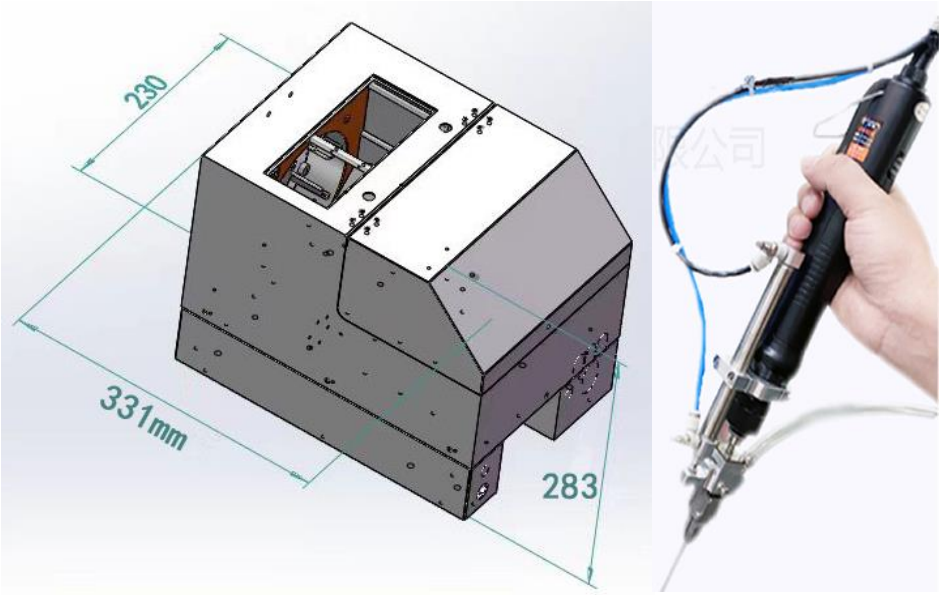
Handheld automatic screw machine

Instruction manual

Product Model	
Purchase Date	
Product No.	
Username	
Remark	

Manufacturer: Shenzhen Jinghe Technology Co., Ltd.
Address: Building 3B,North side of Xinyu Road,Shajing Zhuang Village,Baoan District,Shenzhen

1、Product size and parameters

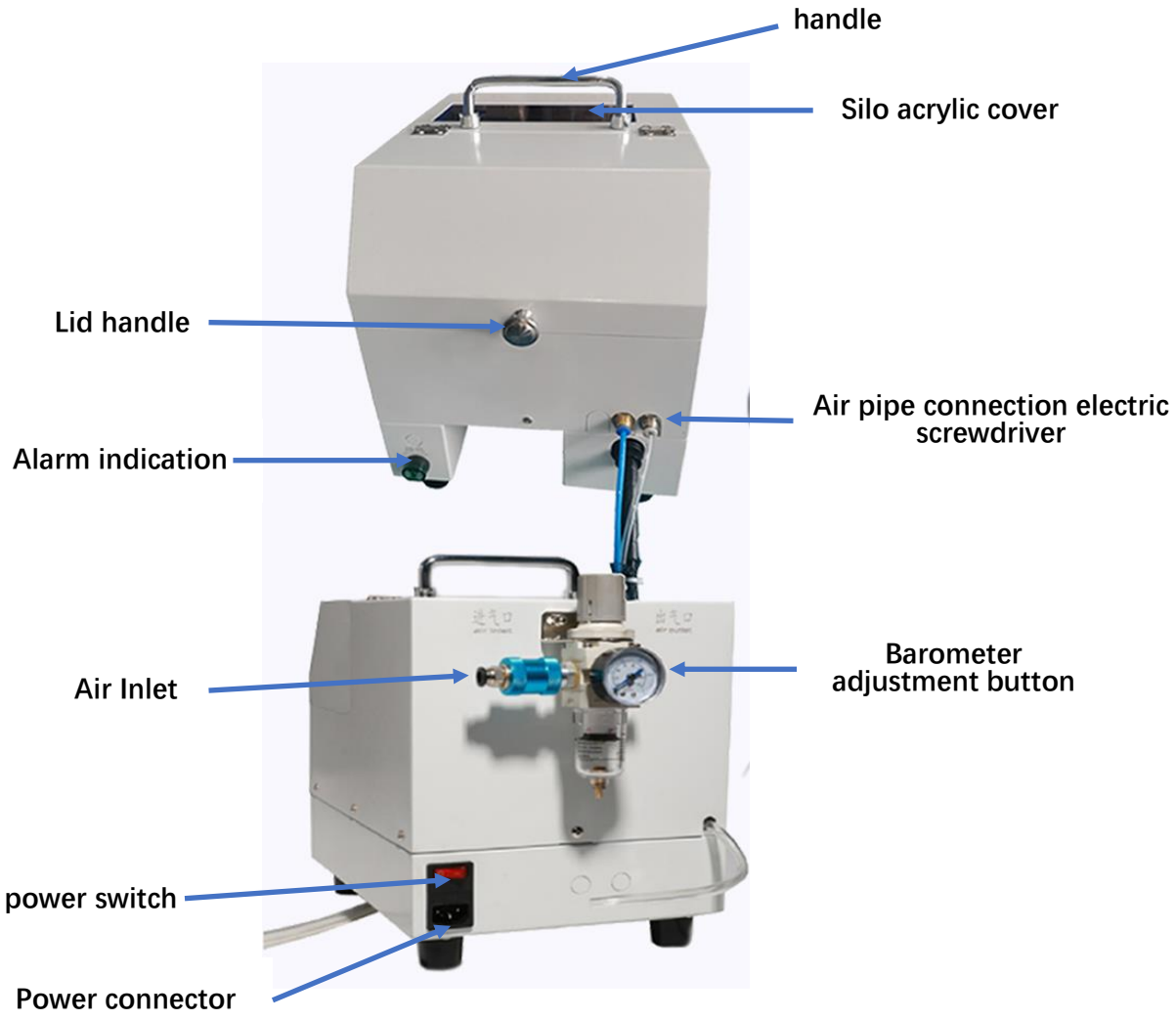


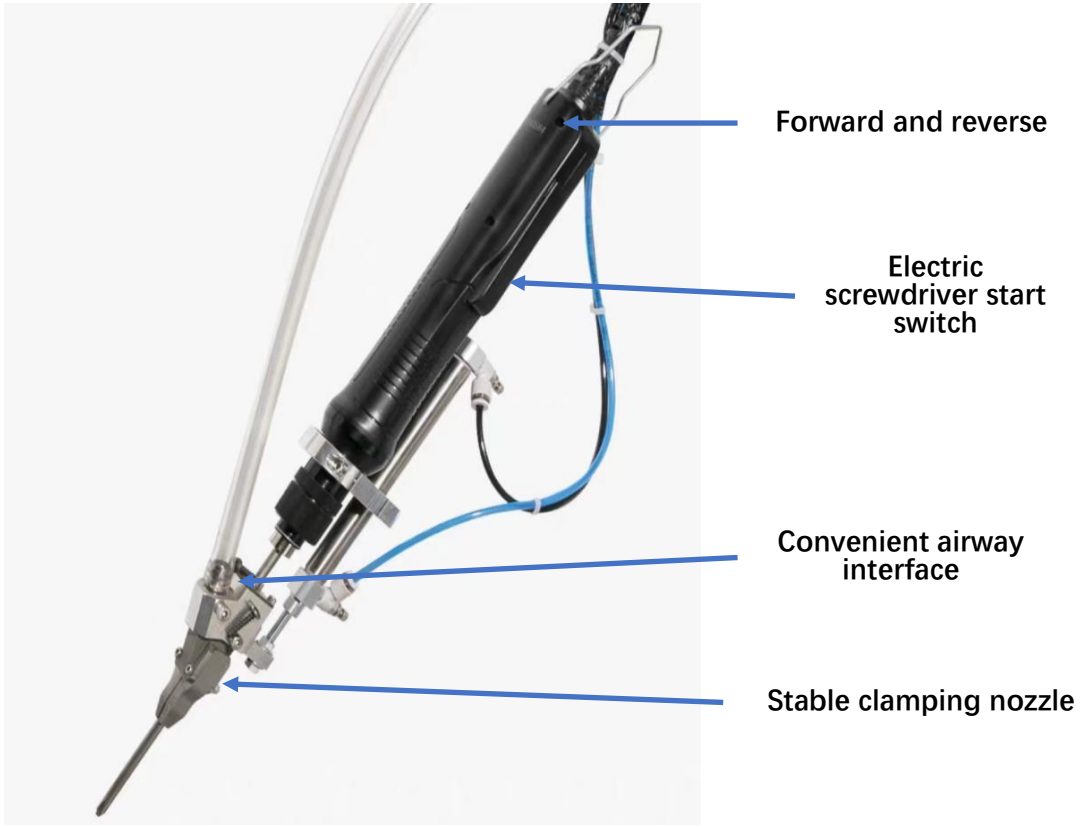
Locking efficiency	0.8-1.6s/screw
Applicable screws	Transverse diameter ratio (L/D) ⩾ 1.2 Iron/stainless steel screws
Control System	Microcontroller
Loading method	Turbine roller loading
Nail feeding distance	1~3m
Silo capacity	About 3000 pieces (M3*8)
Motor	DC Metal Gear Motor
Feeding method	Air blowing
Size	L331mm*W230mm*H283mm
Machine weight	15kg
Maximum load	20kg
Gas source	3-6kpa
Power supply	AC220V
Rated Power	100W

2、 Product Features

- Improve efficiency many times, replace manual automatic screw locking
- It only takes 0.8 seconds to tighten a screw
- Simplified process, no need to remove screws by hand, easy to operate
- High-speed positioning and precision, no screw jamming, reducing costs
- Automatic sensing start function, automatically alarm when there is no screw
- Create zero-fault, long-term use, automatic positioning, easy disassembly and assembly

3、 Equipment Introduction





4、 Operating Instructions and Maintenance

Notes on screw locking

1. Do not double-click (quickly press the switch twice within 1S) the electric screwdriver switch during the screw locking process, as this will cause the claw to hit the product or the chuck to jam. During the locking process, the forward and reverse switch must be turned on to the forward direction before the screw can be locked normally.

2. When the screw is locked crookedly, you need to press the reverse switch with your thumb to loosen the screw before locking it. Forced positive locking will easily cause double-clicking to hit the product or jam the material.

3. When the chuck is stuck with the first material due to unstable air pressure and airflow, misoperation, etc., it is strongly recommended not to double-click the switch directly to manually load the material. You should press the upper end of the claw with your index finger and thumb to open the claw, and then double-click the electric screwdriver switch with the other hand to manually feed the material. Spray out the stuck screw to avoid jamming.

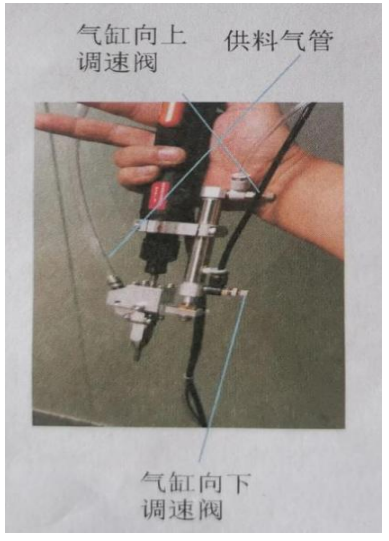
4. If the chuck is stuck, disconnect the power supply of the screw machine, unscrew the two screwdriver head installation screws, pull out the chuck, and clean the stuck screw. The exposed parts of the screw machine are all vulnerable parts except the electric screwdriver. It is recommended to strictly follow the instructions in point 3.

5. When there are continuous empty nails and the alarm light (buzzer) does not sound, turn off the power to check and remove the debris in the feeding air pipe, distributor and the middle and rear ends of the guide rails

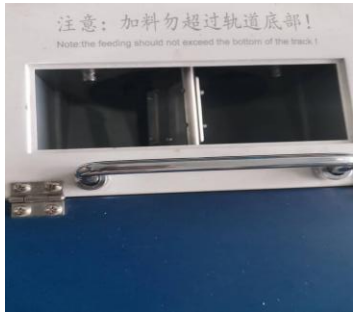
6. Before leaving get off work each time, check whether the cylinder speed regulating valve and the clamping head locking screws are loose. If they are loose, tighten them immediately (the clamping head mounting block is made of aluminum material, and excessive force should not be used to cause slipping when disassembling and tightening)

7. When the cylinder speed regulating valve adjusts the cylinder up and down, it must ensure that there is no obvious recoil to ensure the service life of the cylinder.

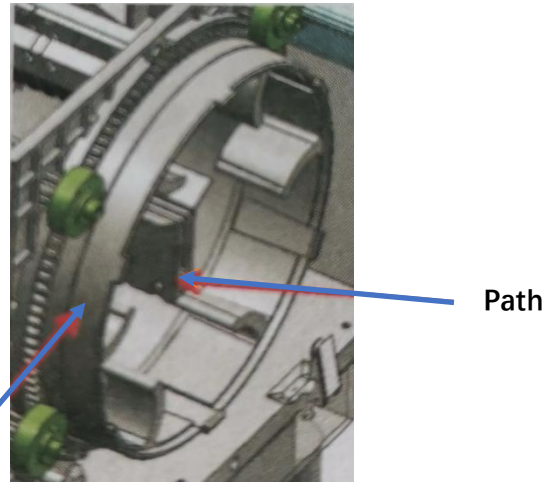
8. When leaving the night shift every day, the screw machine's built-in air gun must be used to blow off the fine powder on the clamping head and the rotating disc gear of the feed box distributor. When the machine is not used for a long time, the clamping head should be coated with anti-rust lubricating oil



5、 Screw Installation and Screw Replacement



After opening the loading cover, pour the screws directly into the material box. The amount of screws should be such that the screws do not touch the guide rails and affect the vibration of the screws. Generally, M3X8 screws can hold up to 3000 PCS. Note that it is best to filter out the sundries before putting in the screws to avoid the turntable getting stuck and causing the motor to burn out.

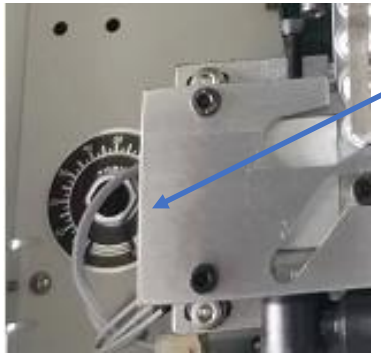


Vibration Control

1. Turn the vibration adjustment knob clockwise to increase the vibration from small to large, and vice versa.

2. Too small vibration will cause insufficient feeding speed or pause, and too large vibration will cause the screw cap to be stuck, excessive noise, or even screw backflow, vibration flying out of the track and falling into the feeding box and other unstable conditions.

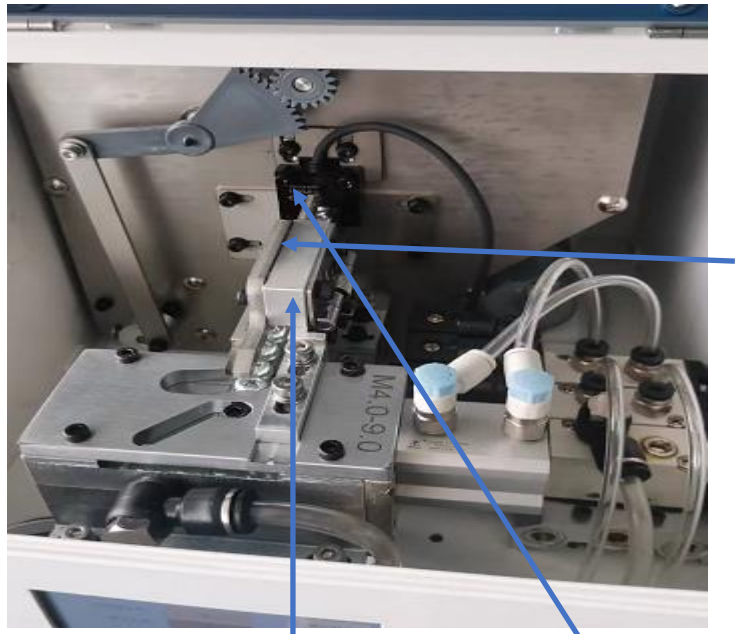
3. When the screw at the rear end of the guide rail stagnates or even backflows, check whether the housing, vibrator, and track screws are loose, and rule out whether the track and vibrator are stuck by screws or debris, then clean the feeding screws, put a screw at the front end of the track, adjust the vibration size so that the screw vibrates to the rear end without pause (the normal state of the screw vibrating to the rear end is from fast to slow), lock the housing, put in the screw, and then fine-tune the vibration so that the screw feeding speed is just right (fast speed without cap overlap) to keep up with the screw locking speed is the best state.



From fast to slow, vibrate to the back end without pause

6、 Vibration Control

The function of the pressure strip is to cooperate with the vibrator to ensure that the screws can be smoothly vibrated from the track into the distributor, and to prevent the screws from getting stuck when the distributor distributes materials.



Track adjustment

Note: If the track or vibrator is stuck or blocked by anything, it will affect the vibration feeding. Clean up the surrounding debris every day.

1、The gap between the track and the distributor is between 1~2mm; small screws are 1mm, large screws are 2mm

This line of the vibrator is connected to high voltage regulation. Please pay attention to power off during maintenance. If the insulation is damaged, replace the line or wrap it with raw tape in time.

This part is prone to accumulation of debris that affects vibration and needs to be discovered and cleaned in time

As long as the power is on, the vibrator will continue to vibrate. If it is found that it does not vibrate when it is turned on, you need to remove this protective plate and clean out the debris inside.

When the track is pushed back, the track height should be less than 0.1mm higher than the distributor rail, and the groove should be aligned with the center.

7、 Screw silo broom adjustment

After loosening these four screws, you can adjust the height of the broom. When adjusting, make the broom parallel to the track so that it can just sweep away the crooked screws without touching the track or the screws that fall into the track groove.

Alarm troubleshooting

When the alarm light is on continuously and the buzzer sounds, it means that there is a shortage of material, material is stuck in the front section of the track, the track sensor is faulty, the turntable is stuck, or the turntable feeding motor is faulty.

Troubleshooting:

1、First check if there is enough material in the material box (if there is material, add material). If there is material, check if there is any material stuck in the front end of the track (if there is any material, just remove it);

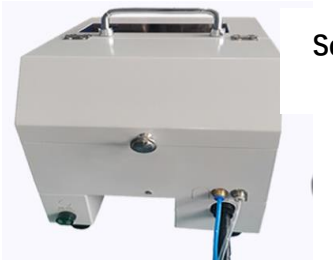
2、Then check if there is a screw under the track sensor. If there is a screw and the light is off, the track sensor is faulty (lower the sensor to see if the light can turn on and sense the screw. If the light is off, replace the sensor and wire);

3、The sensor light is off, the turntable feeding motor rotates to drive the turntable to feed, the light is on and the motor stops rotating. If the light is off and the motor does not rotate, turn off the machine, dump all the screws, remove the turntable, and then turn on the machine to confirm whether the motor rotates. If it rotates, the turntable is stuck, just clear it and blow it clean. If it does not rotate, replace the feeding motor and its circuit

8、 Equipment maintenance

1: Try not to bend the power cord too much, and tighten the interface end with the spring sleeve
2: Try to bend the nail feeding air pipe as little as possible to avoid affecting the speed and stability of nail feeding
3: The feed box should be placed as high and stable as possible without shaking
4: Check the chuck screws and cylinder speed control valve screws every day to see if they are loose. If they are found to be loose, tighten them immediately. The mounting block is an aluminum part. Do not tighten too hard. Blow off the fine iron filings on the chuck and mounting block at the end of get off work every day to avoid too much iron filings blocking the cylinder
5: The locking parts are precision fitting parts. Try to ensure that they are not dropped and the chuck hits the product less. Check the cylinder movement every day to see if it is smooth (after blowing off the iron filings, twist the batch rod to see if it can be twisted. If it can be twisted, it means it is smooth)
6: The locking parts (external feed box) are all wearing parts except the brushless electric screwdriver motor, which is guaranteed for 1 year. The batch rod (usually replaced every 30 days according to the usage), the air pipe (the nail feeding air pipe is generally replaced once every 3-6 months, and the cylinder air pipe- -Generally replaced once a year), air pipe joints are not under warranty. The cylinder, chuck, and chuck fastening parts are under warranty for 3 months. If properly maintained, except for the screw rod, air pipe, and joints, the rest of the parts can be used normally for more than 1 year.
7: When replacing the screw rod, if it is found that the screw rod cannot be smoothly inserted into the electric screw hole, it means that the chuck and the electric screw are not concentric, which will affect the life of the electric screw bearing and the cylinder. You need to unscrew the cylinder shaft screw and readjust it to concentricity and then tighten the screw; if a brushed electric screw is used, replace the carbon brush every 3 months
8: The stability of the feed box is mainly related to vibration, feeding and dispensing. Vibration is the connecting bridge between feeding and dispensing. Its stability is of utmost importance. Ensure that the vibrator and guide rail are not stuck by any surrounding debris every day and clean them up in time
9: The inside of the feed box needs to be kept clean. Use an air gun to blow the inside of the feed box clean every day when you get off work or go to work.
10: Lubricate the gears of the feed box once every two months, and use an air gun to remove debris from the chip removal slot of the feed box every day to prevent the accumulation of debris and cause the gears to get stuck.
11: Check the fastening screws of the pressure strip once a week to see if they are loose. If they are loose, adjust and tighten them in time.

9、Factory packaging box display:



Screw Feeder System

Power cord

Trachea

Copper filter element

气动调压阀

Electric Screwdriver

Screwdriver rod for electric screwdriver