HOW TO

FASHION THE FINEST

QUALITY NEEDLES

A good needle is a pre-requisite for good sewing and finish of any product. Modern day sewing machines operate at speeds exceeding 5000 stitches per minute. This means that the needle travels at a speed exceeding 15 km per hour! Whatever the sewn product - be it leather, garment etc, it is the seam which joins everything together and is crucial to the finish and quality of the final product. That's why we stop at nothing, when it comes to quality control.

PRODUCTION INSPECTION

The sewing machine needles are inspected using established statistical quality control parameters at every stage of production. This comprises:

- Measuring the main dimensions (shank and blade diameters, butt to top of the eye distance, length of point, etc)
- Checking special shapes (cone-shaped point, tip, etc)
- Bending properties (elastic limit, breaking angle, breaking force)
- Eye testing (free of fins)
- Measuring the hardness and thickness of the surface layer (nickel, chromium)
- Visual inspection (blemishes, etc)

PRODUCT INSPECTION

The finished sewing machine needles are inspected using established statistical Quality Control (DIN 40 080) techniques.

The needle is checked for predetermined quality parameters at the end of every single operation. All these together total 155 different checks for every single needle. After the needle manufacturing process is completed, every single needle is visually inspected for a further 25 parameters. Only those needles that pass every one of these tests reach our customers:

A) BREAKING ANGLE TEST

The single most important quality that a needle must meet is that it should be strong and must not break easily. A specially designed computer controlled device is used to ensure that the needle retains a certain elastic property and does not break within specified limits.

B) ELASTICITY TEST

The needle must have elastic property. Additional layers in sewing (e.g. collar attachment) pose sudden resistance which can be met only if the needle is elastic. It is mandatory that the needle returns at once to its straight position. If not, there will be problems of skipped stitching and damage to vital sewing machine parts. This elastic limit is continuously monitored.

C) EYE TEST

Cotton thread (though polyester is a more commonly used thread and breaks less easily) is used and tested rigorously under conditions far more severe than real life conditions. If the cotton thread does not break, the needle batch is passed by our Quality Control department.

D) TORTURE TEST

Our Quality Control department is equipped with modern sewing machines for real life testing of needles. Our technicians sew non-stop for 20 minutes on several layers (garment and leather) to inspect whether the needle performs without breakage.

E) GUN SHOT TEST

This is the ultimate test that determines the strength and tip hardness of the needle. A needle is shot through a steel plate and the tip is checked. The tip must remain sharp and intact.

These painstaking steps are a must to ensure top notch needles. At Beissel, we stick to this Quality Control regime almost every day. No wonder we've managed to win seals of approval from the finicky gentlemen who award the ISO 9002.