

CMT

ORANGE TOOLS®



CMT Tenon Cutting Router Bit

**When you need precise tenons,
use this new CMT Tenon Cutter.
It creates tenons from 4,76mm
(3/16") to 9,52mm (3/8")
thicknesses**

Source by www.woodshopdemos.com/cmt

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So the saying goes “You can’t tell a book by its cover.” Well that is not the case with the storage box of the new product from CMT – the Tenon Cutter. It says it all.



This was a new product first released at the IWF Show last year in Atlanta. The cover (above) shows what the tenon cutter can do – except that it is almost infinitely adjustable between the 3/16” and 3/8” shown above.



Tenons can be made in all sorts of sizes. Elena is using a 3/8” mortising chisel so that would be one size.



And, she can use a router and a mortising bit to route a mortise.



The CMT Tenon Cutter set makes matching the tenon width to the mortise a relatively easy task. It is just a matter of removing or adding a combination of spacers.



When Elena and I were trying to develop the “best way”, we pulled out my old card trick methods. She just squeezed playing cards into the mortise that we want the tenon to fit.



Then Elena can create this space using the spacers that come with the set. All she has to do is to match the thickness of the cards.



The pictures to this point have been with Elena and were taken in September. Breaking my foot caused quite a delay, but happily I am back on the case.

I decided that I wanted to upgrade the router lift so that we could get greater accuracy and repeatability.

Andrea is here to give me an assist.



The lift is the Woodpecker Quick Lift and Andrea is installing the Porter Cable 7518 in it. It is a very simple install.



The round body of the router fits into the lift's cradle and is quickly locked in place.



She takes a few minutes to adjust the insert height so that the top is in perfect alignment with the router table top.



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This is the product shot from Woodpeckers website. I show it because it displays the other way to adjust the height of the router. The steel L-handle device is inserted and then turned 1/4 turn to allow the router to be brought up or down quickly. It is a nice picture isn't it?



Andrea installed the CMT Tenon Cutter. It is a big router bit set. As with all router bits, she is careful to install at least 75% of the shank in the collet, and that the collet is firmly tightened. She uses two bent wrenches to accomplish this.



Andrea will be setting this bit up to cut 5mm thick tenons. She wants to shape stave ends to fit mortises that are cut with the Festool Domino Joiner. She uses a 5mm thick Domino tenon to serve as a setup gauge.

She will make a sample cut and see how it works.



She cranks the elevation until she sees that the tenon will be centered on the 3/4" stock.



Just as she would when cutting a coped end of a rail, Andrea runs the sample through the cutter using a square scrap of MDF to serve as a backer board and help her keep the sample square to the fence.



You can't tell it from this photo, but the tenon was too loose in the mortise. She will have to add a spacer of two to make the tenon a bit larger. The question is by how much.



The fix is quite easy. She places one or more spacers in the mortise alongside the sample tenon. When it is tight, she places those spacers in the bit stack.



It takes about 2 minutes to make the spacer adjustment.



The adjustment works. She has a tenon that is just the right thickness. Now, she can make wider mortises or use a hand saw to trim the tenon width. The hard part is done. The tenon fits well and she now can record the combination of spacers that will allow her to replicate the 5mm tenon at any time.



Andrea is proud of her new found skill. The CMT Tenon Cutter is a precision tool that allows precision cuts. It can produce tenons with thicknesses between the 3/16" and 3/8" shown above – and in metric as well.

You can be sure that we will be using this bit set many times in the months ahead. It will be the chair maker's dream.

