



Energy saving with litespeed® plus

Reduced power consumption and machine temperature – designed for use in circular knitting machines

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Benefits

In terms of profitability/productivity and environment:

- Cost reduction
- Significantly increased efficiency
- Reduced CO₂ footprint

Advantages

- Reduced power consumption
- Reduced machine temperature
- Reduced oil consumption
- Enables maximum possible machine speeds
- Optimized lubrication behavior
- Independence of the machine direction

Technical feature

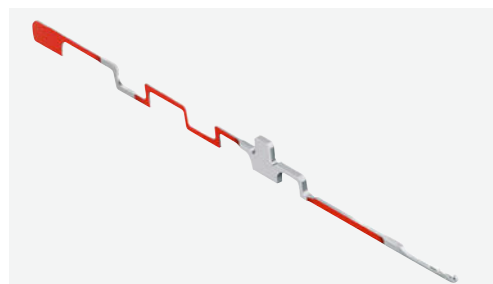
Partial reduction of thickness of the needle shank on both sides

litespeed® plus needle geometry

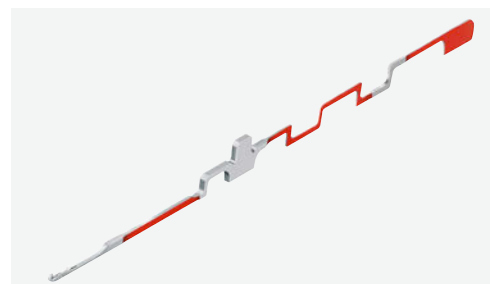
Partial reduction of thickness of the needle shank on both sides (example)



Right needle side



Left needle side



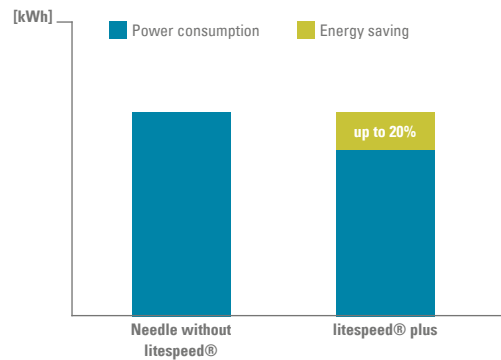
Groz-Beckert Patent

DE 19740985 C2, EP 0906980 B1,
US 6,122,938 A and JP 3 076 014 B2



Reduced power consumption

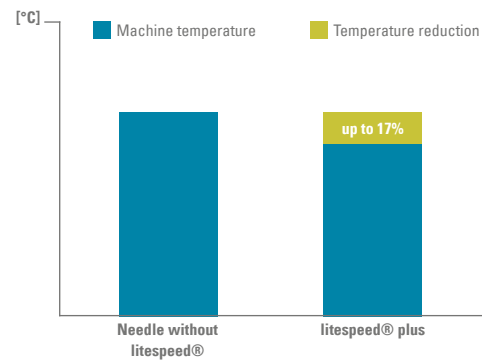
The optimized shank geometry of the litespeed® plus needle generates less friction in the knitting machine and, therefore, reduces power consumption.



Test results by the example of a single jersey circular knitting machine (values can vary depending on the machine parameters).

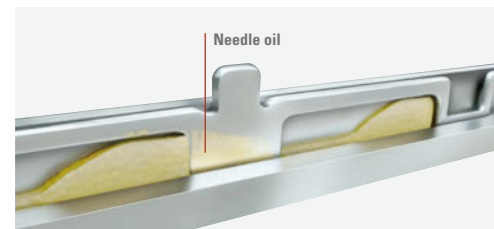
Reduced machine temperature

The speed of state-of-the-art (high-speed) circular knitting machines is often limited by high temperatures. By using litespeed® plus needles, machine temperatures can be reduced.

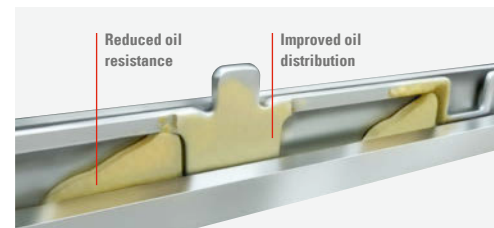


Possible reduction of the oil consumption

The partially reduced thickness of the needle shank allows a better distribution of the oil in the needle track.



Needle without litespeed® plus



litespeed® plus

Cost reduction

Longer service life of the system components, lower maintenance and side costs, as well as reduced power and oil consumption, guarantee saving potentials.

Significantly increased efficiency

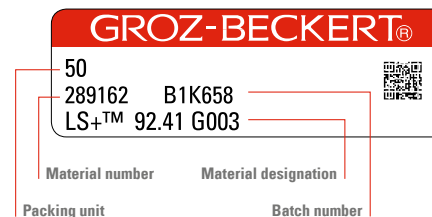
Due to the improved lubrication behavior, the machine temperature is clearly reduced even at high speeds, making the handling much easier and reducing wear to the system components. This allows to run the machine at full speed.

Reduced CO₂ footprint

The result of the reduced energy consumption and machine temperature is a clearly reduced CO₂ footprint.

Service:

- Global sales network for fast delivery and reduced warehousing costs
- Research and development – development partnership from prototype to market introduction
- Process optimization by laboratory services
- Technical knowledge and understanding of quality with training offered by the Groz-Beckert Academy
- Further information under www.groz-beckert.com and in the “myGrozBeckert” app



Designations of circular knitting needles with litespeed® plus technology start with LS+™.