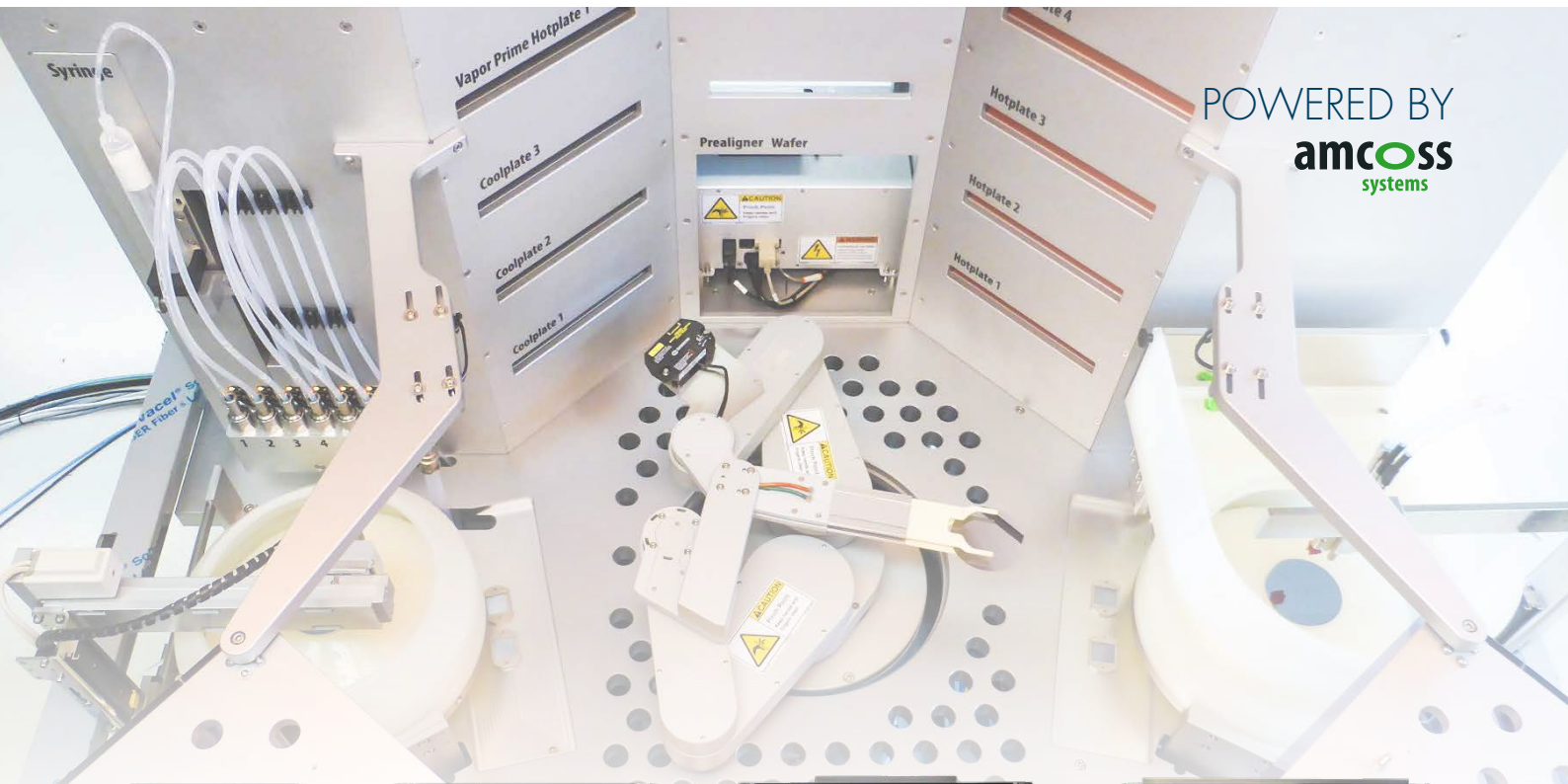


n.amc - series

NOTION

S Y S T E M S



POWERED BY
amcross
systems



FULLY AUTOMATED SINGLE WAFER PROCESSING SYSTEMS
UP TO 150 mm

CUSTOMER SPECIFIC PROCESSES FIT FOR FUTURE

Our variety of fully-automated n.amc machine models absolutely meet customer needs as far as processing- or combination possibilities and throughput are concerned. Thanks to the platform concept the number of processing modules can be individually adjusted and combined. There is no standard configuration. Every tool can be optimized for either variable single processes or high throughput. Moreover, every n.amc equipment is a veritable bridge tool because various substrates in different carriers may be processed simultaneously. In terms of highest flexibility, no technical adjustments or retrofits must be made when changing from one substrate size to another. A great variety of resists and chemicals of varying viscosities can be dispensed.

A wide range of sophisticated standard features ensures easy tool handling and optimized, high-precision processing.. Furthermore, special configurations are optionally available.

Selectable options:

- Automatic change of end-effectors
- Smart chuck identification
- Inline resist thickness measuring
- Exposure system, e.g. mask aligner, direct writer, etc.
- Media-temperature control system
- Innovative drain turnout
- Temperature and humidity control unit
- and many others...

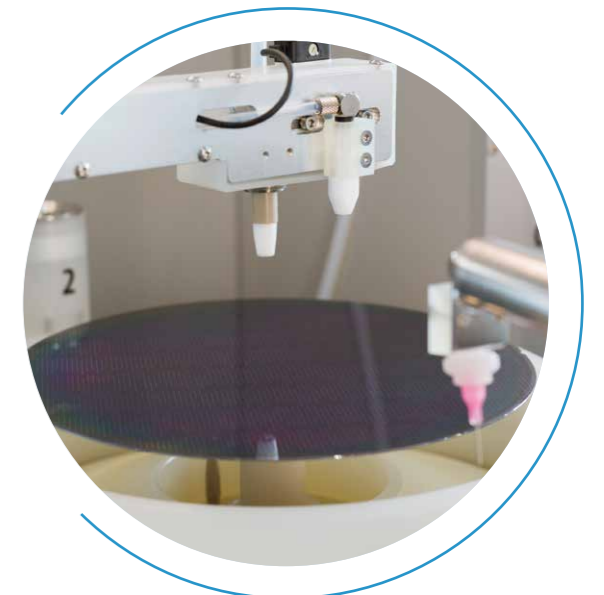
With substrate size range between 2" and 150 mm (6"), the n.amc-series offers very flexible application possibilities in cleaning, lift-off and etching of wafers and masks. Our new, unique solutions for precise media temperature control and recycling, and therefore saving of etchants, support our customers by enabling precise processes and, at the same time, reducing costs as well as the impact on the environment.



SINGLE WAFER PROCESS MODULES WITH MULTIPLE OPTIONS

SPIN/SPRAY COATING

- 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 & automatic nozzle change
- Range of resist pumps to choose from
- xyz servo-controlled nozzle positioning, programmable with absolute distance values (enables dispense in a spiral or meander path)
- Puddle coating or spray coating



A MATCHING TOOL MODEL
FOR EVERY DEMAND

DEVELOPING

- Spray-, puddle or megasonic-supported developing
- Developing with TMAH, KOH, solvents
- Dispense system for up to 5 different media per bowl
- Programmable topside, backside & bowl rinse
- xz servo-controlled nozzle positioning programmable with absolute distance values



ETCHING

- FEOL, BEOL, metal etching
- Etching of a multitude of round and square wafers and masks
- Various etching processes as standard solutions available
- Precise media tempering solution and control
- Novel chrome etchant recycling on the tool. Etchant can directly be reused. Reduces use of chemicals, processing costs & waste



LIFT-OFF

- Unique protecting metal lift-off process with DMSO megasonic
- Standard metal lift-off with solvents like DMSO
- High- or middle-pressure cleaning with DIW or solvents
- Solvent strip
- Special reclaim solution for very low media consumption
- Easy recycling of lifted metals
- Programmable wafer backside, topside and bowl rinse



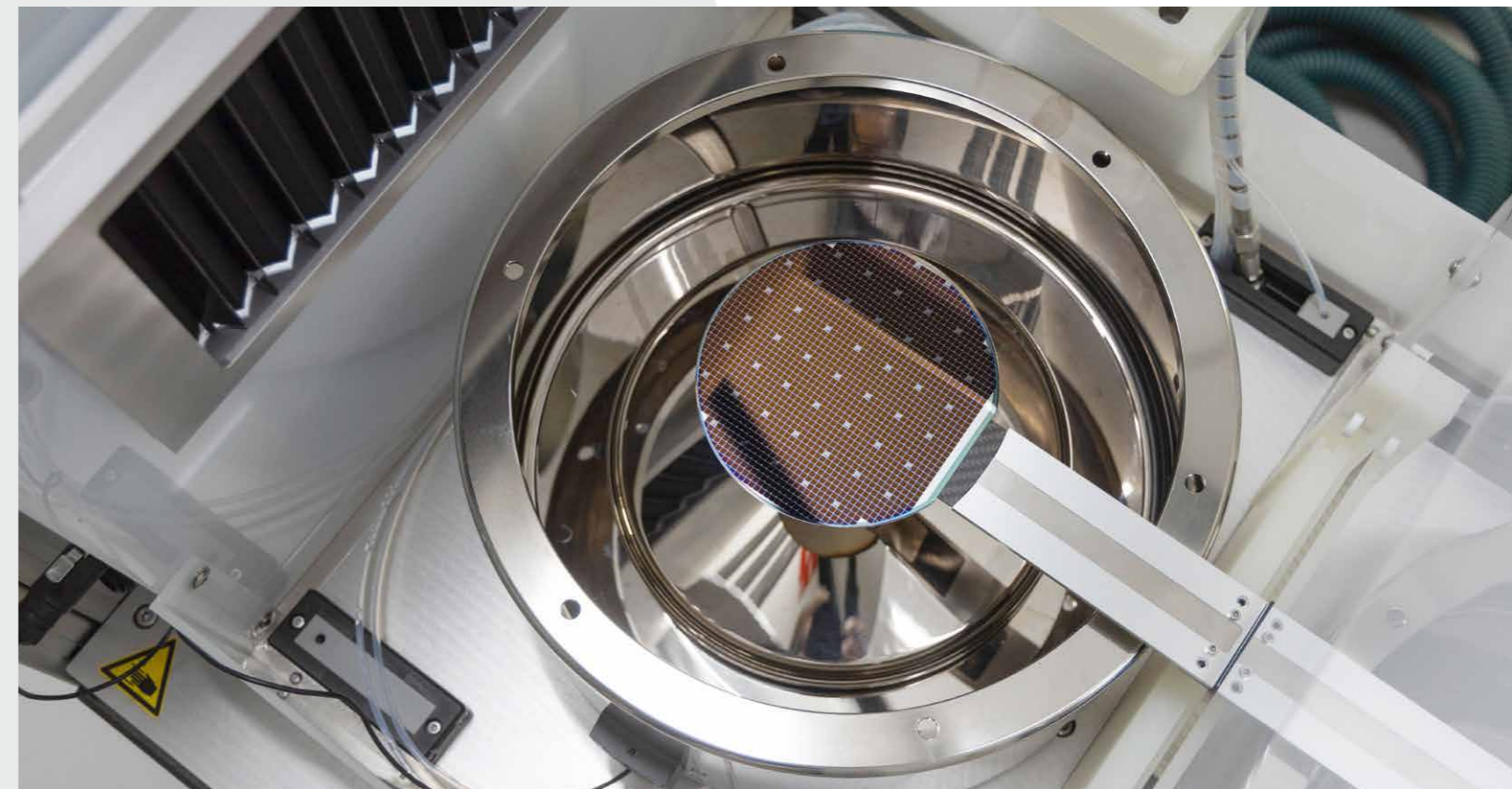
CLEANING

- Cleaning of wafer frontside, backside and edge bevel
- Various cleaning methods as standard solutions available (post CMP, RCA, TSV cleaning)
- Select between wet-in/dry-out and dry-in/dry-out
- For diluted chemicals
- Large area megasonic or megasonic nozzle



TEMPERATURE

- Standard hotplate (60° - 200°C)
- High-temperature hotplate (60° - 300°C)
- HMDS Primer hotplate (60° - 200°C)
- Single or multi-zone hotplates
- Active (water cooled) or passive coolplates
- Curing supported by UV light
- Distance control via
 - fixed proximity
 - programmable proximity
 - vacuum contact
- Up to 6 hot- or coolplates per module



MODULAR, FLEXIBLE, INDIVIDUAL

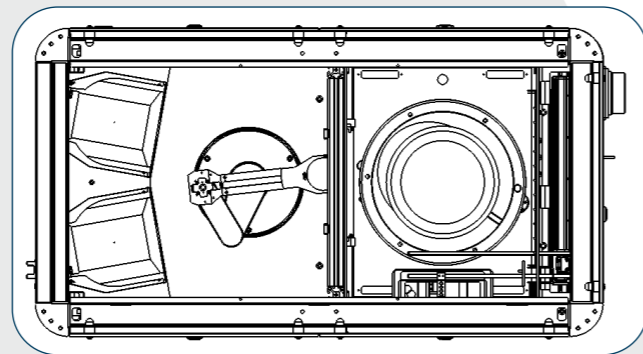
All n.amc models have been designed as adaptable platforms, so that individual configurations, process solutions and combinations are standard. The footprints, however, are very compact and room saving. With, e.g. **n.amc 1000** you will find 3 processes, 1 wafer-handling-station and up to 4 I/O stations on about 1 m² and you may flexibly process wafer sizes between 2" and 6".

n.amc 500 OUR MINI TOOL FOR INNOVATIVE WET PROCESSES



This extremely compact tool for wet processes enables you to make the most of your expensive cleanroom space:

- Wafer diameters: 2" up to 150 mm or up to 6 x 6"
- Up to 2 I/O stations for 2" to 150 mm open cassettes
- Max. 3 integrated individual chemical supply systems (more possible in external media unit)
- 1 two-link robot handler with single end effector for low contact handling
- Outer dimensions W x L: 740 x 1360 mm
- A separate enclosure of the process area made of resistant material extends the safety features.



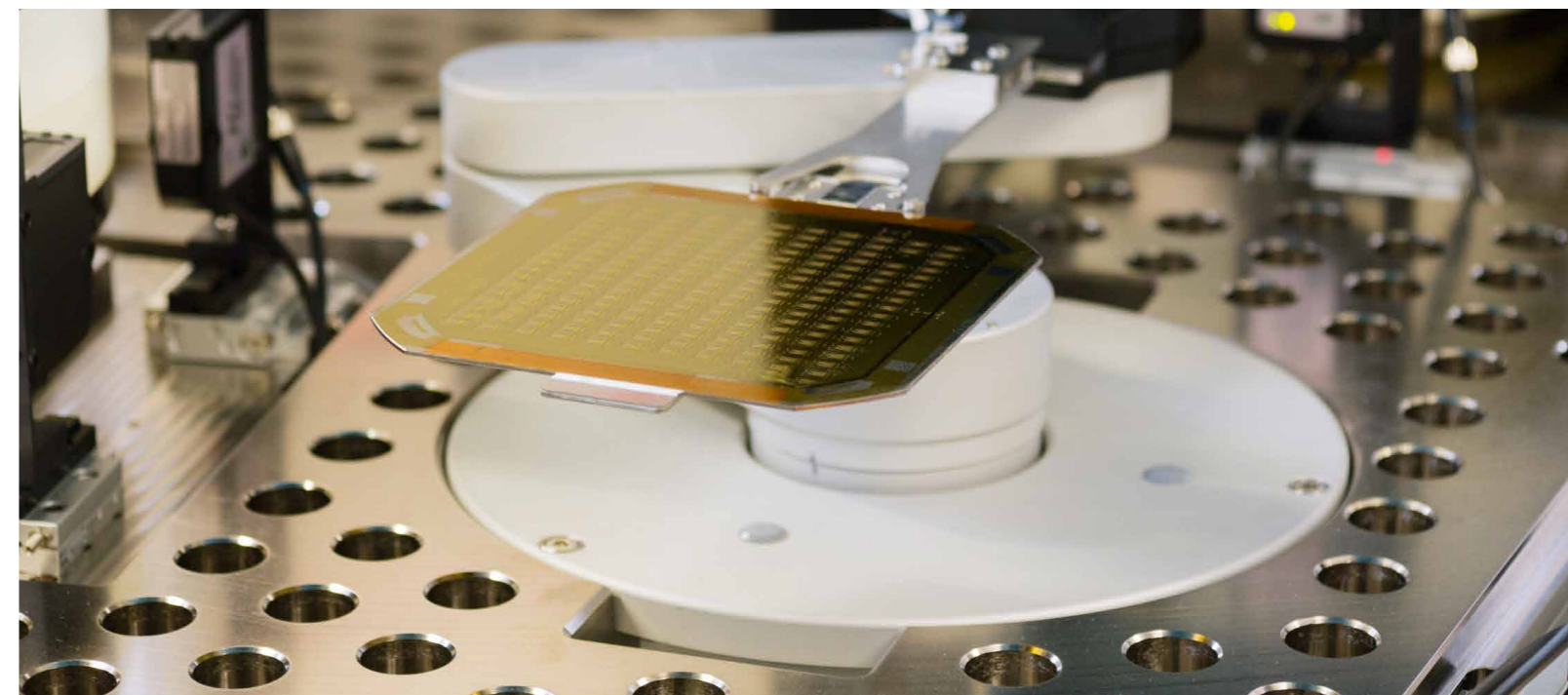
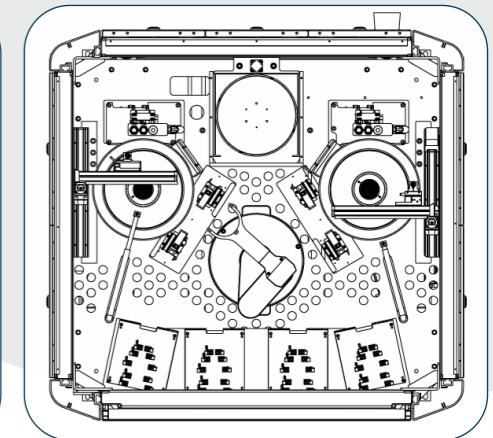
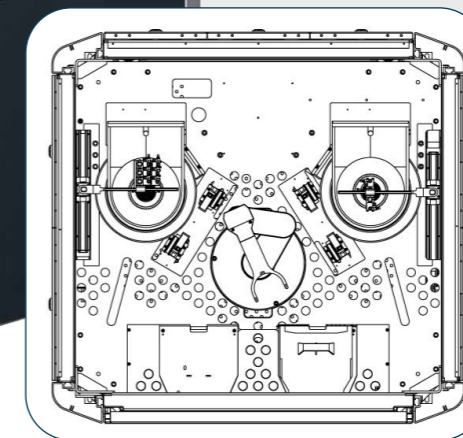
n.amc 1000

OUR TRANSITIONAL MODEL TO FULLY AUTOMATIC LOW-SCALE PRODUCTION



Flexible machine configuration and processing of different wafer sizes:

- Wafer diameters: 2" to 6"
- Up to 4 I/O stations for 2" to 6" (max. 4x open carriers)
- Max. 3 individually selectable process modules
- 1 two-link wafer handler
- Outer dimension W x L: 1236 mm x 1150 mm

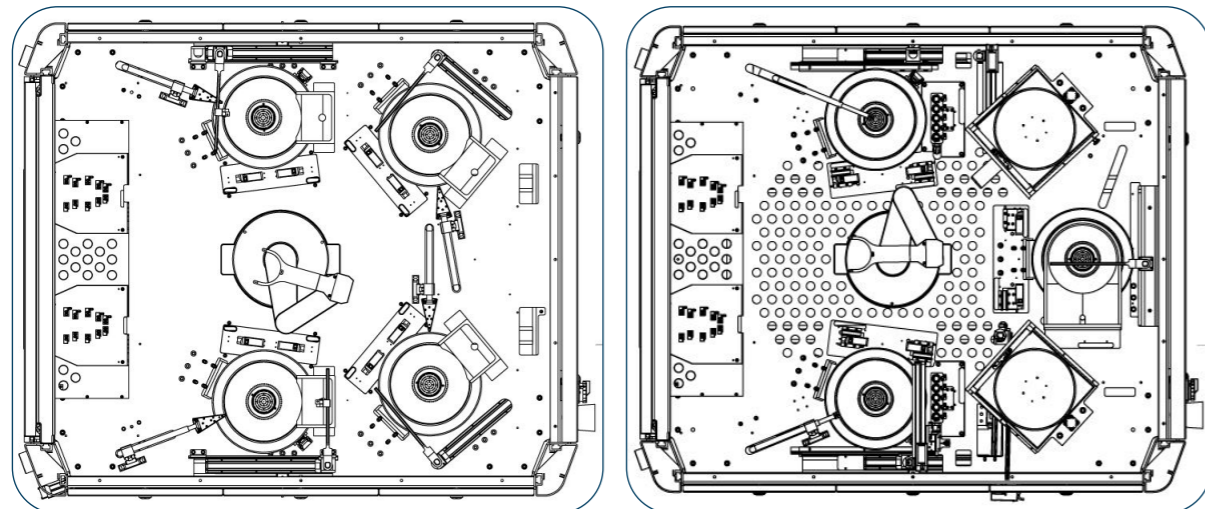


n.amc 2000

OUR WORKHORSE
DESIGNED FOR FLEXIBLE USE
OR VERY HIGH THROUGHPUT

Highly flexible machine
configuration and processing of
different wafer sizes:

- Wafer diameters: 2" to 6"
- Up to 4 I/O stations for substrates 2" to 6" (max. 4x open carriers) or
- Max. 5 individually selectable process modules
- 2 two-link wafer handler or
- 1 two-link wafer handler
- Outer dimension
W x L: 1382 mm x 1596 mm

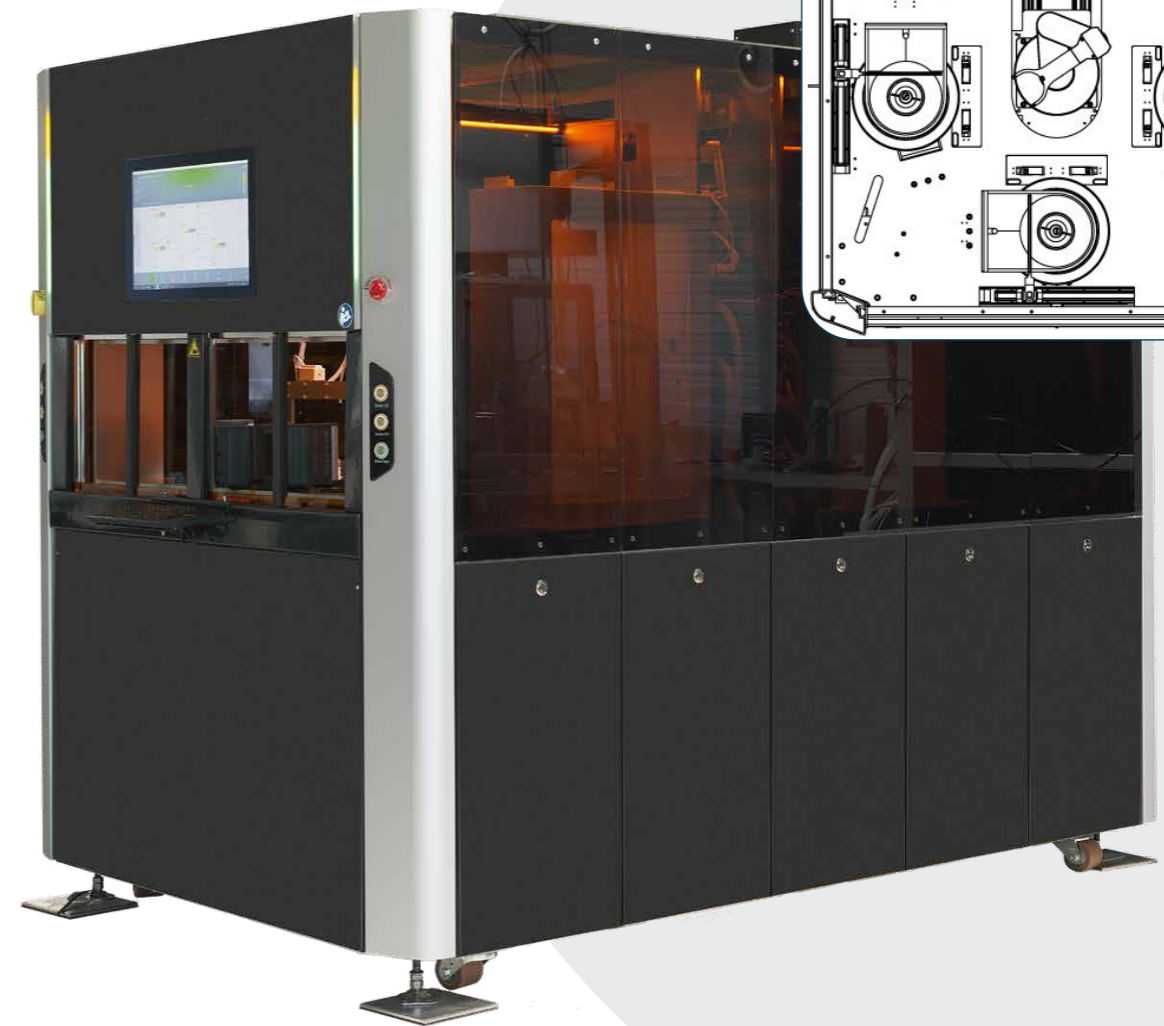
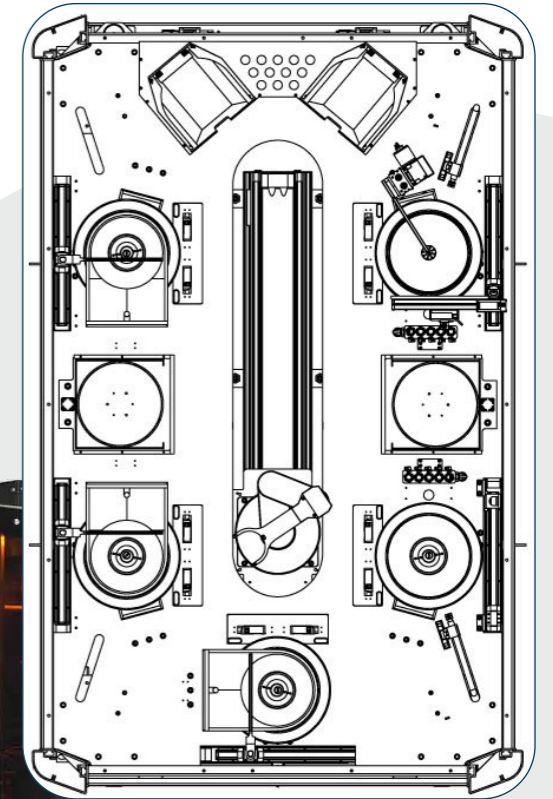


n.amc 2500

OUR ALL-ROUNDER FOR MULTIPLE
PROCESSES & SUBSTRATES

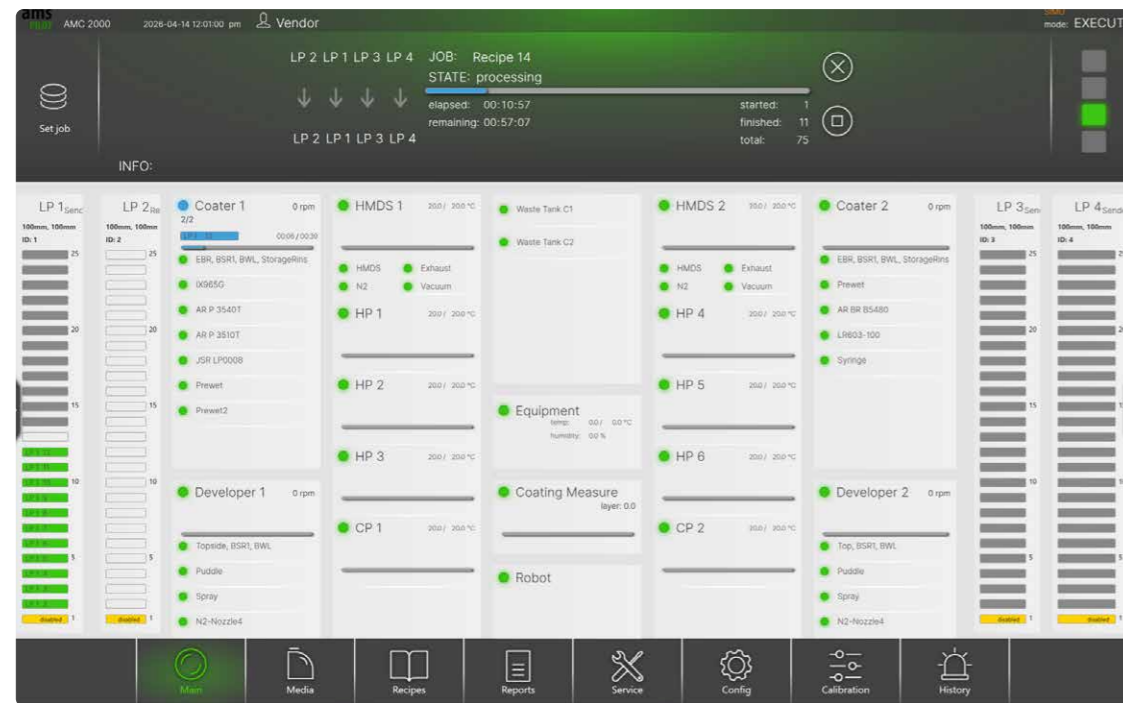
Compact service package for high throughput:


- Wafer diameter: 2" to 6"
- According to configuration of wafer handling up to 4 I/O-stations (max. 4 x open carriers)
- Max. 7 individually selectable process modules
- 2 two-link wafer handlers on linear track or
- 1 two-link wafer handler on linear track
- Outer dimension:
W x L: 1414 mm x 2048 mm




n.ams PILOT SOFTWARE – HIGH-PRECISION PROCESS CONTROL


- Clear, well-arranged user interface with modern design: user-friendly, self-explanatory & intuitively operable
- Complies with Semi-standard E9-1101
- User interface is designed to comfortable touch operability for all users
- Unique: simultaneous right- & left-hander operability





Main


Settings


Supports standard SECS/GEM communication if needed.



Change user


Client-ability: the logged user will only see information relevant to him.



Energiesafe mode


Power and media consumption reduction can be activated with only one click and helps to reduce energy costs.


Recipes


Reports


Alarm


Service


Calibration

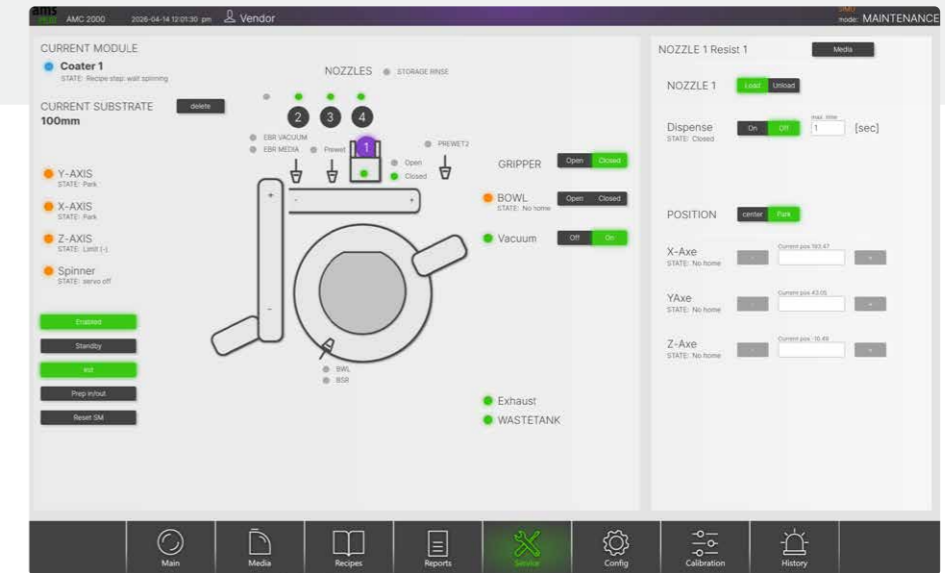
Easy recipe writing
Sequences for accurate process flow

Alarm list & log-function for informative reporting

Special service and maintenance functions

Calibration service

n.ams PILOT software independently controls processes in every equipment and therefore supports the operator and optimizes all processes.



NOTION

S Y S T E M S



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