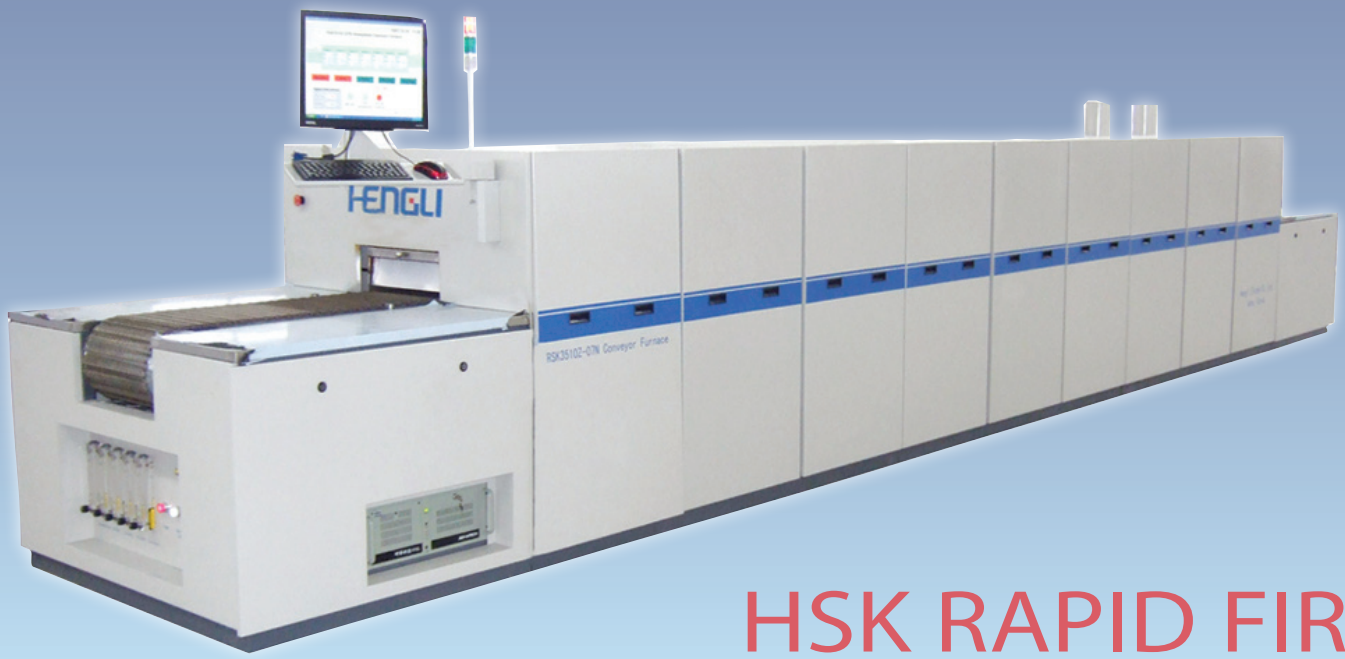
TORREY HILLS TECHNOLOGIES, LLC

Designed for Solution Engineered to Last



HSK RAPID FIRE

Applications

- Microelectronics packaging -- IC, SMT, HIC, MCM, MEMS
- Thick film
- Electronic components
- Photovoltaic cells
- Ceramics processing
- Metals processing

Highlights

- 1050°C Maximum Temperature Rating
- DSC Furnace Control Software
- Belt Speed Control
- Type K Thermocouple Standard
- Independent Over-Temperature Control in Each Zone
- ±2°C Cross Belt Uniformity
- ±1°C PID Control Precision
- Active Cooling
- FEC (Fully Enclosed Coil) Heaters Formed into Ceramic Insulation Panels
- Custom Voltage Configurations
- Free Shipping and Delivery

Fast Thermal Response

The HSK series fast fire furnace heats from ambient to 1050ºC in approximately 40 minutes and is designed to sustain continuous on/off heating and cooling cycles resulting form alternating periods of production and non-use. It features an ultra-clean low-mass refractory heating chamber equipped with FEC (Fully Enclosed Coil) heaters formed into ceramic insulation panels. With the use of advanced insulation materials, lower thermal capacity enables the furnace to warm up and cool down very quickly and lose less heat to the environment.

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 to achieve independent over temperature control in each zone. 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. The 200mm (8") diameter 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, warranty repairs, assistance and consultation, our focus is on maintaining incomparable client care and reliable technical support.

Standard Configuration

Model	HSK2505-0611	HSK3505-0711	HSK6305-0711
Atmosphere	Air	Air	Air
Rate Temperature	1050 ºC	1050 ºC	1050 ºC
Belt Width	250mm/10"	350mm/14"	635mm/25"
Tunnel Height	50mm/2"	50mm/2"	50mm/2"
Heating Length	2160mm/85"	3220mm/127"	3220mm/127"
Cooling Length	1200mm/47"	1200mm/47"	1200mm/47"
Control Zones	6	7	7
Conveyor Speed	40-200mm(2"-8")/min	40-200mm(2"-8")/min	40-200mm(2"-8")/min
Overall System Width	1040mm/41"	1100mm/43"	1400mm/55"
Overall System Length	5800mm/228"	7000mm/276"	7000mm/276"
Overall System Height	1350mm/53"	1350mm/53"	1350mm/53"
Typical Temp. Uniformity	+/- 2 ºC	+/-2 ºC	+/-3 ºC

Options

Air drying
Nitrogen atmosphere
480 volt operation
Atmosphere analyzer and sample systems
Gas saturators for dew point control
Water cooling
Ultrasonic belt cleaners
UPS

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