# Apogee® Spin Developer

# With DataStream™ Technology



Eliminate process variability from your critical experiments with the Cee® Apogee® Spin Developer. This compact system delivers track-quality performance with its durable, chemically compatible design and fully programmable, user-friendly operation. Guaranteed for years of high performance, the Cee® Apogee® Spin Developer brings unparalleled consistency to your lab or fab.

Serving the Semiconductor Industry Since 1987

# **BENEFITS**

- ETL Listed via Intertek's Nationally Recognized Testing Laboratory
- Compact design for minimized footprint
- Enhanced logging
- · Vacuum and lid interlock
- DataStream<sup>™</sup> technology
- Durable benchtop design \*also available in a flange/deck mountable configuration\*
- Optional X-Pro II workstation integrates equipment with an upper exhaust enclosure for process fume control.

#### **BOWL DESIGN**

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

# **PROGRAMMABILITY**

- · Full-color touchscreen graphical user interface (GUI)
- Supports unlimited user-defined program steps for each recipe
- 0.1 second step time resolution (9,999.9 seconds maximum step time)
- Spin speeds up to 12,000rpm
- Spin speed acceleration up to 30,000rpm/s unloaded
- Up/download DataStream<sup>™</sup> process parameters via native USB and Ethernet ports
- · Multiple simultaneous automated dispense capability
- · In-process dynamic speed & acceleration control

# **UTILITIES**

Voltage Ranges: 100-120; 208-230VAC

• Power Requirements: 6A (max)

Drain Port: 3/4" ODExhaust Port: 1" ODVacuum: <33kPa abs</li>

Exhaust: 1" OD, 0.4" H2O @ 5.8CFM (100Pa @ 10CMH)

• N2/CDA (automated dispense): 70psi (482kPa)



### **PRECISION**

- Substrate sizes: 200mm round; 6" x 6" square (max)
- Spin speed repeatability: 0.2rpm (per standard spin module)
- Spin speed resolution: 0.2rpm (per standard spin module)
- Acceleration resolution <0.2rpm/s</li>
  - 0-30.000 rpm/s unloaded
  - 0-13,000 rpm/s with a typical 200mm substrate
  - 0-3,000 rpm/s with a 6" x 6" x 0.025" photomask in a recessed chuck

#### RELIABILITY

- · Industry leading uptime
- · 1-year full warranty on parts and labor
- Complimentary remote technical support for the life of the product
- Application process assistance for the life of the product
- Indirect drive system protects the spin motor from contact with process chemicals and solvents

# **DIMENSIONS**

- 13.25" (337mm) W x 21" (533mm) D x 20" (508mm) H
- Machine Weight 40 lb (18.1 kg) excluding accessories

#### **DEVELOPER OPTIONS**

#### **Spray Dispense**

- Precision spray nozzles for controlled application of developer solution or deionized water
- 90° direct-angle spray, nozzles are mounted directly
- over the substrate for continuous spray application
  - Optional 45° side-angle spray, nozzles mounted outside the wafer perimeter spray toward the center of the wafer

#### Stream (Puddle) Dispense

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

#### **DI Water Rinse**

- · Top and backside DI water rinse options available
- Used in conjunction with a pressure can dispense or a houseDI water supply

# DATASTREAM™ TECHNOLOGY: CONNECTING THE SEMICONDUCTOR INDUSTRY

DataStream<sup>™</sup> 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 provides manufacturers with 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 process modules
- · Visual cues on process status & health

# **Advanced Recipe Creation**

- Seamless switching between basic and advanced recipe creation methods
- Plain-English recipe translation
- · Predefined 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

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