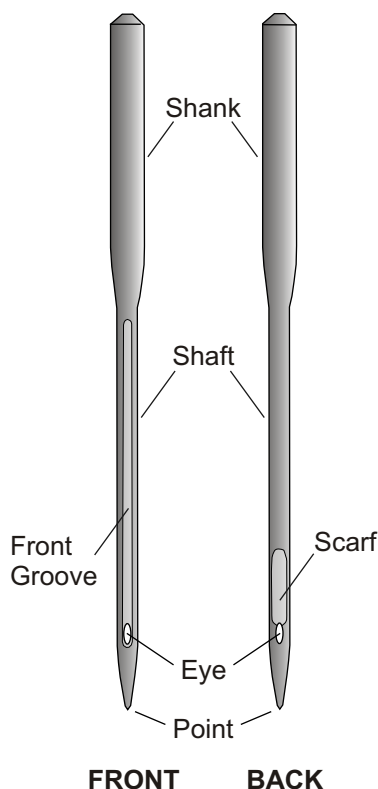


EMBROIDERY MACHINE NEEDLES

NEEDLE ANATOMY



Shank

Top of needle. Inserts into presser foot needle clamp and is held in place by needle set screw.

Shaft

Body of needle. Shaft thickness determines needle size.

Scarf

Indentation at back of needle. Shorter scarfs require a more perfectly timed machine. Longer scarfs tend to help reduce skipped stitches.

Front Groove

Long groove above the eye at front of needle. Should be large enough to allow thread to "ride" inside while stitching.

Eye

Needle hole through which thread passes. A machine embroidery needle will have a larger eye than a regular sewing machine needle.

Point

Tip of needle which penetrates the fabric. Many different point types are available.

MACHINE NEEDLE SIZES

Fine Material / Small Stitching			Most Commonly Used			Tough Heavy Material / Heavy Weight Thread			
55/7	60/8	65/9	70/10	75/11	80/12	85/13	90/14	100/16	110/18

There are two types of numbering systems used for sizing embroidery machine needles. There is the European [metric] and the American [Singer] systems. The European needle size is determined by multiplying the diameter of the "needle shaft" by 100. The American system is not based on measurements, instead the needle sizes are given an arbitrary number. Usually both sizing systems are found on needle boxes as European/American [eg. 75/11].

GENERAL EMBROIDERY NEEDLE INFORMATION

- 1) The most commonly used needle points are sharp points, ball points or some variation of these two. Sharp points [as their name suggests] are the sharpest needles but when using them, there is a risk of "cutting" the threads of delicate fabric. Ball points are slightly rounded and guide themselves between the threads of fabric while stitching ... thus not damaging delicate material.
- 2) DBxK5 [round shank with oversized eye] denotes an embroidery needle which is used on all Tajima's plus most other commercial embroidery machines.
- 3) Depending on manufacturer, needles tend to be available in chrome and/or titanium, with the latter being significantly stronger which results in less needle breakage or bending plus the point stays sharp longer.

MACHINE NEEDLE SELECTION

Canvas	75/11, 80/12 sharp point
Water Proof Mat.	75/11, 80/12 sharp/ball point
Corduroy	70/10, 75/11 sharp/ball point
Cotton Shirts	70/10, 75/11 ball point
Denim	75/11 sharp point
Golf Shirts	70/10, 75/11 ball point
Headwear	70/10, 75/11, 80/12 sharp point
Lace	70/10, 75/11 sharp point
Leather	70/10, 75/11, 80/12, 90/14 sharp/ chisel point
Lingerie/Silk	60/8, 70/10, 75/11 sharp/ ball point
Lycra/Spandex	70/10, 75/11 ball point
Nylon	70/10, 75/11, 80/12 ball point
Rayon	70/10, 75/11 ball point
Satin	70/10, 75/11 ball point
Sweater [knit]	75/11 ball point
Sweatshirt	70/10, 75/11 ball point
T-shirt	70/10, 75/11 ball point
Taffeta	60/8, 70/10 ball point
Terry Cloth	70/10, 75/11, 80/12 sharp/ball point
Velvet	65/9, 70/10 ball point
Vinyl	75/11, 80/12 sharp point

Use this Machine Needle Selection chart as a guide only. Variations in types of items, quality or weight of material, type or quality of design, machine operators experience and the machine itself, may warrant making different needle choices.