RAZORWELD TIG320RZ AC/DC

RazorWeld

TIG/MMA - 320 Amp AC/DC Inverter Welder

Welds: Aluminium, Magnesium, Zinc Alloys, Steels, Stainless, Cast Iron, Bronze, Copper

XCEL-ARC

RAZORWELD TIG320CRZ AC/DC

3 YEAR MACHINE WARRANTY

TIG/MMA 320 Amp 415V AC/DC Inverter Welder
Intelligent Digital Control, 43KHz Inverter
Multiple AC Wave Forms with Mix Arc
Integeral Water Cooler, H.D Trolley

Features

- **AC TIG**
  - HF Arc Ignition
  - Lift Arc Ignition
  - Square Wave Form
  - Trapezoidal Wave Form
  - Sine Wave Form

	Amps	Frequency
- AC Wave Frequency	5~200A	50~200 Hz
	200~320A	50~100 Hz
- AC Pulse Frequency	Amps	Frequency
	5~200A	0.5~20 Hz
	210~320A	0.5~10 Hz
- Pulse Width Control	5~95%	
- AC Balance Control	+/- 10	20~60% EN

- **DC TIG**
  - HF Arc Ignition
  - Lift Arc Ignition

	Amps	Frequency
- DC Pulse Frequency	5~320A	0.5~200Hz

- **MIX ARC TIG (AC-DC)**
  - HF Arc Ignition
  - Lift Arc Ignition

- AC-DC Mix Cycle	5~95% DC
- AC Wave Frequency	50-100 Hz
- Mix Pulse Frequency	1~10 Hz

- **Weld Sequence Control**

- Pulse Width Control	5~95%
- Start Current	5~320A
- Base Current	5~320A
- Up Slope	0~15 sec
- Down Slope	0~15 sec
- Adjustable Pre Gas	0.5~10 sec
- Adjustable Post Gas	0.5~15 sec
- Trigger Control	2T-2s ~ 4T-4s
- Remote Amp Control	Optional

- **MMA (stick electrode)**
  - AC and DC Output

- Ignition Amp	10-80A
- Ignition Time	0.01-1.5 sec

- Arc Force (adjusts arc energy to suit electrode application)

Technical Data

Power Supply		400V 3-Phase ±15%
Rated Input Power	TIG	9.0 kVA
	MMA	10.0 kVA
Rated Output	TIG	10~320A / 10.4~22.8V
	MMA	10~270A / 20.4~30.8V
No Load Voltage		73V
Duty Cycle @ 40°C as per AS/NZ60974-1		30% @ 320 Amps TIG 30% @ 270 Amps MMA
Power Factor		?
Protection Class		IP21S
Insulation Class		F
Dimensions (LxWxH)		570 x 220 x 410mm
Weight		26.2 Kg
Certification Approval		AS/NZ60974-1

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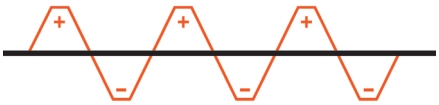
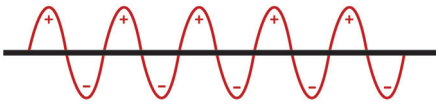
AC WAVE FORMS

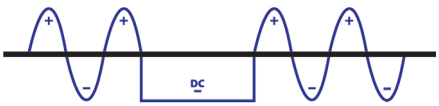
AC Square Wave: Allows the current to change from electrode + positive to electrode - negative very quickly. This produces high voltage as the current switches polarities allowing the arc to restart easily. The arc can be maintained without the use of high-frequency and the fast transitions provide for responsive, dynamic and focused arc for better directional control.



AC Triangle Wave: Characterised by a particularly soft and concentrated arc combining the effect of peak amperage while reducing overall heat input. Leads to quick puddle formation and, because of lowered heat input, reduced weld distortion, especially on thin material This wave form is ideal for very precise welding of thin Aluminum plate.



AC Sine Wave: It is the standard Wave form, characterised by low noise and excellent arc control, it also gives the soft-arc feel of a conventional power source, while using square transitions to eliminate the need for continuous HF.



AC MIX ARC: This function of MIX AC/DC makes it possible to modulate the welding current, alternating a period of TIG AC with a period of TIG DC-. This means that the efficiency of AC TIG welding can be combined with the high penetration of DC TIG welding, obtaining higher welding speeds and establishing the weld puddle quicker on cold workpieces. The operator adjustable parameter is the percentage of AC waveform compared to DC- waveform over the entire period, which can be varied from 5~95%. Ideal for welding heavier gauge material with less current than AC welding.

Overview

The Razorweld TIG320RZ ACDC is a complete and professional TIG /MMA welding machine that is ideal for all high-end aluminium, stainless steel fabrication, marine and industrial engineering welding situations. Designed and built to our specification and manufactured in compliance to AS/NZ60974-1.

AC TIG: Featuring multiple AC output wave forms of Square, Trapezoidal and Sine, combined with AC Balance and AC Frequency control you have the ultimate tool in AC TIG Welding mode to suit all your AC TIG welding requirements.

DC TIG: Latest 43KHz inverter frequency technology provides the ulitmate in smooth and stable arc condition for DC TIG welding mode, coupled with the Digital Weld Sequence Program provides complete and professional DC TIG Welding function.

MIX ARC: This function of MIX AC/DC makes it possible to modulate the welding current, alternating a period of TIG AC with a period of TIG DC-. This means that the efficiency of AC TIG welding can be combined with the high penetration of DC TIG welding, obtaining higher welding speeds and establishing the weld puddle quicker on cold workpieces. The operator adjustable parameter is the percentage of AC waveform compared to DC- waveform over the entire period, which can be varied from 5~95%.

MMA: Full attention is given to MMA welding providing both DC and AC output modes. Ignition AMP and Ignition Time provides for an operator controlled Hot Start of the weld by applying extra current to the set weld current over a preset time. Arc force allows adjustment of the arc transfer from a digging action through to a softer layering effect. The complete and professional MMA function allows you to set the ideal arc condition no matter what the electrode and welding situation.

Weld Sequence Control: The Digital Weld Sequence Program and intelligent MCU software provides full TIG functionality in AC, DC and MIX modes. Adjustable pre-sets include Pre-Gas time, Start Current, Up Slope, Down Slope, Finish Current level and Post-Gas time. Digital Pulse parameter pre-sets include Peak & Base current; Pulse Frequency & Pulse Width. HF and LIFT Arc Ignition.

Torch Mode: Multiple torch trigger selections of 2T, 2S, 4T, 4S provide complete flexibility and operator control over the weld sequence from start to finish.

Remote Control: The Remote Interface allows connection of either Torch Remote or Foot Pedal for remote control of amperage output.

Job Memory: Job memory function allows you to enter and store weld parameter settings under job numbers. The job number can be recalled to reveal and use the weld parameters stored, weld parameters can be further adjusted and stored as required. A total of 50 Jobs can be memorised and stored for recall.

Water Cooler Control: Activating the water cooler control allows for the water cooler to operate when welding current is available during welding and will switch off automatically after 5 minutes of no welding current.

Product Code: XA-TIG320RZ ACDC-K

Standard Package includes: TIG320RZ ACDC Machine, ARC T4W x 8m Tig Torch, Earth Lead & Arc Lead 35mm x 4m, Argon Regulator