创思达精密技术
TRONSTOL TECHNOLOGY

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Tronstol

Product leaflet

Tronstol E4

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Tronstol E4

E4 is a high-speed, precise equipment for placing components. It has a wide range of applications and can mount a variety of materials, such as: RC(0201,0402,) QFP QFN, BGA, LED, common lamp beads, etc. XY axis uses the structure of screw guide&guide rail ensures the stability of mechanical movement, and servo closed-loop system ensures the accuracy of placement. E4 adopts CCD 3D laser flying camera, which can identify and scan various types of components.and it also improve the actual mounting speed. The use of a custom grating sensor makes sure the precision of E4.

Characteristics/

Customized hardware

You can choose the machine's optional parts:electric rail, camera, mount head, automatic nozzle changer, mounting area, and etc ,even the appearance and size of the machine.

Open software

The Linux system can meet your needs for customized software functions, and can match the placement of different application scenarios.

Offline programming

Through the offline software independently developed by Tronstol, you can edit files directly on the computer without occupying the machine. This greatly improves work efficiency.

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E4 high-precision pick and place machine

Placement system	Number of heads	4
	Placement repeatability accuracy	±0.02mm
	Placement rotation	±180°
	Mounting speed	10000CPH
	Smallest compnent size	0201
	Largest compnent size	26*26mm
	Placement area	240mm*320mm
	Applicable Components	RC (0201, 0402,) QFP, QFN ,BGA,LED common lamp beads, etc.
	XY axis motion control	Servo motor
	Nozzle type	CN030, CN040, CN065, CN100, CN140, CN200, CN400, etc.
Feeding system	Tape witdth of feeder	8mm,12mm,16mm,24mm
	Maximum number of feeders	52*(All 8mm)
	Feeder bank	Detachable feeder bank
	Support material type	Tape&Reel/Tube/IC Tray
	Maximum number vibration feeders	5
Visual system	Light source configuration	Industrial grade area array light source + Industrial grade ring light source
	The number of CCD laser aerial camera	4
	The number of mark camera	2
	The number of IC camera	1
Control system	Software system	Linux
	Operating system	Independent research and development
	Programmatically	Computer coordinate file import/Manual coordinate file editing,Support offline programming
	Network	Network is available, remote operation is available
Basic parameters	Machine voltage	AC 110V/220V
	Machine power	200W
	Machine size	Length980mm*wideth770mm*height1230mm
	Machine net weight	160kgs
	Machine gross weight	230kgs

Optional machine configuration

*Auto-nozzle changer device

*Vibration feeder can be customized

*Self-developed label feeder

*Software functions can be customized

1.The advantages of the hardware for TrosnStol E4:

High-performance servo motor

The high position accuracy and closed-loop control system ensures the accuracy and overall speed of the machine.

CCD 3D flying laser vision

CCD 3D flying laser camera enhances E4's scanning and anti-interference ability, improves mounting speed.

One-piece detachable grating

This can make sure the accuracy of E4 and it is easy to replace, repair and maintain.

Screw guide & guide rail

Transmission elements with high precision, reversibility and high efficiency makes the machine run faster and more stable.

Auto-nozzle changer

8 types of nozzles can be used at the same time, which is suitable for the simultaneous placement of various types of components, saving manpower and cost.

Electric control box

It adopts the design of protective door, and the electric control structure can be seen when the door is opened, which is convenient for after-sales.

Dark field light source

Dark field light source + 5 million high-definition digital camera :The IC identification is clearer

Detectable feeder bank

Install the tape&reel in advance, use different feeder bank for different files, save your time of changing tape&reel installation.

IPC(Industrial Personal computer)

High reliability and good real-time performance of the industrial computer enables the machine to run stably and reliably for a long time.

Professional Connector

It use international standard signal:SMEMA which can connect the conveyor.It can also realize the direct connection of multiple E4 machines.

The advantages of the hardware for TrosnStol E4:

1.Servo, screw, guide motion system ensures the stability of the machine.

2.CCD laser flying camera improves the overall speed compared to ordinary camera.

3.The detachable type of small module is convenient for customers to use.

4.Optimize electrical layout, separate strong and weak electricity, avoid interference.

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The advantages of the software for TrosnStol E4:

Library

E4 is a pick and place machine with memory, which saves the time for customers to edit files and improves the efficiency.

Continue mounting

If file mounting is not finshed completely ,you can choose to continue mounting.

Feeding function

After mounting a document,if any component is missing, it can be directly supplement and mounted.

Linux system

Rich software support and reliable security.

Node detection function

Including door opening detection, feeder bank detection, etc.

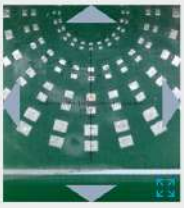
Offline programming

It saves time and effectively improves work efficiency.

Network

Network is available, remote operation is available.

Preview virtual components



Confirm component position in advance before placement to avoid material waste

Customizable

Software functions can be customized.

Firmware online upgrade

E4 has the ability to upgrade the firmware online.

The advantages of the software for TrosnStol E4:

1.Material library: E4 is the pick and place machine with memory, it saves the time of customer editing and improves efficiency.

2.Renew the placement at the breakpoint: it can be resumed placement if it is interrupted in the middle.

3.After mounting a document, if any material on the PCB is found to be missing, it can be directly supplement and mounted.

4.Linux system:Rich software support and reliable security.

5.Offline programming and node detection function.

6.Network is available, remote operation is available.

7.Software functions can be customized.

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