

To the Point....Let's Talk About Needles

Without peeking, do you know what size and type of needle is in your machine?

Part of being in a quilt store every day is hearing about problems that others are having. Two of the most common laments we hear are, "My machine is skipping stitches" or "The thread keeps breaking."

Assuming your machine is clean and running properly, both of these issues can often be resolved by (a) rethreading the machine, (b) changing the needle, (c) changing to a different size needle, and/or (d) changing threads. (Please see "Spoolin' Around...Let's Talk About Thread" on our website Knowledge Center for more information about selecting an appropriate thread for your project.)

There are more than 4,000 different kinds of needles available from just one of the manufacturers, so it's important to know a little about choosing the right needle. Machine needles are categorized by:

- "System," the designation that makes a needle appropriate for a specific type of machine. This number usually appears on the front of the needle package. Most domestic sewing machines use a 130/750 system needle. Sergers, long-arm machines, industrial machines, etc. use needles from a different system. The system designation covers technical specifications such as length and diameter of the needle, distance from the tip of the needle to the hole, etc. Only use needles with the appropriate system designation for your machine, as others may cause damage to your machine.
- "Type." This refers to the needle tip and/or other features. Types include:
 - Universal – a slightly rounded but sharp point for general sewing on woven fabric. Satisfactory for piecing medium-to-large-size squares and rectangles.
 - Ballpoint – a rounded tip meant to push aside the threads of a knit fabric.
 - Sharp (Microtex) – a much more tapered, sharper point than a Universal. Excellent for penetrating multiple layers, such as when machine quilting. Also excellent for piecing, especially when piecing triangles or very small squares and rectangles.
 - Quilting – very similar to the sharp. I prefer Sharps over Quilting, because I haven't found a brand that I like that packages quilting needles in a package containing just one size needle.

- Denim – a taperrf, sharp point on a stronger shank. Excellent for sewing with denim and used by many machine quilters in place of a Sharp.
- Leather – for sewing leather
- Topstitch – needles with an elongated eye for the heavier threads often used in topstitching. There's some "buzz" in the quilting world right now, suggesting that a Topstitch needle can replace just about every other needle (e.g., the Universal, the Sharp, etc.) I'm still experimenting and am not yet sure if I agree or disagree with this position. Whether I do or not, I'm sure to learn something new about needles while testing them with various threads.
- Metallic – needles made for use with fragile metallic threads
- Special Coatings: A growing number of quilters are gravitating to titanium needles, which are said to last four to five times longer than uncoated needles.
- Size: The size of the needle affects both the depth of the groove that runs along the front of the needle to hold the thread in place and the diameter of the eye. It's very important to coordinate the size of your needle to the size thread you're using. An improper needle size will cause skipped stitches and thread breakage. Machine needle sizes are usually stated in both the European system (the first number) and the US size (the second number). Larger needles have higher numbers. Examples include:
 - Size 60/8 – a very small needle suitable for the finest of threads, such as size YLI silk (100 wt).
 - Size 70/10 – a small needle suitable for threads ranging from very fine (100 wt) to perhaps a 50 wt/2ply cotton thread.
 - Size 75/11
 - Size 80/12 – probably the most common size used by quilters, an 80/12 works well with threads ranging from fine to medium weight
 - Size 90/14 – a larger needle for threads ranging from medium to heavy weight
 - Size 100/16 – for very heavy threads

The thread guide on our website Knowledge Center suggests a needle size for the threads we carry. Most threads will work well within a range of needle sizes, so if one size doesn't work well on a specific project, try a size larger or a size smaller.

Some (not all) thread manufacturers suggest a specific needle size for each of their threads. This information can sometimes be found on a thread display, but more likely you'll have to go to the manufacturer's website.

Remember, there is no prize (except perhaps headaches!) for sewing the longest without a needle change. Needle manufacturers recommend that the needle be changed every six to eight hours of sewing time. With experience, you'll hear when your needle is becoming dull; it usually begins making a dull popping sound as it stitches.

Occasionally, even a brand-new needle might have a burr or other defect on it. So if you are having trouble and you changed your needle, try another one. (Don't throw away the suspect needle until you confirm that a different needle did or didn't solve the issue.)

Lastly, most manufacturers stamp the needle size on the part of the needle that is held by the needle clamp on your machine (the shank). You'll need a magnifying glass to read it. The type of Schmetz needle is marked by a colored band around the shank: Universal (no band) , Sharp (purple band), denim (blue band), etc. This information will help you determine what kind of needle is in your machine right now.

Want to know more? Download a Needle Guide from the Schmetz website. You can find it at http://www.schmetzneedles.com/Schmetz_Sales_Guide.pdf (cut and paste this address into your browser).



Creekside Quilting