MEGMEET
WELDING TECHNOLOGY

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MEGMEET's strong technical strength, extensive industry application experience, relentless attention to customer needs, and the spirit of continuous innovation enable us to bring tailor-made products and solutions to help customers achieve greater success.

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2024-07

RevoTig DC

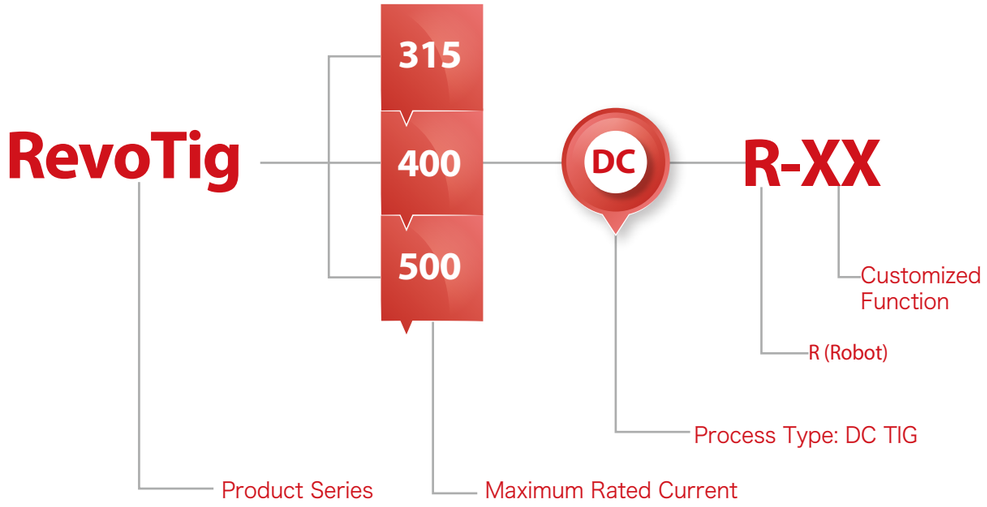
Full-digital IGBT Inverter Multifunctional DC TIG

MEGMEET
WELDING TECHNOLOGY

RevoTig 315/400/500 DC

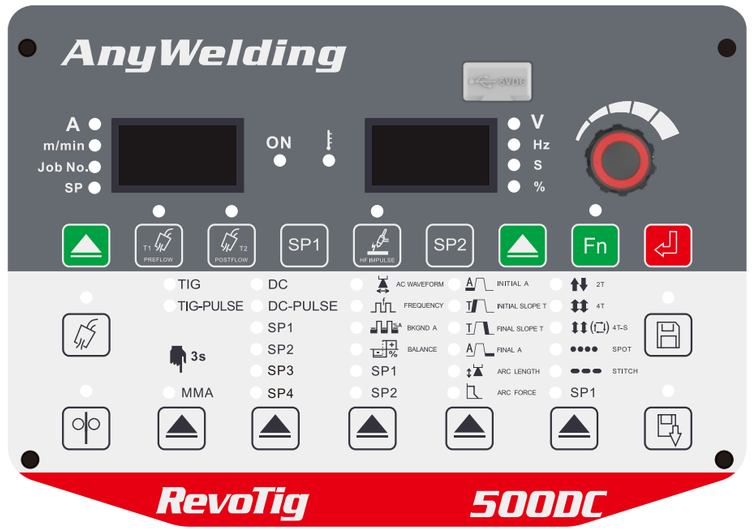
(Full-digital IGBT Inverter
Multifunctional DC TIG)

DC | 380 3PH | 40~70 Hz | CC | Class D 600V/300A



Product Features

- Wide applications: supporting carbon steel, stainless steel, alloy steel and other metal materials;
- Comprehensive functions with pulse DC TIG, high-speed TIG spot welding, MMA and others;
- Full digital intelligent control is adopted. Internal background menu is open and adjustable to better satisfy more technological requirements of various working conditions;
- VRD anti-shock function with adjustable arc force and better arc stiffness in MMA mode;
- IOT interface is reserved to quickly access to Megmeet SMARC management platform or the third-party welding data system to realize efficient welding interconnection;
- Communication interface is reserved to support multiple types of communication protocols to connect with different brands of robots and automation devices;
- Software is upgradable through U-disk interface to help customers easily obtain Megmeet foremost welding process or customized functions;
- Optional foot switch, water-cooler, water-cooled torch, trolley, etc.



☑ Carbon Steel ☑ DC ☑ Spot Welding ☑ U-disk
☑ Stainless Steel ☑ Pulse ☑ MMA ☐ SMARC IOT

Extensive Welding Process

Diversified welding applications from ultra-thin to medium-thick plates with high-performance welding quality.

Welding Process Type	Welding Process Name	Advantage	Material	Industry
DC TIG	DC TIG	Stable arc, high adaptability for gap, easier for one-sided welding and double-sided forming	Carbon steel, stainless steel, titanium alloy, etc	Petrochemical, pressure pipeline&vessel backing weld, etc.
DC PULSE TIG	DC-Pulse TIG	Low heat input, beautiful fish-scale shape is available, pulse frequency up to 3000Hz	Carbon steel, stainless steel, titanium alloy, etc	Sheet metal and welding occasions with requirements for heat input and weld form, etc.
MMA	MMA	Easy arc start, non-stick with rod, softer arc&less spatter, and beautiful weld shape	Carbon steel, alloy steel, stainless steel, etc.	Boiler, pressure vessel, petrochemical industry, pressure pipeline, outdoor construction, etc.

Multiple waveform controls provide optimal combination according to welding needs

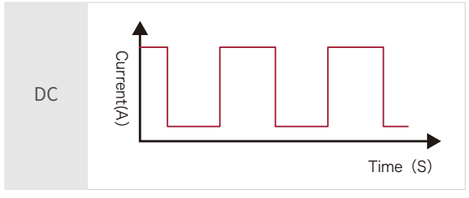
- With triangle wave, square wave, sine wave, trapezoidal wave and others;
- Optimal setting for waveform in different welding phases.

Conventional TIG Welding

Triangular-wave TIG Welding

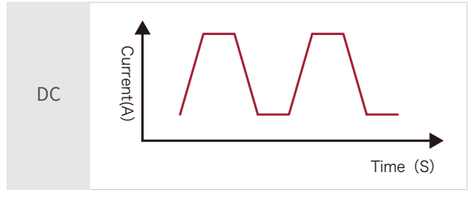
Square Wave

Precise control in current waveform and accurate adjustment in parameters of peak current, base current, frequency and others, with high arc stability and good dynamic characteristics, applicable for various stainless steel welding.



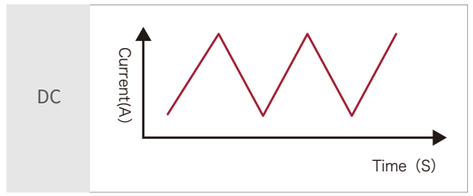
Trapezoidal Wave

Soft arc brings good wetting effect to fusion pool, suited to groove welding and overhead welding.



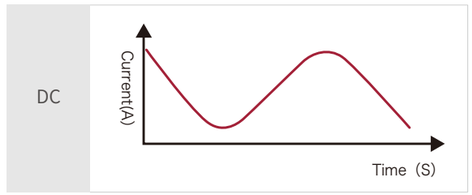
Triangle Wave

Short peak-time and low heat-input, suitable for thin sheet welding.



Sine Wave

Arc noise is smaller and softer.



Arc is able to start and stabilize at 3A in DC welding

- Unique circuit design supports arc to start at 3A and stabilize at 3A in DC welding, ensuring continuous arc in very small current.

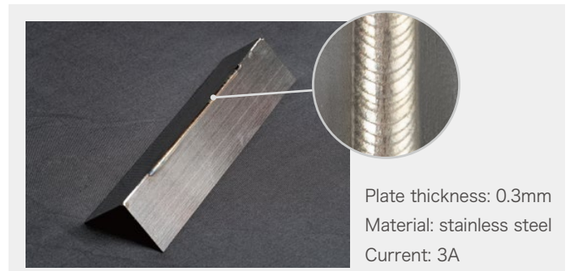
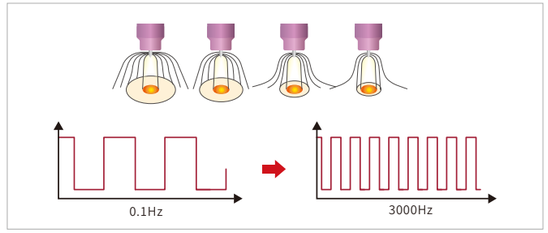


Plate thickness: 0.3mm
Material: stainless steel
Current: 3A

0.1Hz-3000Hz High Frequency Output

Suited to high-quality welding from extreme thin to medium-thick plates

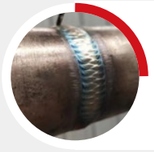
- In low-frequency pulse (0.1-10Hz), arc column is wide, adaptive for all-position welding;
- In medium-high frequency pulse (10-3000Hz), arc directivity is strong and heat input is low, supporting high-speed welding and fillet welding in thin plates.



Regular 1.5Hz

3000Hz high-frequency enables more concentrated arc

Be capable to weld diverse metal materials



Carbon Steel

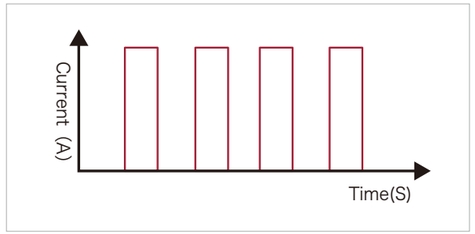
Output current ripple is small and arc is stable. Fusion pool is well controllable.

Stainless Steel

High-frequency pulse effectively compresses welding arc and reduce heat-input, bringing easier weldability and better welding shape to stainless steel thin plate.

High-stability TIG Spot Welding Function

- Fine regulation is suitable for high-quality welding of ultra-thin plates;
- Setting range of spot welding time is 0.1-30 seconds (tuning unit is 0.1 seconds). Arc is stable and welding spot is consistent.



Spot welding function is not used

Spot welding function is used

U-Disk Interface

- To ensure customers quickly obtaining Megmeet foremost welding software and customized functions;
- Welding process and software could be sent to user by email and upgraded into machines through U-disk interface.

Circulating Water Cooler (Optional)

Circulating Water Cooler AnyCool-66	
Water cooler power supply	Powered by welding machine
Rated power	370W
Rated voltage	380V AC
Cooling water capacity	6.8L
Cooling water flow	3.5L/min
Cooling water maximum lift	20m
Flow alarm	√

Foot Switch

- Easy operation in current adjustment;
- Current is able to be set with the maximum range: 5~500A;
- 5-pin control cable and 2 meters of length (can be extended as demand) to meet long-distance welding;
- Control modes are optional. Current can be adjusted by foot switch or by welding machine as needed.

Technical Specification

Model	RevoTig 315DC	RevoTig 400DC	RevoTig 500DC
Control method	Full-digital IGBT Control	Full-digital IGBT Control	Full-digital IGBT Control
Input voltage	3 Phase AC 400 V(-28%~18%)	3 Phase AC 400 V(-28%~18%)	3 Phase AC 400 V(-28%~18%)
Input frequency	40~70Hz	40~70Hz	40~70Hz
Inverter switching frequency	110KHz	110KHz	110KHz
Rated input capacity	12.2KVA/11.2KW	16.8KVA/15.8KW	23.6KVA/22.2KW
Rated output no-load voltage	68V	68V	68V
Rated output current	315A	400A	500A
Rated output voltage	22.6V	26V	30V
Duty cycle	100%@315A	100%@400A	40%@500A 100%@400A
Set current range	DC TIG 3~315A	DC TIG 3~400A	DC TIG 3~500A
	MMA 30~315A	MMA 30~400A	MMA 30~500A
Power Factor	0.94	0.94	0.94
Efficiency	91%@315A	91%@400A	90%@500A
DC pulse frequency	0.1~3000Hz	0.1~3000Hz	0.1~3000Hz
Pulse Width	1~99%	1~99%	1~99%
Arc striking method	High frequency arc ignition/lifting arc ignition		
Parameter JOB	50 JOB	50 JOB	50 JOB
Rise Time	0-20s Continuous regulation (0.1s increments)		
Fall time	0-20s Continuous regulation (0.1s increments)		
Pre-gas time	0-25s Continuous regulation (0.1s increments)		
Post-gas time	0-25s Continuous regulation (0.1s increments)		
Output terminal	Quick plug	Quick plug	Quick plug
Foot Switch(optional)	√	√	√
The welding torch contains a foot pedal signal	Can be adapted to foot pedal	Can be adapted to foot pedal	Can be adapted to foot pedal
Protection rating	IP23 S	IP23 S	IP23 S
Insulation class	H	H	H
Cooling method	Forced-air	Forced-air	Forced-air
Dimensions (L×W×H)	647×291×572mm	647×291×572mm	647×291×572mm
Weight	37kg	37kg	37kg
Extension function			
IOT SMARC System (optional)	√	√	√
USB Upgrade	√	√	√
Robot (optional)	√	√	√
LCD front panel (optional)	√	√	√