

## *Paper Foundation Piecing*

Quilters have been piecing onto foundations, either cloth or paper, for over a century. The foundation provides stability for intricate designs and/or slippery fabrics, resulting in precise points, even in complicated patterns. When a cloth foundation is used, it remains part of the finished block; paper foundations are removed after the top is assembled.

Foundation piecing involves the following steps:

1. prepare the foundation
2. prepare your sewing machine for piecing
3. place the first piece **RIGHT SIDE UP** on the **BACK SIDE** of the foundation
4. place the second piece on top of the first piece, **WRONG SIDE UP**
5. flip the block over and stitch on the solid line
6. press
7. repeat steps 5 and 6 until the block is completed
8. trim
9. join blocks together
10. remove paper foundation

That sounds straightforward, but since we pin the fabrics to the back side of the foundation and sew on the printed side, it is easy to get confused! Let's break the steps down in more detail and you'll be cranking out wonderfully precise blocks in no time.

### **Prepare the Foundation**

Fabric foundations: since it remains in the finished block, it adds to the thickness of the finished project; used in crazy quilting

- Use a good quality muslin and pre-shrink to minimize any distortion of the finished blocks
- Draw, print or stamp the design on to the muslin
  - Remember to use permanent ink!
  - To print in a printer or a copier, iron fabric to freezer paper to stabilize

Paper foundations:

- To make it easier to remove the paper later, don't use normal printer paper! Some people use tear-away interfacing, tracing paper, exam table paper, etc., but there are several light weight papers made especially for paper piecing that can be used in copiers and inkjet and laser printers:
  - Easy Piece—a translucent paper similar to tracing paper. Nice since you can see through it, but curls more than others when ironed, image may distort slightly when printed; ~ \$4.99 for 25 sheets
  - Papers for Foundation Piecing (That Patchwork Place)—a lightweight white newsprint that tears easily, doesn't curl too badly, but can become brittle if ironed too long at high heat; ~ \$7.99 for 100 sheets
  - WashAway Foundation Paper—a water soluble foundation/stabilizer that should speed up the process since you don't take time removing the paper after assembly. I haven't tried it yet since it is expensive and I have a large supply of papers to use up... ~ \$15.96 for 25 sheets

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- Transfer design to paper by drawing, needlepunching, copying or printing
  - To needlepunch the design, place the master design on top of a stack of paper and staple or paper clip the stack securely. Using an unthreaded sewing machine, stitch through all layers of the master design. This pre-stitching makes it easier to remove the paper later, but is time-consuming.
  - Designs can be copied, but make sure you use the same copier for all foundations since some copiers distort the design slightly. Making a copy of a copy will exaggerate any distortion. Some copier toners will smear or transfer when ironed, so be sure to test a sample or cover your ironing board with a press cloth.
  - I print all my foundations on my inkjet printer. Programs like EQ5, BlockBase, Foundation Factory, and Sew Precise will print foundations in a range of sizes, including seam allowances. I've seen very little distortion or ink smearing, and if I really screw up a block I can print a new one without a trip in to town.
- Trim foundations, removing excess paper and separating sections as needed—solid lines are SEWING lines, dotted lines are CUTTING lines
  - Do not trim blocks on the dotted lines yet! Trim at least 1/8" beyond the cutting lines—we will square up the blocks on the cutting lines later. Carol Doak recommends cutting 1/2" beyond the cutting line, but this seems a little excessive to me.

### **Prepare Sewing Machine**

- To make it easier to remove the paper later, use a larger needle (90/14 is recommended) and decrease the stitch length (1.5 or 18-20 stitches/inch).
- I like to use an open-toed foot to make it easy to follow the line.

### **Placing Fabrics on the Foundation**

This is where most people get confused. You will place the fabrics on the UNPRINTED side and stitch on the PRINTED side of the foundation. Just to make things more interesting, since you're sewing on the back side of the block, the block is reversed.

- With the printed side of the foundation down, place piece #1 on the UNPRINTED side of the block. The fabric should extend at least 1/4" beyond the lines on all sides. We will trim this piece to size as we go, so to be safe, cut this piece oversize. Pin the piece in place and hold the foundation up to the light to make sure your seam allowances are adequate.
- This next trick comes from Carol Doak, and it makes life so much easier!
  - Flip the foundation over so the printed lines are facing up.
  - Place a postcard on top of the line between piece #1 and piece #2.
  - Fold the paper on that line and crease it with your fingernail. This will make it easier to remove the paper later, and exposes the seam allowance of piece #1.

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- Place your Add-a-Quarter ruler against the fold and trim the excess fabric away, leaving a tidy ¼” seam allowance.
- Flip the foundation back over, and place piece #2 on top of piece #1, RIGHT SIDES together (WRONG SIDE UP), lining up the edge of piece #2 with the cut edge of piece #1. Make sure piece #2 will extend at least ¼” over the seam lines for the area it will cover.
  - This is trickiest for triangles. To assure proper alignment, “audition” piece #2 right side up next to piece #1, covering section #2 and its seam allowance. Once you know you’ve got it in the right place, flip it over and align the cut edges.
- Pin piece #2 in place, if desired, keeping pins well away from the stitching line. Some people use a glue stick instead of pins, but I always get glue on my fingers...

### Sew

- With the printed lines UP, stitch on the line between pieces #1 and #2.
- \*\*\* Start sewing ¼” BEFORE the line begins and continue ¼” BEYOND the end of the line. \*\*\*
- Clip threads and remove any pins.

### Press

- Use a dry iron to press piece #2 open.
- Some people prefer to finger-press, but I find that the block lies flatter if I use an iron. I also use a clapper to set the seam after pressing.

Repeat placement, sewing and pressing steps until the section or block is completed. Fabric should extend beyond the paper on all sides of the section or block.

### Trim Section/Block

- After pressing the sections or blocks one last time, trim off the excess fabric and paper.
  - Place the block FACE DOWN (paper side UP) on your rotary mat.
  - Align the ¼” line on your rotary ruler with outside sewing line. The edge of the ruler should line up with the dotted cutting line.
  - Trim the block.
  - Do not remove the paper yet!

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### **Join Sections/Blocks Together**

- Pin sections or blocks together, matching seam lines.
- Check the alignment by “drill pressing” in spots along the seam line (manually advance the needle down, then rotate it back). The needle hole should be centered in the seam line on both sides of the block. If it isn’t, adjust the pieces and recheck.
- BASTE sections together using a long stitch length (3.0). You don’t need to baste the entire block, just the beginning, the end and a couple of key points in between.
- Open the block and check the alignment.
  - If everything matches, go ahead and stitch the full seam with a short seam length (extending  $\frac{1}{4}$ ” before the seam line and  $\frac{1}{4}$ ” past the end.)
  - To adjust any misaligned areas, remove the basting in those areas only, re-pin and re-baste until everything matches correctly. Then sew the full seam.
- Remove the foundation papers once all your blocks are joined and borders added.

### **Tips and Tricks**

- Use Scotch removable tape to repair torn foundations (or areas you need to re-stitch). Avoid ironing the tape, if possible.
- For miniature blocks, use the Add-an-Eighth ruler instead.

There are many wonderful books with paper-piecing instructions and designs. Any of Carol Doak’s books are good, and you can get her blocks on CD-ROM. Margaret Rolfe’s *A Quilter’s Ark* has lots of fun animal designs, and the block designs are also available on CD-ROM.