

How To Make Our Beveled Stretcher Bars

Bruce Moreland
Bee Happy Graphics LLC

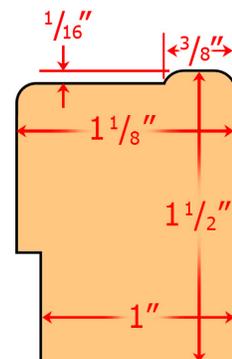
We've started putting bevels on the edges of our gallery-wrapped canvas images (see or blog post "What's New: Beveled-edge Gallery Wraps & Non-glare Acrylic" at <https://www.beehappygraphics.com/blog/2021/whats-new-beveled-edge-gallery-wraps-non-glare-acrylic/>). The bad news is that you cannot buy beveled stretcher (or strainer) bars in any store; you have to make your own. The good news is that it's not that hard. As a test, we tried mouldings with a 15° and then a 22½° bevel, but that wasn't enough of a bevel to make it worthwhile. We've since used both 30° (as on our image "Burrowing Owls" at <https://www.beehappygraphics.com/gallery/burrowing.html>) and 45° bevels (as on "Cedar Keys Lighthouse" at <https://www.beehappygraphics.com/gallery/CedarKeysLight.html>), but are still perfecting the process. (Making the corner folds on 45° bevels is especially tough.) Here's how we made our mouldings:

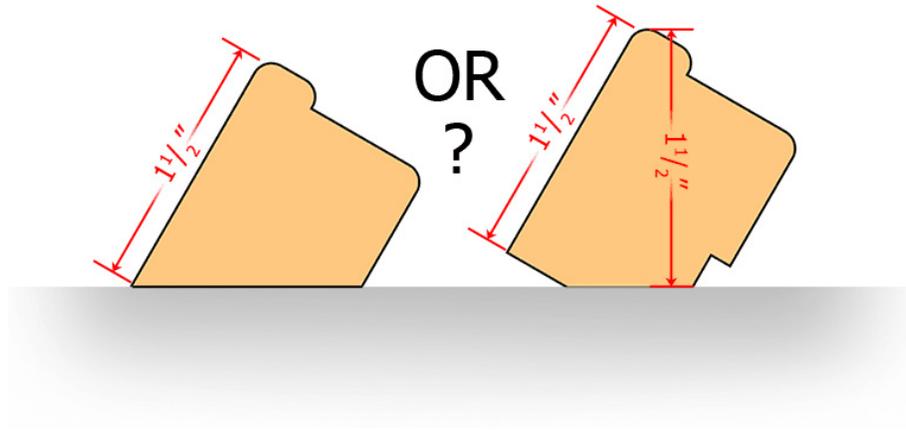
Building The Bars

We didn't start from scratch. The moulding we've been using all along for our 1½" gallery-wrapped canvas is the Strainer Stock Stretcher Unfinished 1⅛" (Item #6011) by Larson Juhl (see <https://www.larsonjuhl.com/en-US/strainer-stock-stretcher-unfinished-1-1-8-6011.html>), which you can get from Miami Decor Moulding (<http://miamidecormoulding.com>) when you are in the Miami-Dade area.

The Plan

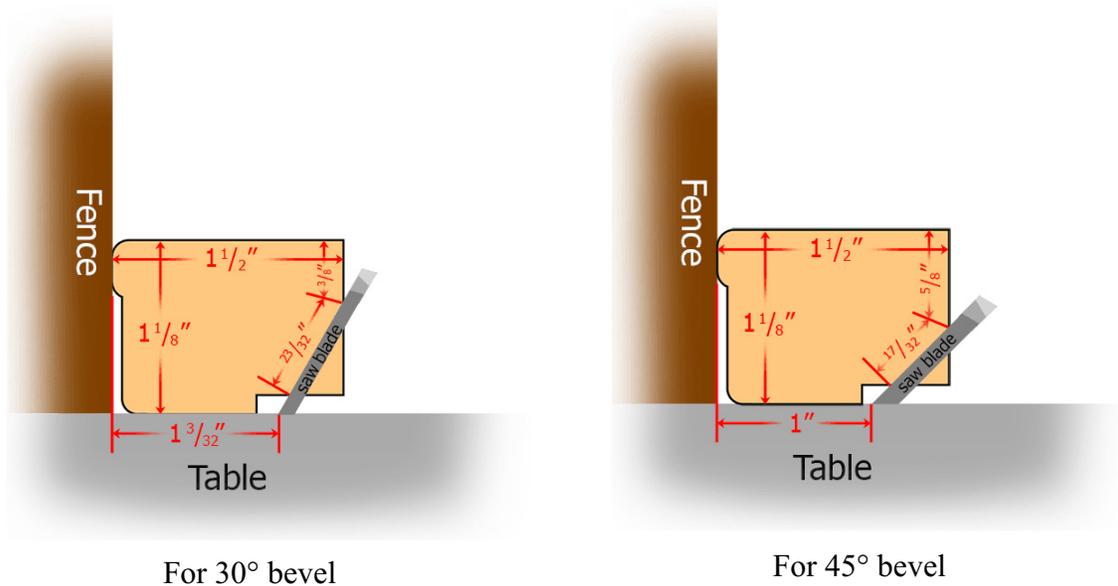
The plan was to just rip the bottom of the moulding bar at the desired angle. We wanted the side face to remain 1½". The first question was whether to remove everything below that or keep the total height of the moulding the same as the original.





We decided to keep the overall height the same because I was concerned about stretching the canvas over such a sharp corner. We later discovered that there were other important advantages to that option.

The First Cut



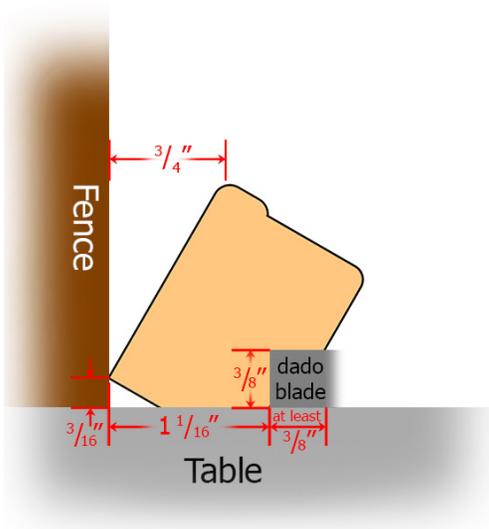
Above are the measurements for ripping an angled cut on the table saw. The fence should be $1\frac{3}{32}$ " to make a 30° bevel and 1" even for a 45° bevel.



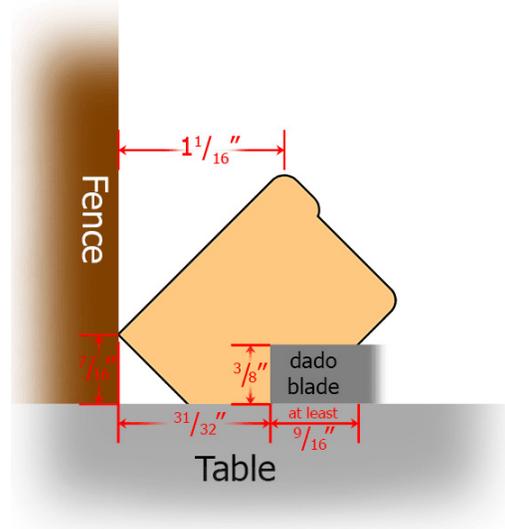
Ripping a 45° bevel on the table saw

Strictly speaking, that's all you need. But we've started using a dado blade to carve a perpendicular face on the inside edge of the new bottom to give our canvas pliers something to pry against when stretching the canvas.

Dado Cut



For 30° bevel



For 45° bevel

We make the cut 3/8" deep because that's the depth of the spur on our canvas pliers.



And that's all there is to it. If all four pieces of your frame have the same bevel, your miter cuts will be the same 45° as before; just remember to measure the moulding length at the peak, where the edge of your image's front face will be, not along the outer edge as before. For 30° bevels, the overall (outside) length and width of your picture will be 1½" greater than with non-beveled moulding. For 45° bevels, that difference will be 2⅛". Clamping your frame after gluing it together may be a bit more challenging, and you may need to do the V-nailing by hand.



Cutting with a dado blade



Finished cross-section

Making the final cut on a 45° beveled strainer bar

What's Next

I mentioned that there are other reasons to keep the total height of the moulding the same as before. One reason is that one might want to combine mouldings with different bevels into one frame; say to put a 30° bevel on the top and bottom and 45° bevels on the left and right, for example. If the bars were different heights, that would be extremely difficult. It's not a trivial matter even when they are the same height. For more information, see "How To Join Mouldings With 30° & 45° Bevels" at <https://www.beehappygraphics.com/blog/2022/how-to-join-mouldings-with-30-45-bevels/>.