



# **VINTRON PROFILE**

**Electronic Manufacturing Service (EMS)** 



KSRLaby,

www.vintroninformatics.com



#### IN HOUSE MANUFACTURING AND SMT UNIT

# TABLE OF CONTENTS

- ABOUT US
- MACHINERY & EQUIPMENT
- QUALITY CONTROL
- OUR ADVANTAGES
- CONTACT US





# **About Us**

# Profile Production Q&A Advantages Contact Us

Established Date	1991	
Number of Employees	>200	WINTRON
Total Area	3300 Square Meters	The last
Sales Revenue	> 10 million USD	
Production Capability	<u>Components per hour</u> – 2.5 Lac CPH. <u>Package Size</u> – 0201 upto 12 mil & BGA Chips	
Certifications	FCC, RoHS, CE, ISO	
Туре	Public Limited	



# About Us

#### Profile Production Q&A Advantages Contact Us

**Vintron** offers top-of-the-line electronic manufacturing facilities for Surface Mounted Technology (SMT), Plated Through Hole (PTH) Components, Complete AOI & Functional Testing.

The availability of world class infrastructure, experienced and professionally qualified work force makes Vintron the ideal choice for EMS activities.

4 state-of-the-art Surface Mount Technology (SMT) lines, capable of assembling almost any kind of Printed Circuit Boards with a total capacity of over 200,000 Components/Hour. We have the capability to do lead free assembly (RoHs compliant).





# **About Us**

# Profile Production Q&A Advantages Contact Us

# **Facilities Offered:**

(i) SMT Assembly.
(ii) Through Hole Assembly.
(iii) Automatic Optical Inspection (AOI).
(iv) Prototype development and Mass Production.
(v) Functional Testing.

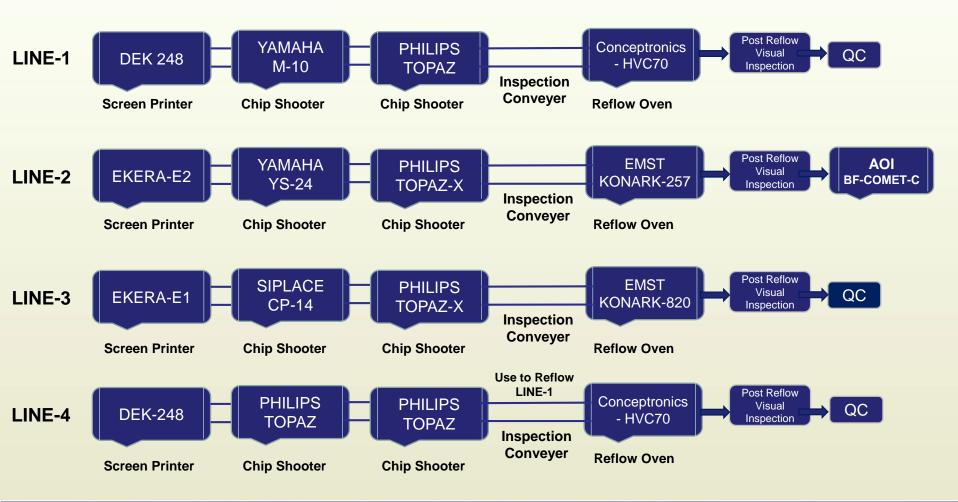


# **Production Assembly**

No. of Lines	4
	8
	1 Yamaha YS-24- Chip shooter
No. of Pick & Place	3 Philips Topaz - Chip Shooters,
	1 Siplace CP-14 Chip Shooter
	1 Yamaha M-10 Chip Shooter
	2 Philips Topaz X - Chip Shooter & Fine Pitch Placer
Screen Printers	2 (DEK 248), 1 Ekra E1, 1 Ekra E2
Reflow Oven	1 (Conceptronics HVC-70), 1 (Konark-257), 1 (Konark-820)
Combined Capacity	225K CPH
Component Types	0201 upto 12 mil & BGA Chips
AOI Machine	
Solder Past Mixer	1 ZB500S



# **SMT PROCESS FLOW LINE**



www.vintroninformatics.com



## Line-1 CPH- 44,000/Per Hour

# •SCREENPRINTER: DEK-248, Semi Auto Printer With Vision:

- Stencil Size: 23" x 23" 585 x 585x 38/40mm standard
- Image Justification: Centre
- Min. Max. Board Size: 50mm x 50mm to 450 x 500mm
- Print Area: 50mm x 50mm to 430 x 405mm
- Conveyor Feed: Non pass thru' L to L, manual load/unload
- PC Controller with Graphic User interface
- Moter Driven Squeegee
- Squeegee head and floating swiveling squeegee
- Print Speed 10 170mm/s
- Print pressure 10 250 N
- Print Material thickness 0.8 6.0 mm





# Use (Line-1)

## •Yamaha PICK & PLACE MACHINES: -Model : M-10

- Optimal placement rate 30,000 cph
- Applicable Components
   01005 (0402) (120x90)mm x 30mm, BGA, CSP
- Mounting accuracy:(x,y) 3σ
   Absolute accuracy (CHIP +/- 0.040m, IC +/- 0.025)
- Applicable PCB (mm) L740 x W510 PCB Thickness (mm) 0.3 – 4.5
- Types of Feeders 72 Positions
- Number of Head & Nozzle 6





# • GEM TOPAZ PICK & PLACE MACHINES:

#### **Specifications:**

Use (Line-1)

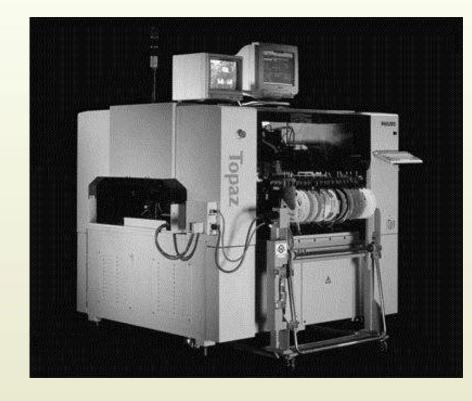
- Optimal placement rate 14,000 cph
- Applicable Components 0402 - SOP, SOJ, PLCC 25 mm (1.0") QFP 21 mm (0.83") with pin pitch down to 0.65 mm (25 mil) QFP 32 mm (1.26") with pin pitch down to 0.5 mm (20 mil) Max. component height: 6.5 mm
- Mounting accuracy:(x,y) 3σ
   0.08 mm for chips and SOIC
   0.06 mm for QFPs
- Nozzle exchange station 12 nozzle positions
- Number of heads One single beam with 8 exchangeable nozzles
- Number of feeders

8 mm: 100 positions, 12 mm: 48 positions, 16 mm: 48 positions 24 mm: 32 positions, 32 mm: 32 positions, 44 mm: 24 positions 56 mm: 18 positions.

Stick feeders: Depends on stick dimensions.

Bulk feeders: 100 x 8 mm positions.

- PCB Dimensions (x,y) Min: 50 mm x 50 mm (2.0" x 2.0")
   Max: 440 mm x 407 mm (17.3" x 16").
- PCB Thickness Min. 0.6 mm (0.02"), Max. 3.0 mm (0.12")





# Use (Line-1)

# •REFLOW OVEN: -Model : Conceptronics HVC70

The solder paste printed PWBs with components on it goes inside the Reflow oven where the solder paste melts and intermetalic joints between the component leads and the PWBs are made.

This machine has five heating zones to set a proper thermal profile in order to get reliable solder joints.





# Line-2- CPH 90,000 Per/Hour

## •SCREENPRINTER: EKRA-E2, Semi Auto Printer With Vision:

- Stencil Size: 300 x 300 620 x 740mm
- Image Justification: Centre
- Min. Max. Board Size: 50mm x 50mm to 450 x 500mm
- Print Area: 50mm x 50mm to 370 x 450mm
- · Conveyor Feed: Non pass thru' L to L, manual load/unload
- PC Controller with Graphic User interface
- Moter Driven Squeegee
- Squeegee head and floating swiveling squeegee
- Print Speed 10 170mm/s
- Print pressure 10 250 N
- Print Material thickness 0.8 6.0 mm





# Use (Line-2)

# •YAMAHA PICK & PLACE MACHINES: -Model : YS24

#### **Specifications:**

- Optimal placement rate 72,000 cph
- Applicable Components 0402(Metric base) to 32 x 32mm, Max Height 6.5mm
- Mounting accuracy:(x,y) 3σ
   Absolute accuracy (μ+3σ) : +/- 0.05mm/CHIP(QFP)
   Repeatability (3σ) : +/- 0.03mm/CHIP(QFP)
- Applicable PCB (mm) L50 x W50 to L700 x W460 PCB Thickness(mm) 0.3 – 4.5
- > Applicable components 0402(Metric base) to 32 x 32mm, Max Height 6.5mm
- Number of component types

Tape reel : 120 types (Fixed plates, Max., 8mm width) Tape reel : 96 types (FES Carts, Max., 8mm width)

- Types of Feeders 96 x 8mm
- Number of Head & Nozzle 20





# • GEM TOPAZ-X PICK & PLACE MACHINES:

#### **Specifications:**

- Optimal placement rate 18,000 cph
- Applicable Components

Use (Line-2)

0201 - SOP, SOJ, PLCC 32mm (1.26")

6mm - QFP 32mm (1.26") with pin pitch down to 0.5mm (20 mil) Dark background BGA, μBGA, CSP with regular pitches;

6mm - 32mm: Min. ball pitch down to 0.75mm (31mil), Min.

- ball diameter down to 0.3mm (12mil)
- > Mounting accuracy:(x,y)  $3\sigma$

 $\pm\,75\mu$  for chips and SOIC

- $\pm$  60µ for QFPs (6mm 32mm 1.26") with pin pitch down to 0.5mm (20 mil)
- Nozzle exchange station 18 nozzle positions
- Number of heads

One single beam with 4 Flying Nozzle change heads and 4 standard heads

Number of feeders

8 mm: 90 positions, 12 mm: 43 positions, 16 mm: 43 positions 24 mm: 28 positions, 32 mm: 22 positions, 44 mm: 21 positions Stick feeders: Depends on stick dimensions.

- PCB Dimensions (x,y) Min: 50 mm x 50 mm (2.0" x 2.0") Max: 460 mm x 440 mm (18" x 17.2").
- > PCB Thickness Min. 0.4 mm (0.015"), Max. 4.0 mm (0.15")





# Use (Line-2)

# •REFLOW OVEN: -Model : Konark 257

Konark 257 is seven zone hot air convection reflow oven is having fourteen independently PID controlled heating zones (7 Top and 7 bottom ) and one cooling zone

- Total heating length : 1815 mm
- Total process length 2250 mm
- Maximum PCB width : 450mm
- Mesh, Chain( Pin edge) or Chain above mesh transport as per choice
- Auto conveyor width adjustment
- Maximum temperature : 350° C
- Lead free compatible
- PLC with PID control
- PC user interface for setting and control





# Use (Line-2)

# •Saki AOI (Automated Optical Inspection) SYSTEM: -Model : BF-COMET-C

- Resolution 10um
- Take Time Approx. 18sec.
- Image Scanning Time Approx. 11sec.
- Board Size 50 x 50 250 x 330mm
- Camera Line Color CCD Camera
- Lighting LED Lighting System
- Operating System Windows 7
- Power Requirement Single Phase AC100-120V/200-240V ± 10%
- Power Consumption 450VA
- Noise Level 56.5dB





# Line-3-CPH 63,000 per hour

## •SCREENPRINTER: EKRA-E1, Semi Auto Printer With Vision:

- Stencil Size: 300 x 300 620 x 800mm
- Image Justification: Centre
- Min. Max. Board Size: 50mm x 50mm to 450 x 500mm
- Print Area: 50mm x 50mm to 430 x 405mm
- · Conveyor Feed: Non pass thru' L to L, manual load/unload
- PC Controller with Graphic User interface
- Moter Driven Squeegee
- Squeegee head and floating swiveling squeegee
- Print Speed 10 170mm/s
- Print pressure 10 250 N
- Print Material thickness 0.8 6.0 mm





# Use (Line-3)

#### •SIPLACE PICK & PLACE MACHINES: -Model : CP-14

- Optimal placement rate 45,300 cph
- Applicable Components
   01005 6mm x 6mm, Max Height 4mm
- Mounting accuracy:(x,y) 3σ
  - Absolute accuracy (41µm @ 3o)
- Applicable PCB (mm) L1200 x W460 PCB Thickness (mm) 0.3 – 4.5
- > Applicable components 0402(Metric base) to 32 x 32mm, Max Height 6.5mm
- Number of component types
  - Tape reel : 120 types (Fixed plates, Max., 8mm width)
  - Tape reel : 96 types (FES Carts, Max., 8mm width)
- Types of Feeders 120 x 8mm
- Number of Head & Nozzle 14





# Use (Line-3) Profile Production Q&A Advantages Contact Us GEM TOPAZ-X PICK & PLACE MACHINES:

#### **Specifications:**

- Optimal placement rate 18,000 cph
- Applicable Components

0201 - SOP, SOJ, PLCC 32mm (1.26")

6mm - QFP 32mm (1.26") with pin pitch down to 0.5mm (20 mil) Dark background BGA, μBGA, CSP with regular pitches;

6mm - 32mm: Min. ball pitch down to 0.75mm (31mil), Min.

- ball diameter down to 0.3mm (12mil)
- > Mounting accuracy:(x,y)  $3\sigma$ 
  - $\pm\,75\mu$  for chips and SOIC
  - $\pm$  60µ for QFPs (6mm 32mm 1.26") with pin pitch down to 0.5mm (20 mil)
- Nozzle exchange station 18 nozzle positions
- Number of heads

One single beam with 4 Flying Nozzle change heads and 4 standard heads

Number of feeders

8 mm: 90 positions, 12 mm: 43 positions, 16 mm: 43 positions 24 mm: 28 positions, 32 mm: 22 positions, 44 mm: 21 positions Stick feeders: Depends on stick dimensions.

- PCB Dimensions (x,y) Min: 50 mm x 50 mm (2.0" x 2.0") Max: 460 mm x 440 mm (18" x 17.2").
- PCB Thickness Min. 0.4 mm (0.015"), Max. 4.0 mm (0.15")





# Use (Line-3) •REFLOW OVEN: -Model : Konark 820

Konark 820 is 8 zone hot air convection reflow oven is having 16 independently PID controlled heating zones (8 Top and 8 bottom ) and 2 cooling zone

- Total heating length : 2062 mm
- Total process length 2620 mm
- Maximum PCB width : 450mm
- Mesh, Chain( Pin edge) or Chain above mesh transport as per choice
- Auto conveyor width adjustment
- Maximum temperature : 300° C
- Lead free compatible
- PLC with PID control
- PC user interface for setting and control





# Line-4-CPH 28,000 Per hour

# •SCREENPRINTER: DEK-248, Semi Auto Printer With Vision:

- Stencil Size: 23" x 23" 585 x 585x 38/40mm standard
- Image Justification: Centre
- Min. Max. Board Size: 50mm x 50mm to 450 x 500mm
- Print Area: 50mm x 50mm to 430 x 405mm
- Conveyor Feed: Non pass thru' L to L, manual load/unload
- PC Controller with Graphic User interface
- Moter Driven Squeegee
- · Squeegee head and floating swiveling squeegee
- Print Speed 10 170mm/s
- Print pressure 10 250 N
- Print Material thickness 0.8 6.0 mm





# Profile Production Q&A Advantages Contact Us • GEM TOPAZ PICK & PLACE MACHINES:

#### **Specifications:**

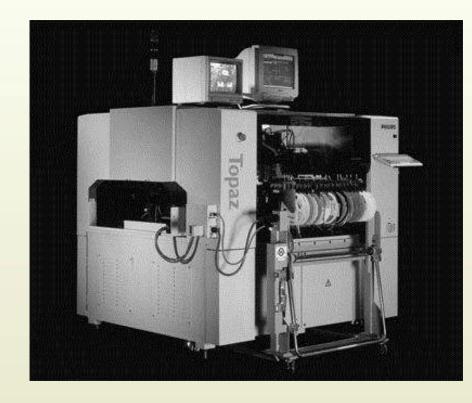
- > Optimal placement rate 14,000 cph
- Applicable Components 0402 - SOP, SOJ, PLCC 25 mm (1.0") QFP 21 mm (0.83") with pin pitch down to 0.65 mm (25 mil) QFP 32 mm (1.26") with pin pitch down to 0.5 mm (20 mil) Max. component height: 6.5 mm
- Mounting accuracy:(x,y) 3σ
   0.08 mm for chips and SOIC
   0.06 mm for QFPs
- Nozzle exchange station 12 nozzle positions
- Number of heads One single beam with 8 exchangeable nozzles
- Number of feeders

8 mm: 100 positions, 12 mm: 48 positions, 16 mm: 48 positions 24 mm: 32 positions, 32 mm: 32 positions, 44 mm: 24 positions 56 mm: 18 positions.

Stick feeders: Depends on stick dimensions.

Bulk feeders: 100 x 8 mm positions.

- PCB Dimensions (x,y) Min: 50 mm x 50 mm (2.0" x 2.0")
   Max: 440 mm x 407 mm (17.3" x 16").
- PCB Thickness Min. 0.6 mm (0.02"), Max. 3.0 mm (0.12")





# Profile Production Q&A Advantages Contact Us • GEM TOPAZ PICK & PLACE MACHINES:

#### **Specifications:**

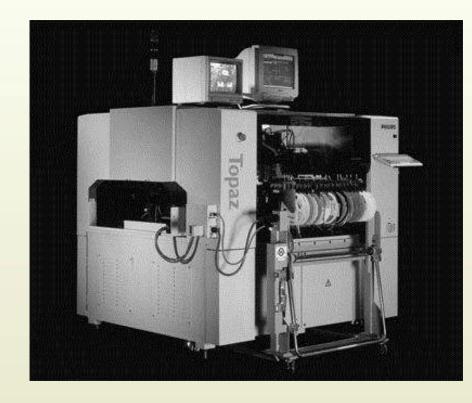
- > Optimal placement rate 14,000 cph
- Applicable Components 0402 - SOP, SOJ, PLCC 25 mm (1.0") QFP 21 mm (0.83") with pin pitch down to 0.65 mm (25 mil) QFP 32 mm (1.26") with pin pitch down to 0.5 mm (20 mil) Max. component height: 6.5 mm
- Mounting accuracy:(x,y) 3σ
   0.08 mm for chips and SOIC
   0.06 mm for QFPs
- Nozzle exchange station 12 nozzle positions
- Number of heads One single beam with 8 exchangeable nozzles
- Number of feeders

8 mm: 100 positions, 12 mm: 48 positions, 16 mm: 48 positions 24 mm: 32 positions, 32 mm: 32 positions, 44 mm: 24 positions 56 mm: 18 positions.

Stick feeders: Depends on stick dimensions.

Bulk feeders: 100 x 8 mm positions.

- PCB Dimensions (x,y) Min: 50 mm x 50 mm (2.0" x 2.0")
   Max: 440 mm x 407 mm (17.3" x 16").
- PCB Thickness Min. 0.6 mm (0.02"), Max. 3.0 mm (0.12")





# •SOLDER PASTE MIXER: -Model : ZB500S

Can prepare uniform viscosity in a short time for solder paste just taken from cold storage without bringing it back to room temperature. Metal particles with high specific gravity such as solder particles settle to the bottom of containers in cold storage and cause differences in material viscosity. The ZB-500S regulates the viscosity of solder paste in a short time, with uniform viscosity from top to bottom. Also, because it can remove air bubbles thought to cause spattering of solder balls, it contributes to reducing the defect rate.





# Profile Production Q&A Advantages Contact Us PTH Production Assembly

# -Through Hole assembly:

Apart from the above, the complete infra structure for manual Through Hole assembly with Wave soldering and complete testing setup is available with more than 250 Qualified workers.





## •WAVE SOLDERING MACHINE: -Model : WJ-310WD

Three-wave-type electric tube preheater. The newly designed dual wave solder pot, tin wave height using digital frequency control, wave and current stable interfering.

Turbulence wave soldering SMD parts dead substrate, solder joints against difficulties. Steady flow wave can be immediately modified second spot, bright tin surface, increasing tin of food.

Single crest design, tin wave stability, tin surface wave can choose single, double flow waveforms used in accordance with the substrate tin of food and the erosion of wave and current. Tin bath with horizontal synchronous lifting device and drag system.





# •WAVE SOLDERING MACHINE:

-Model : Stallion plc fc-jw

PLC controlled with touch screen operation Profile storage for 999 PCBs in USB drive Full Titanium Finger conveyor with adjustable width from 70 mm to 300mm

Standard- Foam fluxer

2 Stage pre-heating of hot air convection pre-heater

Specially coated solder pot suitable for Lead-free or Titanium solder- pot option

O-Wave option for SMD soldering ( Optional Dual wave ) Cooling fan at the exit





**Our Advantages** 

# Profile Production **Q&A** Advantages Contact Us



# SUMMARY

- We have 4 SMT lines. Total CPH 250,000 components per hour.
- 1 whole SMT line can be dedicated to your production requirement.
- We are doing lot of EMS work for renowned DTH board, Electronic Meter and LED lights manufacturers.
- We are one of the biggest EMS provider in India with latest technology machines.



# **Contact Us**

# **Contact Details**

Vintron Informatics Limited F-90/1A, Okhla Industrial Area Phase I, New Delhi-110 020, India Tel : 43740000 Mob: 9818122003 (Mr. Varun Gupta) Fax : 01143740040 Email : info@vintroninformatics.com Website: www.vintroninformatics.com



COMPLETE RCB COMMA

