VINCI TECHNOLOGIES

PVD Series
Thin Film Deposition Systems

PVD-10

EVOLUTIONARY

COST EFFECTIVE

MODULAR

Magnetron Sputtering

Thermal Evaporation

Advanced Hybrid Systems

Developing practical solutions for cutting edge technology

PVD-10

PVD-10 SYSTEM

The PVD-10 is a modular cost efficient system physical vapor deposition system. It is dedicated to the Evaporation or Sputtering deposition process of materials. The fully automated solution is ideal for small batch production in an R&D Environment.

APPLICATIONS

- **BIOMEDICAL**
- **AUTOMOTIVE**
- **SEMICONDUCTOR**
- **BATTERIES**
- **OPTOELECTRONICS**
- **CERAMICS & GLASS**
- **METALIC COATINGS**
- **PLASTICS**

CORE SYSTEM FEATURES

- D-shape Stainless Steel chamber with sliding door & viewing port
- Up to 10 rotatable substrate holders
- Pneumatic shutters
- Source selection switch
- Custom-made substrate holder of up to 4 inches
- Up to 2 Quartz sensors

DEPOSITION TECHNIQUES

THERMAL/ORGANIC EVAPORATION

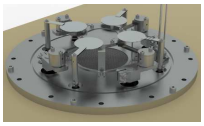
- Evaporation by Joule effect
- Up to 10 metallic or organic evaporation sources
- Organic 2cc/Inorganic

E – BEAM EVAPORATION

- Electron beam bombardment
- 4x6cc HV source
- Multiple rotatable crucibles

MAGNETRON SPUTTERING

- RF, DC or DC Pulsed source power supplies
- Up to 4 sources

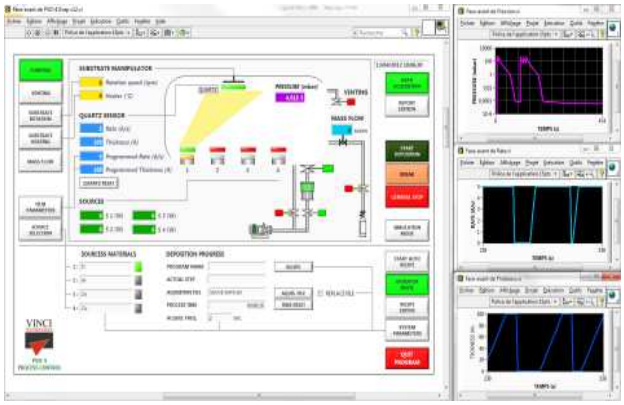


HYBRID CONFIGURATION

- Combined Sputtering & Evaporation processes
- Process switching controlled by Software

PVD-10

POWERFUL AUTOMATED SOFTWARE



Process Acquisition software with:

- Rate deposition
- Thickness control
- Pressure Display
- Temperature Control
- Valve/Shutter management

Fully & Semi Automatic modes

User mode Access Levels

Recipe modes for Thickness Rate & Deposition Time
- Pre-programmed recipe library

Hardware :
Integrated PC with windows XP or 7 (as standard)

OPTIONS

➢ **Heating Coil**
Up to 600°C

➢ **Sample Bias**
Etching
Layer modification

➢ **Ion Gun**
Substrate cleaning
Assisted deposition

SPECIFICATIONS

Thickness Homogeneity (@ working distance of approx. 200 mm)	+/-2%
Thickness Reading Precision	0.1 A
Deposition Rate Reading Precision	0.01 A
Vacuum Base Pressure	10^{-7} mbar
Pumping-down Time (10^{-6} mbar)	< 20 mins.
Turbo pump	700 L/s on N_2

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www.vinci-technologies.com

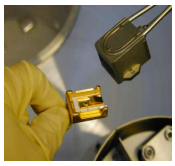
PVD-10

COMPATIBILITY MATRIX

Configuration type	System		
	PVD-10 E	PVD-10 S	PVD-10 H
SUBSTRATE HEATING (up to 600°C)	X	X	X
SUBSTRATE COOLING (down to -150°C)	X	X	X
SUBSTRATE ROTATION	X	X	X
CATHODES (Up to 4)	-	X	X
ORGANIC/THERMAL (Up to 10)	X	-	X
GLOVE BOX COMPATIBILITY	-	-	X
SAMPLE BIAS	-	X	X
ION GUN	-	-	X
THROTTLE VALVE	-	X	X

ADVANTAGES

- FULL ACCESS INSIDE CHAMBER
- GLOVE BOX COMPATIBILITY
- FAST PUMPING SPEED
- PRESSURE MANAGEMENT
- THICKNESS MONITORING
- FULLY AUTOMATED




COMPANY HISTORY

Vinci Technologies manufacture and supply a broad range of laboratory and field instrumentation for the oil & gas industry. The vacuum division, formerly MECA2000 draws from a rich expertise to manufacture **PVD-Sputtering & Thermal Evaporation**, **PECVD** and **PLD** systems for **vacuum coating thin inorganic and organic films**.

For additional information , feel free to consult our catalogue online or contact us for a range of solutions customized to your requirements.

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