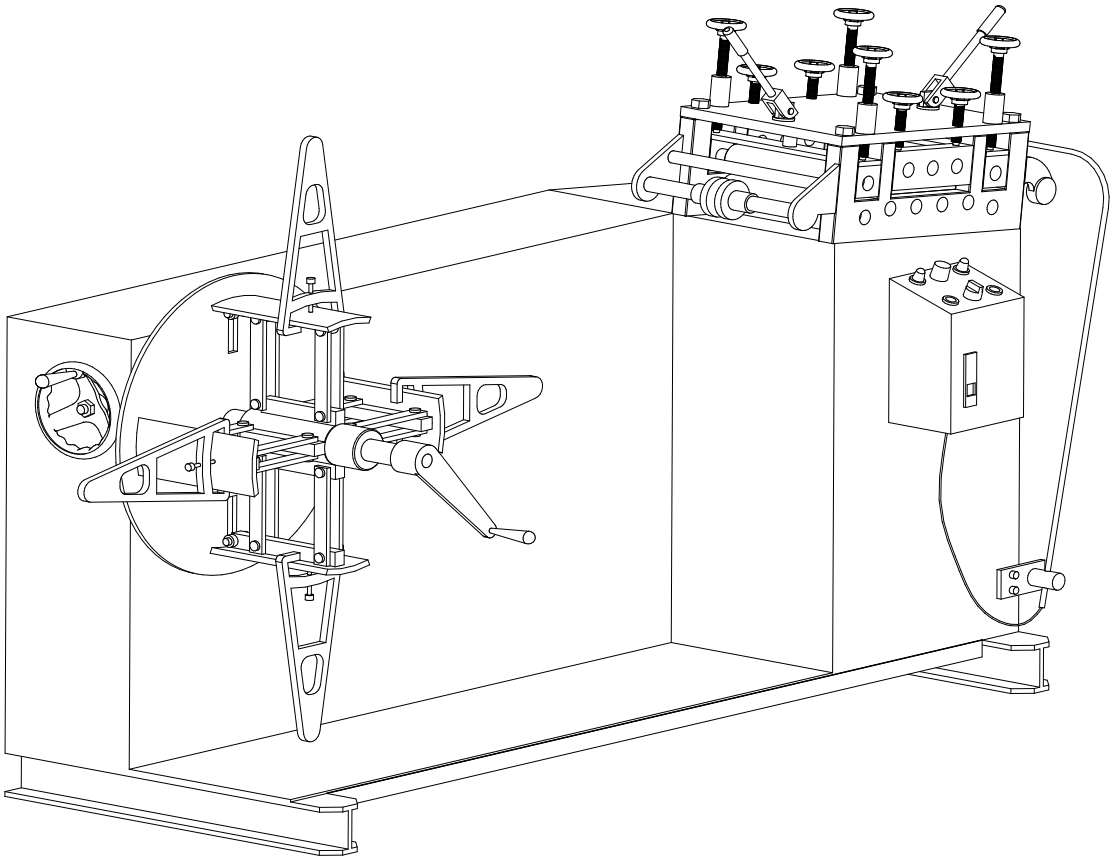
GO series
Instruction Manual



中国·深圳·力豪机械设备有限公司
CHINA SHENZHEN LIHAO MACHINE EQUIPMENT CO.LTD.

PREFACE

To our valued guest：

Hello！ Welcome to use Lihao's GO series machine！

In the development process, Lihao Machinery always adheres to the business philosophy of "quality first, service first". Lihao Machinery has passed ISO90000:2000 quality system certification and EU CE certification. It strictly implements standardized production, manufacturing processes and strict testing procedures in the production process, maximizing and guaranteeing product quality and reaching international standards.

Based on years of customer feedback and our service experience, proper use and timely maintenance enable the machine to perform its optimum performance and maintain its original accuracy and vitality. To this end, we hope that this instruction manual will help you make the most of the functions of this device.

If you have any questions during reading this instruction manual or using the device, please send email to our service email: export@lihaomachine.com

Thank you for purchasing Lihao Machinery

In order to use the equipment you purchased correctly, please read this manual carefully before use.Please be sure to submit this instruction manual to the actual user of the device.

SHENZHEN LIHAO MACHINE EQUIPMENT CO., LTD.

1. Model Features and Technical Parameters

1.1 Model Characteristics

(1) It can replace manual operations, supports round-the-clock continuous operation, and meets the requirements of industrial uninterrupted production.

(2) The integrated design of material rack and correction machine significantly reduces the space required for production.

(3) It can be matched with all kinds of manufacturing machine tools to realize the production automation and mass production, and effectively improve the production efficiency and reduce the labor and production cost.

(4) The metal sheet is leveled by this machine with a smooth surface free of dents, achieving high processing accuracy and meeting the correction requirements of various metal sheets.

(5) The core correction roller is treated with chrome plating process, which is wear-resistant and corrosion-resistant, ensuring a long service life of the equipment.

(6) The drive motor features a variable frequency speed control system, enabling precise and flexible speed adjustment to accommodate various feeding speed requirements.

(7) The compensation timing can be freely adjusted according to the production process, and the equipment has strong adaptability.

1.2 Technical Parameter Table

Specifications	Motor (HP)	Material thickness (mm)	Material width (mm)	Inner diameter (mm)	Outer diameter (mm)	Speed (m/min)	Supporting weight (kg)
GO-200	1	0.4-2.8	200	450-530	1200	15	800
GO-300	2		300				1000
GO-400	2		400				1200
GO-200	1	0.4-3.2	200				800
GO-300	2		300				1000
GO-400	2		400				1200
GO-500	3		500				1500
GO-600	3		600				2000
GO-200A	3	1.0-4.5	200	450-530	1200	15	3000
GO-300A	4		300				3000
GO-400A	5.3		400				3000
GO-500A	5.3		500				3000
GO-600A	7.3		600				3000

2. Description of Aircraft Structural Components

(1) Control box: The core control unit of the equipment, responsible for key operations including power switching, mode switching, and parameter adjustment.

(2) Sensing rod: The core sensing component in automatic mode, which detects material position in real time and triggers device start/stop signals.

(3) Leveling adjustment handwheel: Adjust the height of the leveling roller to precisely control the correction pressure and optimize the correction effect.

(4) Handle lifting mechanism: A force-assisting component for equipment transportation and precise positioning, facilitating installation and debugging.

(5) Leveling roller: The core component for metal sheet correction, responsible for sheet leveling and straightening.

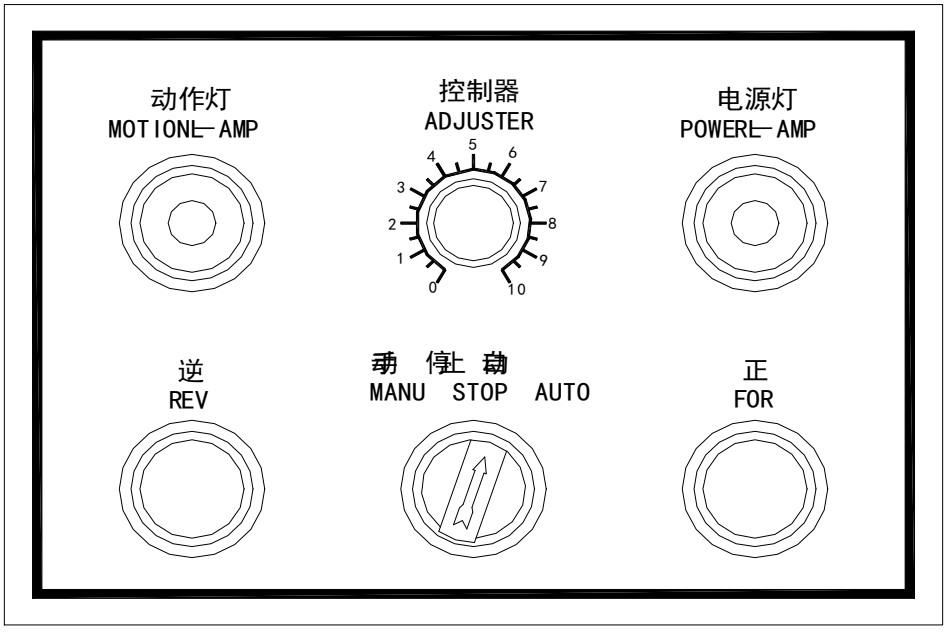
(6) Feed guide wheel: controls the plate's feeding position to prevent material deviation during feeding.

(7) Material rack support tile: the core support component of the material roll, ensuring stable placement of the roll.

(8) A-shaped iron stopper: a supplementary fixing device for the material roll to prevent loosening or misalignment during rotation.

(9) Brake wheel: controls the rotation and braking of the material roll, enabling adjustment of the unloading speed.

3. Operation Instructions for Control Panel



The control cabinet serves as the core of equipment operation, with each action corresponding to a specific working state of the correction machine. The operational-state correspondence is as follows:

Action	Working state of the orthodontic appliance
plug in	The power indicator light turns on, the device enters standby mode, and all systems are powered up.
Switch to manual mode	The orthodontic appliance operates in intermittent mode, with the forward and reverse buttons directly controlling the device's rotation for easy adjustment.
Switch to automatic mode	The orthodontic machine is automatically triggered and controlled by the induction circuit, with its operation initiated and terminated based on the detection signal from the material of the induction rod.
Press the stop button	The device control power is cut off. All actions stop immediately, and the device cannot start.

4. Equipment Installation and Commissioning

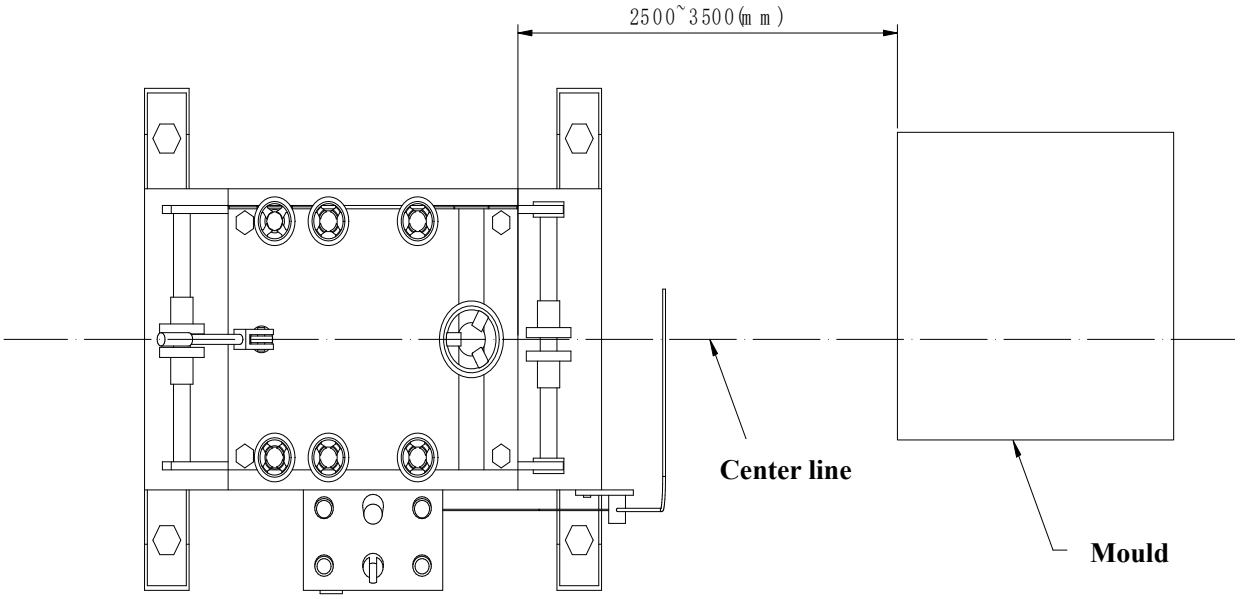
4.1 Equipment Installation

(1) During installation, ensure the centerline of the correction machine's roller aligns precisely with the centerline of the matching machine tool to guarantee accurate material feeding and prevent material misalignment.

(2) After installation, conduct a comprehensive inspection of all rotating components to ensure there are no obstructions, thereby preventing jamming or damage during operation.

(3) Set the device's motor status switch to manual mode, which activates the motor's stop-motion control for directional testing.

(4) Test the motor's actual rotation direction by sequentially pressing the forward and reverse buttons. If the motor rotates in the opposite direction to the button labels, simply swap any two of the device's power inputs to restore normal operation.



4.2 Correction and Adjustment

Correction effectiveness is the core performance metric of the device. This model has streamlined the correction adjustment process to reduce operational complexity. The specific debugging steps and requirements are as follows:

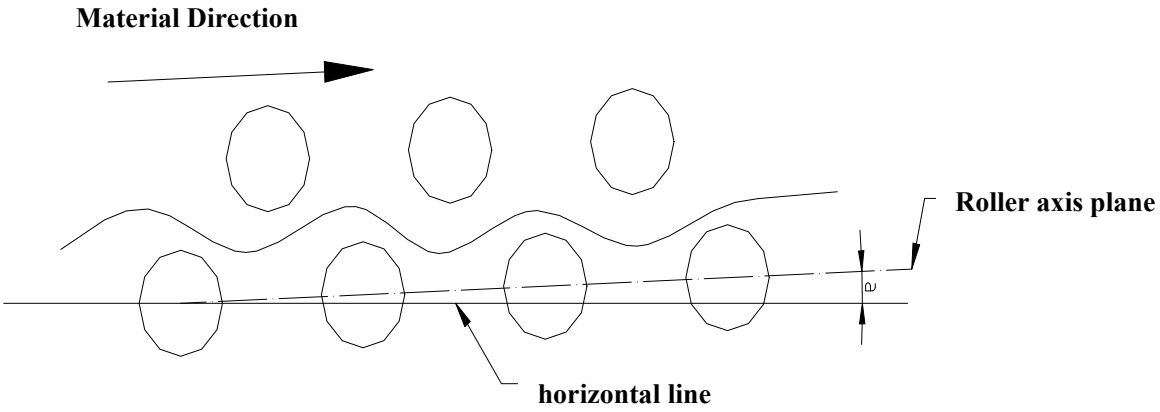
(1) Before debugging, a test sample of the material to be corrected (approximately 1.5 meters in length) is taken as the reference for calibration, ensuring the results align with actual production requirements.

(2) Adjust the leveling handwheel according to the material's shape before and after correction, and optimize the correction effect precisely:

order number	pre-correction material shape	Shape of the material after correction	regulation means
1			Adjust the leveling handwheel to press the upper roller downward, increasing the corrective pressure.
2			Adjust the leveling handwheel to lift the upper roller upward, thereby reducing the corrective pressure.
3			1. Adjust the leveling handwheel to lift the upper roller

order number	pre-correction material shape	Shape of the material after correction	regulation means
			upward. 2. Excessive pressure on the upper and lower rollers requires appropriate pressure reduction adjustment
4			This feeding shape cannot be corrected directly. Flip the material first before correcting.

(3) To achieve optimal correction results, when adjusting the leveling roller, ensure it is tilted upward from the feed end to the discharge end, as shown in the figure below.



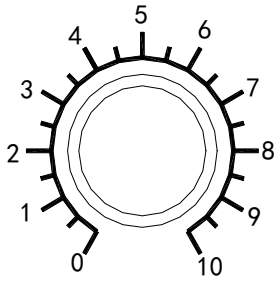
(4) When adjusting the leveling handwheel, both left and right handwheels must be operated synchronously. Refer to the device's standard scale for adjustment to ensure precision.

(5) After the sample is adjusted to meet the production process requirements, it can be loaded into the roll and the equipment can be started to enter the automatic production mode.

4.3 Automatic feeding settings

(1) Factory default sensing logic: The correction machine stops rotating immediately when metal material contacts the sensing rod; when the material leaves the sensing rod and reaches the preset sensing time, the machine automatically initiates material feeding (this sensing logic can be reversed according to production requirements).

(2) The induction time directly affects the operational stability and service life of the equipment. It can be adjusted via the controller knob on the electrical panel (the factory default is 3 seconds). The adjustment principle is to ensure the average feeding speed of the correction machine matches the production



requirements of the press, while avoiding excessive motor startups to reduce equipment wear.

(3) If the feeding speed of the correction machine does not match the punching machine's speed, follow these steps to troubleshoot: First, verify whether the rated speed of the purchased equipment meets the punching machine's production requirements. If the rated speed is adequate, check if the induction time setting is too long and adjust it accordingly. If the rated speed cannot meet the punching machine's requirements, contact our company promptly.

(4) After completing all the above settings, switch the correction machine's operation switch to the' automatic' mode, and the device will automatically perform feeding operations based on the preset parameters.

5. Operational Precautions

(1) The equipment must be installed strictly according to the schematic diagram in this manual to determine its relative position to the press. Using the press die's feeding centerline as reference, ensure complete alignment with the machine's centerline to guarantee feeding accuracy.

(2) The equipment must not be operated under overload conditions. Operators at the production site must strictly adhere to the instructions in this manual. For critical operations such as loading and alignment, operators must master the operational techniques and implement safety precautions, with a supervisor present to monitor the process. In case of any abnormal conditions during operation, immediately stop the press, then shut down the alignment and feeding systems. Restart only after troubleshooting and resolving the issue.

(3) When the equipment is in automatic operation mode, the material feeding and alignment device are automatically controlled by the induction system without manual intervention. In manual operation mode, the material feed/retract can be flexibly controlled via forward/reverse buttons, facilitating tasks such as mold debugging.

6. Troubleshooting Common Issues

If a device fails during operation, you can quickly identify the cause based on the following symptoms and take appropriate troubleshooting steps to restore its operation promptly.

fault phenomenon	failure cause	elimination method
slip of strip feeding device	Insufficient pressure of the pressing spring	Adjust the pressing spring to increase spring pressure and enhance friction.
Cannot drive the material	/	/
The startup of the memory is	Incorrect time relay settings	Adjust the time relay setting to match

fault phenomenon	failure cause	elimination method
too early or too late.		production requirements
The up and down rollers do not rotate.	1. The transmission chain has come loose;	1. Realign and secure the transmission chain to ensure smooth operation.
	2. Motor start button or contactor malfunction;	2. Replace the faulty motor start button or contactor;
	3. The motor circuit has fallen off;	3. Conduct a comprehensive inspection of the motor circuit, reconnect any disconnected sections, and ensure proper fixation.
	4. Motor burnout or gearbox failure	4. Replace the burned-out motor or faulty reducer
The orthodontic appliance is not detectable	1. Detachment of the sensory line;	1. Inspect the induction circuit, reconnect and secure the detached components;
	2. Time relay failure or electronic control component failure	2. Replace the faulty time relay or electronic control component
The material fluctuates unpredictably, resulting in unstable feeding.	1. The feed roller and the correction roller are not parallel vertically.	1. Use the following rollers as a reference, and adjust their positions appropriately to ensure they remain parallel.
	2. Excessive burr on the material or inconsistent thickness	2. Pre-treat the materials by removing burrs and screening for uniform thickness before loading onto the machine

7. Equipment Maintenance and Care

To ensure stable operation, extend service life, and reduce failure rates, regular professional maintenance of the equipment's electrical systems and mechanical components is required. The specific requirements are as follows:

7.1 Maintenance of Electrical Equipment

(1) Electrical equipment must operate at its rated normal voltage. Frequent voltage fluctuations can drastically shorten the lifespan of electrical components and cause a sharp increase in failure rates.

(2) Electrical components must operate in a dry environment. If exposed to moisture or rain, all electrical parts must be thoroughly dried before restarting the equipment.

(3) Regularly inspect the insulation integrity of exposed equipment wiring. Replace any damaged or aged insulation promptly to prevent electrical leakage, short circuits, and other safety hazards.

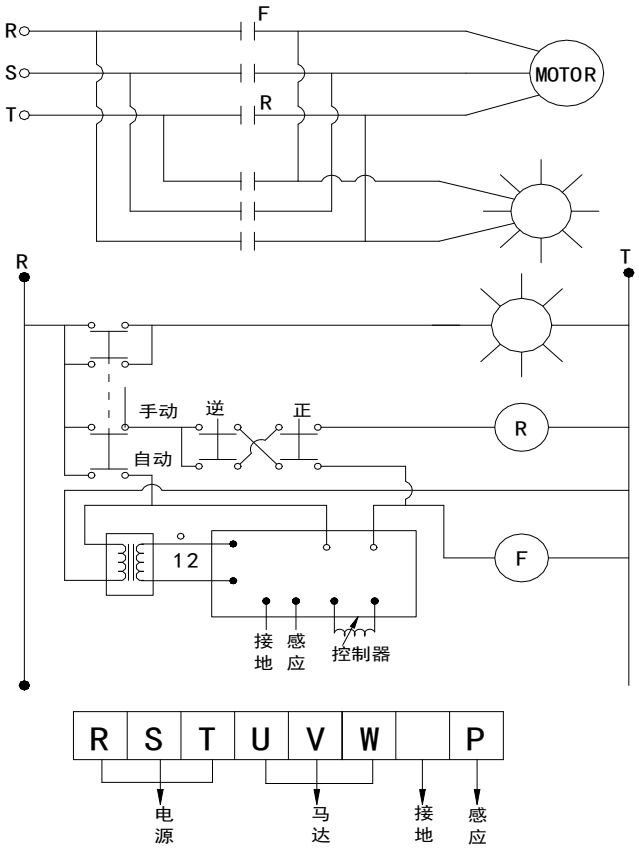
7.2 Maintenance of Machinery and Equipment

(1) Exposed components and rust-prone transmission parts of the equipment should be regularly lubricated with grease or engine oil to prevent rust formation.

(2) The equipment is designed with a reserved grease nipple, requiring grease replacement every 15 days to maintain optimal lubrication.

(3) Core transmission components such as gears and sprockets require daily lubrication to ensure smooth operation and minimize mechanical wear.

8. Circuit Connection Instructions



8.1 Wiring Labeling Standards

Single-phase connection method: ST connection and RT connection, where V is the starting line and UW is the main line.

8.2 Equipment Voltage Parameters

(1) The machine's input power supply is three-phase 380V (420/220) AC.

(2) The control voltage in the control box is single-phase 220V AC (supplied by the built-in transformer of the equipment).

(3) The sensing component operates at 12V DC (powered by the device's built-in transformer).

Certificate of inspection

Product type： _____

Product code： _____

The product is qualified in accordance with the technical standards of the product.

Permission to leave the factory

Examination clerk：

Date：

Warranty card

User name		**Factory number**	
Production type		**Date of production**	
Date of purchase		**Invoice number**	

Instructions for warranty

Thank you for using Lihao stamping peripheral equipment ,in order to ensure the interests of users,our company sincerely promises to provide you with the following services with this warranty card.

1. Lihao servo feeder is guaranteed for one year from the date of purchase.

2. The machine can be repaired free of charge within the stipulated warranty period for any faults that occur in manufacturing problems.

3. The following conditions do not belong to the scope of free maintenance,but can be implemented by fee-based maintenance,life-long service.

1）Don't show the warranty card or the warranty card without the company's seal confirmation.

2）Faults caused by accidental factors or user failure to operate according to random instructions.

3）Fill in the warranty card that the products does not conform to or be altered with the repaired product.

4）Over the stipulated warranty period,the repairs will continue.

Seal：

Service email：export@lihaomachine.com

Please keep this card properly.

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LIHAOMACHINE

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