

Evaporator & Sputtering



Thin film deposition

The Univex vacuum system is an UHV equipment that combines two different modes of thin film deposition: evaporation (thermal and e-beam) and sputtering, both allowing to work with conductive and dielectric materials.

It permits:

- Deposition of thin films of metals
- Deposition of thin film of dielectrics

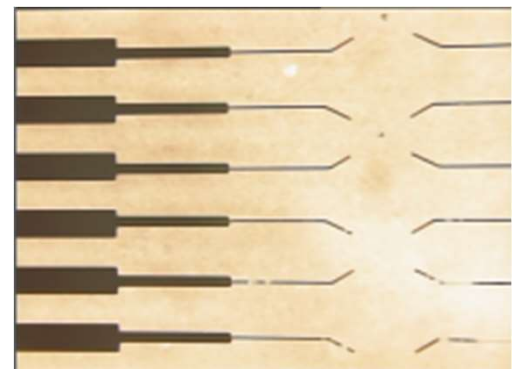
Technical specifications

- Ferrotec electron beam evaporator sources:
 - 4 sources: up to 10 kV output
- Oerlikon thermal evaporating sources (AS053):
 - 2 sources: 5 V / 400 A output
- ANGSTROM Magnetron Sputtering sources (ONYX-2):
 - DC sputtering: 1kW maximum power
 - RF sputtering: 600W maximum power
 - Plasma gas: Ar
- Vacuum level: up to 3.5×10^{-7} mbar
- Substrate size: up to 254 mm
- Thickness control of deposition via quartz crystal sensor
- Manual and automatic control

Available materials*

- Electron beam targets:
 - Ti, ITO, Cr, SiO₂, Al₂O₃, Cu
- Thermal targets:
 - Au
- Sputtering targets:
 - DC mode: Au, Al

*Possibility to implement new materials under demand.



Dielectrophoretic chip with a deposit of gold.