

KM Dongguan Kingdom machine technology Co.ltd

One-stop solutions for screw fastening

Focused on R&D and production of intelligent screwdriving equipments

Factory direct, with consistent quality



Dongguan Kingdom machine technology Co.ltd

10 years experience

Professional team

15 software patents

Dongguan Kingdom machine technology Co.ltd is a professional automation enterprise integrating R&D, design, manufacturing, sales, and service, with a core focus on the R&D and production of automatic screw fastening equipment.

Core products: Handheld, Cartesian-coordinate, Multi-spindle, In-line, CCD vision based, and robotic screw fastening machines.

One-stop customization – design to commissioning

Industries: 3C, home appliances, automotive, telecom, toys, hardware & plastics, etc

Boosting efficiency & yield, reducing labor costs

Committed to Innovation, Quality & Service



Product Catalog

- 1、 3-Axis Automatic Screw Fastening Machine
- 2、 4-Axis Automatic Screw Fastening Machine
- 3、 4-Axis Pneumatic Robotic Screwdriving Machine
- 4、 6-Axis Automatic Screw Fastening Machine
- 5、 4-Axis Desktop Vision Screw Fastening System
- 6、 Floor-type 4-Axis Vision Screw Fastening System
- 7、 Cabinet-type Back-to-Back 6-Axis Dual-head Screw Fastening System
- 8、 Cabinet-type Back-to-Back Dual-head Vision Screw Fastening System
- 9、 Multi-spindle Automatic screwdriving machine
- 10、 Extended-Stroke 4-Axis Automatic Screw Fastening Machine
- 11、 SCARA Robotic Screwdriving Machine
12. 6-Axis Robot Arm Screw Driver
13. Medium Handheld Screwdriver Machine
14. Large Handheld Screwdriver Machine

1、 3-Axis Automatic Screw Fastening Machine



Applications: Assembly for mobile phones, hard drives, toys, LCD/LED modules, communication equipment, home appliances, automotive parts, and more.

Core Features:

- 3-axis single-platform design; optional dual feeders
- Remote handle for teaching/point setting, simple system operation, easy for beginners.
- Supports front-load / rear-unload; auto-unloading optional on request
- Standard servo screwdriver with precise torque and rotation control
- Intelligent detection for missing screws, high screws, cross-threading, etc.
- Production statistics with data export capability.
- Sheet-metal frame + machined critical components; high precision and rigidity
- Adjustable torque, speed, and rotation; supports multiple job recipes
- Supports screws M1.0–M6.0; applicable to flat, deep-hole, and multi-angle fastening
- Supports barcode scanning, torque data export, and production data export
- Equipped with Leadshine closed-loop motors; high accuracy and speed

Main Technical parameters :

- Work Envelope : 350*350*100mm (X*Y*Z) ;
- Outline dimension : 727.5*750*801mm (W*L*H)
- Screw feeding mode: Vacuum/Magnetic absorption
- Drive System : Closed-loop stepper motor
- Positioning Accuracy: ± 0.02 mm
- Control System : Touchscreen + Motion control card
- Driver System: Servo driver with programmable torque and RPM presets
- Cycle Time: 1.2s-1.8s
- Program capacity: 99groups
- Power Consumption: 1.2KW
- Power supply: 220VAC
- Air supply: 0.4Mpa-0.6Mpa
- Weight: 75Kg

2、 4-Axis Automatic Screw Fastening Machine

Applications: Assembly of mobile phones, cordless phones, calculators, navigators, audio systems, cameras, laptops, tablets, learning machines, small home appliances, toys, and other products.

Core Features:

- 4-axis dual-platform design with alternating fastening, allowing the screwdriver to operate continuously with zero idle time.
- Remote handle for teaching/point setting, simple system operation, easy for beginners.
- Supports front-load / rear-unload; auto-unloading optional on request
- Standard servo screwdriver with precise torque and rotation control
- Intelligent detection for missing screws, high screws, cross-threading, etc.
- Production statistics with data export capability.
- Sheet-metal frame + machined critical components; high precision and rigidity
- Adjustable torque, speed, and rotation; supports multiple job recipes
- Supports screws M1.0–M6.0; applicable to flat, deep-hole, and multi-angle fastening
- Supports barcode scanning, torque data export, and production data export
- Equipped with Leadshine closed-loop motors; high accuracy and speed

Main Technical parameters :

- Work Envelope : 350*200*100mm (X*Y*Z) ;
- Outline dimension : 727.5*750*801mm (W*L*H)
- Screw feeding mode: Vacuum/Magnetic absorption
- Drive System : Closed-loop stepper motor
- Positioning Accuracy: ± 0.02 mm
- Control System : Touchscreen + Motion control card
- Driver System: Servo driver with programmable torque and RPM presets
- Cycle Time: 1.2s-1.8s
- Program capacity: 99groups
- Power Consumption: 1.2KW
- Power supply: 220VAC
- Air supply: 0.4Mpa-0.6Mpa
- Weight: 110Kg



3、 4-Axis Pneumatic Robotic Screwdriving Machine

Applications: Assembly of mobile phones, cordless phones, calculators, navigators, audio systems, cameras, laptops, tablets, learning machines, small home appliances, toys, and other products.

Core Features:

- 4-axis dual-platform design with alternating fastening, allowing the screwdriver to operate continuously with zero idle time.
- Remote handle for teaching/point setting, simple system operation, easy for beginners.
- Supports front-load / rear-unload; auto-unloading optional on request
- Standard servo screwdriver with precise torque and rotation control
- Intelligent detection for missing screws, high screws, cross-threading, etc.
- Production statistics with data export capability.
- Sheet-metal frame + machined critical components; high precision and rigidity
- Adjustable torque, speed, and rotation; supports multiple job recipes
- Supports screws M1.0–M6.0; applicable to flat, deep-hole, and multi-angle fastening
- Supports barcode scanning, torque data export, and production data export
- Equipped with Leadshine closed-loop motors; high accuracy and speed

Main Technical parameters :

- Work Envelope : 350*200*100mm (X*Y*Z) ;
- Outline dimension : 727.5*750*801mm (W*L*H)
- Screw feeding mode: Vacuum/Magnetic absorption
- Drive System : Closed-loop stepper motor
- Positioning Accuracy: ± 0.02 mm
- Control System : Touchscreen + Motion control card
- Driver System: Servo driver with programmable torque and RPM presets
- Cycle Time: 1.2s-1.8s
- Program capacity: 99groups
- Power Consumption: 1.2KW
- Power supply: 220VAC
- Air supply: 0.4Mpa-0.6Mpa
- Weight: 115Kg



4、 6-Axis Automatic Screw Fastening Machine

Applications: Assembly for mobile phones, hard drives, toys, LCD/LED modules, communication equipment, home appliances, automotive parts, and more.

Core Features:

- 6-axis dual-platform structure, simultaneous fastening on both sides, delivering the efficiency of two 3-axis machines.
- Remote handle for teaching/point setting, simple system operation, easy for beginners.
- Supports front-load / rear-unload; auto-unloading optional on request
- Standard servo screwdriver with precise torque and rotation control
- Intelligent detection for missing screws, high screws, cross-threading, etc.
- Production statistics with data export capability.
- Sheet-metal frame + machined critical components; high precision and rigidity
- Adjustable torque, speed, and rotation; supports multiple job recipes
- Supports screws M1.0–M6.0; applicable to flat, deep-hole, and multi-angle fastening
- Capable of fastening Phillips, slotted, Torx, triangular, and other screw types.
- Supports barcode scanning, torque data export, and production data export
- Equipped with Leadshine closed-loop motors; high accuracy and speed

Main Technical parameters :

- Work Envelope : 300*200*100mm (X*Y*Z) ;
- Outline dimension : 760*860*801mm (W*L*H)
- Drive System : Closed-loop stepper motor
- Positioning Accuracy: ± 0.02 mm
- Control System : Touchscreen + Motion control card
- Driver System: Servo driver with programmable torque and RPM presets
- Cycle Time: 1.2s-1.8s
- Program capacity: 99groups
- Power Consumption: 1.5KW
- Power supply: 220VAC
- Air supply: 0.4Mpa-0.6Mpa
- Weight: 150Kg



5、 4-Axis Desktop Vision Screw Fastening System

Applications: Assembly of mobile phones, cordless phones, calculators, navigators, audio systems, cameras, laptops, tablets, learning machines, small home appliances, toys, and other products.

Core Features:

- 4-axis dual-platform design with alternating fastening, allowing the screwdriver to operate continuously with zero idle time.
- CCD precision positioning with intelligent hole recognition/correction and defective screw hole screening.
- IPC motion control system with visual programming and unlimited data storage.
- CCD-assisted screw point teaching eliminates manual visual alignment errors
- Standard servo screwdriver with precise torque and rotation control
- Intelligent detection for missing screws, high screws, cross-threading, etc.
- Production statistics and MES traceability functions.
- Sheet-metal frame + machined critical components; high precision and rigidity
- CCD supports single-point capture or dual MARK-point capture.
- Supports screws M1.0–M6.0; applicable to flat, deep-hole, and multi-angle fastening
- Supports barcode scanning, torque data export, and production data export
- Equipped with Leadshine closed-loop motors; high accuracy and speed

Main Technical parameters :

- Work Envelope : 350*200*100mm (X*Y*Z) ;
- Outline dimension : 732.5*785*900mm (W*L*H)
- Screw feeding mode: Vacuum/Magnetic absorption
- Drive System : Closed-loop stepper motor
- Positioning Accuracy: ± 0.02 mm
- Control System: IPC motion control system + industrial PC + CCD.
- Driver System: Servo driver with programmable torque and RPM presets
- Cycle Time: 1.5s-2.5s
- Program capacity: 99groups
- Power Consumption: 1.5KW
- Power supply: 220VAC
- Air supply: 0.4Mpa-0.6Mpa
- Weight: 125Kg



6、Floor-type 4-Axis Vision Screw Fastening System



Applications: Assembly for mobile phones, hard drives, toys, LCD/LED modules, communication equipment, home appliances, automotive parts, and more.

Core Features:

- Equipped with vision system, intelligent electric screwdriver, and PC-based control. Compact yet powerful, cost-effective, and highly scalable.
- CCD precision positioning with intelligent hole recognition/correction and defective screw hole screening.
- IPC motion control system with visual programming and unlimited data storage.
- CCD-assisted screw point teaching eliminates manual visual alignment errors
- Standard servo screwdriver with precise torque and rotation control
- Intelligent detection for missing screws, high screws, cross-threading, etc.
- Production statistics and MES traceability functions.
- Sheet-metal frame + machined critical components; high precision and rigidity
- CCD supports single-point capture or dual MARK-point capture.
- Supports screws M1.0–M6.0; applicable to flat, deep-hole, and multi-angle fastening
- Supports barcode scanning, torque data export, and production data export
- Equipped with Leadshine closed-loop motors; high accuracy and speed

Main Technical parameters :

- Outline dimension : 800*806*1620mm (L*W*H) ;
- Work Envelope : 350*200*100mm (L*W*H) ;
- Drive System : Closed-loop stepper motor
- Positioning Accuracy: ± 0.02 mm
- Control System: IPC motion control system + industrial PC + CCD.
- Driver System: Servo driver with programmable torque and RPM presets
- Programming way: CCD coordinate teaching+ CAD coordinate import + tutoring
- Cycle Time : 1.5-2.5S/PC
- Weight: About 200KG
- Power Supply: 220VAC、50HZ
- Air Supply: 0.4~0.6Mpa
- Power Consumption: 1.5KW

7、Cabinet-type Back-to-Back 6-Axis Dual-head Screw Fastening System

Advantages & Highlights: Back-to-Back 6-Axis Dual Screwdriver Dual Station System with Alternating Operation Mode, boost productivity

Applications:

Applicable to Smartphones, Cordless Phones, Calculators, GPS Devices , Audio Systems, Cameras, Educational Tablets, Small Appliances, Toys

Core Features:

- Two mode of screw feeding : Vacuum/Magnetic absorption
- Multi-surface compatibility: Deep/angled holes, curved surfaces, height-varied planes (magnetic mode)
- Enables dual-screw fastening on single workpiece with intelligent servo driver supporting three independent torque presets
- Reinforced sheet metal frame with height-adjustable feeder enables universal compatibility for multi-height workpieces
- Closed-loop stepper motor with micro-stepping precision enables real-time position compensation, step-loss prevention, and minimized resonance
- Integrates high-performance motion control system with one-touch programming interface
- Integrated with Weinview® HMI touchscreen for dynamic visualization of fastening process, enabling real-time monitoring of driver RPM and torque output

Technical parameters :

- Work Envelope : 230*410*90mm (X*Y*Z) ;
- Outline dimension : 1100*850*1667mm (W*L*H)
- Drive System : Closed-loop stepper motor
- Positioning Accuracy : ± 0.02 mm
- Control System : Touchscreen + Motion control card
- Driver System: Smart servo driver with programmable torque and RPM presets
- Cycle Time: : 1.5s-1.8s/screw
- Program capacity: 100 Recipes
- Power Consumption: 1200W
- Power supply: 220VAC
- Air Supply: 5-6KPa
- Weight: 250Kg



8.Cabinet-type Back-to-Back 6-Axis Dual-head Vision Screw Fastening System



Applications:

Applicable to screw fastening of Mobile phone, Smartwatches , Tablet etc.

Core Features:

- Dual X/Y Back-to-Back Configuration Supports Front Deposit, Rear Retrieval, and Dual-Front Access
- IPC motion control system with visual programming and unlimited data storage capacity
- CCD vision positioning system with automatic defective screw hole detection
- CCD assisted teaching of screw coordinate points to eliminate manual visual alignment errors
- Real-time graphical monitoring of fastening positions/results, make it easy to find the NG points
- Equipped with Smart electric screwdriver (optional) with arbitrary torque/RPM configuration and torque waveform analysis
- Equipped with displacement sensor for auto-correction of floating defects
- Equipped with a driver bit pressure transducer for real-time downward force monitoring during screw fastening
- Integrated AI-Powered Defect Inspection System, Detection of Missed Screws Floating Screws , Cross-Threading/Stripped Threads.
- Equipped with full production traceability tracking and MES integration capability (optional)

Technical parameters :

- Outline dimension : 800*1150*1650mm (W*L*H)
- Work Envelope : 120*220*70mm (X*Y*Z)
- Drive System : X/Y/Z-axis Servo Lead Screw or Stepper-Driven Timing Belt
- CCD Accuracy: $\pm 0.02\text{mm}$
- Operating System: Windows 10
- Control System : IPC + 5 million pixels CCD+ high-performance motion control card
- Driver System: Smart servo driver with programmable torque and RPM presets
- Programming way: CCD coordinate teaching+ CAD coordinate import + tutoring
- Cycle Time: 2.0 / screw
- Operation interface: 21.5 inch LCD + Keyboard + mouse
- Power supply: 220VAC、50HZ
- Air Supply: 0.4~0.7Mpa

9、Multi-spindle Automatic screwdriving machine



Application: Multi-spindle simultaneous screw fastening for mobile phones, cordless phones, calculators, navigators, audio systems, cameras, learning machines, small home appliances, toys, and more.

Core Features:

- Simultaneous fastening of multiple screws for high efficiency
- Expandable with 2 to 8 spindles;
- Supports rotary table with multiple stations to improve cycle time
- Supports auto-unloading function
- Supports torque detection, float-height detection, and cross-threading detection
- Compatible with various screw feeders for simultaneous feeding of multiple screw types
- Supports torque data storage and upload (customizable on request)

Main technical parameters :

- Outline dimension :750*1400*1800mm (W*L*H) ;
- Fastening range: Single point
- Drive mode: Pneumatic cylinder drive
- Positioning Accuracy : ± 0.02 mm
- Control System: Touchscreen + Motion control card
- Driver System: Smart servo driver with programmable torque and RPM presets
- Cycle Time: 2.0 / screw
- Program capacity: 100 Recipes
- Power Consumption: 2000W
- Power supply: 220VAC
- Air Supply: 5-6KPa
- Weight: about 250Kg

10、Extended-Stroke 4-Axis Automatic Screw Fastening Machine



Applications: Assembly of mobile phones, cordless phones, calculators, navigators, audio systems, cameras, learning machines, small home appliances, toys, and more.

Core Features:

- Screw feeding: vacuum suction, magnetic attraction, or blow feeding.
- Supports deep-hole, angled-hole, curved-surface, and uneven-height fastening.
- Capable of fastening two different screw types on one product; intelligent servo screwdriver with three programmable torque settings.
- Rigid sheet-metal frame; feeder height adjustable to accommodate products of varying heights, ensuring strong compatibility.
- Closed-loop stepper motors with high precision, position compensation, no step loss, and low vibration.
- High-performance motion control system with user-friendly programming (easy to set up).
- Weintek HMI touchscreen displaying real-time fastening status.
- Real-time monitoring of screwdriver speed and torque.

Main technical parameters :

- Outline dimension : 1150*1500*1550mm (W*L*H) ;
- Work Envelope : 600*600*90mm(Single side) ;
- Drive System : Closed-loop stepper motor
- Positioning Accuracy : ± 0.02 mm
- Control System : Touchscreen + Motion control card
- Driver System: Smart servo driver with programmable torque and RPM presets
- Cycle Time: about 1.5s/screw
- Program capacity: 100 Recipes
- Power Consumption: 1200W
- Power supply: 220VAC
- Air Supply: 5-6KPa
- Weight: 300Kg

11、SCARA Robotic Screwdriving Machine



Applications:

Screw fastening in in-line production for 3C electronics, home appliances etc.

Core Features:

- Three-axis robotic arm structure
- IPC control system with visual programming and large-capacity data storage.
- CCD vision for positioning and screw fastening control.
- CCD-assisted teaching of screw coordinate points and defective screw hole screening.
- Intelligent electric screwdriver with adjustable torque and speed; real-time monitoring of torque waveform and torque values.
- Protruding screw detection with automatic coordinate logging, and capabilities for protrusion repair and re-fastening.
- Intelligent inspection functions: detects missing screws, loose screws, and cross-threading.
- Supports Wi-Fi connection for MES system access.
- Torque detection function included; reserved port for expansion.

Main technical parameters :

- Outline dimension : Customize
- Work Envelope : 400*600*90mm
- Drive System : Closed-loop stepper motor
- Positioning Accuracy : ± 0.02 mm
- Operation System: Windows 10
- Control System : Touchscreen + Motion control card
- Driver System: Smart servo driver with programmable torque and RPM presets
- Cycle time: Depend on the screw size
- Program capacity: 100 Recipes
- Power supply: 220VAC 50Hz
- Air Supply: 5-6KPa
- Weight: About 250Kg

12、 6-Axis Robot Arm Screw Driver

Applications:

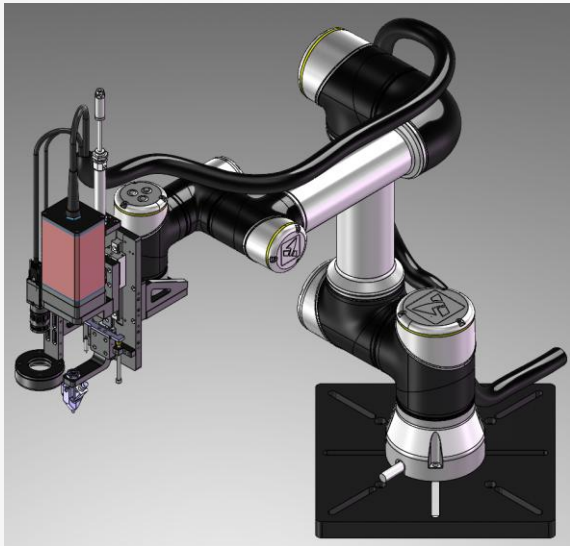
Screw fastening in in-line production for 3C electronics, home appliances etc.

Core Features:

- Six-axis robotic arm structure
- IPC control system with visual programming and large-capacity data storage.
- CCD vision for positioning and screw fastening control.
- CCD-assisted teaching of screw coordinate points and defective screw hole screening.
- Intelligent electric screwdriver with adjustable torque and speed; real-time monitoring of torque waveform and torque values.
- Protruding screw detection with automatic coordinate logging, and capabilities for protrusion repair and re-fastening.
- Intelligent inspection functions: detects missing screws, loose screws, and cross-threading.
- Supports Wi-Fi connection for MES system access.
- Torque detection function included; reserved port for expansion.

Main technical parameters :

- Operation: Windows 10
- Control System : IPC + High performance motion control card
- Driver System : Smart screwdriver, torque settable & monitorable
- Cycle time: Depend on the screw size
- Power Suply: AC 220V50Hz
- Air suply: 0.6Mpa



13、Medium Handheld Screwdriver Machine



Application:

Semi-auto fastening of M1.4–M4 screws for toys, calculators, hardware, audio, learning devices, small appliances, etc.

Core Features:

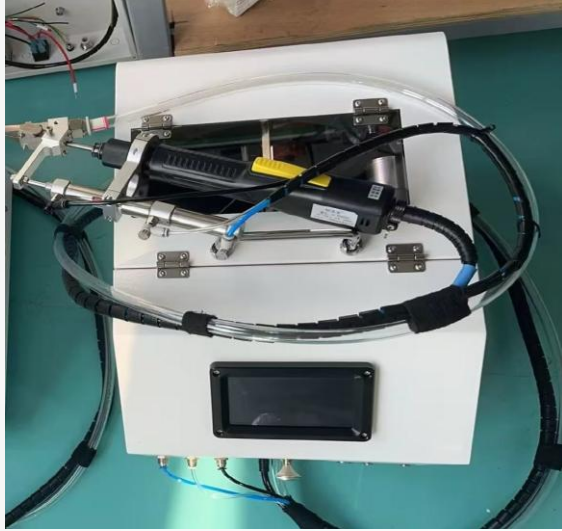
- High-efficiency operation with automatic screw feeding and adjustable torque.
- Multiple alarm functions and counting capability.
- Compatible with both iron and stainless steel screws.
- Suitable for deep holes, angled holes, side holes, curved surfaces, and uneven surfaces.
- Easy to operate ,no professional technician required for setup.
- Smooth screw feeding without jamming; durable for long-term use.

Main technical parameters :

- Outline dimension : 310*260*300 (L*W*H)
- Drive mode: Pneumatic cylinder drive
- Control System : Touchscreen + Motion control card
- Driver System: JTD、Empire、KILEWS
- Cycle time: about one second
- Power Consumption: 50W
- Applicable screw length: ≤25mm
- Screw feeder capacity: 400ML
- Power Supply: 220VAC
- Air Supply: 5-6KPa
- Weight: 15Kg



14、 Medium Handheld Screwdriver Machine



Applications:

Semi-auto fastening of M1.4–M4 screws for toys, calculators, hardware, audio, learning devices, small appliances, etc.

Core features:

- High-efficiency operation with automatic screw feeding and adjustable torque.
- Multiple alarm functions and counting capability.
- Compatible with both iron and stainless steel screws.
- Suitable for deep holes, angled holes, side holes, curved surfaces, and uneven surfaces.
- Easy to operate ,no professional technician required for setup.
- Smooth screw feeding without jamming; durable for long-term use.

Main technical parameters :

- Outline dimension : 400*325*325 (L*W*H)
- Drive mode: Pneumatic cylinder drive
- Control System : Touchscreen + Motion control card
- Driver System: JTD、Empire、KILEWS
- Cycle time: about one second
- Power Consumption: 50W
- Applicable screw length: ≤40mm
- Screw feeder capacity: 800ML
- Power Supply: 220VAC
- Air Supply: 5-6KPa
- Weight: 20Kg



Your specialist in automatic
screwdriving solutions

THANK YOU

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