

✂ PEACE OUT ✂
SKIPPED
STITCHES



Serger & Coverstitch Needles Guide

Less Stress More Sewing



diystyle[®]

Less Stress--More Sewing!

Prevent stitching issues, and pesky skipped stitches. Learn how to choose the correct needle for your serger and coverstitch machines (sewing machine too!) and the project.

Coverstitching & Serging

Needles can be the culprit for most issues with stitching--especially if you experience skipped stitches. Once you learn a few things @ the anatomy of a needle, you will understand why it's so important to choose the right one.

Parts of a Machine Needle:

- | | |
|-----------|------------------|
| 1) Point | 6) Shank Taper |
| 2) Tip | 7) Shank |
| 3) Eye | 8) Point groove |
| 4) Blade | 9) Scarf |
| 5) Groove | 10) Short Groove |

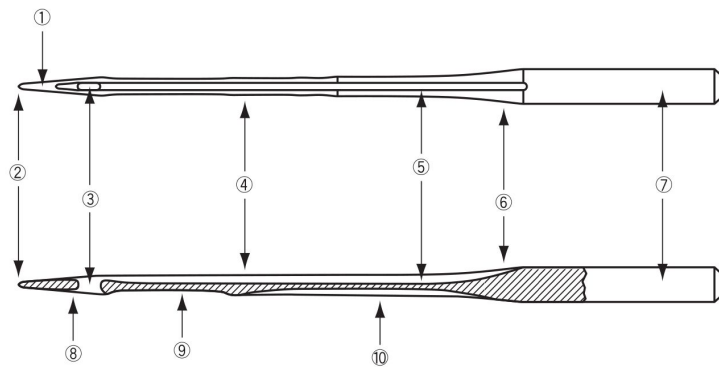


Illustration: Organ Brand Needles

And also as important is the length. While not actually a “part” of a needle, it does factor into the make-up. In fact, all of the needle parts have an impact on the timing of the needle in each machine. That’s one important reason to choose the proper needle (system, type and size) that goes in your machine as specified by the manufacturer.

5 point checklist!

What do you need to know to choose the best needle for the job? Here's your guide:

1. Needle System

Which needle system does your machine require? Using a needle system that is not the recommended system for your machine can wreak havoc on your machine and can actually result in timing problems. Here are the 5 main needle systems for most all home sergers and coverstitch machines:

ELX

BLX

DCX

HAX

130/705H (Common Household Sewing Machine System)

Here's a great chart put out by Schmetz if you need to check what needle system your machine requires:

<http://www.schmetzneedles.com/all-about-needles/>

There are some unusual exceptions to these systems (DBX & SY), so please check your machine manual or documentation. Many machines have the needle system printed on the machine!

2. Point

What fabric type are you sewing? Woven fabrics perform different than knits! Choose a universal point for wovens and a medium ballpoint for knits. If your machine uses standard household needle (130/705H), choose a needle for specific fabric type--as there are loads of variety to choose from.

Machines that do not use the household needle system have fewer needle choices--but this can actually simplify the choices.

Did you know?! The designation **SUK** for needles means that it has a **medium ball point!** Very important to know and use, especially for those stretch knits that can make for finicky stitching. Choose this needle for active stretch fabrics and elastics, especially on coverstitch machines that have this needle as a choice to use. That medium ballpoint makes all the difference. Skipped stitches be gone!!

3. Shaft

What is the weight--thickness--density of your fabric? This determines the size of the needle to choose. Needles come in many sizes, but these are the 3 common

sizes--90/14, 80/12 & 75/11. There are additional “specialty” sizes, however size 90/14 is the most common needle choice for majority of fabrics. Remember this rule:

Higher # size = thicker fabric

Lower # size = thinner fabric

4. Fabric Type/Scarf & Groove

Does the fabric stretch? (Is it a knit or a woven?) Choose a needle that will move through lycra/spandex fabrics with ease, no snags and no “holes”. A ballpoint is a MUST for knit fabrics, for the serger and the coverstitch to form stitches properly! If you can use the household needle system in your machine, opt for a “Stretch” needle, and then appropriate size for your fabric weight.

Both the scarf and the groove on the needle are important for stitches to be formed properly. On a stretch needle for instance, the scarf is adjusted to achieve a stitch to be “caught” on fabrics that “grab” the thread--like on elastic and lycra spandex knits.

5. Thread Used

Are you using a thread other than standard cone thread? Using a texturized nylon or poly thread, even if it placed in the looper(s) can impact the choice of needle point and size.

Example: if serging or coverstitching a woven fabric with a texturized thread choose a ballpoint tip on your needle (versus a typical Universal point). This helps to reduce any snags on the fuzzy thread.

Serger & Coverstitch Needle Tips!

- Change them often! Needles are an inexpensive “fix” to keep your machine performing properly & forming stitches as desired.
- Insert needle all the way into the needle clamp, checking to be sure they are properly tightened to prevent slipping down. If a needle is not all the way up into the needle clamp it will affect the timing of the machine & stitch--NOT in a good way!
- Experiencing skipped stitches? Change your needle(s)! Often a needle has become dull from overuse, or the tip was compromised in some way. Start with changing out the needles BEFORE adjusting tensions in an attempt to fix--ESPECIALLY if the issue cropped up after you were stitching without issues previously.
- Check the recommended brand by the manufacturer of your machine. There are slight nuances between the needle manufacturers that can contribute to results of stitching. Organ, Schmetz, Klasse, and Singer are the major needle brands available to consumers.

- Test a needle for abrasion as well as wear & tear--more often when using knit fabrics, and especially high stretch, nylon and polyester fabrics. Factories use a nylon hosiery scrap to test for burrs and needle issues before sewing to prevent poor stitch quality. For them time is money, so a quick switch of a needle is warranted if needed. It takes much less time to change a needle than to rip stitches!

Did You Know?! *Sergers and Coverstitch machines have “timing” that is set at the factory based on a specific needle brand and needle system! That’s why it’s so important to know and understand the recommended needles by the machine manufacturer.*

Troubleshoot

(Or more commonly known as the time to grab a glass of wine or cup of coffee and BREATHE!)

So.....you are still have issues with your stitching, even after switching to a brand new & best choice needle(s). Frustrating--we know how you feel. What to do now? Try these troubleshooting tips.

In This Order:

1. Presser Foot Down!

I can't tell you how many times we have made this mistake--and I will wager a bet you have too. So double check before you go on to save you lots of time and heartache!

2. Rethread

In many cases some thread got hung up, came out of a tension disk or guide. So if in doubt, rethread! Always check for good thread flow with no hangups. Make sure your thread carrier/stand is all the way up, and all threads flow free and clear!

3. Add a Thread Net

Thread nets are your friend! When you need that slight adjustment to the flow of thread, throw a thread net on a cone. It helps add just a touch of tension on that thread. Just push the thread net up into the cone from the bottom, and fold over the outside over the thread. On a coverstitch machine in particular these can make a world of difference in the resulting stitches. Some coverstitch machines (industrials especially) are so sensitive to even the slightest breeze in a room--thereby making their tension “off”.

4. Adjust Tensions

Check your handbook or machine guide for starting tension settings for a particular stitch formation. Then tweak as needed in this order: Needles first, Loopers second. Always check your stitching after each adjustment. Sometimes even the littlest adjustment can make a huge difference in how the stitches look.

Fun Facts: Needle Tidbits

- Purpose of the needle scarf-supports the hook (looper) to pick up the needle thread loop correctly.
- Purpose of the needle groove-adapted to needle size and assures correct guidance of the thread into the fabric.
- The eye of the needle generally increases with the size of the needle--ie. The eye on a 11/75 needle is smaller than the eye on a 14/90 needle.
- The eye of the needle changes in size in standard needles with an embroidery needle (has a larger eye than universal needle) and metallic and topstitch needles (even larger eye).

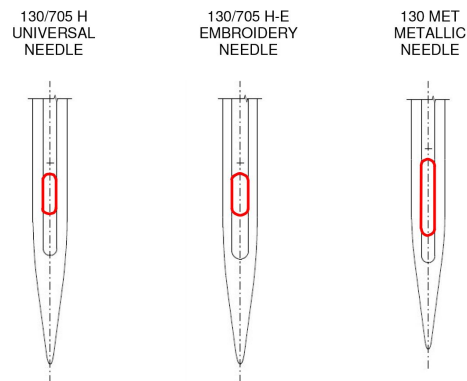


Illustration: Schmetz Needles

- Stretch needle has a specially designed scarf and eye in addition to a medium ballpoint tip. This scarf adjustment is the “secret sauce” to prevent skipped stitches on stretch knit fabrics, especially those with spandex. Those machines that accept the common household 130/705H system are lucky to have this as an added choice for both serging and coverstitch! Typically you can find sizes 11/75 and 14/90 in stretch needles.
- Jersey needle is also for knit fabrics, and is the choice for knits with little to no spandex. This needle has a medium ballpoint, but NOT the adjusted scarf as found on the stretch needle. Typically you can find sizes 70/10, 80/12, 90/14 and 100/16.
- The ballpoint tip does not break fibers, but will move between them, essential for knit fabrics.
- Most needle manufacturers recommend replacing needles after every 8 hours of sewing.

Did You Know?! Common household sewing machine needle system--130/705H--all needles in this system have a flat shank for ease in positioning. This same flat shank is now used in most all needle systems for household sewing, serger, and coverstitch machines. Alternately industrial sewing machine needles have a round shank. And yes, it is a little bit tricky to get them into correct position. Having the flat shank makes positioning a needle for the home sewer almost foolproof! Flat to the back.....ALWAYS.

Recap!

Choose your needles based on these features--in this order!

1. Needle System
2. Point or Type (regular tip or ballpoint tip)
3. Shaft (for thin or thick fabric)
4. Fabric Type (knit, stretch or woven)
5. Thread used (standard or specialty)

Great Resources for Needle Know-How!

Schmetz Learning Center- <http://www.schmetzneedles.com/>

Organ Brand- <http://organ-needles.com>

Wawak- www.wawak.com

And an AWESOME source for purchasing needles and great quality knit fabrics (including DBP, Swim, Active & more)!

KnitPop-www.KnitPop.com

Join us for “Less Stress--More Sewing!”

- Enroll at DIYStyle® Studio to see our current Ecourses and get notifications when new courses are loaded in our online school! www.diystylestudio.com
- Subscribe at DIYStyle® to be the first to receive our new PDF's, projects, patterns, tips, and offers! www.diystyle.net
- Shop for elastics, fabrics and knits notions at our Haute Knits store www.hauteknits.com