

BenchMark

Several of the rip fence systems that come with a tablesaw or that can be purchased aftermarket require a continuous surface for the support pad on the rip fence. This is the primary purpose of the right extension table but it also supports stock when making wide rips. On machines like the Unisaw an extension table can be purchased or the table can be made in the shop.

The extension table described here was built to satisfy the following requirements:

1. Have a table surface that can be accurately aligned to the cast iron table of the saw.
2. Does not hinder machine mobility.
3. Maintain table alignment when the machine is moved.
4. Incorporate a router.
5. Be long enough to support a 30" Unifence.

The table is made of 3/4" material which in itself would not be sturdy enough; a web frame is added to the bottom side of the table to increase its strength. The frame does not extend to the perimeter; if the frame were extended the angle iron support frame would have to be lowered which would have interfered with opening the motor cover door. The down tubes (as shown) do prevent the motor cover from opening fully but the opening is sufficient for cleaning.

The support frame for the table is a 1 1/2" angle iron weld-up. It is attached to the cast iron table using the three bolt hole pattern in the side of the iron table used to attach an extension wing. The support frame is supported in turn by down-tubes attached to the saw cabinet. In order to make the support frame removable, these down tubes are welded to plates which are in turn bolted to the saw cabinet. The down tubes could be bolted or welded to the support frame where they attach.

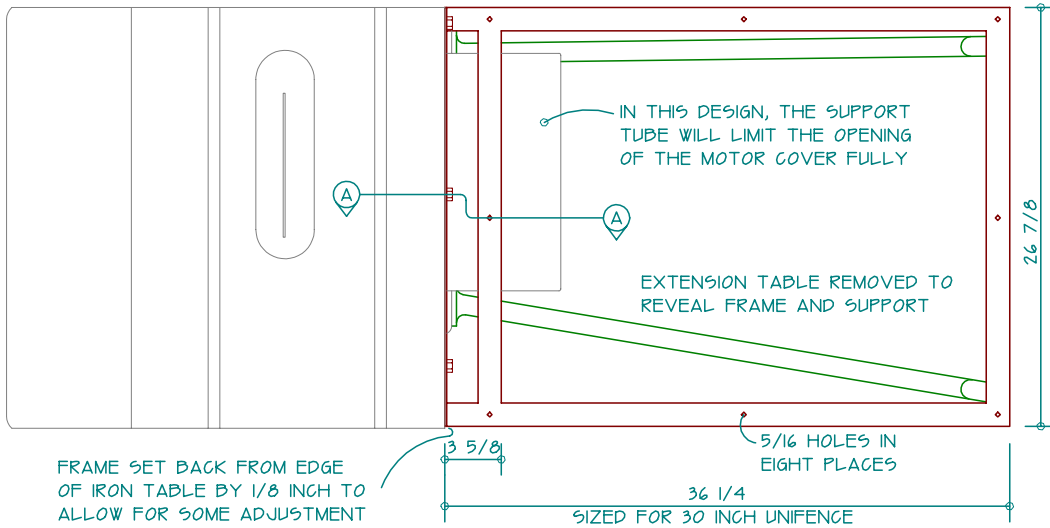
The table surface is attached to the support frame by a series of 1/4-20 bolts with jam-nuts that can be used to very accurately adjust the table surface. These bolts can also be used to un-warp the table if needed. The primary benefit of using the bolts to attach the table is that it uncouples the support frame from the alignment of the table. The effect is that the support frame need not be perfectly aligned with the machine in order for the table to be in alignment.

It is important to note that this design will shift the center of gravity of the saw towards the extension table by enough that the machine could tip over if the extension table is overloaded. This design requires a suitable mobile base. The machine must be firmly attached to the base and the base itself must have a sufficiently long wheelbase to prevent tip.

The router insert is located as close to the saw as possible. This was done primarily because of the location of the saw in my shop would not allow access to a router mounted at the far end of the table due to the saws' placement abutted against a wall. The router installation is not permanent like most router cabinet setups. It should also be noted that with a router installed (as shown) the motor cover cannot be opened. There are two sets of drawings which show the table dimensions, they are the same except for the rotation of the router insert.

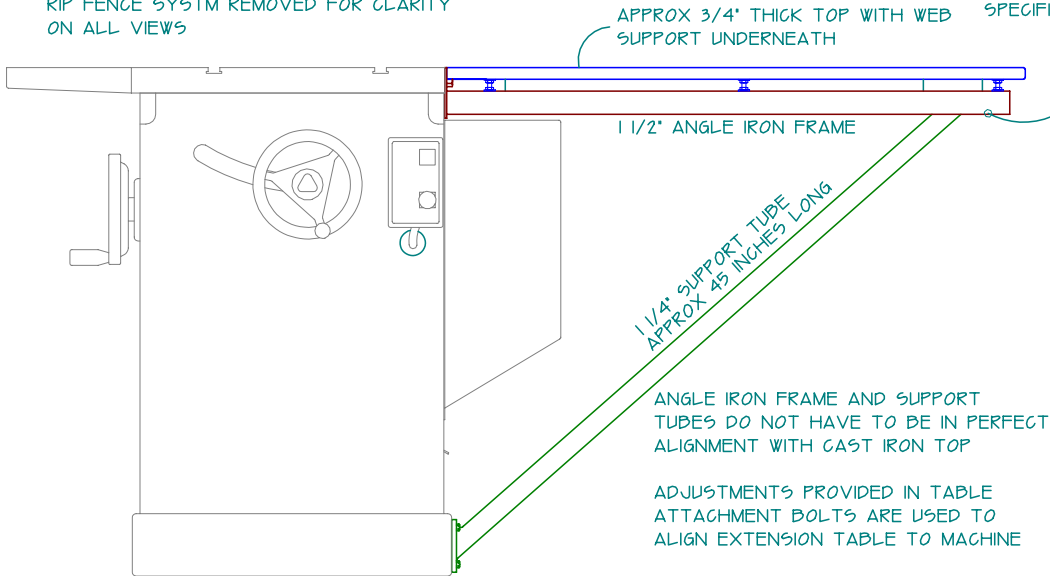
The design shown is not suitable for all applications, the driving element for the design of the support frame is mobility. This particular design could be adapted to a stationary machine as well. In that application, a table that can be easily aligned would be just as beneficial.

EXTENSION TABLE FOR A CABINET SAW



FRAME SET BACK FROM EDGE OF IRON TABLE BY 1/8 INCH TO ALLOW FOR SOME ADJUSTMENT IN RIP FENCE RAILS IF REQUIRED BY PARTICULAR FENCE SYSTEM

RIP FENCE SYSTM REMOVED FOR CLARITY ON ALL VIEWS



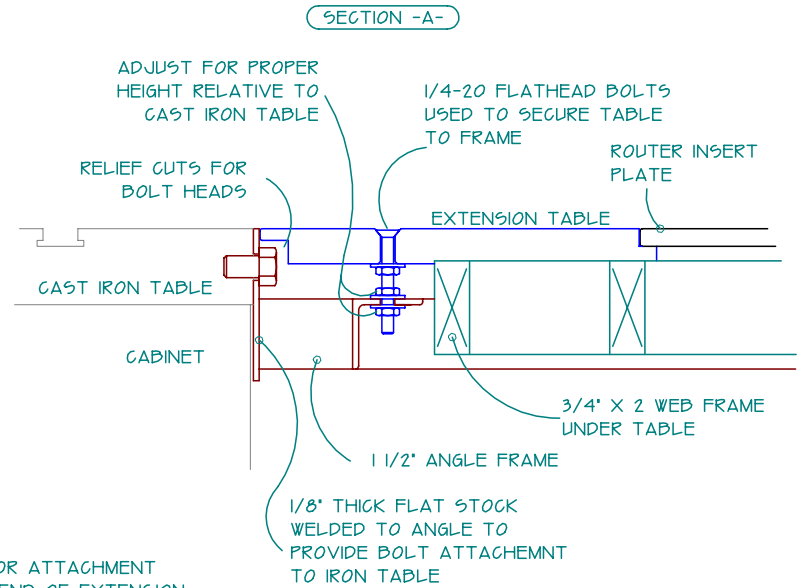
ANGLE IRON FRAME AND SUPPORT TUBES DO NOT HAVE TO BE IN PERFECT ALIGNMENT WITH CAST IRON TOP

ADJUSTMENTS PROVIDED IN TABLE ATTACHMENT BOLTS ARE USED TO ALIGN EXTENSION TABLE TO MACHINE

DUE TO ADDED WEIGHT OF FRAME, SUPPORTS, AND EXTENSION TABLE, THE CENTER OF GRAVITY FOR THE MACHINE WILL BE SHIFTED RIGHT. IF A STANDARD MOBILE BASE IS USED, THE MACHINE WILL BE IN DANGER OF TIPPING.

TO ELIMINATE THE RISK OF TIP, AN EXTENDED WHEELBASE MOBILE BASE SHOULD BE USED.

THIS DESIGN IS OPTIMISED FOR A 30 INCH RIP FENCE SYSTEM AND SAW WITH A MOBILE BASE.



ADJUST FOR PROPER HEIGHT RELATIVE TO CAST IRON TABLE

1/4-20 FLATHEAD BOLTS USED TO SECURE TABLE TO FRAME

ROUTER INSERT PLATE

RELIEF CUTS FOR BOLT HEADS

EXTENSION TABLE

CAST IRON TABLE

CABINET

3/4\"/>

1 1/2\"/>

1/8\"/>

SUPPORT OR ATTACHMENT POINT AT END OF EXTENSION MAY BE REQUIRED FOR SPECIFIC RIP FENCE SYSTEM

APPROX 3/4\"/>

SUPPORT TUBE WELDED TO FRAME

SUPPORT TUBE WELDED TO FLAT PLATES BOLTED TO SAW BASE

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RIGHT EXTENSION TABLE OVERVIEW

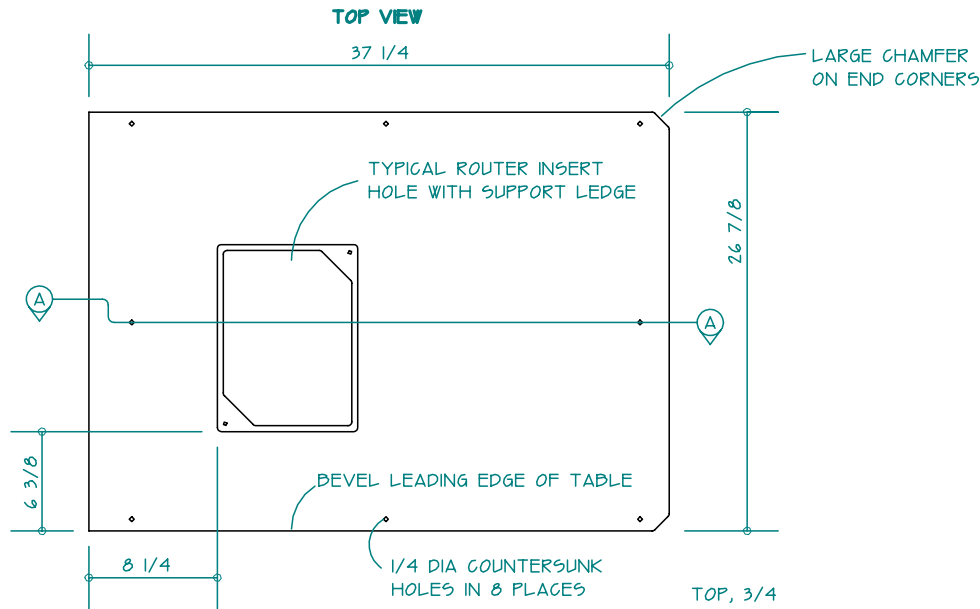
Philip Dumbalough

DEC 7 2000

REV -A-

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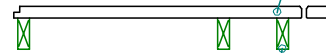
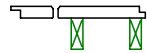
EXTENSION TABLE FOR A CABINET SAW



NOTES:

1. ALL DIMENSIONS GIVEN ARE FOR REFERENCE ONLY
2. LOCATION OF ROUTER INSERT SHOULD GUARANTEE THAT UNIFENCE SUPPORT PAD WILL NOT FALL INTO A 2 INCH DIA INSERT HOLE LOCATED IN THE CENTER OF INSERT
3. OVERALL SIZE OF EXTENSION TABLE DESIGNED TO SUPPORT A 32" RIP FENCE
4. ATTACHMENT HOLES IN ANGLE IRON SUPPORT FRAME MUST MATCH THOSE IN TOP
5. THICKNESS OF WEB FRAME UNDER TOP IS NOT CRITICAL
6. LOCATION OF WEB FRAME MEMBERS BASED UPON DESIGN OF ROUTER INSERT LEVELING SYSTEM AND OVERALL SIZE OF ROUTER INSERT.
7. IF MELAMINE OR PLASTIC LAMINATE USED FOR TABLE SURFACE, BOTTOM FRAME MUST BE LET INTO TABLE SUBSTRATE FOR GOOD ADHESION

SECTION -A-



TOP, 3/4 MATERIAL SHOWN

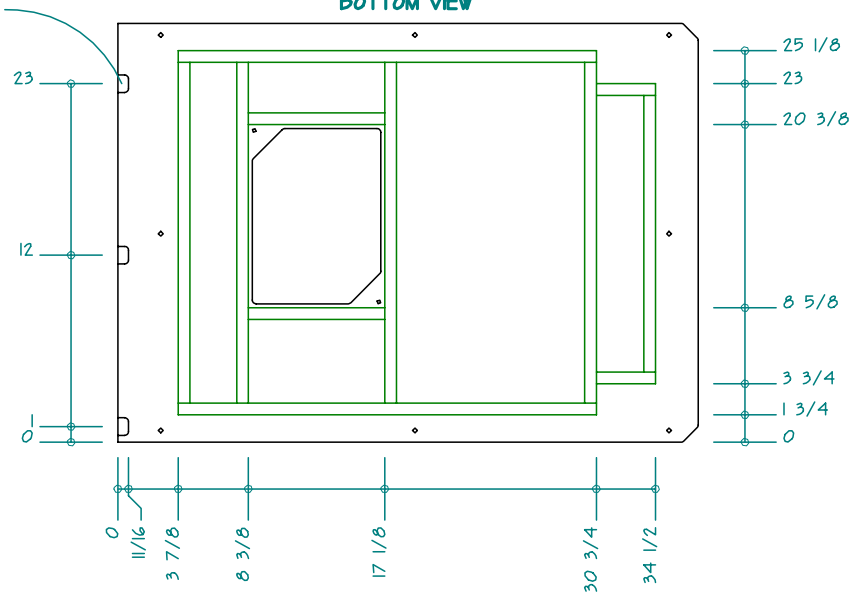
WEB SUPPORT FRAME

BACK VIEW



3/4 STOCK TYPICAL KILN DRIED HARDWOOD TO REDUCE WARPING

BOTTOM VIEW



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RIGHT EXTENSION TABLE DIMENSIONS

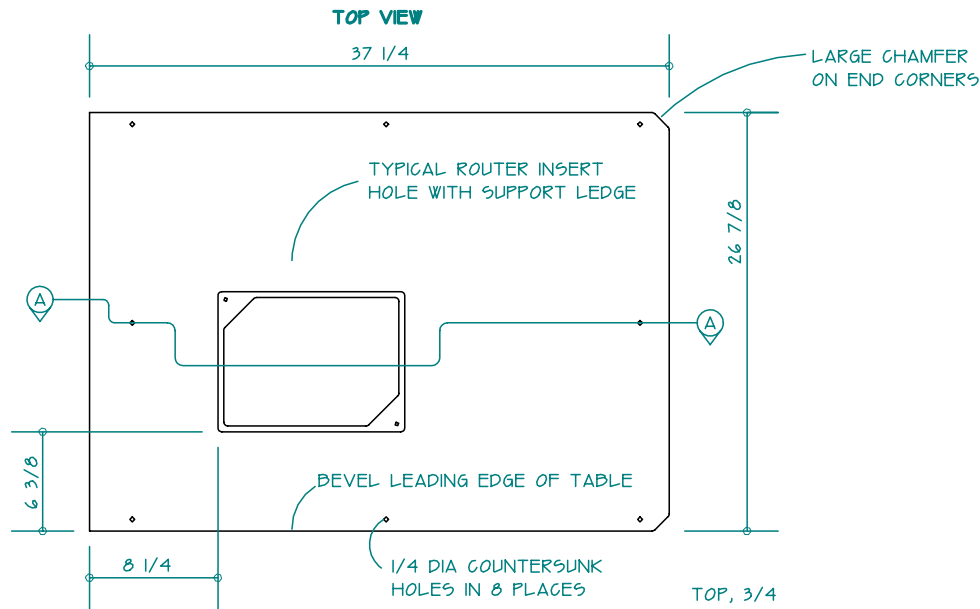
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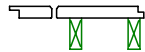
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EXTENSION TABLE FOR A CABINET SAW



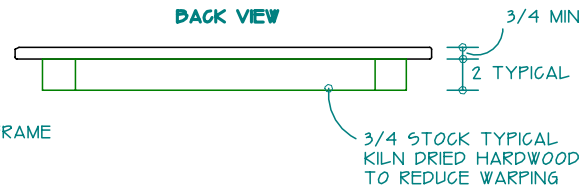
SECTION -A-



TOP, 3/4 MATERIAL SHOWN

WEB SUPPORT FRAME

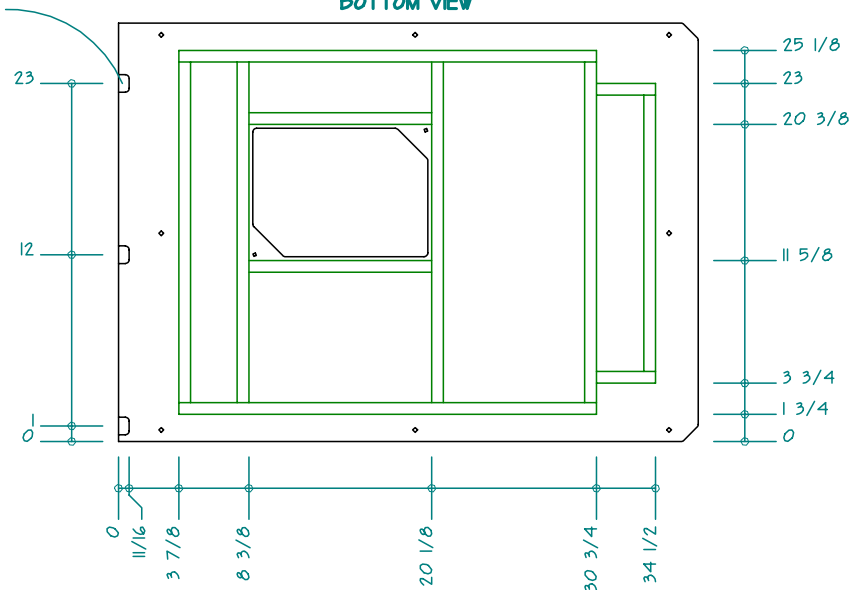
BACK VIEW



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BOTTOM VIEW



MAX 1/4 MATERIAL THICKNESS TO ALLOW FOR ATTACHMENT FOR BOLT HEADS
WIDTH OF BOLT HEAD RELIEFS IS 1 1/8"

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RIGHT EXTENSION TABLE DIMENSIONS

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