

VACUUM - PVD THIN FILMS - LEAK TESTING - PLASMA

PVD - AC & DP



allianceconcept



With more than 280 systems installed worldwide and 30 years of customers challenges, our AC & DP product ranges will for sure match with your technical expectations. Magnetron sources (75, 100, 150 and 200mm) proposed in these tools are developed internally.

AC450CT is available in **planar, confocal, sputter up** or **down** configurations. This single wafer chamber is also fully compatible with our **CT200** cluster tool platform which open possibilities for system upgrades up to cassette-to-cassette processes. **180° chamber opening** makes it one of the most ergonomic machines on the market.

DP product range is mainly proposed in **planar** mode with a large possibilities of sources configurations. From **75mm** up to **300mm**, feel free to contact us to discuss with our expert team.

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

AC & DP systems

AC 450 CT

Flexibility & Precision



DP 650 / 750 / 850 / 1100

Versatile and modular



CT 200

Performance & Adaptability





Process configurations available

Substrate holders

- Rotation speed adjustable, sweeping
- RF etching available
- Cooled or heated
- Z movement



Processes

- Planar mode
- Confocal source organization
- No cross-contamination
- Co-sputtering processes available



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

Conventional processes or reactive achievable with DC, DC+, RF, HiPIMS power supplies.

| | AC450CT | DP 650/750/850/1100 |
|--|---|----------------------------------|
| Chamber diameter | 500 mm | 650mm / 750mm / 850mm / 1100mm |
| Magnetron source | 75 or 100mm cathodes | From 100 to 300mm dia. targets |
| Number of sources | 4x100mm or 6x75mm | Depends on chamber size |
| Technology | Magnetron, tilted | Magnetron or diode, planar |
| Cathode polarization | DC / DC + / RF / HIPIMS | |
| Deposition modes | Conventional or reactive | |
| Useful area (coating uniformity +/-5% or less) | >200mm (100mm cathodes) | 150mm (200mm cathode) |
| PEM (Plasma Emission Monitoring) | Yes, optional | |
| RF Etch | Yes, automatic impedance adaptation | |
| Load Lock | Single-wafer/substrate automatic transfer | |
| Load Lock pumping | Dry primary + turbomolecular | |
| Substrate size | 200mm max. | |
| Coating chamber pumping | Cryogenic or turbomolecular, dry primary | |
| Ultimate vacuum, turbomolecular pumping | 5.10 ⁻⁷ mbar [1] | |
| Ultimate vacuum, cryogenic pumping | 5.10 ⁻⁸ mbar [1] | |
| RGA (Residual Gas Analyser) | Yes, optional | |
| PLC controller | Automatic AC3000 | |
| Chamber opening for target exchange for instance | 180°, motorized | Top plate translation + rotation |
| EVo CT200 | Yes | |

1- Measured values on tools, turbomolecular pumping configuration

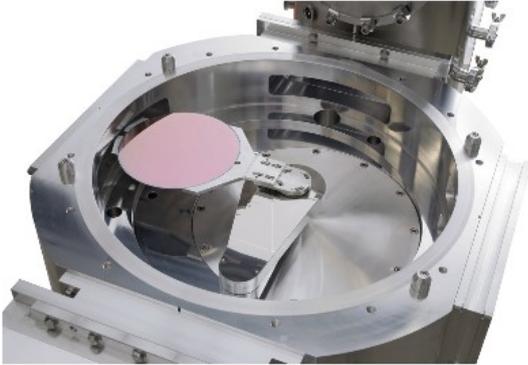
2- Measured values on tools, cryogenic pumping configuration

3- Coating uniformity calculation formula used: $U(\%) = [(E_{max} - E_{min}) / (E_{max} + E_{min})] \times 100$



Clustertool platform: flexibility is the key!

Starting with AC450CT stand alone machine and upgrade it to multichamber multiprocess tool is possible with our system philosophy:



- From single wafer load lock to cassette load lock
- Transfer chamber with our own robot solution
- SEMI interfaces
- Flip chamber for double side wafer coatings
- ...

CT200 is the result of more than 30 years of PVD systems manufacturing.
Its scalability combined with **SEMI interfaces** open endless
configuration **possibilities**.

DESIGNED AND MANUFACTURED IN FRANCE



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