

The Mat Doctors



Brian Barnett, CPF



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Three leading mat designers in the picture framing industry are here each month to answer some frequently (and not so frequently) asked questions about mat cutting techniques.

With an average of 26 years of framing experience, they bring a wealth of knowledge to this column. If you've got a nagging problem with an aspect of cutting mats, or simply want to find out what the experts have to say about a certain technique, send in your question to

pfmeditor@hobbypub.com and The Mat Doctors will prescribe a remedy.

Q. I've recently noticed a small "line" on the bevel of the mats I cut. It appears in the finish of the cut. Sometimes it is noticeable and other times, hardly visible. What is causing this, and how can it be eliminated?

John replies:

A. This phenomenon was puzzling to me when I first discovered it a few years ago. It appears as a small line in the bevel about an $\frac{1}{8}$ " away from the corner. (See photo below in which I have darkened the line with a pencil for illustrative purposes.)

I really thought that it might be a flaw in the design of my mat cutter, but some research has led me to discover that many machines are prone to do this. It involves the position of the blade in the engineering and design of the cutting head. I've found that at least three manufacturers design the bevel cutting side to hold the blade on an angle. They also have designed the head to hold the blade with a slight bias, meaning that the tip of the blade is slightly further away from the clamp as the back of the blade.

This is done in the design to encourage the blade to "track" closer to the clamp—that is not drift away from the clamp causing the dreaded "hooking" to appear. However in the process, I have found that when the blade is lifted out of the mat, the tip makes this slight marking line on the bevel during the withdrawal.

So, if this is an inherent part of the machine design, what can be done to minimize this distracting mark? Any "glitch" in mat cutting can be improved when overall technique is improved. Keep the machine adjustments as tight as recom-



mended. The less play on the cutting head and pivot assembly, the less chance of slop and the less chance of this mark appearing. Keeping the machine clean enables you to keep it properly calibrated and adjusted.

As you finish the cut, you should keep slight pressure on the clamp before lifting the pivot assembly (blade) out of the mat. You should also retract the blade out of the mat “quickly” and naturally at the end. Any hesitation or change in position will enhance this mark’s appearance. I think this is why many framers note that this glitch appears “sometimes.”

It has been my experience that single-edged blades have a tendency to create this glitch with more frequency than when using traditional double-honed blades. Although designed to aid with the “hooking problem” on one end of each cut, they are prone to create this mark on the other end. Your own experience should dictate which blade you prefer.

If you watch for all of these things, you should be able to minimize the appearance of this mat cutting glitch. Practice, and good luck.

Q. I really like offering “stepped mats” to my customers. I have always cut regular double or triple mats by placing the fallout back in to act as a slipsheet. After taping a slightly smaller second mat to the back of the face mat I then cut the smaller opening. This ensures the inner mat is centered in the mat opening. But when I cut a “stepped mat,” the fallout ends up as five loose pieces and can’t possibly be taped back into the opening. I can’t figure out how to cut a double or triple stepped mat without cutting them separately. Can The Mat Doctors help?

Brian replies:

A. This is a problem many framers have had to deal with. The good news is that you are using the correct procedure for double and triple mats with rectangular or square openings. There’s no problem there. However, the secret to cutting a double or triple, stepped corner mat,

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similar to the one illustrated in Figure 1, is making sure the fallout remains in one piece so it can be inserted back in the opening to facilitate cutting the inner mat opening. How do we achieve that? By using “skip cuts!” The following step-by-step procedure will clarify “skip cuts” as a means of cutting a double stepped mat:

- Cut an 11"x14" top mat blank and mark the back with a diagonal line from the center to any corner. (This line will ensure you return the fallout back into the mat opening in the correct orientation.)
- Cut your selected inner mat to 10½"x13½" and place it aside for the moment.
- Set your measuring stops to 3½" and your mat guide to 2½". (I'm assuming you have stops. If you don't, you will need to draw three lines on each side and make the same “skip cuts” as described here.)
- Place the 11"x14" face mat against the mat guide and into the corner created by the mat stop and cut all four side cuts. The mat will look like what you see in Figure 2.

Next, reset both stops and the mat guide to 3" and make a cut that is about ¾" long, starting at the top stop.

- Withdraw the blade after the ¾" cut and move the cutting head down within 2" of the bottom stop.
- Reinsert the blade and continue cutting until reaching the bottom stop. This is the “skip cut.”
- Repeat on the other three sides. The mat will now look like Figure 3.
- Reset the stops to 2½" and the mat guide to 3½" and repeat the above “skip” steps. The mat will look like what you see in Figure 4, and the fallout will come out in one piece.
- Now ATG the smaller, inner mat to the back of the face mat.
- Reset stops and mat guide, increasing all dimensions by the amount the inner mat should show and make all cuts. No need for “skip cuts” when cutting the inner mat unless you want to create a triple mat.

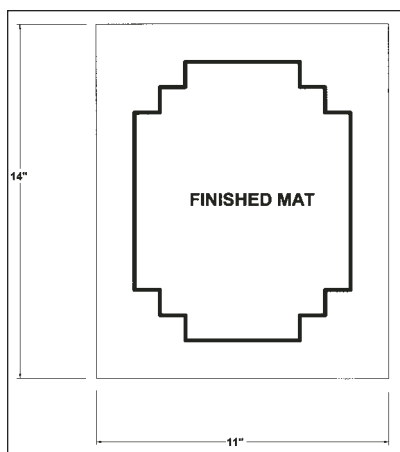


Figure 1

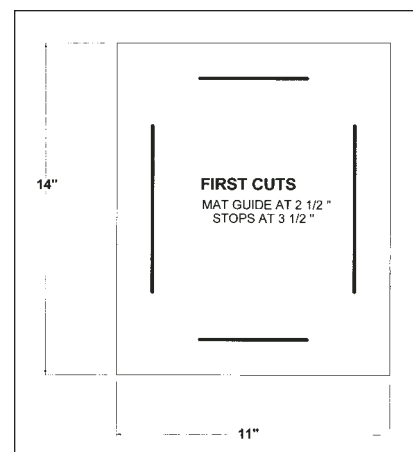


Figure 2

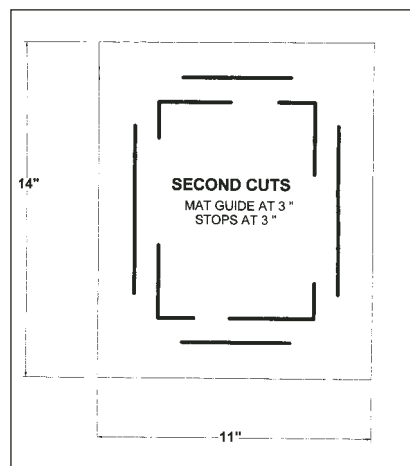


Figure 3

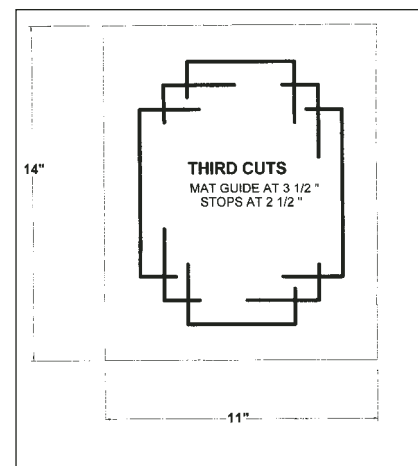


Figure 4

Practice this mat, it looks great as a double or triple with one, two or multi steps. Also, the steps don't need to be even dimensions. Varying them will create entirely different looks. ■

Brian Barnett, CPF, an industrial designer by profession, has spent the last 25 years in custom framing sales, product and graphic design, merchandising, operations, production control, and financial management. He appears in many training videos and has authored numerous training manuals and magazine articles, as well as teaching at educational venues. He currently is Larson-Juhl's consultant to the retail framing industry, consults with The Fletcher-Terry Co., and contracts for special projects with large industry retailers.

Tim Franer, CPF, CMG, has spent more than 30 years in the art and custom framing industry. Known for his creative design and skilled craftsmanship, Tim is a former gallery owner and is currently a chairholder with the Color Marketing Group. He is currently development, design, and educational consultant for Nielsen Bainbridge.

John E. Ranes II, CPF, GCF, is an instructor of workshops and seminars throughout North America, Europe, South America, Australia, and New Zealand. He and his wife, Sarah, own a frame shop and gallery in Appleton, WI, which has won more than 60 framing awards. John also consults for The Fletcher-Terry Company.