



Felting needle handling

The correct use of felting needles directly influences the product quality of nonwovens as well as the product life of the needle and needle board, thus contributing to a reduction in operational costs.

GROZ-BECKERT

Groz-Beckert KG

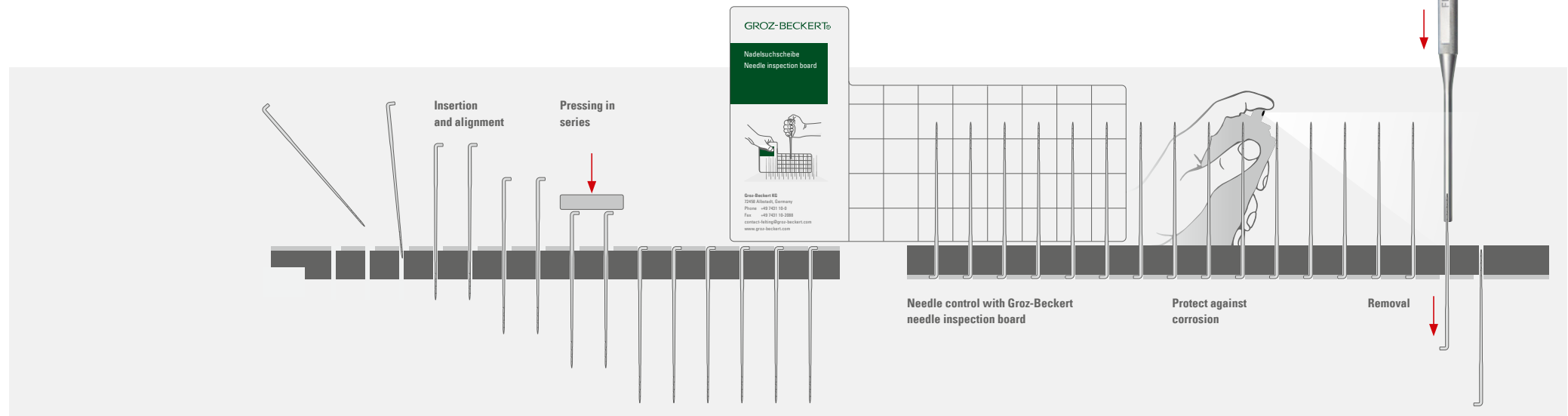
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Insertion into needle board

For the best needle performance, we recommend inserting and aligning the needles into the board in a row. In order to prevent damage to the needle points, carefully align the needles after removing them from the packaging. When doing so, avoid "striking" the needle point against any hard objects. Damaged points may transport fibers and result in marks on the product. For needle boards with a flat rear side, align the crank after punching. The needles can be inserted by hand to the desired crank position. The needle inspection board from Groz-Beckert provides a comfortable and effective control mechanism for correct alignment and examining needle boards for broken, damaged and bent needles.

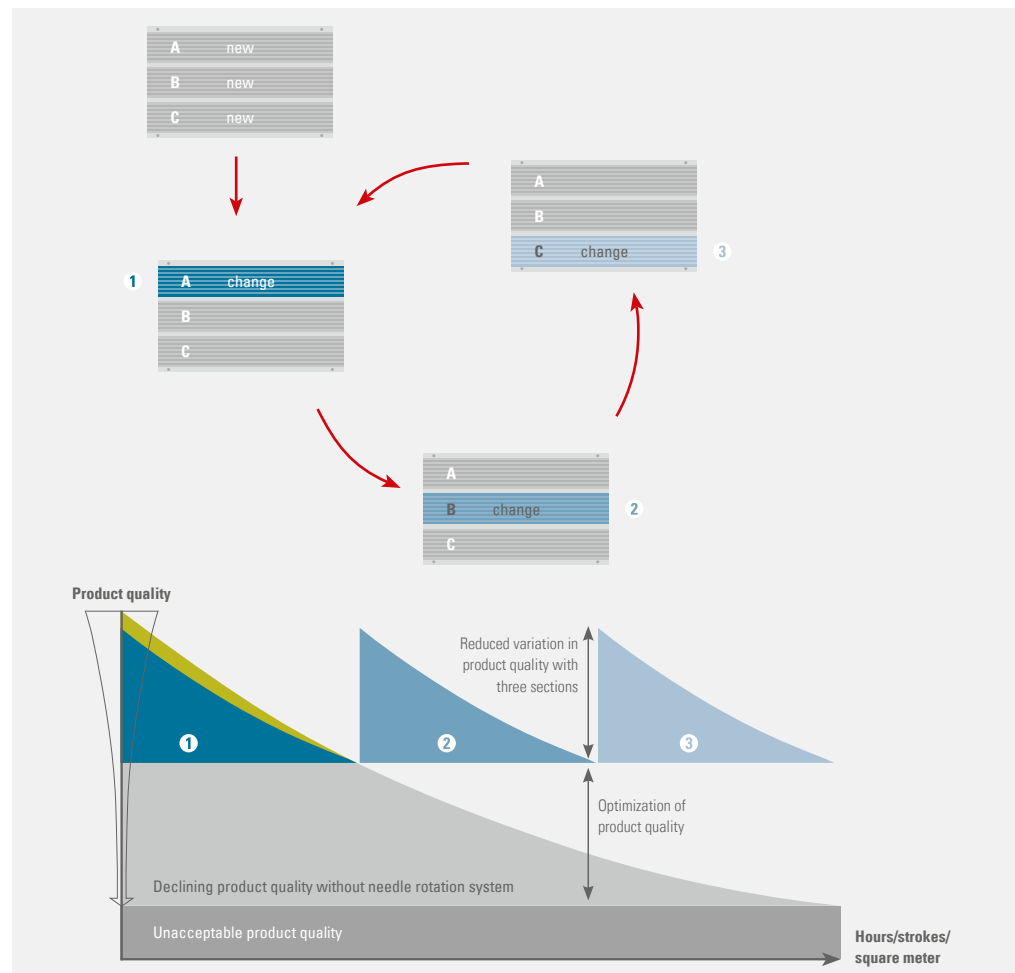
Removal from needle board

Needles can be removed simply and precisely from needle boards using Groz-Beckert needle removal tools. When doing so, it does not matter if you are removing individual needles, complete segments or entire needle boards. Groz-Beckert offers needle removal tools for needles with standard working parts and other working geometries in order to remove needles without damaging them for later use. The FN CON removal tool is designed for needles with a conical working part.



Needle rotation system to improve process reliability

The variation in nonwoven quality is greatest when replacing 100% used needles with new needles. We recommend replacing sections of needles proportionally in order to keep consistent high product quality. How long a section remains in the needle board can be measured in machine operating hours, stroke rates or production quantity.



Rust protection and cleaning

Groz-Beckert needles are coated with a thin layer of oil to protect against rust when they are removed from the packaging. This protective layer wears off after just a few insertions into the product being needled. In addition, deposits of fiber bundles can significantly influence needling performance and the surface quality of the product. It is therefore important to clean the needles in the needle board at regular intervals and spray them with a rust protection spray.

When preparing to store needles, Groz-Beckert recommends the following steps:

- Remove all fiber dust and remnants from the needle board and needles
- Also clean the needles with pressurized air and degrease with acetone as needed
- Check needle board with needle inspection board for completeness
- Allow needles to dry
- Cover the needles evenly with anti-corrosion oil (f. ex. Klübersynth MZ4-17)

In general, Groz-Beckert recommends using dur needles for improved protection against corrosion and longer product life. Use the nearby QR code in the Groz-Beckert® dur data sheet for more information on this.



Needle coating

Groz-Beckert felting and fork needles are equipped with sufficient anti-corrosion oil and paper in the packaging. We recommend closing the needle packaging after removing needles.



Ideal climatic conditions:

- Air humidity < 40 %
- Temperature 15–25 °C (59–77 °F)