## **AC/DC TIG Welding**



#### **Quick Specifications**

Processes STICK (SMAW) TIG (GTAW) Lift, HF & Pulse

Fabrication, Aerospace, Food/ Beverage, Contractors, Installation/ Repair, Dairy Industry.

Input Voltage 208-230/460 VAC 1/3 Phase

Input Frequency 50/60 Hz

Rated Output @ Duty Cycle 200A/18V @ 20% TIG 160A/26V @ 40% STICK

Output Range 5–200A DC Mode TIG 10-200A AC Mode TIG 5-160A DC Mode STICK 10-160A AC Mode STICK

**Weight** 37.5 lb (17 kg)

#### Package Includes

SANARG 200AP Power Cord 2 ea Dinse 50mm plugs

#### **Order Information**

Part No: ID-2000TP-U2E Description: SANARG 200AP

# Tough, Compact & Light Weight.

Excellent Performance! Embedded microprocessor with digital controls, delivering full Constant Current output with perfectly smooth, stable arc characteristics for TIG and Stick electrodes, E6010 Cellulose and low hydrogen electrodes.

Primary Smart Switch! Prevents damage to the internal components if installed to improper voltage. Multi voltage 208-230/460 1 or 3 phase providing maximum flexibility.

Thermal Overload Protection! Indicator alerts the operator if duty cycle is exceeded or airflow is blocked.

Remote 14 pin Receptacle Fitted! Makes compatibility of SanRex, competitive remote devices simple.

Excellent Portability! Lightweight, less than 38 lbs.

IP23S! Suitable for outdoor use.

Digital Meters! Voltage and Amperage: Preview and Hold capability.

Heat sensing fan! Operates as needed to cool components & reduce airborne contaminants pulled through the power source.

Dinse Twist Lock Output Terminals! Allow for easy polarity changing and cable connection.

3 Year Warranty!

**Easy to use!** Simple, user friendly setup and operation.

Smart Warning Diagnostics! Alerts operator to power supply abnormalities.

Standards Compliant Integrated VRD! Voltage Reduction Device reduces the OCV when the power supply is not in use. This all but eliminates the risk of electrocution to the operator from the secondary welding circuit.

Job Save & Load! Allows operator to store up to 5 exact optimized welding parameters then digitally recall them with perfect repeatability.

**Lift Start TIG!** Provides TIG arc starting without use of high frequency.

**HF Start TIG!** Provides non-contact arc starting that eliminates tungsten or material contamination.

True Square Wave Output! Highly developed balance and cleaning features deliver an unbeatable welding performance with extended tungsten life on aluminum and magnesium alloys without the need for continuous high frequency.

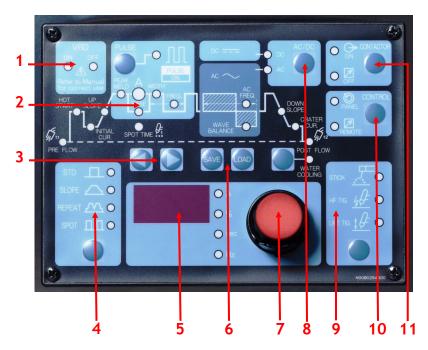
**AC Frequency!** Give the operator control over weld bead shape.

AC Balance! Allows you to fine tune the AC welding cycle.



## **AC/DC TIG Welding**

### Control Panel



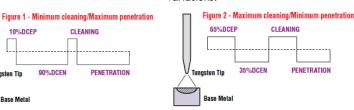
- 1. VRD (Voltage Reduction Device) lights indicate on or off.
- 2. Pulse Function Pressing this button enables the TIG current pulse functions.
- 3. Scroll buttons used to select the parameter to be set. The LED's show which function is being adjusted on the weld sequence graph.
- 4. TIG Mode Functions Pressing this button scrolls through the output TIG function modes (Standard, Slope, Slope w/repeat, Spot).
- 5. Digital LED display welding amperage and parameter values are displayed in this window. Internal warnings such as over temperature, low or high input voltage applied are signaled to the operator by a warning sound and error message on the screen.
- 6. Save/Load Buttons By using the Save & Load buttons the operator can easily save up to 5 welding parameter programs.
- 7. Control knob allows the operator to adjust the output amperage within the entire range of the power source, also used to set each parameter value.
- 8. AC/DC Button Selects between AC or DC welding output.
- 9. Process functions pressing this button scrolls through the output process modes (Stick, Lift & HF Start TIG).
- 10. Remote current function pressing this button enables remote current.
- 11. Remote contactor function pressing this button enables remote contactor on or off.

#### Effects of Wave Balance Adjustment on AC/GTAW - Complete Welding Control

The 200AP AC output uses advanced embedded micro processor technology. This control of the wave form changes the amount of time spent on DCEP (cleaning) and DCEN (penetration) parts of each cycle, increasing arc stability. The DCEP cycle insures that the aluminum oxide is thoroughly removed, allowing the DCEN cycle a thorough penetration of the base metal. Both cycles enhance weld quality and significantly improve performance.

When a conventional system changes its wave balance, there can be as much as a 50% increase in amperage draw.
Sanrex® 200AP amperage draw is unaffected by any adjustments. The 200AP increases efficiency and eliminates tungsten spitting and enables the use of a smaller diameter tungsten electrodes

operate at a higher current levels. Figures 1 & 2 show the difference in TIG torch electrode and heat and cleaning variations.

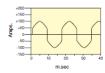


#### SanRex - The Leader in Technology and Service!

Conventional Square AC wave @ 100 amps output

10%DCEP

90%DCEN



Sanrex 200AP Square Wave Inverter Power Supply @ 100 amps output.



## **AC/DC TIG Welding**

### **Features**

#### **Recessed Control Panel**

Simple to use operator interface with protective cover.

#### 14 Pin Remote Receptacle

Easy to connect.

#### Flow Through Cooling

Heat Sensing Fan.

#### **Output Terminals**

Dinse Twist Lock.



#### **Primary Smart Switch**

Multi voltage 208-230/460 1 or 3 phase providing maximum flexibility.

#### **IP23S Design**

For Outdoor Use..

#### **Stackable**

Small footprint with multiple power supplies.

#### **Heavy Duty Case**

ABS High Density Plastic.

### **Specifications**

| 200AP                                       |   |  |  |  |
|---|---|--|--|--|
| Input Voltage                               | Primary Cable Length                      |  |  |  |
| 208-230/460V, 1/3 Phase                     | 10 ft.                                    |  |  |  |
| Rated Output @ Duty Cycle                   | Output Range                              |  |  |  |
| 200A/18V @ 20% TIG (208-230/460V, 1/3 Ph)   | 5-200A DC TIG, 10-200A AC TIG             |  |  |  |
| 160A/26V @ 40% STICK (208-230/460V, 1/3 Ph) | 5-160A DC STICK, 10-160A AC TIG           |  |  |  |
| Input Frequency                             | OCV                                       |  |  |  |
| 50/60 Hz                                    | 65  |  |  |  |
| Lift Mode Short Current<br>25A              | <b>Weight</b> 37.5 lb (17 kg)             |  |  |  |
| Approvals                                   | Dimensions (HxWxD)                        |  |  |  |
| CSA (Pending); IP23S, IEC 60974-1 (CE)      | 14.2 x 7.1 x 16.5 in (360 x 180 x 420 mm) |  |  |  |

|              |               |               | Input Voltage (VAC) |                   |              |                   |                   |                   |     |     |  |
|--------------|---------------|---------------|---------------------|-------------------|--------------|-------------------|-------------------|-------------------|-----|-----|--|
|              | Duty<br>Cycle | Output<br>Ams | OCV                 | Output<br>Voltage | No.<br>Phase | 208 Input<br>Amps | 230 Input<br>Amps | 460 Input<br>Amps | kVA | kw  |  |
| Output TIG   | 20%           | 200           | 65                  | 18                | 3            | 17                | 16                | 8                 | 6   | 4.5 |  |
| Output STICK | 40%           | 160           | 65                  | 26                | 3            | 20                | 19                | 10                | 7.2 | 5.4 |  |
| No Load      | -             | -             | -                   | -                 | 3            | 1.4               | 1.3               | 0.7               | 0.5 | 0.3 |  |
| Output TIG   | 20%           | 200           | 65                  | 18                | 1            | 37                | 33                | -                 | 7.5 | 4.5 |  |
| Output STICK | 40%           | 160           | 65                  | 27                | 1            | 44                | 40                | -                 | 9.0 | 5.4 |  |
| No Load      | -             | -             | -                   | -                 | 1            | 2.5               | 2.2               | -                 | 0.5 | 0.5 |  |



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www.sanrexwelding.com SANPAW 200AP Form No.:071523200AP

Foot Control

## **AC/DC TIG Welding**

### **Ordering Information**

| Product                  | Part Number                      | Description   |
|--------------------------|----------------------------------|---|
| SANARG 200AP             | ID-2000TP-U2E                    | Power Supply includes 2 ea Dinse Plugs & 10ft. Primary Cable.   |
| Accessories              |                                  |   |
| Air cooled TIG Package   | 200AP-ACTK                       | Includes 200AP, regulator/flowmeter with 12.5' gas hose, 12.5' 200 Amp Gas cooled TIG torch, 10N accessory kit, 13' work cable, 13' Electrode cable, 15' foot control.                                |
| Water Cooled TIG Package | 200AP-WTK                        | Includes 200AP, regulator/flowmeter with 12.5' gas hose, 12.5' 250 Amp Water cooled TIG torch, 10N Series accessory kit, Water Cooler, 15' work cable, 15' foot control & running gear/Cylinder Rack. |
|                          | FC1000 - 15ft.<br>FC1001 - 25ft. | Contactor On/Off and Current control with 15ft or 25ft. Cable and 14 pin male plug.   |



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