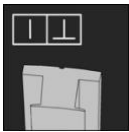
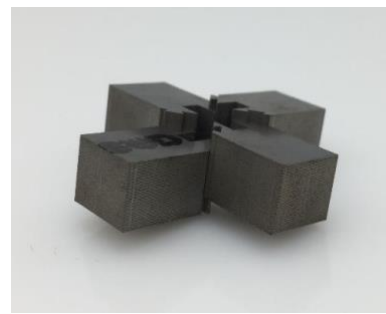
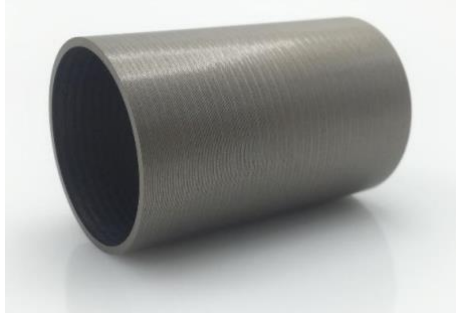
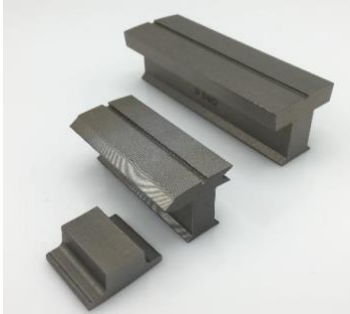


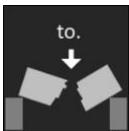


## What are the advantages bonded lamination stacks offer?



### Higher precision

Bonding varnish (Backlack) ensures highest precision. The bonding of the single sheet enables very tiny geometries to be stacked and bonded very tightly and precisely. The results is a smaller air gap and a higher performance.



### Higher stiffness

Stacks with bonding varnish (Backlack) are very stiff. The stack can even be machined. Due to its robustness, the following manufacturing steps are easier.



### Very good insulation

Compared to interlockings or weld seams, bonding does not cause short circuits. Much better magnetic properties and less losses lead to higher performance.



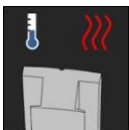
### Less vibration and noise

The single sheet are bonded together tightly, thus reducing vibration and noise. Issues which are becoming more important in the near future.



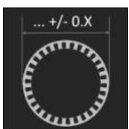
### Better cleanliness

Due to the bonding varnish, dirt and burrs are bonded tightly and do not fall out from the part. A cleaner manufacturing process is the result.



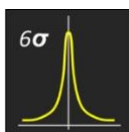
### Better heat conduction

The full area bonding improves heat conduction within the electrical sheet stack. Bonding varnish (Backlack) has a better heat conduction as air in interlocked or welded lamination stacks. Less hot spots are the result.



### Smaller diameter tolerances with segments

Bonded single teeth or segments achieve with our technologies highest precision. The tolerance of the diameter becomes small, for all sizes of stators.



### Highest process stability

The production is process stable in large series productions. We have developed the tooling, technology and processes to do so. Curing cycles based on minutes without squeezing of varnish are reality due to our technologies.

