



# Energy saving with litespeed®

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

# GROZ-BECKERT

## Groz-Beckert KG

Parkweg 2, 72458 Albstadt, Germany  
Phone +49 7431 10-0, Fax +49 7431 10-2777  
contact-knitting@groz-beckert.com  
www.groz-beckert.com

### Benefits

In terms of profitability/productivity and environment:

- Cost reduction
- Significantly increased efficiency
- Reduced CO<sub>2</sub> footprint

### Advantages

- Reduced power consumption
- Reduced machine temperature
- Reduced oil consumption
- Enables maximum possible machine speeds
- Optimized lubrication behavior

### Technical feature

Partial reduction of the thickness of the needle shank on one side

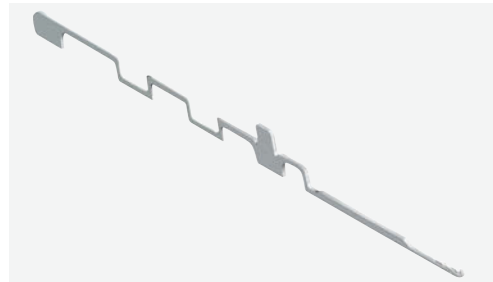
### litespeed® needle geometry

Partial reduction of thickness of the needle shank on one side (example)

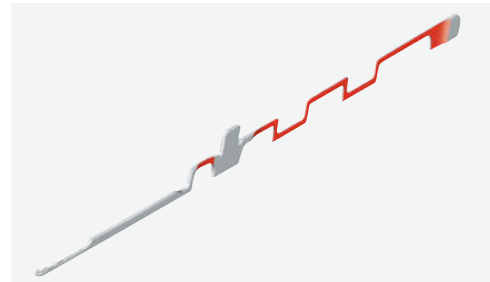
Depending on the needle type, the reduction of thickness of the needle shank can be on the right or on the left side.



Right needle side



Left needle side



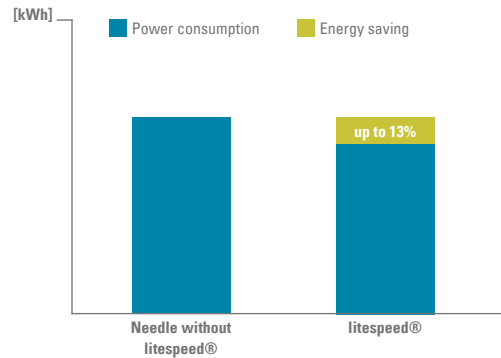
### Groz-Beckert Patent

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



## Reduced power consumption

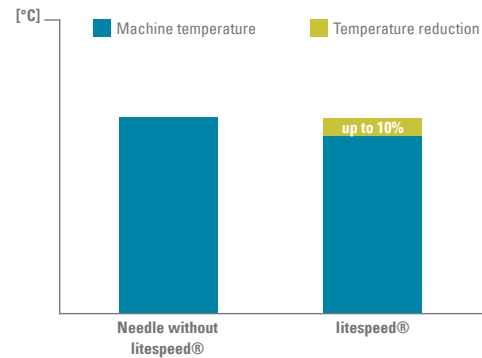
The optimized shank geometry of the litespeed® needle generates less friction in the knitting machine and, therefore, reduces power consumption.



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

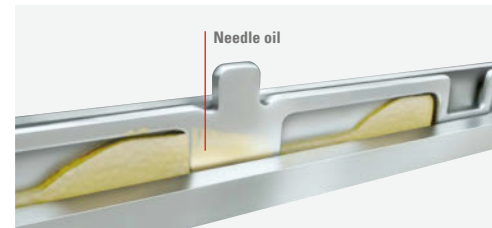
## Reduced machine temperature

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

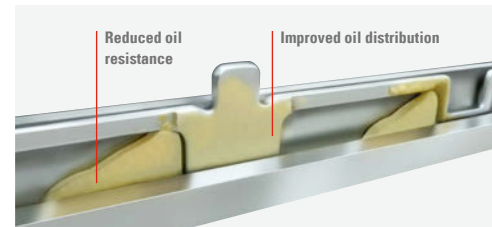


## Possible reduction of the oil consumption

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



Needle without litespeed®



litespeed®

## 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

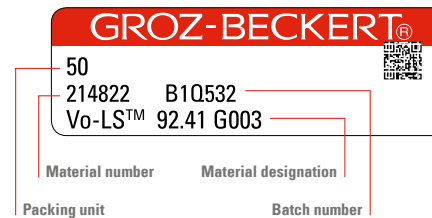
Due to the improved lubrication behavior, the machine temperature is clearly reduced even at high speeds, making the handling much easier and reducing wear to the system components. This allows to run the machine at full speed.

## Reduced CO<sub>2</sub> footprint

The result of the reduced energy consumption and machine temperature is a clearly reduced CO<sub>2</sub> 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](http://www.groz-beckert.com) and in the “myGrozBeckert” app



Circular knitting needles with litespeed® technology can be distinguished by the supplement LS™ in their needle designation.