# Brewer Science® Cee® 200DBX

## Precision Develop-Bake System

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The **Brewer Science Cee® 200DBX** precision develop-bake system combines a track-quality precision developer with a high-uniformity bake module (for post-exposure baking) in an efficient space saving design.

## Benefits

- Onboard Windows®-based PC control for enhanced interface capabilities and connectivity
- Configurable for direct-angle continuous and/or side-angle spray puddle develop
- New compact design for minimized footprint
- Full-color, 7-inch touch screen display
- Teflon® spin bowl for maximum chemical compatibility
- Simultaneous operation and monitoring for both the coat and bake modules

*Brewer Science® Cee® 200DBX precision develop-bake system*

## Developer Options

Spray, puddle, and stream dispense options are available. These dispense methods are normally used in conjunction with a pressure can component that holds the developer.

**SPRAY DISPENSE (Puddle/Direct)**
This option utilizes two spray nozzles to apply developer solution and deionized (DI) water. It uses an open UHMW lid with spray nozzles mounted either outside the wafer plane, spraying inward from the center of the wafer out (puddle), or directly over the substrate for continuous (direct) spray applications.

- Uses 1-gallon pressure cans as reservoirs for developer solutions
- Can use a maximum of four spray nozzles
- Can be configured to accommodate up to four center puddle/direct dispenses

**STREAM DISPENSE (Puddle)**
This option uses a standard automated dispense spinner and pressure cans. It functions by "streaming" the developer and DI water onto the top of the substrate.

- Very economical
- Utilizes standard auto-dispense Lexan® lid
- Uses suckback dispense valves
- Minimizes material usage

**DI WATER RINSE**
Both topside and backside DI water rinse options are available. This method of dispense is normally used in conjunction with a pressure can dispense or by using a house DI water supply.

## Dimensions

- 28 in (71.1 cm) W × 19 in (48.3 cm) D × 18 in (45.7 cm) H
- Machine Weight: 165 lb (74.8 kg)
- Shipping Weight: 250 lb (113.4 kg)

## Programmability

- Controlled by onboard Windows®-based PC
- Touch screen interface and display
- Ethernet port for network connectivity and uploading/downloading process parameters
- 250,000 process programs onboard
- Virtually unlimited steps per program
- 0.1-s resolution for step times with a range of 0 to 9,999.9 s/step
- Energy-saving capability (for predetermined temperature output control)
- Security: password protection available at no charge
- Three automated bake methods: contact, vacuum, proximity
- Bake plate auto sizing for 3-inch, 100-, 125-, 150-, and 200-mm substrates
- Temperature data recording
- Optional electronic lift pins (replace $N_2$ proximity for loading/unloading substrates from bake module). Program 1000 specific proximity heights above the surface in any sequence or combination. Height is programmed in 0.001-inch increments with an overall range of 0.000 to 0.750 inches.
- Ramping capability optional (8 specific set points within a single bake recipe)
- Spin speed: 0 to 6,000 rpm (12,000 rpm option at no charge; 16,000 rpm option available)
- Spin speed acceleration:
  0 to 30,000 rpm/s unloaded
  0 to 23,000 rpm/s for 200-mm substrate
  0 to 3,000 rpm/s for 6-inch × 6-inch × 0.250-inch photomask recessed chuck
- System capable of controlling third-party host software for high-end IDI/Cybor/Mykrolis positive displacement pumps
- Simultaneous dual automated dispense capability
- Bidirectional speed control/oscillating chuck
- Iteration software (recipe looping)
- Dispense or component outputs: 50
- In-process/dynamic speed/acceleration control

## Precision

- Spin speed repeatability: within < 0.2 rpm
- Spin speed resolution: within < 0.2 rpm
- Substrate sizes: < 1 cm to 200 mm round; 7 inches × 7 inches square
- Temperature resolution: ± 0.1°C
- Temperature range: ambient to 300°C (400°C optional)
- Temperature uniformity: 0.3% across working surface

## Reliability

- Indirect drive system protects the spin motor from contact with process chemicals and solvents
- Vacuum and lid interlock
- Exceptional reliability and uptime
- 1-year full warranty on parts and labor
- Free remote technical support (phone, email, fax) for the life of the product
- Application process assistance for life of the product

## Bowl & Exhaust Hood Design

- Stainless steel construction
- Teflon® spin bowl for material compatibility
- Integrated bowl ring to eliminate material migration
- Optional stainless steel bowl (for all–stainless steel construction)
- Optional polyethylene bowl (educational package) available
- Optional polyethylene liners available
- Optional polyethylene/Teflon® splash ring
- Closed and optional open lid designs for process flexibility
- Drain and exhaust ports located in the bottom of bowl
- Exhausted hood for removal of process chemicals
- Optional nitrogen purge for inert spin/bake environment

## Utilities

- Voltage ranges: 100, 110–125, 208–240 VAC, 50/60 Hz
- Power requirements: 1793 watts (16 amps)
- Drain port: ¾ inch OD
- Exhaust port: 1 inch OD
- Vacuum: 20 to 25 inches Hg
- Bowl exhaust: 20 to 50 cfm
- Bake plate exhaust: 1 inch OD; 5 to 10 cfm
- Nitrogen or CDA (for automated dispenses): 70 psi
- DI water for developer spray and backside rinse (if hard plumbed)



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