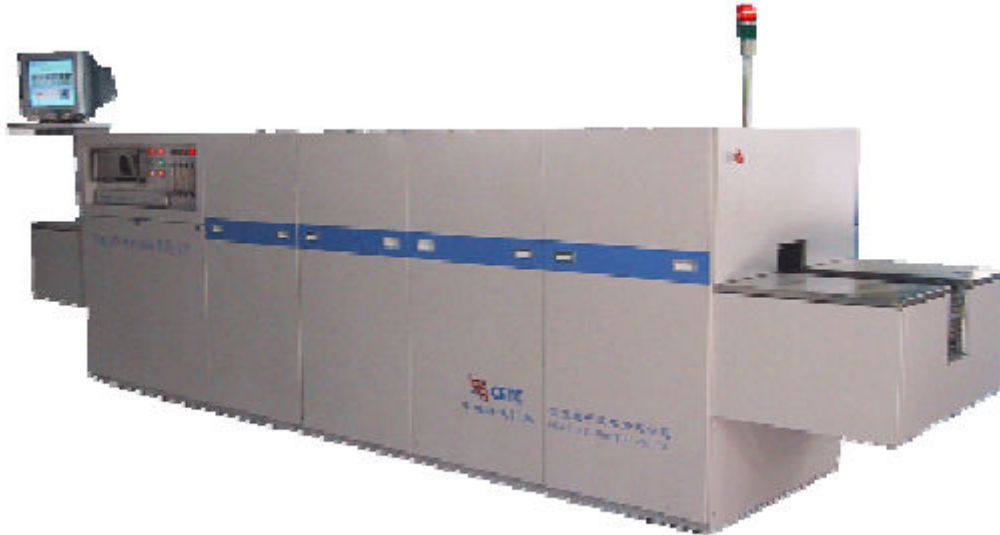


Technical Specification for Model RSK2506 Conveyor Furnace



MAIN CHARACTERISTICS

| Specification | RSK2506 | RSK3507 | RSK6357 |
|--------------------------|--|--|--|
| Rate Temperature | 1050 deg. c | 1050 deg. c | 1050 deg. c |
| 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 deg. c | +/-2 deg. c | +/-3 deg. c |
| Net Weight | 1000kg | 1600kg | 2000kg |
| Power | 240V, 3 phase, 60HZ, 5 wire, 36KVA | 240V, 3 phase, 60HZ, 5 wire, 42KVA | 240V, 3 phase, 60HZ, 5 wire, 56KVA |
| Spare Part | 1 set heating board, 1 solid relay, 2 relays, 2 switches | 1 set heating board, 1 solid relay, 2 relays, 2 switches | 1 set heating board, 1 solid relay, 2 relays, 2 switches |

The quoted unit features 85" of heated length comprised of 6 independently controlled heat zones. The process chamber in this model is able to maintain a gas tight atmosphere. Process materials are carried through the furnace on a 10 inches' wide belt with 2.00 inches of product clearance over the belt. Each



furnace zone is monitored and controlled using a type "K" thermocouple in the center of each heated zone.

ADVANTAGES

Rated to 1,050°C, the RSK Series rapid firing furnace features an ultra-clean low-mass refractory heating chamber. The RSK model heats from ambient to 1,050 °C in approximately 40 minutes, and is designed to sustain continuous on/off heating and cooling cycles resulting from alternating periods of production and non-use. RSK Series is an energy efficient precision thermal processing system that provides unequaled performance by way of:

1. 6 channel temperature profiler unit for independent temperature profiling. It includes 3 T.C., sampling unit and analyses software, LCD data display and check, RS232 interface to computer. (This is an option. Extra cost applies.)
2. Atmosphere distribution and management system eliminate thermal shock and process contamination.
3. Ultrasonic belt cleaning system including drying system. (This is an option, extra cost applies)
4. Windows XP DSC based profiling and monitoring system for monitoring, recording the firing process, including temperature and speed.
5. UPS for the computer system and conveyor drive for power failure.
6. Extraction of burn-off effluents across entire chamber width improves yields.
7. Stable, special temperature uniformity control ensures consistent "firing" results.

CONVEYOR SYSTEM

1. Belt material Nichrome V mesh
2. Belt Mesh: Balanced Spiral
3. Belt Speed: 12"/min. Belt speed is programmable in IPM with readout on the PC. Deviation from set point alarm is programmable. Range of speeds specified refers to adjustability of belt speed only, and does not imply compliance with load and temperature requirements over the range of belt speed adjustability. An alarm will alert stoppage of conveyor belt.
4. Speed Control: variable frequency motor controller, digital displayed.

PERFORMANCE SPECIFICATIONS

1. Maximum Temperature Rating: 1,050° C
2. Normal Operating Temperature: 200-900° C
3. Cross-Belt Temperature Uniformity: ± 2°C typical at high temp zones
4. Protections: over temperature, low gas pressure and over load.
5. Cooling Modules: Water cooling is standard method for the graduated cooling module. Uses facility water at 20LPM/2-4 BAR.
6. Clearance above Conveyor Belt: 50mm (2 in.)
7. Belt width: 350mm (14 in)
8. Belt Speed Range: 30-230 mm per minute (1.2" - 9" /min)
9. Drive System: variable frequency control, digital speed display.
10. Exhaust System:
 - a. Furnace is equipped with entrance/exit curtains, exhauster etc to improve drying/firing temperature.
 - b. Stability and to keep firing chamber clean.



- c. There are two sets of 200mm (8") diameter air powered Venturi exhausters. Full chamber width
- d. Exhausting. Removable condensate collection trap. Exhaust flow adjust by flow meter.
- e. c. Entrance and exit curtains / baffles are employed to minimize the ambient air flow influence.
- f. Entrance and exit curtain flow rates are adjustable by flow meters.

TEMPERATURE CONTROLS

1. Microprocessor controls furnace.
2. Zones 1-6 are controlled with 6 single loop intelligent temperature controllers. The controller is a high performance, single ASIC with full auto-tuning PID.
3. Each furnace zone is monitored and controlled using a type "K" thermocouple in the center of each heated zone.

OVERTEMPERATURE PROTECTION

The furnace is equipped with a redundant overheat safety protection system which incorporates an additional type "K" thermocouple in the center of each controlled zone and a multi-loop alarm.

ELECTRICAL SPECIFICATION

1. Connected Load is 36KW
2. Operating from 220V, 3 phase power transformer, with 3-wire 50-60 Hz

UPS

1. UPS is available as an option.
2. Emergency off buttons are located at each end of furnace connected to 24V emergency off circuit.

PHYSICAL CHARACTERISTICS

1. Off-white color.
2. Approximate weight is 2,000kg.

MANUALS

Instruction, operations, and maintenance manuals are included.