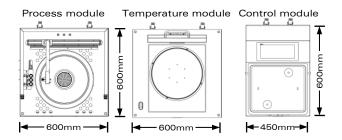


SEMI-AUTOMATIC SINGLE WAFER PROCESSING

The modular **amcossamr** semi-automated stand-alone spinner is the perfect device for single wafer processes for substrate sizes between 2" and 300 mm. With its very flexible fields of application in coating, lift-off, developing, cleaning, vapor priming and heating it brings special benefit to R&D laboratories and other facilities with small-lot production and single process steps.

amr 200/300 - semi-automatic coating, developing, liftoff, etching, cleaning and heating/cooling



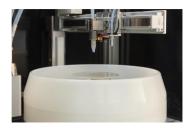
All **amr** modules have the same compact footprint (besides the control module which is even smaller). This makes the room required easily projectable and saves expensive facility/laboratory space.

Beneficial highlights

- // Full process control: each selected process is managed by the relevant module of our comfortable amcoss amsPILOT software complying with Semi-Standard E95-1101. All necessary parameters can be adjusted and will be logged into the software.
- // SECS/GEM interface: the tool can be equipped with a SECS/GEM interface or other customized protocols.
- // High-quality hardware: taking the same proven highquality, standard industry-components as used for our fully automated amcoss amc tools, ensures reliability in operation, long lifetime, good serviceability and a very attractive price-performance-ratio.
- // Safe: designed accordingly to the newest safety rules.



Solvent module for lift-off or resist strip for standard solvents and various lift-off techniques



Coater module with optimized bowl and exhaust for best uniformity and repeatability





Extra-slim control module (200 x 600 mm) with touch screen on moveable arm for minimum space requirements. One process module can be connected.



amr 300 mask cleaner



Modular system for customer-specific equipment

Our **amcoss** amr series is a completely modular system. The control module, which contains the controlling system, can be combined flexibly with one or several selected processing modules (coater, cleaner, developer, lift-off, etcher, hot-/ coolplate, vapor priming hotplate, media cabinet) according to customer needs or process requirements. So, we are able to create a tool meeting the individual needs of every single client.

amr control module

- // Controlling system with amsPILOT software for the steering and easy use of the connected processing modules
- // Recipes are compatible with amcossamc tools
- // 12" colour touch screen with IPC
- // Easy access to parts in the module's interior
- // Special, slim control module available (if only one process module is required)

amr coater module

- // Unique bowl design for optimal process results (e.g. no cotton candy when processing high viscosity resists)
- // Servo-controlled nozzle positioning, programmable with absolute distance values
- // Programmable wafer backside and bowl rinse
- // EBR (Edge Bead Removal) system programmable with absolute distance values, also for rectangular substrates
- // Dispense system for up to 6 different media per bowl with single-nozzle positioning arm and automatic nozzle change
- // Different resist dispense pumps (e.g.
 syringe, traptank, etc.) available

amr developer module

- // Spray-, puddle or megasonic development
- // Various developer media per bowl possible
 // Servo-controlled nozzle positioning pro-
- grammable with absolute distance values // Programmable wafer backside, topside and bowl rinse

amrlift-off module

- // Unique lift-off process with large-area megasonic or high-pressure
- // High- or medium-pressure cleaning with
 DIW or solvents
- // Special reclaim solution for very low media consumption
- // Easy recycling of lifted metals
- // Programmable wafer backside, topside
 and bowl rinse

amretching module

- // Etching of a multitude of round and square wafers and masks
- // Precise chemicals temperature control
- // Novel chrome etchant recycling reduces use of chemicals and thus, reduces the impact on the environment and decreases processing costs



amrcleaner module

- // Cleaning of wafer frontside, backside and edge bevel
- // Various cleaning methods as standard solution available
- // Suitable to work with different diluted chemicals
- // Programmable wafer backside, topside
 and bowl rinse

amrtemperature module

- // Standard hotplate (60 °C 200 °C)
- // High-temperature hotplate (60 °C 450 °C)
- // HMDS vapor priming hotplate (60 °C -200 °C)
- // Single or multi-zone hotplate
- // Coolplate (10 $^\circ\text{C}$ 60 $^\circ\text{C}$), with either water or Peltier cooling
- // Curing by UV light or supported by UV light
- // Options for proximity control: Fixed proximity, programmable proximity, vacuum contact

amr media module for solvents

- $/\!/$ Cabinet made of stainless steel with drawer
- // Integrated exhaust connector
- // Safety trip pan with leakage sensor
- // Supply of different media to the system

amr media module for wet process chemicals

- // Cabinet made of PP white
- // Safe handling of dangerous chemicals
- // Integrated exhaust connector
- // Safety trip pan with leakage sensor
- // Refill via chemical bottle or bulk fill
- // Very small outer dimensions (250 mm width)
 for 2 different chemicals



