

LASER ABLATION DEPOSITION

MANUFACTURER : PVD

MODEL : 3000

Samples

- Sample sizes: from 10 mm to 75 mm (3 in.)
- Temperature: ambient to 950 °C
- Pressure: 10^{-8} Torr to 500 mTorr
- Wafer Uniformity: 5%

Characteristics

- Totally automated system
- Laser source: PulseMaster 866 from Light Machinery (from 500 mJ and up to 100 Hz)
- Available gases: O₂, Ar, He and N₂
- Target to substrate distance adjustable from 65 to 130 mm
- Automated raster scan system allowing homogeneous depositions over an area up to 3 in.
- Graphical User Interface with automated tools control and optional saving of process recipes
- Load lock allowing samples entry and exit without re-exposing the ablation chamber to air
- Carousel system allowing to use up to 3 different targets for multilayer deposition without re-exposure to air

ROUTINE PROCESS

Deposition

Simple materials

- Al, Pt...
- Thickness : from 10 nm to ~ μ m (depending on film stress)

Oxides

- BST, CBN...
- Thickness : from 10 nm to ~ μ m (depending on film stress)