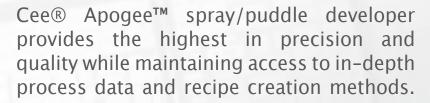
Apogee™ Developer

With DataStream™ Technology







BENEFITS

- New, compact design for minimized footprint
- Full-color, 7-inch touch screen display
- High-density polyethylene (HDPE) spin bowl for maximum chemical compatibility
- Durable benchtop design that can be converted to a flange-/ deck-mountable configuration (mountable in the Apogee[™] X-Pro II workstation)
- DataStream[™] technology as the standard interface
- Direct-angle continuous and/or side-angle spray
- · Ability to puddle develop

DIMENSIONS

- 13.25" (33.65 cm) W × 19" (48.26 cm) D × 18" (45.72 cm) H
- Machine weight: 46 lb (20.87 kg)
- Shipping weight: 110 lb (49.89 kg)

PROGRAMMABILITY

- Touch screen interface and display
- Full-color alphanumeric-capable graphical user interface (GUI)
- Virtually unlimited number of user-defined recipe program steps
- 0.1-second resolution for step times (9,999.9 seconds maximum

step time)

- Spin speed: 0 to 6,000 rpm (12,000 rpm option at no charge)
- Spin speed acceleration:
- 0 to 30,000 rpm/s unloaded 0 to 23,000 rpm/s with a 200-mm substrate 0 to 3,000 rpm/s with a $6"\times6"\times0.250"$ photomask in a recessed chuck
- Connectivity: USB/Ethernet port for communications for uploading/downloading process parameters with DataStream™ technology
- Simultaneous dual automated dispense capability
- In-process/dynamic speed/acceleration control

PRECISION

- Spin speed repeatability: < 0.2 rpm
- Spin speed resolution: < 0.2 rpm
- Substrate sizes: < 1 cm to 200 mm round; 7" x 7" square

RELIABILITY

- Indirect drive system protects the spin motor from contact with process chemicals and solvents
- Vacuum and lid interlock
- · Industry-leading reliability and uptime
- 1-year full warranty on parts and labor

BOWL DESIGN

- High-density polyethylene (HDPE) spin bowl for material compatibility
- Optional Teflon® bowl
- Optional polyethylene disposable liners available
- Versatile lid design allows process flexibility and repeatability
- Optional nitrogen purge for an inert spin environment
- Integrated drain and exhaust ports



UTILITIES

• Voltage ranges: 100-125, 208-240 VAC, 50/60 Hz

• Power requirements: 655 watts

Drain port: ¾" OD
Exhaust port: 1" OD
Vacuum: 20 to 25" Hg

• Exhaust: 20 to 50 cfm at 0.2" water

• Nitrogen or CDA (for automated dispense): 70 psi

DEVELOPER OPTIONS

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

SPRAY DISPENSE

This option utilizes spray nozzles to apply developer solution or deionized (DI) water. For low-pressure spray, nozzles mounted outside the wafer perimeter spray toward the center of the wafer. For high-pressure spray, nozzles are mounted 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 Apogee™ spin coater and pressure can dispense. It functions by "streaming" the developer and DI water onto the top of the substrate.

- Very economical
- 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.

© 2017 Cost Effective Equipment, LLC.

All statements, technical information, and recommendations contained herein are based on tests we believe to be accurate, but the accuracy or completeness thereof is not guaranteed and the following is made in lieu of warranty expressed or implied. Neither the seller nor the manufacturer shall be liable for any injury, loss, or damage, direct or consequential, arising from the use or inability to use the product. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith. No statement or recommendation contained herein shall have any force or effect unless in an agreement signed by officers of the seller and manufacturer.

Effective Date: 8/9/2016

DATASTREAM™ TECHNOLOGY: CONNECTING THE SEMICONDUCTOR INDUSTRY

Cee® has released DataStream™ technology on its new Apogee™ tool line. DataStream™ technology gives you access to all of your connected Apogee™ manufacturing equipment in one place to track, access, and modify your systems via a website or mobile app. This technology will give manufacturers the ability to process and visualize data in real time and search and export that data into a number of different formats.

Real-Time Process Information

- Constant feedback of process information for monitoring critical process parameters
- Streamlined interface between different tool types
- Visual cues on process status & health

Advanced Recipe Creation

- Seamless switching between basic and advanced recipe creation methods
- Plain-English recipe translation
- Pre-defined process commands
- Unlimited process steps
- · Unlimited recipe storage

Environmental Monitoring

- Monitoring of temperature & humidity allows for stricter control of critical processes
- Set preconditions and tolerances for monitored parameters
- On-screen, colored visual cues for deviation from controlled specs

Data Logging & Export

- Export data logs into commonly readable formats for further analysis and process troubleshooting
- · Increase process efficiency
- Identify process control deviations
- Analyze multiple processes for best known method (BKM) development