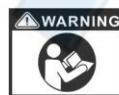


SUMAKE®

Professional & Industrial

INSTRUCTION MANUAL

ITEM NO.: **SF30M series**
AUTOMATIC SCREW SUPPLIER



SF30M series-I-1912A-YM

SF30M Automatic Screw Feeder

Instruction Manual

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I. Introduction

The SF30M automatic Screw Feeder is suitable to automatic production to save the trouble of manually picking screws as practiced conventionally. Furthermore, the machine can feed the screw to screwdriver also screwing to work-piece automatically. The working stability characteristic can enhance productivity, reduce human cost.



II. Inspection

	Description	Q'ty	remark
1	screw feeder	1set	
2	screwdriver set	1set	
3	BIT	10pcs	
4	Power cord	1pcs	
5	Power supply	1pcs	
6	Operation manual	1pcs	

III. Safety precautions

Follow instructions depicted in the manual and operate the machine correctly.













< Be sure to follow the instructions >

1. Warning sign :

【 Prohibition Sign 】 Fire, electric shock, or personnel injury or death may occur if not observed

【 Alarm Sign 】 Damage of properties, or electric shock or injury of personal may occur if not observed.

2. Safety rules

	NOT let contaminants such as water or oil enter into machine
	Please connect use correct voltage to work.
	Follow instructions depicted in the manual and operate the machine correctly.
	DO NOT dismantle or modify the machine.
	If machine smoke, dropped from high place, Influent, please remove the power cord and send the product for repair.
	NOT place and operate the machine on an unstable table.
	DO NOT place machine in a place where flammable or corrosive gas area.
	DO NOT put the hand in hopper during working or aim screwdriver to operator.
	DO NOT lift the rubber handle to remove machine, avoid the injury if screw loosen from casing.
	Remove the power plug if the machine is to remain idle for a long period of time. And use specified voltage
	Do not place non-spec screws into the hopper.
	Do perform regular maintenance of the machine as scheduled.

IV、Specification

1. exterior:

Model	L / W / H	Weight	Voltage	Air Pressure
SF30M	35 / 25 / 38 (cm)	22 kg	AC 110V / 220V	5 ~ 6 kg / cm ²



2. Working environment:

Model	SF30M	
Voltage	Screw feeder AC 110V / 220V	Electric screwdriver AC 110V / 220V
Air pressure	5.5(±0.5)kg/cm ² =0.54(±0.05)MPa	
Temperature	10°C~ 40°C	

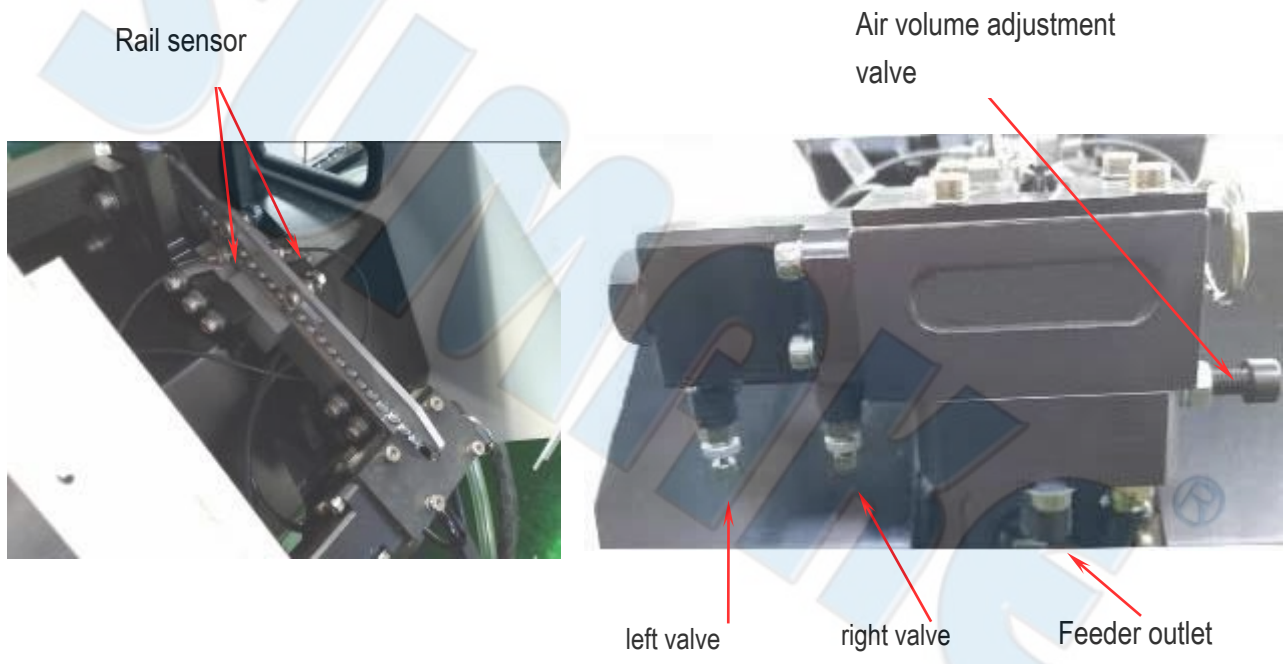
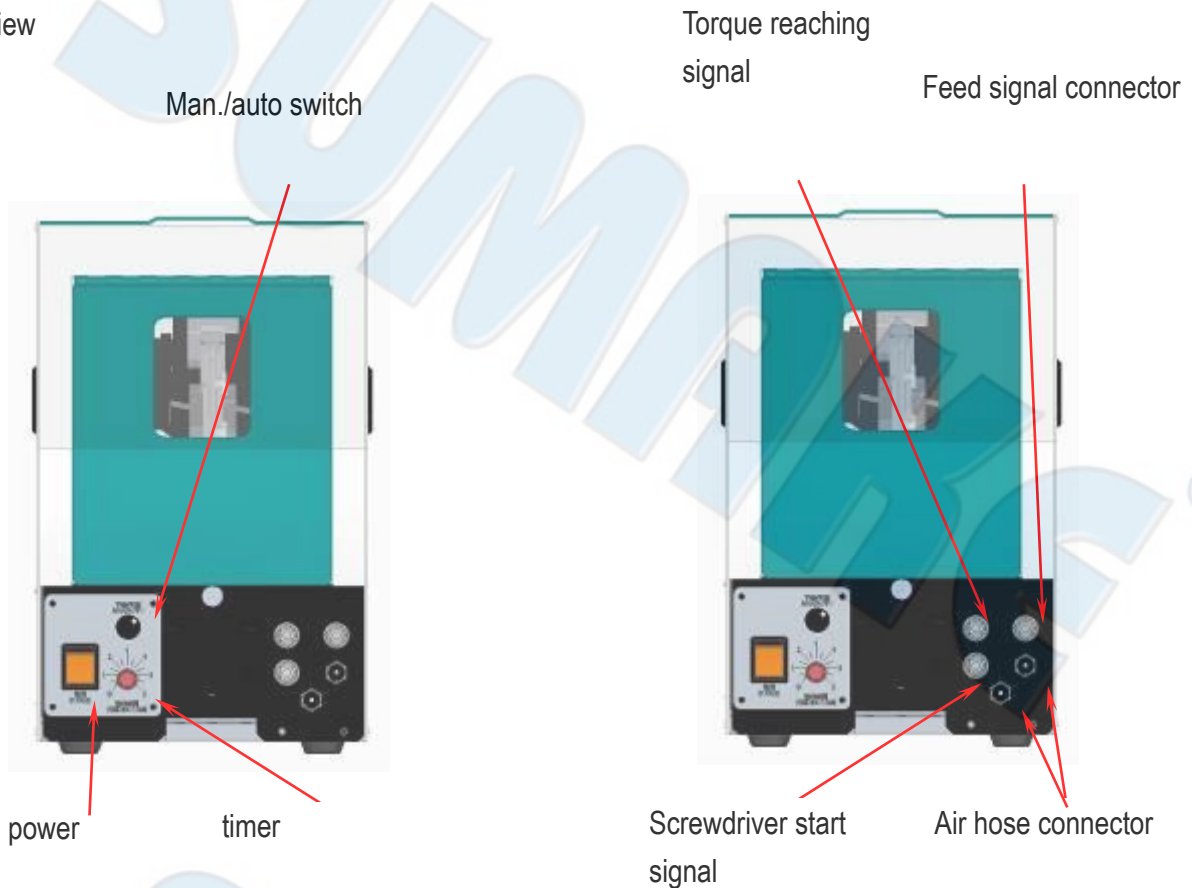
3. Weight:

Model	screw feeder	screwdriver set
weight(kg)	22KG	0.8KG

V、Parts Nomenclature

1.

front view



2. rear view

Air unit





VI 、 Installation

1. install the delivery hose, screwdriver start / torque reaching/ feed signal connector, air hose to screw feeder. (make sure all lines is smoothly.)
2. connect air source.

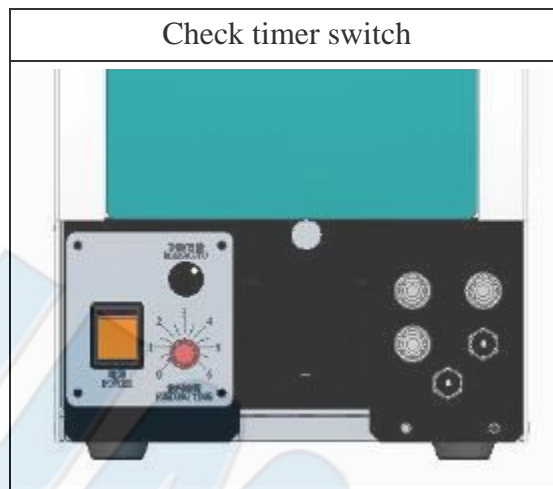


3. adjust air pressure (5 ~ 6 kg/ cm²)

Pull the switch the turn by clockwise	Push the switch after correct setting
	

4. check feed timer setting should be around 0.5 sec.

Note: The timer setting is different for different delivery hose length.



(1). Connect to AC110V

Connect power cord (110V, Very important)





VII 、 Pre-job Checking

1. Install each item correctly.
 2. Confirm that all power connectors, signal joint and air joint are properly installed in place.
 3. Confirm the input power is correct.
 4. Confirm the cylinder are positioned.
 5. Confirm that all parts are securely locked
- Confirm the working air pressure (at 5.5(±0.5)kg/cm²) ◦

VIII 、 Test run

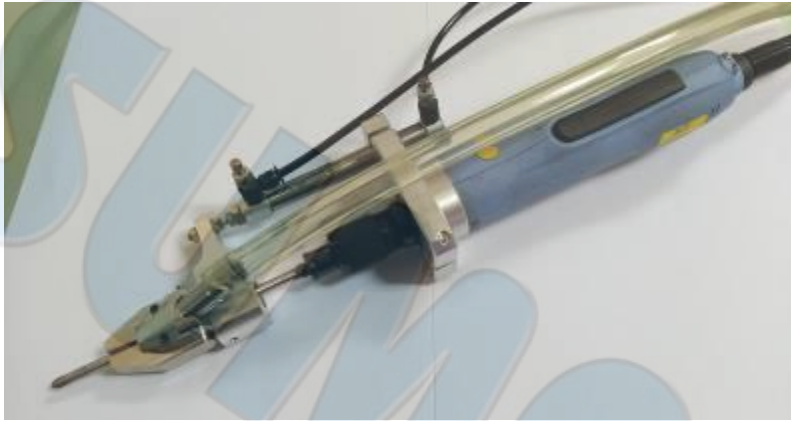
1. **Open the hopper and cover and load hopper with a small quantity of screw.**

Load Screws	Max Volume
	

2. **Turn power switch on and connect air source**
3. **check feeding action is correct**

1. check if pushing board move repeat until screw full on chute, the pushing board will stop if screw level over sensor.
2. check if screw on chute can move smoothly.
3. the cylinder of screwdriver will move quickly.
4. The screwdriver will activate after pressing lever. See Fig.1

「FIG.1」



5.the cylinder move forward after releasing lever (feeding) see Fig.2



「Fig.2

6.The cylinder will retract after few seconds, the screwdriver is ready to work. See Fig.1

7.there is no screw for first using. Do step 4.5. then the screw feeder to BIT.



「Fig.3

4. check if working correct:

- **check if screwdriver work correct after press lever, and no noise.**
- Check if delivery hose, cable is smooth or not.

5. Check torque setting is correct.

- **Use screwdriver to tighten first screw to make sure torque setting.**
- Adjust torque setting if torque range is not proper.



IX 、 Operating steps

1. The machine can work after test run.
2. Aim screw to screw hole vertical and press the lever.



3. Move the screwdriver upward after screwing to avoid jaw set impact to work-piece when during cylinder movement.



4. Do step 2.3 to continue working after feeding next screw.

X 、 Adjustment and replacement

1. air volume adjustment :

If the screw can't reach to screwdriver within feeding time, please adjust air volume by procedures as below.

- a. Use wrench to release nut of escapement.
- b. Then use wrench to adjust screw by procedures as below.

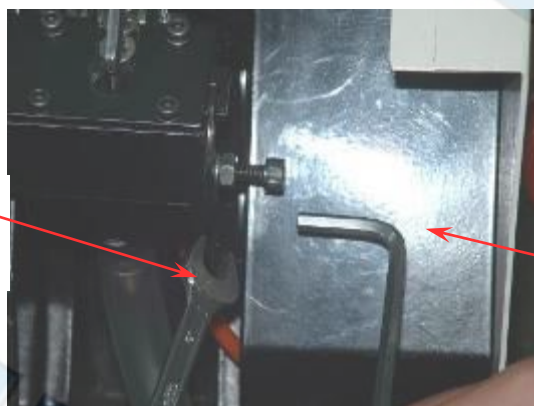
※ Reduce air volume : Turn clockwise

※ Increase air volume : Turn counter-clockwise

- c. Then assemble nut after adjusting.

Caution: The different length of delivery hose will need different air volume. The jaw will be damaged easily if air volume is too strong. The proper volume just let screw deliver to tip of screwdriver.

Use 10mm hex-wrench to adjust

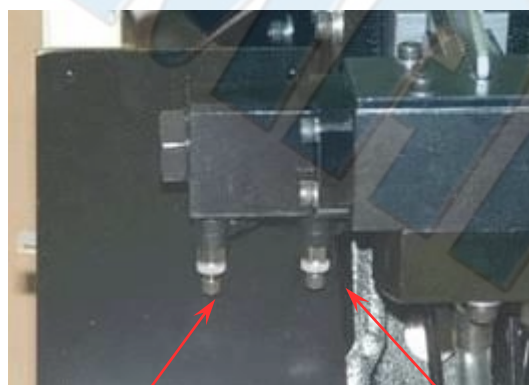


Use 5mm hex-wrench to adjust

2. Adjustment of escapement speed :

If the shutter of escapement works badly, then need to adjust speed value by procedures as below.

- a. Change shutter for rightward speed, adjust right valve
- b. Change shutter for leftward speed, adjust left valve.



left valve

right valve

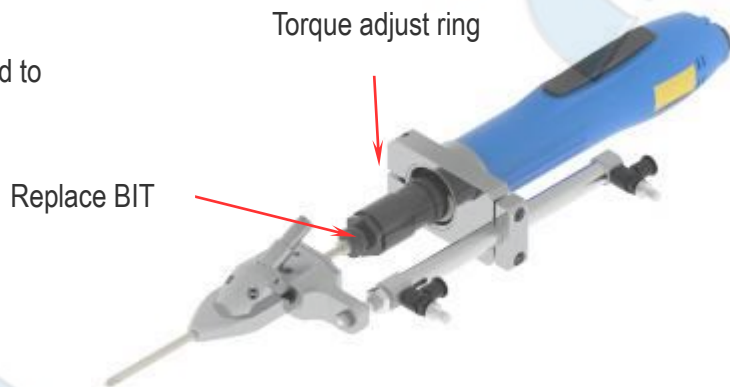
3. regulating plate adjustment :

If the regulate plate is too high or low, please adjust by 4 mm hex-wrench and 8mm wrench to adjust.



4.torque adjustment and BIT replacement

Please remove air source, turn off power of screw feeder and electric screwdriver if need to replace BIT or adjust torque setting.



XI 、 Troubleshooting

1. Screw can't reach tip of screwdriver :

(1). The screw jammed or delivery hose disconnected.

*Check whether there is miscellaneous material and tube didn't connect or not.

(2). The air volume is too weak to feed screw from screw feeder to screwdriver.

*Adjust air volume

(3). Regulation plate chocked.

*Please adjust regulation plate and clean screw on track then adjust regulation plate to appropriate position.

(4). If feeding time is too short.

*Please **【refer to VI.】**

(5) If screw can't fed in normal condition.

* Make sure there are screws in hopper. ; If yes, please press lever for 1 second then release.

2. Screw can't fed through escapement :

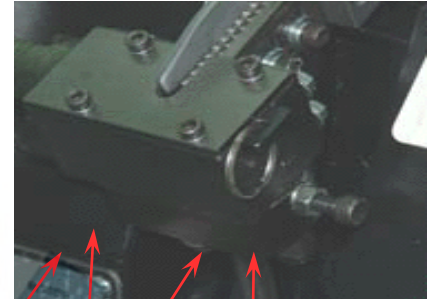
◆ Please turn off power and air.

(1). The escapement is jammed by material.

*Move the ring around and try to remove.

*If it isn't useful. Please release screw to open ES. cover by 3mm Hex-wrench then clean it.

Re-assembly after done well.



Escapement

Screw

RING

3. screw can't go through delivery hose :

(1). There is material stuck inside delivery hose ◦

➤ Remove delivery hose from escapement then clean it.

(2). There is material stuck inside hose joint.

➤ Press the jaw and remove it.



jaw

4. screw stuck on rail :

(1). The rail is dirty

*Please use cotton dip alcohol to clean.

(2). The regulation plate position is not appropriate or screw tolerance is too big.

* Check regulation plate location. If it suppressed the screw, please adjust regulation plate.

(3). The track deformed or damaged.

* If yes, please ship back to dealer or our company.

5. stripping :

(1) Check if the screw aim to screw hole correctly.

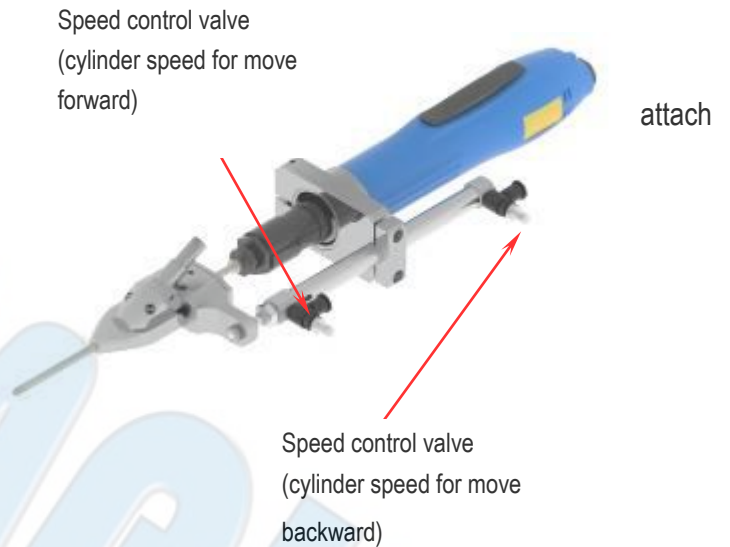
- (2) The torque setting of the screwdriver is too large to damage the screw hole type.
 - Please adjust the screwdriver torque setting
- (3) The BIT is bent and cannot be accurately aligned to the screw position.
 - Check if the BIT is bent
 - Change BIT
- (4) The BIT is worn after working period of time.
 - Check if the BIT is worn.
 - Change BIT
- (5) The screw head is deformed and abnormal and the BIT can't align to screw, causing for stripping issue.
- (6) Check if the screws are normal. Change abnormal screws.
 - Check if the screws are normal. Change abnormal screw.

6. Electric screwdrivers breakdown :

- If the Electric Screwdriver cannot rotate, check if the power line is normal.
- Check if the screwdriver switch is correct or not.

7.screw didn't attach on BIT :

- 1. The timer setting is too short
 - The screw will not reach jaw or stuck inside hose joint.
- 2. The cylinder speed is too fast, the screw can't on BIT
 - adjust speed control valve
- 3. The cylinder speed is too low.
 - The BIT can't move screw forward.



4. The cylinder is not fixed, then the BIT will affect for feeding action.

- Remove air source and delivery hose, see Fig.4/5

「Fig.4」

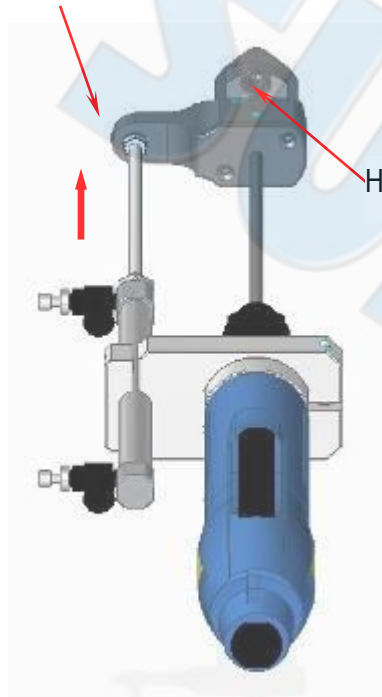


「Fig.5」



- move head base forward and see if BIT block feeding. See Fig.6
- adjust position of cylinder and fixed by screw. See Fig.7

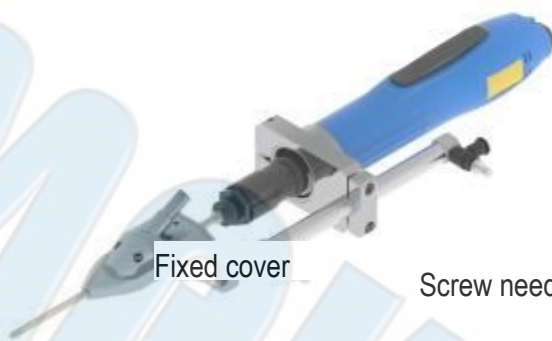
Head base



Hose joint

Fixed cover

Screw needs to fixed



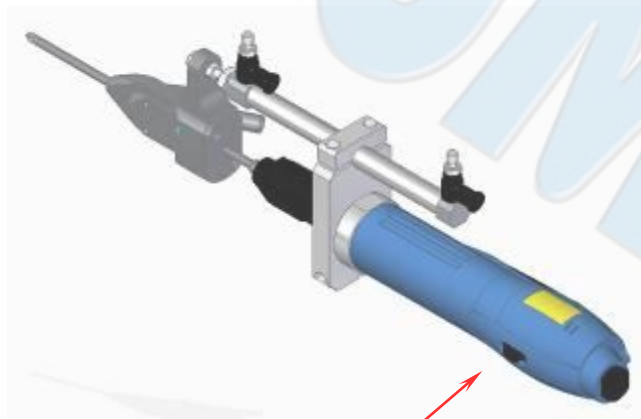
5. Didn't feed screw

(1) The electric screwdriver set for "reverse"

➤ Please change electric screwdriver to "forward" see 「Fig.8」 ◦

(2) electric screwdriver set for "forward":

➤ Turn the Mau./Auto. Switch to Auto. see 「Fig-9」 ◦



Electric screwdriver switch (R/F)

「Fig-8」



「Fig-9」

※If the above trouble event happened, please contact dealer or our company.

XII 、 Maintenance

To make screw feeder and screwdriver set can be used in long state. Please lubricate and clean dirty parts regularly. Please also replace BIT regularly to avoid stripping.

★ .If working environment is harsh or frequent operation, please short time of maintenance.

(1) Clean hopper.

*Please clean miscellaneous material in hopper per week.

(2) Check air unit

Caution please connect 5×8 mm PU hose to air unit before drain.



Please supply oil (w10)

Connector for drain

- (3) Clean escapement and rail
- Use air gun to clean regularly
- Use cotton dip alcohol to clean track.

EU Declaration of Conformity (DOC)

We: **SUMAKE INDUSTRIAL CO., LTD.**

4F, No. 351, Yangguang St., Neihu District, Taipei City, Taiwan

declare in sole responsibility that the equipment

Equipment : **AUTOMATIC SCREW FEEDER**

Model/ Serial No. : **SNF-A1, SNF-A2, SNF-A3, SNF-A4, SNF-A8, SNF-A9, SNF-A10, SNF-A11, SNF-A12, SNF-A13, SF40TH, SF30A, SF30M, SF30T, SF40A, SF40T, SF501, SF501T, SF502, SF502T, SAF-100S, SAF-100G, SAF-100L, SAF-100R, SDA, SF-SERIES**

The object of the declaration described above is in conformity with the relevant union harmonization legislation:

- Machinery Directive 2006/42/EC
- Low Voltage Directive: 2014/35/EU
- RoHS 2011/65/EU

The following harmonised standards and technical specifications have been applied:

- EN ISO 12100:2010
- EN ISO 13849-1:2023
- EN ISO 13850:2015
- EN ISO 13857:2019
- EN ISO 4414:2010
- EN 60204-1:2018

Name and Signature/Position



Mike Su – Managing Director

Date and Place

2023/9/26

Taipei, Taiwan

NOTE

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