

Charming Station

Quilt Project

Rotary Cutting 101



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Rotary Cutting 101

A Rotary Cutter is a circular razor blade used to cut fabrics into shapes, strips, and pieces for sewing, quilting, and craft projects. Rotary cutters are designed for left- and right-handed use and the reason quilters use them is that they can cut through multiple layers of fabric at one time. Olfa invented the first rotary cutter in 1979, and this tool has become the cutter of choice for today's quilters and sewers.

The first thing you need to know about using a rotary cutter is that these are **extremely sharp** - they have to be in order to cut through multiple layers of fabric at the same time.

DO NOT EVER TOUCH THE EDGE OF THE BLADE

The smallest rotary cutters can cause a lot damage if you are not careful.

The medium size rotary cutter can cut off the tip of your finger if you are not careful!

The large size rotary cutter can cut through bone if you are not careful!

The most important thing to take away from this lesson is that a rotary cutter, while a fantastic tool, can cause very serious injuries.

Safety Tips

1. Always cut away from your body - (we'll explain this more as we go).
2. Always close the security guard over the blade before you lay the cutter down on your table
3. Always store your rotary cutters in a safe, secure place that children will not find (mine are in a tall, decorative can with a lid that is put on a high shelf when not in use).
4. Always keep in mind that a rotary cutter can take off part of a finger if you aren't careful.

All joking aside - you really must be very careful with a rotary cutter for yourself and for anyone else who might wander into your cutting space.

Through-out these instructions, we are assuming you are right-handed. If you are left-handed, where we make a specific statement, just substitute left for right, etc.

Supplies

For the exercises in this lesson, you will need:

rotary cutter (45 mm size)

Cutting mat (we recommend at least 18 x 24 if you can afford it and if you have room to store it)

Acrylic ruler (the pictures you will see show us using a ruler from Bernina that is 4" x 14")

Fabric scraps

If you have a half yard or so of an old fabric that you probably won't ever use, this is ideal for testing your rotary cutter. If you can pickup a yard of fabric for \$1.00 or so that's fine too. The idea here is just to get the feel for how this wonderful little tool works.

Set up your cutting space

You need to find a solid table top to work on. An ironing board is probably not going to be big enough or sturdy enough - you will be putting some pressure on the cutter (pushing down) so you need a surface that is solid and steady.

Try to use a surface that is big enough to hold your entire cutting mat. If it hangs over the edge, you may constantly be adjusting it. That is also one of reasons for rotary cutter accidents - not having a solid surface under the whole mat.

This surface should be a comfortable height for you **when you are standing**. It is highly recommended that you stand while cutting (we'll explain more about that later). For many people, a kitchen table (about 30 inches high) is about the right height. If you are tall, you may want to use a cutting table (32 to 34 inches high) or even your kitchen counters as the surface for your mat.

Examine your Rotary Cutter

Unless you bought the cheapest generic brand of rotary cutter, your cutter has a safety device that keeps the blade covered when not in use.

Older Olfa Cutter:		This safety guard is pulled back with your thumb exposing the blade.
New Olfa Cutter		This guard can be turned on and off by squeezing the handle or with the red button
Fiskars		This guard is turned off by pushing the orange thumb lever on the top and turned on again by pushing in the small round orange button on the side.

Look closely at your cutter. Find the way to open it (remove or retract the safety guard).

NEVER, EVER PUT DOWN THE ROTARY CUTTER WHILE THE BLADE IS OPEN

This is one of the most common ways that accidents occur - you set it down ("just for a second!"). When you reach for it again, your fingers come in contact with the raw blade and, instead of quilting, you will be off to the ER for stitches!

Find the way to close it (to put the security guard back over the blade).

Try opening and closing it several times with your predominate hand (if you are right-handed, use your right hand; if you are left-handed, use your left hand). The goal here is to get comfortable with how it works so that you can open and close the blade easily with one hand.

Side Note: If we were all in the same room doing this as a class, at this point I would put a piggy bank down on the table in front of you. I would then tell you that any time I caught you laying your rotary cutter down without closing the security guard over the blade, you would have to put 25¢ into the bank! Some folks forget the first day, but by the second or third day, everyone will remember.

PLEASE BE VERY CAREFUL WITH YOUR CUTTER - I'M NOT STANDING NEXT TO YOU TO REMIND YOU!!!

Preparing your fabric

Any fabric that you cut needs to be pressed so that there are no wrinkles in it. If it is fresh from the bolt you are probably okay but if there is a crease in it from the bolt or any wrinkles you will want to iron it before you try to cut anything.

Most quilting cottons are 42 to 44 inches wide. They are normally sold on bolts that are about 22 to 23 inches tall (so the fabric is folded in half from selvage to selvage).

If your table, ruler and mat are large enough, you can cut your fabric with just the one fold (the way it comes off of the bolt). That means that you will be cutting a 22-23 inch long cut. You absolutely need a long ruler to do this accurately.

I rarely (if ever) cut fabric that way. I take it as it comes from the bolt and bring the folded edge down to the selvage (folding it in half again). This gives you four layers of fabric and a much shorter cutting line (11 to 12 inches or so).

Getting your fabric folded evenly is the trick here. Do not go just by what was cut off of the bolt - those ends could be all over the place. And never count on the pattern to be exactly straight!

Hold your fabric up with your fingers on the selvage edges. Look at the fold at the bottom of the piece you are holding.

- Is it even?
- Or does it sort of bubble somewhere toward the bottom?

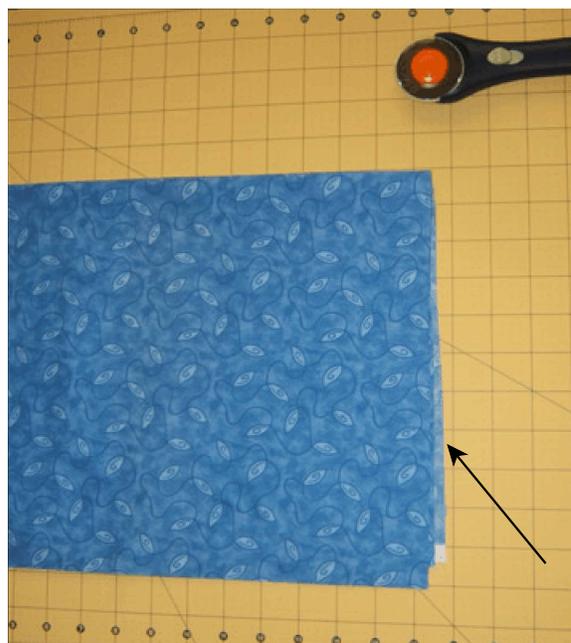
If you have the bubble (and you most likely will!), adjust the selvage edges until the fabric appears to hang down straight. Lay this down on the table and then fold in from there.

Once you have this piece of fabric folded, lay it gently on your cutting mat. You want to place it so that the raggedy edge is on the right side and the folds are at the top and bottom as you stand facing the mat.

It's okay if the outer edge on the left or on the right now appears to be raggedy - we are going to cut that off. In this picture the arrow is pointing to the uneven edge.

Measuring by the lines on the mat

Some people use the lines on the cutting mat as their measurements. Since most mats are marked in one inch increments, that won't do you any good if the piece you need has to be something other than 1 inch. We recommend learning to use your ruler for the measurements.



Please note: we did not try to line up fabric with the lines on the mat in our pictures!

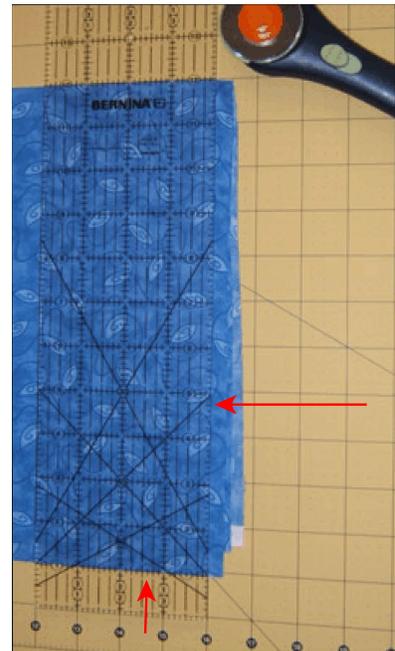
Positioning and Holding the Ruler

Part of successful cutting with the rotary cutter is based on holding your ruler in place correctly.

- Once you find the correct measurement, you want to keep your ruler from sliding, even a tiny bit.
- Keeping your left hand on the ruler while holding the rotary cutter with your right hand **should** keep your fingers out of the path of the cutter. (Just switch these directions if you are left-handed!).
- If you are standing, while doing this, you have a better chance at not moving the ruler.

Your folded fabric is now on the cutting mat and the fold is closest to you as you look at the fabric. Place your ruler on top of fabric. You now want to do two things:

- Slide the ruler to the left so just enough that all the raw edge is exposed (remember that there are four layers and if your fabric is very uneven, you may want to slide it over just a little bit more). Look at the arrow in the picture here pointing to the long edge of the ruler.
- Now line up the fold at the bottom of your fabric with a **solid line on your ruler**. Look at the arrow toward the bottom of this picture.



By doing this, you are creating a straight edge to work from on this side of the folded fabric. Once the ruler is in place,

- Position your left hand on the ruler as shown in the picture. Basically, you are holding the ruler in place with your finger tips.
- The farther you can spread your finger tips on the ruler, the more steady you will be able to hold it.
- Hold the ruler in place with gentle pressure - you want to be pushing down not pushing it away from you. This is why it is easier to cut standing up - you will be able to push down gently with even pressure on all fingers. If you were sitting, you would have a tendency to push away from your body instead of down toward the cutting mat.



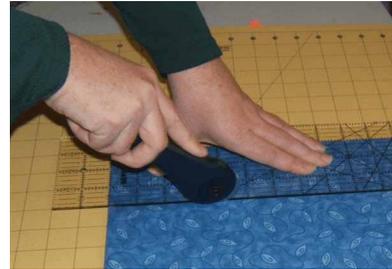
It is absolutely obligatory in every quilting class for the teacher to say:

Measure Twice, Cut Once

Before you pick up the rotary cutter, double check the position of your ruler and make sure you are cutting the piece or strip as instructed.

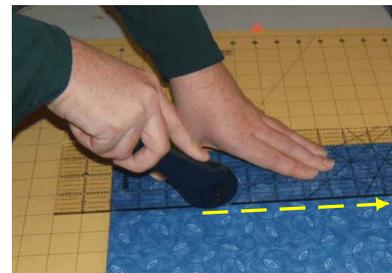
Holding the Cutter while Cutting

- Pick up the rotary cutter and open it with your right hand (while your left hand is still on the ruler)
- Position your hand so that your index finger is “leading the way” - check the picture here. Your brain will naturally follow the direction that your index finger is pointing.



Making the First Cut

- Carefully place the edge of the blade at the bottom of the fabric (on the cutting mat - not on the fabric itself).
- Gently roll the cutter forward (away from you) along the edge of the ruler - without too much pressure you should find that it cuts right through all four layers.



ALWAYS, ALWAYS, ALWAYS USE THE CUTTER IN A MOTION CUTTING AWAY FROM YOUR BODY!!!

- Let the edge of the ruler guide the cutting blade - be careful not to let the blade run up and over that edge - you may cut the fingers of the hand holding down the ruler.
- When you get to the end of your fabric - **stop and close the cutter! Do not move the ruler!**
- Set your closed cutter down so that your right hand is free. Keep your left hand on the ruler.
- With your right hand, pick up the piece that has been cut and make sure that you cut all the way through the four layers.



- There are two schools of thought here. If you didn't cut through all of the layers, you can pick up the rotary cutter and finish the job - but only if one quick slice will do it. Never run the cutter back and forth to complete a cut. “Sawing” with the rotary cutter can really make a mess - and part of that motion would mean drawing the cutter down toward your body - a complete no-no!
- If there is a lot that didn't get cut, you might be better off finishing with scissors OR
- Since this is a practice, reposition the ruler to the left by about 1/4" and try the entire cut again.

Keep trying until you get a nice smooth cut in one motion across the length of the fabric. It takes most people a couple of tries to get the hang of it.

Cutting Problems

There are a couple of possible problems that could crop up:

- You run the cutter the length of your fabric but every 3 inches or so there is a spot that just doesn't cut.

Most likely you have a nick in the blade and that spot is not cutting through the fabric. You would need to replace the blade in your cutter.

- As you run the cutter up the fabric, the security guard snaps closed over the blade.

This can happen accidentally if a finger touches the close button while you are using it. It can also happen with some older Fiskars cutters from just pushing too hard on the blade while trying to cut.

- Your cutter just won't cut through more than 1 or 2 layers.

You need to replace the blade. The blades do get dull with use. There are blade sharpeners on the market but these really don't work very well. You would do better to wait for a 50% off coupon from Joann's (or for quilting supplies to be 50% off) and buy a pack of 5 blades at a great price.

When you change blades, be extremely careful how you handle the blades going in and coming out. A blade that is too dull to cut fabric can still cut you badly!

When you dispose of the old blade, tape it securely to a piece of cardboard larger than the blade. This will keep it from cutting through a trash bag and causing an accident.

- You have difficulty keeping the cutter next to the ruler so the cut line isn't straight

Make sure your ruler hand is balanced and comfortable. If necessary, stand a little to the left of the fabric so that the cutter is moving away from you in a direct line with your shoulder instead of trying to pull your arm over in front of you so that the cutter is centered with your body. Find the best position for yourself as long as you don't violate any of the cutter handling rules (always cut away from your body).

Keep practicing until this becomes a more natural and comfortable action.

You will be doing this a lot if you continue with your quilting.

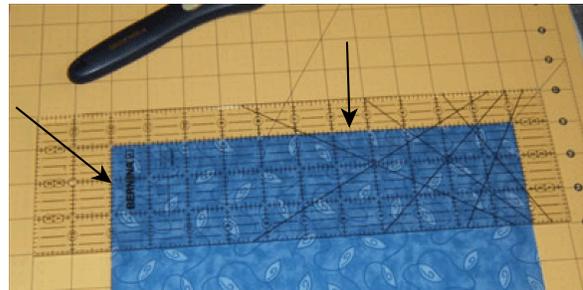
Measuring for Real

Once you have the technique for making a nice even cut through 4 layers of fabric with the rotary cutter, we are going to move on to cutting some specific size squares. You can continue to use scrap fabric here.

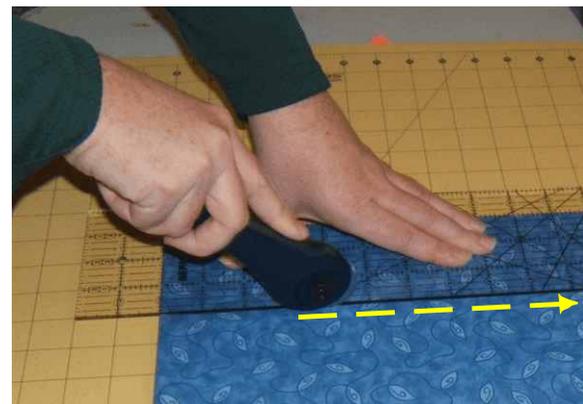
- When you have a nice even cut on the right side of your folded fabric, close your cutter and lay it down.
- Without touching or moving the fabric, turn your **entire cutting mat around** so that this smooth, straight edge is now on the left side of the fabric as it lays in front of you.

We don't want to disturb the fabric since the cut is now even. Picking up just the fabric to turn it can cause the layers to shift. If you simply turn your whole cutting mat, that won't happen!

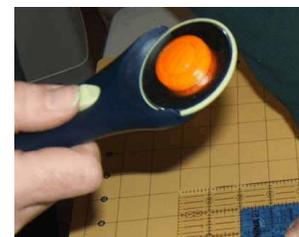
- Your fabric is now going to the right.
- Now lay your ruler so that the straight cut edge is 3 inches from the edge of the ruler
- Make sure that the edge of the fabric is straight along one of the vertical lines on the ruler and that the bottom is straight along one of the horizontal lines on the ruler.
- Check the arrows in this picture.



- Position your left hand to hold the ruler (pressing down, not away from you again). This time you need to be aware that since part of the ruler is on the fabric and part isn't, there could be just a little wobble here.
- Cut this strip carefully.



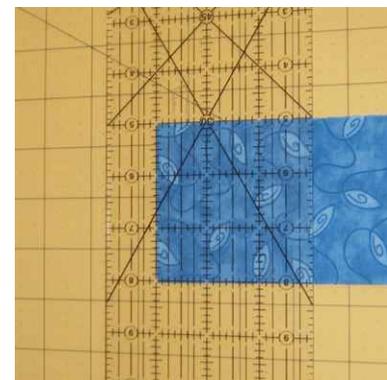
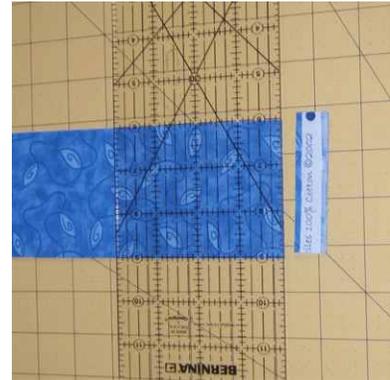
- Close the cutter and put it down.
- Check to make sure you have cut through all layers.



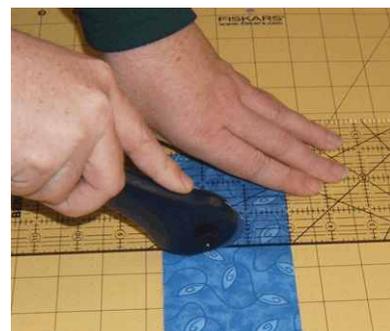
Cross Cuts

So far all we have done is create a strip of fabric that should be an even 3" wide. Now we are going to "cross cut" this strip so that we end up with 3" squares.

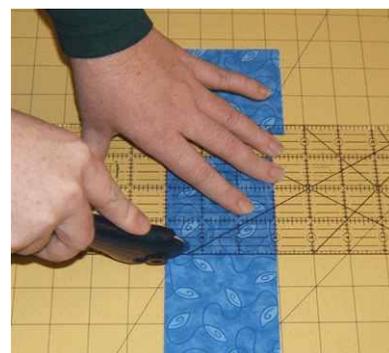
- Set aside any remaining uncut fabric.
- Open this strip so that it is only folded in half once.
- Carefully line up the edges and lay it on your cutting mat with the selvage edge to your right. (It's okay if this is so long that part of it goes off the side of your mat.)
- Position your ruler as shown in the picture with either the top edge or the bottom edge of the fabric matching a horizontal line on your ruler and the selvage edges sticking out. We are going to cut these off.
- Use your rotary cutter to trim off the selvages.
- Close your cutter and put it down.
- Turn your cutting mat around so that the fresh cut edge is now on the left side as you face the cutting mat.
- Position your ruler like the picture so that you have a 3" square under the ruler.



- Make the cut along the edge of the ruler.
- Close your cutter and set it down.



- Lift the ruler and set aside these squares
- Reposition the ruler and cut another set of 3" squares.
- Continue to do this for the entire length of the strip, until you can't get a 3" square from what is left.



Take your 3" squares and stack them up. You should be able lay them, one on top of another, and get a perfectly even little set of squares.

- If any of the squares appear to be larger than the others, pull them out and re-measure them. Trim if necessary.
- If any of the squares are too small, take them out and set them aside.



- Make sure that what you have left is a stack of 3 inch squares.



Put these aside - you will need 8 of these 3" squares for another quilting lesson!

If you have extra fabric, you can practice cutting more squares.

- Try cutting a 4 inch strip and then cross cut that into 4 inch squares.
- Try cutting a 2 inch strip and then cross cut these into 2 inch squares

The more you practice, the easier it gets and the more accurately you will be able to cut fabric.

Just be careful!

and store this where children won't find it!