JST ELECTRONICS

Content:-

1. Auto tronik
   - Screen Printer
   - Chip Mounter Machine
2. BOSUNG ENG CO,.LTD
   - Nozzle for SMT Machine
   - Nozzle Cleaner Machine
   - Nozzle Inspection Camera - Cleaning Roll Paper Machine - Chip Counter
   - Solder Paste Mixer
3. KBC CO., LTD
   - EM Series, Semi-auto PCB Separator - Mini Wave Soldering System
   - Soldering Iron
   - Soldering Wire V-Cut Unit
   - Bonpen Series
   - Thermometer
   - Label Auto Dispenser
   - Tape Auto Dispenser -
4. Pemtron
   - 3D SPI Machine
   - 3D AOI Machine In-line / Off-line
   - Automated Conformal Inspection Machine - SEM

-

GREETING

AUTOTRONIK
Fertigungssysteme für die Elektronikindustrie

MODEL: BS281 BENCH-TOP PICK & PLACE MACHINE

FEATURES

- Flying Vision for components from 0.6 mm x 0.3 mm (0201) to 16 mm x 14 mm
- Bottom Vision Camera for alignment of 01005, up to 0.5 fine pitch QFP & BGAs (option)
- 32 lane feeder bases mount at left and right of system for maximum capacity of 64 automatic 8 mm Tape Feeders
- Optional feeders and accessories allow a wide variety of configurations for full and partial reels of Tape, strips of Cut Tape, Stick / Tube, and IC Tray Packaging
- Programming via CAD Conversion, Direct Input, or Teaching/Fiducial Recognition Camera
- PC controller, monitor, and keyboard included with Easy-to-Use, Windows®XP-based control software
- Optional Dispensing system

MODEL: BA385V1 / BA385V2 SMT PICK & PLACE MACHINE

SUMMARY

- High Accuracy and high Flexibility for 01005, 0201, SOIC, PLCC, BGA, µBGA, CSP, QFP, up to fine-pitch 0.3mm
- Non-contact Linear Encoder System for high Repeatability and Stability
- Smart Feeder System provides Automatic feeder Position Checking, Automatic Component Counting, Production Data Traceability
- Perfect for small & medium volume Production
- COGNEX® Alignment System “Vision on the Fly”
- Bottom Vision Alignment System for fine pitch QFP & BGA
- Built in Camera System with Auto Smart Fiducial Mark Learning
- Dispenser System
- Vision Inspection before and after Production
- Windows XP Software
- Universal CAD Conversion
- Placement rate: 6,400 cph
- Ball Screw Systems in X- and Y-Axes
- Suitable for 128 intelligent Auto Tape Feeder

AUTOTRONIK
Fertigungssysteme für die Elektronikindustrie

MODEL: BA392V1 / BA392V2 SMT PICK & PLACE MACHINE

SUMMARY

- Large 650 mm x 350 mm placement area
- Suitable for 160 intelligent Auto Tape Feeder
- High Accuracy and high Flexibility for 01005, 0201, 0402, 0603, SOIC, PLCC, BGA, µBGA, CSP, QFP, up to fine-pitch 0.3mm
- Smart Feeder System provides Automatic feeder position checking, Automatic component counting, Production data Traceability
- Perfect for small & medium volume production
- COGNEX® Alignment System "Vision on the Fly"
- Bottom Vision Alignment System for fine pitch QFP & BGA
- Built in Camera System with Auto Smart Fiducial Mark Learning
- Dispenser system
- Vision Inspection before and after production
- Windows XP Software
- Universal CAD Conversion
- Placement rate: 6,400 cph
- Tray Handler access up to 10 Waffle Trays

MODEL: BA392-LED SMT PICK & PLACE MACHINE

SUMMARY

- Unique Dual Stage conveyor for 1.2m LED board application
- High Accuracy and high Flexibility for 01005, 0201, 0402, 0603, SOIC, PLCC, BGA, µBGA, CSP, QFP, up to fine-pitch 0.3mm
- Smart Feeder System provides Automatic feeder position checking, Automatic component counting, Production data Traceability
- Perfect for small & medium volume production
- COGNEX® Alignment System "Vision on the Fly"
- Bottom Vision Alignment System for fine pitch QFP & BGA
- Built in Camera System with Auto Smart Fiducial Mark Learning
- Dispenser system
- Vision Inspection before and after production
- Windows XP Software
- Universal CAD Conversion
- Placement rate: 6,400 cph
- Suitable for 96 intelligent Auto Tape Feeder
- Tray Handler access up to 10 Waffle Trays

AUTOTRONIK
Fertigungssysteme für die Elektronikindustrie

MODEL: BA388V2 SMT PICK & PLACE MACHINE

SUMMARY

- Suitable for 256 intelligent Auto Tape Feeder
- Max. PCB-size: 1250 x 350 mm (with conveyor), 1100 x 410mm (without conveyor)
- High Accuracy and high Flexibility for 01005, 0201, 0402, 0603, LED, SOIC, PLCC, BGA, µBGA, CSP, QFP, up to fine-pitch 0.3mm
- Smart Feeder System provides Automatic feeder position checking, Automatic component counting, Production data Traceability
- Perfect for extra large PCB Production
- COGNEX® Alignment System "Vision on the Fly"
- Bottom Vision Alignment System for fine pitch QFP & BGA
- Built in Camera System with Auto Smart Fiducial Mark Learning
- Dual conveyor system (option)
- Dispenser system
- Vision Inspection before and after production
- Windows XP Software
- Universal CAD Conversion
- Placement rate: up to 6,400 CPH

MODEL: BA389F3 SMT PICK & PLACE MACHINE

SUMMARY

- High Accuracy and high Flexibility for 01005, 0201, SOIC, PLCC, BGA, µBGA, CSP, QFP, up to fine-pitch 0.3mm
- Non-contact Linear Encoder System for high Repeatability and Stability
- Smart Feeder System provides Automatic feeder Position Checking, Automatic Component Counting, Production Data Traceability
- Perfect for small & medium volume Production
- COGNEX® Alignment System "Vision on the Fly"
- Bottom Vision Alignment System for fine pitch QFP & BGA
- Built in Camera System with Auto Smart Fiducial Mark Learning
- Dispenser System
- Vision Inspection before and after Production
- Windows 7 Software
- Universal CAD Conversion
- Placement rate: 10,500 cph (IPC 9850)
- Ball Screw Systems in X- and Y-Axes
- Suitable for 160 intelligent Auto Tape Feeder

LED Board Assembly

Applicable for:

Long LED board

Flexible PCB board

Circular LED light bulb board

LD812V4/LD812W3
LD806V4/LD806W3

for LED Board Assembly

Features

◎ True 'Vision On the Fly' Alignment
◎ Fiducial recognition and coordinate correction
◎ Assembles LED boards up to 1200 mm long in a single pass (option for 1800mm long)
◎ Positive air puffing at the pick-up nozzle ensures release of 'sticky' LED components during placement
◎ Large working platform allows multiply PCB production in one stage (for same type of PCB)
◎ Uninterrupted production by auto-selection for alternative when feeder is empty
◎ High-precision ballscrew drive
◎ Tape feeder allows tape connection to minimize production interruption
◎ Heavy-duty welded frame provides stability for precision placements even at high speeds
◎ Option Teflon® nozzles available for sticky LED components; customized nozzles available on request
◎ Three heads for high placement rates

Non-contact alignment algorithms performed during head travel

Single pass assembly

LED nozzle

AUTOTRONIK
Fertigungssysteme für die Elektronikindustrie

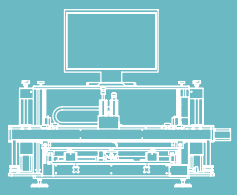
AUTOTRONIK
Fertigungssysteme für die Elektronikindustrie

MODEL: BS110 MANUAL SCREEN & STENCIL PRINTER

SPECIFICATION

- Stencil frame size:
  300 x 300 mm - 740 x 740 mm
- Work table size:
  610 mm x 610 mm
  1250 mm x 410 mm (by option FIX-ST-L120)
- X- and Y-Axes range: +/- 13 mm
- Theta rotation: +/- 3,5°
- Underside Clearance: 25 mm
- Z-axis range: 0 - 35 mm
- Registration Repeatability: +/- 0.02 mm
- Overall dimensions:
  900 mm x 1050 mm x 300 mm (L x D x H)
- Machine weight: 90 kg

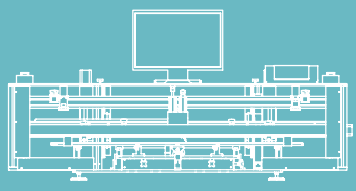
MODEL: SP600 / SP600L / SP1200 SEMI-AUTOMATIC STENCIL PRINTER



SP600 / SP600L

Stencil Frame Size :
350 x 350mm to 838 x 500mm (SP600)
350 x 350mm to 838 x 736mm (SP600L)

- Printing Area :
  Max.600mm x 400mm (SP600)
  Max.600mm x 600mm (SP600L)
- Board size :
  Max.650mm x 410mm (SP600)
  Max.650mm x 650mm (SP600L)
- X- and Y-Axes range: +/- 13 mm
- Theta rotation: +/- 3.5°
- Underside Clearance: 25 mm
- Z-axis range: 0 - 35 mm
- Registration Repeatability: +/- 0.01 mm
- Overall dimensions (L x W x H):
  1064mm x 1006mm x 851mm (SP600)
  1100mm x 1100mm x 851mm (SP600L)
- Machine weight:
  108kg (SP600)
  135kg (SP600L)



SP1200

Stencil Frame Size :
350 x 350mm to 1480 x 500mm
Printing Area :
Max.1200mm x 400mm

- Board size :
  Max.1250mm x 410mm
- X- and Y-Axes range: +/- 13 mm
- Theta rotation: +/- 3.5°
- Underside Clearance: 25 mm
- Z-axis range: 0 - 35 mm
- Registration Repeatability: +/- 0.01 mm
- Overall dimensions (L x W x H):
  1719mm x 1006mm x 851mm
  Machine weight: 162kg

AUTOTRONIK
Fertigungssysteme für die Elektronikindustrie

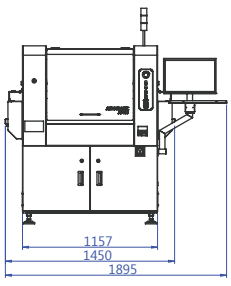
MODEL: BS1300 / BS1400 SEMI / FULLY AUTOMATIC STENCIL PRINTER

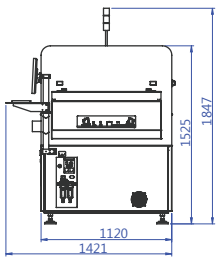
SPECIFICATION

- Printing Speed: 10 - 100 mm/s (Servo Control)
- Table Up/Down Speed:
  0,5 mm/s - 5 mm/s (Servo Control)
- Cycle Time: 15 - 25 sec./PCB
- Vision Alignment System:
  BS1300: Semi-auto PCB Alignment (OPVA)
  BS1400: fully-auto PCB Alignment (AT- Align)
- Stencil Frame Size:
  450 x 450 mm – 736 x 736 mm
- Printing Area:
  Max. 400 x 400 mm, 500 x 400 mm (optional)
- Board size:
  Min. 20 x 20 mm,
  Max. 400 x 380 mm, 500 x 380 mm (optional)
- Board thickness:
  0,2 mm - 8 mm
- Printing Stroke: Max. 450 mm
- Squeegee Pressure: 0 -15 kg
- Blade Type:
  Standard Length: 250 mm
  Optional Length: 200 mm - 500 mm)
- XY Adjustment: ± 5 mm
- Radial Adjustment: ±2°
- Registration Repeatability: ± 0.01 mm
- Support Tooling: Magnetic pin & Vacuum Block
- Camera: 2 set of B/W CCD camera
- Vision Alignment Resolution:
- 0,0085 mm / step
- Vision Fiducial:
- Standard Fiducial, any Pads, IC foot Pads
- Machine Size: 1550 x 900 x 1350 mm (L x W x H)
- Weight: 400 kg
- Power: 230 V / AC, 500 W
- Pressure: 75psi (5,5 bar)

The **Model BS1300** is a economic and accurate semi-automatic SMT stencil printer, suitable for small and medium volume production. Including the dual camera system, the ultra-fine pitch printing for 0.3 mm QFP IC is easy to obtain.

The **Model BS1400** is a very accurate fully automatic SMT stencil printer. It includes a powerful AT-align automatic fiducial finding and PCB board offset adjustment system. After pressing the start key, the PCB alignment and printing process will be fully automatic, which is very suitable for precision batch printing.

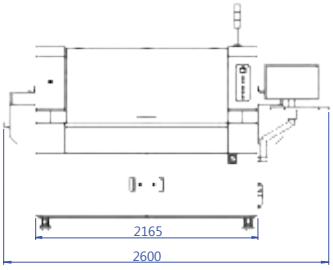


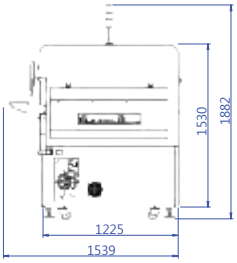


MODEL **AP430/AP430L/AP660**
Key Features

- Dual-camera vision for fast PCB orientation
- Print repeatability of ±0.008mm
- Dual squeegees with dual-stroke control for efficient solder paste use
- Flexible mounting for single- or double-sided boards
- Fast job setup and changes
- Excellent parallel separation of stencil and PCB with programmable speed control for well-defined prints
- Accepts stencils size from min. 470 x 300 mm (AP430), 520 x 300 mm (AP430L), 736 x 736 mm (AP660) to max. 736 x 736 mm, 900 x 900mm (AP660)
- Accommodates PCBs to 400 x 300 mm (AP430), 450 x 350 mm (AP430L), 600 x 600 mm (AP660)

AUTOTRONIK
Fertigungssysteme für die Elektronikindustrie





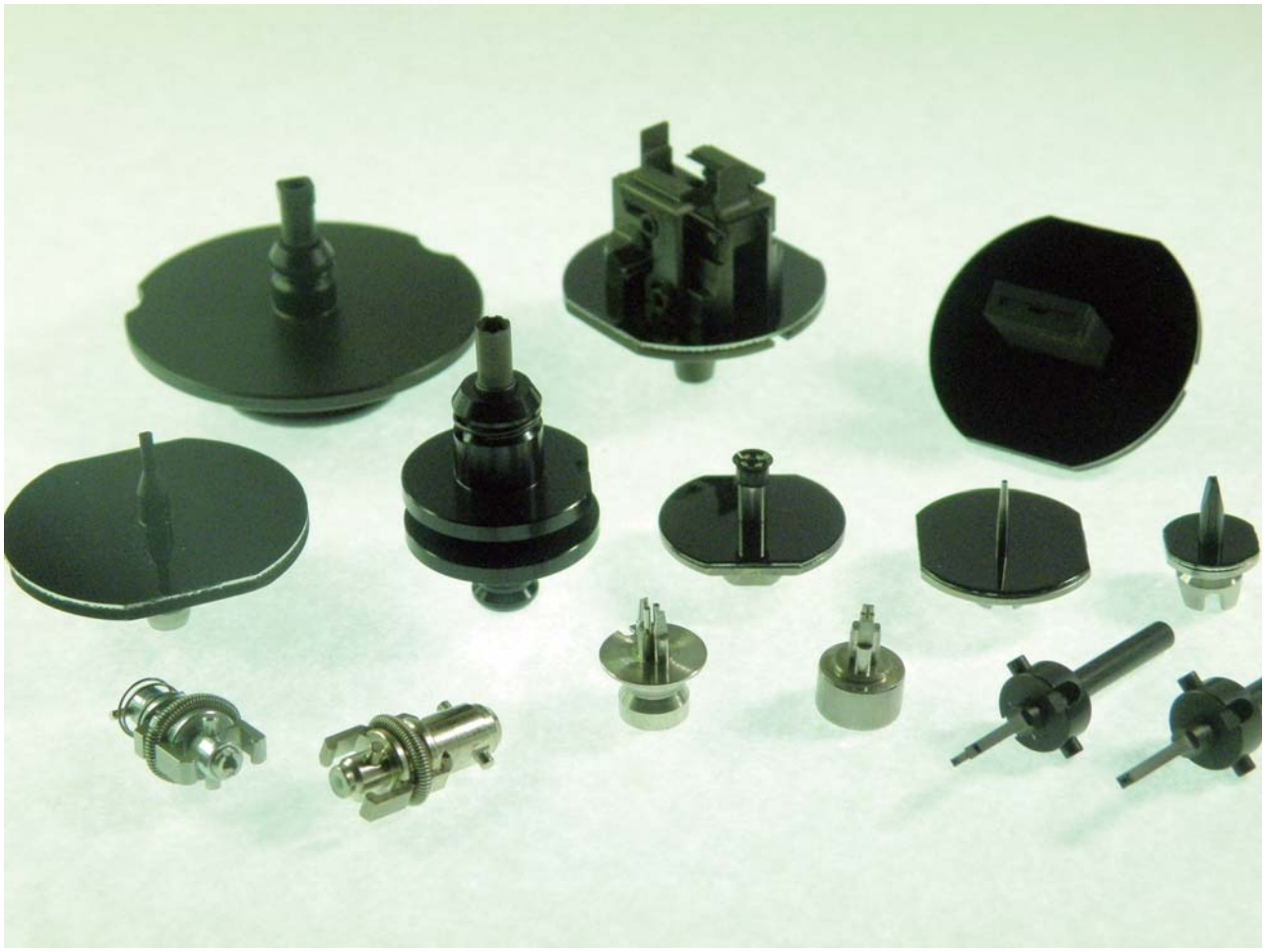
MODEL **AP1200/AP1500**

Key Features

- Dual-camera vision for fast PCB orientation
- Print repeatability of ±0.01mm
- Dual squeegees with dual-stroke control for efficient solder paste use
- Flexible mounting for single- or double-sided boards
  Fast job setup and changes
- Excellent parallel separation of stencil and PCB with programmable speed control for well-defined prints
- Custom-designed clamping device holds long PCBs straight and suppresses the bending of flexible boards
- Vacuum table holding fixture keeps PCB flat for best printing result Automatic conveyor width adjustment for convenient board loading
- Accepts stencils size from min. 400 x 300 mm to max. 1600 x 300 mm (AP1200), 1900 x 300 mm (AP1500)
- Accommodates PCBs to 1200 x 300 mm (AP1200), 1500 x 300 mm (AP1500)

SMT NOZZLE - PANASONIC

BOSUNG ENG CO.,LTD.



NPM-2HEAD, 3HEAD(CM20F, DT401)

PART NO.	PART NAME.
0603	1582 (1582N)
KXFW1ASAA00	1001 (1001N)
KXFW1ATAA00	1002 (1002N)
KXFW10YAA00	1003 (1003N)
KXFW1AUAA00	1004 (1004N)
KXFW1AVAA00	1005 (1005N)

NPM-8HEAD(CM402)

PART NO.	PART NAME.
N610038265AA	256C(203Z)
N610000995AA	205A
101YC0-K0201	210A
N610040782AB	225C
N610040783AB	226C
N610040784AB	230C
N610040782AB	235C
N610062681AB	240C

NPM-12HEAD, 16HEAD(CM602)

PART NO.	PART NAME.
N610038265AA	256CS(203ZN)
N610017370AC	205CS
N610040786AA	225CS
N610040787AA	226CS
N610040788AA	230CS
N610043815AA	235CS
N610040853AA	240CS

BM series (MSF)

PART NO.	PART NAME.
1086GH810AA	SX
10807GH811AG	SA
10807GH812AG	S
10807GH813AF	M
10807GH814AF	ML
10807GH815AF	LA

AM100K

HT-122, HT-132 (MSR)

MV series

MSH2, MSH-G1

MSH3

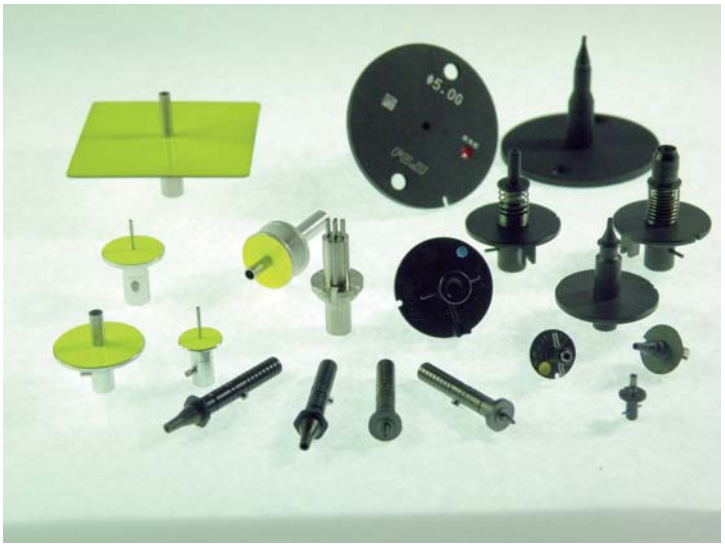
MPAG3, MPAV2B

SMT NOZZLE - FUJI

BOSUNG ENG CO.,LTD.

CP7, CP8

PART NO.	PART NAME.
R08-004	ϕ 0.4 (STRAIGHT)
808-004C	ϕ 0.4 (TAPER, CORONA)
ADCPH-9520	ϕ 0.7
ADCPH-9530	ϕ 1.0
ADCPH-9540	ϕ 1.3
ADCPH-9700	ϕ 1.3 MELF
ADCPH-9550	ϕ 1.8
ADCPH-9560	ϕ 2.5
ADCPH-9800	ϕ 2.5 MELF
ADCPH-9570	ϕ 3.75



CP4

CP6

XP141

XP142, XP143

XP 242, XP243, XP341

NXT 12HEAD

PART NO.	PART NAME.
AA1AT00	ϕ 0.3
AA05600	ϕ 0.4
AA05700	ϕ 0.7
AA05800	ϕ 1.0
AA20A00	ϕ 1.3
AA06400	ϕ 1.3 MELF
AA20B00	ϕ 1.8
AA19G00	ϕ 1.8 MELF
AA20C00	ϕ 2.5
AA20D00	ϕ 3.75

NXT 01HEAD, 02HEAD

NXT 04HEAD

NXT AIM 08HEAD

NXT-III

SMT NOZZLE - I-PULSE

M6, M7, M10, M20

PART NO.	PART NAME.
LC6-M7712-00	P031
LC6-M7114-00	P032
LC6-M7716-00	P033
LC6-M7718-00	P034

M1, M4

M2

SMT NOZZLE - YAMAHA

BOSUNG ENG CO.,LTD.

YV100X, YV100X-F

PART NO.	PART NAME.
KV8-M7710-A0X	71A
KV8-M7720-A0X	72A
KV8-M7730-A0X	73A
KV8-M7740-A0X	74A
KV8-M7760-A0X	76A
KV8-M7790-A0X	79A
KV8-M71N1-A00	71F
KV8-M71N2-A00	72F
KV8-M71N3-A00	73F

YS12/24, YG12, YF12(MG3)

PART NO.	PART NAME.
KHN-M7710-A1X	301
KHN-M7720-A1X	302
KHY-M7740-A0X	303
KHY-M7750-A0X	304
KHY-M7760-A0X	305
KHY-M77A0-A0X	310
KHY-M7710-A0X	311
KHY-M7720-A0X	312
KHY-M7730-A0X	313

YG100R/B, MG1/8

YG200, YG300

YV88, YV100II

YV88XG, YV88XG-F

I-CUBE series

YSD

SMT NOZZLE - ASSEMBLEON (PHILIPS)

ASSEMBLEON AX-5

ASSEMBLEON MG-3, MC-1/3

ASSEMBLEON MG-1,8

ASSEMBLEON TOPAZ-XII

ASSEMBLEON OPAL-XII

ASSEMBLEON EMERALD-XII

ASSEMBLEON TOPAZ, EMERALD

SMT NOZZLE - JUKI

BOSUNG ENG CO.,LTD.

KE2010 ~ KE2040

PART NO.	PART NAME.
E3608-729-0A0	500
E3600-729-0A0	501
E3601-729-0A0	502
E3602-729-0A0	503
E3603-729-0A0	504
E3604-729-0A0	505
E3605-729-0A0	506
E3606-729-0A0	507
E3607-729-0A0	508

KE2050 ~ KE2080, FX1/3

PART NO.	PART NAME.
E3608-729-0A0	500
E3600-729-0A0	501
E3601-729-0A0	502
E3602-729-0A0	503
E3603-729-0A0	504
E3604-729-0A0	505
E3605-729-0A0	506
E3606-729-0A0	507
E3607-729-0A0	508

KE750

PART NO.	PART NAME.
E3501-721-0A0	101
E3502-721-0A0	102
E3503-721-0A0	103
E3504-721-0A0	104
E3505-721-0A0	105
E3551-721-0A0	106

SMT NOZZLE - MIRAE

MX310, MPS-1010, MPS-1020

PART NO.	PART NAME.
21003-61090	A
21003-62090	B
21003-63090	C
21003-64090	D

MX240, MPS-1020QP (PRECISION(QP))

PART NO.	PART NAME.
21243-61090-003	A
21243-62090	B
21243-63090	C
21243-64090	D

SMT NOZZLE - HITACHI

BOSUNG ENG CO.,LTD.

GXH - 1/3 (HIGH SPEED)

PART NO.	PART NAME.
630 152 8267	HG31 (TENSION TYPE)
630 152 8472	HG51 (TENSION TYPE)
630 158 9084	HG81 (TENSION TYPE)
630 152 8267	HV31, HV32, HV33
630 152 8472	HV51, HV52, HV53
630 158 9084	HV81, HV82, HV83

∑G-4/5, GXH-1/3(MULTI NOZZLE)

∑-G4/5 (HIGH SPEED)

PART NO.	PART NAME.
HG21C	HG21C (TENSION TYPE)
HG31C, HG32C	HG31C (TENSION TYPE)
HG51C, HG52C	HG51C (TENSION TYPE)
HG81C, HG82C	HG81C (TENSION TYPE)
	HV31C, HV32C
	HV51C, HV52C
	HV81C, HV82C

TCM - 1000

TCM - 3000

TCM - 822

SMT NOZZLE - SAMSUNG

(HANHWA TECHWIN)

SM SERIES, CP45-NEO

PART NO.	PART NAME.
J9055133D	CN030
J9055134C	CN040
J9055136C	CN065
J9055159C	CN140
J9055257A	CN220
J9055258A	CN400
J9055259A	CN750

EXCEN VN

PART NO.	PART NAME.
AM03-000152A	VN020 (0402)
AM03-000153A	VN030 (0603, 1005)
AM03-000154A	VN040 (1005, 1608)
AM03-000071A	VN065 (1608, 2012)
AM03-007248A	VN080 (2012)
AM03-000072A	VN140 (2012~3225R)
AM03-000073A	VN220 (3225, 5432)

CP45F-V

CP40L-V

SMT NOZZLE - CASIO

BOSUNG ENG CO.,LTD.

YCM-3300, YCM-3500

YCM-7000, YCM-7700, YCM-8800

SMT NOZZLE - ASM

CP20

CPP

400 SERIES

500 SERIES

700 SERIES

900 SERIES

1000 SERIES

2000 SERIES

SMT NOZZLE - ASM

F-130

E-1000

E-2000

G200MK

SIG-200

SHAFT & HOLDER

BOSUNG ENG CO.,LTD.

RUBBER BLOCK

FILTER

BOSUNG ENG CO.,LTD.

PANASONIC

FUJI

SAMSUNG (HANHWA)

YAMAHA

JUKI

HITACHI

FEEDER PART

PANASONIC	YAMAHA	HITACHI	JUKI
FUJI	SONY	SIEMENS	CASIO
HANWHA TECWIN (SAMSUNG TECWIN)	ASSEMBLEON	MIRAE	I-PULSE

JOINT TAPE & CLIP

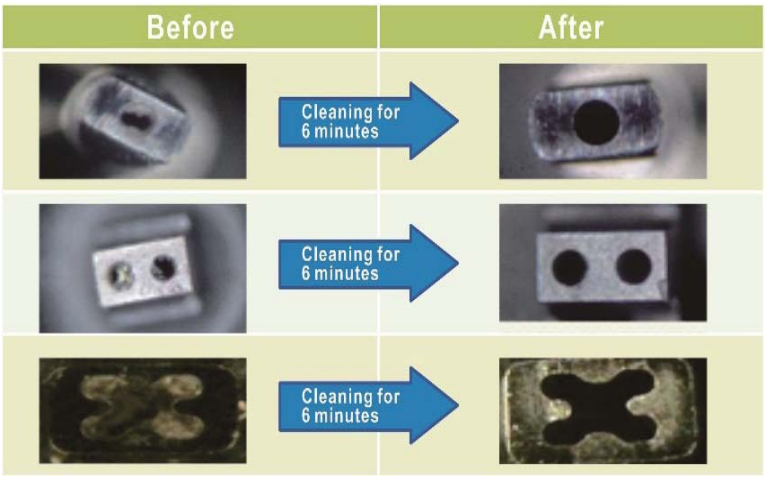
1BOX = 500EA

1BOX = 5000EA

ECO NOZZLE CLEANER

BOSUNG ENG CO.,LTD.

ENC-12S, ENC-24S



Cleaning Process

1 STEP BOT DI.WATER → 2 STEP TOP DI.WATER → 3 STEP TOP/BOT AIR → 4 STEP SIDE AIR → 5 STEP REAR AIR

Features of Nozzle Cleaner

- The effect of Carbon reduction by using distilled water
- Possible to clean 12/24 nozzles at the same time
- Easy to operate with touch panel
- Reduce the time to change the nozzle by using the nozzle holder

NOZZLE INSPECTION (ENI-12A, ENI-12AP)

NAME	ENI-12A	ENI-12AP
Dimension	Nozzle Inspection System	
Size	400(L)×300(W)×500(H)	
CCD Camera	1/3' sony	
Monitor	7 inch	
Optical Magnification	0.7× ~ 4.5×	
Working Distance	110mm	
Maximum Magnification	Max 130 times	
Pneumatic	Min 4kgf/cm^2	
Voltage	110V/60Hz or 220V/50Hz	
Weight	9kg	
Image Store	Impossible	Possible(PC)

CLEANING ROLL PAPER MACHINE

(SC-ER360, SC-ER610F, SC-ER610FA)

Protect valuable resource and energy!

You can re-use wiper rolls for printing machine!

You can contribute to environment and manament!

Solder particle(Diameter about 25㎛)

Before

Magnification 200x

After

Paper Easy Setting

Specifications

	SC-ER360WE	SC-ER610F	SC-ER610FA
Dimension	W850 x D650 x H1,100mm	W850 x D850 x H1,100mm	W850 x D850 x H1,100mm
Weight	100kg(Dry Weight)	130kg(Dry Weight)	140kg(Dry Weight)
Cleaning Object	Cleaning Wiper Roll	Cleaning Wiper Roll	Cleaning Wiper Roll
	Width 410~250mm	Width 410~250mm	Width 610~250mm
	Inner Diameter ϕ38mm	Inner Diameter ϕ38mm	Inner Diameter ϕ38mm
Power	AC 100V 50 / 60Hz 250VA	AC 100V 50 / 60Hz 250VA	AC 100V 50 / 60Hz 250VA
Ultrasonic	40khz 300W(alternate generation)	40khz 300W(alternate generation)	40khz 300W(alternate generation)
Air	0.4MPa 500NL/min	0.4MPa 500NL/min	0.4MPa 500NL/min
Exhaust Time	Wind Speed 5m/sec	Wind Speed 5m/sec	Wind Speed 5m/sec
	Diameter ϕ98mm	Diameter ϕ98mm	Diameter ϕ98mm
Cleaning Time	※ 25~30Minutes/Roll(18m)	※ 25~30Minutes/Roll(18m)	※ 25~30Minutes/Roll(18m)

※ Solvent : Glycol, Wiper Roll : TS-100 made by Asahi Kasei
※ Cleaning time may vary in different condition

CHIP COUNTER (BSC-1000)

BOSUNG ENG CO.,LTD.

POWER SUPPLY : 110 ~ 220 AC 50/60HZ
E N C O D E R : 200 PLUSE
COUNT SPEED : 0 ~ 5,000CPM (2 ~ 56mm)
D I S P L A Y : -9,999 ~ 99,999
DIMENSIONS : 450(L) X 280(W) X 220(H)
W E I G H T : 9KG
M O T O R : 15W

SOLDER MIXER (BSM-1200)

MIXING METHOD : ROTATION

REVOLUTION METHOD

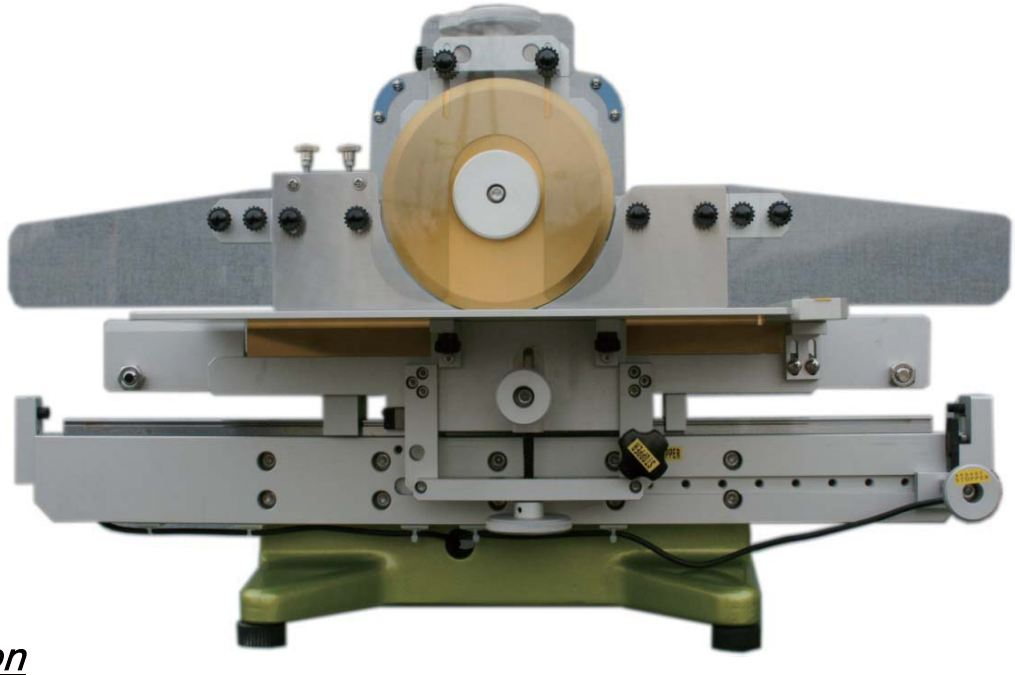
TIMER SETTING : 1sec ~ 999 min

ROTATION SPEED : 1,200RPM

DIMENSIONS : 370(L) X 370(W) X 370(H)

W E I G H T : 28 kg

SMT PCB CUTTING SUPPORTER



Specification

MODEL			
	EM-260M	EM-360M	EM-460M
Max Cut size	260mm	360mm	460mm
Upper Blade	Ø160 / Thickness 1.5mm / Circle type		
Lower Blade / Straight type	270mm	370mm	470mm
Ext Dimensions (mm)	600 x 645 x 432	600 x 816.5 x 439	600 x 1018 x 439
Weight	37kg	39kg	42kg
Component Limit	50mm upper side / 27mm lower side		
Manual <-> Motor	Can switch between manual operation and Motor operation for upper blade board sending		

Control panel

Motor operation for upper blade board sending
Digital count meter

- •Counter unit : 1 (1~999)
  Initializes to 0 by using reset button
- * Power consumption : 100~240V SMPS, 50W DC24V
- At stop : 4W
- At no-load operation : 15W
- At load operation : 25W

KBC CO.,LTD.

MINI WAVE SOLDERING SYSTEM

C-250 & C-350

Product Features & Benefits

- Saves valuable floor space
- Best in Class Lead Free

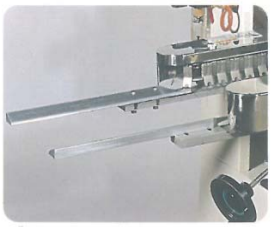
◇ **High-Precision, Ultra-Compact, Lead-Free Wave Soldering Systems**

◇ **Innovative Drum-spray Fluxing System Provides Benefits of Both Spray and Foam Methods**

◇ **Low-Volume, Seamless Solder Pot Loads Easily**

STANDARD

- Inlet rail
- Solder pot roll In/Out device
- Single wave solder pot
- Jig for anti-oxidization
- Pre-heater
- Finger conveyor
- Foam Fluxer
- Panel meter control system

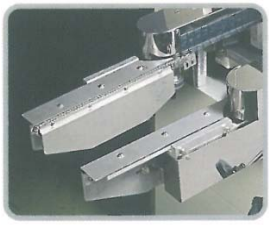

Inlet rail


Foam fluxer & Pre-heater


Single wave solder pot

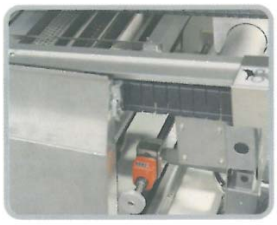

Solder pot roll in / out devices

OPTION


Inlet chain conveyor


Drum spray fluxer


Double wave solder pot


Anti-warp holder of solder pot

KBC CO.,LTD.

MINI WAVE SOLDERING SYSTEM

FEATURE

- Small Footprint - Approx. 1250 mm x 760 mm (50" x 30") C-250
  Approx. 1550 mm x 980 mm (60" x 38") C-350
- Seamless, Cast-Iron (100 kg cap.) Solder Pot with Corrosion Resistant Coating and Three Year Warranty
- Single- or Dual-Wave Configurations for Through Hole and Surface Mount Assemblies
- High-Temperature, Corrosion Resistant, Finger-Type Conveyor with Width and Angular Adjustment
- Heavy Duty Pump Motor with Dial-Adjustable Wave Height Control; Low-Temp and Overheat Alarms
- Choice of Standard Foam-Fluxer or Innovative Drum-Spray Fluxer for Superior Flux Application Consistency and Reduced Operating Cost
- Optical Sensors for On/Off Control of Fluxing and Wave Operations

SPECIFICATION

Model	C250 Double wave	C250-PLC Double wave +Spray Fluxer	C350 Double wave	C350-PLC Double wave +Spray Fluxer
Power requirement	3φ220V, 50/60Hz (Voltage: upon request)			
Energy consumption	7.7KVA		13.2KVA	
Compress Air	5kg/cm2, 5 CFM	5kg/cm2, 25 CFM	5kg/cm2, 5 CFM	5kg/cm2, 25 CFM
Conveyor angle	3-6 degree			
Conveyor speed	Max.1.6M/min, /2.0M/min(50/60Hz)			
Fluxing style	Foaming fluxer	Spray fluxer	Foaming fluxer	Spray fluxer
Fluxer capacity	3.0 liter	300c.c.	7 liter	500c.c.
Size of PCB	30 ~ 250mm		30 ~ 350mm	
Pre-heater zone length	420mm		600mm	
Pre-heater consumption	2.4kw (0.8kw x 3)		5.1kw	
Solder pot max. working temp.	300°C			
Solder capacity	About 98kg		About 160kg	
Solder pot power consumption	5.1KW		7.8KW	
Heating method of solder pot	Indirect heating method			
Solder wave type	Double wave		Double wave	
Solder wave height	10mm Max.			
Main wave Motor	90W		120W	
Main conveyor motor	40W		60W	
Main conveyor finger	L Type, High Temp. Fiber Finger			
Outline dimension (Incldue Standard Frame H: 300mm	1,960x830x1,275 (Exclude warning light) PLC : 2,020x830x1,505mm (include warning light)		PLC : 2,280x980x1,800mm (include warning light) PLC : 2,280x980x2,015mm (include 3color warning light)	
Net Weight including Stand	460KG	470KG	560KG	570KG

NOZZLE TYPE FLUX SPRAY MACHINE

NS-350

- Auto feeder pump & level sensor to keep the flux level stable
- Chain cleaner system to keep the chain conveyor operating properly
- Easy to operate by touch panel controller, Flow control by needle valve

Model NS350			
Power(Voltage upon request)	3Ø200V/220V/380V/415V, 50/60Hz	Swing motor	40W
Power consumption	600W	Spray volume	Max. 100cc/min
Air requirement	5Kg/cm2	Chain cleaner pump	35W
Controller	PLC + Touch panel	Exhaust capacity	15m3/min
Effective PCB width	45 ~ 350mm	Exhaust motor	½ HP
Effective PCB Length	75 ~ 350mm	External dimen. (signal tower ex)	1200(L) x 1020(W) x 1250(H)
Component height	Max.80mm(upper) /Max.40mm(lower)	External dimen. (signal tower in)	1200(L) x 1020(W) x 1650(H)
Conveyor direction	Left to Right	Weight	Approx. 200Kg
Conveyor Speed	Max. 2.5 M/min (60Hz)	Option	Body up spacer, Designated color
Conveyor height	800±30mm	Conveyor motor	25W

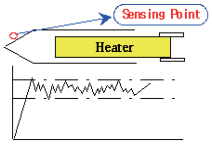
KBC CO.,LTD.

SOLDERING IRON

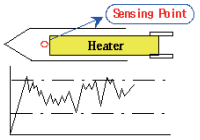
Patriot –M7X

LA(Load Application) temperature control System for LEAD-FREE

- Indicate setting & real temperature
- Fast recover the temperature
- PID temperature control system
- Long life for TIP & HEATER



LA



Non LA

<Specification>

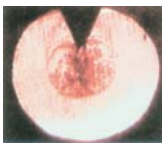
Input	AC 100 ~ 220, 50/60Hz		Heater	AC 100 or 220, 40W or 65W
Temp Range	0~500° C		TIP	BN Type TIP
Control	PID + SSR			
Dimension(mm)	97(W) x 73(H) x 130(D)			
Weight	840g			

SOLDERING WIRE V-CUT UNIT

BK-7200

Flux or solder ball scattering protection UNIT

- Protect the solder ball by V-solder
- Easy change the pulley



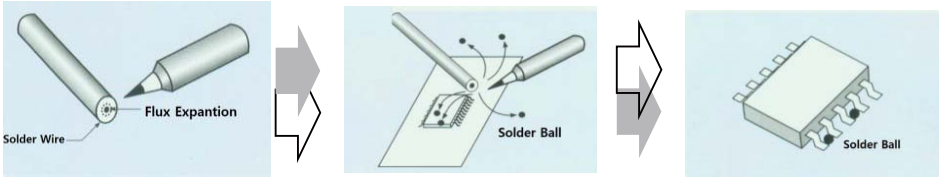
[Cutting Face]

<Specification>

Input	AC 100 ~ 220V , 50 / 60Hz
Solder wire	Ø 0.6 ~ Ø 1.6
Signal	Foot Switch
Speed	40 ~45mm
Dimension(mm)	110(W) x 160(D) x 165(H)
Weight	2kg

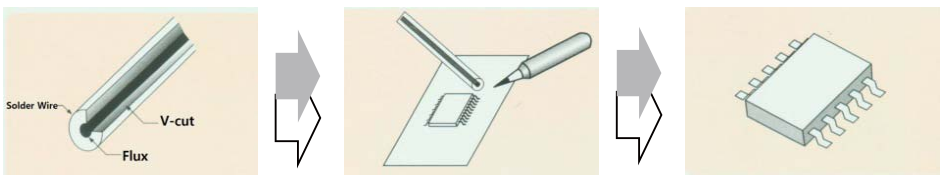
» Process

Before



BAD

After



GOOD

KBC CO.,LTD.

BONPEN – SERIES

Flux dispensing pen container

This is an empty container.
Nothing is filled in a cartridge when factory shipment.

Feature

Excellent for fine and accurate application of flux
No flux evaporation
Flux density can be kept constant
Refillable, economical and handy pen-type container

Purpose

Apply flux to base materials before soldering work

Effective for alcohol cleaning , adhesive quickening material
Remove oxidation film and improve wet-character

Thin Flat Thick Flat

Suitable for applying fluoric lubricant !

Felt type pen-tips are harder and more durable than those of brush type, they are suitable for pin-point application

You can select various shapes of pen-tips

Brush type	BR-102	φ 4.3, 14.0	For fine and precise point application
	BR-102D	17.0, φ 6.2	For large space application
	BR-102T	φ 5.2, 18.0	For fine point to large space application
Felt type	BR-102F	10.0, φ 4.5	Forlarge space application

Example of BONPEN usage

Flux prevention material

Adhesive quickening material

Alcohole cleaning

KBC CO.,LTD.

THERMOMETER

MCA-305

Feature

- As heat loss of the sensor is small, MCA-305 can measure accurately even small iron tips.
- This is a handy type that can be used for any kind of work.
- We have three types of thermal sensors for various purpose.

Specification

Resolution	0.1℃ (0～199.9℃)/1℃(All range of measurement)
Measurement range	0 ～1000℃
Detection edge	Type K
Measurement accuracy	±0.3% rdg + 2℃) (23℃±5℃ body only)
Display	3.5 digits LCD display
Power supply	DC9V (Dry cell 006P x 1pc)
Battery life	250 hrs (alkaline battery is continuously used)
Operational conditions	0～40℃、≦80%RH
Dimensions	80W×48D×156Hmm (body only)
Weight	305g

LABEL AUTO-DISPENSER

BK-250

Feature

- ❑ **Take out the Label Automatically**
- ❑ **Easy control the length & speed by sensor**
- ❑ **Select the length by label**

Specification

BK-250	S	M	L
Power	AC 100 or 220V, 50/60hz		
Label Width	8 ~ 70mm	8 ~ 120mm	8 ~ 160mm
Max. Speed	4M/Min	5M/Min	
Net Weight	4.5kg	6kg	6.5kg
Dimension(mm)	170 x 195 x 235	240 x 210 x 270	280 x 210 x 270

KBC CO.,LTD.

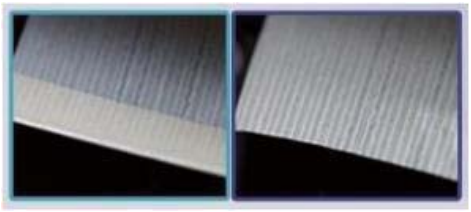
TAPE AUTO-DISPENSER

BK-6000

❖ Fold type available !!!

❖ Trouble-Free !!! ❖ Motion-Free !!!

- ❑ Automatic warning signal
- ❑ Operation Friendly
- ❑ Cut-tape never Fallen down
- ❑ Motion Economic
- ❑ No Mistake of Sensor



- Fold Type - - Standard Type -

BK-3300

- ❑ Cut-tape Automatic (5mm ~ 999mm)
- ❑ Can use two tape simultaneously

BK-8000

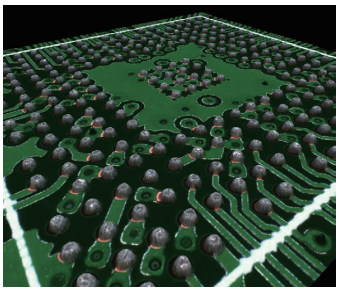
- ❑ Cut-tape Automatic (10mm ~ 999mm)
- ❑ Maximum width 80mm

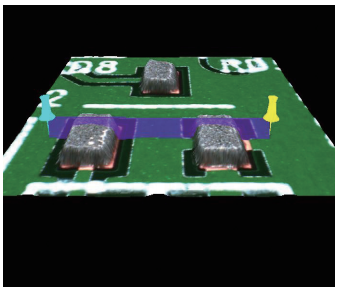
<Specifications of "*Auto Dispenser*" Series>

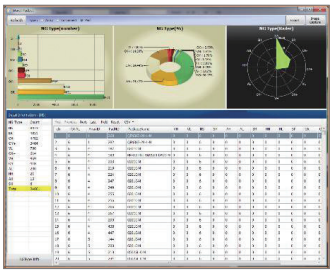
	BK-6000	BK-5000	BK-3300	BK-8000	BK-8500
Power	AC 100 or 220V 50/60hz				
Length Cut(mm)	5~ 999/ Fold 20 ~ 999	5 ~ 999	5 ~ 999	10 ~ 999	20 ~ 999
Tape Width	10 ~ 50mm			20 ~ 80mm	40 ~ 150mm
Tape OD	175mm	Free of OD	175mm	Free of OD	Free of OD
Max Speed	150 ~ 200mm				
Net Weight	3.5Kg	3.2Kg	3.2Kg	5.2Kg	8Kg
Dimension(mm)	140 x 160 x 230			190 x 150 x 230	265 x 150 x 235

KBC CO.,LTD.

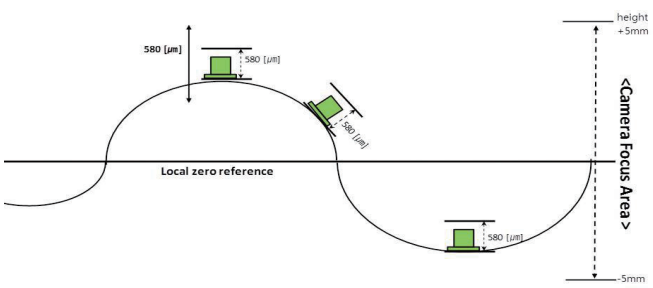
3D SPI (Solder Paste Inspection System)

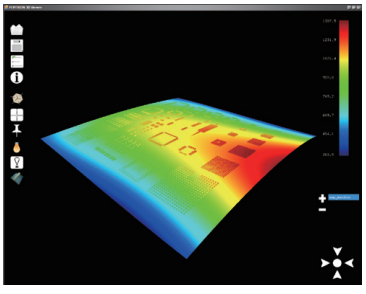


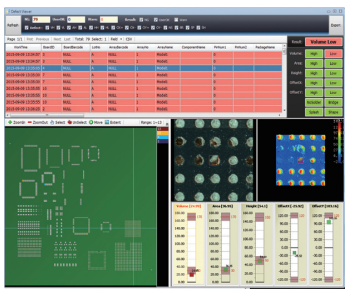




Model			TROI-7700H	TROI-7700HD	
2D/3D Vision Algorithm			2D : Vision Inspection Algorithm 3D : PMP (Phase Measuring Profilometry) Algorithm		
Measurements			Volume, Height, XY Position, Area		
Detection Types			Insufficient Paste, Excessive Paste, Shape Deformity No Paste, Bridge 2D&3D, Paste Displacement		
X/Y Pixel Resolution			10 ㎛	15 ㎛	18㎛
Inspection Speed			16 ㎠/sec	38.4 ㎠/sec	53.5 ㎠/sec
FOV (Field of View)			20.5 x 20.5 mm	30.7 x 30.7 mm	36 x 36 mm
Height Range / Resolution			0 ~ 450 ㎛ / 0.4 ㎛		
Height Repeatability			±1% (3σ)*		
Volume Repeatability			±1% (3σ)*		
Height Accuracy			2 ㎛*		
Max. PCB Warp			±5 mm		
Gage R&R			< 10%*		
Linear Motor	Accuracy		±3㎛ (Linear Motor)		
PCB Specification	Working Area	Standard Type	Min. 50x50mm (2x2inch) Max. 330x330mm (13x13inch)	Single	Min. 50x50mm (2x2inch) Max. 330x500mm (13x20inch)
				Dual	Max. 330X280mm(13X11inch)
		Large Type	Min.50x50mm (2x2inch) Max. 510x510mm (20x20inch)	Single	Min. 50x50mm (2x2inch) Max. 510x600mm (20x24inch)
				Dual	Max. 510x330mm (20x13inch)
	PCB Thickness		0.4 – 7.0 mm		
	Bottom Clearance		27mm		



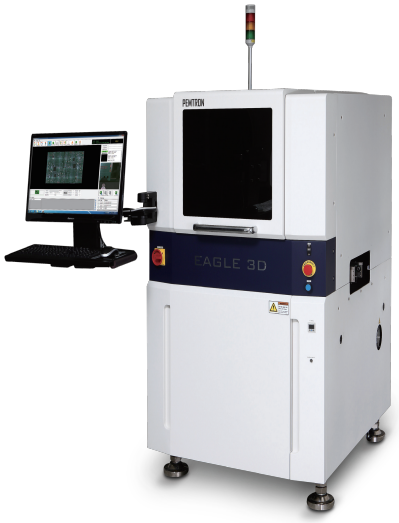




3D AOI (Automatic Optical Inspection)

PEMTRON

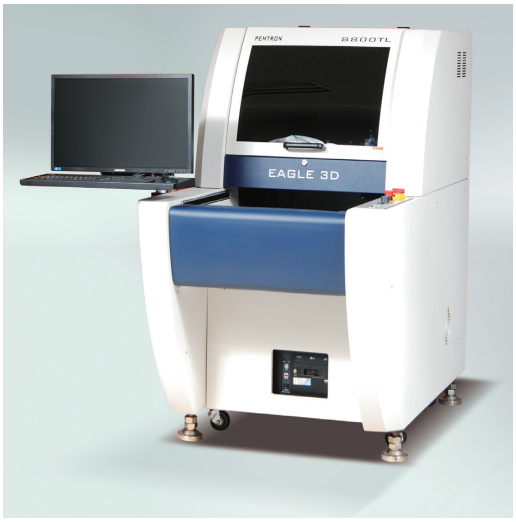
Eagle 3D 8800 Series In-line



Model	EAGLE 3D - 8800			EAGLE 3D – 8800HS		
Camera	4MP			9MP		
X/Y Pixel Resolution	10um	15um	18 um	10um	15um	18um
Inspect Speed	9.1 cm^2/ sec	20.5 cm^2/ sec	29.5cm^2/ sec	18 cm^2/ sec	40.5 cm^2/ sec	58.3 cm^2/ sec
FOV (Field Of View)	20 x 20mm	30 x 30mm	36 x 36mm	30 x 30mm	45 x 45mm	54 x 54mm
Height Range	0 – 5.5mm (option 27mm)					
Height Accuracy	± 3%					
Max. PCB Warpage	± 3mm					
Motor Type	XY Linear Servo Motor					
PCB Size	Standard : Min. 50 x 50mm (2 x 2 inch) Max. 330 x 330mm (13 x 13 inch) Large : Min. 50 x 50mm (2 x 2 inch) Max. 510 x 510mm (20 x 20 inch)					
PCB Thickness	0.4 ~ 7.0mm					
Top Clearance	50mm					
Bottom Clearance	50mm					
Electrical requirements	220 ~ 240Vac, 1Phase, 50/60Hz					
Power Consumption	3.5KW (16.0A Max @ 220 AC)					

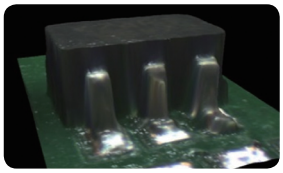
3D 8800TL Off-line AOI Machine

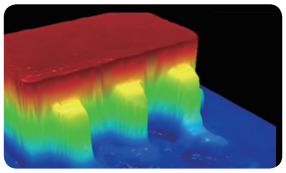
Model	EAGLE 3D-8800TL		
Board Size	Max. 510 x 465mm		
Resolution	10um	15um	18um
Camera	4M		
Inspection Speed	9.1㎠/ sec	20.5㎠/ sec	29.5㎠/ sec
FOV (Field of View)	20 x 20 mm	30 x 30 mm	36 x 36 mm
Conveyor system	SMEMA Standard, Auto Adjustable		
Electrical requirements	AC 220V ±10%, 50/60㎐		
Power Consumption	2.5KW (11.0A Max @ 220 AC)		
Operation Condition	Temperature: 0 ~ 40℃, humidity: 30~80% RH		
Control Method	Windows 7, 64 bit (PC based Control)		
Monitor	24" LED Panel		



3D Lead Inspection

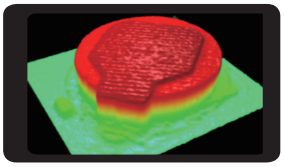
3D measurement algorithms enable the EAGLE to measure lead height and volume of solder proving full-high quality 3D images.





Shadow Free 3D Technology

Eliminates shadow issues on highly populated PCBs and tall components



Automated Conformal Inspection Machine

PEMTRON

TROI-8800CI

Able to measure coating thickness

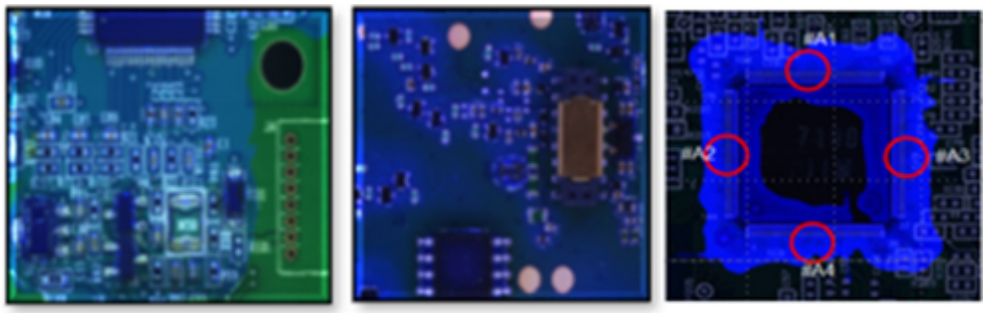
Precise measurement using refraction of light

Real-Time Process & Quality Control Solution

Real-Time communication between SPI+AOI+CI during production

Inspection Result Info Auto Sync

Use as a tool to Improve quality management



TROI-8800 CI Series (Conformal Coating Inspection System)

SPECIFICATIONS

Model			TROI-8800CI		TROI-8800CIL
Camera Technology			camera module 4M (UV LEDs)		
Detection Types			coverage, non-coverage, cracks , bubble splashes, position , de-lamination		
Lighting			UV + RGB Lightning		
Resolution			**10um**	**15um**	**18um**
Inspection Speed			16.5 ㎠/sec	38.4 ㎠/sec	53.5 ㎠/sec
FOV (Field of View)			20.5 x 20.5 mm	30.7 x 30.7 mm	36 x 36 mm
Motor Type			**Gantry Type**		
PCB Specification	Working Area		Min. 50x50mm (2x2inch) Max. 290x330mm (11x13inch)		Min.50x50mm (2x2inch) Max. 470x510mm (18x20inch)
	PCB Thickness		0.4 – 7.0 mm		
	Top Clearance		60mm		
	Bottom Clearance		60mm		
Installation Requirement	Electrical Requirements		200 – 240 VAC, 50/60 Hz		
	Air Requirement		5 Kgf/㎠		
	Power Consumption	Standard Type	1.5kW (6.5A Max @ 220V AC)		1.8kW (8A Max @ 220V AC)
Control Unit	Control Method		PC Based Control (Windows 7, 64bit)		
	Monitor		24" LED Panel		
Operating	Operating Temperature		20 - 30 ℃ (68 – 86 ℉)		
Machine Dimension	W x D X H / Weight		900 x 1070 x 1545mm (35 x 42 x 61 inch) / About 450kg (992 lbs)		1100 x 1220 x 1545mm (43 x 48 x 61 inch) / 500kg (1102 lbs)
Options			Barcode Reader (1D & 2D) / Touch Panel / UPS(uninterrupted power supply)		

* Specifications subject to change without notice.

SEM (Scanning Electron Microscope)

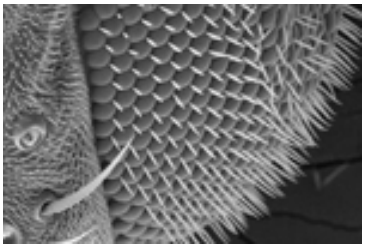
High Performance & Excellent Price

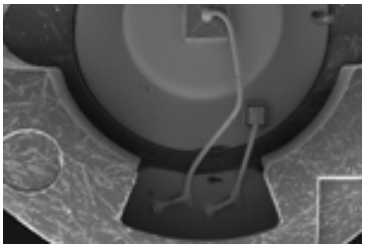
The PS series SEM has been designed to bridge the gap between tabletop SEMs and higher priced standard SEMs. Our SEMs offer performance at an excellent value. The PS-230 SEM price is comparable to tabletop SEMs and offers better performance and capability. The PS series SEM provides 3nm resolution (@30kV) which is the ultimate resolution for conventional tungsten SEMs.

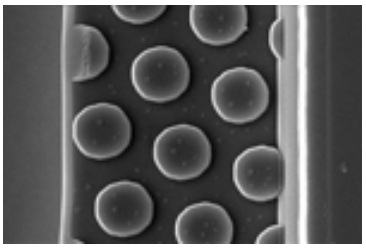
Optional items for the PS Series SEM

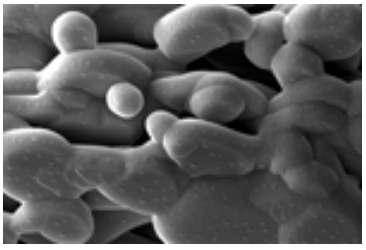
The PS series SEM has a number of options available for enhanced analytical capability and ease of use.

Low vacuum
Back Scatter Electron Detector (BSE)
Energy Dispersive Spectroscopy (EDS)
Electron Backscatter Detection (EBSD)
Wavelength Dispersive Spectroscopy (WDS)
Chamber scope
Ion sputtering system
Joystick and trackball control









S50 (HANDHELD MOBILE TERMINAL)

Mobile intelligent terminal
S50 is a solid and durable industrial grade mobile terminal with advanced function of data collection and real-time communication. In term of structural design, adopts high strength overall magnesium aluminum alloy stand around the main board and LCD screen.

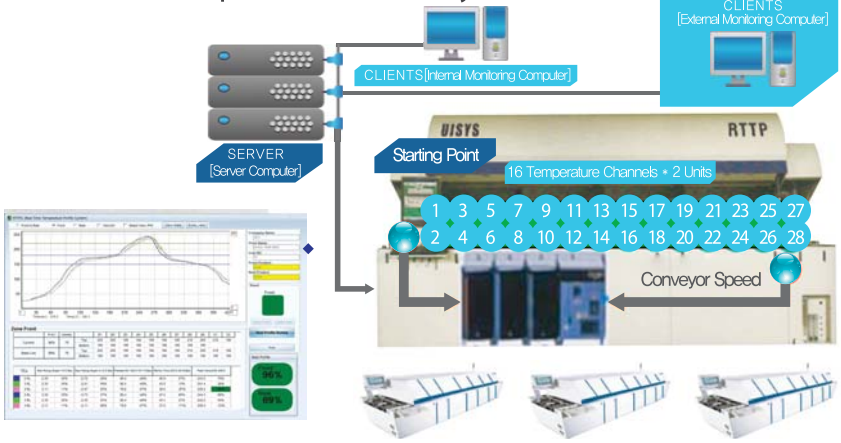
High-speed operation performance:
With Android 5.1 and WinCE6.0 operating system,matching Qualcomm M8X12 quad core 1.2GHz and PXA310 806MHz high speed processor with prefect compatibility and computing capability.

Identification parameter
1D Laser/2D image scanning engine
Scanning precision：≥ 3 mil
Reading distance：3cm-70cm(Depends on barcode density and code system)

Decoding capability:
UPC/EAN, Code128, Code39, Code93, Code11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, RSS etc; PDF417, MicroPDF417, Composite, RSS, TLC-39, Data matrix, QR code, Micro QR code, Aztec, Postal Codes: US PostNet；US Planet; UK Postal; Japan Postal Dutch Postal(KIX) etc

UI-501 [RTTPS – REFLOW]

Available in PbFree
Real Time Temperature Profile System



RTTPS [Real Time Temperature Profile System]

The system uses max. 32 channels temperature sensor fixed within the Reflow to detect any temperature changes and evaluate its status real-time, while proximity sensors and photo sensors measure and monitor production environment of the Reflow by detecting velocity of the conveyor belts and PCB, thus enhancing productivity and preventing mass defects. The equipment can be maintained real-time from remote location via network version.

Measurement

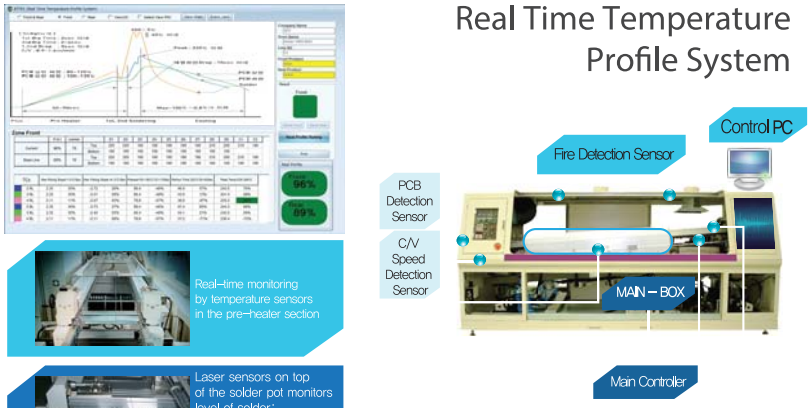
Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~400℃	±2℃
Sampling		1Second	
C/V	Metal Sensor		
PCB Detection	Photo Sensor		

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-510 [RTTPS – WAVE]

Available in PbFree
Real Time Temperature Profile System



RTTPS[Real Time Temperature Profile System]

The UI-510 RTTPS enables automatic profile by monitoring real-time temperature changes within the preheaters and solder pot/coolers, by fixing temperature sensors inside the wave machines. Proximity and impeller sensors enable changes in conveyor and motor speed, along with dip time, to improve productivity and preventing mass defects. UI-510 also prevents fire by fire detection sensors, and can be monitored real-time from remote location via network.

Measurement

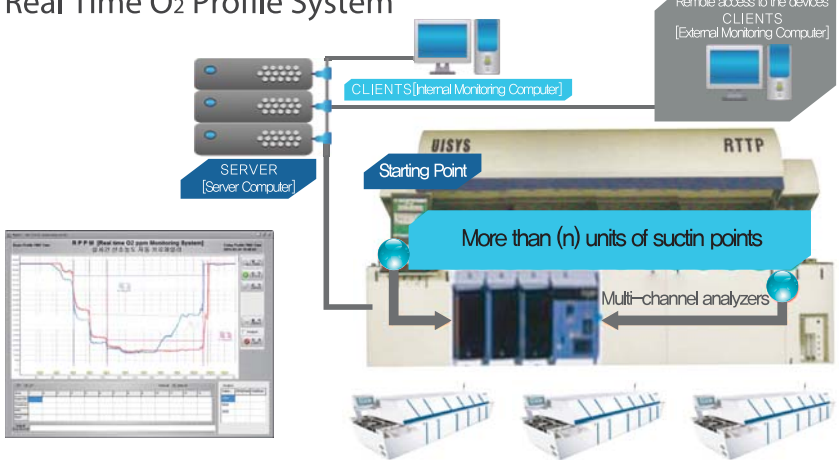
Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~400℃	±2℃
Sampling		1 sec	
C/V	Metal Sensor		
PCB Detection	Photo Sensor		
Height measurement within solder pot	Laser sensor	100~250mm / 0.1mm	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-701 [RPPM]

Available in PbFree
Real Time O_2 Profile System



RPPM[Real time O_2 PPM profile system]

UI-701 can realize profile automation by monitoring real-time oxygen distribution within equipment by fixing multi-channel suction points in the reflow machine, thus acquiring more than 30 profiles per day by checking continuous oxygen changes, along with enhanced productivity and prevention of mass defects. The equipment can be maintained real-time from remote location via network version.

Measuremt

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	Zirconia	0ppm~250,000ppm	±3%
Sampling		1sec	
C/V	Metal Sensor		
PCB Detection	Photo Sensor		

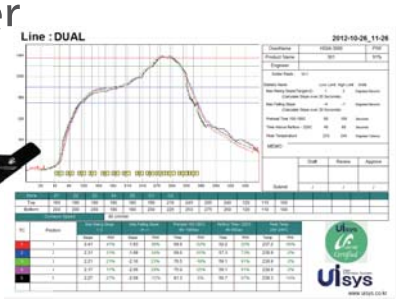
Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-301A6 [REFLOW CHECKER]

Available in PbFree Reflow Checker

CE 인증



- Measurement of max. 6 channels
- Simulation
- Measurement analysis
- Data Comparison
- Data converted to Excel files
- Supports multiple languages including Korean
- Result storage up to 5 times
- Adjustable sampling speed & low-power
- Data Filtering
- Monitoring for low battery
- Protection for internal circuits

General Information

Items	Details
Battery	Rechargeable, 6V
Operation Hours	Continuously for 15 hours (room temperature)
Operation / Storage Temperatures	0~300℃/0~40℃
Dimension	283×60×23 / 283×97×23

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	KK-type Thermocouple	0~300℃	±2℃
Sampling		0.3, 0.6, 1.2 and 2.4sec	
Measurement Time		10Minutes	
Internal Storages		5	

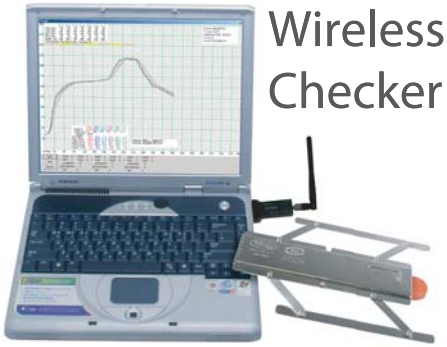
Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-302 [REFLOW WIRELESS CHECKER]

Available in PbFree Wireless Reflow Checker

CE 인증



- Measurement of max. 6 channels
- Displays Real-time measurement data
- Simulation
- Measurement analysis
- Data Comparison
- Data converted to Excel files
- Supports multiple languages including Korean
- Designed for low power
- Data Filtering
- Monitoring for low battery
- Protection for internal circuits

General Information

Items	Details
Battery	Rechargeable, 6V
Operation Hours	Continuously for 10 hours (room temperature)
Operation / Storage Temperatures	0~300℃/0~40℃
Dimension	311×60×23 / 311×97×23

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~300℃	±2℃
Sampling		0.3sec	
Measurement Time		10Minutes	
Internal Storages		Bluetooth /100m	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-301A16 [REFLOW CHECKER]

Available in PbFree Reflow Checker

CE 인증

- Measurement of max. 16 channels
- Data converted to Excel files
- Simulation
- Measurement analysis
- Data Comparison
- Max 2 data storage
- Supports multiple languages including Korean
- Adjustable sampling speed & low-power
- Data Filtering
- Monitoring for low battery
- Protection for internal circuits

General Information

Items	Details
Battery	Rechargeable, 3.6V
Operation / Storage Temperatures	0~400℃/0~40℃
Dimension	190×48×11.5

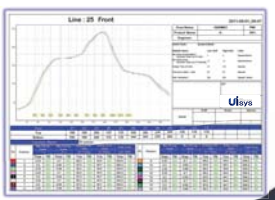
Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~400℃	±2℃
Sampling		0.3, 0.6, 1.2 and 2.4sec	
Measurement Time		10Minutes	
Internal Storages		2	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-301A11 [REFLOW CHECKER]



Available in PbFree Reflow Checker

CE 인증

- Measurement of max. 11 channels
- Data converted to Excel files
- Simulation
- Measurement analysis
- Data Comparison
- Max 2 data storage
- Supports multiple languages including Korean
- Adjustable sampling speed & low-power
- Data Filtering
- Monitoring for low battery
- Protection for internal circuits

General Information

Items	Details
Battery	Rechargeable, 3.6V
Operation / Storage Temperatures	0~400℃/0~40℃
Dimension	190×35×11.5

Measurement

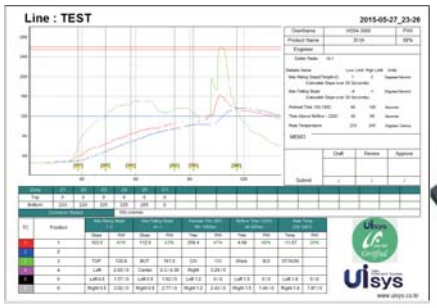
Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~400℃	±2℃
Sampling		0.3, 0.6, 1.2 and 2.4sec	
Measurement Time		10Minutes	
Internal Storages		2	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UIsys

UI-351A6 [WAVE CHECKER]



Available in PbFree Wave Checker

- Measurement of max. 6 channels
- PC based Profile
- Different dip-time by depth
- Balanced sides
- Measurement analysis
- Data converted to Excel files
- Max. 5 data storages
- Soldering / Preheating temperature
- Data filtering
- C/V Speed

CE 인증

General Information

Items	Details	Items	Details
Battery	Rechargeable, 6V	Dip Interval/Duration	0.3sec/10Minutes
Operation Hours	Continuously for 30 hrs (room temperature)	Dip time (Left, Right)	Center, left, and right, by depth
Operation / Storage Temperatures	0~300℃/0~40℃	Continuous measurement	5times
Temperature Measurement	0~300℃±2℃	Dimension	342.5×220×42

Measurement

Items	Sensor	Items	Sensor
1st Dip Time	Left, Center, Right	1st & 2nd 0.9mm Dip	Left, Right
2nd Dip Time	Left, Center, Right	1st & 2nd 0.6mm Dip	Left, Right
1st & 2nd 1.8mm Dip	Left, Right	Preheat	Upper & lower sides of PCB
1st & 2nd 1.5mm Dip	Left, Right	Max. PCB Temperature	Upper & lower sides of PCB
1st & 2nd 1.2mm Dip	Left, Right	Solder, C/V	Solder temperature, conveyor speed

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Install)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-352 [WAVE CHECKER]

Available in PbFree Wave Checker

CE 인증

- Measurement of max. 3 channels
- Solder temperature
- Low cost Wave Checker
- Preheat temperature of upper & lower sides
- Different dip-time by depth
- Data filtering
- Balanced sides
- C/V Speed

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~300℃	±2℃
Object of measurement		Upper & lower sides of PCB	±2℃
Measurement/Filtering time		0.3sec	
Dip Time (Left & right)	Electrode(s)	(0.0, 0.6,1.0)mm	0.05mm
Balance	Electrode(s)	0.1~9.9sec	0.01sec
Conveyor speed	Electrode(s)	0.01~9.99	0.01sec

General Information

Items	Details
Battery	Rechargeable, 6V
Operation Hours	Continuously for 30 hrs (room temperature)
Operation / Storage Temperatures	0~300℃/0~40℃
Dimension	140×220×54.2

UI-351A/F [FLEXIBLE WAVE CHECKER]

Available in PbFree Wave Checker

CE 인증

- Measurement of max. 6 channels
- PC based Profile
- Different dip-time by depth
- Balanced sides
- Measurement analysis
- Data converted to Excel files
- Max. 5 data storages
- Soldering / Preheating temperature
- Data filtering
- C/V Speed
- Customized Size (Fix 95mm, from 125mm)
- One device is applicable for multiple ZIGs

General Information

Items	Details	Items	Details
Battery	Rechargeable, 6V	Dip Interval/duration	0.3sec/10 Minutes
Operation Hours	Continuously for 30 hrs (room temperature)	Dip time (Left, Right)	Center, left, and right, by depth
Operation / Storage Temperatures	0~300℃/0~40℃	Continuous measurement	5 times
Temperature Measurement	0~300℃±2℃	Dimension	342.5×125~600×42

Measurement

Items	Sensor	Items	Sensor
1st Dip Time	Left, Center, Right	1st & 2nd 0.9mm Dip	Left, Right
2st Dip Time	Left, Center, Right	1st & 2nd 0.6mm Dip	Left, Right
1.2st 1.8mm Dip	Left, Right	Preheat	Upper & lower sides of PCB
1.2st 1.5mm Dip	Left, Right	Max. PCB Temperature	Upper & lower sides of PCB
1.2st 1.2mm Dip	Left, Right	Solder, C/V	Solder temperature, conveyor speed

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Install)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-354 [SELECTIVE CHECKER]

Available in PbFree Selective Checker

- Measurement of max. 6 channels
- PC based Profile
- Different dip-time by depth
- Balanced sides
- Measurement analysis
- Data converted to Excel files
- Max. 5 data storages
- Soldering / Preheating temperature
- Data filtering
- C/V Speed

General Information

Items	Details	Items	Details
Battery	Rechargeable, 6V	Dip Interval/Duration	0.3sec/10Minutes
Operation Hours	Continuously for 30 hrs (room temperature)	Dip time (Left, Right)	Center, left, and right, by depth
Operation / Storage Temperatures	0~300℃/0~40℃	Continuous measurement	5times
Temperature Measurement	0~300℃±2℃	Dimension	342.5×220×42

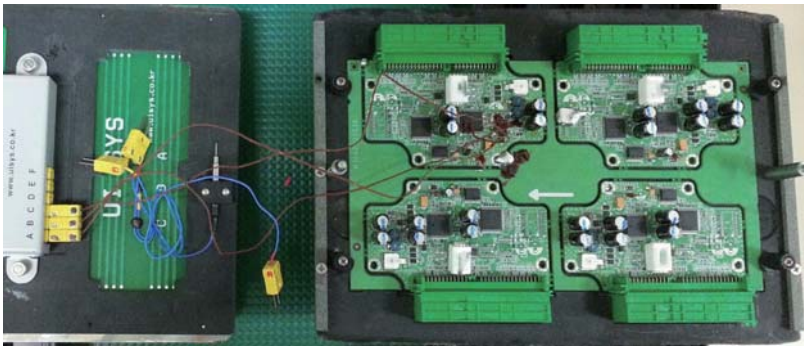
Measurement

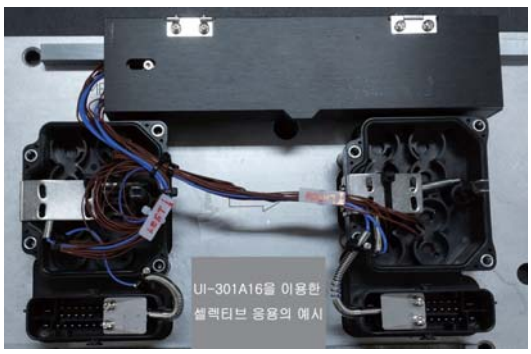
Items	Sensor	Items	Sensor
1st Dip Time	Left, Center, Right	1st & 2nd 0.9mm Dip	Left, Right
2nd Dip Time	Left, Center, Right	1st & 2nd 0.6mm Dip	Left, Right
1st & 2nd 1.8mm Dip	Left, Right	Preheat	Upper & lower sides of PCB
1st & 2nd 1.5mm Dip	Left, Right	Max. PCB Temperature	Upper & lower sides of PCB
1st & 2nd 1.2mm Dip	Left, Right	Solder, C/V	Solder temperature, conveyor speed

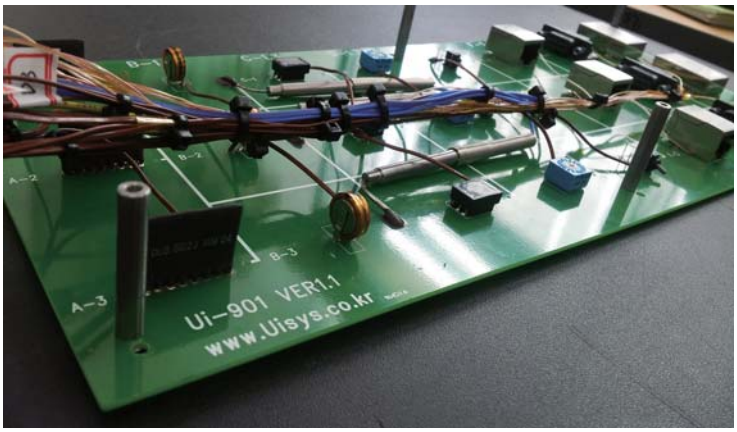
Specification

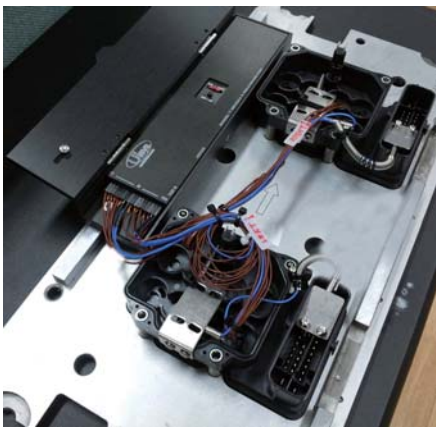
Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

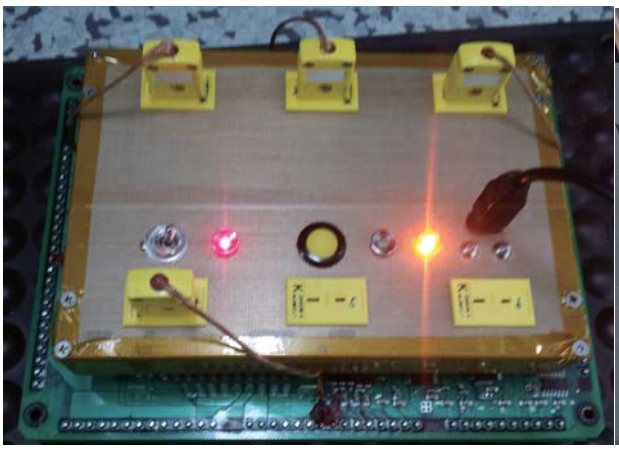
APPLICATION EXAMPLE











UI-$O_2$10KA [In-Line O_2 Analyzer]

Patent No. 10-1102986

Available in PbFree In-Line O_2 Analyzer

- In-Line O2 Measurement
- Result storage up to 5 times
- Analysis & Comparison of measuremen
- PC based O2 Profile
- Precision measurement : 0~1Kppm
- Standard measurement : 0~10Kppm
- Wide area measurement : 0~250Kppm
- Data converted to Excel files

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

Measurement

Items	Sensor	Measuring scope	Error(s)
Oxygen measurement	Zirconia	0ppm~1,000ppm 0ppm~10,000ppm 0ppm~250,000ppm	±3%
Sampling		0.3, 0.6, 1.2 and 2.4sec	
Measurement time		10, 20, 40 and 80minutes	
Internal Storages		5	

General Information

Items	Details
Battery	Rechargeable, 8.4V
Operation Hours	Continuously for 40 minutes (room temperature)
Operation / Storage Temperatures	Common SMT Reflow / 0~4℃
Dimension	490×120(280)×33

UI-550 [O_2 Analyzer]

Stationary mounted type O_2 Analyzer

Measurement

Items	Sensor	Measuring Scope	Error(s)
Oxygen density	Zirconia	25%~50ppm	±2%
Sampling		For 100 sec at initial stage, by 1 sec	

General Information

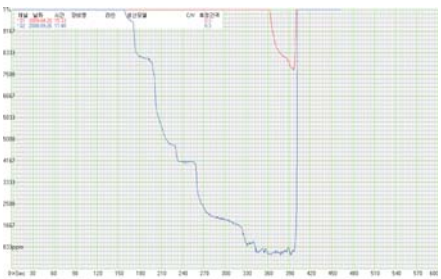
Items	Details
Fitting	Externally 6mm
Option	Max. 13CH
Dimension	390 ×195×235

Specification

Specification	Minimum Requirement
Power	110~250V(50/60Hz)
Display	FND 4 Digit
Connection	RS232
Option	Signal conversion enabled, 4~20mA, 0mV~10V

- UI-550 can detect up to 50ppm of oxygen at 25% (higher density than the atmosphere), and convert output data according to PC transmission inquiries (connection, low voltage, or current) UI-550 can detect 13CH with selected options.

APPLICATION EXAMPLE



Depending on the manufacturer of the equipment shows a view of different shapes.

UI-L01 [Line Monitoring System]

Line Monitoring System

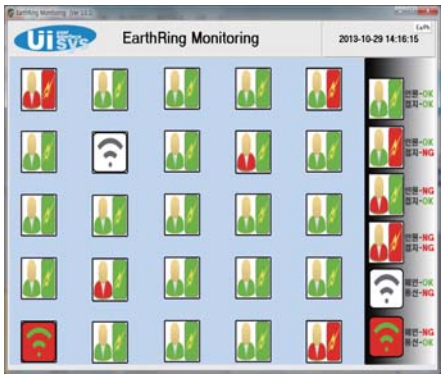
UI-L01 Line Monitoring System selects and manages trainees for each step of the production lines.
Only certified employees who:
1) completed preset training courses, 2) and got issued with certificate
can work at the production lines.
Purposes
- To allow workers who completed preset training courses and got issued with the certificates as defined according to each production lines.
- To enhance yield rate by deploying and managing certified workers for each production models.
- The company should open specific training courses for each production lines, so that workers can complete the courses and be deployed with certain level of skills (as certified by Production Line Certificate)

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-EMS [EarthRing Monitoring System]

EarthRing Monitoring System



Central Control Server

- Central Control Server
  - Manages whether the workers are sufficiently grounded for protection.
  - Monitors grounding for each section of production line.
  - Maximized monitoring by visualizing grounding status of each workers, and their positions.
  - Provides statistics by production line sections, workers, and time units, according to the needs of the operator.

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-601 [Solder Cream Cold Storage Management System]

Solder Cream Cold Storage Management System

Monitoring system for Solder Cream & Cooling 'management'
- FIFO management using barcode system
- Storing & managing different types of solder cream and resin
- Real-time monitoring for stock and operation status
- Can manage max. 4 refridgerators.

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement		-10℃~30℃	±2℃
Door status		Within 3mm	
Barcode Reading	Barcode Reader		

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

UI-HICAM [REFLOW INLINE CAMERA]

REFLOW INLINE CAMERA

In addition to the channel 3 and the temperature measuring function, vibration measurements, in addition to a camera function ease than it is observed inside the reflow.

The camera is divided into discrete modules and wide-angle lens for shooting close-alone modules for the atmosphere recorded 2way way.

Fold using a standard PCB board that is built to order production is possible, separated by only mounting the camera is possible to measure the actual PCB production

The internal memory storage system without the noise in accordance with the wireless transmission.

General Information

Items	Details
Battery	Rechargeable, 12V
Operation Hours	Continuously for 1 hours (room temperature)
Operation / Storage Temperatures	0~300℃/0~40℃
Dimension	300×73×26 (control) / 385×85×35(out)

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	KK-type	0~400℃	±2℃
Sampling	Thermocouple	0.3, 0.6, 1.2 and 2.4sec	
Measurement Time		10Minutes	
Internal Storages		2	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8
Processor/Memory	Pentium4 and later / 2GB and more
HDD / CD-ROM	200GB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB
Video Measurement Info	HD (1280 x 760) / 1 minute Composite
Vibration Measurement Info	2G Gravity acceleration sensor
Video storage capacity	Depending on the size of the external memory