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› ANDELI TIG-250G PRO 100V/200V 160A Multi-Process Welding Machine User Manual

## ANDELI TIG-250G PRO

# ANDELI TIG-250G PRO Multi-Process Welding Machine User Manual

Model: TIG-250G PRO

## 1. INTRODUCTION

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This manual provides essential information for the safe and effective operation of your ANDELI TIG-250G PRO multi-process welding machine. Please read this manual thoroughly before use and retain it for future reference.



Figure 1: Front view of the ANDELI TIG-250G PRO welding machine, showcasing its compact design and control panel.

## 2. SAFETY INFORMATION

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Always prioritize safety when operating welding equipment. Failure to follow safety precautions can result in serious injury or death.

- Ensure the machine is connected to a properly grounded power source (100V or 200V).
- Wear appropriate personal protective equipment (PPE), including welding helmet, gloves, and protective clothing.
- Work in a well-ventilated area to avoid inhaling welding fumes.
- Keep flammable materials away from the welding area.
- Do not touch live electrical parts.
- The product is CE certified, indicating compliance with European safety standards.

## 3. PRODUCT FEATURES

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The ANDELI TIG-250G PRO offers versatile welding capabilities with user-friendly controls.

- **Dual Voltage Compatibility:** Operates on both 100V and 200V power supplies.
- **Multi-Process Welding:** Supports TIG, Arc (MMA), Cold, Clean, and Pulse welding modes.
- **Digital Control:** Easy adjustment of welding parameters via a single dial.
- **Cold Mode:** Minimizes material deformation and discoloration, resulting in a silver-white weld for stainless steel. Requires pure argon gas.
- **Rapid Heat Dissipation:** Multi-grid design on both sides with automatic cooling for extended operation.

# 5-IN-1



**CLEAN**



**TIG**



**COLD SPOT**



**MMA**



**PULSE**



Figure 2: Illustration of the five welding modes: Clean, TIG, Cold Spot, MMA, and Pulse, available on the ANDELI TIG-250G PRO.

# RAPID HEAT DISSIPATION

Multi-grid designed on both sides, automatic cooling



Figure 3: Depiction of the rapid heat dissipation system with multi-grid design and automatic cooling on the side of the welding machine.

## 4. SETUP

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

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

2. **Power Connection:** Connect the power cable to a suitable 100V or 200V grounded outlet. The machine automatically detects the voltage.
3. **Ground Clamp Connection:** Attach the ground clamp cable to the negative (-) terminal on the front panel and secure the clamp to your workpiece.
4. **Welding Torch Connection:**
  - For TIG welding, connect the TIG torch to the positive (+) terminal and the gas hose to the gas inlet.
  - For MMA (Arc) welding, connect the electrode holder to the positive (+) terminal.
5. **Gas Connection (for TIG/Cold modes):** Connect the argon gas regulator to your pure argon gas cylinder and then to the gas inlet on the machine. Ensure all connections are tight to prevent leaks.

## 5. OPERATING INSTRUCTIONS

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The TIG-250G PRO features a digital control panel for easy mode and parameter selection.

### 5.1 Control Panel Overview

The front panel includes a digital display, mode selection buttons, and a control dial for parameter adjustment.

Your browser does not support the video tag.

Video 1: General overview and demonstration of the ANDELI TIG-250G PRO welding machine's functions and capabilities.

### 5.2 Mode Selection and Parameter Adjustment

1. **Power On:** Turn on the main power switch located on the rear of the machine.
2. **Select Mode:** Use the mode selection button on the front panel to cycle through Cold, TIG, Pulse, Arc Welding (MMA), and Clean modes. The selected mode will be indicated on the digital display.
3. **Adjust Parameters:** Once a mode is selected, use the control dial to adjust specific welding parameters (e.g., current, pulse frequency, etc.). The digital display will show the current value.
4. **Remote Control TIG Torch:** For TIG welding, the remote control torch allows real-time parameter adjustments.
  - Press '+' to increase parameters.
  - Press '-' to decrease parameters.
  - Long press 'M' for 3 seconds to switch functions.
  - Short press 'M' for parameter adjustment.

# REMOTE CONTROL TIG TORCH

Real-time adjusting parameters to improve efficiency



Increase the parameter



Decrease the parameter



Long press for 3s : function switch  
Short press : parameter adjustment



Figure 4: The remote control TIG torch, illustrating buttons for increasing/decreasing parameters and switching functions for real-time adjustments during welding.

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Video 2: Detailed operational guide for the ANDELI TIG-250G PRO, demonstrating mode selection and parameter adjustments.

## 5.3 Welding Modes Explained

- **TIG Welding:** For precise welding of various metals. Requires pure argon gas.

- **Arc Welding (MMA):** For general-purpose welding with coated electrodes.
- **Cold Mode:** Specialized for welding thin materials, particularly stainless steel, to minimize heat input, deformation, and discoloration. Requires pure argon gas.
- **Pulse Welding:** Provides better control over heat input, useful for thin materials and out-of-position welding.
- **Clean Mode:** Used for cleaning the weld area, often after welding stainless steel to restore its appearance.

# REAL WELDING EFFECT



**HOT TIG**



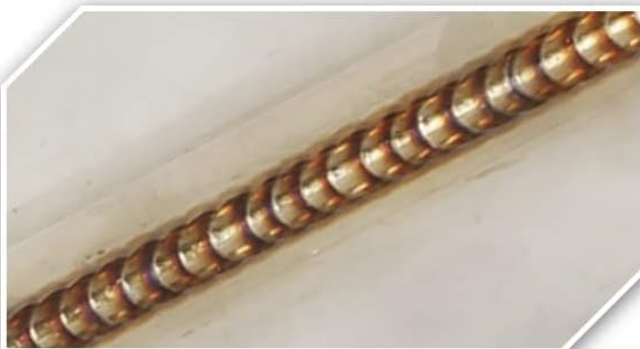
**COLD SPOT**



**BEFORE CLEANING**



**AFTER CLEANING**



**PULSE**



**MMA**

Figure 5: Examples of welding results using different modes: Hot TIG, Cold Spot, Before Cleaning, After Cleaning, Pulse, and MMA.

## 6. APPLICABLE MATERIALS

The ANDELI TIG-250G PRO is suitable for welding a variety of common metals:

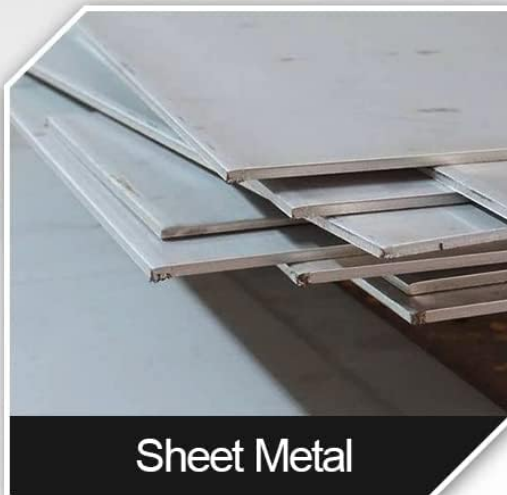
- Ordinary Thin Steel
- Carbon Steel
- Stainless Steel
- Iron
- Angle Steel
- Mild Steel
- Sheet Metal



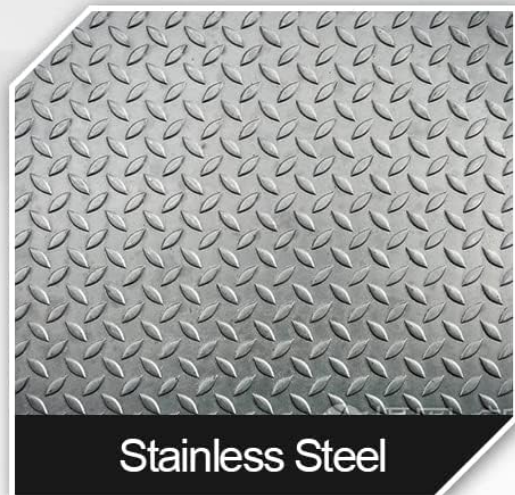
Angle Steel



Mild Steel



Sheet Metal



Stainless Steel

Figure 6: Visual representation of various materials compatible with the welding machine, including angle steel, mild steel, sheet metal, and stainless steel.

## 7. MAINTENANCE

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

- **Cleaning:** Periodically clean the machine's exterior and ventilation grilles to prevent dust buildup. Use compressed air to clear internal dust if necessary (ensure power is disconnected).
- **Cable Inspection:** Regularly inspect all cables, hoses, and connections for wear, damage, or loose fittings. Replace damaged components immediately.
- **Torch Maintenance:** Clean the TIG torch collet, collet body, and nozzle regularly. Replace worn tungsten electrodes.
- **Storage:** Store the machine in a dry, clean environment when not in use.

## 8. TROUBLESHOOTING

Refer to this section for common issues and their solutions.

| Problem                          | Possible Cause                                                                 | Solution                                                                               |
|----------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Machine does not power on        | No power supply; loose power cable; faulty power switch.                       | Check power outlet and cable connections; ensure power switch is ON.                   |
| No arc ignition                  | Improper ground connection; incorrect welding parameters; worn electrode.      | Ensure ground clamp is securely attached; adjust current settings; replace electrode.  |
| Poor weld quality                | Incorrect parameters; insufficient gas flow (TIG/Cold); contaminated material. | Adjust welding parameters; check gas supply and flow rate; clean workpiece thoroughly. |
| Overheating protection activated | Extended use at high current; blocked ventilation.                             | Allow machine to cool down; ensure ventilation grilles are clear.                      |

## 9. SPECIFICATIONS

| Feature            | Detail                             |
|--------------------|------------------------------------|
| Brand              | ANDELI                             |
| Model              | TIG-250G PRO                       |
| Input Voltage      | 100V/200V (Dual Voltage)           |
| Max Output Current | 160A                               |
| Welding Modes      | TIG, Arc (MMA), Cold, Clean, Pulse |
| Product Weight     | 9.4 kg                             |
| Package Dimensions | 51.8 x 48.7 x 29.6 cm              |
| Certifications     | CE Certified                       |

# 10. WARRANTY AND SUPPORT

The ANDELI TIG-250G PRO welding machine comes with a**2-year warranty** from the date of purchase. For technical support, warranty claims, or inquiries, please contact ANDELI customer service. Our team is dedicated to providing efficient support and ensuring your satisfaction. For more information, visit the[ANDELI Official Store on Amazon](#).

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question