

# ***The Festool Parallel Guides Take Guided Rail Cutting and Routing to a Whole New Level***

Text and photos by Jerry Work  
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Those familiar with the Festool guided rail cutting and routing system know just how useful it is to be able to move a circular saw, jig saw or router across a stationary work piece in a perfectly straight line. In my studio I use guide rails daily to make all kinds of cuts and routes from straightening the waney edge on a rough board to cutting perfect female dovetail grooves for sliding dovetail joints.

A rubber edge on the guide rail is cut to zero clearance to the blade the first time it is used with a given saw/blade combination. From that point forward all you need do is position the rubber edge of the guide rail exactly along your intended line of cut. However, doing so accurately time after time for making cuts parallel to another edge can be a bit tricky.



Story sticks made to hold the guide rail a known distance from the edge at both ends really make it fast and easy to make perfect parallel cuts time after time. That is what Festool has done with its new Parallel Guide system which we will cover in this short tutorial. While it sounds simple, and it is, the new Parallel Guides also make an excellent squaring cut guide as well turning the guide rail and plunge saw into a fast and efficient substitute for a table saw for most cutting operations.

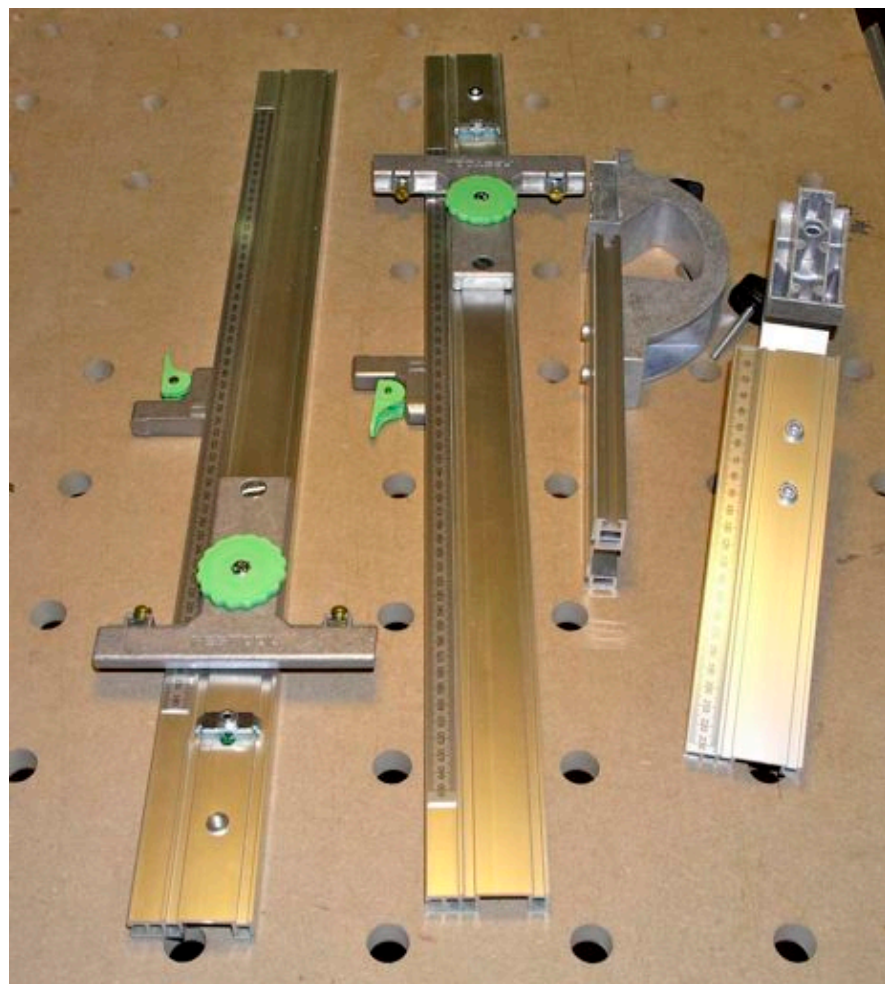
Yup, you can virtually eliminate the need for a bulky and dangerous table saw with this clever new accessory. Let's take a closer look.

**What is in the boxes** - The Parallel Guide comes in two boxes. One contains a pair of the main guides with guide rail mounts. The other box contains a pair of the bridges and front guides that simply screw onto the main guides to allow you to position your work



piece either to the rear of or to the front of the guide rail. In the photo right you can see all four components.

Note the heavy high pressure cast metal holding and positioning fixtures mated to stout extruded aluminum guides onto which metric scales have been attached. We will see in a minute how these can be calibrated to your guide rail, saw and blade combination to allow fast and accurate positioning of stops that will place the



guide rail exactly on your intended line of cut whether you are breaking down man-made panelized materials or cutting solid hardwood as is shown in this tutorial.

A major advantage of this guide system is that it can be mounted onto any length

guide rail or any combination of guide rails joined together to form very long guide rails.

As a result, the length of cut is determined simply by the length of the combination of guide rails you elect to use.

Festool guide rails are approximately 185mm wide. The rear stops on the parallel guides can be set to position the zero clearance cutting edge of the guide rail from 190 to 650mm off the back edge of the work piece or from zero to 230mm off the front edge so you can cover the whole range of cut widths up to 650mm with ease.

***Mounting the guide rail to the parallel guide is easy and fast -***



The parallel guide simply slides onto the rear "T" track of the guide rail with a locking tab (accessed from below)

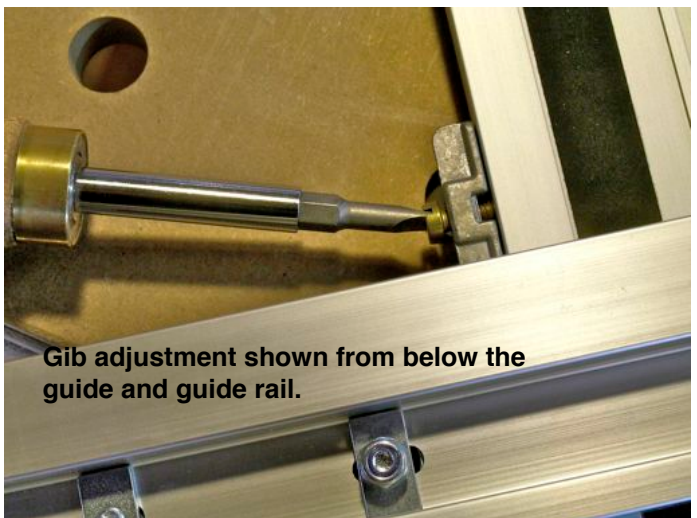
engaging the clamp slot on the under side of the guide rail.

The part of the parallel guide which fits over the "T" track at the rear of the guide rail is very rigid high pressure cast alloy



**Gib adjustment show from above the guide and guide rail.**

and features two brass gib screws so you can snug the parallel guide to slide tightly, yet easily, lengthwise along the guide rail as shown in these three photos.

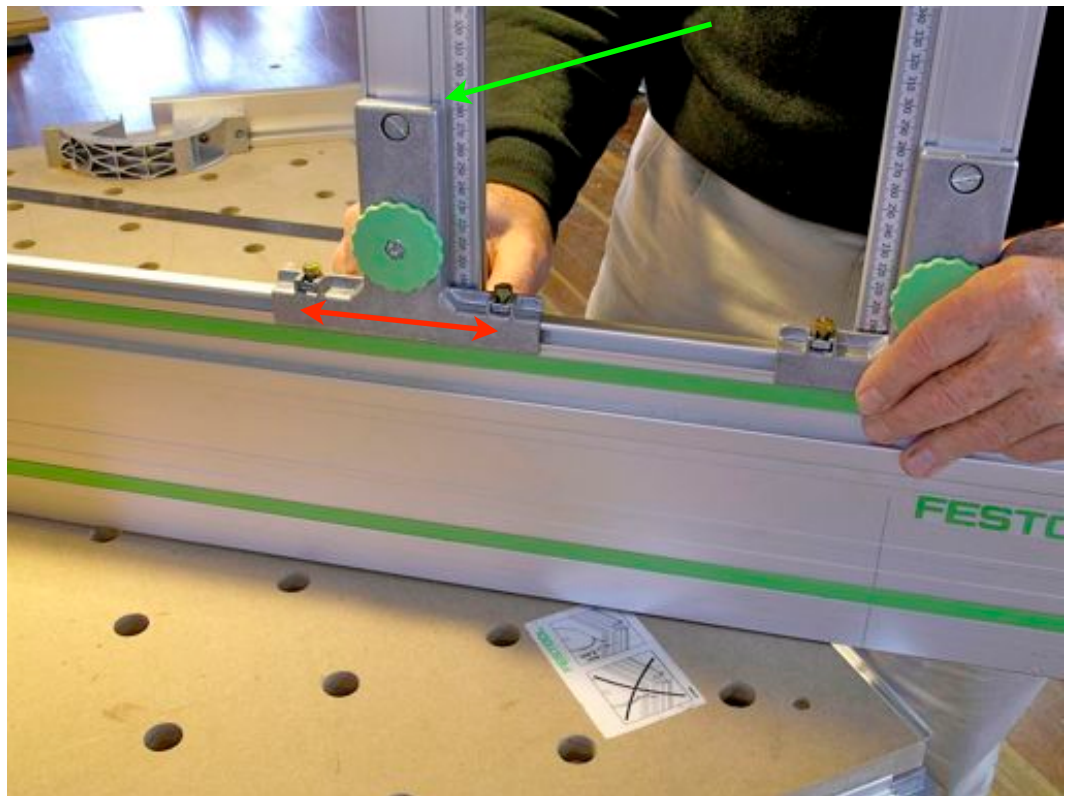


**Gib adjustment shown from below the guide and guide rail.**

The distance between the brass gib screws (red arrow) is 110mm, almost twice the purchase distance of a steel rule mounted in a Starrett combination square head. The cast metal “T” bracket is positioned on the extruded aluminum guide by a molded ridge that rides in a slot in the extrusion (green arrow).

As a result, the “T” bracket holds the guide rail nearly perfectly square to the parallel guide, a feature that will really come in handy for all kinds of 90 degree cuts.

You will only need to adjust the brass gib screws the very first time you mount the parallel guide on your guide rail. A factory applied anti-vibration material will

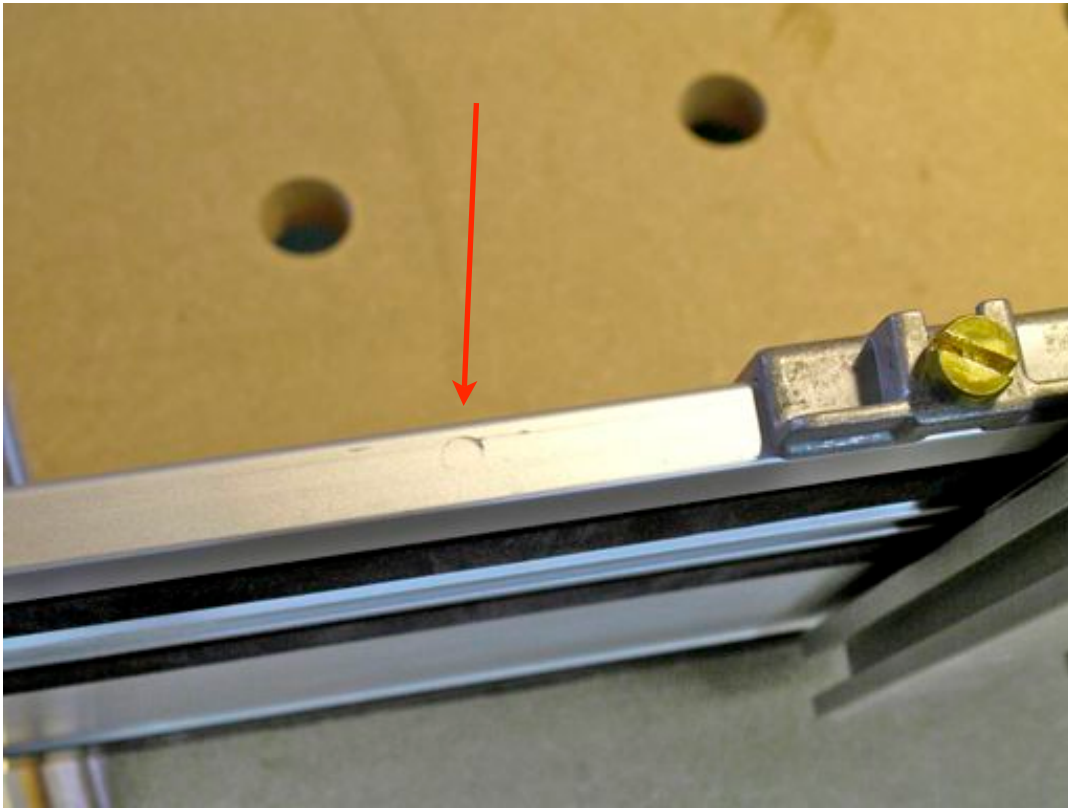


keep the brass screws where you set them.

You want to snug the gib screws just to the point of removing slop while still allowing the parallel guide to slide easily along the length of the guide rail.

The photo below (left) shows sliding the parallel guide along the guide rail from the under side. Note the green cam lock lever that will secure it in place where you set it. The photo above shows sliding the parallel guide from the top side of the guide rail. Note the green locking knob that is also used to secure the parallel guide in position from above.

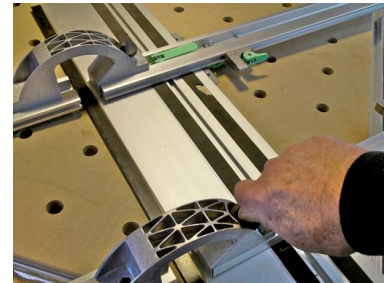




bridge is a heavy, very stiff pressure cast alloy which features a male portion that will mate with the female slot in the bottom of the extruded aluminum parallel guide and with the threaded boss so all that is needed to secure them is a thumb screw.

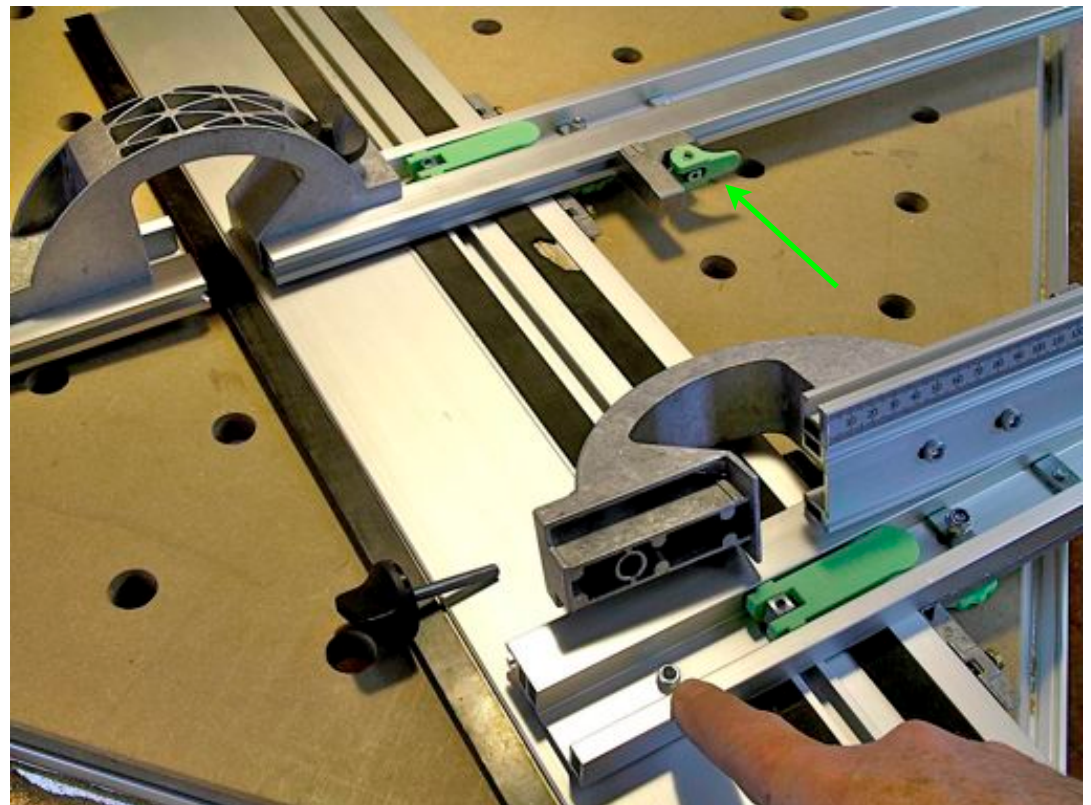
They self align.

Do not overly tighten the brass gib screws. You do not want to dimple the back side of the guide rail "T" track as I inadvertently did in the photo above (red arrow).



Once you have the rear section of the parallel guide mounted to the guide rail, add the front portion. In the photo below the guide rail is inverted and the bridge and front section of the parallel guide is already mounted to the rear-most parallel guide. My finger is pointing to the machined, threaded boss that will properly align the two components automatically.

Note how the

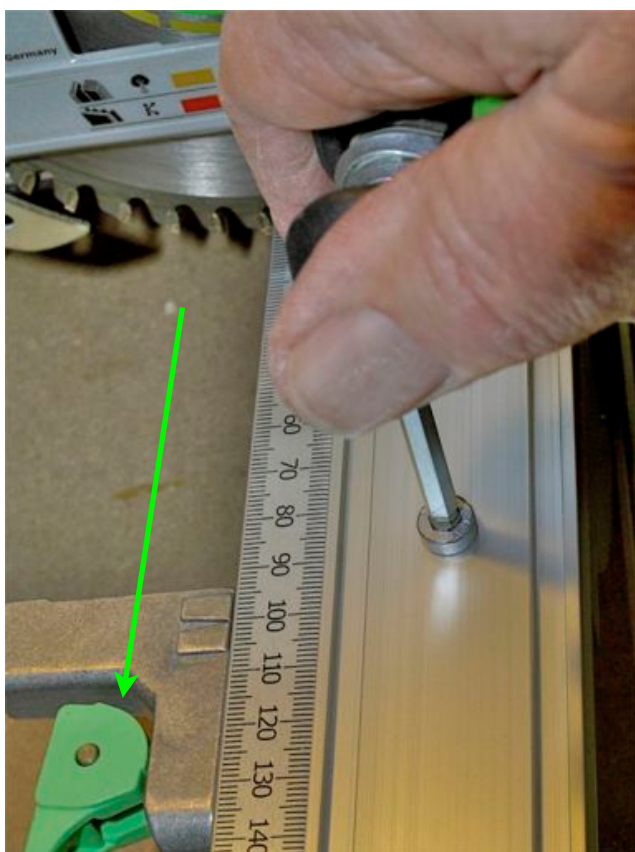


With both the rear and front sections of the parallel guides mounted on your guide rail, it is now time to calibrate everything to the metric scales.

I really appreciate a tool company going to the expense of providing in-field calibration so you never have to rely on their manufacturing tolerances no matter how good they may be.

In the case of the Festool parallel stop, calibration to both the back and front scales is fast and easy. The length stops mate into the interior "T" track on each parallel guide and are held in place with a cam lock lever. You can see one in the photo at the bottom of the previous page and in the photo below (green arrow).

Lift that cam lock lever and the stop can be moved to any position or removed completely to be mounted on either the front or the rear parallel guide.



In these photos I am calibrating the stop to the front scale. Notice I have the "V" cast into the stop aligned with 100mm on the scale yet my rule that is touching a tooth on the blade (photo above) shows the distance to the stop as being slightly less than 100mm.

To calibrate the front side, just loosen the two machine screws and slide the front guide to make the stop exactly 100mm from a tooth on the blade. From this point forward, any distance you set will hold your work piece that distance from the outside of the blade since you are using the front portion of the parallel guide.

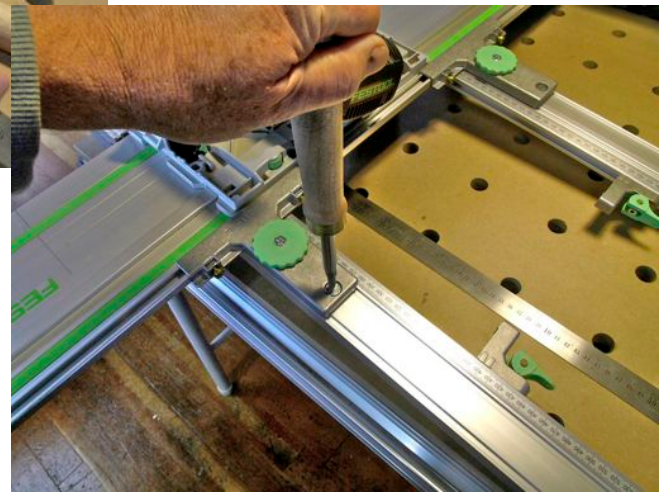
Calibration to the back side is just as easy. Set the saw on the guide rail, lift



lock knob from the top side and loosen the green lock cam from the under side.

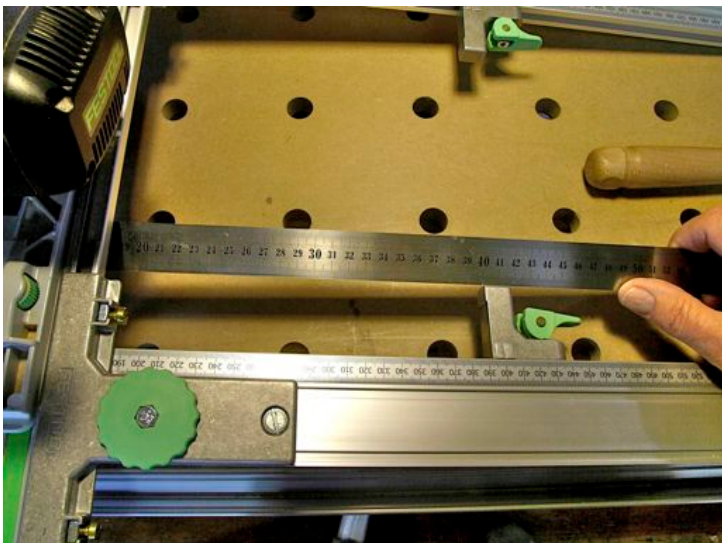
Now the parallel guide can slide back or forward to properly align the measured distance to the rule on the parallel guide. When everything is spot on, tighten the locking screw, green lock knob, and the green cam lock lever and you are done with that side.

the fast fix lever and lock the blade down into the blade change position. Set the rear stop "V" mark exactly on a measure (in this case 400mm). The distance from the point of the "V" mark to the edge of the rule is about 1mm, so I like to use a magnifying glass to make sure the stop is set correctly before I calibrate or set up for a critical cut.



Use a rigid steel rule to measure from the back side of a blade tooth to the stop. If that does not measure the same 400mm, then loosen the lock screw and green

Do the same thing on the other parallel guide and you are good to go.



Since you are calibrating the two parallel guides to the guide rail, saw and blade all at the same time, be sure to recheck calibration any time you change blades. It actually takes longer to describe than to do so it is no issue.

The last step in the calibration process is to cut a piece of wood and check the width on both ends to make sure you are exactly the width indicated and the same width on both ends of your work piece. Now you know you are perfectly parallel.

### ***Making the cut***

All of the Festool literature I have seen shows this set- up used for cutting man-made, panelized material.

In those cases the two parallel stops hang outboard on either side of the work piece (or stack of work pieces) so the bridge casting that holds the front portion of the guide to the back portion is dangling in space.

When cutting solid wood, or when making cross cuts instead of parallel cuts, I find it easier to drop the bridge castings into the space between two Festool Multi-Function Tables with the guide rail on top of the work piece.

To show how this can be done even for small, otherwise hard to hold work pieces, let's take a look at squaring up a

couple of pieces of Australian silky oak face glued (with Domino reinforcing) to make a small shelf.

Only one edge started out straight. The



other edge was a break off so had an uneven, waney edge. I wanted the shelf to wind up 160mm wide by 540mm long, a size difficult to cut with the guide rail mounted to the MFT as it is narrower than the guide rail itself.

I set the parallel guides a little further apart than the rough length of the glue up, set the front stops to 160mm, placed the straight edge of the work piece against the stops and clamped everything down as you can see in this photo.

Note how handy it is to let the bridge castings hang in the space between two MFTs. This small, odd shaped work



piece is easy to clamp to the top of the MFT to hold it in place relative to the guide rail and parallel guides.

Here are shots taken from the other direction. Because the work piece was about the same thickness as the parallel guides, I could secure the guides with clamps when making the actual cut so everything stayed exactly where I wanted.

In the photo below you can see the finished edge trimmed from the front side of the parallel guides to be perfectly parallel with the one straight side on the work piece.



I expected really good results with this parallel cut, but what I did not expect was just how well this same set up worked for the squaring cuts on both ends to bring the shelf to its intended length.



This feature is the real sea change that this set up brings to your shop, studio, or job site. You simply have little need for a bulky and potentially dangerous table saw.

***Believe me, I don't say that lightly.***

When I first set up the parallel guides I paid no attention to making sure they were square to the guide rail. The built in bosses and fastening method used to hold the guide rail to the parallel guide are such that they wind up very, very square on their own.



In this photo I clamped my work piece to the top of the MFT with one end hanging in the space between the two tables. I placed it firmly against one arm on the parallel guide and cut off a small piece to square up one end.

against the arm on the parallel guide, and made the squaring cut on the other end.

The really pleasant surprise was just how very square everything was when I put the work piece into my large reference square. No daylight anywhere!

Next, I set the stop to the desired 540mm length, positioned the newly squared end against the stop with the same edge

Now it is off to the sander and then the finish room for this shelf.



I credit a lot of this unexpected cross cut accuracy to the very robust, accurate castings and beefy extrusions from which these parallel guides are made.

Remember, my cross cuts were made using only one of the two parallel guide arms. My guess is you will be able to achieve very accurate 90 degree cuts repeatedly if you bring both arms in

contact with both sides of the piece you intend to cross cut.

**Conclusion** - Perhaps the most interesting part of these new parallel guides is just how fast and intuitive they are to set up and use.

All this set up, calibration, and cutting shown here took place within 30 minutes of the time the UPS driver came through the door with these two packages.

I am impressed and I think you will be as well.

I plan to do a lot more with this slick set up over the next few weeks and will post additional tutorial material as I learn more about how to really put the new Festool parallel guides through their paces.

Enjoy!

Jerry

