The Brewer Science® Cee® Advantage

Brewer Science has established a reputation for being the vendor of choice for those seeking flexible, rugged and dependable equipment solutions. Cee® processing equipment has proven that it is possible to obtain million-dollar track uniformity in a smaller, more flexible, much less expensive system. This fact is illustrated in our precision bake plates and spin coaters. Cee® processing equipment's 0.3% temperature uniformity and < 0.2-rpm spin speed resolution/repeatability are leading standards for the industry.

The Cee® product line has, since its beginning, been focused on the educational facilities market to stay on the "cutting edge" of technology. Brewer Science has ongoing relationships with such facilities as the Washington Technology Center, located on the campus of the University of Washington, Cornell University, Georgia Institute of Technology, Arizona State University, University in Texas, the University of Edinburgh in Scotland, the University of California system, and countless other facilities world-wide.

Brewer Science® Cee® processing equipment can be found in the clean rooms of many household name companies around the world, such as DuPont, Lucent, Texas Instruments, Axcelis Technologies, Motorola, Seagate, Leica, BAE Systems, Sony Music, Dow Corning and IBM. These companies use multiple pieces of Cee® equipment. They invest in these tools because of the high uptime, after-sale support, flexibility and cost of ownership offered by Cee® processing equipment.

Brewer Science provides process assistance should it ever be needed, before or after the sale. Brewer Science also offers unlimited phone support for equipment as long as you own it. A one year warranty is standard, as is onsite installation and repair for all automated systems.

Brewer Science is the patent owner and sole supplier of several equipment options. The DSD-1 (Disposable Syringe Dispense) is an example of something that is not available from any other source. Cee® hot plate technology is another prime example of the expertise that cannot be found anywhere else.

Brewer Science is committed to the growth of its customers, both to satisfy their immediate needs and to anticipate any future needs. Brewer Science is always on the leading edge of technology, to better predict the next innovation in semi-conductor processing.

brewer science

Brewer Science® Cee® 1300X

Precision Bake Plate

{ The **Brewer Science® Cee® 1300X** precision bake plate features a revolutionary intuitive interface, a space-saving design, and track-quality thermal accuracy and uniformity. }

Benefits

▸ Onboard Windows®-based PC control for enhanced interface capabilities and connectivity
▸ New compact design for minimized footprint
▸ Full-color, 7-inch touch screen display
▸ Durable wet-bench design that can be converted to a flange/deck mountable configuration
▸ Enhanced logging and optional programmable height control

Dimensions

▸ 13.25 inches (33.65 cm) W × 19 inches (48.26 cm) D × 12 inches (30.48 cm) H
▸ Machine weight: 65 lb (29.5 kg)
▸ Shipping weight: 148 lb (67.1 kg)

Programmability

▸ Controlled by onboard Windows®-based PC
▸ Touch screen interface and display
▸ 250,000 bake process programs
▸ Virtually unlimited steps per program
▸ 0.1-s resolution for step times with a range of 0 to 9,999.9 s/step
▸ Three automated bake methods: contact, vacuum, proximity
▸ Bake plate auto sizing for 3-inch, 100-, 125-, 150-, and 200-mm substrates
▸ Temperature data recording
▸ Ethernet port for network connectivity and uploading/downloading process parameters
▸ 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 0.500 inches.

Brewer Science® Cee® 1300X precision bake plate

▸ Security - password protection available at no charge
▸ Ramping capability optional (8 specific set points within a single bake recipe)
▸ Energy-saving capability (for predetermined temperature output control)

Precision

▸ Substrate sizes: < 1 cm to 200 mm round; 8 inches × 8 inches square)
▸ Temperature resolution: 0.1°C
▸ Temperature range: ambient to 300°C (400°C optional)
▸ Temperature uniformity: 0.3% across working surface

Reliability

- Exceptional reliability and up-time
- 1-year full warranty onparts and labor
- Free remote technical support (phone, email, fax) for the life of the product
- Application process assistance for life of the product
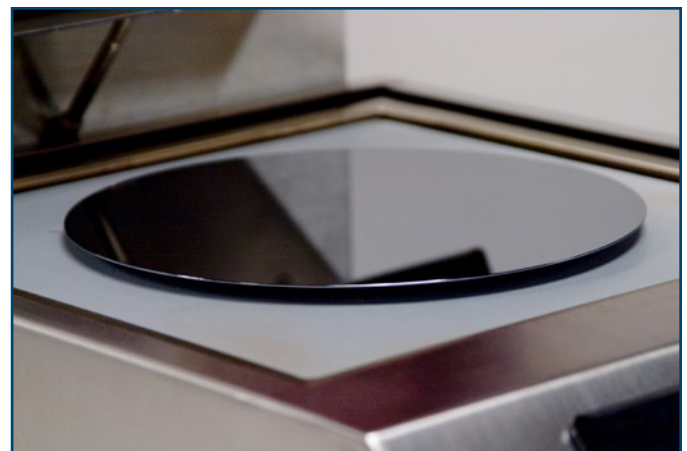
Exhaust bake hood design

- All stainless steel construction
- Exhausted hood for removal of process chemicals
- Optional nitrogen purge for inert bake environment

Utilities

- Voltage ranges: 100, 110-125, 208-240 VAC
- Power requirements: 1057, 1683, 1555 watts per plate (16.7 amps)
- Exhaust port: 1 inch OD
- Vacuum: 20 to 25 inches Hg
- Exhaust: 5 to 10 cfm
- N_2 (for bake plate proximity): 35 psi

Brewer Science® Cee® 1300X precision bake plate with open hood

Optional programmable lift pins allow for precise process control

F.6.6.7038.A1 Effective Date: 06/15/2010

CE

Temperature Uniformity Data

Using 200-mm SensArray® measurement probe

Sample # 5423

109.80	
109.70	
109.60	
109.50	
109.40	
109.30	
109.20	
109.10	
109.00	
108.90	
108.80	
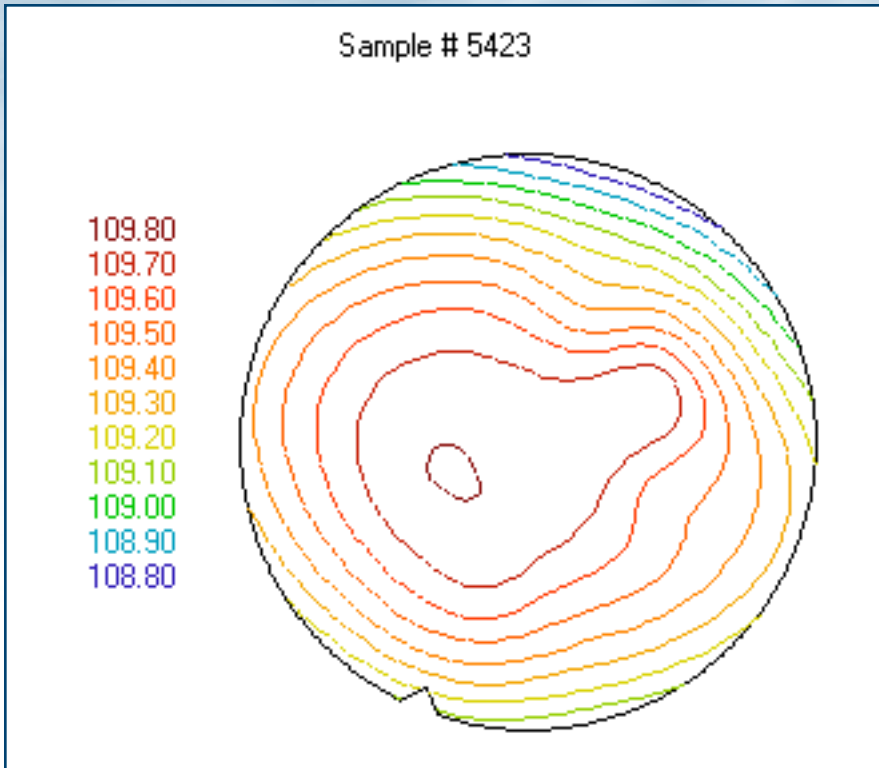
Test Conditions: 110°C, hood down, 1-hr run using 17-pt SensArray® measurement probe (1-s Interval)
Standard Deviation: 0.284°C
Mean Temperature: 109.5011°C
Temperature Uniformity: 0.25%

Sole-Source Justification

Industry-Leading Features

Brewer Science is very proud of the reputation we have earned as the vendor of choice for those needing R&D bake plates with track-quality performance in a compact, portable, durable design. Brewer Science is the only manufacturer of benchtop bake plates which brings together all of these design elements in a cost-effective benchtop product. Brewer Science is the sole supplier and distributor for Cee® equipment in North America. Brewer Science® Cee® equipment separates itself from the competition by its design basics, including:

- Stainless steel construction
- Onboard Windows®-based PC controller with full-color touch screen interface
- Exhausted hood for removal of process chemicals
- 300°C maximum temperature (400°C optional)
- PID control
- 250,000 process programs/1000 steps per program
- 0.3% temperature uniformity across working surface
- Three automated bake methods (contact, vacuum, proximity)
- Auto sizing for 3-inch, 100-, 125-, 150-, and 200-mm substrates
- USB/ethernet connections for network connectivity and uploading/downloading data
- Temperature data recording
- Password protection
- Energy-saving capability (for predetermined output control and timing)

Brewer Science® Cee® References

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