



TORREY HILLS  
TECHNOLOGIES, LLC

Designed for Solution  
Engineered to Last



IR INTEGRATED  
HSH AND HSG

## Applications

- This type of furnace is widely used in solar cell contact drying, firing and metallization

## Highlights

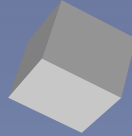
- Customized Belt Size and Clearance
- Type K Thermocouple Standard
- DSC Furnace Control Software
- Independent Over-Temperature Control in Each Zone
- $\pm 2^{\circ}\text{C}$  Cross Belt Uniformity
- Active Water Cooling
- Free Shipping and Delivery
- Custom Voltage Configurations
- Custom Temperature Profiling
- Belt Speed Control

## ■ Fast Thermal Response

With infrared lamp heating element, and power distributing, special cooling plus stable driving design, the IR integrated drying and firing series furnace can work up to 6000 mm per minute for contact pastes firing, which increases the machine turnover capacity significantly. Specially designed heating layout and atmosphere system and chamber structure works ultra effectively for P.V. product manufacturing.

## ■ 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

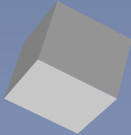
The furnace belt is balanced spiral Nichrome V mesh. Belt speed is programmable in IPM with readout on the monitor. Stepless speed regulation is controlled by FUJI frequency converter and is digitally displayed. Deviation from set point alarm is also programmable.

## ■ 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

Standard Configuration	HSG & HSH 3803
Conveyor Clearance	1.2 in (3 cm)
Belt Width	15 in (38 cm)
Conveyor Speed	28-140 IPM
Loading Station	24 in (60 cm)
Unloading Station	20 in (50 cm)
Dryer Heated Length	47 in (120 cm)
Dryer Heated Zones	4
Transition Platform Length	20 in (50 cm)
Furnace Heated Length	106 in (270 cm)
Furnace Heated Zones	6
Heat Up Time	15 min
Maximum Temperature	1000°C
Water and Air Cooling	80 in (203 cm)
Atmosphere, Clean Dry Air	30 m3/hr
Venturi Exhaust	6
Electrical	208-480 VAC 3 Phase 50/60Hz (4 wire or 5 wire)
Power (Peak, Typical)	56 kW, 23 kW
Overall System Length	311 in (7.9 m)
Overall System Width	44 in (110 cm)
Overall System Height	53 in (135 cm)

## ■ Options

CE Compliance
Atmosphere analyzer
Water cooling
Ultrasonic belt cleaners
UPS

## ■ Company Headquarters

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