

# **Aluminum Profile Precision Arbitrary Angle Cutting Saw**

## **Instruction Manual**

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## 1. Main uses and scope of application

This machine is suitable for angle cutting of various aluminum profiles.

## 2. Main technical parameters

Power Supply	380V 50-60Hz 3P
Sawing Motor Power	3Kw 2890r/min
Working Pressure	0.5-0.8Mpa
Saw Blade Specifications	600×5.6×30×144Z
Sawing Range (width-height)	220-220mm

## 3. Main structure and features

### 3.1 Main structure

The machine is mainly composed of a bed, working table, motor spindle, guide rail, protective compaction, and other components.

#### 3.1.1 Body

The machine tool is made of a high-quality rectangular tube by bending and welding, with a simple and reasonable structure, compact layout, and stability.

#### 3.1.2 Workbench

The worktable is made of ball-milled cast iron, with good strength and wear resistance, stable and not easily deformed.

#### 3.1.3 Spindle motor

Installed on the slider base, the saw blade is installed on the \* end of the main shaft. This structure can use the saw blade to rotate smoothly.

#### 3.1.4 Rail

The guide rail adopts a square linear guide motion pair, and the movement is light and stable.

#### 3.1.5 Protective compaction

The profile pressing device protects the saw blade while pressing the profile, which is safe and reliable.

### 3.2 Features

The machine head is located inside the bed, under the working table, and it is sawed by manual operation equipment when working. The movement stroke is large, and the profile with a large cross-sectional area can be cut. The profile pressing device and the saw blade pressing plate are safe and reliable.

## **4. Installation and adjustment**

### 4.1 Installation

4.1.1 Environmental requirements: The machine should be installed on a dry, clean, non-corrosive gas, hard concrete floor with a temperature of 15-35°C indoors.

4.1.2 Unpacking in place: Move the machine as a whole to the installation position for leveling and unpacking inspection, if there is no damage, you can install it.

4.1.3 Power on: input voltage needs 380V, frequency 50HZ

4.1.4 Grounding: The machine must be grounded. The ground wire is yellow and green. Its cross-sectional area is not less than 4 square millimeters. After grounding, the resistance between the body and the main grounding point should be less than 0.1 ohms.

4.1.5 Air source: The working pressure is 0.50.8Mpa. The air pipe is connected to the air inlet of the air source processor connector, and check whether there is air leakage.

## **5. Equipment use and operation**

### 5.1 Adjustment before the operation

#### 5.1.1 Adjust the position of the horizontal compression cylinder

Place the profile on the working surface of the equipment, adjust the horizontal compression cylinder to the most suitable position for pressing the workpiece, and then fix the horizontal compression cylinder.

### 5.2 Operation

## **6. Maintenance**

6.1 The machine has been working for 1 month, and a comprehensive inspection should be carried out. If problems are found, they must be resolved in time.

6.2 Check the lubrication of various parts before work.

6.3 Check the power supply voltage and whether the working air pressure is normal.

6.4 Use and Maintenance of Duplex

The duplex should be installed perpendicular to the ground with the drain valve down. The airflow direction must be from the inlet P to the outlet A. It cannot be flipped. If the equipment is manually drained, the duplex must be drained frequently. The method of draining is: Press the drain valve F under the water cup to release the water and liquid in the cup. If you open the drain valve without draining, remove the water cup, and clean it.

Adjust the air pressure of the device, lift the self-locking knob, and rotate in the + direction to increase the pressure, and the direction of the rice is to reduce the pressure.

6.5 Clean the equipment when not in use, and then do the anti-rust work of the guide rail and other moving parts.

## 7. Common faults and maintenance methods

7.1 If the pressure of the pressure reducing valve does not rise, check whether the pressure regulating spring is broken, so that it can be replaced in time.

7.2 The solenoid valve does not change direction. If there is foreign matter in the valve core, it should be cleaned in time.

7.3 If the saw blade does not loosen back, check whether the solenoid valve is blocked or the coil is burnt out, and find out the reason and replace it in time.

7.4 Other causes of failures should be analyzed in specific situations, based on the actual situation and practical experience, the reasons should be correctly judged, checked and dealt with. as follows:

Serial Number	Fault Characteristics	Possible Parts	Cause	Inspection Method	Elimination Method
1	The motor does not rotate	Switch	Malfunction	Power-on inspection	Repair or replace
2	Insufficient pressure gauge display	Pressure gauge	Malfunction damage	Compared	Repair or replace
		Air compressor	Not working properly	Stress experiment	Repair or replace
		Pipe joint	Break loose	Examination	Repair or replace
3	Insufficient	Clamping	Air leak	Check its	Repair or

	pressure of the clamping mechanism	cylinder		seal	replace
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## 8. Line connection

The wiring of the machine has been clearly marked in the photo.

If the machine does not run after wiring or the operation mode of the machine is reversed, then you need to adjust the position of any two live wires.

