Electron-beam Evaporator

- Edward's electron-beam evaporator located in the Class-1000 cleanroom and is used to deposit thin layers of metal films.
- Metal is heated by an electron beam until it evaporates at temperatures as high as 3300°C. Thin layers of evaporated material then coat the samples.
- The e-beam evaporator works under vacuum, at a pressure of $5x10^{-6}$ – $1x10^{-7}$ Torr (approximately 1 billionth of an atmosphere). This pressure is achieved using a mechanical pump and cryo-pump.