

SANARG 500AP

AC/DC TIG Welding

Power, Performance, Features... Reliability.



Excellent Performance: Embedded microprocessor with digital controls, delivering full Constant Current output with perfectly smooth, stable arc characteristics for TIG and Stick.

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

Water Cooler Packages: Use a single stock number to order a complete preconfigured system.

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

Simple Automation: Includes Remote Weld ON/OFF, Amperage control, Weld output ON (OK-to-Move).

Quick Specifications

Processes

TIG (GTAW), Pulsed TIG (GTAW-P),
STICK (SMAW), Air Carbon Arc (CAC-A)

Industrial Applications

- Precision fabrication
- Heavy fabrication
- Pipe and tube fabrication
- Aerospace
- Aluminum ship repair
- Anodized aluminum fabrication

Input Voltage

208-240/480 VAC 3 Phase

Input Frequency

50/60 Hz

Rated Output @ Duty Cycle

TIG = 500A @ 60%
STICK = 500A @ 35%

Output Range

5-500A DC
10-500A AC

Power Supply Dimensions

25.19" x 12.20" x 20.86"
(640mm x 310mm x 530mm)

Weight

lb (kg)

Certifications

CSA, IP32, IEC-60974

Warranty

3 Years



SanRex

Customer Care
Tel: 516-625-1313
Fax: 516-625-8845

SANREX CORPORATION
PORT WASHINGTON, NY, USA

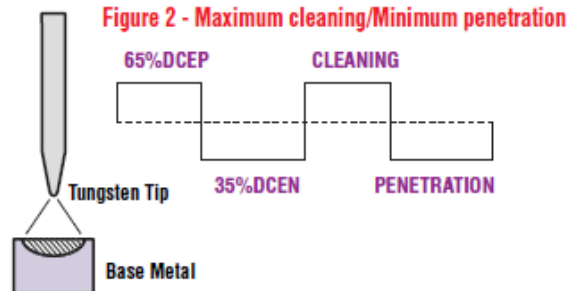
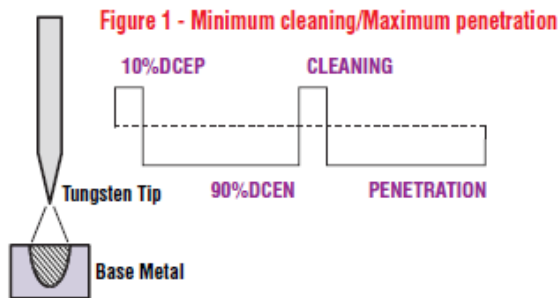
www.sanrexwelding.com
SANTIG 500AP
Form No.:100125500AP

Features

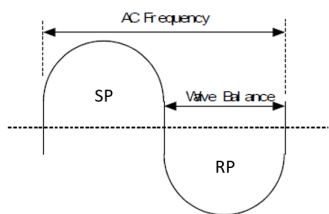
Effects of Wave Balance Adjustment on AC/GTAW - Complete Welding Control

The 500AP 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® 500AP amperage draw is unaffected by any adjustments. The 500AP increases efficiency and eliminates tungsten spitting and enables the use of a smaller diameter tungsten electrodes to operate at a higher current levels. Figures 1 & 2 show the difference in TIG torch electrode and heat and cleaning variations.



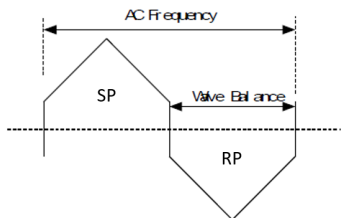
AC Soft



AC Soft includes all the benefits of AC square wave with the addition of maximum puddle control and good wetting action of the weld puddle which helps to overcome surface tension.

Triangle Wave provides the punch of the peak amperage, while reducing overall heat input. Fast puddle formation increases travel speed, limiting heat input and reducing weld distortion, especially on thin materials.

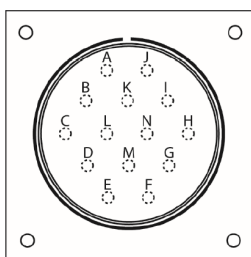
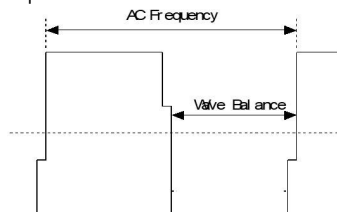
Triangle Wave



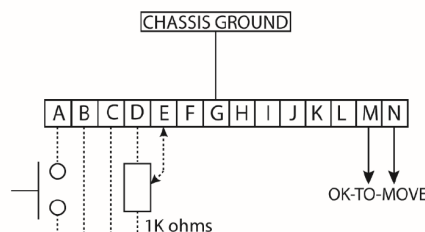
Trapezoidal waveshape (Modified Square Wave) - Trapezoidal wave helps distribute heat evenly, reducing the risk of overheating and distortion in the welded materials, enhances the fusion of the weld metal, leading to stronger and more durable welds and is ideal for welding large or thick metals where heat control is crucial.

Simple Automation Interface for Fixed, hard and Robotic automation applications includes Remote Weld ON/OFF, Remote Amperage Control, OK-to-Move Weld Arc ON signals.

Square Wave

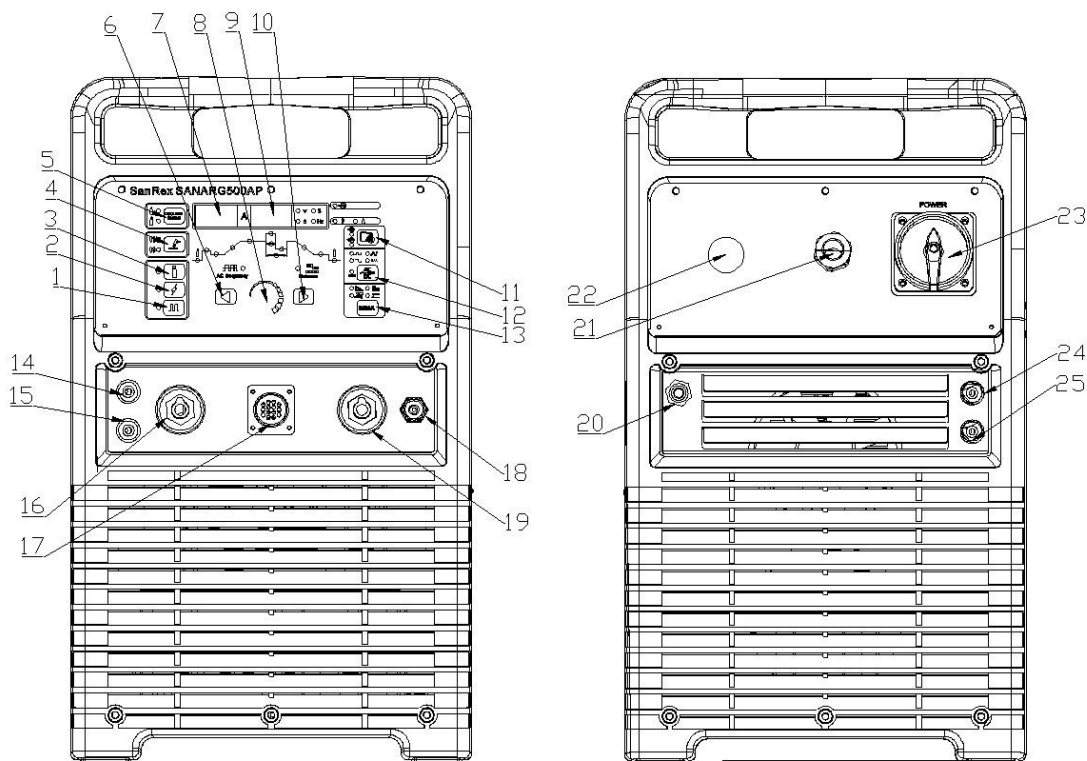


Front view of 14-Pin
Socket Receptacle



Features

1. Pulse Button
2. HF Button
3. Gas Purge Button
4. 2T/4T Button
5. Cooling Mode Selection
6. Forward Button
7. Amperage Display
8. Parameter Adjustment knob
9. Voltage Display
10. Parameter Back Button
11. Save Load Button
12. AC Wave Selection Button
13. STICK Parameter Button
14. Water Cooler Output Receptacle
15. Water Cooler Input Receptacle
16. Negative Output Receptacle
17. 14 Pin Receptacle
18. Shield Gas Torch Receptacle
19. Positive Output Receptacle
20. Shield Gas Input Receptacle
21. Input Power Connection
22. Water Cooler control Receptacle
23. Input On/OFF Switch
24. Water Cooler Output Receptacle
25. Water Cooler Input Receptacle



Specifications

500AP						
Input Voltage	208VAC 3Phase		240VAC 3 Phase		480VAC 3 Phase	
	TIG	MMA	TIG	MMA	TIG	MMA
Rated Input Current	AC 56.95 DC 56.36	AC 73.76 DC 72.84	AC 49.36 DC 48.85	AC 63.92 DC 63.13	AC 23.66 DC 23.49	AC 30.46 DC 29.87
Rated Input Power KW	AC 19.41 DC 19.33	AC 25.03 DC 24.85	AC 19.41 DC 19.33	AC 25.03 DC 24.85	AC 18.63 DC 18.59	AC 24.01 DC 23.67
Duty Cycle		DC 35% 500A AC 30% 500A		DC 40% 500A AC 35% 500A		
	60% 500A	DC 60% 370A AC 60% 340A	65% 500A	DC 60% 390A AC 60% 370A	DC 65% 500A AC 70% 500A	DC 60% 500A AC 65% 500A
	100% 390A	DC 100% 280A AC 100% 260A	100% 400A	DC 100% 300A AC 100% 280A	DC 100% 400A AC 100% 410A	DC 100% 390A AC 100% 400A
Max No Load Voltage	71V					

Ordering Information

Product	Part Number	Description
SANARG 500AP	XXXXXXXXXX	Power Supply Only includes 2 ea Dinse Plugs & 10ft. Primary Cable.

Accessories

	500AP-WTK	Includes 500AP, regulator/flowmeter with 12.5' gas hose, 25' Style 18 350 Amp Water cooled style 18 TIG torch, accessory kit, 15' work cable, Water Cooler w/hose & 4 Gal. Coolant, 25' Foot control & running gear/Cylinder Rack.
	500AP-HDWTk	Includes 500AP, regulator/flowmeter with 12.5' gas hose, 12.5' Ergonomic 500 Amp Water cooled TIG torch, accessory kit, 15' work cable, Water Cooler w/hose & 4 Gal. Coolant, 25' Foot control & running gear/Cylinder Rack.
	500AP-WTKA	Includes 500AP, regulator/flowmeter with 12.5' gas hose, 15' work cable, Water Cooler w/hose & 4 Gal. Coolant, 25' Foot control & running gear/Cylinder Rack. NO TIG Torch Included.
	XXXXXX	Water Cooling System 115vac. Included in Water cooled TIG Kits.
	XXXXXX	500AP System Trolley includes Running Gear and Cylinder Rack. Included in Water cooled TIG Kits.
	TK-1014B	Coolant (4 Gal Box), Included in Water cooled TIG Kits.
	XXXXXX	15ft. Work Lead. Included in Water cooled TIG Kits.
	MS-XXXX	12.5ft Gas Hose. Included in Water cooled TIG Kits.
	TK-1011 TK-XXXX TK-XXXX	Style 18 300 AMP TIG Torch, 25ft. (Included in 500AP-WTK) Ergonomic 500 Amp TIG Torch, 12.5ft. (Included in 500AP-HDWTk) Ergonomic 500 AMP TIG Torch, 25ft.
		 500 Amp TIG Torch Shown
	HP-1425	Hand Pendant 14 pin , 25ft., On/OFF & Voltage/Current Control.
	FC1000 - 15ft. FC1001 - 25ft.	Contactor On/Off, Current control, 15ft. Cable and 14 pin plug. Contactor On/Off, Current control, 25ft. Cable and 14 pin plug.
	ADC101	14 Pin Automation Interface cable, 12ft.