

sewing surgery

know your machine needles

Choosing the right needle for the job is as important as the sewing machine itself

By Julie Bonnar

The needle is the first point of contact between your sewing machine and your sewing, so never compromise on quality and always use the correct sized needle to get the best results.

Needle Anatomy

Shank – needle's thickest part; the shank is flat at the back so you can insert into the needle bar.

Shaft/blade – needle's thinnest part; penetrates the fabric whilst stitching.

Front groove – groove behind the needle eye: cradles the thread for a smooth stitch.

Groove – needle shaft's indentation; the thread lies on.

Eye – the needle hole through for threading.

Point – the needle tip determines which needle to use for fabric type.

Tip – the part of the needle that wears out.

Needle sizes

Manufacturers use two methods of naming the sizes – American (Imperial) sizes 9-18 and European (Metric) sizes 65-110. The size of a needle is calculated by its diameter eg 80 needle is 0.8mm in diameter.

General needles

Universal needle has slightly rounded point for general sewing. Use with knit fabrics but sharp enough to pierce woven fabrics.

Ballpoint (jersey) needle has a blunt, rounded tip that slips between fibres rather than piercing them. Use with coarse knits, Lycra and other fabrics that tend to run if you snag them.

Stretch needle has a medium ballpoint and special eye and scarf to prevent skipped stitches. Use for elastic knitwear, elastic, lycra, velvet and lingerie fabrics.

Speciality needles

Denim/jeans needle has an extra-sharp point and stiff shank.

Microtex (Sharp) needle has a very thin sharp point for straight stitching on more delicate fabrics.

Metallic needle designed with an enlarged eye to accommodate speciality threads.

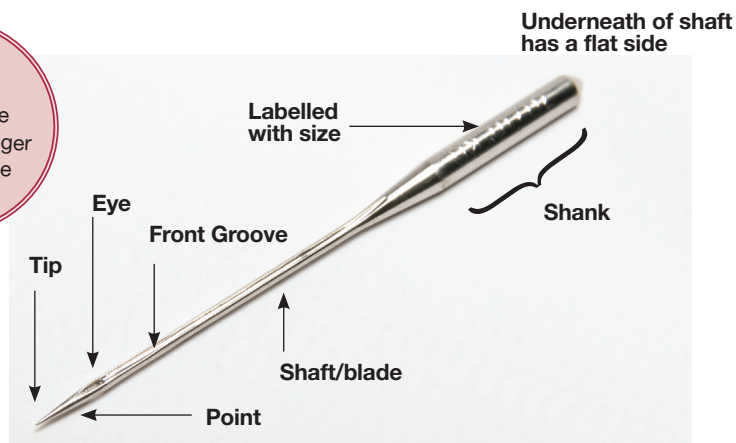
Embroidery needle has a wide eye and light ballpoint with embroidery threads, polyester and rayon.

Topstitch needle is extra sharp with an enlarged groove for larger diameter threads for topstitching.

Leather Needle – use for leather, artificial leather and heavy non-woven fabrics.

Wing (Hemstitch) needle has a wing on each side of the needle.

Tip:
the larger the number, the bigger and thicker the needle



Quick guide

Imperial	European	Suitable for
8	60	Featherweight fabrics - organza, chiffon, fine lace, sheers
10	70	Lightweight fabrics - taffeta, challis, crepe, satin
12	80	Medium-weight fabrics - wool, brocade, sweatshirt, gabardine
14	90	Med/heavyweight fabrics - denim, polyester-blend, linen, twill
16	100	Heavy weight fabrics - corduroy, velour and quilted fabrics
20	120	Upholstery fabrics

Perfect for heirloom sewing, cutwork and light weight fabrics.

Twin needle has two shafts on a crossbar. Use for decorative stitching such as pintucking and creating multiple lines of stitching.

Needle troubleshooting

BROKEN NEEDLE - Re-check the needle type, this usually happens when the needle is too fine for the fabric or has the wrong point.

STITCHING PROBLEM – Cure skipped stitches or thread

breakage by changing the needle. A thread creates its own unique groove so when you change thread – the groove doesn't match. Needles blunt quickly and can damage the fabric fibres such as snagging and skipped stitches.

PUCKERING - Usually a sign of bad tension - use a fine sharp needle to punch through the fabric and a straight stitch throat plate to give more support - the thicker the thread the thicker the needle.



Reading a needle packet:

Needle type – Hemstitch

Needle size – 100/16

(100 = number metric is the diameter of the needle blade in 1/100th of a millimetre (short groove and 16 equals the equivalent imperial size).

write to us:

If you are in need of a little help with a sewing dilemma, write to us at: Sewing Surgery, Sewing World, Traplet House, Pendragon Close, Malvern, Worcs, WR14 1GA.