

Press Release:

Compact UHV Electron Beam Evaporator EBVV

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Germany – Weil der Stadt, MBE Komponenten, a manufacturer of ultra high vacuum (UHV) and molecular beam epitaxy (MBE) components and systems announces the availability of the EBVV-evaporator on CF 4.5 inch (DN63) flange with 5 ccm hearth volume.

The newly designed Vertical Electron Beam Evaporator (EBVV) allow to introduce real e-beam evaporation technique into many epitaxial growth or deposition UHV-systems that have originally been designed with small flanges for radiation heated effusion cells only.

The extremely compact design allows to install the EBVV into 4.5 inch (60mm ID) small effusion cell ports. Even tilted ports can be used. Despite its small footprint the new EBVV includes a complete electromagnetic x- and y-dynamic beam deflection system and can deliver beam powers up to 3kW. The 270° beam deflection design of the electron emitter avoids ion bombardment of the filament due to the sharply bent e-beam path near the beam exit aperture. This ensures long filament lifetime and high purity deposition at high growth rate.

The EBVV is very well suited for low vapour pressure materials including refractory materials or dopants like boron and carbon. It can also be applied for high k-material deposition, Al₂O₃, Pr₂O₃ or other oxides and dielectrics. The EBVV is particularly well suited for Si and Ge molecular beam epitaxy including Boron or Carbon doping.

The EBVV has been shipped to first customers and is available now.

About MBE Komponenten GmbH:

MBE Komponenten based in Weil der Stadt, close to Stuttgart, Germany is specialized in UHV and MBE equipment. The product range includes various evaporation sources like effusion cells, dual dopant cells, valved crackers, e-beam evaporators and substrat manipulators, as well as specially designed UHV and MBE systems.

For more information please visit your web site at www.mbe-components.com

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