

VACUUM - PVD THIN FILMS - LEAK TESTING - PLASMA

PVD - EVA

1356377



allianceconcept



Reliable, scalable, compact and high-performances, our EVA box coaters product range will exceed your thin films quality expectations.

With over 30 years of experience in vacuum technology and evaporation processes, we propose a wide range of evaporation sources configurations including IAD (Ion Assisted Deposition) solutions for substrate cleaning before coating and assistance during. Process control is managed using quartz and/or optical monitoring technologies.

Our PVD Lab remains at your disposal for a visit or to make some POC.

EVA systems

EVA 300

Reliable & Compact



EVA 450 / 451

Flexibility & Precision



EVA 600 / 601

Versatile and modular



EVA 760

Performance & Adaptability



EVA 900

Production & Adaptability





Process configurations available

Substrates holders:

- Single rotation dome
- Planetary motion dome
- Tilted and rotating (GLAD)
- Cooled or heated



Sources:

- Electron beam source
- Mono or multi pocket
- Thermal sources for metals or organics
- Effusion cells



Specific tooling to load your substrates or devices will be studied to aim at easy use of the coating tool.

Each source is equipped with an independent shutter aimed at material preparation.

	EVA 300	EVA 450	EVA 600	EVA 760	EVA 900
Chamber diameter	300 mm	450 mm	600 mm	760 mm	900 mm
Height	450 mm	600 mm	800 mm	920 mm	1050 mm
Internal volume	60 liters	120 liters	290 liters	520 liters	865 liters
Ultimate vacuum	5.10 ⁻⁷ mbar[1]		5.10 ⁻⁸ mbar[2]		
IAD	No	Yes, optional			
Quartz measurement	Lateral			Central	
Dome capacity	4 x 4"	7 x 4"	15 x 4"	20 x 4"	26 x 4"
Planetary	No		Yes, optional		
Uniformity	< +/- 5% [3]				
Load lock option	No	Yes, EVA 451	Yes, EVA 601	No	
Through the wall set up	No	Yes			
Machine control	Semi-automatic	AC3000			

1- Measured values on tools, turbomolecular pumping configuration

2- Measured values on tools, cryogenic pumping configuration

3- Coating uniformity calculation formula used: $U(\%) = [(E_{max} - E_{min}) / (E_{max} + E_{min})] \times 100$, without uniformity mask



In-situ optical controller

To improve your system configuration, go with an optical controller. Measurement can be done on a reference substrate or **directly** on the parts. **Transmission** and/or **reflection** measurements are available. This will complete the standard quartz measurement system especially for optical applications. It will be your ideal device to realize **complex optical stacks**.

Optical system performances :



- Spectral range: from 400 to 2400nm
- Broad band source
- T/R measurements
- Independent controller module

Available from EVA 600 chamber size.

Our expertise in vacuum evaporation is the perfect synergy between **research** and **industrial needs**.
Our achievements in optic, semiconductor, space industry
is the DNA for **future developments**.

DESIGNED AND MANUFACTURED IN FRANCE

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