



CRAWLER WIRE SAW MACHINE

POWERED BY HARLEN SUPPLIES
HIGH-PERFORMANCE, PRECISION-CUTTING EQUIPMENT

INSTRUCTION MANUAL



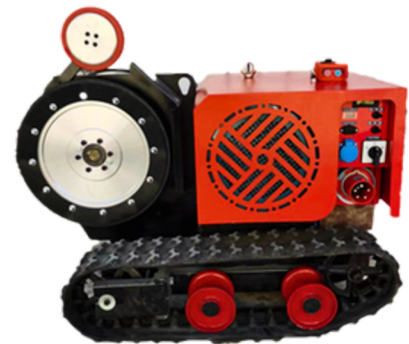
➤ PRODUCT OVERVIEW

Introduction

The Electric Rope Saw is a next-generation cutting machine developed for precision demolition and construction applications. Designed for reinforced concrete, glass, ceramics, steel plates, and more, this machine delivers vibration-free, quiet, and highly efficient cutting. It is ideal for complex construction tasks such as building renovation, structural demolition, and heavy-duty cutting of slabs, beams, and columns.

Key Benefits

- Zero vibration & low noise
- Straight, clean cuts – no need for trimming
- High cutting precision and speed
- Capable of complex cross-section cutting
- Custom non-standard motor for maximum efficiency



➤ TECHNICAL SPECIFICATIONS

Parameter	Unit	Details
Walking Style	—	Battery Powered
Rope Drive Method	Electric	Electric
Rope Tightening Method	Electric	Electric (Wireless for crawler)
Max Rope Drive Power	kW	22
Max Rope Tightening Power	kW	0.2 × 60
Spindle Output Speed	r/min	1000
Max Linear Rope Speed	m/s	25.5
Driving Wheel Size (Max)	mm	500
Operating Voltage	V	380
Voltage Frequency	Hz	50
Wiring Requirements	—	10 mm ² , 3-phase, 5-core cable
Weight	kg	480
Dimensions (L × W × H)	mm	1200 × 700 × 950

► COMPONENT DESCRIPTION

1. **Main Unit:** Houses the main and small motors. The large disc drives the diamond rope for cutting operations.
2. **Dual Universal Wheels (Optional):** Enable flexible directional adjustment during cutting.
3. **Control Box:** Operates both motors and displays real-time system information.
4. **Diamond Cutting Rope (Optional):** For optimal performance, use Harlen's specialized diamond wire ropes.

► OPERATING INSTRUCTIONS

Power Setup

- **Main Power Cable:** Use a three-phase, five-core, 10 mm² flexible cable. Ensure the neutral wire is connected; otherwise, the inverter will fail to start.
- **Large Motor Output Cable:** Use three-phase, four-core, 10 mm² flexible cable.
- **Small Motor Output Cable:** Use three-phase, three-core, 2.5 mm² flexible cable.

❗ **Important: Keep cable lengths minimal to avoid voltage drop and power loss.**

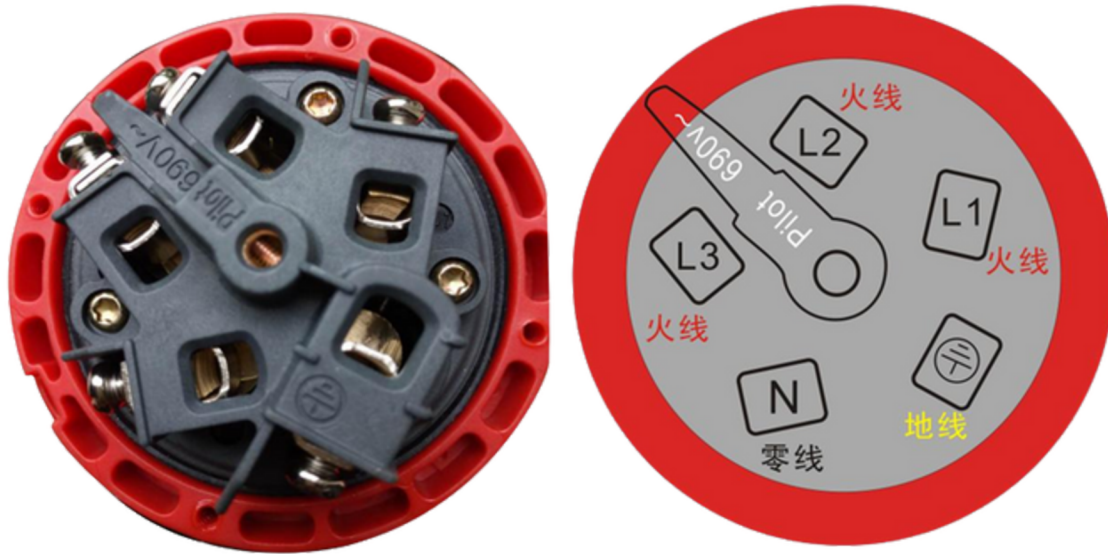
Starting the Machine

1. Confirm all connectors are tightly secured.
2. Align the rope outlet with the rope inlet on the main motor.
3. Avoid overtightening the rope before starting.
4. Power on the main switch → Start the large motor → Set the inverter (Recommended: 2.5–3) → Adjust the small motor direction.
5. Check that all three power indicators are lit before starting.
6. After cutting, reverse the large motor direction to reposition the saw for the next cut.

► TROUBLESHOOTING GUIDE

Issue	Cause	Solution
Weak cutting power despite motor running	Inadequate voltage due to long or thin cables	Use 5-core cable ≥ 10 mm ² . Shorten length or increase wire thickness
Rope falls off	Misalignment of rope inlet/outlet or disc vibration	Realign inlet/outlet; check large disc stability
Inverter issues	Error codes: PF01, PF02, PF04	PF01: Check small motor wiring/coil PF02: Verify voltage PF04: Return for repair
Saw won't start or weak cutting	Missing power phase or faulty cables	Check 3-phase main and motor cables

► PLUG WIRING DIAGRAM



Important: Improper wiring can cause serious damage to the electrical box or motor. Refer to the wiring diagram before connection. Damage caused by incorrect wiring is not covered under warranty.

► SAFETY & MAINTENANCE TIPS

- Always power off and disconnect before inspection or service.
- Check cable connections before every use.
- Replace worn diamond ropes with Harlen-approved replacements.
- Store in a dry, dust-free environment when not in use

For support, service, or spare parts, contact Harlen Supplies your authorized distributor.

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