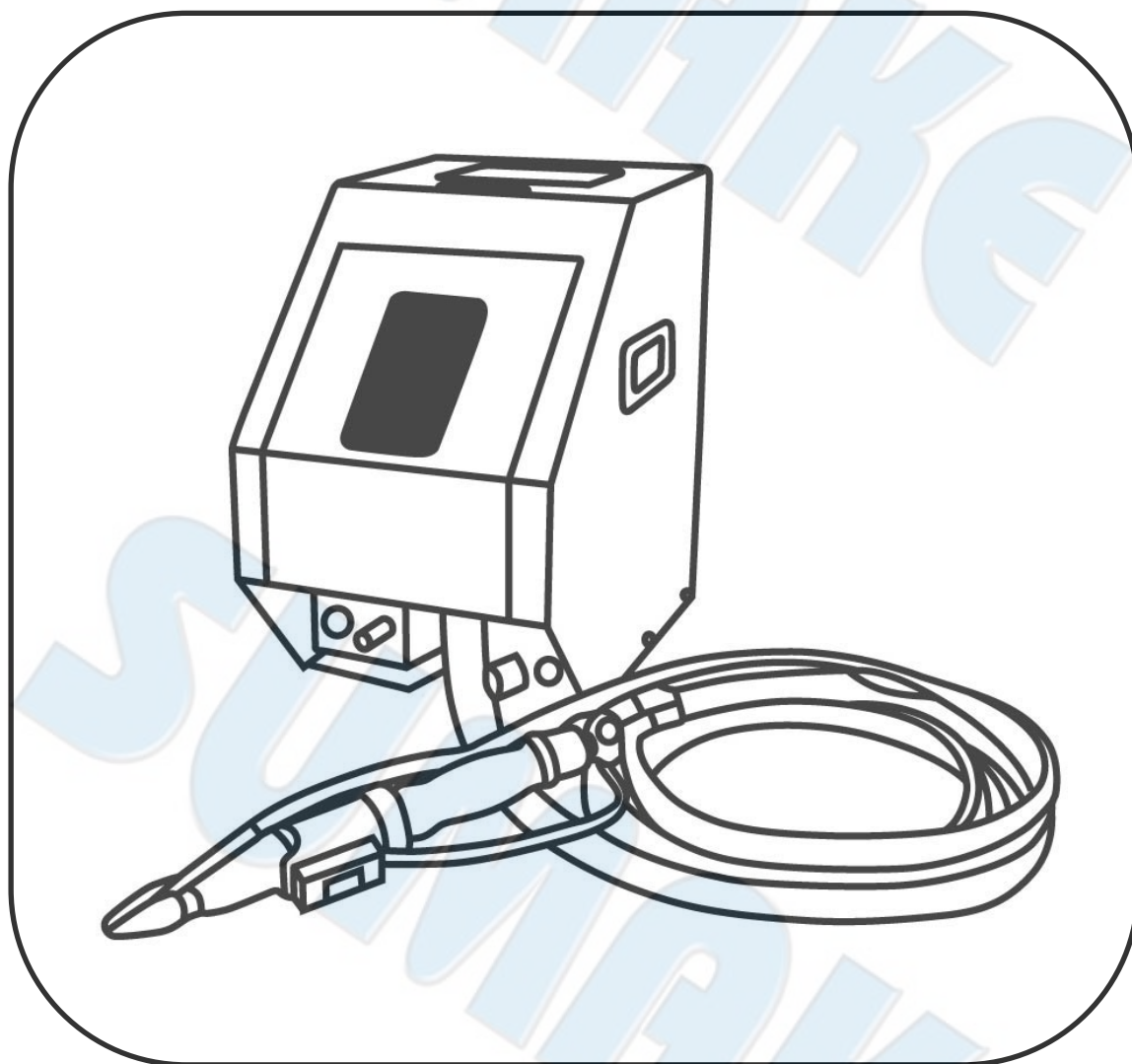


## INSTRUCTION MANUAL

ITEM NO.: SF30A series

AUTOMATIC SCREW SUPPLIER



SF30A series-I-1212B-YM

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# I. About SF30A

## 1. Features

1. Designed for speed, stability, and convenience.
2. Improving screw driving speed and work efficiency by integrating pneumatic/ electrical screwdriver, high-tech automatic feeder, and high precision jaw.
3. The jaw is customized by particular screw and working environment to provide a stable operation.
4. Standard pneumatic screwdriver; optional models by customer also available.

## 2. Specification

Model	L / W / H	Weight	Voltage	Air Pressure
<b>SF30A</b>	35 / 25 / 38 (cm)	22 kg	220 V	5 kg / cm <sup>2</sup>




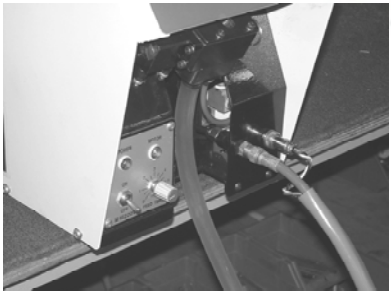
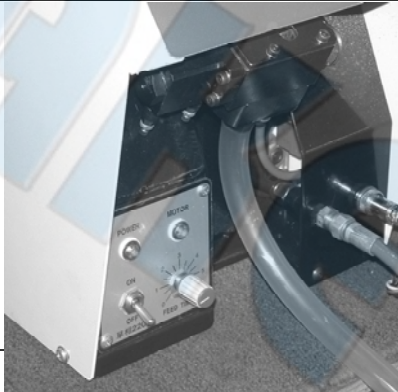


## II. Installment

### 1. Preparation

1. Connect the screw delivery hose, air hose and signal cable to the feeder unit

- Take a balance of the driver unit for easier fastening. While taking balance, make sure that the signal cable and air hose do not contact with hook or balancer wire. Care should be taken to prevent excessive bending or twisting of hoses and cables, since this can cause damage or disconnection.
- Connect the screw delivery hose between the feeder and the driver as soon as possible. Make sure that it is not excessively bent or twisted after installation.

Delivery hose	Air hose
	
Signal Cable	
	
Correct Delivery hose installment	Incorrect Delivery hose installment
	

2. Connect feeder unit to compressed air source with an air hose supplied.  
Air pressure for the feeder unit is 4-5 kg/cm<sup>2</sup>.

Air hose



3. Since this unit has no provisions for adjusting air pressure, pressure must be controlled at the source. ( PULL UP FIRST, AND ROTATE )

Air Pressure Adjusting



4. Screw delivery timer check.  
Check screw delivery timer setting on the front of the feeder unit.  
Standard operation setting is between 0 to 1.
5. Connect power cord to a single-phase AC-220 wall outlet.

5.Connect power cord

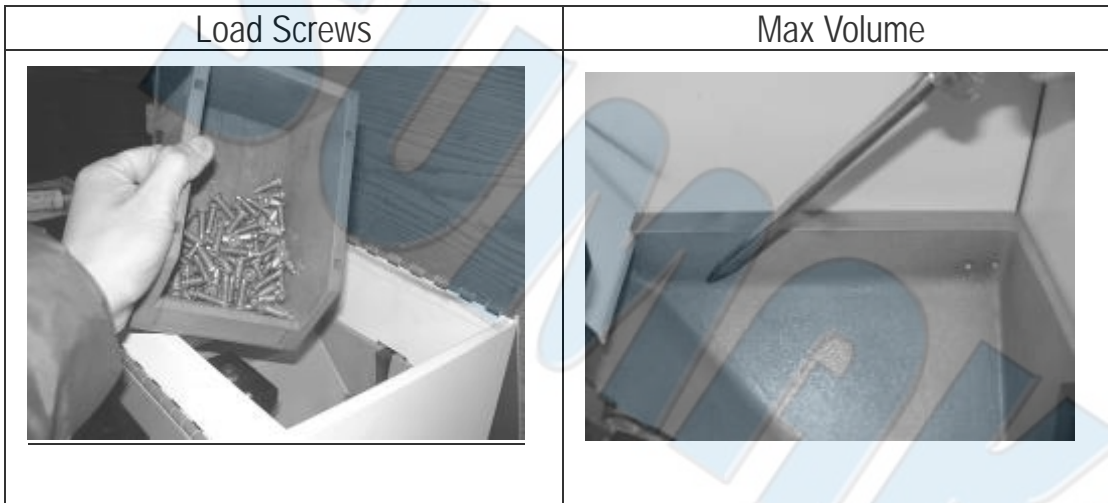


5.Connect power cord



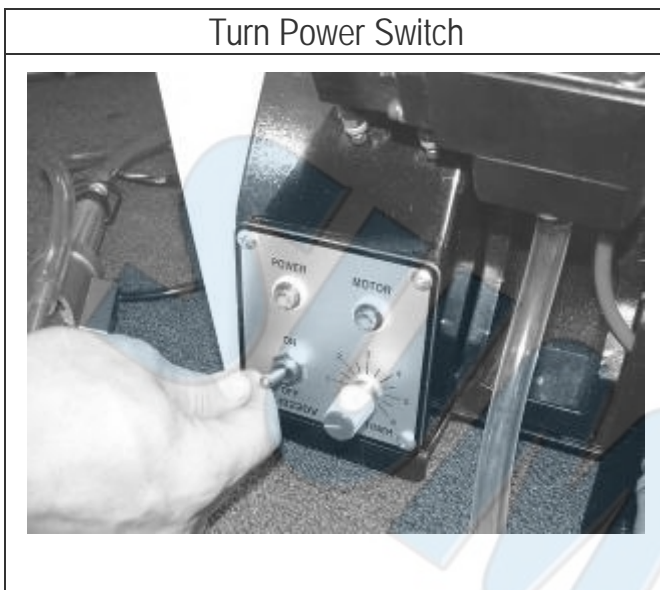
## 2. Tryout

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



2. Turn power switch on.

The power and motor pilot lamps will light, the feeding track will start reciprocating and screw will be fed into the chute. Once the chute is filled, the rotary drum automatically stops and the motor pilot lamp will go off.



3. While holding the driver unit, telescope the Y-pipe manually.


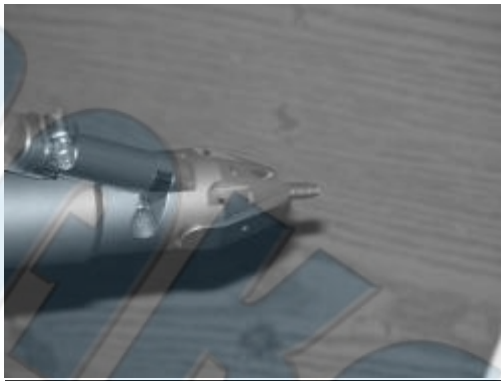
One cycle will send a signal to the feeder from the driver unit and the escapement will release one screw from the chute for delivery to the driver's tip by compressed air. First cycle has a 3~5 seconds delay of feeding.

 Never point the driver tip toward a person since a screw might shot out accidentally, causing possible injury.

#### 4. Confirmation of driver bit rotation.

The driver should rotate when the bit is pressed against a flat surface while the Y-pipe is compressed. Check for any abnormal sounds during rotation.

The driver rotates clockwise only.

Check Screw Feeding	Check Rotating
	

#### 5. Tighten torque check

Fit the driver tip over the hole of screw to be tightened a perform test fastening.

The screw is driven into the hole when the driver bit is pressed against the screw.

Check that the screw is fastened to the specified torque.


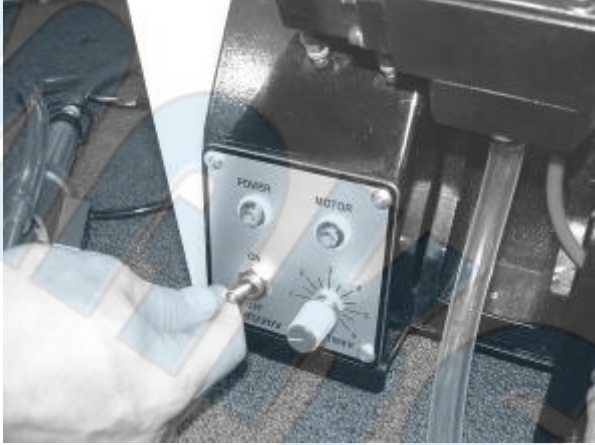
If not, adjust fastening torque. (See item 8 "Tightening torque adjustment" on page 14 for adjustment).

- Make sure that the driver is vertical to the work surface and the delivery hose is free of twists and bent.
- Lift the driver only after the whirring noise indicating clutch release is heard.

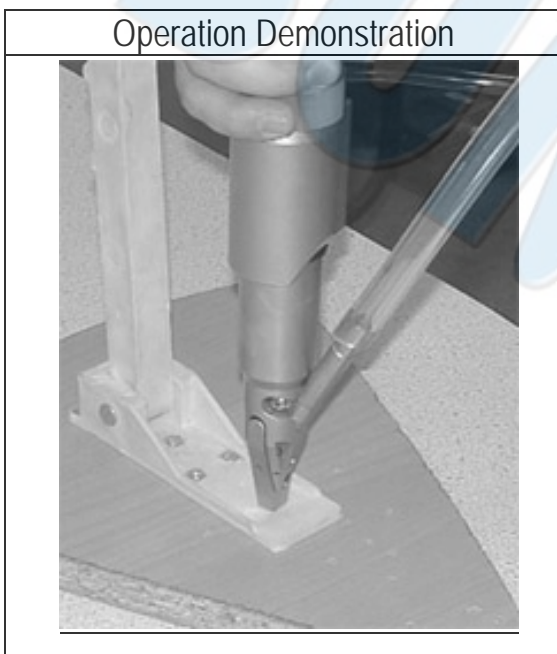
After completing installation and test operation, switch power off once before beginning normal operation.

### 3. Normal Operation

1. After all preparatory steps have been completed, load screw into the hopper.
2. Turn power switch on.

1. Load Screws	2. Turn Power Switch
	

3. Hold the driver unit and press the Y-pipe manually to confirm that a screw is seen at the tip of the driver at the first time.
4. Align the screw at the driver tip vertically with the screw hole of the work-piece.
5. When the driver bit is pressed against the screw, the screw will be tightened.
6. Then, repeat steps 4 and 5 to tighten subsequent screw.

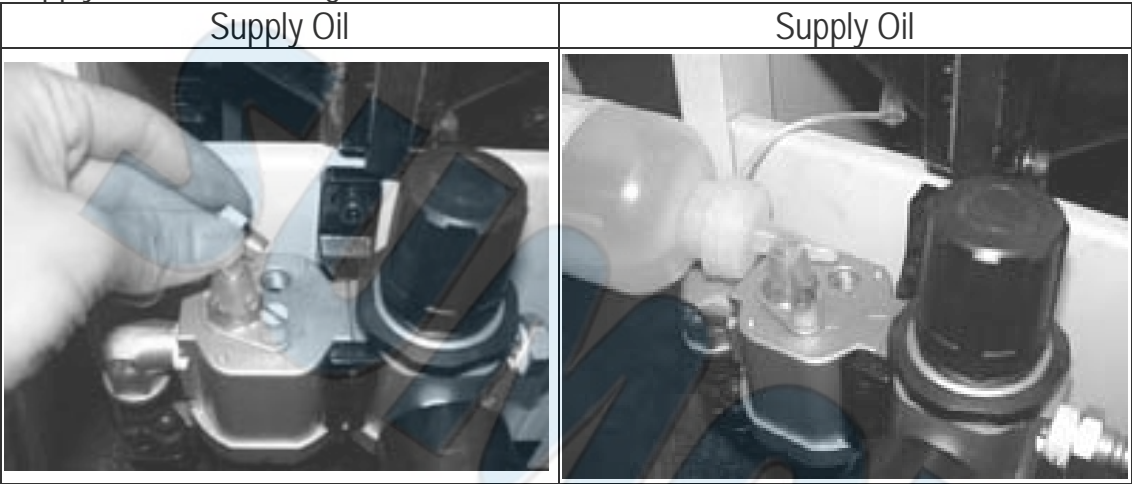


**4. After Operation**

- 1. Lubrication  
Loosen the needle valve of the oiler while idling the driver. After confirming oil flow of 3 to 5 drops through the window, retighten the needle valve. Then, idle the driver unit alone for one or two minutes to allow oil to circulate.
- 2. Chute cleaning  
With a brush, remove dust and metal fragments from sliding surface of chute. Remove any grease with a cloth soaked in alcohol.  
Be sure power switch is turned off. Do not scratch or bruise the chute-sliding surface during cleaning.
- 3. Power  
Turn power switch off after completing operations.

**5. Maintenance**

- 1. Cleaning hopper interior  
Clean the hopper interior once a week. Remove any remaining screw and dust. If the interior is extremely dirty, wipe thoroughly with a clean
- 2. Oiler oil level check  
Check that oil level is between the top and bottom marks.  
Supply oil if oil is running low.



3. Draining water from filter Water accumulated in the filter should be drained by loosening the drain cock.

Draining water



### III. Adjustment and Replacement

#### **1. Air Pressure Adjustment**

Air pressure supply to feeder unit must be within 4-5 kg /cm<sup>2</sup>.

Air pressure adjustment



## 2. Screw Deliver time Adjustment

Screw delivery time is the time for the screw to pass through the screw delivery hose to the driver jaw. Adjust screw delivery time by setting the timer on front of the feeder. 0 on the dial indicates the shortest time (approx. 0.1 sec.) and 10 indicates the maximum time (approx. 2 sec.) Standard operation setting is 1 to 2.

If the time is too short, screw may sometimes not be delivered.

The screw delivery time will vary depending upon the type of screw and length of screw delivery hose. Determine the most appropriate level by trial-and-error. Confirm that screws are delivered to the driver jaw.

Screw delivery time adjustment



## 3. Screw Deliver air Volume Adjustment

If satisfactory screw delivery cannot be obtained by time adjustments, the screw delivery air volume must be reset by turning the switch rod adjustment screw on right of the feeder escapement. The volume of air supplied to screw delivery hose increases when the lock nut is loosened and the switch rod adjustment screw is turned *counterclockwise*. This operation also increases screw delivery speed. Turn screw *clockwise* to decrease air volume and slow delivery.

After adjustment, tighten the nut securely.

Screw delivery air volume adjustment



## 4. Torque Adjustment

To release the nut.



Re-assembly the front part.



Turn the bit to expose a hose in which you'll insert a #1 Phillips screwdriver.



Rotate the hand screwdriver clockwise to increase torque and counter clockwise to decrease torque.



### REMEMBER:

The numbers 1, 2, 3 on the housing do not indicate actual torque. They simply indicate whether the tool is towards the high, low or middle of its range.

## 5. Bit Replacement

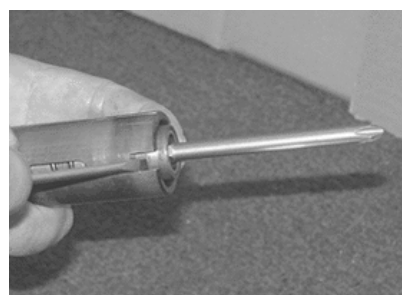
To release the nut.



Re-assembly the front part.



Use a negative driver and push the ring forward. Keep pushing the ring forward and pull the bit out. And, still keep pushing the ring forward and insert the new bit.



Lubricate and assembly it.



# 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**

SF(SAF)(SDA)(SNF)-D-2310J-YM



**NOTE**

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