



BROELL is a prominent manufacturer of tribo optimized ceramic yarn spinning elements - for high speed - low energy - textile machines.

If quality drifts, capillary breaks, fiber abrasion, contamination and their effects are a problem: **we offer solutions**. We develop friction and wear resistant surfaces: down-times due to start-up problems or cleaning cycles are reduced. Besides, the productivity can be increased by higher delivery speeds. Nevertheless the textile-mechanical characteristics remain on highest level.

From (metal oxide-) Powder to Product:

BROELL transforms advanced ceramics into high speed guiding units and sets trends with the relevant textile machine components responsible for the quality of the fiber and fabric formations. The focus is on tribological demanding^{*)}, highly loaded fiber- and yarn-contacting components.

Tribology has to be understood down to the nano level: we know how the interaction between contacting surfaces can be manipulated. For us the surface is a high-end product. The surface can be coated, structured or "made out of the volume" – it ensures the tribological properties of the component.

BROELL has a comprehensive background knowledge regarding the interactions between surfaces and environment regarding friction, service life, yarn characteristics and productivity.



^{*)} Tribology is an interdisciplinary area for optimization of mechanical technologies through the reduction of friction and wear related loss of energy and material (Horst Czichos, 1992)