

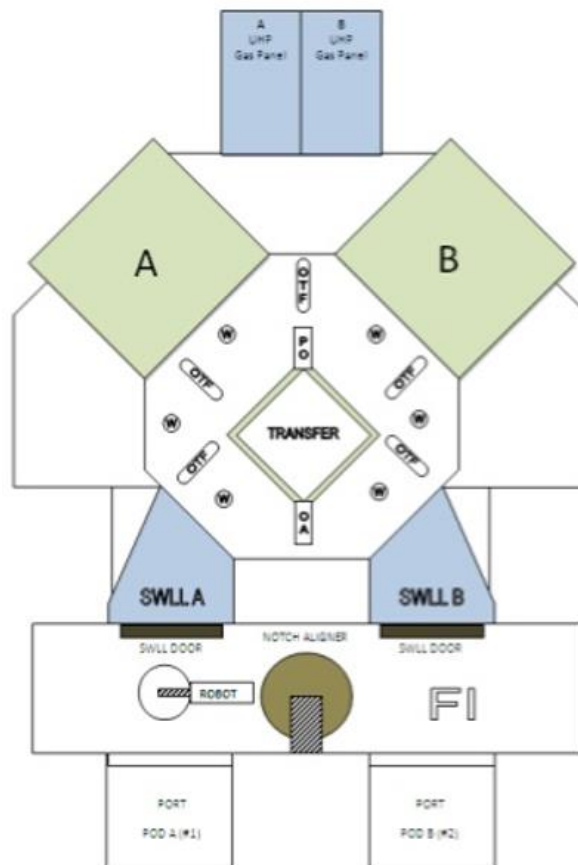


AMAT Centura Ultima HDP CVD Tool

The Applied Centura Ultima HDP CVD 200mm and 300mm systems deliver a high-density plasma CVD process. It has been the industry-leading workhorse delivering high-quality dielectric films and void-free gapfill. Its reactor enables customers to achieve the productivity, cost-efficiency, and extendibility needed for multi-generation manufacturing.

The Ultima HDP system features dual RF coils for superior gap-fill capability across the wafer; its innovative electrostatic chuck enables excellent film quality and uniformity; combined with remote plasma clean, it delivers exceptional defect and mean-wafer-between-clean performance.

The product's advanced technology enables deposition of both undoped and doped films for a wide range of applications, including STI, PMD, ILD, IMD, and passivation. Its versatility further extends to etch back and high-density plasma treatment for improved film quality.



- Manufacturer: Applied Materials
- Platform & Chamber Model: Centura Ultima
- Wafer Size: 300mm

➤ **Process Chambers (2)**

- MKS iAstron Remote Plasma Source
- Ceramic Electrostatic Chuck with backside He, water cooling, and wafer temperature monitor
- Gas Ring comprised of ceramic gas nozzles
- Center Gas Nozzle/Baffle

➤ **Factory Interface**

- Kawasaki Factory Interface Robot
- 2 Load Ports

➤ **4.0 Mainframe – Metal buffer Lid**

➤ **Top, Side, and Bias RF Generators**

➤ **Vacuum System**

- Stepper Turbo Throttle Valve with 3 veins
- Pendulum Gate Valve
- Turbo Pump

➤ **15 stick AP Gas Boxes (incl. Methane line)**

➤ **Foreline FTIR Endpoint Detector**

➤ **Heater Jacketed Foreline**

***Note process gases cause permanent physical changes to the chamber and the internal ceramics.**