

Instruction Manual for Diamond Wall Saw Blade

I. Product Introduction

This product is a diamond wall saw blade specially designed for concrete. Made of high-purity synthetic diamond particles and laser welding technology, it is suitable for cutting various hard and brittle materials such as concrete, reinforced concrete, and bricks. It is widely used in construction, old city renovation, municipal engineering, decoration and other scenarios. The product supports both wet and dry cutting, with precise cutting, wear resistance and durability, and is compatible with most wall saw equipment on the market. Please read this manual carefully before use and operate in a standardized manner to ensure operational safety and product service life.

II. Safety Precautions (Top Priority)

1. Operator Requirements

- Operators must receive professional training, be familiar with the use of wall saw equipment and saw blades, master basic safe operation specifications, and unauthorized personnel are strictly prohibited from operating.
- Full protective equipment must be worn during operation, including safety helmet, protective goggles, cut-resistant gloves, non-slip shoes, and dust mask (must-have for dry cutting). Loose clothing and jewelry are strictly prohibited to avoid being caught in the equipment or scratched by cutting debris.

2. Pre-operation Inspection

- Inspect the saw blade appearance: Confirm that the saw blade has no cracks, missing teeth, or tooth loss, the diamond segment is not loose or falling off, and the base is not deformed or rusted. If any of the above problems exist, use is strictly prohibited.
- Check equipment compatibility: Confirm that the saw blade specifications (outer diameter, inner diameter, thickness) are compatible with the wall saw equipment. Before installation, clean the debris and oil on the equipment spindle to ensure the spindle is free of damage and deformation.
- Inspect the operating environment: The operation area must be cleared of obstacles, a safe warning area shall be designated, and warning signs shall be set up to prohibit unrelated personnel from entering; for wet cutting operations, ensure sufficient water supply and smooth drainage; for dry cutting operations, take dust-

proof measures to avoid dust diffusion.

- Check equipment status: Before starting the equipment, check whether the equipment switch, circuit, and transmission components are normal. Run idly for 1-2 minutes to confirm that the equipment has no abnormal noise or vibration before installing the saw blade.

3. Taboos During Operation

- Overload operation is strictly prohibited: Do not exceed the rated cutting thickness and cutting speed of the saw blade, so as to avoid excessive wear and heating of the saw blade, leading to segment falling off or saw blade breakage.
- Illegal cutting is strictly prohibited: Do not cut non-designated materials such as metal, wood, and plastic; do not touch the saw blade, cutting surface or debris with hands when the saw blade is running at high speed; do not force the saw blade forward to avoid jamming and edge chipping.
- Improper mixed use of wet and dry cutting is strictly prohibited: For wet cutting operations, ensure that cooling water is evenly sprayed on the cutting part of the saw blade, and water-cutoff operation is not allowed; for dry cutting operations, do not cut continuously for a long time, and stop the machine regularly to cool down to avoid overheating of the saw blade.
- Operation of equipment with faults is strictly prohibited: If abnormal equipment (such as excessive noise, severe vibration, overheating of circuits) or abnormal saw blade (such as edge chipping, tooth loss, smoking) is found during operation, stop the machine and cut off the power immediately, and continue operation after troubleshooting.

4. Notes After Operation

- After the operation, first turn off the equipment power, and perform subsequent operations after the saw blade has completely stopped rotating. It is strictly prohibited to touch or disassemble the saw blade when it is not stationary.
- When disassembling the saw blade, handle it with care to avoid collision and falling, so as to prevent damage to the saw blade.
- Clean the cutting debris in the operation area to keep the environment clean and avoid potential safety hazards caused by debris accumulation.

III. Operation Steps

1. Saw Blade Installation

1. Turn off the power of the wall saw equipment and unplug the power plug to ensure the equipment is completely powered off.
2. Clean the surface of the equipment spindle, remove oil and debris, check

whether the spindle thread is intact, and repair it in time if damaged.

3. Smoothly sleeve the diamond wall saw blade on the spindle, ensuring that the inner diameter of the saw blade fits closely with the spindle without looseness or deviation.
4. Install the saw blade pressure plate and nut, and evenly tighten the nut according to the equipment manual (the force should be moderate to avoid damaging the saw blade due to over-tightening and saw blade slipping due to under-tightening).
5. After installation, gently rotate the saw blade by hand to confirm that the saw blade rotates smoothly without jamming or deviation, and there is no friction with other parts of the equipment.

2. Operation Parameter Adjustment

- Adjust the cutting speed and feed speed of the equipment according to the cutting material (ordinary concrete, reinforced concrete, bricks, etc.) and cutting thickness: When cutting harder materials (high-reinforced concrete), slow down the speed and feed evenly; when cutting softer materials (ordinary bricks), the speed can be appropriately increased.
- Select the cutting mode: For wet cutting operations, connect the water source and adjust the cooling water flow to ensure that the cooling water covers the cutting part of the saw blade; for dry cutting operations, turn on the dust-proof equipment and wear a dust mask.

3. Formal Cutting

1. Start the equipment and run idly for 1-2 minutes to confirm that the equipment and saw blade are running normally without abnormal noise or vibration.
2. Align the saw blade with the cutting starting position, keep the saw blade perpendicular to the cutting surface, and feed slowly to avoid forced cutting and prevent edge chipping of the saw blade.
3. During the cutting process, keep the feed speed even, observe the operation status and cutting effect of the saw blade, and stop the machine immediately for troubleshooting if jamming, smoking, edge chipping and other conditions occur.
4. For wet cutting operations, check the cooling water source at any time to ensure continuous supply of cooling water and avoid overheating of the saw blade; for dry cutting operations, stop the machine to cool down for 1-2 minutes every 5-10 minutes of cutting to prevent excessive wear of the saw blade.
5. After cutting, slowly withdraw the saw blade, turn off the equipment power, and clean the cutting debris and equipment after the saw blade has completely stopped rotating.

4. Saw Blade Disassembly

1. After the equipment is completely powered off and the saw blade stops rotating, loosen the saw blade nut and pressure plate.
2. Gently take down the saw blade, being careful to avoid collision and falling to prevent damage to the diamond segment.
3. Clean, maintain and properly store the disassembled saw blade.

IV. Maintenance

1. Daily Cleaning

- After each use, rinse the cutting debris and dust on the surface of the saw blade with clean water, remove the cement slurry, oil and other debris on the saw blade to avoid the impact of debris adhesion on the next use.
- After cleaning, dry the surface moisture of the saw blade with a dry cloth to prevent rust of the base.

2. Storage Requirements

- The saw blade should be stored in a dry, ventilated and cool environment, avoiding moisture, exposure to the sun and high temperature to prevent rust and deformation of the saw blade.
- When storing, the saw blade should be placed flat or hung on a special bracket to avoid stacking and extrusion, which may cause deformation of the saw blade and damage to the segment.
- When storing the saw blade, it should be kept away from acid, alkali and corrosive substances to avoid corrosion of the diamond segment.

3. Regular Inspection and Grinding

- Regularly inspect the status of the saw blade. If the saw blade segment is worn or dull, grinding can be performed. Grinding must be operated by professional personnel, and the grinding parameters should be adjusted according to the saw blade specifications to avoid excessive grinding damage to the saw blade.
- If the saw blade has slight edge chipping, local grinding can be performed; if the edge chipping is severe, cracks or tooth loss occur, it must be scrapped immediately and use is strictly prohibited.
- For saw blades that are not used for a long time, inspect them once every 3 months, and perform cleaning and rust prevention treatment to ensure normal performance during the next use.

V. Common Faults and Solutions

Common Faults	Causes of Faults	Solutions
Saw blade cutting is stuck and not smooth	1. Saw blade is dull; 2. Cutting speed is too fast and feed rate is too large; 3. Material hardness exceeds the applicable range of the saw blade; 4. Saw blade installation is loose	1. Grind the saw blade; 2. Reduce the cutting speed and feed rate; 3. Replace the suitable saw blade; 4. Tighten the saw blade nut and reinstall
Saw blade edge chipping and tooth loss	1. Forced cutting into the material; 2. Collision with hard objects during cutting; 3. Saw blade quality problems; 4. Water cutoff during wet cutting and overheating during dry cutting	1. Operate standardizedly and feed slowly; 2. Clear obstacles in the cutting area; 3. Replace qualified saw blades; 4. Ensure sufficient cooling water for wet cutting and regular cooling for dry cutting
Severe vibration when the saw blade rotates	1. Saw blade installation is deviated; 2. Saw blade base is deformed; 3. Equipment spindle is deformed; 4. Pressure plate is loose	1. Reinstall the saw blade and adjust the position; 2. Replace the deformed saw blade; 3. Overhaul the equipment spindle; 4. Tighten the pressure plate and nut
Saw blade overheating and smoking	1. Dry cutting time is too long; 2. Water cutoff during wet cutting; 3. Cutting speed is too fast and load is too large	1. Stop the machine to cool down and shorten the dry cutting time; 2. Check the cooling water source and resume water supply; 3. Reduce the cutting speed and load

VI. Supplementary Notes

- This saw blade is a one-time forming product. It is strictly prohibited to modify or grind the base without permission to avoid affecting the use safety and performance.
- The service life of the saw blade is closely related to the operation specifications, cutting materials and equipment status. Standardized operation can effectively extend the service life.

- If you encounter unsolvable problems during use, you can contact the manufacturer's after-sales team (Consultation Hotline: Tel & Wechat & Whatsapp: 0086 1895 9900 990) for professional technical guidance. It is strictly prohibited to disassemble the equipment or saw blade without authorization.
- This instruction manual is only applicable to the diamond wall saw blades produced by our manufacturer. If using other brands of saw blades, please refer to the corresponding brand's instruction manual.

Manufacturer's Reminder: Standardized operation and regular maintenance can not only ensure operational safety, but also give full play to the saw blade performance and reduce the use cost. Thank you for choosing our products, and we will provide you with high-quality after-sales guarantee!

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