Gold coatings for electrical contacts

Metallic coating at atmospheric pressure

- Thin film deposition without expensive vacuum technology
- New coating applications
- Metallic coatings in small batches possible
- Very low Capex and Opex

Functional principle

Coating through cathodic evaporation at atmospheric pressure

- A DC glow plasma is generated around a metallic target in form of a wire. Plasma is stabilized using a mix of helium and argon as working gas.
- Ions from plasma are accelerated. The swift ions are sputtering atoms from target, which form the coating at the work piece. The desired coating stoichiometry is defined by the target stoichiometry.

Parameter

- Coating rate: $> 3 \frac{mm}{s}$
- Coating area: from $1 \times 1 \ mm^2$ to $5 \times 5 \ mm^2$
- No mask necessary, but possible.
BEAPLAS GmbH

BEAPLAS GmbH develops and distributes processes and hardware for deposition of thin layers at atmospheric pressure. Central tool is a plasma source for the working at surrounding air, which has been developed at the Ferdinand-Braun-Institute (FBH) located in Berlin and optimized for different applications—from automotive sector until medical applications. Because up to now mostly expensive vacuum technology is used, cost effective processes at atmospheric pressure are commercial attractive. Beside the core business BEAPLAS offers general service in engineering.