

# Apogee™ Developer

With DataStream™ Technology

Cee® Apogee™ spray/puddle developer provides the highest in precision and quality while maintaining access to in-depth process data and recipe creation methods.

*Serving the Semiconductor Industry Since 1987*



## BENEFITS

- 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 is also available in a flange/ deck mountable configuration
- DataStream™ technology
- 90° direct-angle continuous or 45° side-angle spray nozzles
- Ability to puddle develop

## BOWL DESIGN

- High-density polyethylene (HDPE) spin bowl
- Optional nitrogen blow-off for more efficient drying
- Integrated drain and exhaust ports

## PROGRAMMABILITY

- Touch screen interface and display
- Full-color alphanumeric-capable graphical user interface (GUI)
- A 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: 12,000 rpm
- 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" x 6" x 0.250" photomask in a recessed chuck
- Connectivity: USB/Ethernet port for communications for uploading/downloading process parameters with DataStream™ technology
- Simultaneous, automated, multi-dispense capability



## 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
- Free remote technical support (phone, email, fax) for the life of the product
- Application process assistance for life of the product

## 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" Hg
- Exhaust: 20 to 50 cfm at 0.2" water
- Nitrogen or CDA (for automated dispense): 70 psi

## DIMENSIONS

- 13.25" (33.65 cm) W × 21" (48.26 cm) D × 16" (30.48 cm) H
- Machine weight: 40 lb (18.14 kg)
- Shipping weight: 130 lb (45.36 kg)

## DEVELOPER OPTIONS

- Minimizes material usage
- Uses 1-gallon pressure cans for developer solutions
- Can use a maximum of four spray or 4 stream nozzles

### SPRAY DISPENSE

- Utilizes spray nozzles to apply developer solution or DI water
- Two options available:
  - 45° side-angle spray, nozzles mounted outside the wafer perimeter spray toward the center of the wafer
  - 90° direct-angle spray, nozzles are mounted directly over the substrate for continuous spray applications

### STREAM DISPENSE (Puddle)

- Functions by "streaming" the developer and DI water onto the top of the substrate much like a standard spin coat process

### DI WATER RINSE

- Both topside and backside DI water rinse options are available
- Used in conjunction with a pressure can dispense or a house DI water supply

# DATASTREAM™ TECHNOLOGY: CONNECTING THE SEMICONDUCTOR INDUSTRY

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 web browser. This technology will give manufacturers the ability to

### 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

### 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

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