

# Minarc T

WELD AND CLEAN WITH ONE TIG MACHINE





## Minarc T



### WELD AND CLEAN WITH ONE TIG MACHINE

**Minarc T 223 ACDC GM** is an entirely new 220 A single-phase AC/DC TIG welding machine with built-in electrolytic weld cleaning capability. This portable multi-voltage welding machine allows you to perform high-quality TIG welding and professional weld cleaning with one machine.

Take the **Minarc T 223 ACDC GM** anywhere on-site and save time by completing and finishing perfect welds in one spot. The new **MAX WeldClean** electrolytic cleaning process is simple and easy to use. It just takes a moment to convert your TIG torch to cleaning mode, where an efficient combination of electric current and phosphoric acid offers quick removal of oxidation and discoloration around the weld, delivering perfectly clean welds.

Powerful and versatile, the **Minarc T 223 ACDC GM** TIG welding machine comes with important features like the Auto Pulse function, AC frequency control, memory channels, and convenient remote control options. A large color display with impact protection and a clear user interface make choosing settings in a wide range of light conditions easy.



## KEY BENEFITS



### PREMIUM WELDING QUALITY

Accurate and precise 220 A TIG welding with easy-to-use controls on a large color display.



### POWERFUL ELECTROLYTIC WELD CLEANING

MAX WeldClean is a simple electrolytic cleaning process that removes oxidation and discoloration, finishing welds fast.



### EASY TO CARRY

Move your machine where you need it and save time by welding and finishing in the same spot.

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## BENEFITS

- Premium multi-voltage AC/DC TIG welding machine with built-in weld cleaning function
- DC+ and DC- MMA welding
- 220 A with 20% duty cycle from a 1-phase power supply
- WeldClean electrolytic cleaning process speeds up post-processing of welds
- Large LCD display
- Four memory channels
- Auto Pulse with frequency control
- AC balance control
- Three alternative transport cart options
- Set parameters remotely with an optional on-torch remote
- Control your welding with the FR41 wired foot pedal



## PRODUCT OPTIONS



### Minarc T 223 ACDC GM

Professional and portable multi-voltage 110/230V welding power source for DC and AC TIG welding. Includes pulse, memory channels, remote control options, and MMA. Minarc T 223 ACDC offers 220 A @ 20% duty cycle from a 1-phase mains supply, weighing 16.8 kg. It also includes the MAX WeldClean process in a standard delivery.



### Minarc T 223 ACDC GM AU

Professional and portable multi-voltage 110/230V welding power source for DC and AC TIG welding. Includes pulse, memory channels, remote control options, and MMA. Minarc T 223 ACDC offers 220 A @ 20% duty cycle from a 1-phase mains supply, weighing 16.8kg. It also includes the MAX WeldClean process in a standard delivery. This model is specifically for the Australian market due to the different mains plug fitted and VRD active.



## FEATURES



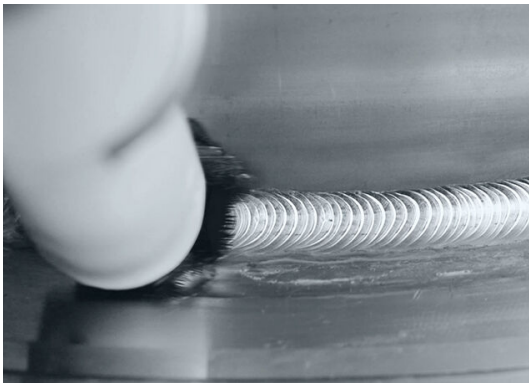
### Portable and lightweight

Its portable size makes Minarc T 223 ACDC GM easy to carry. Take it with you anywhere on-site for a convenient combination of powerful welding performance and easy-to-use electrolytic cleaning.



### Powerful welding performance

Minarc T 223 ACDC GM is a professional TIG welder with high-quality welding performance and easy-to-use controls. It offers AC and DC TIG welding for working on a wider range of metals and thicknesses.



### Weld and clean with one machine

MAX WeldClean lets you complete high-quality welds without using a separate weld cleaning machine. Save time and money by quickly activating cleaning mode for a powerful electrolytic weld cleaning process right after completing a weld. Postprocessing the welds has never been so fast!



### A wide range of accessories

Complete your welding toolbox with the FR41 wired foot pedal and on-torch remote control, or add a transport cart suitable for your workshop's needs.





### Fast and accurate control

A large, clear, and bright color LCD display is easy to see in different work environments, and an intuitive control knob combined with simple on-screen process selection makes welding easier.



### Designed and manufactured in Finland

The Minarc T 223 ACDC GM TIG welding machine is designed and manufactured in Finland. Our professionals have tested it to meet the high standards of medical and food equipment manufacturing. It's also rugged enough to withstand the harsh conditions of metal fabrication.



### 3-year warranty

Extend your warranty for up to 3 years of coverage by purchasing your new Minarc T 223 ACDC GM from a registered Kemppi representative and logging in to our My Fleet service.



## ACCESSORIES



### Master Cooler 05M

Cooling unit for easy, fast, and convenient coolant filling with integrated LED lighting for cooling liquid levels.



### Flexlite TX

The Flexlite TX torches are designed for use with Kemppi's TIG welding machines. The torch range includes several neck models, offering superb cooling performance and good access to challenging joint designs.



### T22M

T22M is a 2-wheel cart with a floor-level gas bottle rack. The maximum recommended size of the gas bottle is 20 liters.



### T32A

T32A is a 2-wheel lightweight travel solution for easy transport of welding machines.



### S10M Skies

Skies under the power source to prevent abrasive wear or hot steel plates from damaging the power source case.



### FR41

Wired foot remote pedal control.



### TXR10

Optional on-torch remote control with a roller-type current control switch. Available for water and gas-cooled Flexlite torch models.



### TXR20

Optional on-torch remote control with a rocker type current control switch. Available for water and gas-cooled Flexlite torch models.



### MAX WeldClean Starter Kit, small

Convert your TIG welding torch to cleaning mode using the MAX WeldClean Starter Kits. The kits include all the necessary torch brush conversion parts, a cleaning solution dispensing tub with a screw-type lid, a neutralizing fluid pump spray bottle, and assembly instructions.



### MAX WeldClean Starter Kit, large

Convert your TIG welding torch to cleaning mode using the MAX WeldClean Starter Kits. The kits include all the necessary torch brush conversion parts, a cleaning solution dispensing tub with a screw-type lid, a neutralizing fluid pump spray bottle, and assembly instructions.



### Earth return cable 35 mm<sup>2</sup>, 5 m

5-meter earth return cable with 35 mm<sup>2</sup> cross-sectional area. The earth return cable completes the electrical circuit for welding. The cable is connected from the welding power source to the workpiece.



### Earth return cable 35 mm<sup>2</sup>, 10 m

10-meter earth return cable with 35 mm<sup>2</sup> cross-sectional area. The earth return cable completes the electrical circuit for welding. The cable is connected from the welding power source to the workpiece.



### Earth return cable 35 mm<sup>2</sup>, 15 m

15-meter earth return cable with 35 mm<sup>2</sup> cross-sectional area. The earth return cable completes the electrical circuit for welding. The cable is connected from the welding power source to the workpiece.



### Earth return cable 35 mm<sup>2</sup>, 20 m

20-meter earth return cable with 35 mm<sup>2</sup> cross-sectional area. The earth return cable completes the electrical circuit for welding. The cable is connected from the welding power source to the workpiece.



### Earth return cable 50 mm<sup>2</sup>, 5 m

5-meter earth return cable with 50 mm<sup>2</sup> cross-sectional area. The earth return cable completes the electrical circuit for welding. The cable is connected from the welding power source to the workpiece.



### Earth return cable 50 mm<sup>2</sup>, 10 m

10-meter earth return cable with 50 mm<sup>2</sup> cross-sectional area. The earth return cable completes the electrical circuit for welding. The cable is connected from the welding power source to the workpiece.



### Earth return cable 50 mm<sup>2</sup>, 20 m

20-meter earth return cable with 50 mm<sup>2</sup> cross-sectional area. The earth return cable completes the electrical circuit for welding. The cable is connected from the welding power source to the workpiece.



### Earth return cable 50 mm<sup>2</sup>, 30 m

30-meter earth return cable with 50 mm<sup>2</sup> cross-sectional area. The earth return cable completes the electrical circuit for welding. The cable is connected from the welding power source to the workpiece.





## TECHNICAL SPECIFICATIONS

### Minarc T 223 ACDC GM

Product code	MIT223ACDCGM
Connection voltage 1~ 50/60 Hz	220...240 V $\pm 10\%$ ; 110...120 V $\pm 10\%$
Fuse	16 A
Minimum generator power	8 kVA
Output (TIG) 20% ED	220 A
Output (TIG) 40% ED	130 A (@MV low range)
Output (TIG) 60% ED	170 A; 110 A (@MV low range)
Output (TIG) 100% ED	160 A; 90 A (@MV low range)
Output (MMA) 35% ED	170 A
Output (MMA) 40% ED	90 A (@MV low range)
Output (MMA) 60% ED	130 A; 70 A (@MV low range)
Output (MMA) 100% ED	110 A; 60 A (@MV low range)
Open circuit voltage	95 V
Stick electrode sizes	1.6...4.0 mm
Welding current and voltage range, TIG @ 220–230 V	5 A/8 V...220 A/20 V
Welding current and voltage range, TIG @ 110–130 V	5 A/8 V...130 A/16 V
Welding current and voltage range, MMA @ 220–230 V	15 A/15 V...170 A/34 V
Welding current and voltage range, MMA @ 110–130 V	15 A/15 A...90 A/30 V
External dimensions LxWxH	520 x 250 x 379 mm
Weight (no accessories)	16.80 kg
Degree of protection	IP23
Standards	EN IEC 60974-1, -3, -10 IEC 61000-3-12 AS 6097.1 AS 1674.2
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C



## Minarc T 223 ACDC GM AU

Product code	MIT223ACDCGMAU
Connection voltage 1~ 50/60 Hz	230...240 V $\pm 10\%$ ; 110 V $\pm 10\%$
Fuse	15 A
Minimum generator power	8 kVA
Output (TIG) 20% ED	220 A
Output (TIG) 40% ED	120 A (@MV low range)
Output (TIG) 60% ED	170 A; 100 A (@MV low range)
Output (TIG) 100% ED	160 A; 90 A (@MV low range)
Output (MMA) 35% ED	170 A
Output (MMA) 40% ED	90 A (@MV low range)
Output (MMA) 60% ED	130 A; 70 A (@MV low range)
Output (MMA) 100% ED	110 A; 60 A (@MV low range)
Open circuit voltage	23 V
Stick electrode sizes	1.6...4.0 mm
Welding current and voltage range, TIG @ 220–230 V	5 A/8 V...220 A/20 V
Welding current and voltage range, TIG @ 110–130 V	5 A/8V...120 A/15 V
Welding current and voltage range, MMA @ 220–230 V	15 A/15 V...170 A/34 V
Welding current and voltage range, MMA @ 110–130 V	15 A/15...90 A/30 V
External dimensions LxWxH	520 x 250 x 379 mm
Weight (no accessories)	16.80 kg
Degree of protection	IP23
Standards	EN IEC 60974-1, -3, -10 IEC 61000-3-12
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C

## ACCESSORIES

### Master Cooler 05M

Product code	MSMC05M
Recommended coolant	MGP 4456 (Kemppi mixture)
External dimensions LxWxH	555 x 253 x 215 mm
Weight (no accessories)	11.5 kg
Degree of protection	IP23S
Standards	IEC 60974-2, -10
Tank volume	2.3 l
EMC class	A
Cooling power	0.5 kW
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C



### T22M

Description	Transport carriage
Product code	T22M

### T32A

Description	2-wheel light trolley
Product code	T32A

### S10M Skies

Product code	S10M
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### FR41

Product code	FR41
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### TXR10

Description	remote control
Product code	TXR10W / TXR10G

### TXR20

Description	remote control
Product code	TXR20W / TXR20G

### MAX WeldClean Starter Kit, small

Product code	MAXCSTKS
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### MAX WeldClean Starter Kit, large

Product code	MAXCSTKL
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### Earth return cable 35 mm<sup>2</sup>, 5 m

Product code	6184311
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### Earth return cable 35 mm<sup>2</sup>, 10 m

Product code	6184312
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### Earth return cable 35 mm<sup>2</sup>, 15 m

Product code	6184313
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### Earth return cable 35 mm<sup>2</sup>, 20 m

Product code	6184314
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### Earth return cable 50 mm<sup>2</sup>, 5 m

Product code	6184511
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### Earth return cable 50 mm<sup>2</sup>, 10 m

Product code	6184512
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### Earth return cable 50 mm<sup>2</sup>, 20 m

Product code	6184514
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### Earth return cable 50 mm<sup>2</sup>, 30 m

Product code	6184517
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**Kemppi** is the design leader in the arc welding industry. We are committed to boosting the quality and productivity of welding by continuous development of the welding arc and by working for a greener and more equal world. Kemppi supplies sustainable products, digital solutions, and services for professionals from industrial welding companies to single contractors. The usability and reliability of our products is our guiding principle. We operate with a highly skilled partner network covering over 70 countries to make its expertise locally available. Headquartered in Lahti, Finland, Kemppi employs close to 800 professionals in 16 countries and has a revenue of 195 MEUR in 2022.

