



TORREY HILLS
TECHNOLOGIES, LLC

Designed for Solution
Engineered to Last



HSA CONTROLLED ATMOSPHERE

Applications

- FEC (fully enclosed coil) heated furnace equipped with controlled atmosphere system can accomplish sealing, metalizing, brazing, oxidizing, and annealing in protected atmosphere for chip bonding, electronic packaging, HTCC, DBC, VFD, PDP, heat exchanger ... and so on.

Highlights

- 1150°C Maximum Temperature Rating
- Air/Nitrogen/Hydrogen Capable
- Gas Tight Muffle
- Independent Over-Temperature Control in Each Zone
- $\pm 2^{\circ}\text{C}$ Cross Belt Uniformity
- Active Water Cooling
- Free Shipping and Delivery
- Custom Voltage Configurations
- Type K Thermocouple Standard
- Belt Speed Control

■ Fast Thermal Response

The HSA series controlled atmosphere furnace is designed for the heat treatment of materials in protective atmosphere. It features an ultra-clean low-mass refractory heating chamber equipped with ceramic fiber FEC (Fully Enclosed Coil) heating board. Each atmosphere pipeline is separately controlled to ensure easy adjustment of gas inflow into the high-temperature and cooling zones. The gas inlets use T-type three-way valve. The minimum of 1ppm oxygen content can be tested.

■ Uniform and Stable Temperature Control

The furnace is monitored by type "K" thermocouples in the center of each heated zone. Each temperature zone is controlled by its own SHIMADAN SR94 single loop intelligent temperature controller with full auto-tuning PID. The single wave, zero trigger method enables precise and stable temperature control, avoiding damages to the peripheral equipment and prolonging the life of controlling devices at the same time.

■ Conveyor system

The furnace belt is balanced spiral Nichrome V mesh. Belt speed is programmable in IPM with readout on the monitor. Stepless speed regulation is controlled by FUJI frequency converter and is digitally displayed. Deviation from set point alarm is also programmable.

■ Exhaust System

Furnace is equipped with entrance/exit curtains and exhauster to improve drying/firing temperature stability and to keep firing chamber clean. Air powered Venturi exhauster supports full chamber width exhausting. There are removable condensate collection traps and exhaust flow is adjusted by flow meter.

■ Technical Support

With our experienced staff ministering custom voltage configuration, professional on-site installation, start-up support, spare part supply, warranty repairs, assistance and consultation, our focus is on maintaining incomparable client care and reliable technical support.

■ Standard Configuration

Model	HSA3506-0611ZNH Brazing Furnace	HSA10005-1607ZN Glass to Metal Seal
Atmosphere	Nitrogen or Hydrogen	Nitrogen or Hydrogen
Conveyor Width	14 in (35cm)	39 in (100cm)
Heated Length	130 in (330cm)	283 in (720cm)
Heated Zones	6	16
Conveyor Speed	1 - 8 IPM	2 - 13 IPM
Cooling Length	210 in (535cm)	87 in (220cm)
Overall System Height	53 in (135cm)	53 in (135cm)
Overall System Width	47 in (120cm)	71 in (180cm)
Overall System Length	35 ft (1057cm)	43 ft (1313cm)

■ Options

Heat/gas barriers to isolate gases
Eductors for heating or cooling
Venturi controlled exhaust stacks
Atmosphere analyzer and sample systems
Gas saturators for dew point control
±1°C PID control precision
Water cooling control and alarms
Ultrasonic belt cleaners
UPS

■ Company Headquarters

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