

n.maxx-series



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SEMI-AUTOMATIC & AUTOMATIC SYSTEMS  
FOR LARGE SUBSTRATES

# COATING, DEVELOPING, HEATING, AND WET CLEANING SYSTEMS

## AUTOMATED OR SEMI-AUTOMATED SYSTEMS WITH ONE OR MORE PROCESS CHAMBERS

- Applications: Priming, spin/spray coating, developing, baking/cooling and wet cleaning
- Square substrates up to 1.300 mm x 1.300 mm (51" x 51")
- Selectable process modules:
  - Spin coater (covered chuck)
  - Spray coater (ultrasonic nozzle)
  - Developer (spray or puddle developing)
  - Temperature module for hot- & cool-plates or HMDs-priming hotplates
  - Wet cleaning, developing, lift-off
- 22" color touch screen for easy operation
- One or two electric media arms with different types of nozzles
- PR dispense systems for low and high viscosity
- Customized full-contact chucks or low-contact chucks
- Manual loading and unloading or fully automated via OHT
- External media cabinet for different chemicals

## SYSTEM DESIGN

- System frame made of powder-coated stainless steel or made of PP white
- Lockable, transparent doors for process area
- Emergency stop button for safety
- Signal tower with light sections for visualization of the system status
- Adjustable leveling feet and transport wheels
- General design to meet ISO class 4

EASY PROCESSING OF LARGE  
SUBSTRATE FORMATS UP TO 1.300 X  
1.300 MM (51" X 51"), IN SIZE

# PROCESSING OF SINGLE WAFERS, ORGANIC PANELS AND ULTRA-LARGE GLASS PLATES, EITHER INDIVIDUALLY OR IN CLUSTERS SYSTEM



## CONTROL UNIT

### EQUIPPED WITH OUR IN-HOUSE CLS (CLUSTER SOFTWARE) FOR SUPERIOR PROCESS CONTROL.

- User-friendly operator interface GUI with 22" touch screen monitor
- Programmable process parameters:
  - dispense arm motion, media flow, spin speed and N2 blow
- Recipe editor to write, edit and manage user recipes
- Recipe storage function on flash drive or memory stick
- Log file and error tracking history
- Automatic engineering process and servicemode
- User management with different password levels

Optional: SCES/GEM integration or to any other software management.



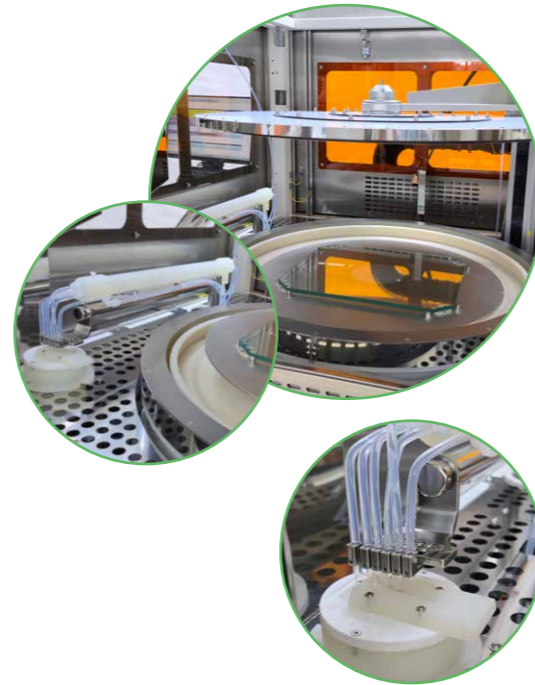
## SPIN COATER MODULE

### COVERED CHUCK TECHNOLOGY

- One dispense arm, up to max. 6 media lines
- Different types of nozzles:  
PR, solvent puddle, & EBR nozzle
- Customized low-contact chucks

### BENEFITS OF COVER CHUCK TECHNOLOGY

- Optimized coating for uniformity, resist consumption and eliminated cotton candy effect
- Potential applications in: thick, very thick and negative photoresist, SOG, Polymer and BCB bumping material
- Excellently suited for square substrates
- Backside protection process



## WET CLEANER MODULE

### FOR CLEANING, DEVELOPING AND DRYING

- Up to three electric media arms for chemical- or mechanical processing
- Dispense arm for max. 6 media lines/nozzles
- DI-Water bowl rinse
- Different types of nozzles
- BSR nozzle (adjustable in position and angle)
- Vacuum- or low contact centrifugal force chucks
- Media supply by pressure canister or pump systems
- Media mix system
- Ionizer
- Filter system for solvent

Optional: LED light within process chamber



## SPRAY MODULE

- For low and medium viscosity
- Uniform deposition of media via line-by-line
- 6-axis robot unit with X-Y-Z movement
- Syringe dispense system
- Suitable to install one ultrasonic spray nozzle
- Sealed nozzle drip pan
- Process control and data analysis



## TEMPERATURE MODULE

### FOR HOTPLATES OR VPO-PLATES

- Temperature module for:
  1. Hotplates
  2. Vapor prime (HMDS) with edge handling
  3. UV-curing
- Programmable temperature range up to 250 °C
- Nitrogen purge
- Hotplate with electronic driven lift pins

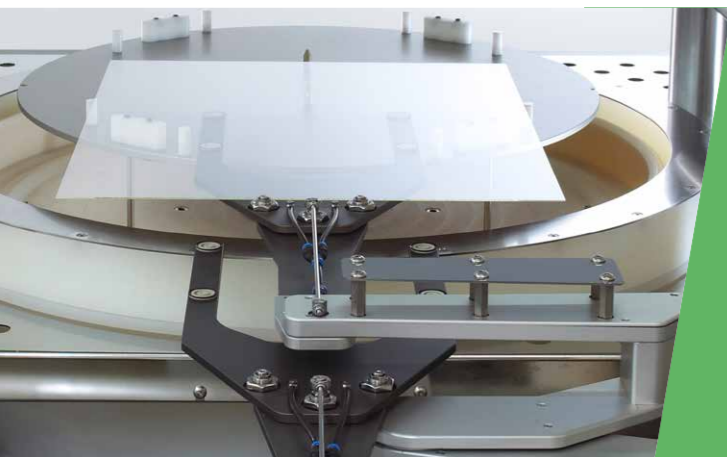
Optional: with proximity balls



## SYRINGE

### MOTORIZED DISPENSING SYSTEM

- Dispensing of small media volumes
- Continuous dispense for  $\mu\text{l}/\text{sec}$  or any  $\text{ml}/\text{sec}$
- Syringe made of glass or single-use syringe of plastic
- Different syringe sizes available:  
10ml, 20ml, 50ml, 100ml and 200ml
- Servo motor-controlled syringe piston
- Programmable dispense & suck-back volume and rates



HIGHLY EFFICIENT  
PROCESS THROUGH  
AUTOMATIC  
ROBOT TRANSFER

## OPTIONS

1. Customized chuck & inlay design
2. Temperature controlled dispense line
3. External media cabinets for supply or waste tanks
4. FFU/HEPA filter



## MEDIA STORAGE CABINETS

### VARIOUS MEDIA CABINETS & TANK DESIGNS

- For manual filling or via bulk-systems
- Media cabinet includes up to 4x10 liter chemical tanks
- Electrical cabinet mounted on the top
- Media can be heated or temperature stabilized
- Tank Materials: SS, PP, HDPE, PVDF, ECTFE
- Tank sizes: 10, 20, 40 liter



## TECHNICAL DATA

### GENERAL

Substrate size:	Square substrates up to 1.300 mm x 1.300 mm (51" x 51")
Motor spin speed:	Max. 10.000rpm, programmable in 1rpm steps*
Step time:	1 up to 999.9 sec, in 0.1 sec steps
System frame:	Made of powder-coated stainless steel, adjustable feet & transport wheels

*\*depending on chuck design, substrate weight and load*

### REQUIREMENTS

Power:	400 VAC / 3 Phase / N / PE / 50 Hz
CDA:	8 bar ± 2 bar
Vacuum:	-0,8 bar
Nitrogen:	4.5 ± 0.5 bar
DI-Water:	Min. 2.0bar, max. 3.0bar
Exhaust process area:	60-180m <sup>3</sup> /h*
Drain:	To waste tank with high level sensors or to the facility drain*

*\*chemical and process-related*



# NOTION

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