## BA388V2/V4 SMT Pick & Place Machine



#### FEATURES

o Using welded steel frame and also heavy duty high precision Linear Ball Rail system to provide strong, rigid and long life time mechanism.

- o Enormous 1200 mm x 408 mm Placement Area
- o Suitable for 256 intelligent Auto Tape Feeder
- o High Accuracy and high Flexibility for 01005, 0201, 0402, 0603, LED, SOIC, PLCC, BGA, μBGA, CSP, QFP, up to fine-pitch 0.3mm
- o Dual conveyor in action will shorten the machine idle time in PCB board loading / unloading. The overall placement speed will hence be increased effectively.
- o TEFLON made LED nozzle together with the positive air outputting pressure, is specialized design for LED
- application. The innovative design of Nozzle ensures the effective landing of sticky LED components.
- o Intelligent software allows the easy set up for the complex and repeatable LED programming.

## **SUMMARY**

### Suitable for 256 intelligent Auto Tape Feeder Max. PCB-size: 1200mm x 408mm High Accuracy and high Flexibility for

- ▲ 0201 (0.6mmX0.3mm)
- SOIC, PLCC
- BGA, μBGA,CSP
- QFP, up to fine-pitch 0.3mm

**COGNEX® Alignment System "Vision on the Fly"** 

Bottom Vision Alignment System for fine pitch QFP & BGA

Smart Feeder System provides Automatic feeder position checking, Automatic component counting, Production data Traceability Suitable for 1.2m long LED board Dual conveyor system (option) Dispenser system (option) Universal CAD Conversion Windows XP Software

4

# Windows XP Software SPECIFICATION

Number of Heads (Vision on the Fly): 2

Placement rate :	6400	10.000
	5500	8.000
Feeder capacity (8 mm) without conv	veyor : up to 256 Ta	pe Feeders

CPH (under the optimum condition) CPH (IPC9850 Chip 1608) Feeder capacity (8 mm) with conveyor : up to 192 Tape Feeders IC Tray capacity : up to 6 Waffle Trays Handled by head camera : - Smallest: 0.6 x 0.3 mm - Largest: 16 x 14 mm Component Size : Handled by fixed Bottom Vision Camera : - Smallest: 0.4 x 0.2 mm (option) - Largest: 150 x 100 mm (option) X / Y axis 0.005 mm Servo Motor Resolution : Z axis 0.02 mm Servo Motor 0 to 360° (0.045°/step) Servo Motor Rotation . Placement Accuracy : +/- 0.03 mm X-Y Repeatability : +/- 0.01 mm Max. 1100 x 408mm without conveyor Placement area : Max. 1200 x 408mm with conveyor Programming : Vision teach-in, Direct input, CAD Access (Option) Vision detection Component Sense : Main Control : Industrial PC Machine Size:  $(L \times W \times H)$ : 1780 x 1370 x 1395 mm Weight : 1200 kg Power: 230 V / AC, 2800 W Pressure : 75 psi (5.5 bar)

\* We reserve the right to make changes without notice.



Strong and rigid mechanical designBA388 using welded steel frame and also heavy duty high precision Linear Ball Rail system to provide strong, rigid and long



life time mechanism.

**Enormous Placement AreaHuge Placement area** 

**COGNEX®** Alignment



increases upto 1200mm x 408mm.

Suitable for 256 intelligent Auto Tape Feeder48-Port Smart Feeder Bases can be mounted on both the front and rear of the BA388 and 32-Port Smart Feeder Bases can be mounted on the left and right sides of the



machine for a maximum capacity of 256 feeders.

System "Vision on the Fly"The BA388 features COGNEX® vision processing and headmounted for non-contact "Vision on the Fly" alignment. The machine BA388 assures highprecision placement of the full range of SMDs, from the smallest 0201 devices through CSPs,  $\mu$ BGAs, flip-chips, ultra-finepitch QFPs (0.3mm fine pitch), even odd-form components.



Dual-conveyor system available as optionDual conveyor in action will shorten the machine idle time in PCB board loading / unloading. The overall placement



speed will hence be increased effectively. TEFLON LED NozzleTEFLON made LED nozzle in Autotronik BA388 machine, together with the positive air outputting pressure, is specialized design for LED application. The innovative design of Nozzle ensures

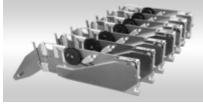


the effective landing of sticky LED components.

Powerful Windows®-

Based Control SoftwareIntelligent software allows the easy set up for the complex and repeatable LED programming.

## **Diversity of accessories**



Auto Tape Feeder (KFTA)The innovative design of KFTA feeder bases and mounting hardware allows almost limitless flexibility in feeder combinations and arrangement schemes, as almost every feeder can be ordered, loaded, programmed and mounted independently. KFTAs are available from 8 mm up to 72 mm tape width.



Universal IC Tube FeederKFTB universal tube feeder are using

vibration driven technique. It is able to handle IC-Sticks with max.50 mm width. \* KFTB-2V



\* KFTB-4V Single or Dual-conveyor system available as optionConveyor in action will shorten the machine idle time in PCB board loading /

unloading. The overall placement speed will hence be increased effectively.

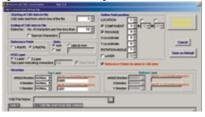


Dispenser system available as optionOptional stand alone dispenser head for adhesive & solder paste dispensing. Perfect for quick, small volume



production without making stencil.

**IC Tray HolderThe TS-1** provides adjustability for wide variety of smaller matrix tray and waffle pack combinations



and can easily be modified for custom tray configurations.

Universal CAD ConversionBeside the direct input of data by teach-in camera, an optional CAD conversion program for directly transfer of CAD generated pick and place data is



available. Vision InspectionWith the built-in software, the camera can automatically move and display the image in the computer screen, user can manually check the printing accuracy of solder paste, quality of the soldering, accuracy of component



**Remote Service KitOptional Remote Service Kit** placement, etc. allows a remote access to machine by Internet, so that programming, calibration and



service can be done by our worldwide remote service center.

TEFLON LED NozzleTEFLON made LED nozzle in Autotronik BA388 machine, together with the positive air outputting pressure, is specialized design for LED application. The innovative design of Nozzle ensures the effective landing of sticky LED components.