



**CORE CUT
OPERATOR'S MANUAL**

**EMDS110-230V
MINI DRAGON SAW**

JANUARY, 2024

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Safety and Operation

WARNING! In order to safely work with our products, you have to follow all the safety recommendations from the manufacturer and all the competent safety organizations governing your territory and area.

It is mandatory and imperative that you read and comprehend the following instructions to prevent any injury or even death to the operator or any one else in your surrounding work area and property.

Only trained personnel or experienced operators shall use the cutting tool or saw. Any repairs must be done by a trained or knowledgeable mechanic.

DO NOT DISCARD the safety instructions; give them to the operator.

Safety regulations and obligations vary from local, regional, and countries. It is your responsibility to be informed and to follow all your local, regional, territory, or country safety authorities' instructions and conform with all their safety recommendations and obligations.

The saw is designed to safely cut only concrete, masonry, and stone.

Only a trained person who has read and understands the operating instruction, has experience with the use and operation of saws, the related usage of the tool and completely understands the instruction manual in conjunction with his experience and knowledge in the safe operation of saws should operate the saw.

General Safety Rules

- For multiple reasons, read and understand the safety instruction before installing, operating, repairing, and maintaining the saws.
- Only qualified and trained operators should use the saws.
- Do not modify the saws. This can reduce effectiveness and safety of saws.
- Wear appropriate safety equipment.
- Tools shall be inspected periodically for damaged parts or missing labels. Only parts recommended by the manufacturer shall be used.
- Do not discard safety instruction; give them to the operator.

Electrical Safety

- The electric plug of the Electric Dragon Saw must fit into the socket outlet.
- Do not use any adapter plugs or modify the plug in any way.
- Protect your electrical equipment from moisture and rain.
- Do not use the cable to carry or hang up the saw or pull the plug out of the outlet. Keep the cable away from heat, oil, sharp, and moving objects.

- Avoid body contact with earthed surfaces such as pipes, heaters, ovens, or refrigerators.
- When using the Electric Dragon Saw outdoors, use a suitable extension cord for outdoor conditions.
- If possible, avoid operating the Electric Dragon Saw in damp or wet conditions.

Workplace Hazards

- Be careful in unfamiliar surroundings. There can be hidden hazards, such as electricity or other utility lines.
- Our saws are not intended for use in potentially explosive atmospheres and is not insulated against coming into contact with electric power.
- Practice looking for electrical cables, gas pipes, etc. before operating the saw.

Unfit to Work

- Do not operate the tools if you have consumed prescription drugs or illegal drugs and alcohol that may affect your judgment or ability to safely operate the tool.
- Do not operate when overtired.
- Operator and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.

Repetitive Motion Hazards

- When operating, adopt a comfortable posture and maintain secure footing to avoid discomfort during extended task.
- Don't push yourself and take breaks.

Recoil

- Due to incorrectly fitting the cutting ring or cutting unspecified materials the ring saw can suddenly recoil, seriously injuring the operator.
- Only cut concrete, masonry, and stone.
- Hold the saw correctly with both hands and proper footing.
- Make sure Guide plates and rollers are in good condition. If not, contact manufacture and replace them.

Using and Caring for the Electric Dragon Saw

- Do not overload the saw. Respect the motor overload protection light. Use the correct tool for a better and safer work experience.
- Do not use the Electric Dragon Saw if the switch is faulty.
- Unplug your Dragon Saw after its use to prevent it from starting up unintentionally.
- Care for your electrical tool. Make sure parts function flawlessly and replace damaged parts. Poorly maintained tools are the cause of many accidents.

- Keep your Electric Dragon Saw clean and well maintained. Properly cared equipment works better, jam less often and are easier to use.

Choking, Scalping and/or Lacerations

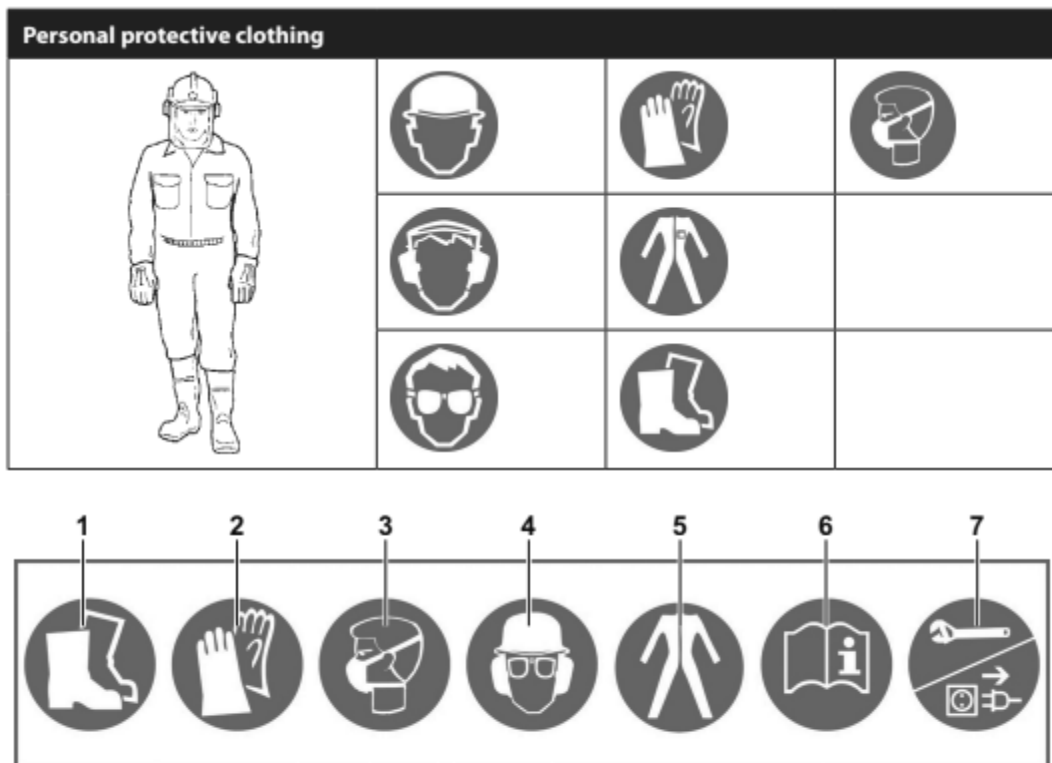
- Do not operate when wearing loose/hanging accessories and cloths.
- Wear appropriate protective clothing.
- If hair is long, wear a hairnet.

Vibrations

- Exposure to vibration can cause nerve and circulatory damage.
- If you experience symptoms seek medical help.

Noise Hazards

- Always wear hearing protection during operation.
- Exposure to high noise levels can cause permanent damage.



- | | |
|--|--|
| 1 Wear safety shoes | 5 Wear protective clothing |
| 2 Wear protective gloves | 6 Read the instructions |
| 3 Wear a breathing mask | 7 Disconnect from the mains supply before working on the appliance |
| 4 Wear hard hat, eye protection and hearing protection | |

Projectile Hazards

- Always wear impact-resistant eye protection during operation.
- Guards shall be securely in place and in good functional condition.
- Do not tie the guards open and make sure that retractable guard return rapidly.
- Damaged, bent, or severely worn guards shall be replaced with manufacturer's standard guards.
- Ensure sparks, metal shavings, and slurry are directed so not to cause a hazard.
- Inspect blade and segment condition.

Sharp Edges

- Always wear protective gloves.
- Avoid contact with the saw blade to prevent cutting of hands.
- Cutting with these tools creates sharp edges.

Danger of Slipping

- Do not operate on uneven and slippery surfaces.
- Wear safety shoes with non-slip grip soles.
- Concrete slurry is slippery and should be removed.

Dust and Vapors

- Wet cutting.
- When dust and fumes are created, priority is to control the point of emission.
- Use respiratory protection.
- In enclosed spaces, ensure that there is adequate ventilation.
- Warnings shall be given against the risk of explosion or fire due to the material being processed.

Transport

- Shipping and transport of the Dragon Ring Saw is done in a brown shipping box. Labeled with the Model of what's inside and its Serial Number. The box generally weighs 36 lbs and Diamond Ring Blades are transported separately weighting approximately 5 lbs.

Quality Control

- ACG Saws & Tools make almost every part needed to assemble its equipment. We ensure to double check and measure tolerance of every part we manufacture. Then once we assemble, we thoroughly inspect and test the hydraulic system, gearing system and the complete functionality of the tool.

Maintenance

Maintenance and servicing								
<p>*It is good practice to spray oil like WD-40 on the Guide Roller to prevent rust after use</p> <p>*Use Pure Synthetic Compressor Oil ISO 32 for oil changes.</p> <p>*Transmission only need 5cc of oil</p>		Before every use	After every use	Installing new blade	Weekly	Annually	When faults occur	After damage
		Electric motor	Check motor for damage and keep in clean	X	X			
Water Supply	Check water supply (Leak, wear and tear)	X	X				X	X
	Blow out water (Frost)		X					
Drive rollers & Guide rollers	Check rollers for wear	X					X	
After every install of a new Dragon Saw blade	Change oil in gear box and transmission			X				
Blade Guards	Check blade guard for damage or wear	X						
Diamond Blade	Check Diamond ring blade for cracks and segment wear	X	X					
Major services are to be performed by the manufacturer ACG Saws & Tools or authorized workshops						X		

* Change Gear Oil every time you replace your Diamond Ring Blade

Faults and Troubleshooting

Faults & troubleshooting		
Fault	Possible cause	Solution
Ring saw does not start	Faulty main cable	Contact Diamond Products for replacement
	Faulty power supply	Check your power supply
	Electric motor or motor components faulty	Contact Diamond Products for replacement parts or repair service
Ring saw starts then stops	Fuse on power supply trips	Fuse is weak or needs replacement, change power supply
Ring blade not rotating	Ring blade not located correctly on the profiled drive roller	Reinstall ring blade correctly on the drive roller
	Drive roller dirty	Clean drive rollers
	Roller pre-tension device not engaged	Check roller pre-tension device and spring
Ring blade revolved too slowly	Drive rollers worn	Change drive rollers
	Roller bearing defective	Change roller bearings
	Insufficient motor power	Check motor
	Roller pre-tension device not engaged	Check roller pre-tension device and spring
Ring blade disengages	Roller distance too large	Check roller pre-tension device and spring
	Drive rollers worn out	Change drive rollers
	Ring blade damaged	Change ring blade
	Roller pre-tension device not engaged	Check roller pre-tension device and spring
Ring blade twisted	Not enough water cooling your blade	Check water cooling and change ring blade
Diamond segments broken off	Twisted ring blade	Change ring blade
	Hard resistance in work piece	Change ring blade
	Brazing or welding of segments not professional standard	Change ring blade
No water supply to ring saw	Water line blocked	Clean or change the water lines
	Water faucet on feed line is closed	Open the water faucet
	Insufficient water pressure	Check and increase water supply
Blade is loose	Re-set front cover	Loosen mud guard and blade guard. Then push front cover in tight. Tighten guards

Technical Data

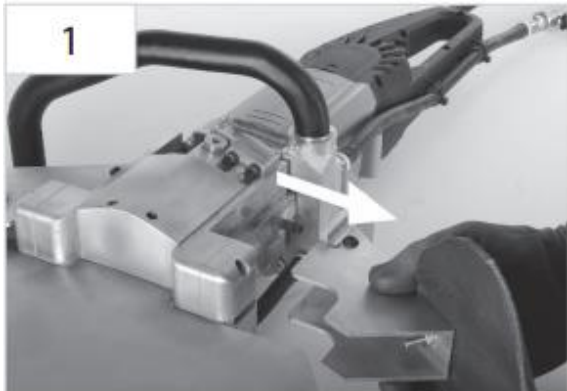
Dimension and weight	
Parameter	Value
Weight (without blade)	29.7 lbs
Width	190 mm or 7.5 inches
Height	280 mm or 11 inches
Length	560 mm or 22 inches

Electric motor	EMDS110V	EMDS220V
Voltage	110 V	220 V
Frequency	50 Hz – 60Hz	50 Hz – 60 Hz
Nominal power	1700 W	2800 W
Ring blade speed	Max. 2600 rpm	
Motor cooling	Air	
Application	Wet	

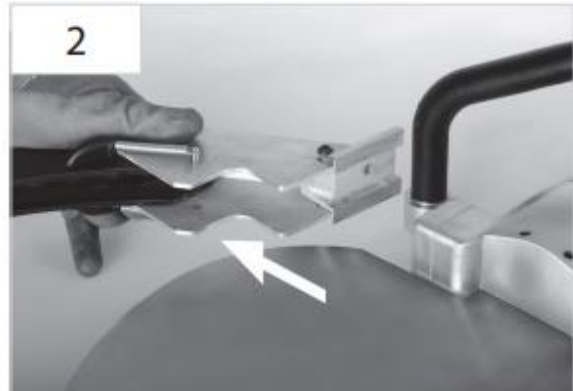
Diamond Ring Blades	
Diameter ring blade	Cutting depths
406 mm (16")	305 mm (12 inches)
305 mm (12")	205 mm (8 inches)
Cooling	Water cooling (No dry cutting)

Water supply	
Parameter	Value
Working pressure	min. 3 bar max. 6 bar
Flow rate	min. 5 l/min
Temperature	max. 25 C

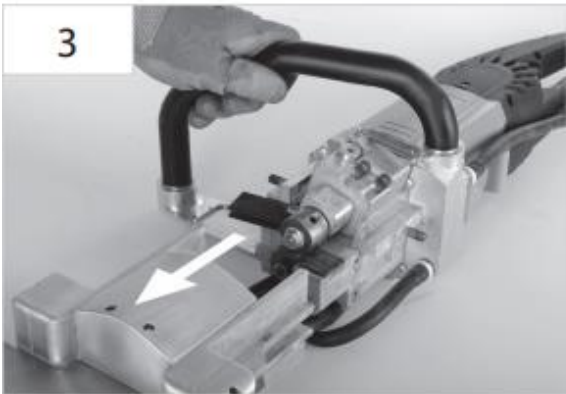
Installing and/or Replacing your Ring Blade



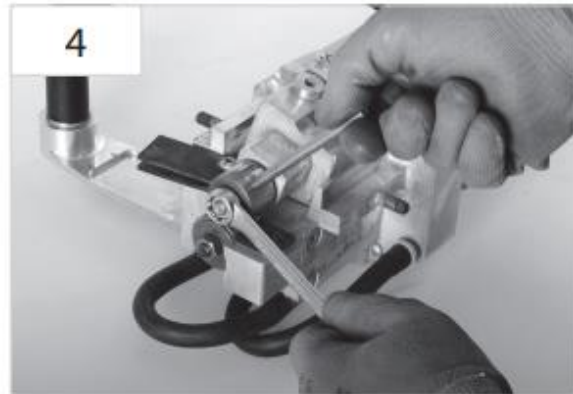
Remove the guard with spray protector.
Tool: 1/2" spanner



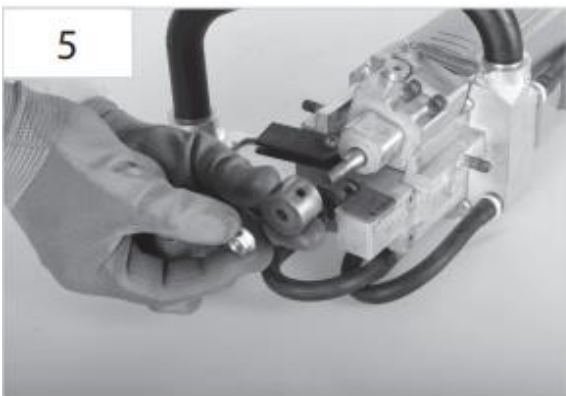
Remove disk guard.
Tool: 1/2" spanner



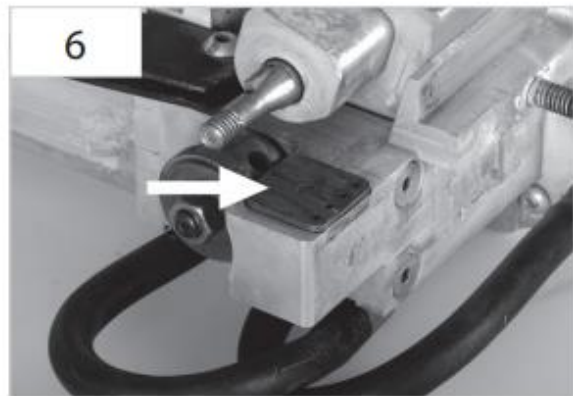
Remove housing.



Undo nut of drive / swivel roller.
Tools: 1/2" spanner and a punch



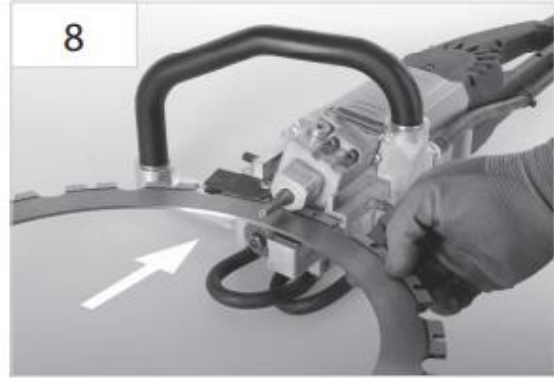
Remove swivel roller.



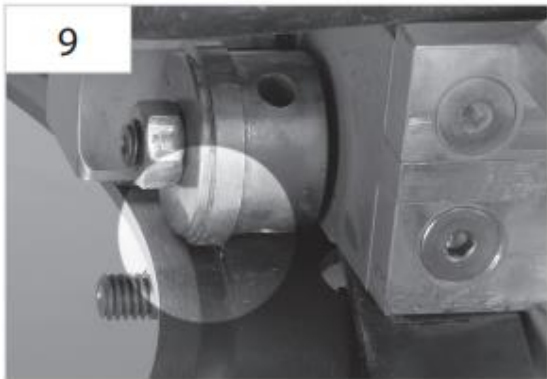
Replace skid plate.



7
Clean both sides of disk grinding ring thoroughly.



8
Place disk grinding ring on profiled driver roller.



9
Ensure the groove of the disk grinding ring is on the shoulder of the drive roller.



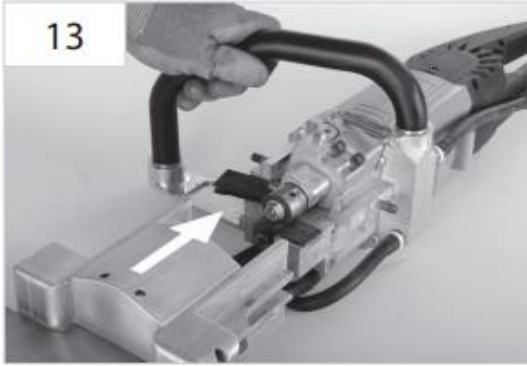
10
Mount the smooth driver roller; when doing so, observe the key and keyway.



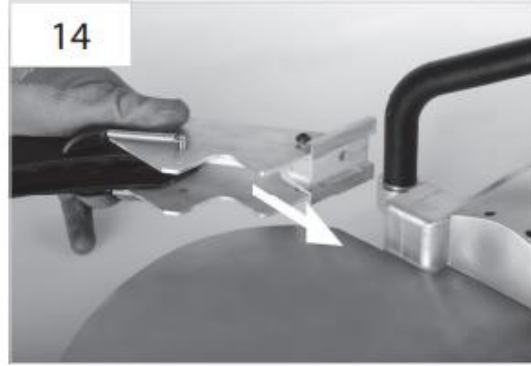
11
Screw on the smooth driver roller by hand.



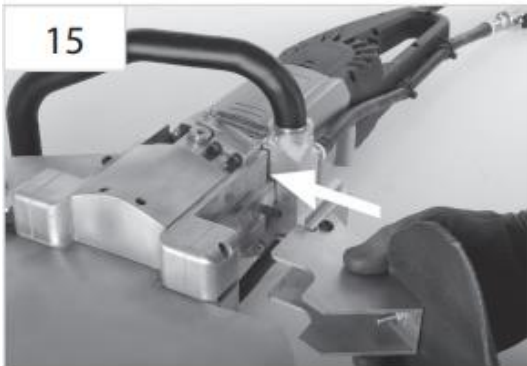
12
Tighten the smooth drive roller.
Tool: 1/2" spanner and a punch



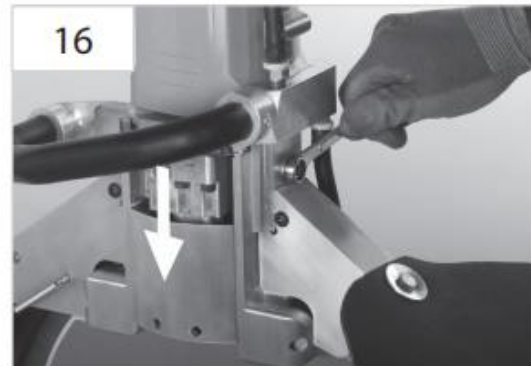
13 Mount housing.



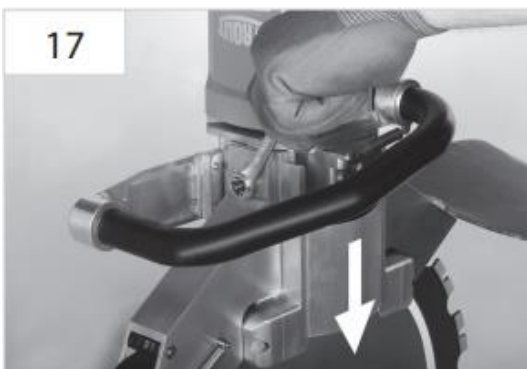
14 Fit and tighten disk guard finger tight.



15 Fit and tighten guard with spray protector finger tight.



16 Place housing onto edge of workbench, then push and hold down. Tighten the guard with spray protector.
Tool: ½" spanner



17 Place housing onto edge of workbench, then push and hold down. Tighten disk guard.
Tool: ½" spanner

EQUIPMENT AND PARTS WARRANTY

Diamond Products warrants all equipment manufactured by it against defects in workmanship or materials for a period of 90 Days from the date of shipment to Customer. The responsibility of Diamond Products under this Warranty is limited to replacement or repair of defective parts at Diamond Products' Elyria, Ohio factory, or at a point designated by it, of such parts as shall appear to us upon inspection at such parts, to have been defective in material or workmanship, with expense for transportation and labor borne by Customer. In no event shall Diamond Products be liable for consequential or incidental damages arising out of the failure of any Product to operate properly.

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