Litespeed™ felting needles with optimized shank geometry

Our “one-hit wonders” for quickly inserting needles into and removing needles from needle boards

GROZ-BECKERT

Groz-Beckert KG
Parkweg 2, 72458 Albstadt, Germany
Phone +49 7431 10-0
contact-nonwovens@groz-beckert.com
www.groz-beckert.com

Special characteristics

Groz-Beckert offers felting and structuring needles with an innovative shank geometry: Litespeed™ felting needles are partially tapered at the clamping shank. This design optimization reduces both the force required and the time needed for inserting and removing the needles.

The result is a significantly more efficient and reliable workflow: Needle board maintenance becomes easier and more ergonomic, sources of error are minimized and productivity is increased.

In the future, all needle types will come standard with this feature. We are continuously working to further expand our portfolio of needles with optimized shank geometry.

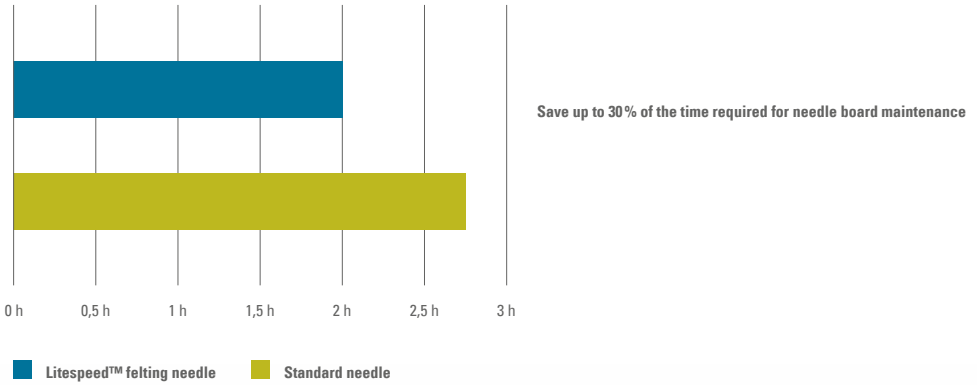
Advantages:

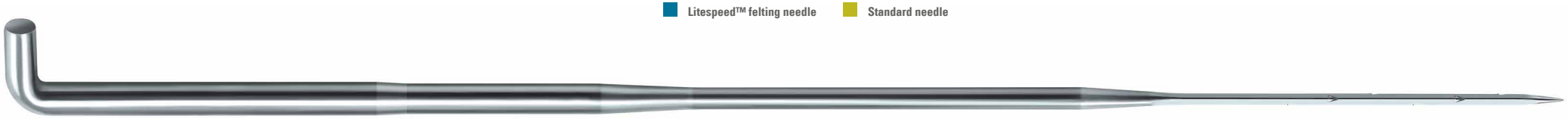
- Reduced needle insertion and removal time
- Extended service life of the needle board
- Improved handling due to reduced risk of bending
- Reduced physical strain on the worker

Groz-Beckert Patent

EP 4663826 B1

Comparison of equipping times for standard needles and Litespeed™ felting needles





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Shorter insertion and removal times

The reduced shank diameter ensures that significantly fewer hammer blows are required to drive the needles in or out. This noticeably speeds up the entire needling and removing process, increasing efficiency and productivity.

Reduced physical strain

Since fewer strokes are required when inserting and removing needles, the amount of force needed is reduced. This results in a noticeable reduction in strain and improves ergonomic conditions during daily work.

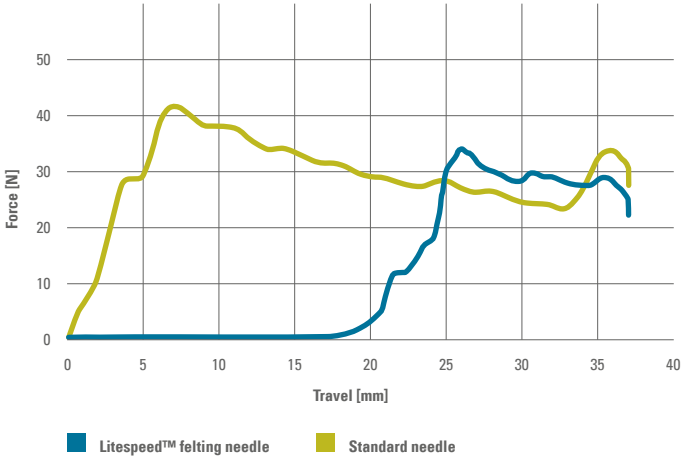
Extended service life of the needle board

The optimized shank geometry reduces the friction surface on the clamping shank. Less contact means less wear – the needle board remains effective longer and allows for a higher number of needle insertion and removal cycles. This increases service life and ensures greater process reliability.

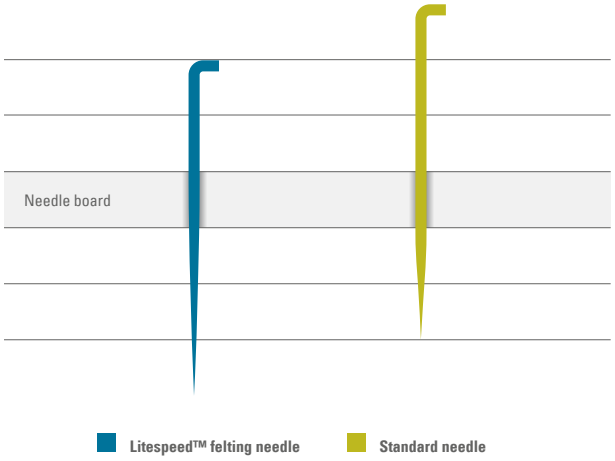
Minimized risk of needle bending

The shortened free-standing shank length reduces the bending forces acting on the needle. The reduced leverage provides greater stability and minimizes the risk of deformation. This ensures a smooth and reliably stable process.

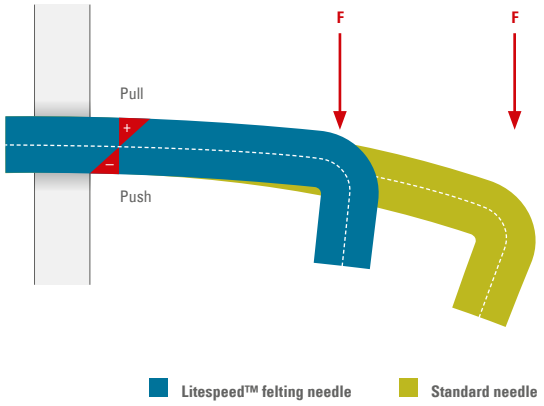
Injection force graphics *



Level comparison between standard needle and Litespeed™ *



Reduced risk of bending *



*schematic representation

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