

DEKO 250A

DEKO Inverter MMA Electrode Welder 220V 250A User Manual

Brand: DEKO | Model: 250A

1. INTRODUCTION

Thank you for choosing the DEKO Inverter MMA Electrode Welder. This powerful and portable welding machine is designed for various welding tasks, offering advanced IGBT inverter technology for reliable and efficient performance. It is suitable for welding mild steel, stainless steel, alloy steel, carbon steel, and cast iron, making it ideal for DIY projects, maintenance, repair, and metal fabrication.

Key features include hot start, anti-stick functionality, a digital LCD display, and robust safety protections against overcurrent and overload. Its compact and lightweight design ensures easy transport and storage.

2. SAFETY INSTRUCTIONS

Always prioritize safety when operating welding equipment. Failure to follow these instructions may result in serious injury or death.

- **Electric Shock:** Welding current can cause fatal electric shock. Ensure proper grounding. Do not touch live electrical parts or electrodes with bare hands or wet gloves. Wear dry, insulating gloves.
- **Fumes and Gases:** Welding produces fumes and gases that can be hazardous to health. Work in a well-ventilated area. Use an exhaust fan or fume extractor if necessary.
- **Arc Rays:** Arc rays can burn eyes and skin. Wear a welding helmet with appropriate filter lenses and protective clothing (long sleeves, heavy pants, leather apron).
- **Fire and Explosion:** Welding sparks and hot metal can cause fires. Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Burns:** Hot metal and sparks can cause severe burns. Wear protective clothing, gloves, and footwear. Allow welded materials to cool before handling.
- **Machine Placement:** Place the welding machine on a stable, level surface. Ensure adequate ventilation around the machine to prevent overheating.

3. PRODUCT COMPONENTS

Familiarize yourself with the main components of your DEKO Inverter MMA Welder:



Figure 3.1: Front Panel Overview

This image shows the front panel of the DEKO Inverter Welder, highlighting key controls and connections. These include the digital current meter, welding current adjustment knob, power indicator light, overheating indicator light, positive output terminal for the earth clamp, and negative output terminal for the electrode holder.



Figure 3.2: Rear Panel Overview

This image displays the rear panel of the DEKO Inverter Welder, indicating the power switch, power input connection, and the rear ventilation fan for cooling.

- **Current Meter:** Digital display showing the welding current.
- **Welding Current Adjustment Knob:** Used to set the desired welding amperage.
- **Power Indicator Light:** Illuminates when the machine is powered on.
- **Overheating Indicator Light:** Illuminates if the machine overheats, indicating it needs to cool down.
- **Positive Output Terminal (+):** Connects to the earth clamp.
- **Negative Output Terminal (-):** Connects to the electrode holder.
- **Power Switch:** Turns the machine on or off.
- **Power Input:** Connection point for the main power cable.
- **Rear Vent:** Fan for cooling the internal components.

4. SETUP

Follow these steps to set up your welding machine for operation:

1. **Unpack the Welder:** Carefully remove the welding machine and all accessories from the packaging. Inspect for any damage.

2. **Connect the Earth Clamp:** Connect the cable with the earth clamp to the **positive (+)** output terminal on the front panel. Ensure a secure connection. Attach the earth clamp to the workpiece or welding table, ensuring good electrical contact.
3. **Connect the Electrode Holder:** Connect the cable with the electrode holder to the **negative (-)** output terminal on the front panel. Ensure a secure connection.
4. **Power Connection:** Ensure the power switch on the rear of the machine is in the "OFF" position. Plug the power adapter cable into a suitable 220V power outlet.
5. **Insert Electrode:** Securely insert the appropriate electrode into the electrode holder. Ensure the electrode size matches the welding current and material.

5. OPERATING INSTRUCTIONS

Once set up, you can begin welding. Always wear appropriate personal protective equipment (PPE) before starting.

1. **Power On:** Flip the power switch on the rear of the machine to the "ON" position. The power indicator light on the front panel should illuminate, and the digital display will show the current setting.
2. **Adjust Welding Current:** Use the welding current adjustment knob on the front panel to set the desired amperage. The digital display will show the selected current. Refer to electrode manufacturer guidelines for recommended current settings for your specific electrode and material.
3. **Start Welding:** Bring the electrode into contact with the workpiece to initiate the arc. The machine features a *Hot Start* function for easy arc ignition and an *Anti-stick* function to prevent the electrode from sticking to the workpiece.
4. **Maintain Arc:** Maintain a consistent arc length and travel speed for optimal weld quality. The machine's stable arc characteristic helps in achieving a good welding surface with few splashes.
5. **Monitor Overheating:** If the overheating indicator light illuminates, stop welding immediately and allow the machine to cool down. The built-in fan will help dissipate heat.
6. **Power Off:** After completing your welding task, turn the power switch to the "OFF" position and unplug the machine from the power outlet.



Figure 5.1: Example Welding Results

This image illustrates various welding lines and finished results, demonstrating the quality achievable with proper technique and machine settings.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your welding machine.

- **Cleaning:** Periodically clean the machine's exterior with a dry, soft cloth. Ensure the ventilation openings are free from dust and debris to maintain proper airflow. Do not use water or solvents.
- **Cable Inspection:** Regularly inspect all cables (power, electrode, earth clamp) for cuts, fraying, or damage. Replace damaged cables immediately.
- **Terminal Connections:** Ensure all terminal connections are clean and tight. Loose connections can lead to poor performance or overheating.
- **Storage:** Store the welder in a dry, clean environment, away from direct sunlight, moisture, and extreme temperatures.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

Problem	Possible Cause	Solution
Machine does not power on.	No power supply; Power switch off; Faulty power cable.	Check power outlet and circuit breaker; Ensure power switch is ON; Inspect and replace power cable if damaged.
No welding arc.	Poor earth clamp connection; Incorrect electrode connection; Wrong current setting; Wet electrode.	Ensure good contact for earth clamp; Check electrode holder connection; Adjust current; Use dry electrodes.
Overheating indicator light is on.	Excessive duty cycle; Insufficient ventilation.	Allow machine to cool down; Ensure clear ventilation openings; Reduce welding time.
Electrode sticks frequently.	Low current setting; Incorrect arc length; Wet electrode.	Increase current; Adjust arc length; Use dry electrodes.

8. TECHNICAL SPECIFICATIONS

The following table outlines the technical specifications for the DEKO 250A Inverter MMA Welder:



Model	DKA-250Y-EU
Color	Yellow/Gray/Black
Power Voltage	AC 1-230V±15%
Rated Input Capacity	5.8 KVA
Efficiency	85%
Duty Cycle	40%
Insulation Degree	F
Current Range	20-200A
Usage	Welding Task
Input Voltage	220V-240V
No-load Voltage	60V
Protection Degree	IP21S
Dimensions	28cm*12.5cm*23cm
Input Power	4.1KW
Power Factor	0.93
Electrode Diameter	1.6-4.0mm
N.W	4.56kg

Figure 8.1: Technical Specifications Overview

This image provides a detailed table of the welder's specifications, including model, power voltage, rated input capacity, efficiency, duty cycle, and dimensions.

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Protection Degree	IP21S
Dimensions	28cm*12.5cm*23cm
Input Power	4.1 KW
Power Factor	0.93
Electrode Diameter	1.6-4.0mm
Net Weight (N.W)	4.56kg

9. WARRANTY AND SUPPORT

DEKO products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please contact the seller directly. The seller for this product is [DEKO-EU](#). Please retain your proof of purchase for any warranty claims.

For general information about DEKO tools, you may visit the official DEKO store on Amazon [DEKO Store](#).