EMO

Laboratory coater with EB evaporator
Technologies

coating processes:
- high-rate electron beam evaporation
- thermal evaporation of sublimating materials
- plasma-activated deposition processes (HAD and SAD process)
- magnetron sputtering
- magnetron-PECVD process for sheets

pre-treatment and post-treatment:
- heating
- plasma etching
  - magnetron sputter etching
  - hollow cathode arc based plasma pretreatment
- interfacial layers

electron beam remelting and refining

test of components for electron beam technologies

process monitoring:
- substrate temperature measurement
- computer-based data storage

Business units

Coating of sheets and metal strips
This business unit is concerned with the vacuum coating of high-area metal sheets and strips at high deposition rates. In addition to the environmental friendliness of our process, another advantage is the almost inexhaustible range of layer materials that can be used which far exceeds the materials that can be applied for conventional surface modification.

Coating of machine parts and tools
This business unit is devoted to the coating of substrates of 3-dimensional geometry, regardless of which substrate material. By applying a suitable coating, the resistance of a component to corrosion, scratching, or abrasion can be increased, decorative requirements can be fulfilled, or other specific functionalities can be realized.

Fraunhofer-Institut für Elektronenstrahl- und Plasmatechnik FEP
Winterbergstraße 28
01277 Dresden, Germany
www.fep.fraunhofer.de
info@fep.fraunhofer.de

Prof. Dr. Christoph Metzner
christoph.metzner@fep.fraunhofer.de
Phone +49 351 2586-240
Fax +49 351 2586-55-240

Dr. Bert Scheffel
bert.scheffel@fep.fraunhofer.de
Phone +49 351 2586-243
Fax +49 351 2586-55-243