

Getting the Point!

By Martyn Smith

Using the correct sewing machine needle is often underestimated but is fundamental to forming perfect stitches to create seams in garments. A sewing machine is useless without a needle and is often sent in for servicing when all it needed was a new needle (or a different type). There is a vast array of machine needles in the stores today but like most things these days you only get what you pay for. It is suggested that a machine needle is changed for every garment or maybe every second one if the fabrics being used are of a similar nature.



Needle Type	Needle Tip	Fabrication	Sizes Available
Universal	Slightly rounded	General purpose sewing of woven and knit fabrics.	60/8 – 120/20
Stretch	Medium ball-point with special eye and scarf to reduce stitch skip.	Knits, elastic and stretch fabrics (elastane composite).	11/75 – 14/90
Jersey (Ball Point)	Medium ball-point	Knits and some stretch fabrics.	10/70 – 14/90
Jeans/Denim	Modified medium ball-point with reinforced blade.	Extra thick woven fabrics with minimum deflection for reduced damage to fabric and skipped stitches.	10/70 – 18/110
Leather	Cutting point	Leather and similar materials. Not for knit or woven and some synthetic leathers.	10/70 – 18/110
Microtex (Sharp)	Very slim needle with a very sharp point, but fragile.	Densely woven fabrics (high thread count), microfibre and synthetic leather.	60/8 – 14/90
Topstitch	Very long eye	Perfect for all types of decorative sewing and embroidery.	12/80 – 16/100
Embroidery	Large eye, deep front groove and special scarf.	Prevents friction with fragile rayon and decorative threads.	11/75 – 14/90
Metallic	Long eye and enlarged from groove.	Encloses metal thread to prevent shredding and breaking.	12/80 – 14/90
Hemstitch (Wing)	Very sharp and made to cut the fabric.	Create decorative openwork or cutwork on tightly woven fabrics.	100/16 & 120/20
Twin	Two needles on one shank.	Decorative stitching.	10/70 – 100/16 Variety of widths between needles.

The machine's tension or stitch quality is often blamed for puckering, thread slant (each stitch appears to drift sideways) or loose looking stitches when, in fact, the relationship between the needle and thread is more often the cause.

It is a common assumption that we select our needle to match the fabric,

but what about the thread? Of course we can't neglect our fabric choice, but marrying the needle size to the thickness of the thread is more important. On the retail market there are many different brands of thread available to us; unfortunately not all of these are created equal! Threads that run from thick to

thin, have the occasional knot or are over-dyed can cause missed stitches and uneven tension.

When we change a needle in a sewing machine or overlocker, we see that there is a definite 'front' and 'back' to the needle. Insert one around the wrong way and your machine will certainly not sew!

The back of the needle has a flat area on the shank (at the top) and the scarf (around the eye) is shaped to enable the thread to be collected as the machine forms its stitch. The front of the needle features a long groove starting below the shank and running all the way to the needle's eye. The diameter of the long groove and the size of the needle eye are determined by the needle size – the bigger the needle, the larger the groove and eye. This is what makes the marriage of the needle and thread so important, get it wrong and your machine's stitch quality is compromised. [See photo 1.](#)

To form a neat and even stitch, the sewing thread must first and foremost be of good quality. It must also sit neatly tucked into the long groove of the needle, ensuring that the sewing thread does not snag on the textile's weave as the needle enters the fabric. The eye of the needle must also be large enough for the thread to flow freely backwards and forwards as the thread is first pulled through to the rear of the needle and then retracted by the machine's take-up lever.

Size 80 and 90 needles are more suited to domestic sewing threads available, these threads are reasonably heavy – 100 denier (a few polyesters are finer at 120). Finer machine needles are not really suitable for us to sew with unless we are dealing with specialist fine threads.

There are specialist needles available that do have a deeper than normal front groove to cope with the demands of topstitching and embroidery. The microtex needle used to sew microfibre has a deeper groove as well. Darker coloured threads quite often need a bigger needle to cope with the heavy amount of dye pigment required to give the depth of colour.

Take time to have a look at the needle selection on your next visit to your sewing machine retailer, and remember - change your machine needles regularly! **Hint:** When only using a needle for a short period of time but needing to change it to go on to something else, mark the flat area on the shank of the needle with a permanent marker and put it back in the correct needle packet. This will in turn identify a used needle that still has some life left in it and saves a little bit of money. Needles aren't cheap!

