SMG 30W Workshop Plate Beveling Machine

Operation Manual

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Disclaimer of Liability

The manufacturer shall not be held liable for any damages or losses resulting from operation outside the specified design parameters. Please read this manual thoroughly prior to operation.

Spare Parts and Modifications

Only use genuine spare parts supplied by the original manufacturer. The manufacturer assumes no responsibility for any damage or malfunction caused by unauthorized disassembly, modification, or replacement of components without prior written consent.

Operating Time Limitations

- Do not operate the machine at full load for more than 4 continuous hours.
- The recommended total operating time is 8 hours per day.
- In environments exceeding 30°C, reduce the total daily operating time to 4 hours to prevent overheating and ensure optimal performance.

1. Summary

1.1 Introduction

The SMG 30W Workshop Plate Beveling Machine is designed for high-precision beveling applications.
Processing Speed: 0–1000 mm/min (variable)
Clamping Thickness Capacity: 3–30 mm
Maximum Bevel Width: Up to 20 mm
Adjustable Bevel Angle: 25° to 80°

1.2 Application

The SMG 30W is suitable for beveling a range of materials, including:

- Fine-grain steel
- Aluminum
- Chromium
- Iron
- Copper
- General steel products

It supports the preparation of various bevel joint types, including:

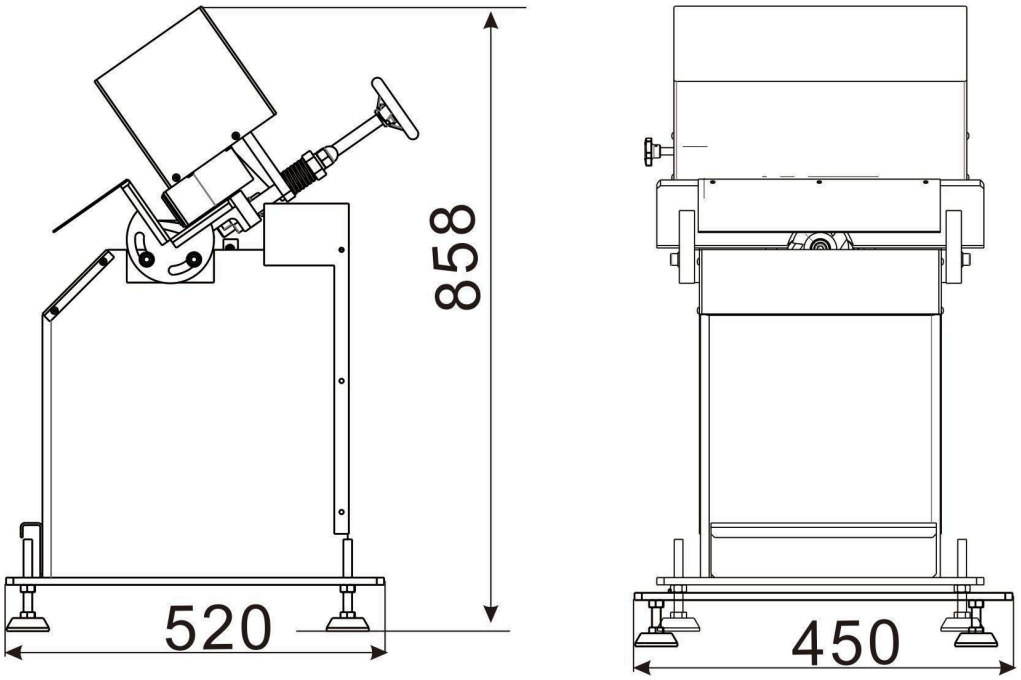
- K-type
- V-type
- X-type
- Y-type

1.3 Machine Parameters

1.3.1 Technical Parameters

Motor Voltage：AC 415V 50HZ	HZ：50HZ
Spindle Speed：1450r/min	Total Power：1620W
Single Bevel Width：0-12mm	Feed Speed：0~1000mm/min
Bevel Angel ：25°~80 º（Adjustable）	Bevel Width：0-30mm
Plate Clamp Thickness：3~30mm	Min Plate width：>15mm
Plate Length：≥50mm	Machine N.W：155Kg

1.3.2 Machine Picture



2. Safety & Warning

2.1 Safety Instruction

Before installation, operation, or maintenance, read this manual thoroughly. Pay particular attention to sections concerning electrical components and rotating parts, as these pose potential hazards.

This equipment operates on a AC 415V 50HZ power supply. All installation, wiring, commissioning, operation, and adjustments must be carried out in strict accordance with the guidelines provided in this manual.

Note: Electrical installation and maintenance must be performed only by qualified personnel with appropriate certifications.

2.2 Safety Cautions

	● We assume no responsibility for malfunctions or damage resulting from unauthorized replacement of parts. ● We are not liable for any consequences arising from improper operation. ● Unauthorized disassembly of the machine is strictly prohibited.
	**General Safety Instructions** ● Always disconnect the power supply before performing any maintenance or repairs. ● Before operation, inspect the power socket, wiring, and machine components for any damage or abnormality. ● Keep the machine dry; do not operate in high-humidity environments. ● When operating outdoors, use a residual current circuit breaker (RCCB) or suitable interrupter for protection.

	**Personal Protective Equipment (PPE) and Operation** ● Do not wear gloves while operating the machine. ● Always wear protective goggles and ear protection during operation. ● When cleaning iron dust, disconnect the power and wear protective gloves. ● Connect the machine to the socket only when the switch is in the OFF position, and unplug the power cord after use.
	**Electrical Safety** ● Only licensed electricians are authorized to perform electrical installation and maintenance. ● Do not move the machine by pulling the power cable. ● Ensure the power cord is positioned behind the machine and away from sharp objects.
	**Operational Guidelines** ● Maintenance and inspection must be carried out by qualified personnel. ● The operator must remain at the workstation at all times during machine operation

3. Equipment Acceptance

3.1 Hoisting

1. Remove the Wooden Crate
2. Carefully dismantle and remove the external wooden crate.
3. Cut and remove the steel straps securing the combined unit during transit.
4. Using appropriate lifting equipment, hoist the machine slowly from the designated lifting points.
5. Once the machine is in position, install the foot stands securely.

Note: The packing materials, including the crate, are not reusable and must be disposed of in accordance with local waste management regulations.

4. Installation

External ground wire diameter size should follow requirements (Copper Wire)	
Phase Wire Diameter S（mm^2）	Ground Wire Diameter Sd（mm^2）
S≤16	S
16＜S≤35	16
S＞35	S/2

4.1 Electrical Installation

4.1.1 Electrical Symbol Description

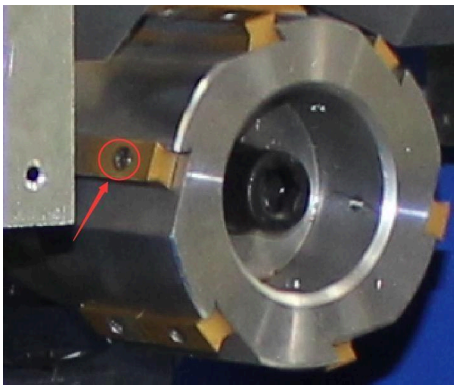
QF : Power Switch	**SB1** : Emergency Stop	**KM:** AC	**VFD:** Frequency Converter
B: Transformer	**SB2** : Power Switch	**FU:** Fuse	**HF:** Tachometer

4.2 Normal Protection Measures

- Ensure all electrical connections and protective measures comply with local regulations.
- Verify the power supply specifications prior to placing an order. The standard power requirement for this machine is AC 415V 50HZ.
- Connect the provided air plug to one end of the power cable; connect the other end securely to the power supply.
- **Warning:** Do not operate the machine in humid or wet environments to avoid electrical hazards.
- Feed the plates according to the direction indicated on the machine. Begin processing only after the cutter has reached full rotation.

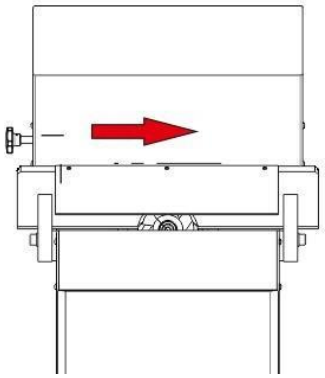
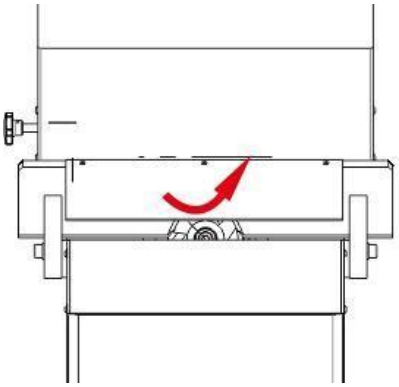
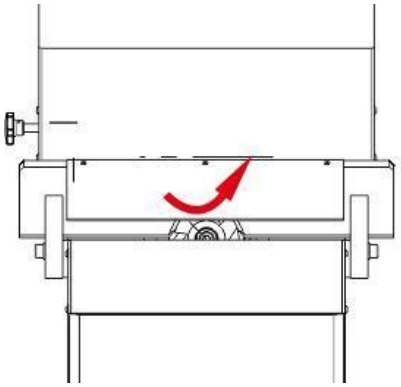
4.3 Cutter Installation and dismantlement

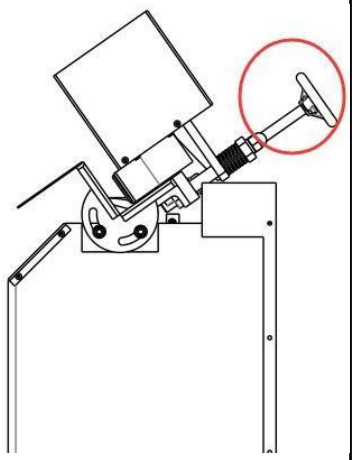
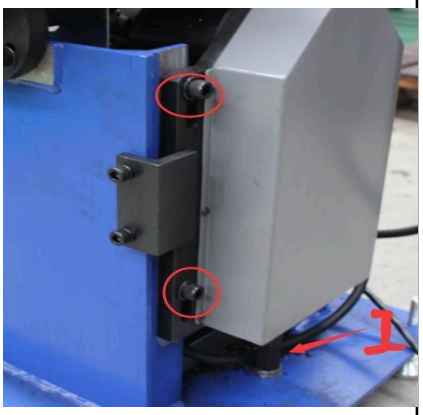
- Disconnect the power supply before performing any maintenance.
- Raise the clamping wheel to access the cutter assembly.
- Use the supplied spanner to remove or install the cutters as required.

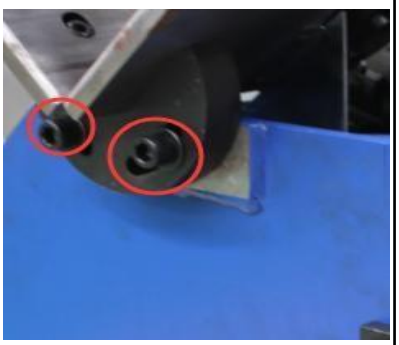


5. Bevel Preparation

Note: During oxygen cutting, the plate hardness increases due to high temperatures. This should be taken into account when setting the parameters.

 Feeding Direction	 Cutter head Rotation	 Belt Direction
5.1 Correct Plate Feeding Direction	**5.2 Rotation**	**5.3 Pressure Wheel Direction**

	**Clamp Thickness Adjustment** ● Adjust the clamp thickness using the handwheel, as shown in the left image. ● Rotate clockwise to loosen ● Rotate counterclockwise to tighten **Bevel Width Adjustment** ● Loosen the four screws located on the machine side, as illustrated in the right image. ● Rotate Hexagon Weld Nut ① to adjust the bevel width. **Note**: Raising the cutter head increases the bevel width, while lowering it decreases the bevel.	
5.4 Plate Clamp Thickness Adjustment		**5.5 Bevel Width Adjustment**

	**Bevel Angle Adjustment** ● Loosen the four screws on both sides of the machine. ● Adjust the machine head to the desired bevel angle as per the operating instructions. ● Tighten and secure the screws, as shown in the left image. **Control Panel Overview (Refer to right image)** ● Spindle Direction: Standard rotation is clockwise. (Direction can be reversed by changing the wiring configuration.) ● Feeding Speed: Adjustable via the speed control knob. ● Reducer Switch: Used to engage or disengage the speed reducer.	
5.6 Bevel Angel Adjustment		**5.7 Panel Control**

6. Base Operation

- Continuous Operation Limit: Do not operate the machine continuously for more than 4 hours.
- Reducer Temperature: The reducer will heat up during operation. Applying lubricating grease aids in heat dissipation and maintains thermal balance across the drive mechanism.
- Overload Protection: In the event of an overload, the power supply will automatically shut off. This indicates that the thermal protection components have been triggered due to excessive current.
- Restart Procedure: Wait for the thermal components to cool before restarting the machine.
- Caution: If the machine is restarted before adequate cooling, it will shut down again after a short period.

Warning: Ensure the machine is powered off before performing any adjustments.

Step 1: Pre-Operation Check Confirm the cutter rotation direction and handwheel orientation are correct.	**Step 5: Spindle Activation** Ensure the feed speed is set to "0". Switch ON the spindle motor.
Step 2: Bevel Angle Adjustment Adjust the bevel angle according to project requirements.	**Step 6: Feed Motor Activation** Turn ON the feed motor.
Step 3: Workpiece Positioning Place the workpiece against the retainer board. Feed the plate in the indicated direction.	**Step 7: Feed Speed Adjustment** Gradually adjust the feed speed to the desired setting. Begin operation.
Step 4: Securing the Workpiece Tighten the plate in place using the pressure wheel. The following steps should be performed at the control panel	**Step 8: Completion** After the operation is complete, shut down the machine following standard procedures.

7. Lubrication

Machine Part	Lubrication	Cycle
Complete Machine	Spray anti-corrosion oil, remove iron pins, and use a dust-proof cover. Store in a dry place.	Every 3 months or when not in use for a long time
Compaction Guide Rail	Do iron pin cleaning using compressed air	After each use
	Fill some guide rail oil or use lubrication oil	Every 3–8 months (check more frequently in humid or dry conditions)
Lifting Screws (Compression)	Do iron pin cleaning using compressed air	After each use
	Fill some guide rail oil or use lubrication oil	Every 3–8 months (check more frequently in humid or dry conditions)

Around the Machine	Clean regularly to avoid excessive accumulation of dirt and debris	As needed
Reducer	Do iron pin cleaning using compressed air	As needed
	Fill with gear oil	Lifetime maintenance-free
Control Box	Cover to protect from dust and rain	When not in use for a long period
Electric Box	Cover to protect from dust and rain	When not in use for a long period
Cutter	Change inserts or screws if damaged	As needed
Cutter Screw	Drill out screws if broken in tray	As needed

8. Common Trouble Maintenance

No.	Fault	Maintenance and Repair Suggestion
1	Energized equipment, no reaction	Check if the electricity wire is connected properly
2	Machine has electricity, but not working	Check if the "Emergency Stop" button is pressed or if the control box breaker has tripped
3	Feed gear has abnormal sounds	Fill with gear oil and try again. General gear should not break
4	Pressing wheel cannot compress	Check for any iron pin on the wheels or plates
5	Steel plate is ejected	Ensure the feed direction is consistent with equipment requirements
6	Inserts break before operation	Check if the inserts are correctly in contact with the machine parts
7	Blade breaks when it starts beveling	Reduce the feed depth
8	Electrical control failure or other issues	Contact the manufacturer in time
9	Difficulty in rotation	Check if the motor is connected properly to the chip collector

Warning

- Depending on processing materials, feed depth, cutting speed, and other factors, it is recommended to change the blade direction and the fixed screw in a timely manner.
- Replace the blade angle every 30–100 meters to avoid damage.
- Replace the blade's fixed screw every 30–100 meters as well to reduce stress and prevent breakage. Screws can become difficult to remove after damage.

Note: If the screws are broken, please consult a professional fitter (drilling expert) to remove them as appropriate. The cutter head may stop working properly in serious cases.

9. Packing List

NO.	Name	Model	QTY	Unit	Note
1	Plate Edge Milling Machine	SMG 30W	1	set	
2	Cutter Head	φ 63	1	pcs	Installed on Machine
3	Inserts		18	pcs	Inserts installed on cutter head
4	Hex Wrench	6mm, 10mm	2	pcs	
5	Wrench	T15	1	pcs	For changing Inserts
6	Industrial plug	4075	1	set	On electric box
7	Tool Box	4111	1	pcs	
8	Screws	M4*12	18	pcs	1 set on machine cutter head
9	Stands		4	pcs	
10	Packing Wooden Case		1	pcs	Against air/sea delivery
11	Operation Manual		1	pcs	