



**Vacuum
Systems and
Components**

Vinci Technologies manufactures and provides a broad range of laboratory instrumentation for the oil and gas industry and nanotechnology centers. Vinci Technologies has more than 30 years experience in the Vacuum market and a very deep knowledge in the UHV specific domain.

The vacuum division draws from a rich expertise to **design and manufacture thin film deposition systems** dedicated to R&D or small scale production.

Their systems can be customized and provide the major Physical and Chemical Vapor Deposition (**PVD**) techniques:

- Sputtering
- Thermal and E-beam evaporation
- Pulsed laser deposition (PLD)
- Molecular beam epitaxy (MBE)
- UHV PVD



Their instruments can integrate **surface analysis** such as RHEED, AES, LEED,...

Additionally, they provide a **full range of hardware components** to all laboratories which need to upgrade or support the operation of their existing equipment:

- Substrate manipulators : multi-axis, heating/cooling
- Ion pumps (incl. refurbishment of existing pumps)
- Vacuum transfer tunnels
- HV & UHV components (valves, feedthroughs, chambers, KF/ISO/CF components, etc...)



UHV LINEAR TRANSFER TUNNEL

More From Vinci Technologies:



PVD-4

THERMAL EVAPORATION

- Evaporation by joule effect
- Up to 4 sources (boats, rods, baskets, filament, etc.)
- Cross contamination shields included

MAGNETRON SPUTTERING

- 1" or 2" magnetron cathodes
- Integrated pneumatic shutters
- RF, DC or DC pulsed source power supplies
- Up to 3 cathodes in sputter up configuration
- Mass flow controller for gas line
- Pressure regulation by throttle valve

HYBRID CONFIGURATION

- Combined Sputtering & Evaporation processes
 - Up to 2 evaporation sources & 2 sputtering cathodes

ORGANIC CONFIGURATION

- Combined Organic & Inorganic Evaporation processes
 - Up to 2 organic & 2 thermal sources

More From Vinci Technologies:

PVD-10



THERMAL/ORGANIC EVAPORATION

- Evaporation by Joule effect
- Up to 10 metallic or organic evaporation sources
- Cross contamination shields included
- Organic 2cc/Inorganic

E – BEAM EVAPORATION

- 4x6cc HV source

MAGNETRON SPUTTERING

- 1" to 4" magnetron circular cathodes
- RF, DC or DC Pulsed source power supplies
- Up to 4 cathodes in Sputter-Down or Sputter-Up configuration
- Integrated Pneumatic shutters

HYBRID CONFIGURATION

- Combined Sputtering & Evaporation processes

ORGANIC CONFIGURATION

- Combined Organic & Inorganic Evaporation processes
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More From Vinci Technologies:

PLD-950

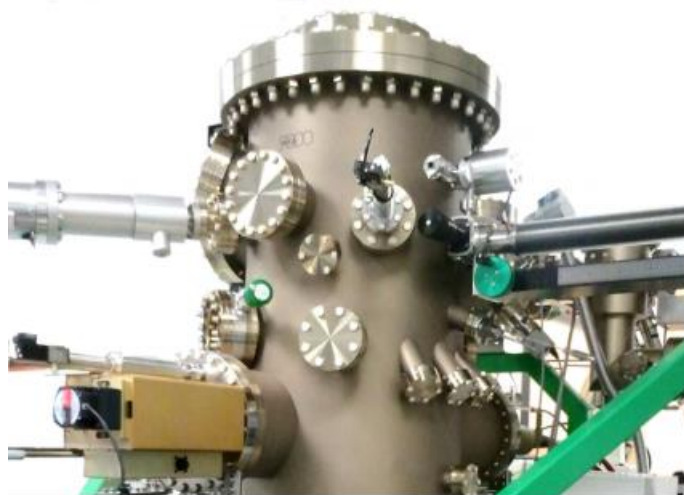
Thin film growth for stoichiometric films of complex compounds (nitrides, oxides, superlattices, nanodots, nanorods....)



- Reactive or UHV Pulsed Laser Deposition capability
- Transferable 2-inch substrate and target holders
- 5-axis target holder (4 targets)
- Oxygen-resistant 950°C 2" sample holder
- 10-10 mbar chamber
- Turbo molecular, ion & titanium sublimation pumping
- Ports for in-situ characterization
- High pressure RHEED
- Load lock chamber
- Transfer tunnel compatibility
- Full supervision

COEVAP-950

Thin film growth of complex materials (amorphous & epitaxial layers)



- Up to three UHV e-beam sources
- 5-axis substrate manipulator -120°C to 1500°C
- 10-10 mbar chamber including cryopanel
- 4 effusion cells
- Turbo molecular, ion and titanium sublimation pumping
- RHEED system
- Load lock chamber
- Transfer tunnel compatibility
- Versatile & evolving

For more information about Vinci Technologies products visit:

www.vinci-technologies.com/meca2000

*Or contact
INNOVA*
