创思达精密技术
TRONSTOL TECHNOLOGY

2024

Tronstol

Product leaflet

Tronstol E4

www.tronstol.com

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Tronstol E4

TronStol E4 is based on an integrated welded steel-frame,equipped with dual-side Y-axis drives. The design of servo motors, ground ball screws with an encoder feedback closed-loop to achieve high-precision motion control. The vision system uses four CCD laser flying cameras.It has 4 heads,with the auto nozzle changer,8 different models of nozzles can be used together.The self-developed software system has the function of "Libray",when there is enough material database, you can mount new PCB directly after testing without editing the new file.

Characteristics/

Customized hardware	Open software	Offline programming
You can choose the machine's optional parts: suspended track, short tape tray, automatic nozzle changer,bulk trays,and etc ,even the appearance and size of the machine.	The Linux system can meet your needs for customized software functions, and can match the placement of different application sce-narios.	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 accuracy	±35UM
	Placement rotation	±180°
	Mounting speed	10000CPH
	Smallest compnent size	0201
	Largest compnent size	38*38mm
	Placement area	320mm*300mm
	Applicable Components	RC (0201, 0402,) QFP, QFN , LED common lamp beads, etc.
	XY axis motion control	Servo motor
	Nozzle type	CN030, CN040, CN065, CN100, CN140, CN200, CN400, etc.
	Placement height	18mm≤
Feeding system	Tape witdth of feeder	8mm,12mm,16mm,24mm
	Maximum number of feeders	52*(All 8mm) Intelligent electric feeder
	Feeder bank	Detachable feeder bank
	Support material type	Tape&Reel/Tube/IC Tray /Short Type Tray/Bulk Material
	Maximum number vibration feeders	4/Set
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	1
	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	Internet-connected, remote operation
Other system	Track	Three section track
	Gas source configuration	Built-in, no external connection required
	Machine voltage	AC 110V/220V
	Machine power	200W
	Machine size	Length1000mm*wideth852mm*height1251mm
	Machine net weight	190kgs
	Machine gross weight	230kgs

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.

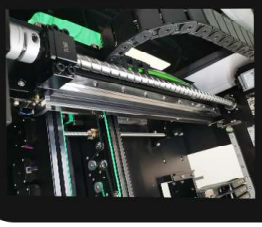
CCD 3D flying laser vision

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

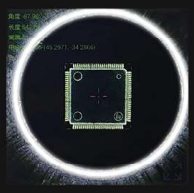
8 types of nozzles can be used at the same time, which is suitable for the simultaneous placement of various types of components, saving manpower and cost.

Square steel frame

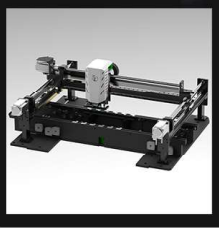
The motion control system installed on the integrated square steel frame ensures the stability of mounting and the durability of the machine.

Dark field light source

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



Dual Y-axis drives



E4 is equipped with dual-side Y-axis drives.It offers significantly higher repeatable positioning accuracy

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.

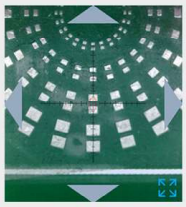
Offline programming

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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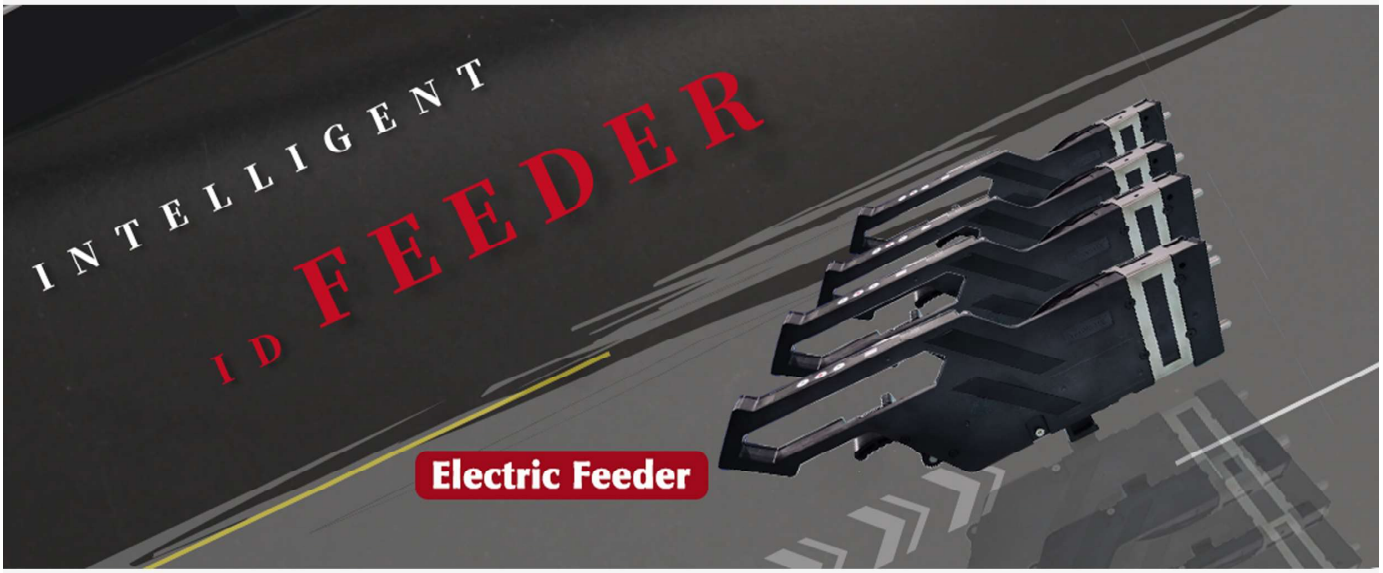
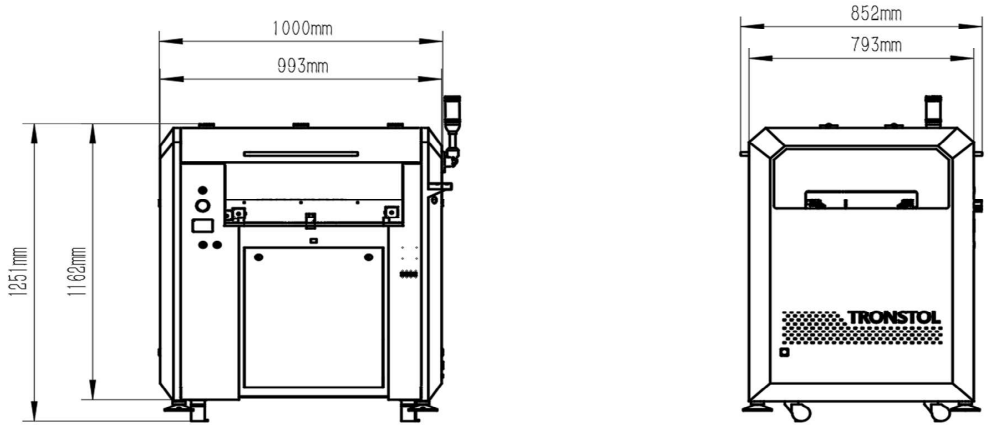
The Electric Feeder

The patented new intelligent electric feeder is used in the feeder system which comes with an independent ID. After setting the basic information, the feeder will automatically match the corresponding stack during programming.When you swap or replace the feeders,the material’ s data will follow together to avoid re-edit it again.



The dimension of E4/



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