Apogee Bake Plate Accessories

Cost Effective Equipment

Configure your Apogee® Bake Plate for atmosphere control, higher-temperature processing, protective substrate handling, dedicated vacuum, and post-bake cooling. Availability and compatibility depend on the selected model and factory configuration.

Serving the Semiconductor Industry Since 1987

NITROGEN PURGE

Introduce nitrogen or a Cee®-approved inert gas through hood-mounted diffusers to reduce oxygen around heated substrates.

BENEFITS

- Helps limit oxidation in suitable processes
- Distributes gas within the bake chamber
- Simple local ON/OFF control



SPECIFICATIONS

- Factory-installed inner-hood diffusers
- Manual slide valve
- ¼″ barb connection; 6 ft of ¼″ tubing included
- Maximum inlet flow: 10 L/min

UTILITIES REQUIREMENTS

- Clean, dry nitrogen or approved inert gas
- Regulate supply to the limits of the installed configuration

PROCESS CONSIDERATIONS

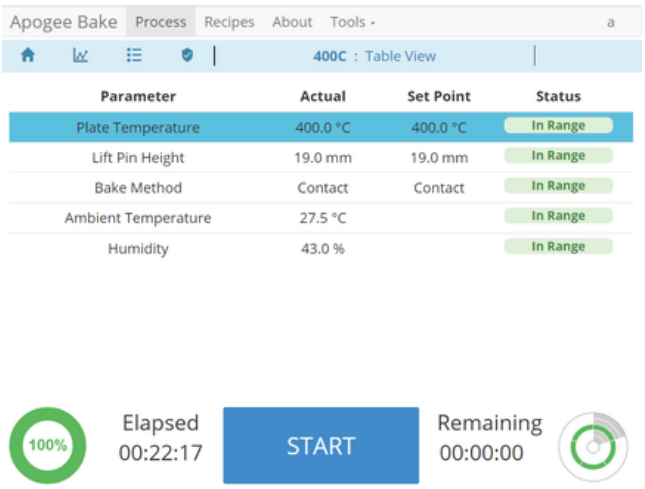
Validate the atmosphere when oxygen concentration is critical. Oxygen level depends on gas purity, flow, hood sealing, and exhaust. Maintain required facility exhaust.

400°C OPTION

Extend the maximum bake plate setpoint from 300°C to 400°C with a factory-configured option for compatible processes.

BENEFITS

- Supports higher-temperature processing
- Works with host temperature controls
- Factory-configured for the selected tool



SPECIFICATIONS

- Maximum configured setpoint: 400°C
- Recipes and permitted manual controls on equipped models
- Cool Touch Hood reduces heat transfer to accessible surfaces
- No added utility connections beyond the correctly rated host bake plate

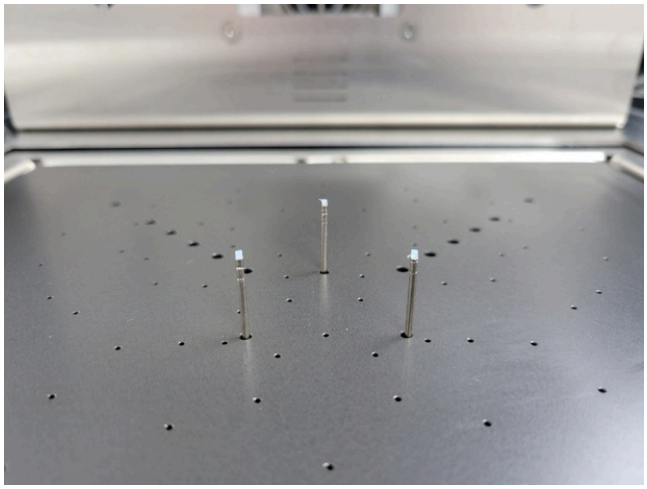
All process materials and components must be rated for the selected temperature. PTFE and Vespel® lift-pin tips are not suitable for 400°C; use an approved high-temperature lift-pin configuration.

PLASTIC-TIPPED LIFT PINS

Add a protective substrate-contact interface to help reduce scratching during wafer loading, lifting, and unloading.

BENEFITS

- Helps protect substrate contact surfaces
- Two materials for different temperature needs
- Supplied with the configured equipment



SPECIFICATIONS

- PTFE (Teflon™): up to 200°C
- Vespel® polyimide: up to 300°C
- Suitability depends on tip grade, load, exposure time, and configuration
- No additional facility utilities

TEMPERATURE COMPATIBILITY

Neither plastic tip material is suitable for 400°C processing. Confirm an approved lift-pin configuration for higher-temperature processes.

VACUUM PUMP

Provide a dedicated, oil-free vacuum source for one bake plate configured with vacuum hold-down.

BENEFITS



- Dedicated vacuum supply
- Oil-free diaphragm design
- Thermal overheat protection

SPECIFICATIONS

- Rated vacuum: 20–25 inHg
- Free-air flow: up to 20 L/min
- Noise: approximately 50 dB(A)
- PTFE-coated diaphragm and pump head; FKM valves
- 6 ft of ¼″ vacuum tubing included
- Local ON/OFF rocker switch

UTILITIES REQUIREMENTS

- 110 VAC, 0.7 A max; or 220 VAC, 0.3 A max
- Match the electrical supply to the pump label

DIMENSIONS

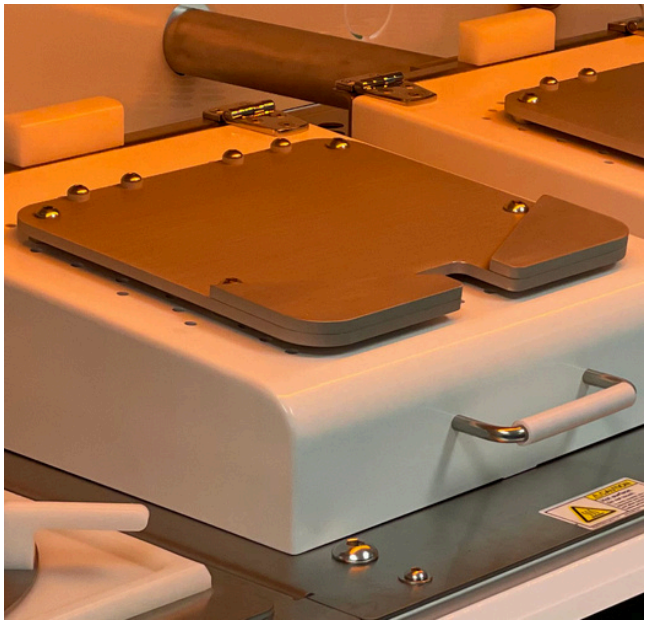
5.5″ W × 9″ D × 8″ H (140 × 229 × 203 mm)
Allow at least 3″ (76 mm) clearance on all sides.

HOOD-MOUNTED PASSIVE CHILL

Cool one substrate on an exterior hood-mounted station while minimizing additional bench-space requirements.

BENEFITS

- Space-saving hood-mounted design
- Access notch for tweezers or a vacuum wand
- Passive cooling without added utilities



SPECIFICATIONS

- Capacity: one substrate
- Factory-installed on the hood
- Angled surface with front stops
- No active refrigeration
- Substrate compatibility follows the host bake plate and installed station

UTILITIES REQUIREMENTS

- No additional facility utilities required.

PROCESS CONSIDERATIONS

Cooling time varies with the substrate, starting temperature, contact, airflow, and target temperature. Remove the substrate before opening the hood.

PASSIVE CHILL STATIONS

Add freestanding benchtop cooling with a choice of five substrate tiers.

BENEFITS

- five-substrate capacity
- Access notches for tweezers or a vacuum wand
- Adjustable feet for a stable setup



SPECIFICATIONS

- five tiers
- Nominal wafer diameter: up to 300 mm
- Verify substrate geometry and configuration
- Four adjustable threaded feet
- No active refrigeration

DIMENSIONS

Five tiers: 14″ W × 14″ D × 16″ H
(356 × 356 × 407 mm)

Cooling time depends on substrate and ambient conditions. Verify the temperature required by the next process step.

LIGHT TREE

See equipment status at a glance with a three-color LED indicator integrated with DataStream™.

BENEFITS

- Green: process running; flashing green: operator input needed
- Yellow: equipment idle; red: error or fault



SPECIFICATIONS

- 24 VDC supplied by equipment; keyed M12 connector
- Approx. 3 ft (0.9 m) attached cable
- LED light tree and mounting bracket included