

NEEDLES:

There are four basic types of needles:

- 1) Sharp Point Needle
- 2) Ball Point Needle
- 3) Wedge Point Needle
- 4) Metallic Needle

Sharp point needles:

Sharp needles actually pierce or cut the fibers, which can be useful for cleaner designs and less damage to texture or thicker fabrics. Note that sharp needles may be needed if you are using a heavier stabilizer.

Ball Point Needle:

They are a little bit different than the sharp in that they have a rounded point. These will not penetrate threads as easily and will more than likely go between the threads instead of penetrating them. For example, a knit should have a ballpoint needle to prevent runs or holes in the knit. Within the Ball Point needles there are light ballpoint, medium ballpoint and heavy ballpoint to tackle a wider range of fabrics.

Wedge Point Needle:

These have a sword-like point. They are very sharp but instead of making a round hole penetration they will make more of a slit. In embroidery, the stitches and needle penetrations are so close together that if a large hole were made in these types of fabrics, the design might tear out the fabric. Wedge point needles are used for vinyl, leather, and fabrics that are not woven.

Metallic Needles:

They are sharp needles and have a hole that is almost rectangular. This allows for the stiffness of the metallic thread to flow through the needle very easily thereby creating less friction and less thread breaks.

Larger sizes indicate a larger needle tip and should therefore be used on heavier fabrics. 75/11 is suitable for most lighter weight fabrics and 90/14 for heavy fabrics such as denim and canvas.

Choose regular needle size by fabric weight

When selecting a needle, start with needle size. European needles range in size from 60 to 120, which refers to the diameter taken on the shaft right above the eye. American needles are sized from 8 to 19 in an arbitrary numbering system, and paired with corresponding European sizes: for example, 60/8 or 75/11; the larger the number, the larger the needle.

For very fine fabrics such as bridal satin, satin, silk, linen or similar fabrics, you will want to use the smallest needle you have. A #60/8 Sharp, #65/9 Sharp or #70/10 Sharp would be appropriate sizes for this type of application. For denim and heavy woven fabrics, you will want to use a larger needle to penetrate this heavy fabric. For this application you will want to use # 75/11Sharp, #80/12 Sharp or #90/14 Sharp. Obviously these are ranges for these applications and you will need to make the decision which needle is best for your particular application. For knits and loosely woven fabrics you will want to use a ballpoint needle. The same size constraints will apply to these fabrics as well. The finer the fabric, such as jersey knits and pique knits, the smaller the needle. If you are sewing on a loosely woven fabric such as tapestry you may also want to use a ballpoint needle. These will more easily go between the threads of the fabric instead of penetrating them.

You will need to change your needle from time to time. This is because when the needles run, frictions are caused between the needle eye, thread and the substrate. If they are used longer than their life span, needle will break and cause a lot of trouble to the fabric and the quality of the designs. A rule of thumb is that the average life of a needle is about 2 million stitches, which comes to around 8 days if the machine is run continuously 24 hours at 650 stitches per minute.

