Apogee® Bonder

With DataStream™ Technology

Void-free bonding prevents yield loss and protects sensitive substrates. The scalable, semi-automated system delivers consistent results through recipe-driven control of heat and force. Ideal for flexible workflows and repeatable processes.

Cost Effective Equipment

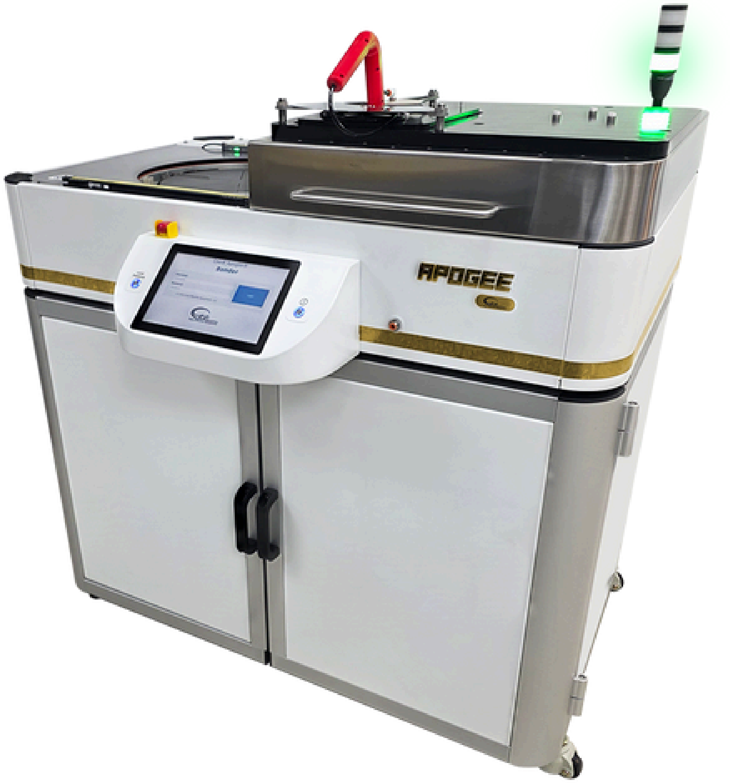
Serving the Semiconductor Industry Since 1987

BENEFITS

- NRTL listed for OSHA and ANSI compliance
- Dual heated, self-leveling platens
- Evacuated bond chamber
- Quick change wafer alignment fixtures
- Enhanced logging with DataStream™ technology
- Compact and self contained

SPECIFICATIONS

- Substrate sizes: 2 inch to 300 mm
- Max temperature: 300°C
- Temperature uniformity: 0.3% across working surface
- Independent platen temperature controls
- Bond force: 550-12,000 N
- Force resolution: 10 N
- Bond chamber evacuation: 0.5 kPa (abs) <90 seconds
- Wafer alignment fixtures are compatible with notches/flats
- Alignment accuracy: ≤0.5 mm (dependent on substrate tolerances)



PROGRAMMABILITY

- Full-color touchscreen graphical user interface (GUI)
- Recipe control of temperatures, force, and time
- Unlimited user-defined program steps for each recipe
- 0.1-second resolution for step times (time:0-9,999.9 s/step)
- Up/download DataStream™ process parameters via native USB and Ethernet ports
- Process logging and traceability for every wafer
- On-line graphical process charts
- Remote process management

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

Total Throughput	Est. 14-20 WPH (process dependent)
Qualified Wafer Materials	SiC, GaN, GaAs, InP, sapphire, silicon,glass, and more...
System Uptime	>99% over a 12-month period
Mean Time To Repair (MTTR)	< 24 hours
Mean Time Between Failures (MTBF; hours, cycles)	>600 hours, 6,000 cycles

CostEffectiveEquipment.com
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UTILITIES

- Bonder Voltage Ranges: 208-230VAC, single phase
- Bonder Full Load Current: 12.4A (max)
- Vacuum Pump Voltage: 100-120 or 208-230VAC
- Vacuum Pump Full Load Current: 10A (max)
- N2/CDA: 1/4" Push to Connect, 50psi (482kPa)
- Additional Vacuum (handling): 1/4" Push to Connect, <20" Hg (33kPa)

DIMENSIONS

- 48.5” (1232mm) W x 42.2” (1072mm) D x 52.8” (1342mm) H
- Machine Weight 500 lb (226.8kg) *excluding accessories*

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 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

Effective Date: 11/06/2025 Rev B