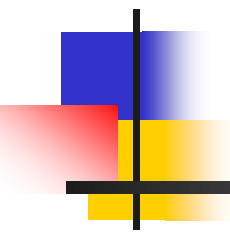


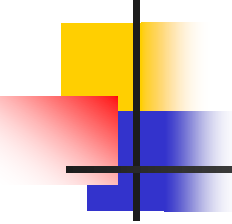


Kince
Automation



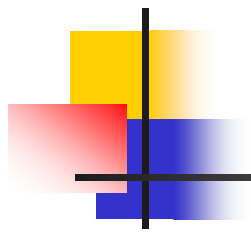
KINCE WORLDWIDE CO., LTD.

Reflow Ultra Pro proposal



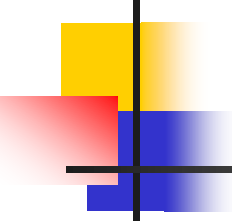
目 录

- STANDARD SPECIFICATIO& FUNCTION
- SPECIAL FEATURE FOR LEAD FREE CSP、BGA、0201 ETC.
- 6 SIGMA CPK INDEX FOR Ultra EP SERIES REFLOW
- POWER CONSUMPTION REPORT
- 72 HOURS BURN IN TESTING REPORT
- CUSTOMER TESTING REPORT
 - LEAD SOLDER
 - LEAD FREE SOLDER
- MATERIAL LIST
- CUSTOMER REFERENCE



一、 **STANDARD SPECIFICATION& FUNCTION**



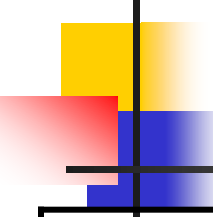


Ultra Pro-8 Pro-10 Reflow

Model Name	KINCE KWA-1225 Ultra Pro-8 Pro-10
Items	Specifications & Features

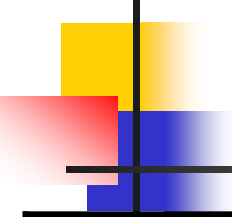
A、PCB Requirement

Board Width	Rail Chain: Single Conveyor W=50~450mm Dual Conveyor W=50~210mm
PCB Component Height	Top Side<30mm Bottom Side<30mm
Board Width Tolerance	$\pm 0.2\text{mm}$



KWA-1225-Ultra Pro 8 / 10 Lead Free Nitrogen Reflow

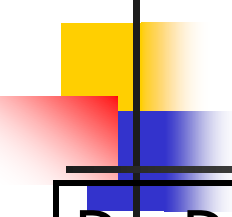
B、Heat Up	
Heating Zones (Up/Down)	Top 8 Bot 8 or Top 10 Bot 10
Cooling Zones	2+1 Cooling Zones, PCB Outlet Temp $\leq$ 65 $^{\circ}$ C
Time To Steady	Room Temp to Setpoint Value: $\leq$ 20min
Time To Change Profile	<15min Temp Difference <100 $^{\circ}$ C
Temperature setting Accuracy	0.1 $^{\circ}$ C
Heating Zones Length (Total)	8 zone 2280mm , 10 zone 2800mm
Board Temperature Deviation (Horz) →	$\pm$ 2 $^{\circ}$ C
Individual Zone Shutdown	ALL Heating Zones Can Be Individually Controlled On/Off By Computer



KWA-1225-Ultra Pro 8 / 10 Lead Free Nitrogen Reflow

C、 Heating Portions

Blower Motor	Imported Brand Known Motor In High Rotation Of 2680RPM (Heat circulation flow rate 70 CMM)
Heating Element	Wire Type Heating Rods
Flow Duct	Independent Fresh Air Supply And Flux Fume Exhaust, Maintained High Hot Air Flow
Exhaust	Powerful Exhaust, External Temp <40℃, Flux Fume Removed By Filtration System
Service Commitment	Operation & Maintenance Training Provided In Free, Software Upgradeable.



KWA-1225-Ultra Pro 8 / 10 Lead Free Nitrogen Reflow

D、Driving Mechanism

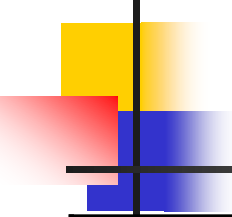
High Deform Resistance Track	High Temperature Resistance Aluminum Alloy Track
Parallelism	$\pm 0.3\text{mm}$, Teethed Bar Driving Mechanism
Conveyor Speed	Min 0.1m/min, 0.1-2m/min
Conveyor Speed Deviation	P.I.D Closed Loop Controlled $\pm 1\%$
Conveyor Brand Motor	90W Panasonic Motor
Chain oiler	Computer Controlled, Manual/Auto Selectable, Programmable Lubrication Schedule
Single/Dual Conveyor	Single /Dual Selectable, Width Adjust Independently
Mesh Belt Available	650mm High Purity Stainless Steel Mesh Belt, Same Speed With Rail Chain Conveyor
Rail Chain Tension	Tensioner



KWA-1225- Pro 8 / 10 Lead Free Nitrogen Reflow M/C

E、Body Structure

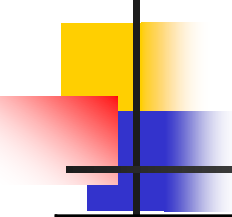
Body Frame Structure	Steel Frame, Screw Locked Casing, Convenient For Access And High Reliability。
Electric Console Covers	Removable With Convenient Access
Main Hood	Electric Actuator
Hood Opening	Capable To Lift Up
Center Rail Support	Pre-caution For PCB warpage, Same Speed With Chain Conveyor
Machine Dimension	4840mm x 1440mm x 1500mm (8 zone) 5440mm x 1440mm x 1500mm (10 zone)
Weight	2230kg (8 zone) 2380kg(10 zone)



KWA-1225- Pro 8 / 10 Lead Free Nitrogen Reflow M/C

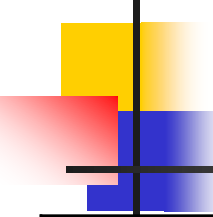
F、 Electronic Components

Computer	Industrial Computer
Operation Platform	Windows XP:, English & Chinese Selectable
Circuit Protection	Power Leakage Protector
Temperature Process Value Alert	Programmable Temperature Abnormal Alert
Thermal Couples & Protection	Built-In
Chain oiler	Programmable Oiler System
Operation Mode	3 Different Mode: Operation、 Edit、 Demonstration



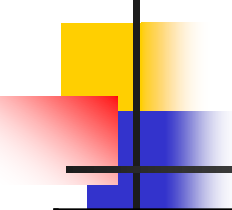
KWA-1225-Ultra EP Lead Free Nitrogen Reflow M/C

Real Time Log Data	Real Time Record All Process Fault & Alarm, Print-out Availability
Machine Status Log Data	Log Down All Process Value, Convenient For Analysis
Profiling Analysis	Built-in Profiling System, Analysis Of Temperature Curve Feature
SPC Data	Generation Of Product Report
Alarm Log File	Log Data For All Process Alarm
Abnormal Status Cooling	Emergency Shutdown, Cool Down To Below 100°C & Shutdown The System



KWA-1225-Ultra EP Lead Free Nitrogen Reflow M/C

Profiling System	3 Channels
Fault Alarm	PCB jammed , TC Communication Error, Blower Motors & Conveyor Abnormal Rotation, Power Failure, Over-Temp Shutdown, UPS Supply Power To Conveyor Until Board Comes Out
G、 Cooling System	
Cooling Method	Industrial Cooling Machine (Option)
Compressor	1.5kw
Flow Rate	2.5m ³ /min
Cooling Vane Diameter	Φ12mm
Cooling Zone Temperature	10~-20℃ Adjustable, Outlet Temp 2.3℃/s max:5℃/S
Cooling Machine Dimension	740mmx430mmx985



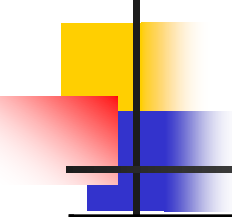
KWA-1225- Pro 8 / 10 Lead Free Nitrogen Reflow M/C

H、 Power Consumption

Power Requirement	3 Phase 380V,50Hz
Consumption	Start-up 8 zone 39kw, Steady 8.5kw , 10 zone 45kw , Steady 10.5kw With Intelligent Power Reduction Controls

I、 Nitrogen System (Option)

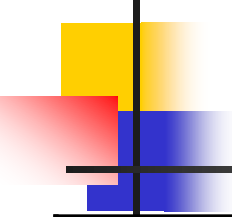
Remote Control	Remote Control Available
Nitrogen Consumption	N2 Consumption 20m3/h, 500~800PPM Oxygen Level; 30m3/h, 300~500PPM Oxygen Level
Flux Filtration System	Option



KWA-1225- Pro 8 / 10 Lead Free Nitrogen Reflow M/C

J、 Service Commitments

Warranty Period	1 Year Warranty。 3 Years Warranty For Heating Elements, 3 Years For Blower Motors, 3 Years Free Software Upgrade。
Service Charges After Expiration	Based On Parts Costing
Service Response Time	Life Time Service, Immediate Response After Service Call Received

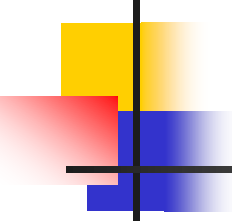


KWA-1225-Ultra Pro 8 / 10 Lead Free Nitrogen Reflow

K、Others

Users Reference

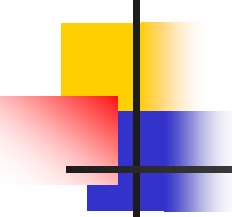
Local Company; Shanghai National、SuZhou Fuji、Shanghai Ying Gui、SuZhou Chuang Jia、AnHui (Dongguan) Konka、Shenzhen Silver、Golden Bull、Chang Feng、Cai Xiang、Ke De & etc...Overseas: Singapore、Thailand、Malaysia, India & etc....



二、Ultra Ultra Pro series

SPECIAL FEATURE FOR LEAD FREE CSP、BGA、0201 ETC.



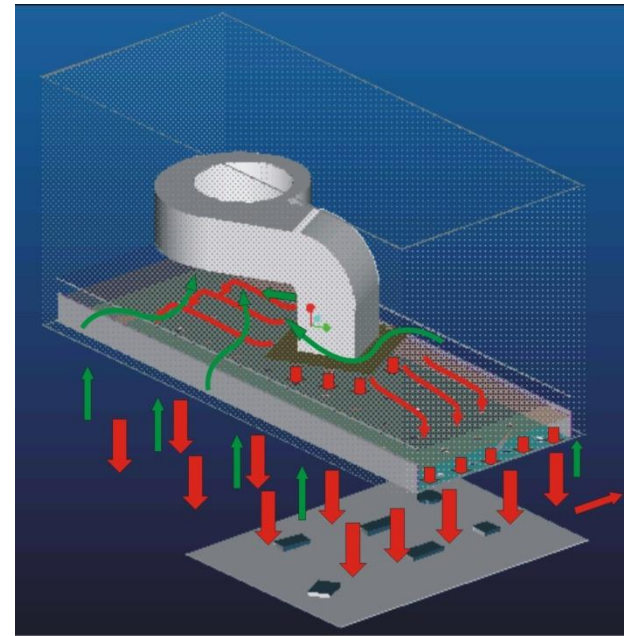


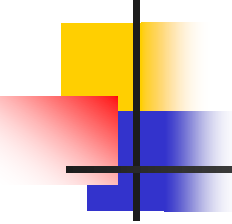
Fulfill Lead Free Requirement

Ultra Pro Series

CTC circulation

Special designed Hot Air blowers with flow duct, direct all the air flow towards PCB in 90° , maintain high air flow in up to 90CFM, increase heat conductivity to board, eliminate the disadvantage of only using impeller in which some of the hot air trapped horizontally before outlet of multi-holes panel.





Fulfill Lead Free Requirement

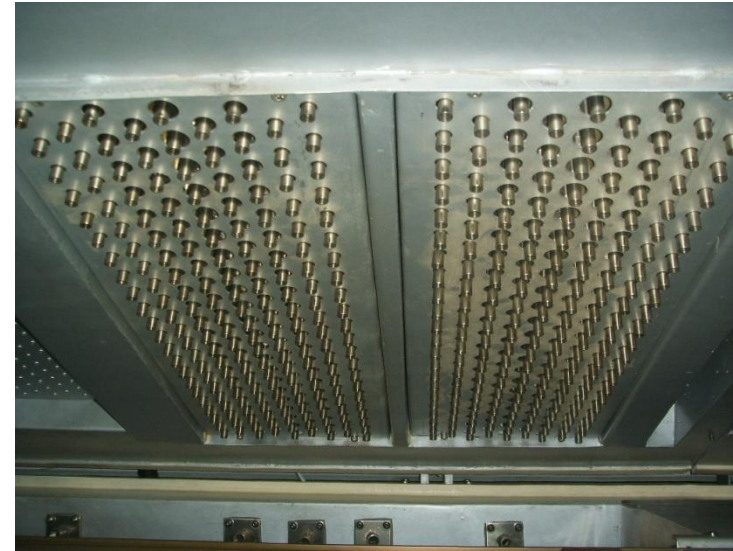
**Ultra Pro series
Only**

MAJ Circulation

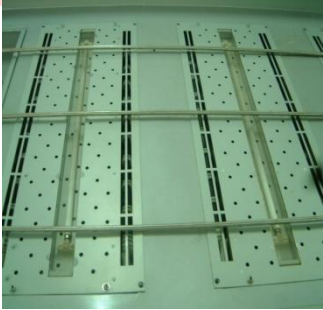
**Multi air jet use a small
area circulation but higher
flow rate method in
reflow zone**

Low temp. deviation

High heat transfer effect



Infra-Red compensation (Option)



图A

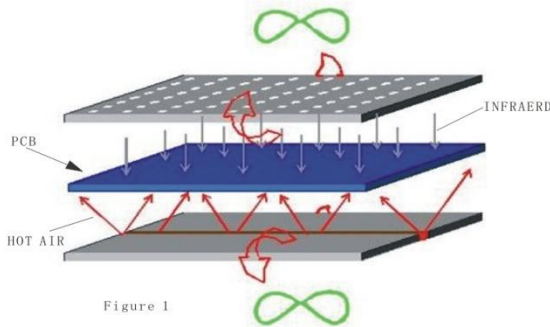


Figure 1

图B

2) 、 Infrared & Hot air combined bottom Reflow zones, more efficiently heat up large heat gain components such as BGA & CSP from bottom side by heat conduction.e.g: Figure 1 shows the actual condition.Figure 2, D means the solder paste fully melted, A represent using Hot air heating up solder paste from top side, B represent using hot air in bottom side transmitting heat through PCB, if combined with Infrared, heat transmission can be faster such like C, it can be more efficient to reduce Tomb-stoning

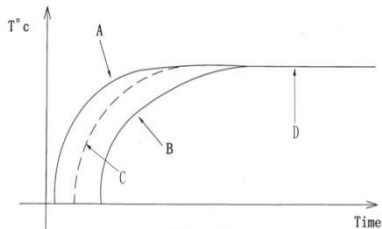


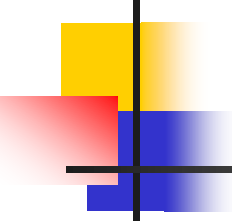
Figure 2

图C

Auto-Width Partition

Auto-Width Partition is one of Kince's patent design which are auto-width with the moving rail at the same time.





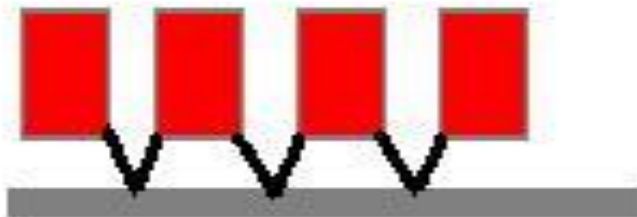
Auto-Width Partition

- Reduce the inter influence
- High temp Independence
- Prevent Heat-leakage to keep less power consumption

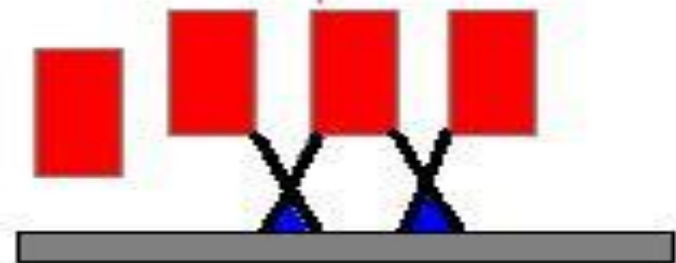
Mutual compensation system

- a. Reduce Dead Zone effect for Optimal the profile.
- b. Mutual compensation system being install in dead zone (location between heating zones), enhance in offering a smooth ramp up gradient referred to temperature profile.

Mutual compensation system



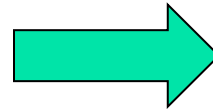
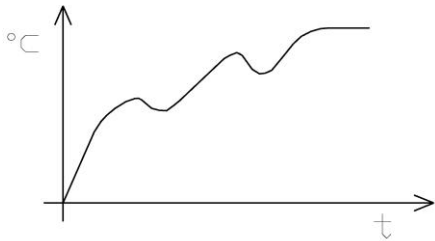
old conversion type



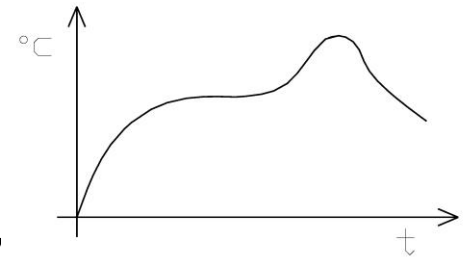
Kince over-lap conversion type

Mutual compensation system

- a) Reduce Dead Zone effect

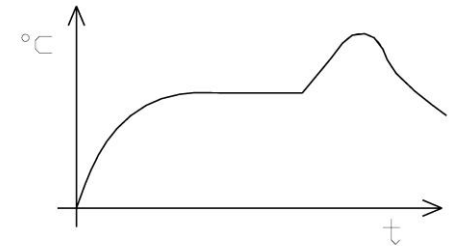
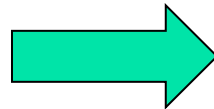


Double over-lap theory



Air or N2 Supply System

a) RESIST INTER TEMPERTURE INFLUENCE



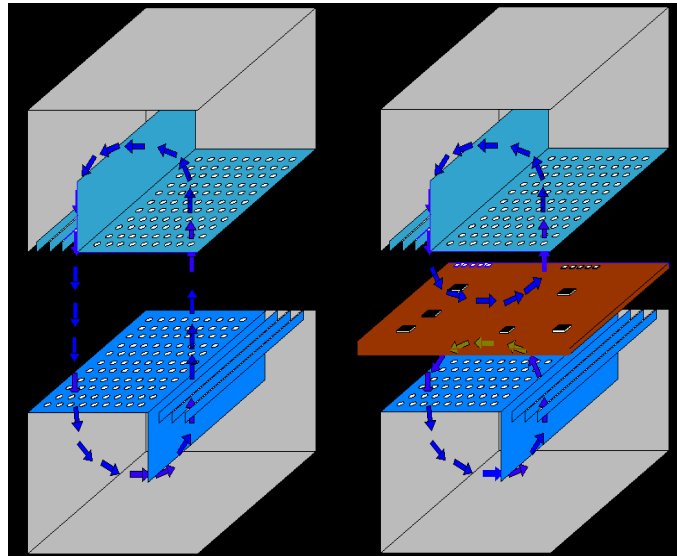
b) Enhance in offering a smooth ramp up gradient referred to temperature profile

Fulfill Lead Free Requirement (Option)



- 4) 、 Industrial cooling machine with dehydration feature, it is not required to install heat exchanger inside cooling zone, no condensed water drop and eliminate the disadvantage of flux condensed on surface of exchanger, which lower down cooling efficiency. Highly reduced possibility of re-oxidation. Outlet temp in between $2^{\circ}\sim 10^{\circ}\text{C}$, which offer cooling gradient in $4^{\circ}\sim 6^{\circ}\text{C}$, solution for Fillet Lifting & Lead Pockets.

Fulfill Lead Free Requirement

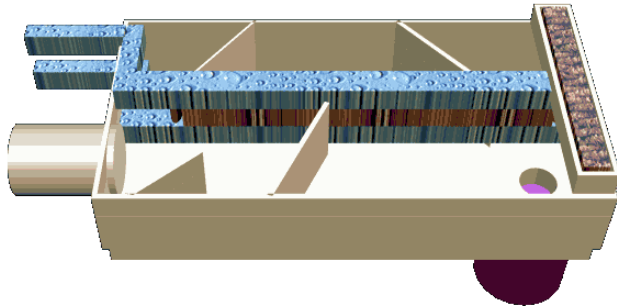


Big
circulation
diagram

Small
circulation
diagram

- 5) 、 Double sided cooling zone, using industrial cooling machine, it is not required to install heat exchanger inside cooling zone, highly efficient to avoid solder joint cracked caused by Board wrappage.

Fulfill Lead Free Requirement(option)



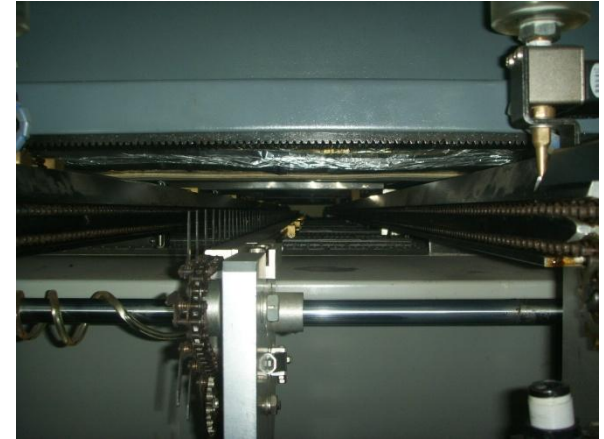
Flux filtration unit
can be more
efficient than using
air cooling type,
fulfill requirement of
ISO 14000

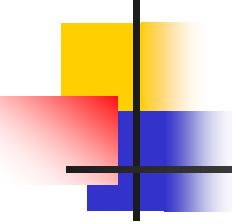


Chiller Cooling Type
(option)

CBS Central Broad Support (option)

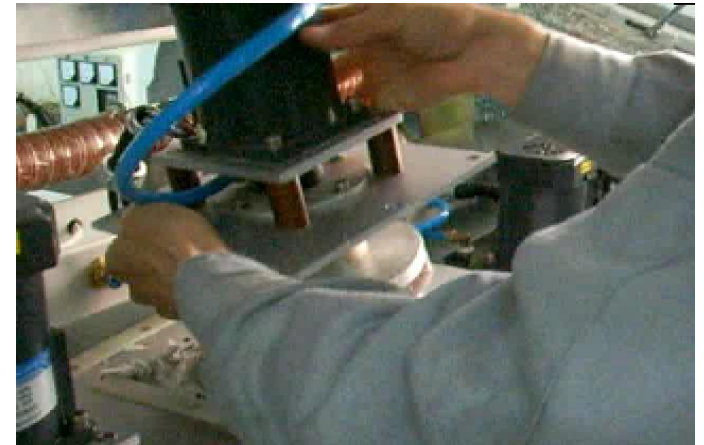
- **cylinder control
finger up down**
- **Easy to use**
- **Easy to maintain**
- **Auto-lub.**
- **Deviation $\pm 1\text{mm}$**



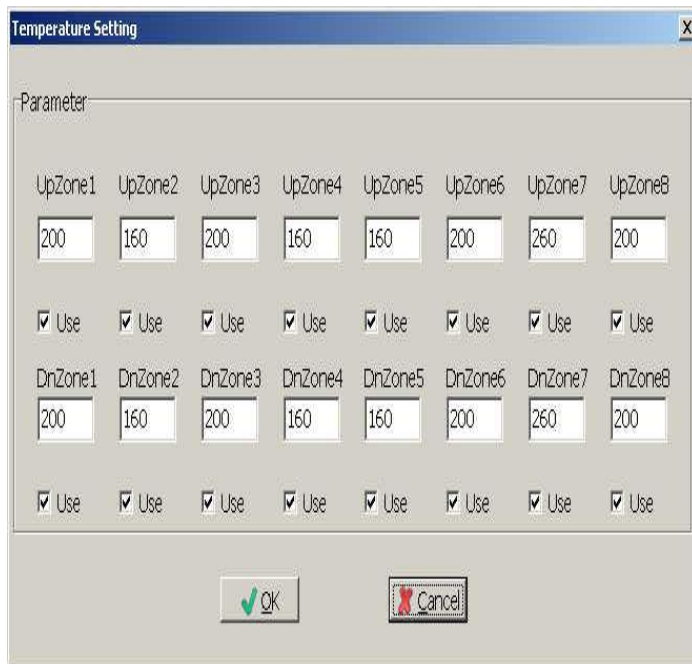
A decorative graphic consisting of overlapping yellow, red, and blue squares with a black crosshair.

Easy Maintains

Kinco design the main parts ,
eg. The heater and motor
Maintain time less than 15 mins.



Intellect power start up and cool down sequence

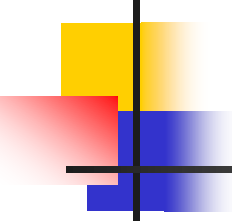


The image shows a 'Temperature Setting' dialog box with a title bar and a close button. It contains two sections: 'UpZone' and 'DnZone', each with eight columns and a 'Use' checkbox. The 'UpZone' section has values: UpZone1 (200), UpZone2 (160), UpZone3 (200), UpZone4 (160), UpZone5 (160), UpZone6 (200), UpZone7 (260), UpZone8 (200). The 'DnZone' section has values: DnZone1 (200), DnZone2 (160), DnZone3 (200), DnZone4 (160), DnZone5 (160), DnZone6 (200), DnZone7 (260), DnZone8 (200). All 'Use' checkboxes are checked. At the bottom are 'OK' and 'Cancel' buttons.

UpZone1	UpZone2	UpZone3	UpZone4	UpZone5	UpZone6	UpZone7	UpZone8
200	160	200	160	160	200	260	200
☒ Use	☒ Use	☒ Use	☒ Use	☒ Use	☒ Use	☒ Use	☒ Use

DnZone1	DnZone2	DnZone3	DnZone4	DnZone5	DnZone6	DnZone7	DnZone8
200	160	200	160	160	200	260	200
☒ Use	☒ Use	☒ Use	☒ Use	☒ Use	☒ Use	☒ Use	☒ Use

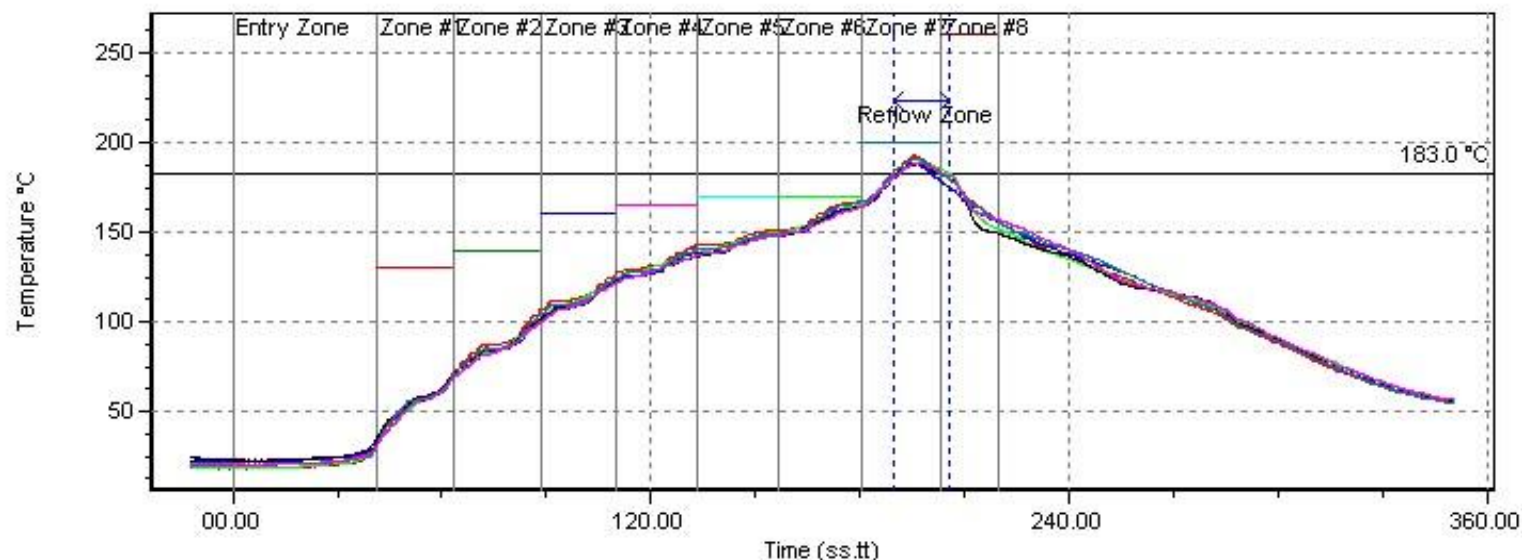
- 7) 、 Intelligent power reduction system, when not in production for a short period of time, zone temperature will maintain in 150°C and air flow to 30% efficiency, if required to fall in production again, temperature and air flow will back to setpoint within 10 min.



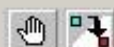
三、Report on 6-sigma and CPK value



File Edit View Tools Help



- #1
- #2
- #3
- #4
- #5
- #6



Line Speed

92.6

Probe	Reflow Zone		
	Rise Time 100.0 - 183.0° C (ss.tt)	Time Above Liquidus (ss.tt)	Peak Temperature (° C)
#1	104.40	14.00 ↑	192.5
#2	103.60	14.60 ↑	189.0
#3	104.20	09.20 ↑	188.5
#4	103.60	12.20	188.0

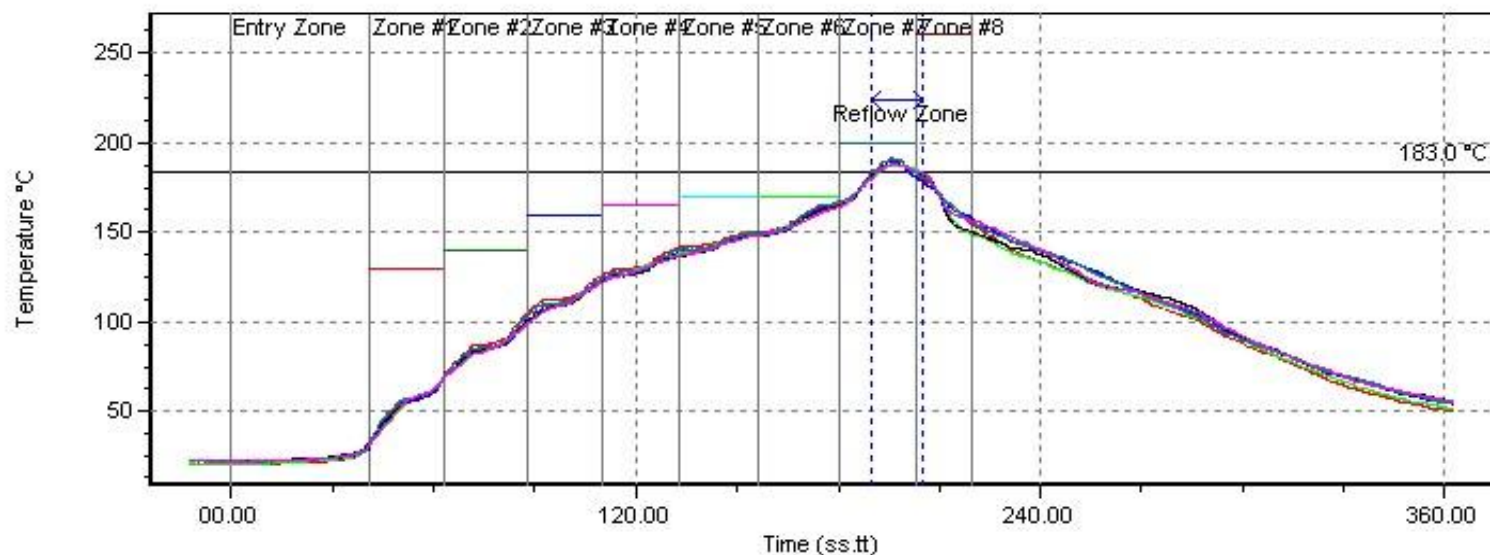
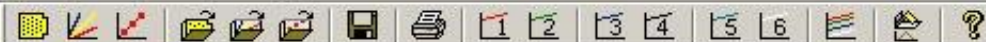
老化测试时间: 2005 年 2 月 20 日 9 点整
采用 DATAPAQ 公司提供的 SURVEYOR 测试



For Help, press F1

NUM

File Edit View Tools Help



Line Speed

92.6

Probe	Reflow Zone		
	Rise Time 100.0 - 183.0° C (ss.tt)	Time Above Liquidus (ss.tt)	Peak Temperature (° C)
#1	104.40	13.40	191.0
#2	103.80	13.80	188.0
#3	103.80	10.40	189.5
#4	103.20	13.00	188.5

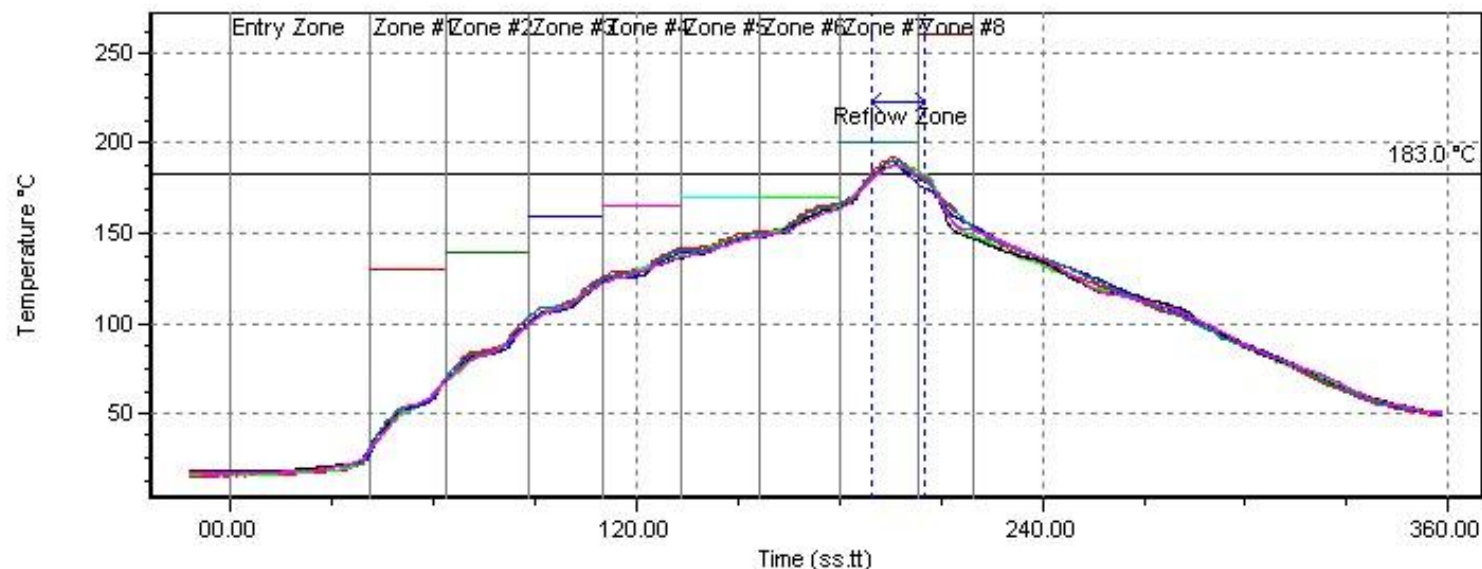
老化测试时间: 2005 年 2 月 21 日 9 点 30 分
采用 DATAPAQ 公司提供的 SURVEYOR 测试



For Help, press F1

NUM

File Edit View Tools Help



Line Speed 92.7

Probe	Reflow Zone		
	Rise Time 100.0 - 183.0° C (ss.tt)	Time Above Liquidus (ss.tt)	Peak Temperature (° C)
#1	103.80	14.00 ↑	192.5
#2	102.80	14.60 ↑	188.0
#3	102.80	09.20 ↑	190.0
#4	102.80	11.20 ↓	188.0

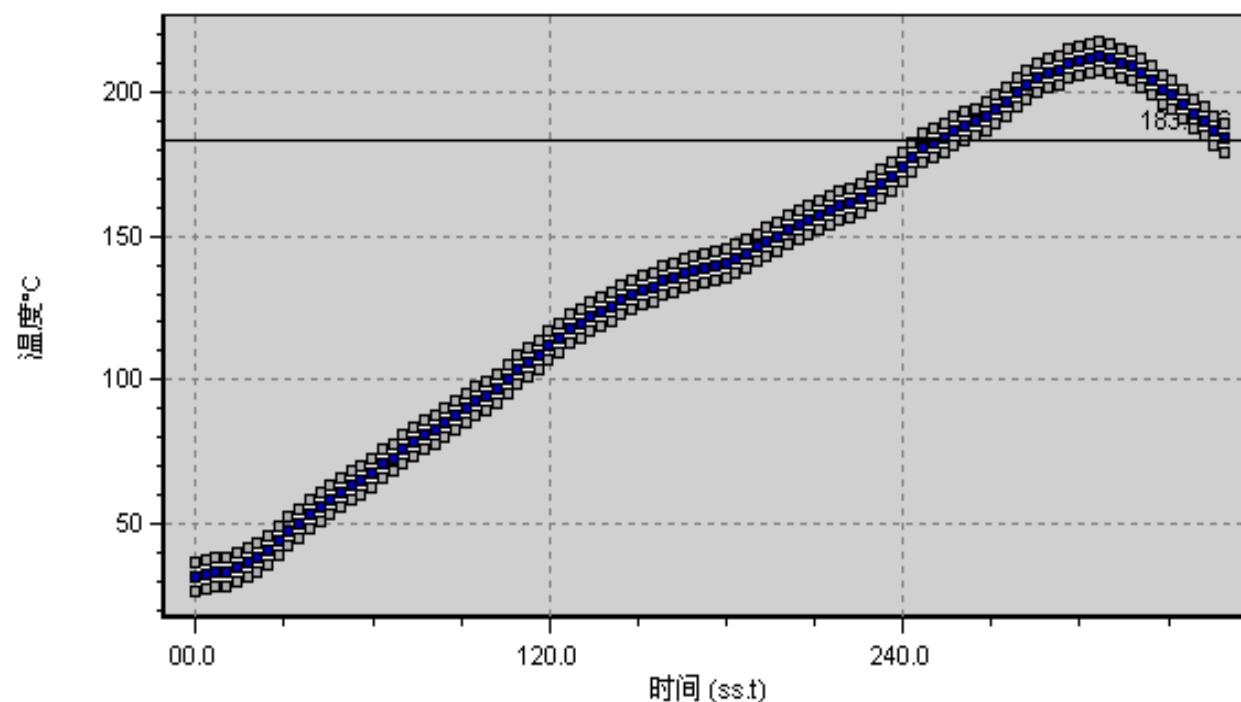
老化测试时间: 2005 年 2 月 22 日 9 点 30 分
采用 DATAPAQ 公司提供的 SURVEYOR 测试



For Help, press F1

NUM

公差曲线向导：编辑温度线图



- 外带
- 内带
- 初始温度线图

温度线图	液相线以上的时间(秒)	峰值温度(°C)
外公差 — 上	105.1	217.4
内公差—上	105.1	217.4
初始温度线图	97.8	212.4
内公差—下	84.3	207.4
外公差 — 下	84.3	207.4

重置缩放区 (R)

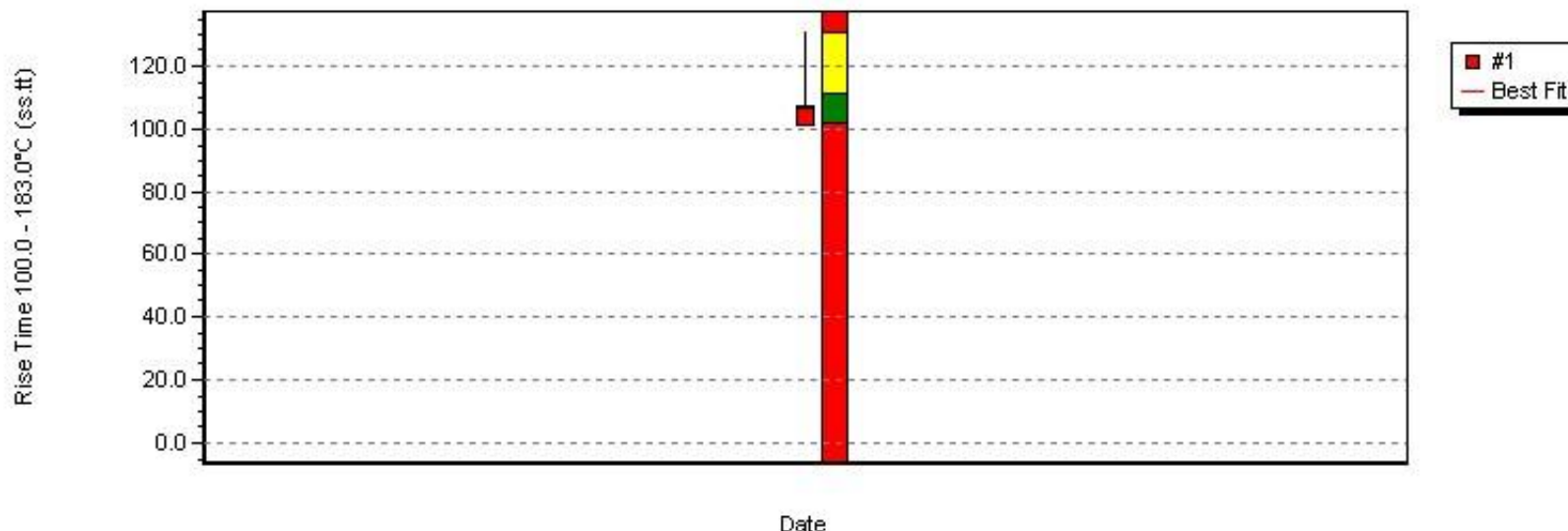
重置带 (B)

Datapaq Surveyor - Trend Analysis (Trend 2005-02-22 21-27.svt)

File Edit View Trend Tools Help



Rise Time 100.0 - 183.0°C (ss.tt) Time Above Liquidus (ss.tt) Peak Temperature (°C) Line Speed (cm/min)



Rise Time 100.0 - 183.0° C
Liquidus Temperature: 183.0° C

Note: Extrapolation was not performed as less than 5 files were

Probe	Maximum	Minimum	Mean	Standard Deviation	Cpk	
					Per Probe	Overall
#1 *	104.40	103.80	104.20	.35	3.26	1.37
#2	103.80	102.80	103.40	.53	1.38	Top (1,3,5)
#3	104.20	102.80	103.60	.72	1.40	1.96
#4	103.60	102.80	103.20	.40	3.01	Bottom (2,4)

Trend Analysis Trending File List

For Help, press F1

NUM

Report on 6-sigma and CPK value

Computation on 6-sigma

$$CL = \text{mean} = 112.9$$

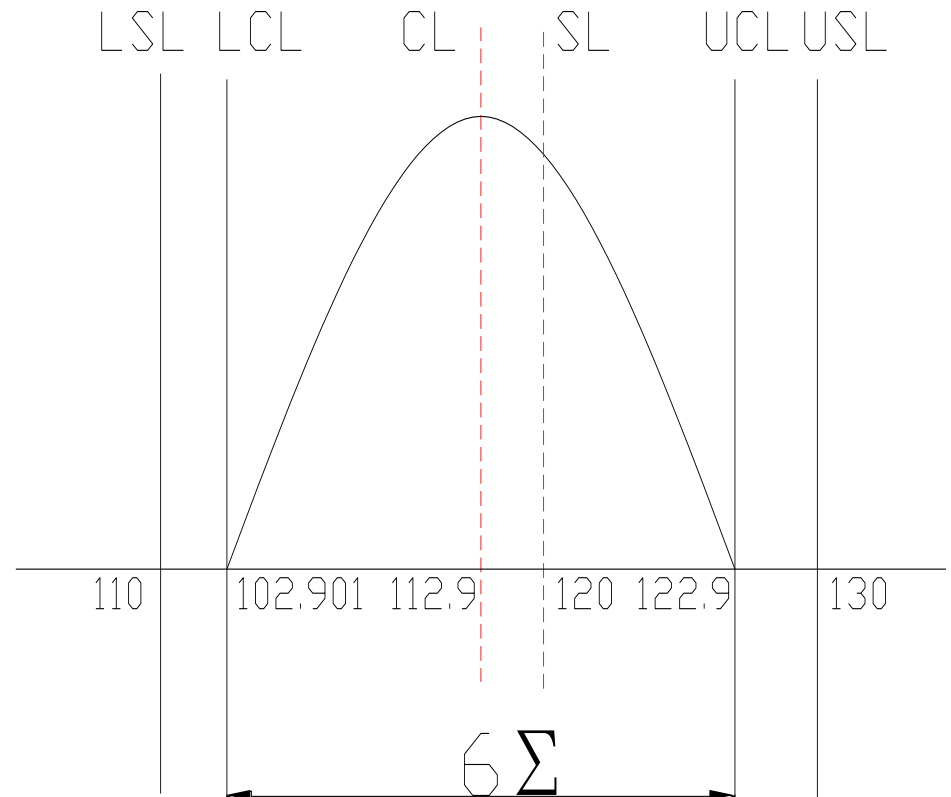
$$UCL = \text{mean} + 3\Sigma = 122.89$$

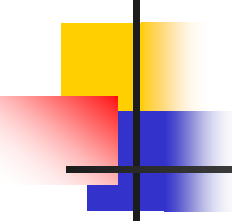
$$LCL = \text{mean} - 3\Sigma = 102.901$$

$$\begin{aligned}\Sigma &= (USL - LSL) / 6 \\ &= (130 - 110) / 6 \\ &= 3.333\end{aligned}$$

$$6\Sigma = 19.999$$

Diagram on 6-sigma (units/second)





Report on 6-sigma and CPK value

■ Computation on CPK

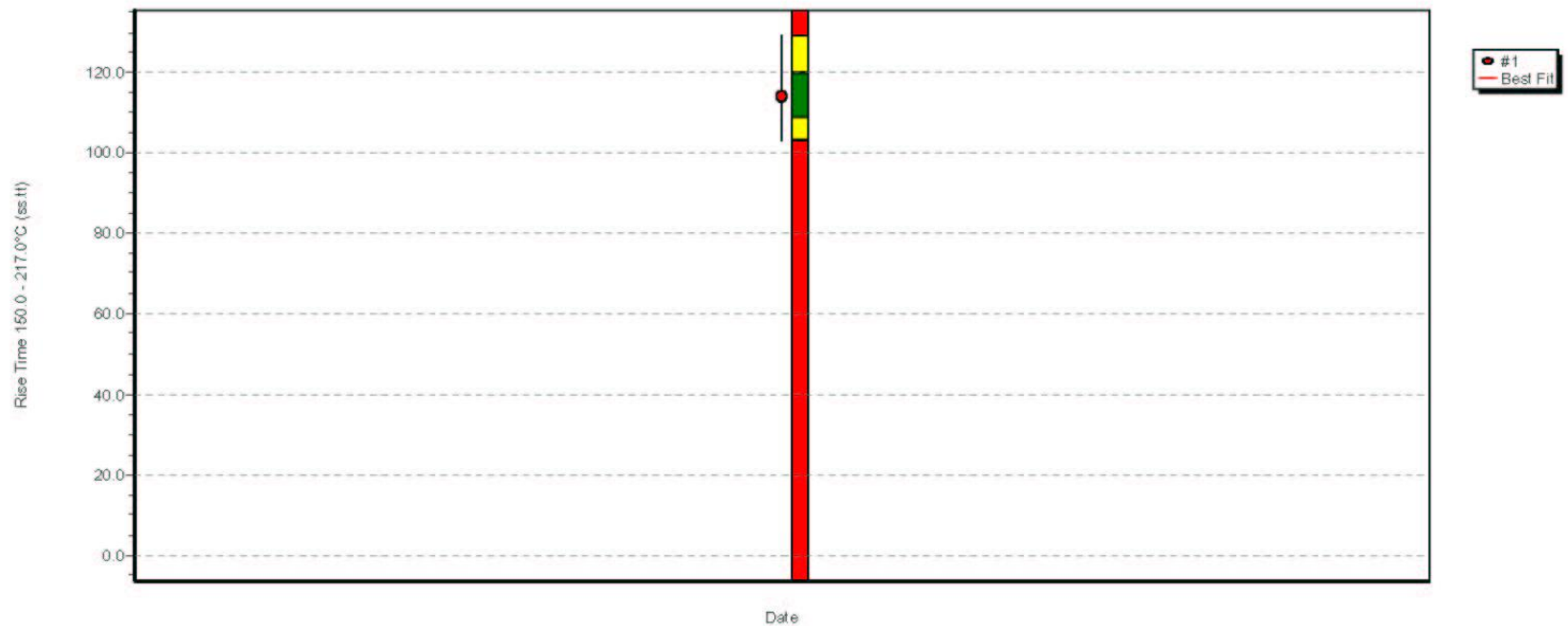
$$Ca=0.11 \quad Cp=1.73$$

$$CPK=(1-Ca)*Cp$$

$$=(1-0.11)*1.73$$

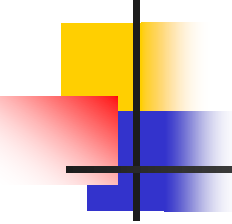
$$=1.5$$

**All data of 6-sigma and CPK
is measured and by Datapaq
Surveyor collected !**



	Maximum	Minimum	Mean	Standard Deviation	Cp Overall	Cpk Overall	Pp Overall	Ppk Overall
#1	114.20	114.00	114.10	.14	1.73	1.54	1.69	1.50
#2	112.20	111.60	111.90	.42	Top (1,3,5)	Top (1,3,5)	Top (1,3,5)	Top (1,3,5)
#3	117.40	115.20	116.30	1.56	1.15	1.02	1.45	1.28
#4	116.00	113.40	114.70	1.84	Bottom (2,4,6)	Bottom (2,4,6)	Bottom (2,4,6)	Bottom (2,4,6)
#5	110.40	109.60	110.00	.57	1.69	1.52	1.96	1.77
#6	111.20	109.60	110.40	1.13				

Tolerances		Trend Analysis
Outer Minimum:	103.33	Search Criteria:
Inner Minimum:	108.96	Baseline Survey: Kince KWA-1225-Super-EP - Kince 2.svs
Baseline Survey Value:	114.60	Over: KWA-1225-Super-EP
Inner Maximum:	120.24	Recipe: Kince
Outer Maximum:	129.10	Date Range: Not used
		Trend On:
		Rise Time 150.0 - 217.0°C (ss.t)



Criteria for Evaluation on CPK Value

Criteria applied with
SPC statistical
manage

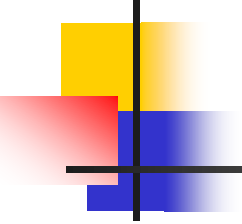
1st Ultra, over performance ;

2nd grade, good performance; ※ Kince

3rd grade, fair performance.;

4th grade, poor performance;

5th grade, very poor performance;



四、POWER CONSUMPTION REPORT

Ultra



建时达回流焊炉耗电参照表

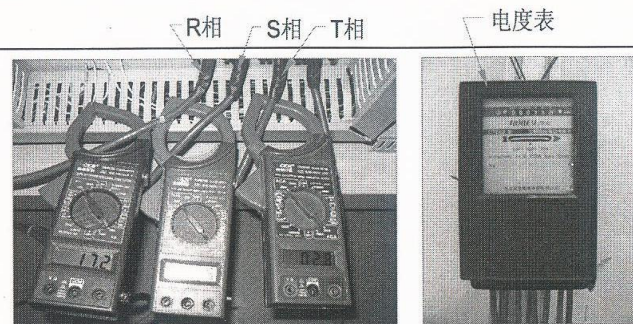
KWA-1225 SUPER EP8的总功率为:68KW(注:使用节能的启动功率约为:41KW)。

用电要求:使用五线三相制 AC380V (分六段时的启动电流为: 62A) 的电源供电。

设定温度	上区	1	2	3	4	5	6	7	8
		150℃	170℃	180℃	185℃	185℃	220℃	280℃	250℃
	下区	1	2	3	4	5	6	7	8
		150℃	170℃	180℃	185℃	185℃	220℃	280℃	250℃

备注:

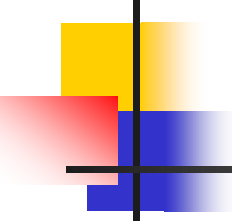
1. 电流表为: 品牌—VICTOR 型号—DM6266
2. 电度表为: 品牌—HOUYEY 型号—DT862
- 3*. 绿灯亮, 表示已到达恒温状态, 约在19分钟.
4. 表格中阴影部分表示已到达恒温状态.



启动用电参数如下:

实测值 (分6段)	时间(分钟M)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	*											
	R相(安培A)	62	62	62	62	62	62	62	62	62	62	60	57	52	47	41	35	30	27	27	27	27	27	27	27	27	27	27	27	27	
	S相(安培A)	59	59	59	59	59	59	59	59	59	59	57	54	49	43	35	30	25	24	24	24	24	24	24	24	24	24	24	24	24	
	T相(安培A)	59	59	59	59	59	59	59	59	59	59	59	57	54	49	43	35	30	25	24	24	24	24	24	24	24	24	24	24	24	
	耗电(度KWH)	0.8	1.6	2.4	3.2	4.0	4.8	5.6	6.4	7.2	8.0	8.8	9.5	10.1	10.7	11.2	11.7	12.1	12.5	12.8	13.1	13.4	13.8	14.1	14.3	14.6	14.9	15.2	15.5	15.7	16.0
	恒温后功率为	约为:17KW. 恒温后: R相平均电流为27A,功率为220×27=6.0KW 																													

备注:1. 所有测量数据的误差均小于5%



五、 72 HOURS BURN IN TESTING REPORT

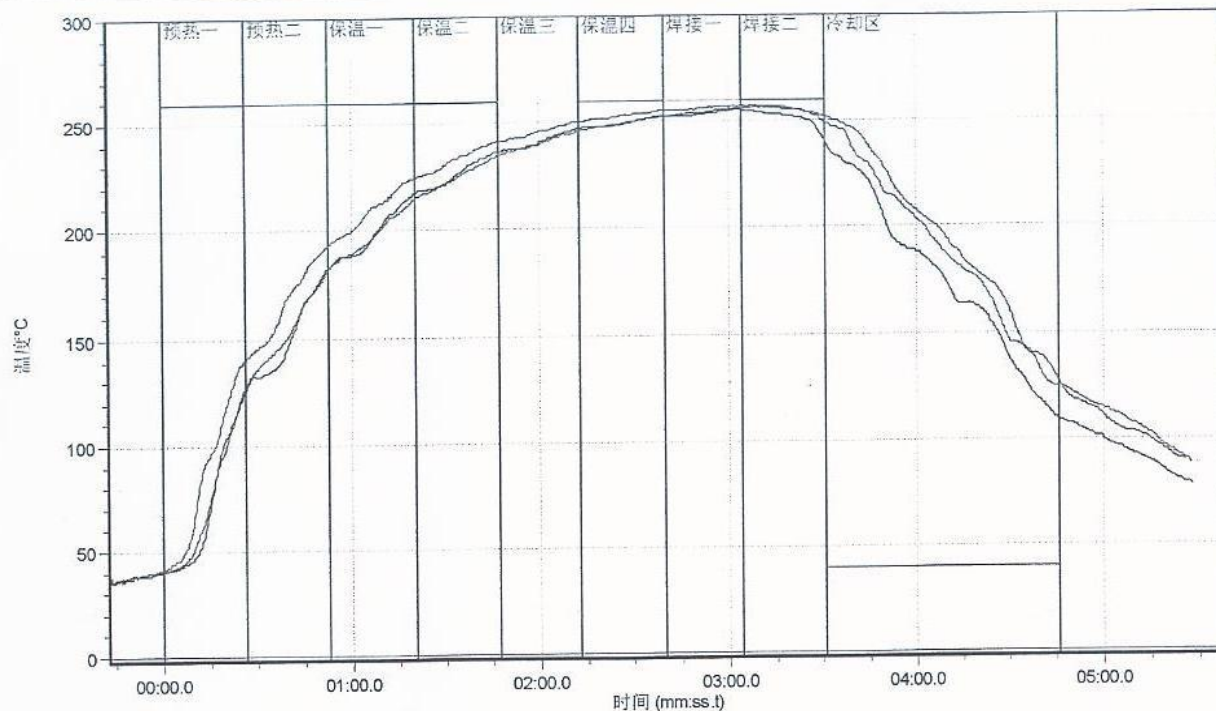


地点:

过程: KWA-1225 SUPER EP8

产品: KWA-1225 SUPER EP8

数据采集详细信息:



创建者: 导入
 版本: 3
 规格代码: 0:00.3 (mm:ss.1)
 开始采集: 2004-10-24 8:44:14
 操作员: QA
 过程: KWA-1225 SUPER EP8
 规格: KWA-1225 SUPER EP8
 配方: KWA-1225 SUPER EP8
 产品: KWA-1225 SUPER EP8
 打印时间: 2004-10-30 14:03:49

注解:

锡膏 Profile 注意事项 老化测试第 1 小时所测 & 无铅曲线

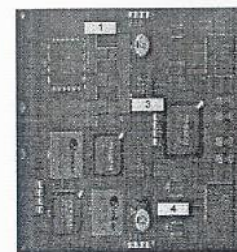
- 1) 最高温度 250°C;
- 2) 温度在 217°C 的时间为 70 秒以上;
- 3) 温度在 150-217°C 之间为 110-140 秒;
- 4) 升温率: 每秒不可大于 3°C/秒;
- 5) 下降斜率: 3-4°C/秒;
- 6) 测试板编号: KINCE-001

QA:

确认:

测试员:

探头图:



10.0x10.0 cm			
X	Y	X	Y
#1 5.4	8		
#3 4.4	4.0		
#4 3.5	8.2		

穿越焊炉的方向



线速:	分区:	预热一	预热二	保温一	保温二	保温三	保温四	焊接一	焊接二	冷却区
80.0 cm/分	长度 (cm):	34.9	34.6	37.8	36.0	34.1	35.3	32.9	35.1	100.0
	上 (°C):	260.0	260.0	260.0	260.0	260.0	260.0	260.0	260.0	40.0
	下 (°C):	260.0	260.0	260.0	260.0	260.0	260.0	260.0	260.0	40.0

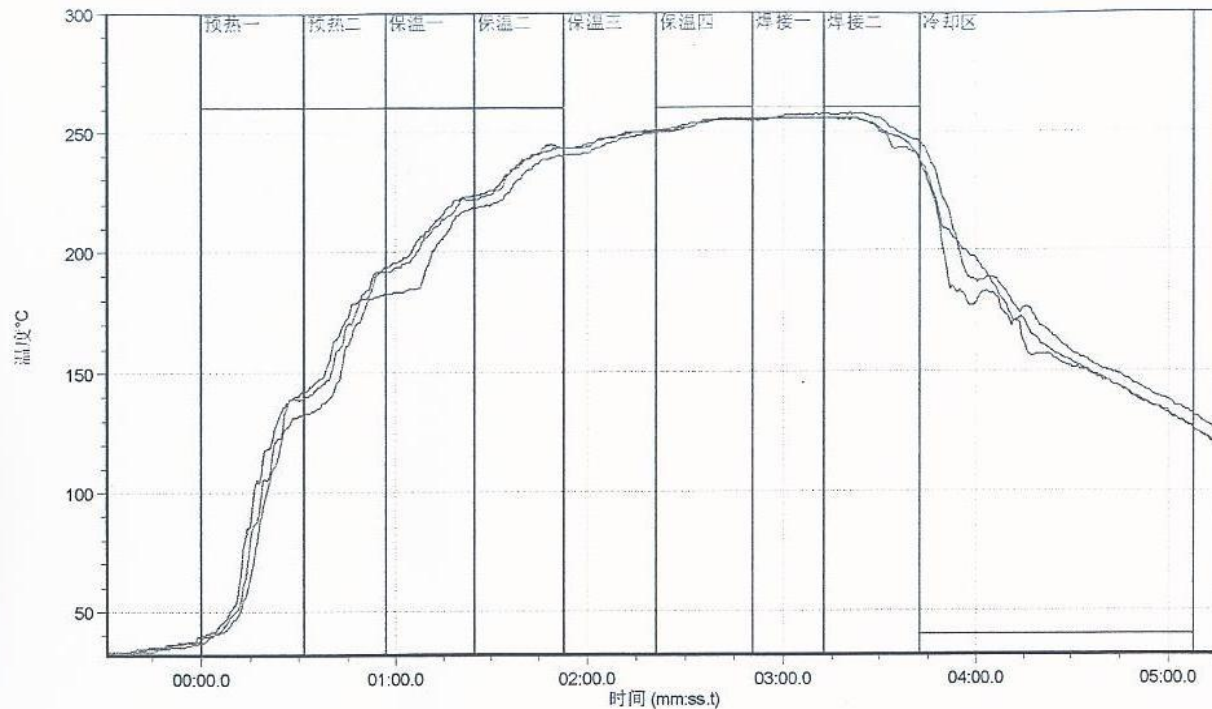
探头	回流结果									处于温度的时间		
	正斜率 [°C/秒]	正斜率时间 (mm:ss.1)	上升时间 (150.0 - 217.0°C) (mm:ss.1)	液相线(217.0°C) 以上的时间 (mm:ss.1)	峰值 温度 [°C]	峰值温度差 [°C]	负斜率 [°C/秒]	液相线217度以上				
								平均斜率 [°C/秒]	最大斜率 [°C/秒]	退出温度 [°C]	以上的时间 .0°C (mm:ss.1)	到达所需时间 .0°C (mm:ss.1)
#1 (°C)	5.66	00:16.2	00:43.8	02:31.2	256.5	2.5	-3.36	.11	-.43	252.0	05:43.5	-00:17.4
#3 (°C)	5.92	00:10.8	00:39.0	02:36.6	257.5		-3.16	.05	-.81	249.5	05:45.0	-00:17.4
#4 (°C)	6.11	00:15.9	00:39.3	02:26.7	255.0		-3.42	.03	-2.10	241.0	05:45.6	-00:17.4

地点:

过程: KWA-1225 SUPER EP8

产品: KWA-1225 SUPER EP8

数据采集详细信息:



创建者: 导入
 探头数: 3
 采样间隔: 0:00.5 (mm:ss.t)
 开始采集: 2004-10-25 8:40:56
 操作员: QA
 过程: KWA-1225 SUPER EP8
 炉号: KWA-1225 SUPER EP8
 配方: KWA-1225 SUPER EP8
 产品: KWA-1225 SUPER EP8
 打印时间: 2004-10-30 16:29:37

注解:

锡膏 Profile 注意事项 老化测试第 24 小时所测 & 无铅曲线

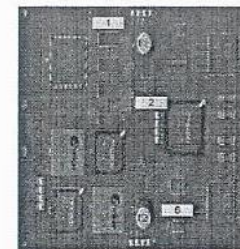
- 1) 最高温度 250°C;
- 2) 温度在 217°C 的时间为 70 秒以上;
- 3) 温度在 150-217°C 之间为 110-140 秒;
- 4) 升温率: 每秒不可大于 3°C/秒;
- 5) 下降斜率: 3-4°C/秒;
- 6) 测试板编号: KINCE-001

QA:

确认:

测试员:

探头图:



10.0x10.0 cm		
X	Y	
#1 6.2	7	
#2 4.3	4.0	
#6 3.1	8.3	

穿越丝印的方向



线速:	分区:	预热一	预热二	保温一	保温二	保温三	保温四	焊接一	焊接二	冷却区
70.0 cm/分	长度 (cm):	36.9	29.7	31.9	32.5	33.7	34.4	25.7	34.7	100.0
	上 (°C):	260.0	260.0	260.0	260.0	260.0	260.0	260.0	260.0	40.0
	下 (°C):	260.0	260.0	260.0	260.0	260.0	260.0	260.0	260.0	40.0

回流结果

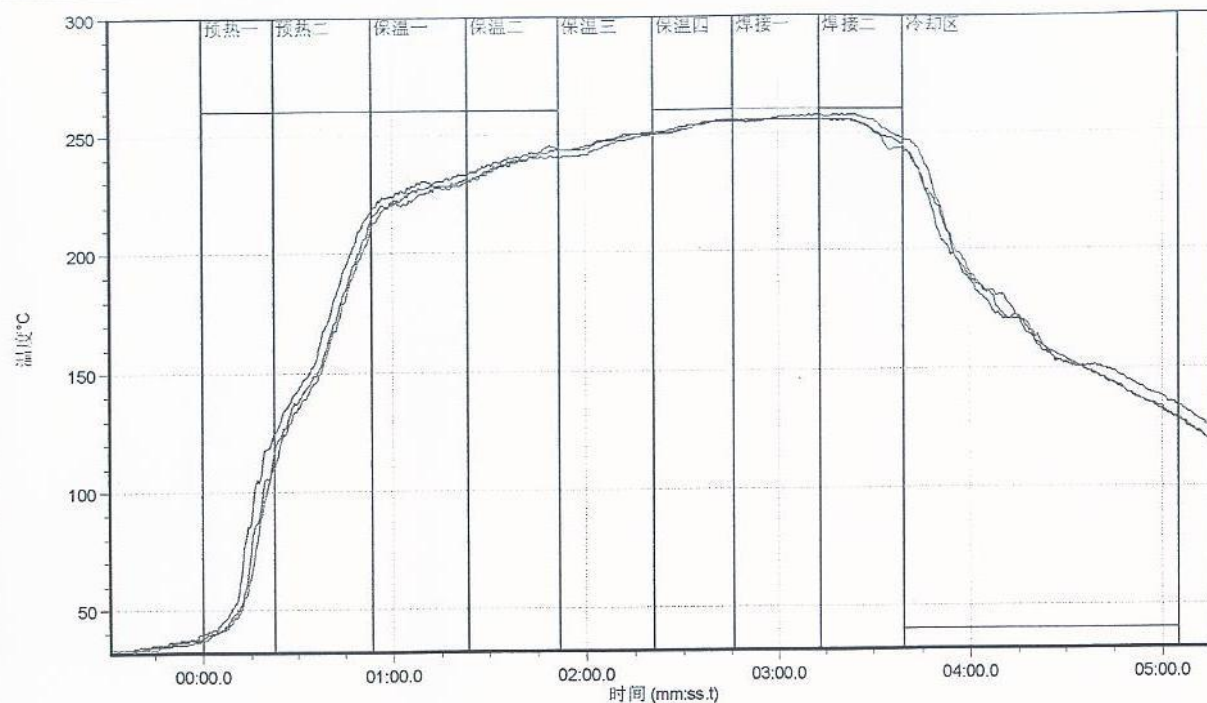
探头	正斜率 (°C/秒)	正斜率时间 (mm:ss.t)	上升时间 (150.0 - 217.0°C) (mm:ss.t)	液相线(217.0°C) 以上的时间 (mm:ss.t)	峰值温度 (°C)	峰值温度差 (°C)	负斜率 (°C/秒)	液相线217度以上			处于温度的时间	
								平均斜率 (°C/秒)	最大斜率 (°C/秒)	退出温度 (°C)	以上的时间 .0°C (mm:ss.t)	到达所需时间 .0°C (mm:ss.t)
#1 (°C)	6.99	00:14.5	00:38.0	02:33.0	256.0	2.0	-3.63	-0.06	-2.52	238.0	05:43.5	-00:29.0
#2 (°C)	6.44	00:15.0	00:39.0	02:29.5	256.0		-5.79	-0.08	-2.49	238.0	05:43.5	-00:27.5
#6 (°C)	6.44	00:17.0	00:39.0	02:30.0	258.0		-4.42	.01	-1.53	245.5	05:43.5	-00:26.5

地点:

过程: KWA-1225 SUPER EP8

产品: KWA-1225 SUPER EP8

数据采集详细信息:



创建者: 导入
 探头: 3
 采样间隔: 0:00.5 (mm:ss.t)
 开始采集: 2004-10-26 8:35:56
 操作员: QA
 过程: KWA-1225 SUPER EP8
 焊炉: KWA-1225 SUPER EP8
 配方: KWA-1225 SUPER EP8
 产品: KWA-1225 SUPER EP8
 打印时间: 2004-10-30 16:28:58

注解:

锡膏 Profile 注意事项 老化测试第 72 小时所测 & 无铅曲线

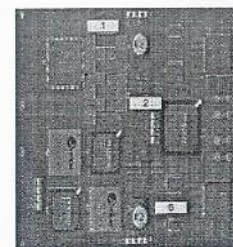
- 1) 最高温度 250°C;
- 2) 温度在 217°C 的时间为 70 秒以上;
- 3) 温度在 150-217°C 之间为 110-140 秒;
- 4) 升温率: 每秒不可大于 3°C/秒;
- 5) 下降斜率: 3-4°C/秒;
- 6) 测试板编号: KINCE-001

QA:

确认:

测试员:

探头图:



10.0x10.0 cm		
X	Y	
#1 6.2	7	
#2 4.4	4.0	
#6 3.3	6.3	

穿越炉的方向



线速:	分区:	预热一	预热二	保温一	保温二	保温三	保温四	焊接一	焊接二	冷却区
70.0 cm/分	长度 (cm):	26.2	36.2	34.2	33.2	34.2	29.5	32.3	30.4	100.0
	上 (°C):	260.0	260.0	260.0	260.0	260.0	260.0	260.0	260.0	40.0
	下 (°C):	260.0	260.0	260.0	260.0	260.0	260.0	260.0	260.0	40.0

探头	回流结果									处于温度的时间		
	正斜率 (°C/秒)	正斜率时间 (mm:ss.t)	上升时间 (150.0 - 217.0°C) (mm:ss.t)	液相线(217.0°C) 以上的时间 (mm:ss.t)	峰值 温度 (°C)	峰值温度差 (°C)	负斜率 (°C/秒)	液相线217度以上				
								平均斜率 (°C/秒)	最大斜率 (°C/秒)	退出温度 (°C)	以上的时间 .0°C (mm:ss.t)	到达所需时间 .0°C (mm:ss.t)
#1 (°C)	6.99	00:14.5	00:19.5	02:56.0	256.0	2.0	-3.88	-0.02	-1.52	244.5	05:43.5	-00:28.0
#2 (°C)	6.44	00:15.5	00:19.0	02:56.0	256.0		-2.99	-0.04	-1.34	242.0	05:43.5	-00:28.0
#6 (°C)	6.44	00:17.0	00:19.5	02:55.0	258.0		-4.25	.04	-.90	247.5	05:43.5	-00:28.5

文件: 002.paq

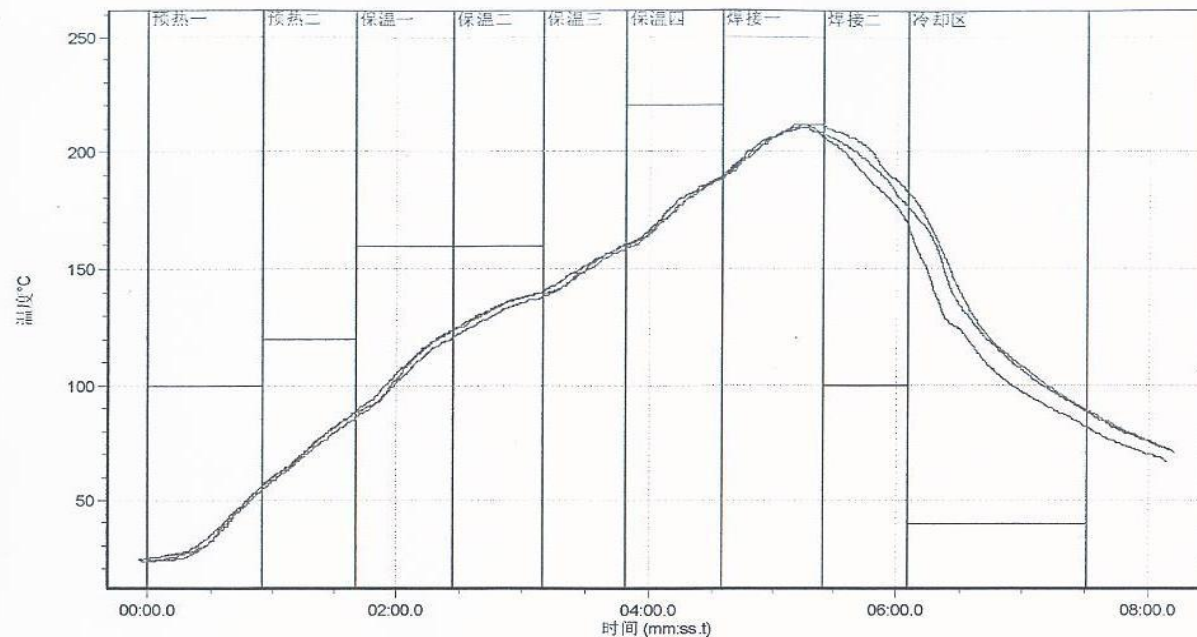
公司: KINCE

地点:

过程: KWA-1225 SUPER EP8

产品: KWA-1225 SUPER EP8

数据采集详细信息:



创建者: 导入
探头: 3
采样间隔: 0.00.2 (mm:ss.t)
开始采集: 2004-10-25 10:30:14
操作员: QA
过程: KWA-1225 SUPER EP8
设备: KWA-1225 SUPER EP8
配方: KWA-1225 SUPER EP8
产品: KWA-1225 SUPER EP8
打印时间: 2004-10-30 9:43:39

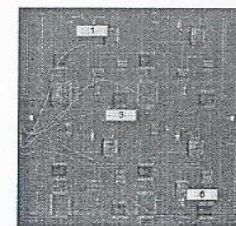
注解:

锡膏 Profile 注意事项 老化测试第 24 小时所测 & 有铅曲线

- 1) 最高温度 230°C;
- 2) 温度在 183°C 的时间为 60-80 秒以上;
- 3) 温度在 150-183°C 之间为 90 秒-120 秒;
- 4) 升温率: 每秒不可大于 2°C/秒;
- 5) 下降斜率: 3-4°C/秒;
- 6) 测试板编号: KINCE-001

QA: 确认: 测试员:

探头图:



10.0x10.0 cm

#1	6.6	1.0
#3	5.5	4.9
#6	1.9	8.5

穿地机护的方向

线速:	分区:	预热一	预热二	保温一	保温二	保温三	保温四	焊接一	焊接二	冷却区
70.0 cm/分	长度 (cm):	64.0	52.5	54.8	50.1	46.1	53.2	57.5	47.5	100.0
	上 (°C):	100.0	120.0	160.0	160.0	200.0	220.0	250.0	100.0	40.0
	下 (°C):	100.0	120.0	160.0	160.0	200.0	220.0	250.0	100.0	40.0

回路结果

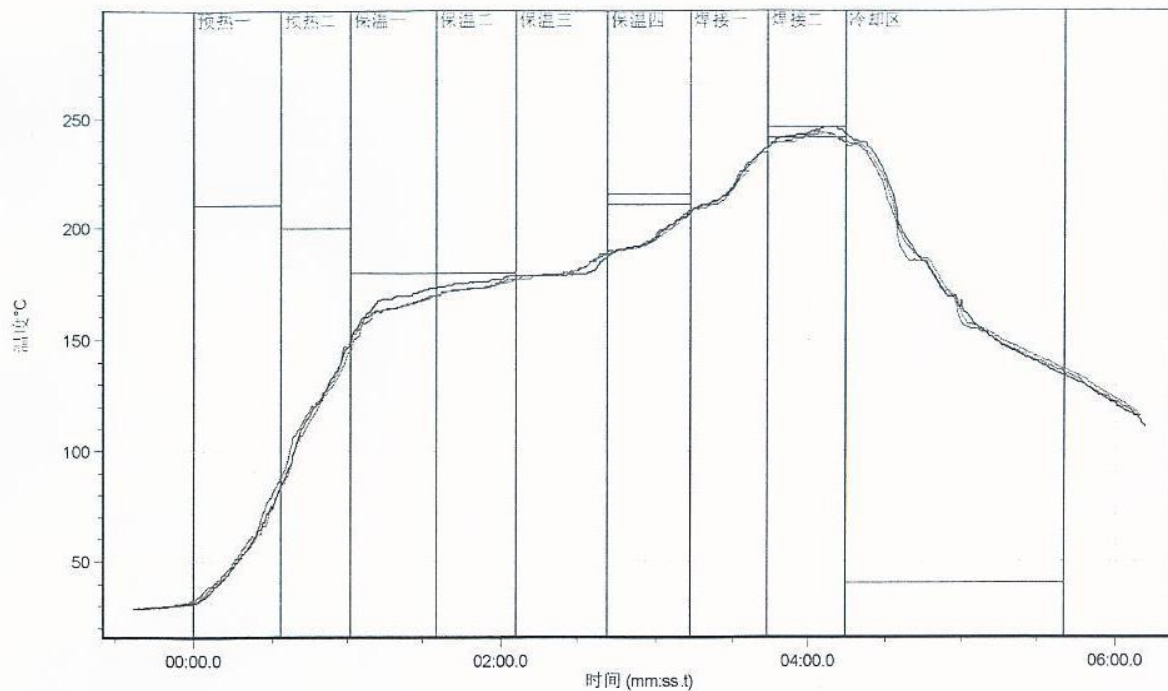
探头	正斜率 (°C/秒)	正斜率时间 (mm:ss.t)	上升时间 (150.0 - 183.0°C) (mm:ss.t)	液相线(183.0°C) 以上的时间 (mm:ss.t)	峰值温度 (°C)	峰值温度差 (°C)	负斜率 (°C/秒)	液相线217度以上			处于温度的时间	
								平均斜率 (°C/秒)	最大斜率 (°C/秒)	退出温度 (°C)	以上的时间 .0°C (mm:ss.t)	到达所需时间 .0°C (mm:ss.t)
#1 (°C)	.98	04:05.0	00:53.2	01:32.4	210.5	1.5	-2.47	.17	-2.04	168.5	06:12.6	-00:04.0
#3 (°C)	1.04	00:40.0	00:50.6	01:36.0	212.0		-2.61	.24	-1.24	176.5	06:13.0	-00:03.0
#6 (°C)	1.16	01:56.6	00:51.0	01:43.4	212.0		-2.06	.28	-1.24	183.0	06:13.0	00:00.0

地点:

过程: KWA-1225 SUPER EP8

产品: KWA-1225 SUPER EP8

数据采集详细信息:



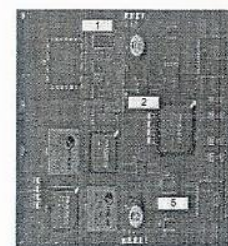
创建者: 用户
 版本: 3
 软件版本: 0.00.5 (mm:ss.t)
 开始时间: 2004-10-26 11:32:10
 操作者: QA
 过程: KWA-1225 SUPER EP8
 物料: KWA-1225 SUPER EP8
 配方: KWA-1225 SUPER EP8
 产品: KWA-1225 SUPER EP8
 打印时间: 2004-11-5 9:21:04

锡膏 Profile 注意事项 老化测试后所测 & 无铅曲线

Requirement on solder paste testing lead-free solder temperature profile after machine pilot run

- 1)、最高温度 235~240℃;
Peak temperature 235~240℃.
- 2)、温度在 217℃ 的时间为 60~80 秒以上;
Temperature at 217℃ for 60 to 80 second.
- 3)、温度在 150-217℃ 之间为 110-130 秒;
Temperature at within 150 to 217℃ for 110 to 130 second.
- 4)、升温率: 每秒不可大于 4℃/秒;
Rate of (heating) increase: $\leq 4^{\circ}\text{C}/\text{second}$.
- 5)、下降斜率: 4~10℃/秒;
Rate of (cooling) decrease: $\leq 4^{\circ}\text{C} \sim 10^{\circ}\text{C}/\text{second}$.
- 6)、Testing PCB NO.: KINCE-001.

QA: Confirmed by: Prepared by:
 探头图:

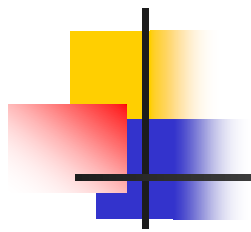


穿越焊盘的方向



线速:	分区:	预热	预热二	保温一	保温二	保温三	保温四	焊接一	焊接二	冷却区
70.0 cm/分	长度 (cm)	39.1	32.3	39.7	36.2	41.4	37.3	35.0	36.0	100.0
	上(°C)	210.0	200.0	180.0	180.0	180.0	210.0	265.0	240.0	40.0
	下(°C)	210.0	200.0	180.0	180.0	180.0	215.0	265.0	245.0	40.0

探头	回流结果										处于温度的时间
	正斜率 (°C/秒)	正斜率时间 (mm:ss.t)	上升时间 (150.0 - 217.0°C) (mm:ss.t)	液相线(217.0°C) 以上的时间 (mm:ss.t)	峰值 温度 (°C)	峰值温度差 (°C)	负斜率 (°C/秒)	液相线217度以上			以上的时间 .0°C (mm:ss.t)
								平均斜率 (°C/秒)	最大斜率 (°C/秒)	退出温度 (°C)	
#1 (°C)	3.10	00:36.0	02:28.5	01:01.0	243.0	2.5	-3.69	.70	-56	238.0	06:32.5
#2 (°C)	2.93	00:37.5	02:27.5	01:01.5	242.5		-3.51	.71	-70	237.5	06:31.8
#5 (°C)	3.14	00:39.0	02:28.5	01:03.0	245.0		-3.53	.74	-73	242.0	06:32.5



五、CUSTOMER TESTING REPORT



金 電子(中國)有限公司

SMT2-2CT機型Kince回 焊 機 操
作 條 件

文 件 編 號 : ME-CR045

版 本 : 01

發 行 日 期 : 04.06.30

修 訂 日 期 :

編 訂 : 左建輝

審 核 :

核 准 :

金 電子(中國)有限公司

發 文 日 期	2004年6月30日
發 文 編 號	CTP30-0406-013

受 文 者 : ■ CT廠長室 ■ CT品技部

主 旨 : 發布 <<kince kwa1225super ep8 回焊機操作條件 (KESTER 272 錫膏使用) >> ,

文件編號 :ME-CR045

說 明 : 一. 為推行 ISO 9001:2000品保系列之作業, SMT一部 發布<<kince kwa1225super ep8
回焊機操作條件(KESTER 272 錫膏使用)>>為 (01)

版於 04.06.30起開始實施.

二. 請受文部門參照配合實施.

發 文 部 門 :

SMT二部:

金 電子(中國)有限公司

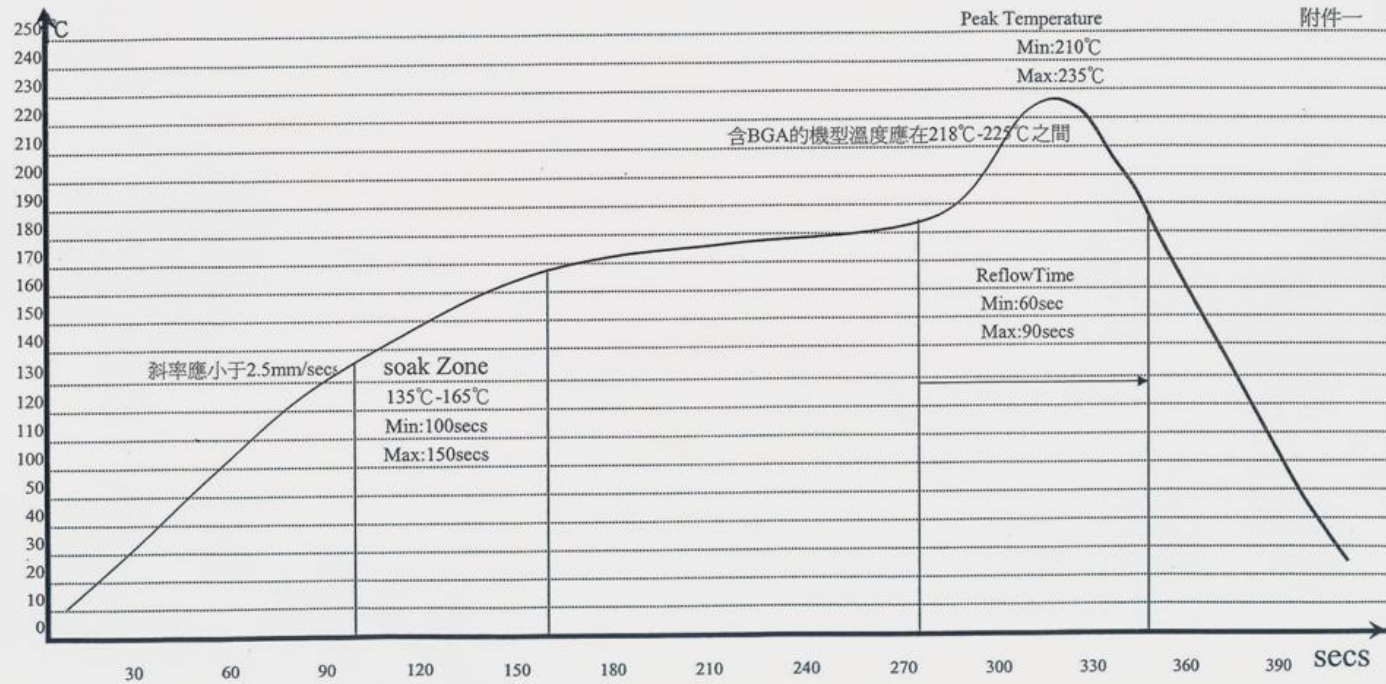
日 期 04.06.30	共 頁 3	第 頁 2
編 號 ME-CR045		版 本 01

目 錄	
1. SMT2-2kince kwa1225super ep8回焊機操作條件	1~3
2. : KESTER 272錫膏使用溫度曲線圖核對標準.	附件一

1)、LEAD SOLDER

金 電子(中國)有限公司

KESTER 272 溫度曲線標準





MANTA-BOT

Friday October 22, 2004 22:30:36



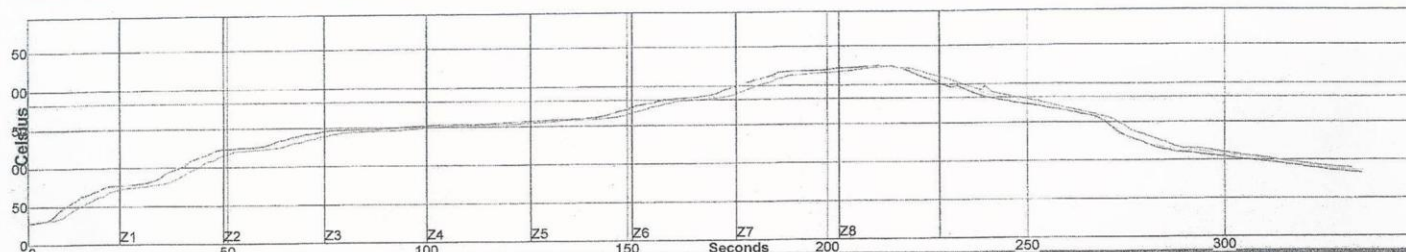
Company:
Oven Name: SMT1

Process Window Name: KESTER272

Setpoints (Celsius)

Zone	1	2	3	4	5	6	7	8
Top	115	170	180	170	170	215	245	215
Bottom	115	170	180	170	170	215	245	215

Conveyor Speed (cm/min): 75.0



	PWI= 99%	Max Rising Slope	Soak Time 150-183C	Reflow Time /183C	Peak Temp
E1		2.1	66.8	79.3	224.0
CS9		2.4	66.3	81.4	225.0
C255		2.5	70.2	78.8	224.9
Delta		0.3	3.9	2.6	1.0

Process Window:

Solder Paste: KESTER272

Statistic Name	Low Limit	High Limit	Units
Max Rising Slope (Target=1.0) (Calculate Slope over 20 Seconds)	0.0	2.5	Degrees/Second
Soak Time 150-183C	60	90	Seconds
Time Above Reflow - 183C	60	90	Seconds
Peak Temperature	210	235	Degrees Celsius

Description:

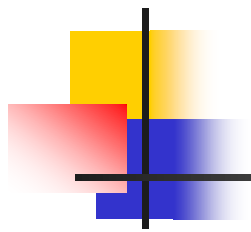


KIC Thermal Profiling
San Diego, CA USA

Profiled Using KIC 2000 Technology
Tel: +1 858 673 6050
Fax: +1 858 673 0085

www.kicthermal.com
tech@kicmail.com





六、 MATERIAL LIST

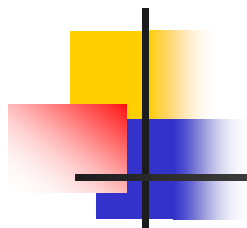


Reference Only

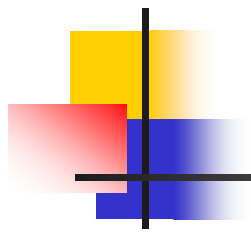
KWA-Ultra-EP Electrical Components

Items	Description	Circuit Code	Brandname	Manufacture Origin
1	3 Pole Switch	SW	Schneider	France
2	Emergency Switch	ES	Schneider	France
3	Push Button	PB	Schneider	France
4	2 Pole Switch	SW	MOELLER	UK
5	Circuit Breaker	CB	FUJI	Japan
6	Light Beam Sensor	PS	OMRON	Japan
7	Light Beam Sensor	PS	Yangming	Taiwan
8	Limit Switch	LS	OMRON	Japan
9	Proximity Switch	PS	Autonics	Korea
10	Time Delay Fuse	FU	Minguang	Taiwan
11	Invertor	INV	AELTA	Taiwan
12	Electric Console Fan	FM	SUNON	Italy

13	Cooling Fan	FAN	SUNON	Italy
14	Standby Power Supply	UPS	CHAMPION	USA
15	Thermalcouples	TC	LAIYIN	Korea
16	Power Supply	PWR	Heng Fu	China
17	Conveyor Motor	MTR	Panasonic	Japan
18	Width Motor	MTR	Panasonic	Japan
19	Serial Relay	XJE	CARLO	Swiss
20	Cooling M/C(Optional)	LG	Jia Sheng	China
21	Industrial Computer	PC	Yan Xiang	China
22	LCD Display	LCD		Korea
23	SSR	SSR	CARLO	Swiss
24	Relay	R	OMRON	Japan
25	Circuit Breaker	CB	Schneider	France



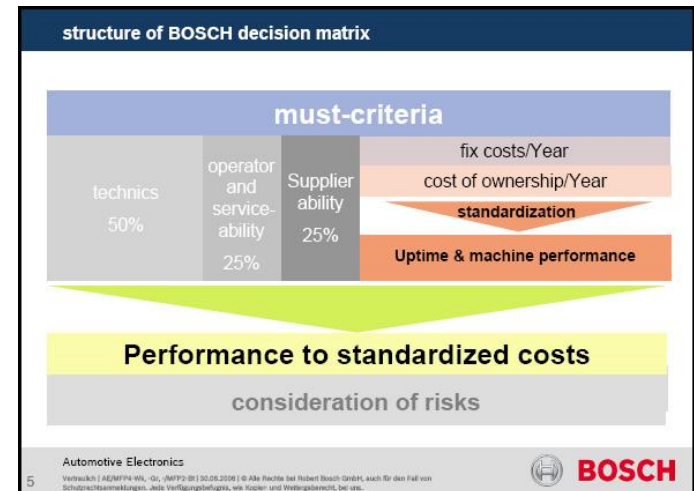
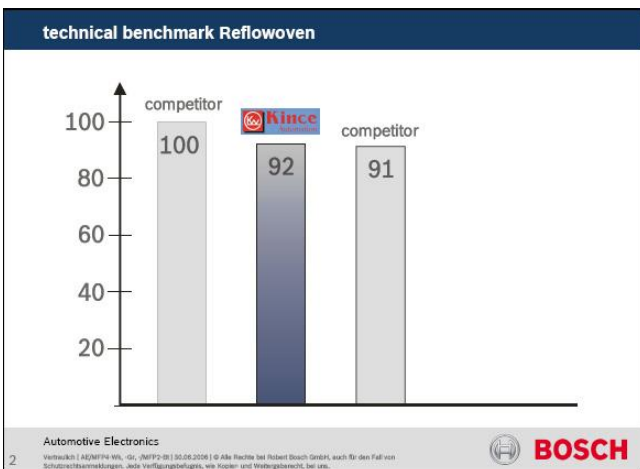
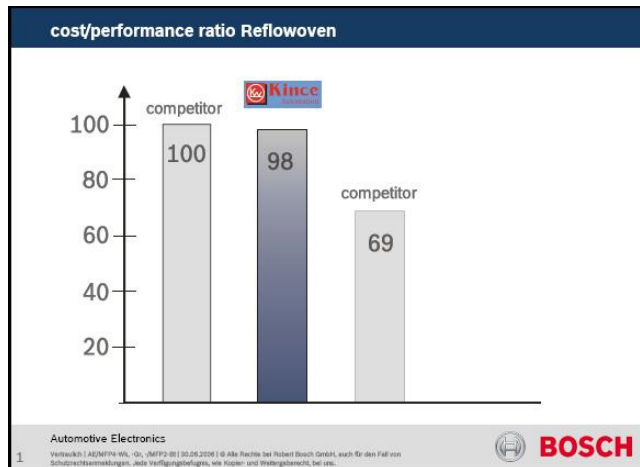
26	Thermalcouples	TE	LAIYIN	Korea
27	Blower Motor	MTR	TALKE	Chinese Japan Joint Venture
28	Contactor	CT	FUJI	Japan
29	Heating Elements	HT	FANREN	Korea China Joint Venture
Remarks: This Is For Reference Only, Our Company Hold The Rights To Change Without Further Notice				



七、CUSTOMER REFERENCE



Bosch's Evaluation



排名不分先后

	富士胶片（中国）有限公司 FujiFilm China.Inc.		西门子德马泰克生产（中国）有限公司 Siemens Ltd., China
	三洋电机有限公司 Sanyo Electric Co.,LTD.		松下电工（上海）有限公司 ShangHai Panasonal Electrician Co.,LTD.
	广东现代摩比斯机电有限公司 GUANGDONG HYUNDAI MOBIS CO.,LTD.		桑达飞利浦国际电子器件有限公司 POWER-ONE SED CHINA JV
	珠海格力电器股份有限公司 Gree Electric Appliances,Inc.of Zhuhai		康佳电子有限公司 Konka Electronics co.,ltd.
	广州南方高科有限公司 Guangzhou Soutec (Group) Technology Co.,LTD		德昌电机工业制造厂有限公司 Johnson Electric Industrial Manufactory Limited
	德赛电子（惠州）有限公司马Desay Electronics (Huizhou) Co.,Ltd.		日本京滨汽车装置有限公司 Japan Keihin Engine Management System Co.,LTD.
	天祥电子有限公司 Sky Fortune Electronics Co.,LTD.		胜美达集团 Samida Gorporation
	赛尔康（深圳）有限公司 Salcomp (Shenzhen) Co., Ltd.		精电有限公司 VARITRONIX LIMITED

排名不分先后

	金宝电子（中国）有限公司 KINPO INTERNATIONAL LIMITED		罗技电子（上海）有限公司 LOGITECH ELECTRONIC CO.,LTD.
	华阳通用电子有限公司 FORYOU MULTIMEDIA ELECTRONICS CO.,LTD.		系统（台湾）电子有限公司 Sysgration Taiwan Electronic Co.,LTD.
	银溢（日本）电子实业有限公司 SILVER (Japan) Electronic Co.,LTD.		深圳市航盛电子股份有限公司 Shenzhen Hangsheng Electronic Co., Ltd.
	新加坡斯比泰集团 Singapore Speedy-Tech Group		国光电器股份有限公司 Guoguang Electric Co.,LTD.
	澳利电器制品有限公司 ARLEC ELECTRICAL PRODUCTS CO.,LTD.		泛邦电子厂 Sinobond Electric Co.,LTD.

CE Certificate



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info@giordano.com

ISTITUTO GIORDANO S.p.A.
SINCE 1959 RESEARCHES AND CERTIFICATIONS EXPERTS

TYPE-EXAMINATION CERTIFICATE

No. 28545/477/C
Contract No. CHIG6503309

This is to certify that the products identified below are in compliance with the essential requirements of the following standards, according to European Directive 98/37/EC (MD).

LEAD FREE SOLDERING MACHINE

Models/Types:
KWA-1225 Super EP, KWA-1225 Super Pro, KWA-350 Super EP, KWA-350 Super Pro

Standards:
EN 292-1:1991, EN 292-2:1991 + A1:1995, EN 60204-1:1997

Applicant:
KINCE WORLDWIDE CO., LTD.

Address:
Kince Industrial Bldg, You Yi Road Chong Tou Management Zone, Chang An, Dongguan, Guangdong Prov., China

According to the procedures established by European Directive 98/37/EC (MD) the Applicant can proceed with the CE marking of the above mentioned products signing the declaration of conformity and affixing the following symbol




Place and date of issue
Bellaria Igea Marina, 28 July 2005

Chief Executive Officer
Dott. Arch. William Giorgetti
William Giorgetti

OFFICIAL ACKNOWLEDGEMENTS:

"Notified Body" no. 0427 for the following European Directives:

- European Directive 90/269 concerning recreational crafts
- European Directive 1987/REX relating to machinery
- European Directive 1987/REX concerning the safety of toys
- European Directive 92/45/EEC on efficiency requirements of bare foot water heaters heated by combustion or gas/oil
- European Directive 90/269/EEC relating to appliances having pressure built
- European Directive 87/40/EEC relating to simple pressure vessels
- European Directive 90/269/EEC concerning pressure equipment
- European Directive 1989/36/EEC on transportable pressure equipment
- European Directive 89/10/EEC relating to transportation products
- European Directive 2007/14/EC on emission reduction in the environment for machinery and equipment
- European Directives 90/269/EEC and 90/269/EEC on the evaluation of machine equipment

MEMBERSHIP OF INTERNATIONAL BODIES:

- ALP - Association of Independent Test Laboratories
- AIAE - American Society of Heating, Refrigerating and Air Conditioning Engineers Inc.
- ASFA - American Society for Testing and Materials
- EA - European co-operation for Accreditation
- EALMA - Research Association for Managers and Administrators
- EASO - European Association of Research and Technology Organizations
- ESCLF - European Group of Official Laboratories for Fire Testing
- IAF - International Accreditation Forum
- PT (Instit for Fenster/Technik & V) Laboratory testing and surveillance as company on product certification procedures for the release of the TTT-GC during work on large-scale production
- IRI - International Institute of Industrial Certification: Testing of product certification schemes and release the "CE" mark
- IAC - International Laboratory Accreditation Cooperation
- ISO (Institute of Quality Marking): Testing of certification schemes for the use of product and release the "ISO-9000 Quality Mark" on floor
- IEC/EMARK for thermal insulation (low loss mark) - Authorization issued 05/07/02 suspended by EGES for measurement of thermal conductivity within voluntary product certification programme CEN/ENMARK for insulation materials

ISTITUTO GIORDANO S.p.A.
Cod. Fisc. (P.IVA) No. 01549340420
R.E.A. nr. C.I.A.A. (RN) 195796
Regione Imprese Roma n. 02546504549
Cap. Soc. € 800.000 i.v.

CLAUSES:

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LEAD FREE SOLDERING MACHINE

Models/Types:
KWA-1225 Super EP, KWA-1225 Super Pro, KWA-350 Super EP, KWA-350 Super Pro

Standards:
EN 292-1:1991, EN 292-2:1991 + A1:1995, EN 60204-1:1997

Applicant:
KINCE WORLDWIDE CO., LTD.

Address:
Kince Industrial Bldg, You Yi Road Chong Tou Management Zone, Chang An, Dongguan, Guangdong Prov., China

According to the procedures established by European Directive 98/37/EC (MD) the Applicant can proceed with the CE marking of the above mentioned products signing the declaration of conformity and affixing the following symbol




Place and date of issue
Bellaria Igea Marina, 28 July 2005

Chief Executive Officer
Dott. Arch. William Giorgetti
William Giorgetti

Annex to
TYPE-EXAMINATION CERTIFICATE No. 28545/477/C

Product: LEAD FREE SOLDERING MACHINE

Technical specifications

Models	KWA - 1225 Super EP	KWA - 1225 Super Pro	KWA - 350 Super EP	KWA - 350 Super Pro
1. Specifications				
Process Width [mm]	500	500	350	350
Setpoint Max [°C]	310	310	350	350
Profiling Channels	3	6	3	6
Operation Platform	Windows 2000	Windows 2000	Windows 2000	Windows 2000
No. Of Cooling Zones	2	2	2	2
Temp Accuracy [°C]	+/- 1.5	+/- 1.5	+/- 1.5	+/- 1.5
Temp Deviation Across [°C]	+/- 2	+/- 2	+/- 2	+/- 2
Fluxer Type	N/A	N/A	Spray type	Spray type
Solder Pot Capacity [kg]	N/A	N/A	420	420
2. Dimensions (L x W x H) [mm]				
Width	4830	4830	4870	4870
Length	1440	1500	1250	1450
Height	1690	1650	1800	1820
Weight [kg]	2330	2500	2100	2250
4. Power [kW]	< 73	< 73	< 28	< 28

ISTITUTO GIORDANO S.p.A.
Cod. Fisc. (P.IVA) No. 01549340420
R.E.A. nr. C.I.A.A. (RN) 195796
Regione Imprese Roma n. 02546504549
Cap. Soc. € 800.000 i.v.

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CE Certificate



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Shanghai, China 200040
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Fax: 0086-21-62487108
info@china.com

TYPE-EXAMINATION CERTIFICATE

No. 28546/478/C
Contract No. CHIG0503310

This is to certify that the product identified below is in compliance with the essential requirements of the following standards, according to European Directive 98/37/EC (MD).

Description:
SEMI-AUTO SOLDER PASTE PRINTING MACHINE

Model/Type*:
KWA-1016

Standards:
EN 292-1:1991, EN 292-2:1991 + A1:1995, EN 60204-1:1997

Applicant:
KINCE WORLDWIDE CO., LTD.

Address:
Kinco Industrial Bldg, You Yi Road Chong Tou Management Zone, Chang An, Dongguan, Guangdong Prov., China

According to the procedures established by European Directive 98/37/EC (MD) the Applicant can proceed with the CE marking of the above mentioned product signing the declaration of conformity and affixing the following symbol




Place and date of issue
Bellaria Igea Marina, 29 July 2005

Chief Executive Officer
Dott. Arch. William Giorgetti
D. Kwan

This certificate refers to the conformity to the above Directive.
It does not exclude the product having to be in compliance with other applicable Directives.

Sheet No. 1 of 2

OFFICIAL ACKNOWLEDGEMENTS:

- Notified Body n. 0427 for the following European Directives:
- European Directive 94/56/EC concerning recreational craft.
- European Directive 90/269/EEC relating to machinery.
- European Directive 90/269/EEC concerning the safety of lifts.
- European Directive 92/45/EEC on electrical safety of new hot water boilers fuelled by combustible or gaseous fuels.
- European Directive 90/269/EEC relating to appliances burning gaseous fuel.
- European Directive 92/45/EEC relating to simple pressure vessels.
- European Directive 97/23/EC concerning pressure equipment.
- European Directive 1989/45/EEC on the protection of workers exposed to electromagnetic fields.
- European Directive 90/269/EEC relating to low-voltage equipment.
- European Directive 2004/10/EC on electrical safety in the environment for machinery and equipment.
- European Directive 90/269/EEC and 90/269/EEC on the evaluation of machine equipment.

MEMBERSHIP OF INTERNATIONAL SOCIETIES:

- AIPT - Association of Independent Test Laboratories.
- ASNT - American Society of Nondestructive Testing and Air Conditioning Engineers Inc.
- ASTM - American Society for Testing and Materials.
- CEI - European co-operation for Accreditation.
- ENAC - Research Association for Managers and Administrators.
- ENAC - European Association of Research and Technology Organizations.
- ENAC - European Group of Official Laboratories for Testing.
- IAF - International Accreditation Forum.
- IFT (Institut für Technische u.V.) Laboratory testing and surveillance at company on product certification procedures for the release of the "CE" mark.
- CEI (Certification Institute of Industrial Certification) Testing of product certification schemes and release of the "CE" mark.
- ILAC - International Laboratory Accreditation Cooperation.
- IMC (Institute of Quality Marking) Testing of certification schemes for the use and product and release of the "CE" mark.
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Shanghai, China 200040
Tel. 0086-21-52140386
Fax: 0086-21-62487108
info@china.com

TYPE-EXAMINATION CERTIFICATE No. 28546/478/C

Product: SEMI-AUTO SOLDER PASTE PRINTING MACHINE

Technical specifications

Models	KWA-1016
1. Specifications	
Printing Area [mm x mm]	300 x 400
Stencil Size [mm x mm]	550 x 650
Printability [mm pitch]	0.3
Controls	PLC
No. Of Squeegee	2
Repeatability [mm]	+/- 0.020
2. Dimensions (L x W x H) [mm]	
Width	650
Length	860
Height	1630
3. Weight [kg]	250
4. Power [kW]	100

Place and date of issue
Bellaria Igea Marina, 29 July 2005

Chief Executive Officer
Dott. Arch. William Giorgetti
D. Kwan

This certificate refers to the conformity to the above Directive.
It does not exclude the product having to be in compliance with other applicable Directives.

Sheet No. 1 of 2

OFFICIAL ACKNOWLEDGEMENTS:

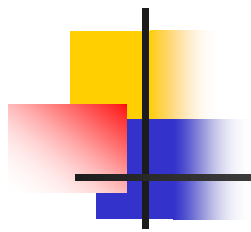
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- European Directive 97/23/EC concerning pressure equipment.
- European Directive 1989/45/EEC on the protection of workers exposed to electromagnetic fields.
- European Directive 90/269/EEC relating to low-voltage equipment.
- European Directive 2004/10/EC on electrical safety in the environment for machinery and equipment.
- European Directive 90/269/EEC and 90/269/EEC on the evaluation of machine equipment.

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THE END