**UNIXX-SERIES** 

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UNL

# UNIXXD20(30) SEMI-AUTOMATIC DEVELOPING SYSTEMS

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## **BENEFITS**

- Semi-automated system with manual loading and unloading
- For Si-, Glas-, Ceramic wafer and compound material
- Substrates sizes up to Ø300mm or up to 230 x 230 mm
- Electronic media arm up to 6 media lines
- ÷ Different types of nozzles
- ÷ Automatic or fix splash ring
- ÷ Standard or customized chucks
- User-friendly operation and multiuser interfaces
- Designed for R&D and small-scale production

UNIXX D20 (200mm) Advanced developing system UNIXX D30 (300mm) Standard developing system

UNIXX



# **ADVANCED DEVELOPER UP TO 300 MM (12 INCH)**

SEMI-AUTOMATIC DEVELOPING, CLEANING AND DRYING SYSTEM.

## **PROPERTIES**

Advanced developer module with movable splash ring provide high quality processing applications with manual load-/unload of single substrates.

#### **Benefits with splash-ring lift:**

- + Advanced developing, cleaning and drying processing
- ÷ For small pieces
- + Round wafers up to Ø200 (Ø300) mm
- ÷ Square substrates up to 150 x 150 (230 x 230) mm
- ÷ Automatic splash-ring lift
- ÷ Vacuum- or low-contact centrifugal force chucks with BSR through the middle
- + High quality such as the module for our fully automatic system

#### Properties for all developer types:

- + Manual load-/unloading
- ÷ Chucks for round wafer square substrate or small piece
- + For Si-, Glas-, Ceramic substrates
- ÷ 1x Dispense arm for max. 6 media lines
- ÷ Different types of nozzles
- + Media supply by pressure canister or pump system
- ÷ Spin Motor with wobble effect
- + Process bowls for different media drain separations (1, 2 or 3-way separations)
- ÷ Start-stop buttons on the device or via the control unit
- ÷ Emergency stop button at systems front
- ÷ Software provides user-friendly operation and multi-user interfaces
- ÷ System design available as a bench mounted module or stand-alone systems.

Optional; external media supply cabinet with 10 or 20 ltr. canister.

## UNIXX D20/30 (ADVANCED)

### SEMI-AUTOMATIC DEVELOPER

The UNIXX DB20 semi-automatic developer processing module provides high quality such as the module for our fully automatic system. UNIXX DB20/30 supports round wafers up to 300 mm (Ø12 inch) or square substates 230 x 230 mm (9 x 9 inch).

It's designed for developing, cleaning & drying processes with multi puddle-, spray- and megasonic & atomizing nozzles. In combination with the temperature-controlled option for heated media lines and a low contact chuck, provide this module the best developing processing.

The processing area is easy to clean and it's resistant to all kind of used developer chemical.

# Bench mounted module UNIXX DB20







WITH AUTOMATIC SPLASH-RING LIFT HIGH QUALITY SUCH AS THE MODULE FOR OUR FULLY AUTOMATIC SYSTEM SPIN MOTOR WITH WOBBLE EFFECT DEVELOPER

## **TECHNICAL DATA (UNIXX D20/30) ADVANCED**

### GENERAL

Substrate size:

Motor spin speed: Motor acceleration: Step time: System frame: System housing: Process bowl:

up to Ø200 mm (Ø8 inch) or 150 x 150 mm (6 x 6 inch) up to Ø300 mm (Ø12 inch) or 230 x 230 mm (9 x 9 inch) max. 10.000 rpm\*, programmable in 1 rpm steps max. 40.000 rpm/sec\*, in 1 rpm/sec steps 1 up to 999.9 sec, in 0.1 sec steps made of powder-coated stainless steel, 4 adjustable feet and transport wheels made of powder-coated stainless steel made of PP natural \*depending on chuck design, substrate weight and load

### REQUIREMENTS

Power: Vacuum: CDA: Nitrogen: DI-Water: Exhaust process: Exhaust cabinet: Drain:

400(208) VAC/ 3 Phase / N / PE / 50(60) Hz -0.8 bar, tube OD Ø8mm 8 bar, tube OD Ø10 mm 4.5 bar, tube OD Ø10 mm 2-3 bar, OD Ø16.7 mm (3/8") 1x OD Ø110 mm, 50 - 120m<sup>3</sup>/h\* 2x OD Ø110 mm, 50 - 180m<sup>3</sup>/h\* to waste canister with high level sensor or to the facility drain\* \*chemical and process related

### DIMENSIONS (WXDXH) approx.

Double base frame: 1200 x 600/825 x 960/1.335 mm (47.3 x 23.6/32.5 x 38/52.6 inch)





# **PROVIDES HIGH QUALITY**







## **STANDARD DEVELOPER UP TO 300 MM (12 INCH)**

SEMI-AUTOMATIC DEVELOPING, CLEANING AND DRYING SYSTEM.



## **PROPERTIES**

Standard developer module is designed to provide users in science, and research with a productive, safe and clean system.

### **Benefits with standard splash-ring:**

- ÷ Standard developing, cleaning and drying processing
- ÷ For small pieces
- + Round wafers up to Ø200 (Ø300) mm
- ÷ Square substrates up to 150 x 150 (230 x 230) mm
- + Three-piece process bowl or as one-way bowl
- + Fixed height of the splash-ring
- + Vacuum- or low-contact chucks with BSR nozzle in the bowl
- + Transparent plastic lid with safety interrupt sensor
- ÷ Lower investment costs

#### Properties for all developer types:

- Hanual load-/unloading
- ÷ Chucks for round wafer square substrate or small piece
- ÷ For Si-, Glas-, Ceramic substrates
- ÷ 1x Dispense arm for max. 6 media lines
- ÷ Different types of nozzles
- + Media supply by pressure canister or pump system
- ÷ Spin Motor with wobble effect
- + Process bowls for different media drain separations (1, 2 or 3-way separations)
- ÷ Start-stop buttons on the device or via the control unit
- ÷ Emergency stop button at systems front
- ÷ Software provides user-friendly operation and multi-user interfaces
- ÷ System design available as a bench mounted module or stand-alone systems.

Optional; external media supply cabinet with 10 or 20 ltr. canister.

## UNIXX DB20/30 (STANDARD)

### SEMI-AUTOMATIC DEVELOPER

The UNIXX DB20/30 developer modules are designed for developing, cleaning & drying processes with puddle-, spray- and megasonic & atomizing nozzles.

UNIXX DB20/30 supports round wafers up to 300 mm or square substates 230 x 230 mm. A media arm equipped with up to 6 puddle nozzles or with various spray nozzles offers excellent development processing. The device has an easyto-operate user interface with all needed functions such as recipe programming, service communications, and user administration.

All necessary media supplies such as CDA, N2, Vacuum and DI-water can be connected via quick plug-in connections and controlled by software.



CHUCKS FOR LOW CONTACT WITH ONLY 3-4 CONTACT POINTS AT THE EDGE AND 100% BSR PRODUCTIVE, SAFE AND CLEAN SYSTEM PROGRAMMABLE MEDIA ARM

## TECHNICAL DATA (UNIXX D20/30) STANDARD

### GENERAL

Substrate size:

Motor spin speed: Motor acceleration: Step time: System frame: System housing: Process bowl: Process cover:

up to Ø200 mm (Ø8 inch) or 150 x 150 mm (6 x 6 inch) up to Ø300 mm (Ø12 inch) or 230 x 230 mm (9 x 9 inch) max. 10.000 rpm\*, programmable in 1 rpm steps max, 40,000 rpm/sec\*, in 1 rpm/sec steps 1 up to 999.9 sec, in 0.1 sec steps made of powder-coated stainless steel, 4 adjustable feet and transport wheels made of powder-coated stainless steel made of PP natural transparent plastic lid \*depending on chuck design, substrate weight and load

### REQUIREMENTS

Power: Vacuum: CDA: Nitrogen: DI-Water: Exhaust process: Exhaust cabinet: Drain:

400(208) VAC/ 3 Phase / N / PE / 50(60) Hz -0.8 bar, tube OD Ø8mm 8 bar, tube OD Ø10 mm 4.5 bar, tube OD Ø10 mm 2-3 bar, OD Ø16.7 mm (3/8") 1x OD Ø110 mm, 50 - 120m<sup>3</sup>/h\* 2x OD Ø110 mm, 50 - 180m<sup>3</sup>/h\* to waste canister with high level sensor or to the facility drain\* \*chemical and process related

### DIMENSIONS (WXDXH) approx.

Double base frame: 1200 x 600/825 x 960/1.335 mm (47.3 x 23.6/32.5 x 38/52.6 inch)



**PRODUCTIVE SAFE & CLEAN SYSTEM** 







## **CONTROL UNIT** (uiS)

#### UNIXX-Software (uiS) Osiris user interface

- ÷ 7"(10") color touch screen as user terminal
- ÷ Language: German, English, French or Spanish
- + Recipe editor to write, manage and system configure.
- + Recipe storage function on flash drive or memory stick.
- ÷ Library function for recipes, flows, log file (e.g. error tracking history)
- + User management with password-protected service access.
- + Update & backup function via USB or intranet connection





### ELECTRICAL MEDIA ARM

- ÷ Dispense arm for max. 6 media lines/nozzles
- + Motorized dispense arm (servomotor controlled)
- + Movement speed programmable
- + Target position programmable in 0.1 mm steps
- ÷ Filter system for solvent
- ÷ Drip pan (classic, comfort or deluxe design)

Optional: Temperature controlled dispense line



#### **NOZZLE TYPES**

- + Puddle- (5-hole) nozzle
- ÷ Spray nozzle
- ÷ Megasonic nozzle
- ÷ Atomizing nozzle
- + Nitrogen (N2) blow
- Two possible configurations:
- » Manually adjustable nozzle in the bowl
- » Static nozzle through the motor shaft
- \*depending on the chuck design

















### CHUCK DESIGNS

- ÷ with low contact points at the edge
- ÷ with Bernoulli effect to protect the backside
- ÷ with vacuum contact

### **OPTIONS**

- 1. Customized chuck & inlay design
- 2. Integrated PR dispensing pumps (diaphragm or vacuum)
- 3. Temperature controlled dispense line
- 4. Media- and waste tanks
- 5. External media cabinets
- 6. Automatic programmable bowl wash function
- 7. Bowl for drain separations (1, 2 or 3-ways)

## **DESIGN VARIATIONS**

System types available for up to 200mm or up to 300mm.

### DEVELOPER - STANDARD & ADVANCED -

#### **Bench mounted module**

UNIXX DB20/DB30 Standard Dimensions (WxDxH) approx. 650 x 650 x 600/1.000 mm (25.6 x 25.6 x 23.6/39.4 inch)

### Single base frame - stand-alone system

UNIXX DA20/DA30 Standard Dimensions (WxDxH) approx. 650 x 650/875 x 960/1.130 mm (25.6 x 25.6/34.5 x 37.8/44.5 inch)

### Double base frame - stand-alone system

UNIXX D20/D30 Advanced Dimensions (WxDxH) approx. 1200 x 600/825 x 960/1.335 mm (47.3 x 23.6/32.5 x 38/52.6 inch)











## LOCATIONS

#### GERMANY

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*Version: UNIXX D20/30-developer-datasheet-osiris-210730 Data, design and specification of custom built machines depend on individual process conditions and can vary according to equipment configurations. Not all specifications may be valid simultaneously. Illustrations in this brochure are not legally binding. Osiris International GmbH reserves the right to change machine specifications without prior notice.*