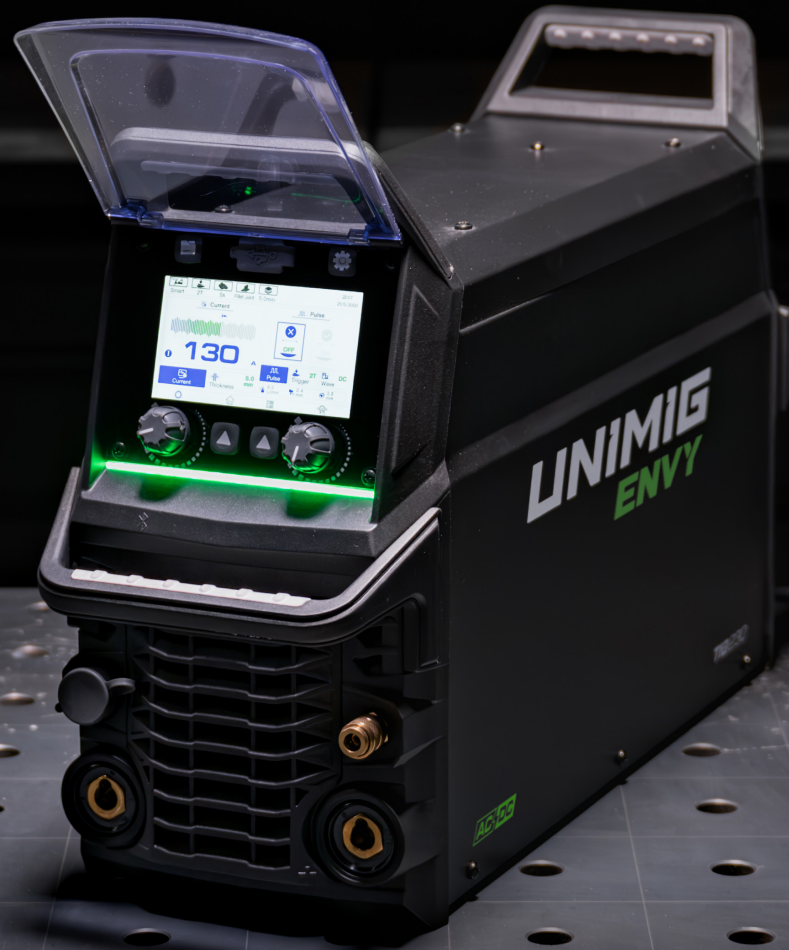
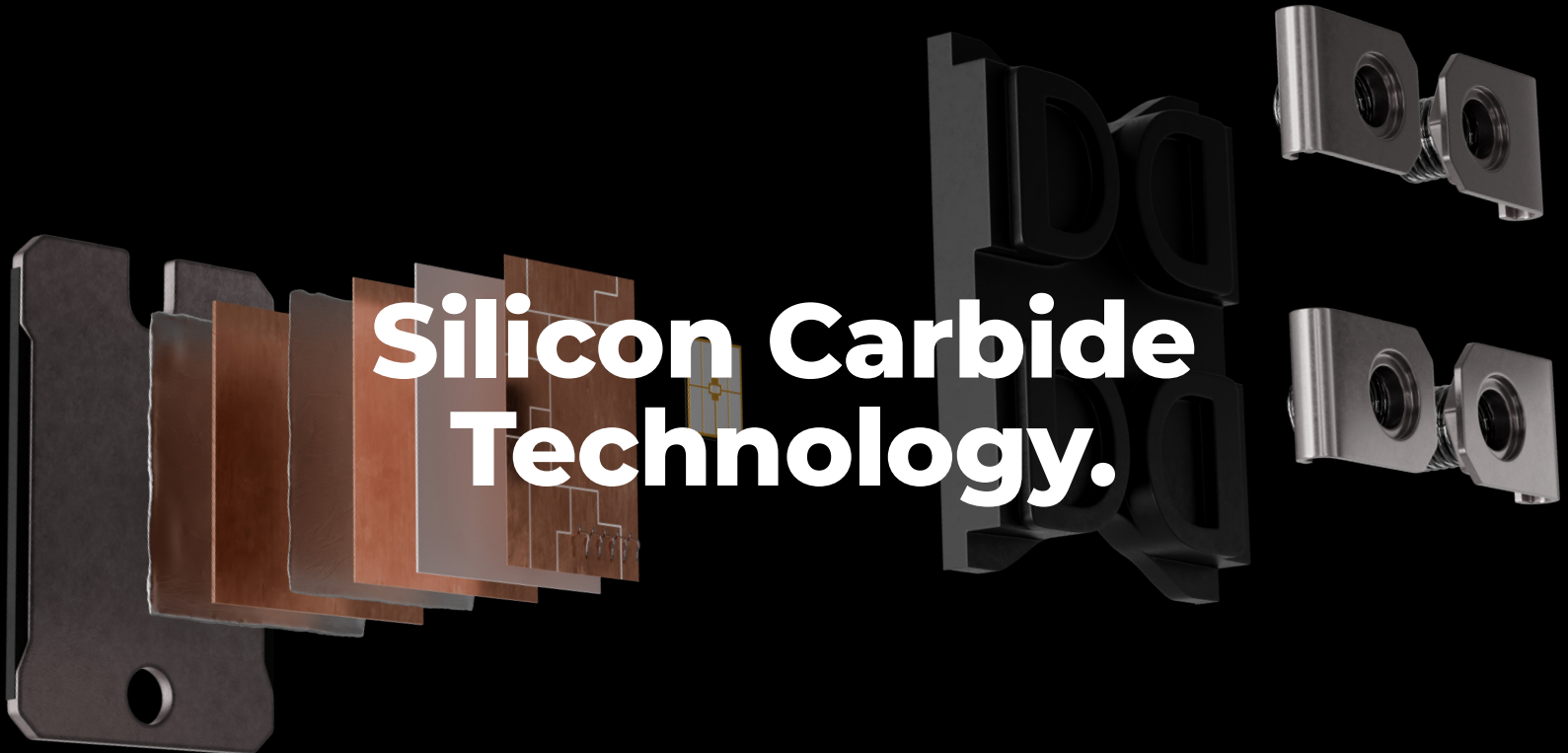


# UNIMIG ENVY



TIG 230 AC/DC



# Silicon Carbide Technology.

The first of its kind, the new silicon carbide (SiC) MOSFET is the next-generation of semiconductor technology.

This SiC MOSFET can easily achieve a high switching frequency of 100K. With a higher switching frequency, the high-frequency characteristics are improved, and the machine's main frequency is increased to 100kHz, more than double that of a traditional MOSFET, and with less conductor resistance.

This higher frequency and a low conduction resistance means the DC current's waveform ripple is smaller, providing a more stable output, better arc characteristics, and finer control over the arc.

These SiC MOSFETs are smaller, and this reduction in size minimises the electrical loss, and increases the energy efficiency, surpassing that of traditional MOSFET technology.

Silicon carbide MOSFETs have a significantly higher impact resistance and temperature resistance compared to traditional ones. The higher impact resistance allows it to withstand higher voltages, while the increase in temperature resistance (150°C vs 120°C) means that it will perform well even in higher temperatures.

Our new SiC MOSFET works to make the machine more reliable, with a superior arc performance and better weld quality compared to previous MOSFET technology.

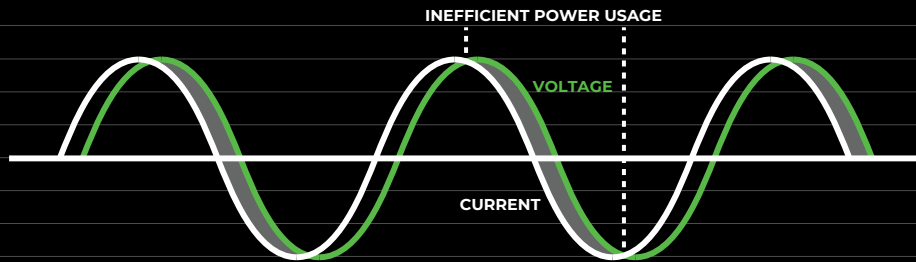


## Dual Plug Compatibility

Experience unmatched flexibility by connecting to either a 10A or 15A outlet. In 10A mode, the duty cycle is adjusted to optimise performance with a 10A outlet. Switch to 15A mode to increase the duty cycle, allowing you to fully harness the power capabilities of a 15A outlet for maximum performance.

## 5" Colour LCD Touchscreen

Change settings with ease with the intuitive touchscreen controls and next-generation user interface.



## PFC Power Factor Correction

Get the most out of your machine. The PFC maximises the electrical efficiency of the machine and automatically compensates for any voltage fluctuations, so you get more output power and the internal components last longer.

## Foot Control Ready

This machine supports the connection of both a wired or wireless foot control for extra versatility and convenience while welding. You can adjust your amperage hands-free to avoid disrupting your torch movement, and the wireless option reduces cables and adds greater manoeuvrability as well.





## ▯▯▯ Speed Start

Speed up the formation of the weld puddle by applying a synergic pulse program to the beginning of the weld. The initial pulse works to melt the joint edges faster, for quicker puddle formation compared to a standard arc start.

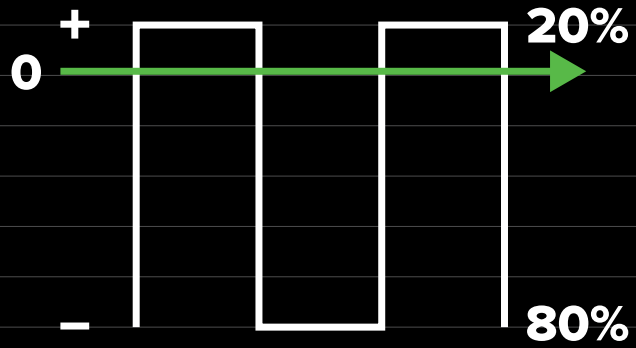
## ••• TackPlus

TackPlus is a tack welding program used to create evenly spaced and sized fusion tack welds along a joint with minimal heat input.



## ✦ Steady Arc

Steady Arc adjusts the welding current based on the arc voltage. When the voltage goes down, the amperage will go up, and vice versa, to give a consistent weld puddle, a sharper arc and a constant heat input. Weld speeds can be increased with no fluctuations in the weld current.



## Amplitude Control

Amplitude Control adjusts the percentage of the AC waveform that is on the negative side for a more penetrative weld. Increasing the percentage of electrode negative puts more heat into the base plate, allowing for greater penetration, a narrower arc, plus faster weld speeds and metal deposition.



## Mixed AC/DC

Experience the best of both worlds. Mixed AC/DC combines the efficiency of AC and the penetration of DC-TIG in one weld. With it, you get faster welding speeds, better penetration, a faster weld puddle on cold workpieces, and you can weld thicker materials.



## TIG Smart-Set

The easiest way to set up for a TIG weld, simply set your filler material, joint type, tungsten diameter, and material thickness and you're good to go!

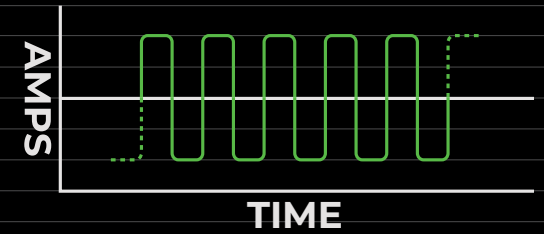
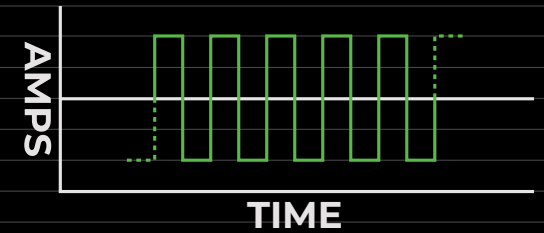
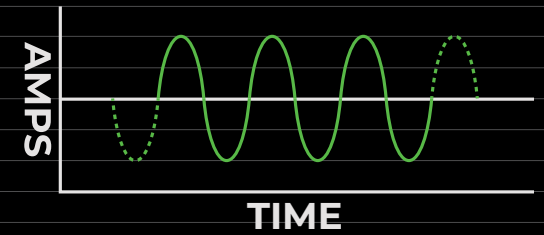


## 7 Low Amperage TIG With Stable Arc

Maintain a stable arc even when TIG welding as low as 2A. The new and improved SiC IGBT technology means you can hold a steady arc no matter how low your amperage.

## Cap Shaping

Get the perfect tungsten shape for your aluminium welds every time with just the click of the trigger. Turn the cap shaping feature on, press the torch trigger, and the machine will prep the optimal tungsten shape for your aluminium welds.



## AC & DC Waveforms

Customise your waveform in both DC and AC weld modes. Choose from your preferred welding waveform or use a combination of two to adjust the arc characteristics to suit your welding needs.

# UNIMIG ENVY TIG 230 AC/DC



TIG

MMA

**5 YEAR**  
WARRANTY

## Specifications

SKU	U11024
Primary Input Voltage	240V Single Phase 50/60Hz
Supply Plug (A)	10/15
I <sub>eff</sub> (A)	9.7 (10A) / 14.8 (15A)
I <sub>max</sub> (A)	29.3
Rated Output (A)	2-230
No Load Voltage (V)	100
Protection Class	H
Insulation Class	IP21S
Minimum Generator (kVA)	8.0
Dinse Connector	35/50
Standard	AS 60974.1
Welds	<b>TIG:</b> Aluminium, Magnesium, Zinc Alloys, Mild Steel, Stainless Steel, Copper, Silicon Bronze, Titanium
	<b>MMA:</b> Mild Steel, Stainless Steel, Cast Iron
Warranty (Years)	5

## TIG Specifications

TIG Function Type	AC/DC HF TIG & AC/DC Pulse
TIG Welding Current Range	2-230A
TIG Duty Cycle @ 40°C	15% @ 230A, 60% @ 115A, 100% @ 89A (10A) 35% @ 230A, 60% @ 176A, 100% @ 136A (15A)
TIG Welding Thickness Range	1-12mm

## MMA Specifications

STICK Welding Current Range	10-200A
STICK Duty Cycle @ 40°C	10% @ 200A, 60% @ 82A, 100% @ 63A (10A) 20% @ 200A, 60% @ 115A, 100% @ 90A (15A)
STICK Electrode Range	2.5-4.0mm
STICK Welding Thickness Range	2-12mm

## Size & Weight

Dimensions (mm)	680x210x395mm
Weight (kg)	20.6kg

## Recommended Accessories



**ENVI TIG 230 AC/DC  
Trolley**

U11025



**ENVI TIG 230 AC/DC  
Water Cooler**

U11026



**T3W TIG Torch**

UT3W-3KHL-4M (4m)  
UT3W-3KHL-8M (8m)



**Low Conductivity  
Coolant**

U11028



**Wireless Foot Pedal**

U11100

## Additional Features

### Pulse MMA

Pulse MMA welding helps reduce spatter, improves heat control and allows for an easier removal of slag. It also improves the speed and efficiency of vertical up welds by eliminating the use of the "Christmas Tree" technique, while still maintaining root fusion.

### Arc Force

The Arc Force feature helps to keep the arc stabilised throughout the weld, by increasing or decreasing the peak current to compensate for your arc length, preventing the arc from cutting out or the electrode from sticking.

### Job Memory

The job memory function allows you to enter and store weld parameter settings. Weld parameters can be further adjusted and stored as required. A total of 100 Jobs can be memorised and stored for recall.

### Heat Control Trigger (HCT) Mode

Heat Control Trigger Mode lets you set a base current, which you can switch to at any time during a weld by pressing the trigger button. Heat Control Trigger Mode is great for manual heat input control as you go.

### Anti Stick

The Anti Stick feature, which is always on, prevents your electrode from sticking to your workpiece. When the machine detects sticking, the current will drop significantly, so the electrode can be removed.

### Hot Start

The Hot Start feature gives a boost of current at the beginning of your weld, stabilising your ignition and eliminating any issues with striking an arc, especially on difficult electrodes.

### Smart Fan

Smart Fan diminishes noise, saves power, helps reduce energy costs, and minimises the number of contaminants being pulled through the machine.

### Higher Pulse Frequency in AC & DC

With a pulse frequency as high as 999 pulses per second in both AC and DC TIG, you can get as many pulses as you need for any scenario.

### Generator Compatible

Going off the grid? The ENVI TIG 230 AC/DC can be connected to a generator, we recommend one with at least 8kVA.

### Tungsten Optimiser

Select the tungsten diameter and get an optimised welding arc ignition in both AC and DC TIG based on the chosen diameter.

### IP21S Rating

Rated IP21S, so it's protected from touch by fingers and objects greater than 12mm, and water spray from a vertical direction.

### MMA (STICK)

You'll be able to weld anything, including cellulosic electrodes.