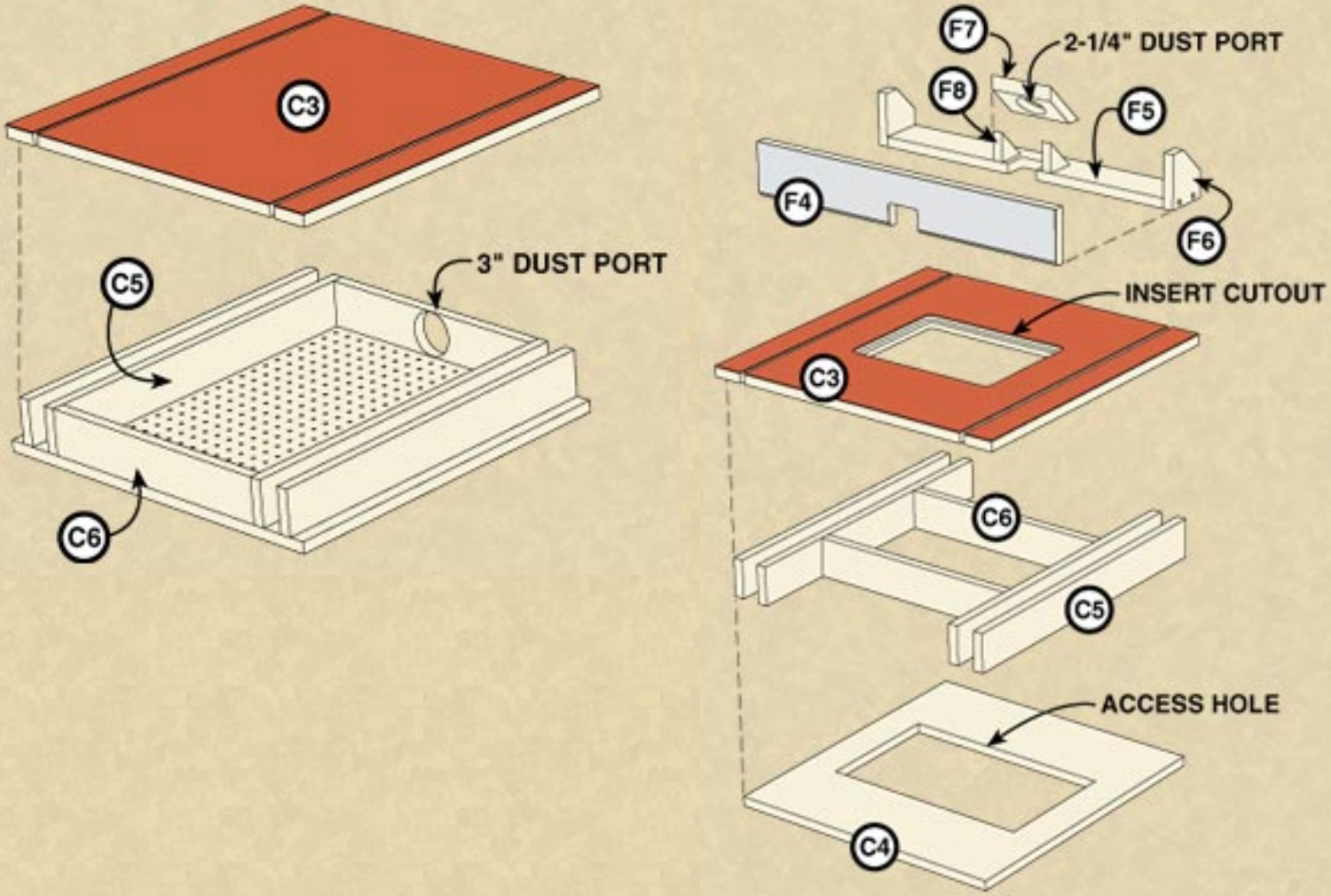
handle knobs. Clamp a straightedge to your saw's fence and position the chop saw fences against it. Nail the stop blocks to the fixed boxes. The planer base is made from a piece of 3/4-in. plywood. The two 1-5/16 in. by 24-in. supports bring the planer bed up to the same height as the fixed end boxes. Your planer bed may vary, so size the supports accordingly.

That's it. You're done! Now your shop will seem two sizes larger without moving a single wall!

Use a 1-3/8 in. by 1 in. by 24-in. spacer stick to help lay out the ribs on all the boxes. Use the 1-3/8-in. side to space the double ribs on all the boxes and the 1-in. side for the overhang on the two inserts (Figs. C and D).

FIG. C – Downdraft Box

FIG. D – Router Table Box



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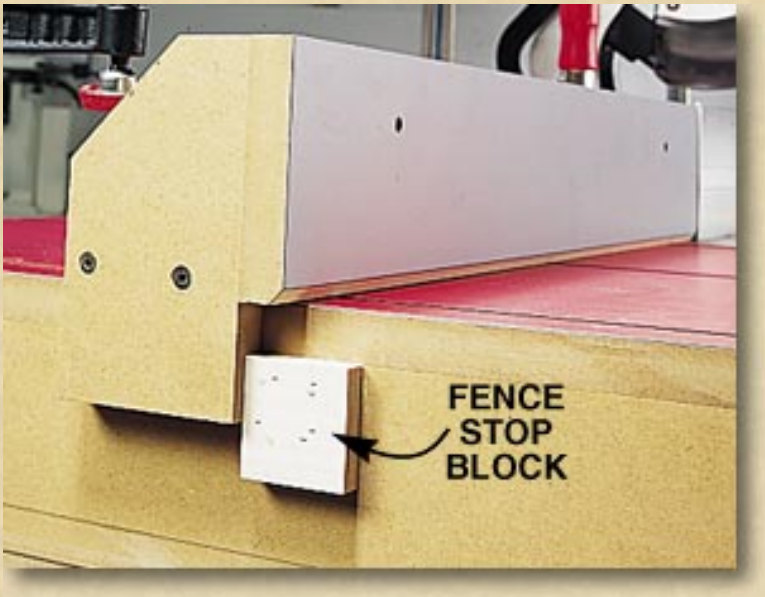
Chop Saw Stand

ultimate tool stand

The chop saw stand handles long stock with ease. A portable chop saw begs for additional bed support and fence extensions. The ultimate tool stand does both, and set-up is as simple as ABC.

A. Pull the saw from its compartment and set it in the well.

B. Align the front edge of the base with the front edge of the tool stand and secure with T-knobs.



C. Butt the fences up against the stop blocks and secure with clamps.

Elapsed time: 55 seconds!

Planer Stand

Planing large stock is a breeze with this setup. Perfectly flat infeed and outfeed support dramatically reduces sniping. The plywood base is secured to the table with clamps. Note: Height of the support blocks may be altered to suit your machine.

An optional pullout shelf makes for easy-access storage.

Sanding Station

Crosscut Well

The downdraft table insert captures fugitive dust and keeps your shop and your lungs clean. Flip it over and you have a continuous top with slotted channels for machining and gluing.

Cut sheet stock down to size over the open well. No more wrestling with large stock on the tablesaw or trying to cut it down on a pair of wobbly sawhorses.

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Router Table

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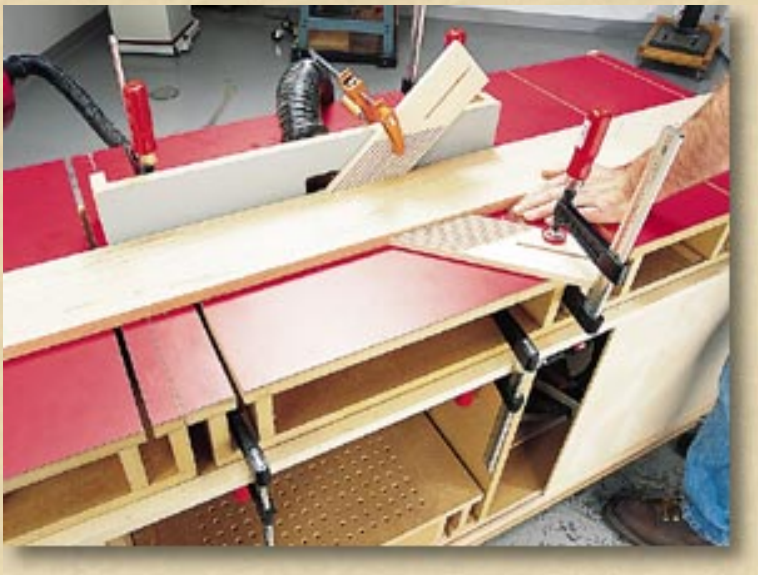


This router table is huge! The router table insert can be set up or stored in seconds without having to remove the router. Just slide it out (see above), drop it into the well and clamp it to the top. The slotted top allows the fence and featherboards to be clamped with ease. The router is plugged into a convenient power switch below (**Fig. B**).

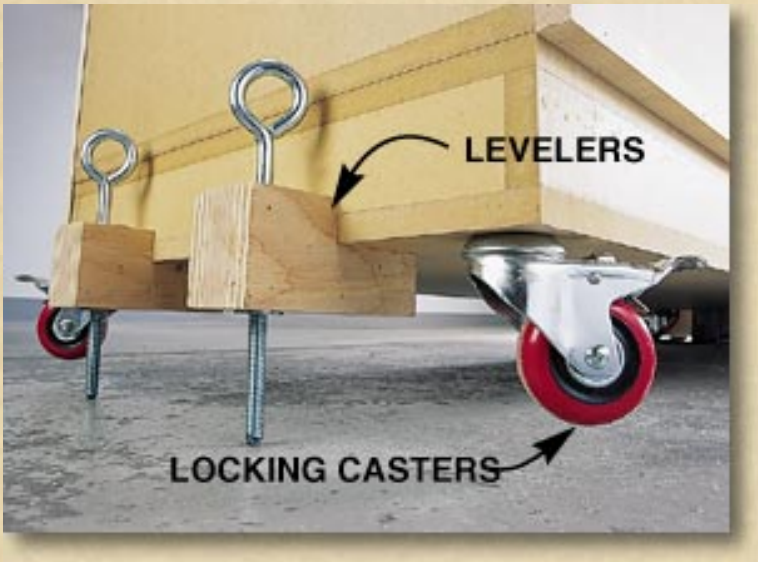
Glue Up Table

Accurate glue ups are guaranteed on this dead-flat surface. Say goodbye to twisted assemblies.

A self-storing drip shield keeps your tool stand clean.

Outfeed Table

A rock-solid outfeed support that sets up in minutes is like having a second set of hands at the tablesaw.



Heavy-duty casters and levelers can handle uneven shop floors and make this tool stand mobile and stable.

Clamping System

Slots in the top allow you to clamp anything, anywhere on this table. Machining has never been easier. Here the clamps hold straightedge guides and the piece being machined for cutting multiple dadoes.

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Cutting List

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CUTTING LIST

Overall Dimensions: 34-1/4" H x 72" W x 25-3/4" D

CARCASS and BOXES {C} 3/4" MDF			
C1	Top and Bottom	2	24" x 72"
C2	Sides and Dividers	4	24" x 20"
C3	Box Tops and Bottoms	7	24" x 24"
C4	Router Box Bottom	1	22" x 24"
C5	Ribs	20	3" x 24"
C6	Fillers	4	3" x 16-1/4"
C7	Router Box Slides	2	2 " x 24"
C8	1/2" sheet stock Chop Saw Fence Stop Blocks	4	1-3/4" x 1-3/4"
C9	Cord Cleat Face	2	2" x 3"
C10	Cord Cleat Base	2	1-1/4" x 2"
TORSION BOX {T} 3/4" MDF			
T1	Top & Bottom	2	24 " x 72"
T2	Sides	2	2-1/2" x 72"
T3	Ends	2	2-1/2" x 22-1/2"
T4	Long Core	3	2-1/2" x 70-1/2"
T5	Short Core	7	2-1/2" x 22-1/2"
T6	3/4" plywood and hardwood sandwich Corner Blocks	8	2-1/2" x 5-1/8" x 8-5/8"
T7	Leveler block	4	3" x 6"
CHOP SAW FENCES {F} 3/4" MDF			
F1	Faces	2	4" x 25-1/2"
F2	Bases	2	3-1/4" x 24"
F3	Brackets	4	3-1/4" x 5-3/4"
ROUTER TABLE FENCE 3/4" MDF			
F4	Face	1	4" x 25-1/2"
F5	Base	1	3-1/4" x 24"
F6	Brackets	2	3-1/4" x 4"
F7	Dust Port	1	4-5/8" x 5"
F8	Blocks	2	2-3/16" x 2-3/16"

DOOR AND DRIP SHIELD TRACKS {D} 3/4" hardwood			
D1	Door Tracks	2	3/4" x 72"
D2	Drip Shield Track	2	3/4" x 29-1/4"
D3	Drip Shield Bottom Stop	1	1" x 72"
BACK, DOORS and DRIP SHIELD {D} 1/4" sheet stock			
D4	Back	1	21-1/2" x 72"
D5	Drip Shield	1	24" x 71"
D6	Door	1	20-1/2" x 28"
D7	Door	1	20-1/2" x 19-1/4"
D8	Back Track Fill Pieces	2	3/4" x 3-1/4"
D9	Back Track Fill Pieces	2	3/4" x 4-1/2"
TOOL BASES {B} Sheet stock			
B1	Chop Saw Bas	1	19" x 24"
B2	Planer Base	1	12" x 24"
B3	Squared up 2x4 stock, 1-3/8" thick Support Blocks	2	1-5/16"* x 24"
	*Adjust for your planer bed height		

Shopping List

Sheet Goods		
4	3/4 in. x 4 ft. x 8 ft. MDF	$80
1	1/4-in. x 4 ft. x 8 ft. hardboard	$8
4	1/2-in. x 10-in. eye bolts	$27
4	1/2-in T-nuts	$3
4	1/2-in. x 3 in. lag bolts	$2
Electrical		
3	Red wire connectors	
5 ft.	#12 THHN black wire, stranded or solid	
5 ft.	#12 THHN white wire, stranded or solid	
5 ft.	#12 THHN green solid wire	
3	Ground screws, #10-32	
2	4-in. square x 1-1/2-in.deep metal junction box	
1	4-in. square x 1-1/2-in. deep metal junction box with an attached mounting bracket	

1	4-in. sq. raised cover for one-duplex receptacle	
1	4-in.sq. raised cover for two-duplex receptacle	
1	Single-gang plaster ring, raised 1/2-in.	
3 ft.	1/2-in. flexible metal conduit (or length as needed)	
2	1/2-in. flexible conduit connector	
2	1/2-in. flexible conduit straps	
3	Duplex 15-amp, 120-volt receptacle	
25 ft.	12/3 SJ extension cord set, round cord	
1	Strain relief cord connector	
1	Plastic push-in connector for two cords	
TOTAL COST OF ELECTRICAL	$35	
HIGHLAND HARDWARE (800) 241-6748		
1	Router Switch with Cord Set Item #W2001	$13
1	Router Table Insert, Item #RM-3509	$33
1	Insert Template, Item #10.20.23	$15
WOODCRAFT SUPPLY (800) 225-1153		
4	Casters, Item #140639	$58
2	Knobs, Item #27R16	$4
2	1/4 in. T-nuts, Item #130226	$2
MLCS (800) 533-9298		
1	Flush-Trim Bit, Item #7808	$15

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Close this Window

photog
Member

Reged: 10/13/03
Posts: 261
Loc: Sacramento, CA

My “Ultimate Tool Stand” is finished (pics)

#933850 - 05/06/04 11:31 AM

Just finished the “Ultimate Tool Stand” using plans from the now defunct Blue Highway Tour site. Through a bit of research, I’ve discovered that a fair number of people have built this project and I incorporated what I felt were their best modifications as well as some of my own.

The UTS has been called the “Swiss Army knife” of tool stands and I think you will see that its functions do indeed cover many applications, all in a mobile 2’W x 6’L x 3’H cabinet.

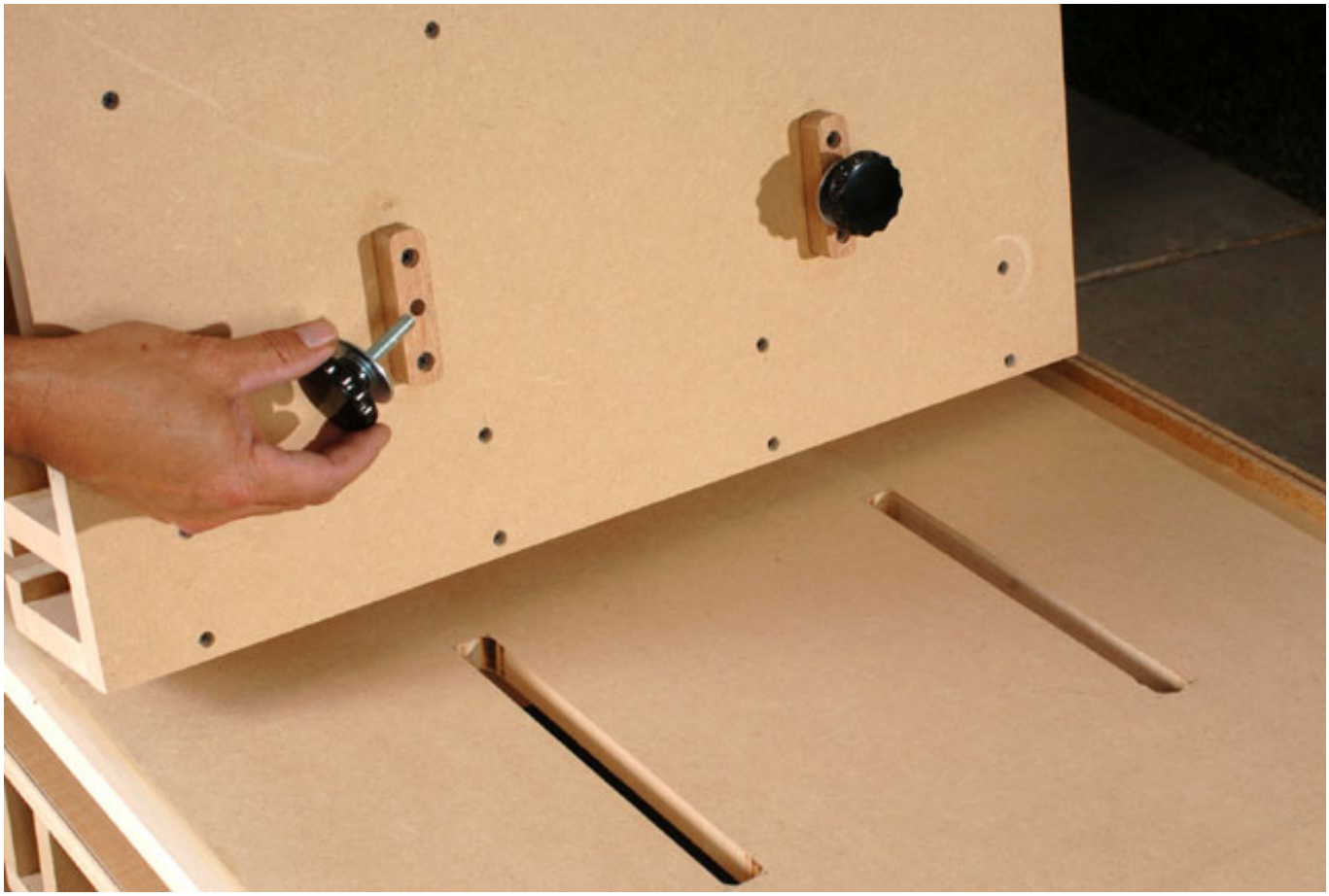
It serves as a workbench with clamping channels and power outlets, a huge router table, a downdraft sanding table, a miter saw station with long fences, a planer stand and table, TS outfeed table, a glue-up table and stores all these tools inside itself behind sliding doors. It works on the design of having a central tool well recess in which the various tool modules (call them boxes) dock into. The carcass is supported by a torsion box that carries the substantial weight of the tools and all that MDF. I had a lot of fun building this and it was easy to customize and make modifications as I went along.

Here the stand is in its normal work surface configuration with the clamping channels in use.

Flip the work surface over and you've got the downdraft sanding table.

I credit this modification idea to Don Hart Planethart . The original plan calls for the adjacent side boxes to be screwed down and fixed. Guys were running into the problem of the space being too narrow to clear their

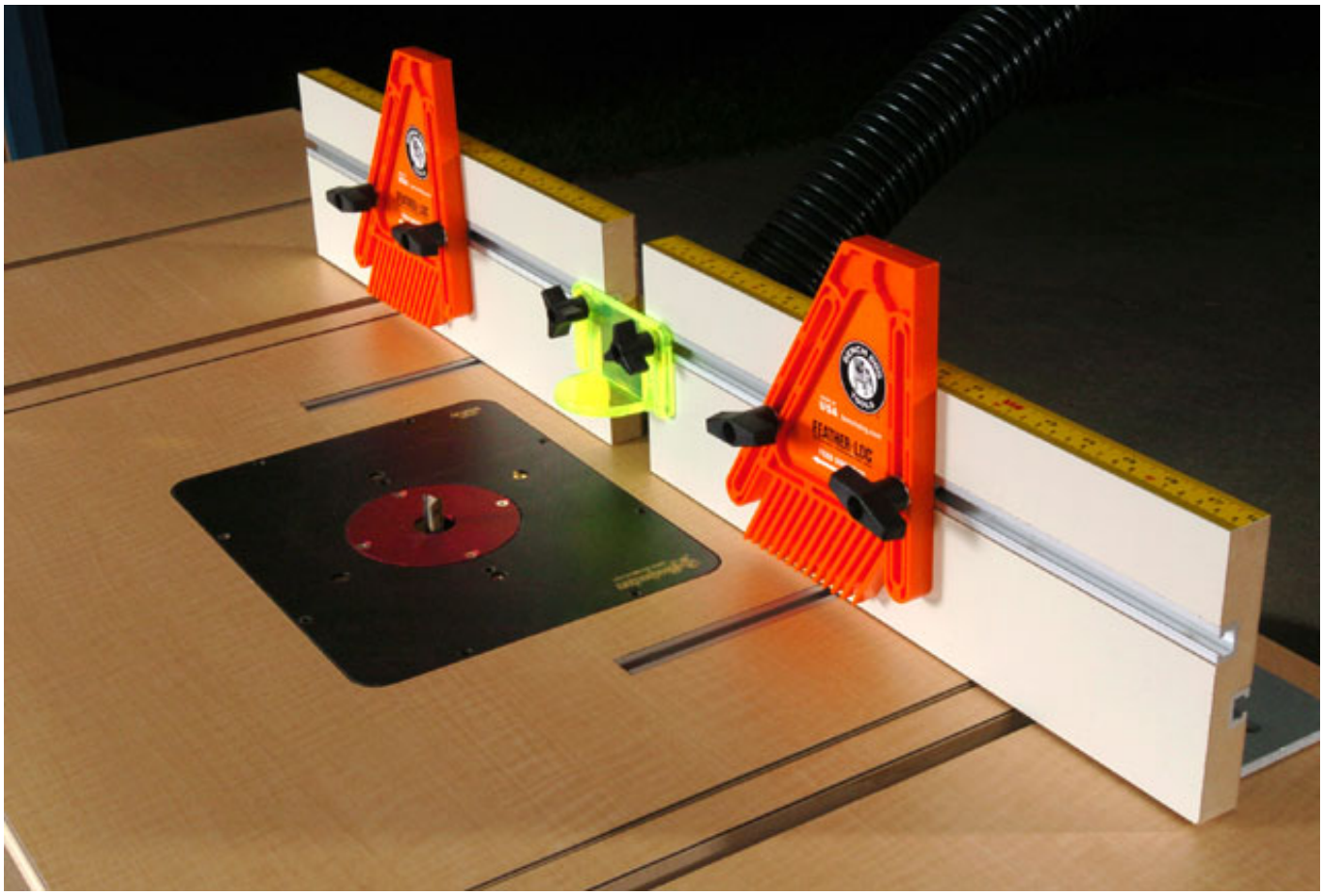
planer's fold-down tables. The solution was to make the boxes laterally adjustable allowing a custom fit for tools of varying widths. Don came up with the most positive of the sliding and locking methods.



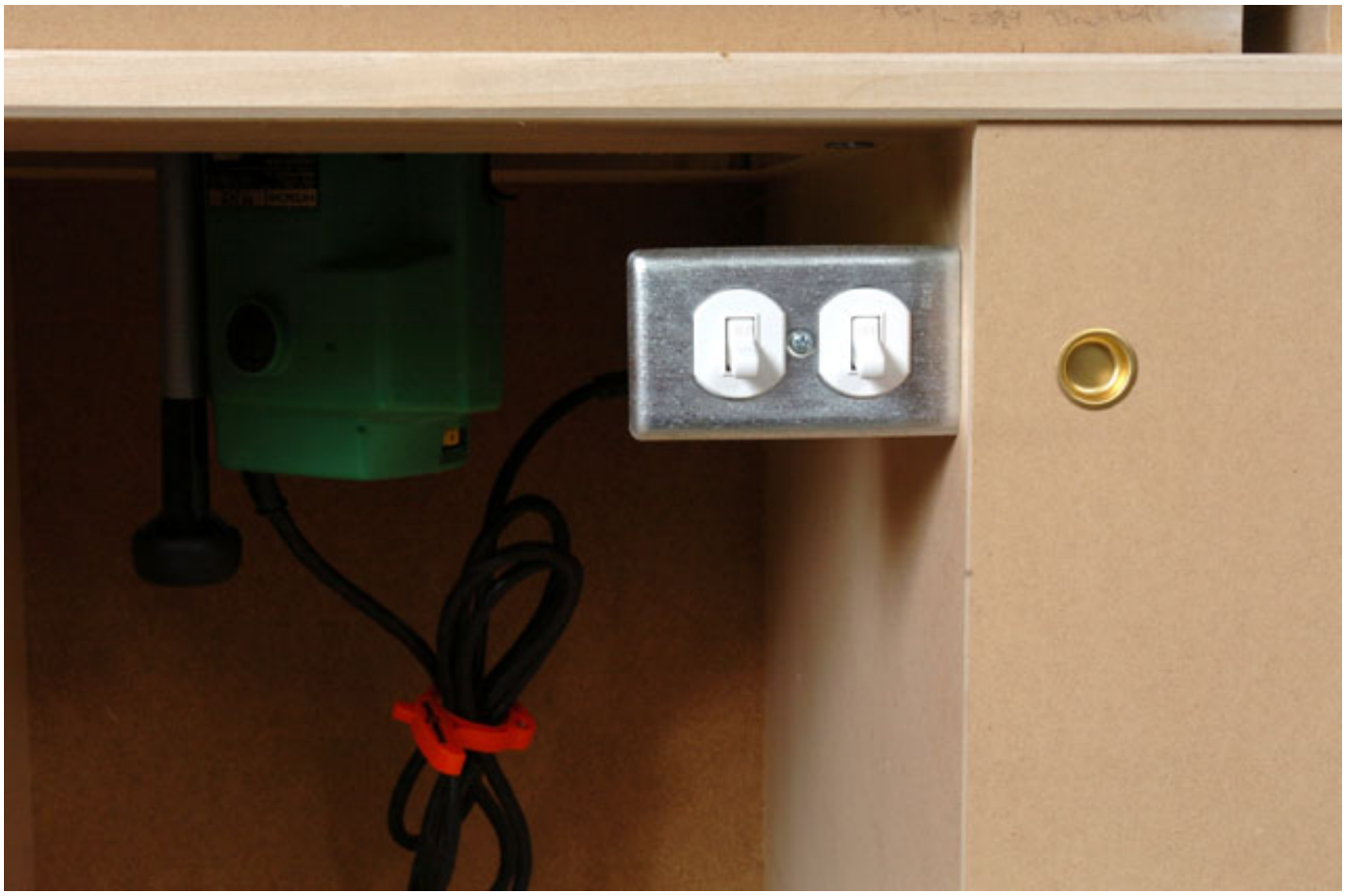
Oak runners slot into the carcass and lock down with studded knobs and t-nuts. Additionally I left the carcass back panel ½" proud to further register all the boxes.

The miter saw is lifted in and registers on the backstop and is secured by a couple of studded knobs and t-nuts. The fences also have registration stop blocks and clamp on via the channels. Set up is very quick.

The router table drops into the well, clearing the carcass through the access hole and plugs into a switched outlet. The open front allows direct access to the height adjustment knob and lock. Bit changes are made by lifting the router mounted insert plate out. Given my Woodpecker's tedious screw-in rings, this is much faster than going with the in-table bent wrench method.



I bought the TWC split fence and installed t-track for it to slide on.
The hole in the carcass will also register any tool you care to make a matching base for.

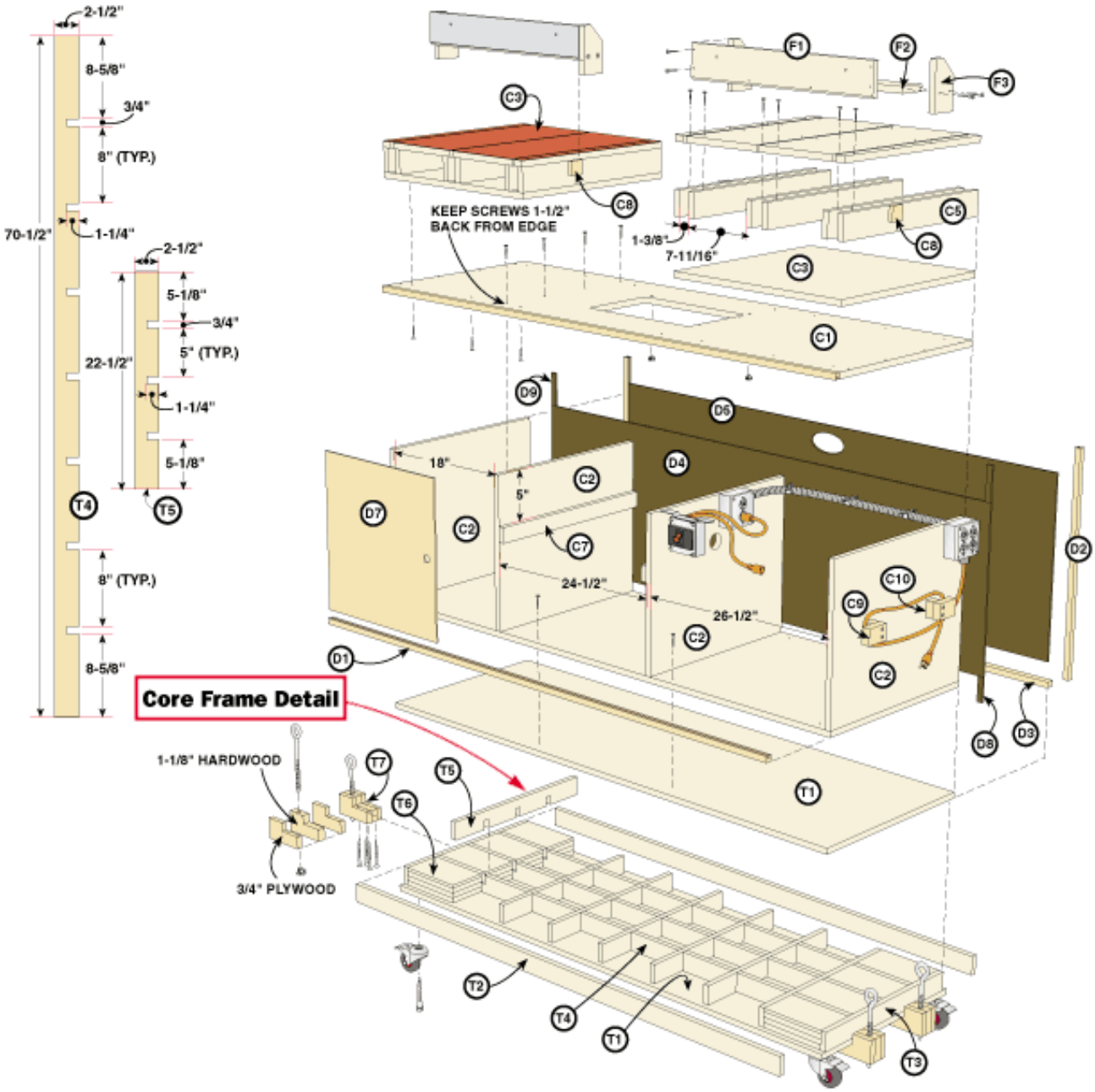


I dedicated one of the switched power outlets to the DC. The other switch controls the router.

A sacrificial hardboard table-cover/drip shield stores in the back via slotted tracks. Glue-ups or careless banging on the top can be done without sullying the finish.

I think the torsion box could support a truck. It simply will not sag or twist.

Hardwood fillers in the corners provide some meat for the casters to lag into.



I don’t know if it’s the “Ultimate” of tool stands, but it comes pretty close.

photog

Post Extras:

scottstef
Member

Reged: 11/12/01
Posts: 460
Loc: baltimore

Re: My “Ultimate Tool Stand” is finished (pics) [Re:photog]
#933876 - 05/06/04 11:54 AM

Edit Reply Quote

looks cool. looks complicated also, how long did it take to build? i though about building on, still might as an all purpose workbench.

See where my money goes...
http://www.moneypit.scottstef.com

Shoot me some spam:
scotstef@mgbusiness.com

Post Extras:

Eagle__
Member

Reged: 08/08/03
Posts: 2493
Loc: Camden S.C.

Re: My “Ultimate Tool Stand” is finished (pics) [Re:photog]
#933877 - 05/06/04 11:48 AM

Edit Reply Quote

Are the original plans available?
That is pretty close to what I've been thinking of building.

Post Extras:

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vanguard
Member

Reged: 12/02/02
Posts: 4466
Loc: RTP, North Carolina

Re: My “Ultimate Tool Stand” is finished (pics) [Re:photog]
#933884 - 05/06/04 11:54 AM

Edit Reply Quote

Nicely done as usual.

Vanguard's Projects
Last updated: 5/4/2004

Post Extras:

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amheck
Member

Reged: 10/18/02
Posts: 2376
Loc: Tampa, FL

Re: My “Ultimate Tool Stand” is finished (pics) [Re:photog]
#933915 - 05/06/04 12:17 PM

Edit Reply Quote

Very, very nice. Professional looking pics, too. My equipment pictures never seem to look quite that good.

Aaron

---
http://www.aaronheck.com/Woodworking/woodworking.html

Post Extras:

Mike in Atlanta
Member

Reged: 04/28/04
Posts: 8

Re: My “Ultimate Tool Stand” is finished (pics) [Re:photog]
#933918 - 05/06/04 12:19 PM

Edit Reply Quote

photog -

Excellent project... Beautiful pix and discriptions as usual!!!

Is there a material/parts list and/or cutting diagrams available???

Never mind, I found them at Planethart...

Edited by Mike in Atlanta (05/06/04 12:27 PM)

Post Extras:

ucfjeff
Member

Reged: 06/03/03
Posts: 22
Loc: Oviedo, FL

Re: My “Ultimate Tool Stand” is finished (pics) [Re:Mike in Atlanta]
#933927 - 05/06/04 12:27 PM

Edit Reply Quote

The original site is gone, but thanks to the Internet Wayback Machine most of the documents are still available. There may be a few pictures that are unavailable.

http://web.archive.org/web/20030622102626/www.bluehighwaytour.com/2001/Tool_Stand_1.html

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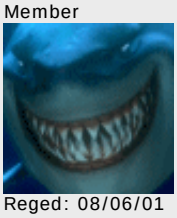
Jeff

Post Extras:

Dave Arbuckle
Member



Reged: 08/06/01
Posts: 24005
Loc: Plano, TX

Re: My “Ultimate Tool Stand” is finished (pics) [Re:photog]
#933938 - 05/06/04 12:42 PM

Edit Reply Quote

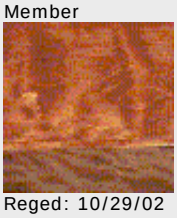
Wow, that's a heckuva "tool stand"!

What grit do you finish at on Furbys?

Dave

Post Extras:

Doghouse
Member



Reged: 10/29/02
Posts: 481
Loc: Smithfield, VA

Re: My “Ultimate Tool Stand” is finished (pics) [Re:Dave Arbuckle]
#933955 - 05/06/04 12:54 PM

Edit Reply Quote

Ok, now THAT just made it to the top of the I've got to get me one of them list. Very nice. What did you use to make the top out of? Looks like luan or formica?

Post Extras:

Dan Lanicek
Member

Reged: 10/04/00
Posts: 154
Loc: Austin, TX

Re: My “Ultimate Tool Stand” is finished (pics) [Re:photog]
#933958 - 05/06/04 12:45 PM

Edit Reply Quote

Looks very nice! I built a UTS as well and it gets used all the time. It is very handy for the small shop.

Post Extras:

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photog
Member

Reged: 10/13/03
Posts: 261
Loc: Sacramento, CA

Re: My “Ultimate Tool Stand” is finished (pics) [Re:scottstef]
#933966 - 05/06/04 12:52 PM

Edit Reply Quote

It took me two weeks to build of after work and week-end time. I already had the plans and had been looking into it for much longer. Thanks ucfjeff for the waybackmachine link and as Mike mentioned, the Planethart site has the plans. Doghouse-The top is finished with plastic laminate.

Furby seemed to enjoy the sanding experience. He was singing Brahm's "Lullaby" as I was relieving his hard edges.

Post Extras:

SteveL
Member

Reged: 02/11/03
Posts: 814
Loc: St. Louis, MO

Re: My “Ultimate Tool Stand” is finished (pics) [Re: photog]
#934016 - 05/06/04 01:36 PM

Edit Reply Quote

Awsome work and pics!!!! I do have a couple of questions though. First, do you, or anyone else that has an UTS find it less than handy to have to change out the various tools during a project? I find myself wanting to leave the CMS, router table, belt/disc sander all out at the same time. Saves a lot of repeat set up for bits, etc. Yea, I know that a number of people have very small shops and that real estate for tools is at a premium, but for those that have a 24' x 24' area or bigger, does'nt it make more sence to have dedicated stands on wheels for each???

I am in desperate need of something, either this or dedicated stands on wheels, becaused I have accumulated way too many tools for the sq ft that I have. Everything ends up out, taking every sq inch of work surface space witch makes assembly very difficult.

I guess the short version of this is, if you have the space, would you do it the same way again?????

Again, awsome job!!!!

SteveL in St. Louis

Post Extras:

Dan Lanicek
Member

Reged: 10/04/00
Posts: 154
Loc: Austin, TX

Re: My “Ultimate Tool Stand” is finished (pics) [Re: SteveL]
#934040 - 05/06/04 01:52 PM

Edit Reply Quote

SteveL, if I had the space for dedicated stands I would definitely NOT build the UTS. Yes, swapping out tools (and table tops) is a minor pain but a necessary evil for my small shop (half of a 2 car garage). I use the UTS as a router table, planer stand, sanding station, miter saw station, and as a general workbench. I could never fit all those seperately in my all ready crowded shop.

Post Extras:

DaveB
Member

Reged: 09/05/03
Posts: 19
Loc: De Soto, KS

Re: My “Ultimate Tool Stand” is finished (pics) [Re: Dan Lanicek]
#934179 - 05/06/04 02:51 PM

Edit Reply Quote

Only dados or joinery I saw was on the torsion box is that correct?

Post Extras:

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billp
Member

Reged: 10/01/02
Posts: 868
Loc: Madison, WI

Re: My “Ultimate Tool Stand” is finished (pics) [Re:photog]
#934252 - 05/06/04 03:30 PM

Edit Reply Quote

Nice job as usual Photog. You do everything with thoughtfulness and precision.

~bill.

Post Extras:

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billp
Member

Reged: 10/01/02
Posts: 868
Loc: Madison, WI

Re: My “Ultimate Tool Stand” is finished (pics) [Re:Dave Arbuckle]
#934259 - 05/06/04 03:36 PM

Edit Reply Quote

Quote:

Dave Arbuckle said:
What grit do you finish at on Furbys?

Dave

Dave! you should know better. Furbies don't take well to sandpaper; they get all fuzzed up. They respond best to a hand applied rubout (I've heard they enjoy French polishing, but I wouldn't know first hand; never been to France)
~bill.

Post Extras:

photog
Member

Reged: 10/13/03
Posts: 261
Loc: Sacramento, CA

Re: My “Ultimate Tool Stand” is finished (pics) [Re: SteveL]
#934298 - 05/06/04 03:55 PM

Edit Reply Quote

Thanks Steve,
I just built the thing, so I'm not quite sure how its "one tool at a time" nature will alter my workflow. I, like so many others, work out of a two car garage, meaning that if I leave the shop set up too long my family starts to grumble a little. Space efficiency was my motivation as is most likely everyone that has a UTS. I would like nothing better than to walk from one machine to the next and at the end of the day hit the lights and go to bed.

I think with a little forethought, some of the change outs could be minimized. I can see the chop saw seeing a lot of use early in the project as parts are cut and prepped for machining. Routing profiles, rabbits and tenons might come next with most of the sanding being done toward the end. Every project will be different and there will always be a few unforeseen tasks that will have you changing those boxes out once again. This is how I think it will go. In actual practice, it might be a different story.

I have the Dewalt 735 planer, which is too heavy to be included in the UTS' bag of tricks, so at least that one is sitting on its dedicated stand.

DaveB- Yes, the plan only calls for joinery on the torsion box grid with everything else to get butt joints then glued and screwed. I went ahead and cut dados and rabbits for the carcass but on reflection, it probably wasn't necessary. The thing was real strong and didn't seem to want to rack even before I got the back on it.

Thank you all for the kind words. Everyone likes strokes and the need to be appreciated and I'm no different. It gives me satisfaction to offer help when I can and hearing good things from people I respect sure builds confidence in my newfound hobby.

photog

Post Extras:

ned86xj
Member

Reged: 08/22/02
Posts: 961
Loc: Canastota, NY , USA

Re: My "Ultimate Tool Stand" is finished (pics) [Re:photog]
#934844 - 05/07/04 12:58 AM

Edit Reply Quote

Photog,
great work, both on the tool stand and the photography. I still have the plans for the UTS, though I built my own bench type bench, it uses a torsion box at the bottom for stability's sake.

I really enjoy seeing your work, got a photo question for you if you don't mind, what flash gear are you running for your photos here? I'm rusty, but my white lightnings are in the storeroom at my shop, and when I get some nice pieces done I'll be setting them up one of these days. THanks for sharing the project, again, great work!

Ned

Madison Woodsmith || 2B1Ask1

Post Extras:

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paulcomi
Member

Reged: 04/24/04
Posts: 215
Loc: Los Angeles, California

Re: My "Ultimate Tool Stand" is finished (pics) [Re:billp]
#934847 - 05/07/04 01:10 AM

Edit Reply Quote

Its seeing things like this that are so well done and clever that make setting up my shop really difficult! Looks great

Post Extras:

DaveB
Member

Reged: 09/05/03
Posts: 19
Loc: De Soto, KS

Re: My “Ultimate Tool Stand” is finished (pics) [Re: photog]
#934909 - 05/07/04 07:12 AM

Edit Reply Quote

photog

What problems did you have getting the Dewalt planer to fit the UTS?

Post Extras:

Tokn
Member

Reged: 10/01/03
Posts: 574
Loc: Cold MN

Re: My "Ultimate Tool Stand" is finished (pics) [Re:photog]
#934970 - 05/07/04 08:21 AM

Edit Reply Quote

photog ---- may I add also extremely impressive. Like the mods very much - way to nice for my shops

Job well done ---- and then some

Any chance you could take another one of those fab photos you do and show rear side??? My SIL would like to do something like this - maybe this will get him excited. How can it not

---
Been 17 years since this handle was first used. Funny but back then I likely could not even have spelled it. Wonders why! lol

Post Extras:

ModelRRMan
Member

Reged: 06/06/02
Posts: 1374
Loc: Clifton, NJ

Nice work [Re:photog]
#935171 - 05/07/04 10:42 AM

Edit Reply Quote

Photog,

Nicely done, kudos to you. I used the UTS plans to build a smaller, not nearly as well appointed cabinet that used to support my benchtop saw, and now is a work surface / cabinet for my shop. I love what you did with the end structures, I always thought that was going to be a pain -- I like what you did with it. Gives me ideas to finish up that part of mine (never got that far with it).

Use it well and enjoy it, beautiful work.

Craig in NJ

The secret is to bang the rocks together, boys...

Post Extras:

billbyrd
Member

Reged: 11/04/02
Posts: 836
Loc: Chattanooga, TN, USA

Re: My "Ultimate Tool Stand" is finished (pics) [Re:photog]
#935313 - 05/07/04 12:25 PM

Edit Reply Quote

You've done a beautiful job and provided an outstanding pictoral. Thanks for sharing it with us.

Post Extras:

photog
Member

Reged: 10/13/03
Posts: 261
Loc: Sacramento, CA

Re: My "Ultimate Tool Stand" is finished (pics) [Re:ned86xj]
#935880 - 05/07/04 10:44 PM

Edit Reply Quote

Thanks again everyone.

Ned86xj - Ned, you have mentioned your "white lightning strobes" before. Sorry, I'm not familiar with those. I used three lights powered by a 1000-watt sec. Novitron strobe head set to 500 w.s.
A 36" white umbrella was used on the main, a 20" silver umbrella on the fill and a diffusion gel with barn doors on the backlight. Camera was a Nikon D2h with 17-35mm 2.8 nikkor lens set to 1/250 @F11.

DaveB - I could have easily fit the Dewalt 735 into the UTS well, but I could NOT have easily hefted its 95 lb. bulk back and forth from its storage place. The 735's wide, squat profile wouldn't have stored in the narrow compartment anyhow. That space will only accommodate your typical lunchbox style planer like the Delta 580. Note that I also changed the configuration of the divided storage compartments in the carcass. I didn't like the asymmetry of the plan's design and opted to put the narrow one in the middle. This is working out just fine because that one gets some dust from what gets past the router DC. I'm storing a scroll saw down there now with a piece of masonite on cleats right above it, which dumps out easily and keeps the SS clean.

Tokn - I remember those old Tokn days too. I guess it only affected my short-term memory. What was your question again? Oh yeah it was:

> Quote:
>
> "Any chance you could take another one of those fab photos you do and show rear side???"

Well, I'm very flattered but I don't think mooning shots are allowed on the forum. And besides, my modeling contract with the "Beefcake Firefighters of 2004" calendar prohibits freelancing.

Ohhhhh, I get ya now..... A photo of the back of stand wouldn't show you much. Just ¼" hardboard tacked on with glue and brads. A three sided frame holds the drip shield to the back, with ¾" x ¾" poplar slotted tracks, glued vertically at the edges, guiding the drip shield panel up and down. The bottom of the shield rests on a 1" stop running the width of the stand.

photog

Post Extras:

slambubba
Member

Reged: 10/02/03
Posts: 507
Loc: omaha, ne

Re: My "Ultimate Tool Stand" is finished (pics) [Re:photog]
#935912 - 05/07/04 11:50 PM

Edit Reply Quote

the UTS and photos are nice, extremely nice. last winter, i built a mobile flip-top work center and have been wanting to built a new router table. now, this has me really interested. my flip-top has my planer and combo sander and the UTS could be my new router table and mitre station.

sign me up! when do classes begin?

---

bubba

my woodworking projects
current project: cherry hall table
latest projects: shadow box, birdhouses

Post Extras:

Dan Moening
Member

Reged: 02/19/02
Posts: 836
Loc: Sacramento, Ca

Re: My "Ultimate Tool Stand" is finished (pics) [Re:photog]
#936046 - 05/08/04 09:11 AM

Edit Reply Quote

Great work! Your photos really are top notch.

Don Harts brillant idea of adjustable tops has me redesigning my plans for this project yet again!

Thanks for sharing.
Dan.

Post Extras:

Axeman
Member

Reged: 04/23/03
Posts: 41
Loc: Roseville, CA

Re: My "Ultimate Tool Stand" is finished (pics) [Re:photog]
#936136 - 05/08/04 10:57 AM

Edit Reply Quote

Photog,
Excellent work. Now it is very clear what your user name is all about Nice photos. Bet ya can't wait to get started on that first noney do.....oh I mean project, so you can put er through its paces. Keep up the good work.
Dominic

---

http://www.rockslide.org/wood.html

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Woodworking
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If you don’t think you will ever add tools wider than the fixed width of the recess in the original design, I’d skip the sliding feature of the side boxes. The UTS is one heavy moth-ah and unless you add handles or hand holes, you will undoubtedly grab these boxes to move the stand around. Since only the knobbed screws lock them down, they can shift a little. The two miter saw fences index off of stops on these boxes and if the boxes shift, the fences won’t line up perfectly with the saw’s fence unless realigned.

I skipped the leveling screws because I thought I had a good floor but I see now why they designed them in. The torsion box on which the UTS sits is absolutely rigid and will not rack to compensate for a less that perfect floor. I need to roll the stand around until I find a sweet spot where all four casters make contact with the floor. Lowering a leveling screw would have taken the place of that one “raised hind leg”.

I sunk the router plate dead center in the router module’s 24” depth. I should have brought it closer to the front so you don’t have to lean in so far. Hylton/Matlack talk about this in their book “Woodworking with the Router” and should be considered in any router table design.

Take care in locating the knobbed screws that lock down the miter saw base. They seemed to be in a good place until I swung the saw over to 45 degrees in either direction and saw’s miter latch below the clamp knob hit the lock down knobs.

Lastly I made a mistake that could happen with any project where you assume that sheet stock thickness are consistent. It happens with MDF as well as plywood. I bought ¾” MDF from the same stack except for a sheet that I already had on hand. I used this older sheet for the tops and bottoms of just the tool bases. The ribs for the tool bases and the fixed boxes were ripped consistently in the same session and fence setting as is correct, but the tops and bottoms of the tool bases were 1/16” thicker than the other sheets. I kick myself for not measuring the height of the dry fits, because it would have been so easy to shave a little off the ribs to compensate. Now the router module and the work surface/downdraft module sit 1/8” higher than their flanking surfaces. They’re glued and screwed. And so am I because how are you going to plane 1/8” off the face of a 24”x24” piece of MDF attacked to it’s assembly?

Overall I still like the UTS and it’s space saving design. The clamp channels are especially useful and I'm glad I only eliminated a few from the original design. Changing the tools out has not been a major hassle, but you do have to do a little planning to group like operations together and work smarter.

Photog