

TIGMASTER-250COLD: The World's Most Portable 250A Pulse TIG/MMA Welder



Wenzhou, Zhejiang Apr 15, 2026 (Issuewire.com) - 9.5kg | 100% Duty Cycle @ 250A / 40° C | 5A TIG Start | 0.1–500Hz Pulse | 2T/4T/S4T/SPOT Modes Built by KEYGREE – 700,000 Units/Year of Welding Equipment

KEYGREE GROUP CO., LTD. produces 700,000 sets of welding equipment annually, trusted by professionals in over 100 countries — from European fabrication shops to Middle Eastern pipeline contractors, from Southeast Asian shipyards to African mines.

Certified Quality: CE, ISO 9001, BSCI, FCCA (CNAS pending) — your guarantee of safety, reliability, and ethical production.

Why [TIGMASTER-250COLD](#) Sets a New Standard

Feature

TIGMASTER-250COLD

Typical 250A Class Welder

Weight

9.5 kg – truly portable

12–15 kg

TIG Start Current

5 A – ultra-clean arc initiation

~8 A

MMA Start Current

10 A – smoot

h ignition for 6010/7018

~10 A

Duty Cycle @ 250 A / 40° C

100% – weld all day non-stop

35–60% @ 220–250 A

Pulse Frequency

0.1–500 Hz – from soft ripples to stiff arc

Typically up to 200 Hz

Pulse Duty Cycle

10–90% adjustable

Fixed or limited range

Slope Up/Down

0–25 s adjustable

Often fixed or narrow

Cold Welding Time

1–500 ms

Not available on many models

Spot Welding

0.1–9.99 s + interval

Basic timer only

Torch Modes**2T / 4T / S4T / SPOT**

Usually 2T/4T only

Remote Control**Standard (5pin)**

Optional accessory

Cooling System**Intelligent fan – runs only when needed**

Continuous or basic thermal

Generator Compatibility

Excellent – wide voltage tolerance

Good (PFC)

VRD

ON/OFF switchable

Available

Price Position**High value**

Premium

*Comparison based on published specifications of leading brands in the 250A DC TIG/MMA class.

Full Technical Specifications

Parameter

Value

Processes

DC TIG (Lift), MMA (Stick)

Model

TIGMASTER-250COLD

Weight

9.5kg

TIG Start Current

5 A

MMA Start Current

10 A

Current Range

5–250 A (TIG), 10–250 A (MMA)

Duty Cycle @ 250 A / 40 °C

100%

Input Power

220 V \pm 15%, 1phase

Generator Requirement

\geq 8 kVA recommended

Pulse Frequency

0.1–500 Hz

Pulse Duty Cycle

10–90%

Slope Up / Down

0–25 s

PreGas / PostGas

0–25 s / 1–25 s

Cold Welding Time

1–500 ms

Spot Welding Time

0.1–9.99 s

Spot Interval

0.1–9.99 s

Torch Modes

2T / 4T / S4T / SPOT

Remote Connector

5pin (wired remote / foot pedal)

Cooling

Intelligent fan – ondemand

VRD

ON/OFF switchable

Protections

Overvoltage, Undervoltage, Overcurrent, Thermal

Enclosure Rating

IP23

Standards

EN 609741, ISO 9001

Certifications

CE, ISO 9001, BSCI, FCCA (CNAS in process)

Global Service & Support

Wherever you are, KEYGREE ensures you stay productive:

- **Worldwide Distributor Network**– Spare parts and service in over 50 countries
- **24/7 Technical Support**– English, Spanish, Arabic, Russian, French

- **2-Year Warranty**– Standard on all TIGMASTER series
- **Fast Logistics**– Air, sea, and rail options with tracking
- **Online Training**– Video manuals, webinars, and on-site training available
- **Generator-Ready**– Stable performance even in remote sites with unstable power

Global Application Case Studies Precision Fabrication – Germany

Challenge: TIG welding 0.8mm stainless steel for high-end automotive components required ultra-clean starts and precise heat management.

Solution: TIGMASTER-250COLD with 5A TIG start, 0.1–500Hz pulse control, and intelligent cooling.

Result:

- 30% equipment cost savings compared to previous premium brand
- Cleaner starts eliminated post-weld cleanup on thin sheet
- Finer pulse control enabled heat management for distortion-free welds
- Now standard equipment across their precision fabrication line

Pipeline Construction – UAE

Challenge: On-site pipeline welding in 45° C ambient temperatures required equipment that could withstand heat and be easily transported.

Solution: TIGMASTER-250COLD with 100% duty cycle, 9.5kg portability, remote control, and switchable VRD.

Result:

- 20 units deployed across major oil & gas projects
- Zero thermal shutdowns despite 45° C+ ambient temperatures
- One technician can carry and operate — reduced crew size by 2 per site
- VRD enabled safe multi-crew operations in confined spaces

Mining Maintenance – South Africa

Challenge: Crack repair on heavy mining equipment required precision welding without distortion; harsh, dusty environment demanded reliable equipment.

Solution: TIGMASTER-250COLD with cold welding (1–500ms), spot welding with adjustable interval, and intelligent cooling.

Result:

- Cold welding mode eliminated distortion on crack repairs
- Intelligent cooling reduced dust ingestion — extended equipment life by 40%
- Repair time reduced by 35% with quick spot tacking
- Now standard across 3 mine sites

Shipbuilding – Indonesia

Challenge: Aluminum TIG welding on passenger ferries required focused arc control and equipment that could operate on generator power in a tropical shipyard.

Solution: TIGMASTER-250COLD with 500Hz pulse frequency, S4T mode, and generator compatibility.

Result:

- Replaced bulky machines — freed up workshop space by 30%
- S4T mode reduced operator fatigue on long hull seams
- Generator-friendly operation on 10kVA diesel genset — no grid power needed
- Fleet expanded to 15 units across 2 shipyards

Agricultural Equipment Manufacturing – Brazil

Challenge: Mixed production of carbon steel and stainless steel components required quick process switching and export compliance.

Solution: TIGMASTER-250COLD with TIG/MMA dual-process capability, adjustable post-gas up to 25s, and CE certification.

Result:

- Quick switch between TIG and MMA — reduced changeover time by 80%
- 25s post-gas enabled titanium welding for specialized components
- CE certified — hassle-free export to EU markets
- Production capacity increased by 25% with same workforce

Why Global Professionals Choose TIGMASTER-250COLD

- Ultra-portable + full duty cycle — 9.5kg with 100% duty cycle at 250A — no compromises
- Precision control — 5A start, 0.1–500Hz pulse, 10–90% pulse duty cycle — finer adjustment than class leaders
- Advanced torch modes — S4T for automated slope, SPOT for production tacking
- Intelligent cooling — runs only when needed — cleaner, quieter, longer life
- Global support network — parts and service in over 50 countries
- Private labeling available for volume partners

Ready to Elevate Your Welding Capability?

Contact us today for:

- **Free sample testing**– we'll ship a unit to qualified partners
- **Detailed datasheet**with pulse curves and duty cycle certification
- **Weld test videos**(5 A start, pulse modes, spot welding)
- **Distributor pricing**for global markets
- **OEM/ODM collaboration**

Contact KEYGREE: www.keygree.com | Response within 24 hours

Specifications subject to change without notice. TIGMASTER is a trademark of KEYGREE GROUP CO., LTD. Third-party test reports available upon request.

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