

[Manuals.plus](#) /

› [STAHLWERK](#) /

› STAHLWERK AC/DC TIG 200 ST Welder Instruction Manual

STAHLWERK TIG 200 ST

STAHLWERK AC/DC TIG 200 ST Welder Instruction Manual

Model: TIG 200 ST

1. INTRODUCTION

This manual provides essential information for the safe and effective operation, setup, maintenance, and troubleshooting of your STAHLWERK AC/DC TIG 200 ST 2-in-1 welding machine. Please read this manual thoroughly before using the device to ensure proper function and safety.

2. SAFETY INSTRUCTIONS

Welding operations involve significant risks. Always prioritize safety to prevent injury or damage to equipment. For detailed safety guidelines, please refer to the official safety information document provided with your product:

[Safety Information \(PDF\)](#)

Key Safety Precautions:

- Always wear appropriate personal protective equipment (PPE), including welding helmet, gloves, and protective clothing.
- Ensure adequate ventilation in the work area to disperse fumes.
- Never operate the welder in wet conditions or near flammable materials.
- Disconnect power before performing any maintenance or adjustments.

3. PRODUCT OVERVIEW

The STAHLWERK AC/DC TIG 200 ST is a versatile 2-in-1 welding machine offering both TIG and MMA (ARC) welding capabilities. It features modern IGBT technology for optimal performance and a compact design for easy transport.



Figure 3.1: STAHLWERK AC/DC TIG 200 ST Welder with TIG torch, ground clamp, electrode holder, and various consumables.

Key Features:

- **AC/DC TIG & MMA Welding:** Delivers 200A for precise welding of various metals. AC mode for aluminum, DC mode for steel, stainless steel, and copper.
- **Modern IGBT Technology:** Ensures optimal performance, stable arc, and compact design (12.7 kg).
- **HF Ignition:** Non-contact high-frequency ignition prevents tungsten electrode contamination.
- **2T/4T Modes:** Provides precise control over the welding process.
- **Hotstart & Anti-Stick:** Facilitates arc ignition and prevents electrode sticking in MMA mode.
- **Intelligent Cooling System:** Integrated overheating protection for maximum reliability.



Figure 3.2: The advanced IGBT technology ensures high efficiency and a stable welding arc.

4. SETUP

Follow these steps to set up your STAHLWERK AC/DC TIG 200 ST welder:

1. **Unpacking:** Carefully remove the welder and all accessories from the packaging. Inspect for any damage.
2. **Placement:** Place the welder on a stable, level surface in a well-ventilated area, away from moisture and direct sunlight.
3. **Power Connection:** Connect the power cable to a suitable electrical outlet. Ensure the power supply matches the welder's requirements.
4. **Gas Connection (TIG):** For TIG welding, connect the gas hose from your inert gas cylinder (e.g., Argon) to the gas inlet on the rear of the machine. Ensure all connections are secure and leak-free.
5. **TIG Torch Connection:** Connect the TIG torch to the appropriate port on the front panel. Ensure the gas line from the torch is also connected.
6. **Ground Clamp Connection:** Connect the ground clamp cable to the negative (-) terminal on the front panel. Secure the ground clamp to your workpiece.
7. **Electrode Holder Connection (MMA):** For MMA welding, connect the electrode holder cable to the positive (+) terminal on the front panel.



Figure 4.1: Rear connections of the welding machine, ensuring comfortable operation.

5. OPERATING INSTRUCTIONS

The STAHLWERK AC/DC TIG 200 ST offers both TIG and MMA welding modes with various adjustable parameters.



Figure 5.1: Clear and intuitive control panel for maximum user-friendliness.

5.1. Control Panel Overview

The front panel features a digital display and several control knobs for adjusting welding parameters:

- **Digital Display:** Shows current welding amperage.
- **Mode Selection:** Buttons for TIG (WIG) and MMA (ARC) modes, and AC/DC selection.
- **2T/4T Mode:** Toggle between 2-stroke and 4-stroke torch operation.
- **Pre-Flow (Gasvorlauf):** Adjusts the pre-gas time before arc ignition (0-2 seconds).
- **AC Balance:** Adjusts the balance between positive and negative half-cycles in AC TIG welding (for aluminum).
- **Downslope (Stromabsenkung):** Controls the current decay time at the end of the weld (0-15 seconds).
- **Post-Flow (Gasnachlauf):** Adjusts the post-gas time after arc extinction (0.1-20 seconds).
- **Welding Current (Schweißstrom):** Main knob to set the welding amperage (MIN-MAX).
- **Indicators:** Overcurrent (Stromüberlast) and Overheating (Überhitzung) warning lights.



Figure 5.2: Detailed view of the electronic control panel with LED display and adjustment knobs.

5.2. TIG Welding (WIG)

TIG welding is ideal for high-quality, precise welds on various metals.

- **AC TIG (Alternating Current):** Used for welding aluminum and aluminum alloys. Adjust the AC Balance for optimal cleaning action and penetration.
- **DC TIG (Direct Current):** Used for welding steel, stainless steel, copper, and other non-ferrous metals (except aluminum).
- **HF Ignition:** The high-frequency start allows for arc ignition without touching the workpiece, preventing contamination.
- **Pre-Gas & Post-Gas:** Essential for protecting the weld pool and tungsten electrode from atmospheric contamination before and after welding.
- **Downslope:** Gradually reduces the welding current at the end of the weld to prevent crater formation and ensure a smooth finish.



Figure 5.3: TIG welding in progress, demonstrating precise control and clean results.

5.3. MMA Welding (ARC)

MMA welding is suitable for a wide range of applications and materials, especially in outdoor or less controlled environments.

- **Hotstart:** Automatically increases the voltage at the start of welding to facilitate arc ignition, especially with difficult-to-start electrodes.
- **Anti-Stick:** Prevents the electrode from sticking to the workpiece, making it easier to restart the arc and reducing electrode waste.



Figure 5.4: MMA welding in action, showcasing the arc and molten metal.

6. MAINTENANCE

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

- **Cleaning:** Periodically clean the exterior of the machine with a dry cloth. Ensure ventilation openings are free from dust and debris.
- **Cable Inspection:** Regularly inspect all cables (power, torch, ground) for cuts, fraying, or damage. Replace damaged cables immediately.
- **Consumables:** Check and replace TIG torch consumables (collets, collet bodies, ceramic nozzles, tungsten electrodes) as needed.
- **Cooling System:** The intelligent cooling system helps prevent overheating. Ensure the fan intake and exhaust are unobstructed.
- **Storage:** Store the welder in a dry, clean environment when not in use.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your welder.

Problem	Possible Cause	Solution
Welder does not power on	No power supply; faulty power cable; internal fault	Check power outlet and circuit breaker; inspect power cable; contact support.
No arc ignition (TIG)	No gas flow; incorrect tungsten electrode; poor ground connection; HF ignition fault	Check gas cylinder and flow; ensure correct tungsten type and sharpening; secure ground clamp; contact support.
Electrode sticks (MMA)	Low welding current; Anti-Stick function off; incorrect electrode type	Increase welding current; ensure Anti-Stick is active; use appropriate electrode.
Overcurrent/Overheating indicator on	Exceeded duty cycle; insufficient ventilation; internal fault	Allow machine to cool down; ensure proper ventilation; reduce welding current/duration; contact support.
Poor weld quality	Incorrect parameters; contaminated workpiece; improper technique; worn consumables	Adjust welding current, gas flow, AC balance; clean workpiece; refine technique; replace consumables.

8. SPECIFICATIONS

Detailed technical specifications for the STAHLWERK AC/DC TIG 200 ST welder:

Feature	Specification
Model	TIG 200 ST (Reference: 6918)
Welding Current (TIG & MMA)	Up to 200 A
Welding Modes	AC TIG, DC TIG, MMA (ARC)
Ignition	HF (High Frequency)
Technology	IGBT
Dimensions (L x W x H)	44.9 x 23.8 x 43.7 cm
Weight	12.7 kg
Power Type	DC (for internal operation, AC input)
Material	Metal and Rigid Plastic



Figure 8.1: Physical dimensions of the welding machine.

9. WARRANTY AND SUPPORT

STAHLWERK is committed to providing high-quality products and excellent customer service.

- **Warranty:** This product comes with a **7-year warranty**, offering extensive coverage.
- **Support:** STAHLWERK provides comprehensive support services, including on-site, telephone, and email assistance.
- **Repairs:** An in-house workshop ensures quick and efficient repairs.

For any questions, technical assistance, or warranty claims, please contact STAHLWERK customer service directly.



STAHLWERK®



7 ans de garantie
Des prestations de garantie étendues



Service et poids
sur place, par téléphone et par e-mail



Atelier interne
pour des réparations rapides



Production propre
pour une qualité maximale



Un seul fournisseur
Vaste gamme d'accessoires



Fournisseurs traditionnels



2 ans de garantie
Norme minimale légale



Le désert du service
Pas d'accessibilité



Longs délais d'attente
L'appareil doit être renvoyé



Production extérieure
Marchandise bon marché
d'Extrême-Orient



Petit assortiment
Approvisionnement compliqué

Figure 9.1: STAHLWERK's commitment to extended warranty and accessible service.

© 2026 STAHLWERK. All rights reserved.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

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