WALTER - SERBIA/EUROPE

WALTER 220 AC/DC CUT ---------- PROFESSIONAL

INFO FLASH:

TIG AC/DC - 220A/60%. MMA - 200A/60%. DUTY:100%/170A(TIG)/170A(MMA). Plasma Cutter 40A/100%.

TECHNICAL CHARACTERISTICS - WALTER 220CUT:

- **MAGIC WAND - single click setup.**
- **AC pulse from 20Hz up to 1000Hz.**
- **DC pulse from 0.1Hz up to 1000Hz.**
- **Cold Welding** options. 1msec – 250msec repetitive pulsed current.
- **AC PULSE and Asymmetrical AC PULSE**
- **MIX+ and MIX- welding process** for additional cleaning or increased penetration of weld pool in Aluminum welding.
- **Spot and Micro Spot in both DC and AC welding modes**.
- **Adjustable ignition** procedure. Precision start and electrode protection.
- Range of metal sheets welded (steel and aluminum) – 0.5mm to 10mm.
- **Automatic adjustment of current pulse during HF ignition.**
- Program for increased precision for currents of 1A – 10A.
- 10-90% AC Duty Cycle – wide range of oxide cleaning. (AC/DC ONLY)
- **Programmed and automatic setting of AC Duty Cycle. (AC/DC ONLY)**
- Programmable start, upslope, downslope and stop currents.
- Option: Remote control - foot pedal or handheld.
- Programmable pre/post flow of the protective gas.
- Efficient overtemperature protection with exact temperature displayed.
- 2S/4S - two-stroke and four-stroke modes of welding.
- 15kV HF arc ignition. Direct and reverse output polarity.
- Program for automatic forming of electrode tip in AC welding. (AC/DC ONLY)
- **Diesel generator friendly.**
- 1A minimum DC current.
- 1A minimum AC current.
- User interface with 128x64 LCD display.
- **Can memorize up to 30 TIG welding programs.**
- **40A/100% Plasma Cutter.**

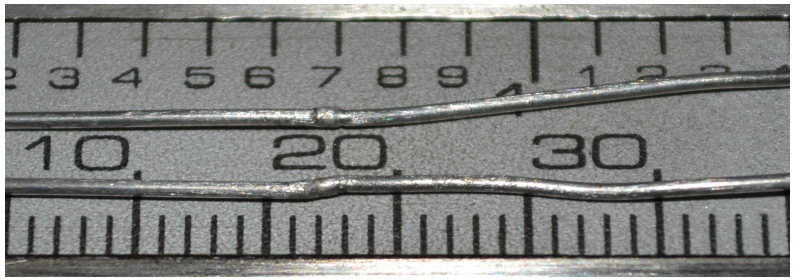
TECHNICAL CHARACTERISTICS:
TABLE:

WALTER AC/DC CUT 220		*AC/DC CUT 220*
Input Voltage	1ph	**230Vac +/-15%**
Input Volt. Frequency	Hz	**50/60Hz**
Input Power	kW	**6**
Fuse 230Vac	T/A	**25**
Welding Current TIG	A	**1 - 220A**
Welding Current MMA	A	**10 - 200A**
Plasma cutter	A	**15-40A/100%**
O.C.V. TIG	V	**10V**
O.C.V. MMA	V	**80V**
Arc Voltage: TIG	V	**11V - 32V**
Arc Voltage: MMA	V	**22V - 34V**
Duty Cycle at 40°C/50°C TIG/MMA Plasma Cutter	Imax 40°C 50°C	**220A/200A/60%** **170A/170A/100%** **140A/140A/100%** **40A/100%**
Arc Ignition		**HF**
AC/DC mode		**yes**
Pulse Frequency (DC)	Hz	**0.1Hz – 990Hz**
Pulse Frequency (AC)	Hz	**20Hz – 990Hz**
Duty Cycle/AC Balance	%	**10% - 90%**
Start/Stop Current	sec	**0.1s - 20s**
Upslope/Downslope Curr.	sec	**0.1s - 20s**
Pre/Post gas	sec	**0.1s - 20s**
LCD Digital Display	LCD	**128x64 LCD**
Cellulosic MMA		**yes**
Memory		**30 slots**
Remote control/foot pedal		**yes**
Remote control/TIG torch		**yes**
Mechanical Protection Class	IP	**23**
Dimensions	mm	**195x300x450**
Weight	kg	**17**

Zavarivanje Ltd. is proud to be the recepient of "**A Step Into the Future**" Special Recognition Award at the 53rd Belgrade international fair of technology and technical accomplishments for **WALTER 400 AC/DC** industrial welder in the cathegory of electrical engineering and industrial electronics.

ABSOLUTE MAXIMUM RATINGS - WALTER 220 AC/DC CUT:

- Maximum current 220A(TIG). 10 minutes -- Non-Stop.
- Maximum basic electrode diameter 4.00 -- at 170A /100%.
- Maximum basic electrode diameter 5.00 -- at 220A/40%.
- MMA applied in metal fabrication -- YES.
- MMA applied in pressure pipes welding -- NO.
- TIG applied in pressure pipes welding -- YES. TIG DC -- 140A/100%/50°C
- The minimal supply input voltage while working in TIG is 100Vac.
- The output current while working in TIG at 100Vac is -- 110A.
- Maximum supply input voltage -- 275Vac.
- Maximum stand by voltage -- 300Vac.
- Suitable for work on generator -- YES.
- Minimal generator for TIG welding -- 6kVA.
- Minimal generator for MMA welding -- 8kVA.
- Welding of aluminum car tyre rims -- YES (120A-220A). (AC ONLY)
- Welding of tow trucks sides -- up to 10mm - 220A/AC.
- Welding of aluminum ship sides -- up to 10mm - 220A/AC. (AC ONLY)
- Welding of aluminum coolants and air condition -- YES. (AC ONLY)
- Auto body panel welding -- YES.
- Minimal steel sheet welded -- 0.2mm.
- Minimal aluminum sheet welded -- 0.2mm. (AC ONLY)
- Plasma cutting -- Up to 12mm steel and up to 8mm Aluminium plates.
- **Professional welding with cellulosic coated electrodes -- YES.**
- **Plasma cutting with HF ignition and 40A/100% cutter.**



State of the Art Inverter Welders: **Designed and Manufactured in Serbia**

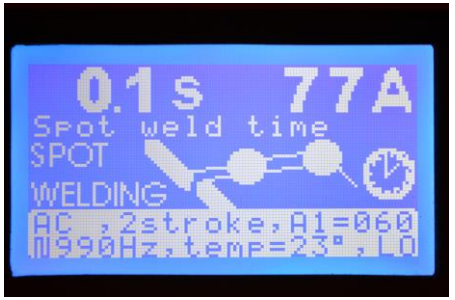
APPLICATION:

We guarantee for 100% successful professional applications:

TIG DC AND AC / DC WELDING:
CAR REPAIR:
Aluminium coolers, auto air condition and engine parts.
The aluminum engine parts and gear cars and SUVs.
The aluminum chassis components of cars and SUVs.
Aluminum sheet metal parts of the vehicle.
Alloy wheels of cars and SUVs

MANUFACTURE:
Aluminium welding (before anodizing).
Aluminum building structures (scaffolding, pallets, carriers).
Alloy decorative structures (podiums, ceilings).
Alloy artistic structures (podiums, advertising).
Aluminum boats and boats with sheet thickness up to 10mm.
Aluminium profiles and pipes up to 8mm thick.
Butt welding of thin metal sheets, aluminum and steel from 0.2mm.
Aluminum and stainless steel constructions in the food industry.

OTHER APPLICATIONS:
Pipes of stainless steels - boiler tubes up to 10mm.
Agriculture, irrigation, decoration. Profiles and tubes up to 10mm.
Reparation of aluminum and steel tools for plastic injection.
Reparation of belt and circular saws.
Butt welding wires from 0.4mm (Micro Spot).
Welding oxidized or anodized aluminum sheets (MIX process).
Welding with controlled heat input (DC and AC pulse).
Welding AC asymmetrical pulse - extensive cleaning oxide.
Pulse DC and AC frequencies up to 1000 Hz - increased depth of penetration.
Quick and easy setting of parameters thanks to the Magic Wand ™ option. Durability in harsh conditions. Very high duty cycle - (200A / 60%). Works on generators. A quality TIG welds in a very poor power supply network: (100Vac-275Vac). DC and AC / DC TIG welding with precision increments from 1A. Saving up to 30 welding programs.



ACCESSORIES:

DELIVERED IN PACKAGE WITH WALTER 220 CUT:

- **TIG TORCH SR26 – 4m. Air Cooled. 140A/100%. Water Pump is not included in basic package.**
- **TRAFIMET PLASMA TORCH TP50.**
- **Electrode holder 200A with cable for MMA welding (3m, 25mm^2).**
- **Earth clamp 200A with cable (3m, 25mm^2).**

NOT INCLUDED IN BASIC PACKAGE:
Additional charges apply.

- **Water pump for TIG torch.**
- **Foot pedal remote control.**
- **Handheld remote control.**
- **Spare parts set.**

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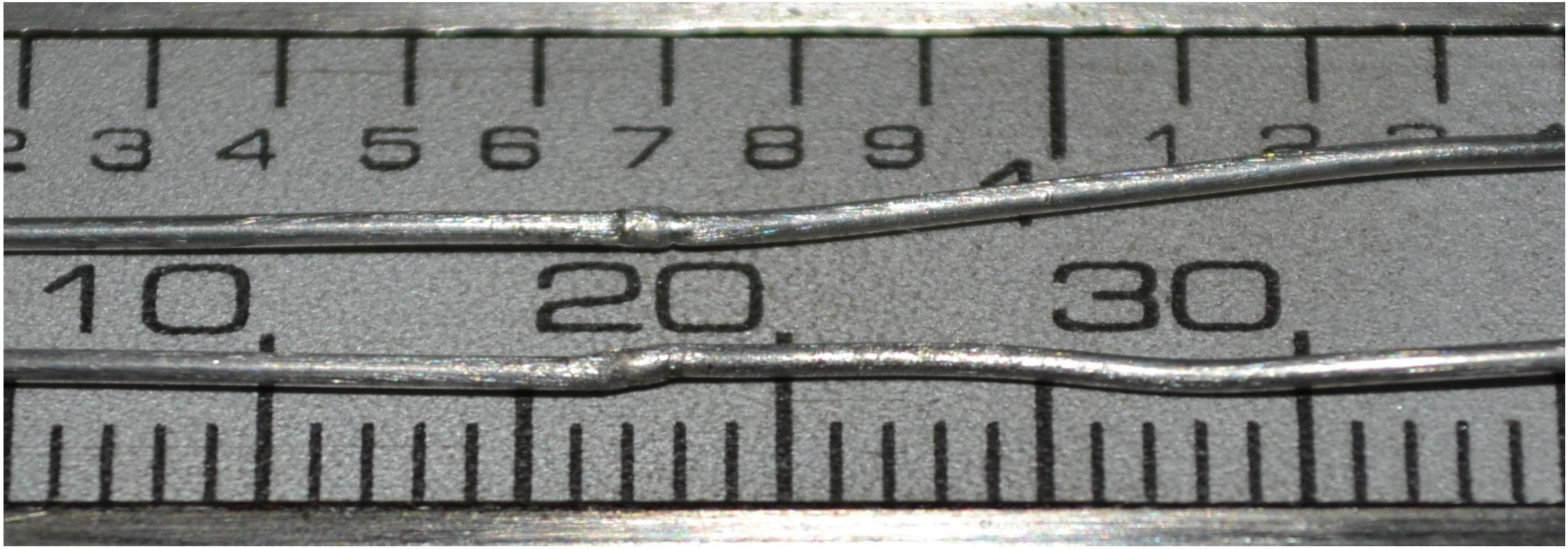

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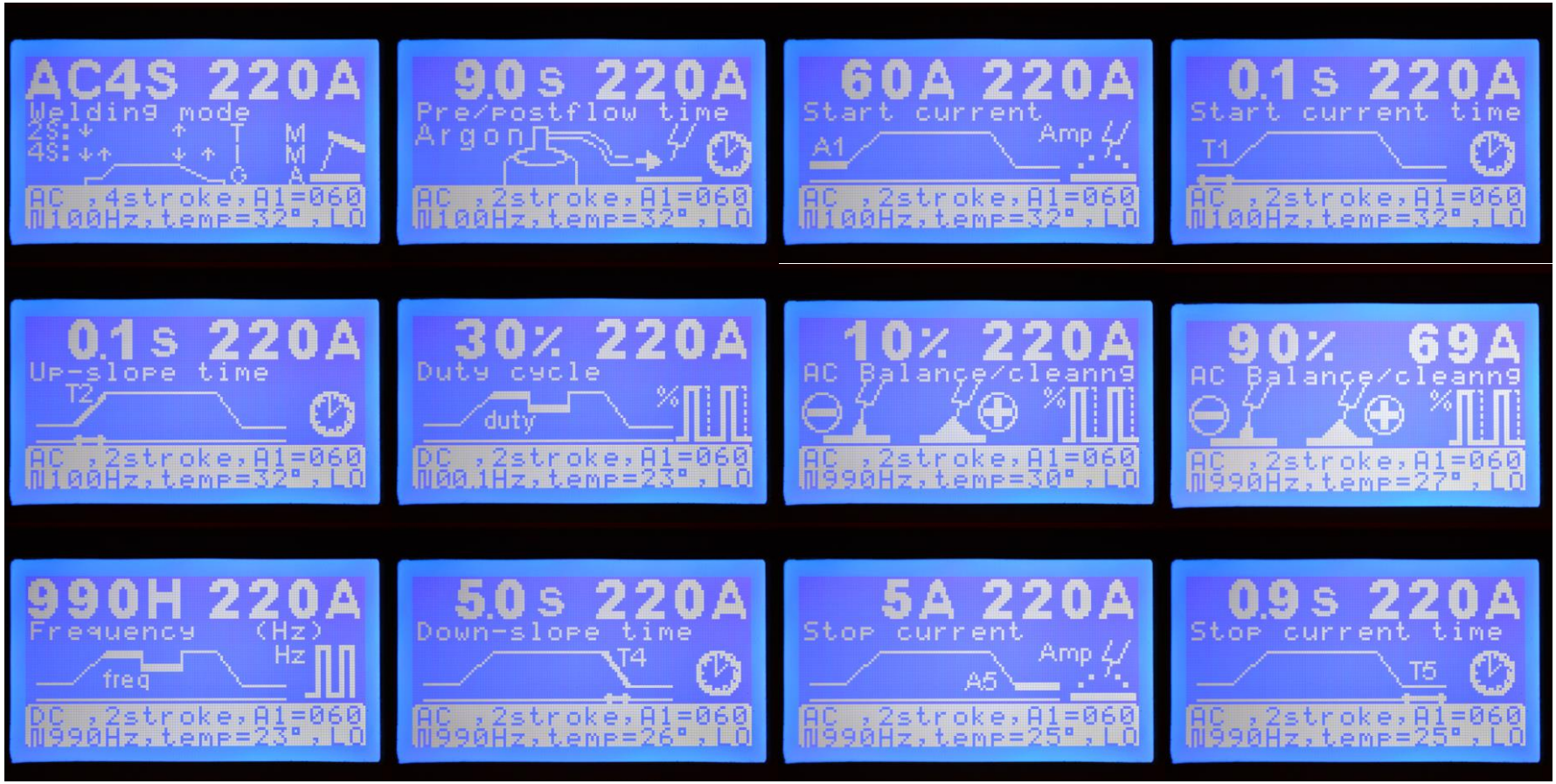

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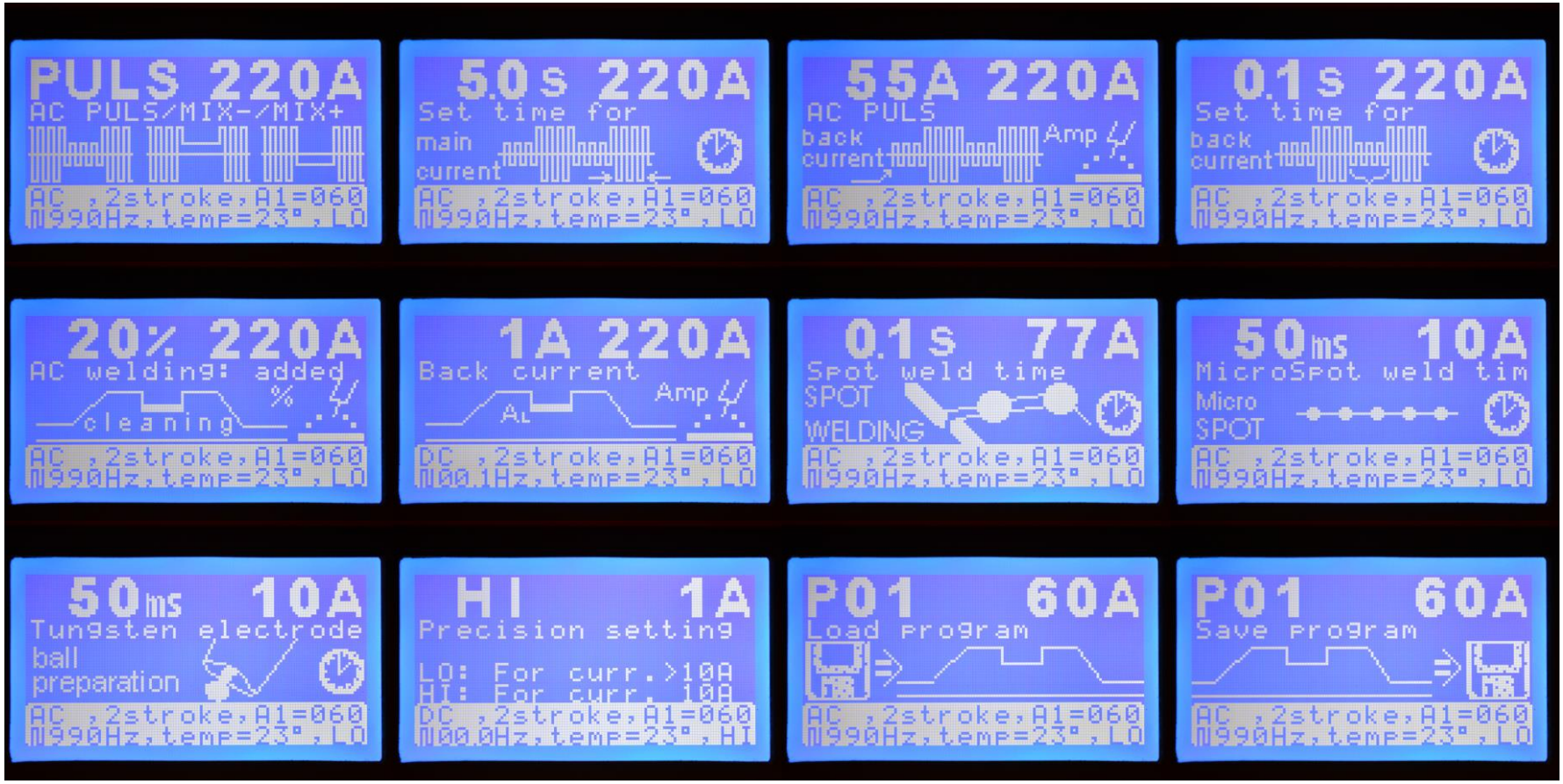
EXTRA MENUS:



THE USE AND LIMITATIONS.

BORDER AREAS OF APPLICATION - AC OPERATION:

Alloy wheels, sides of trucks, pipes and similar thick pieces of aluminum (4 to 10 mm) can be welded with WALTER 220 AC / DC CUT including wheels of SUVs. Pieces of lesser total weight can be welded, even if their thickness is up to 30mm (pieces of the engine and other parts of vehicles and working machines. A typical example are the parts of the Aluminium engine block.)

Limit: Maximum current for power source in TIG mode, is 220A and at 100% duty cycle it is 170A (non-stop). Car and SUV wheels and pieces of aluminum of similar thickness are welded with currents from 120A to 220A. If the welding process demands higher operating currents, it is necessary to provide additional heating of the weld-pieces, and also to cool the working environment if possible (the machine should be protected from direct sun, etc.) and to use the water-cooled TIG torch.

Minimum welding current in AC mode is 1A. Thin sheets (0.2mm to 0.6mm) can be welded very successfully, but experience is necessary in this kind of work. Take for example, the welding of aluminum air conditioner tubing in automobiles (AL / 0.2-0.8mm). It is necessary to have a continuous experience of at least 3 months to do it successfully.

BORDER AREAS OF APPLICATION - DC OPERATION:

Maximum current at which high pressure pipes can be professionally welded (high-alloy steels and stainless steels) is about 140A.

Although 170A is declared current at 100% duty cycle, working conditions for welding of these tubes are significantly heavier than those in which the machines are rated. Most often, this refers to the operating temperature of the environment (often greater than 50°C), the cooling conditions (large amount of metal or other dust and small available space). An additional complicating factor is the need to work in two or three shifts and with several welders per shift working on one machine. The work on the generator may or may not be an aggravating factor, depending on the generator quality. 10kVA generator or higher will provide enough quality voltage for operation.

CELLULOSIC COATED ELECTRODES WELDING:

WALTER 220 AC / DC CUT is designed for welding coated electrodes with maximum current up to 200A or 170A / 100%, and professional welding results are expected if the welder power source is provided with quality power supply (230Vac / + 10% / - 10%) and if quality and dry electrodes are used.

WALTER 220 AC / DC CUT is designed for MMA welding in technologically demanding applications. This primarily relates to the welding of boiler, gas and other pressure pipes.

THE USE AND LIMITATIONS.

MAINS POWER AND GENERATORS:
WALTER 220 AC/DC CUT is designed to be able to work even in very poor conditions of the power supply. **Nominal voltage is 1x230Vac.**
The power source will successfully weld in DC and AC TIG welding even at a voltage of about 100Vac in the network. Maximum output current of the machines will in this case be approximately 140A. At very low voltages in the network, it would be more difficult to weld at low currents in AC mode. However, the boundaries in which these difficulties might happen, take place in circumstances which are considered emergency operation for power grid and power supply would already be cut off by the power grid companies. In any case, the machine will not be damaged in any low voltage network. Too high a voltage can cause malfunction of the appliance if its value is permanently 300Vac or higher or in the short-term over-voltages of about 330Vac.
WALTER AC / DC CUT is designed to operate on the diesel generator and welding characteristics will be the same as when running on the public network if the voltage generator is within the declared value (230Vac +/- 15%).
Recommendation: Generator rated 10kVA or higher. The voltage on generators of poor quality can exceed the value of 330Vac and may cause malfunction of the appliance.
Operation on a poor network or a poor generator can have a strong negative impact on the MMA welding procedure. The quality of TIG welding in such conditions will not be reduced, but it is possible that the welder will not be able to give out the maximum rated current.
In any case, it will not be damaged if the power supply voltage in the range of 110Vac to 275Vac.
In the case of connecting the permanent voltage of over 300Vac, the welder power source will be damaged.

ENVIRONMENT TEMPERATURE:
The machine is designed for normal operation within the industrial temperature range (-20 ° C to + 40 ° C).
If the ambient temperature exceeds over the nominal value (+ 40 ° C), it may cause a decrease in operational performance of the welder power source.
If the operating temperature is below -20 ° C, the device may not start working.

PLASMA CUTTER:
Cutting Arc -- 15 to 40 Amps/100%.
Air pressure -- 4.5 to 6.5 Bar.

LIMITED GLOBAL WARRANTY.

WALTER 220 AC/DC CUT (PRODUCT) is designed and tested for professional applications and heavy duty environment.
This machine is world wide covered with manufacturers limited warranty for a period of two (2) years from the date of purchase.

WALTER LIMITED WARRANTY AGREEMENT

1. Product Limited Warranty - replacement parts and technical support.
Walter warrants that its Products will be free from defects in materials and workmanship for the Limited Warranty Period. During the Limited Warranty Period, Walter will provide replacement parts and technical support necessary to repair the Product with no adittional fees. Transportation costs from the nearest Walter Service Office shall be covered by Walter during the first Year of Limited Warranty Period. Replacement parts will be new or serviceably used, comparable in function and performance to the original part and warranted for the remainder of the original warranty period or, if longer, 90 days after they are shipped to You.

2. Hardware Technical Support.
The scope of technical support consists of helping You diagnose and resolve problems with defects in Products covered by this Agreement, and reinstalling the factory-installed hardware and software to restore it to the original factory configuration. Walter may provide technical support via on-line, telephone and other methods. Walter may change the means through which it provides technical support at any time without notice to You.
During the Limited Warranty Period, Walter will provide free of charge Product technical support. After the expiration of the Limited Warranty Period, hardware technical support is available for a fee. The fee will be charged to your credit card when You call technical support. Please note that when contacting Walter via telephone, long distance and other charges may apply, depending upon your calling area.

3. Software Support for Operating System Software. Walter is the manufacturer of the incorporated embeded software and does guarantee that software and operating systems will be free from errors, either in isolation or in combination with hardware. For your Product, Walter will assist the customer with:
(i) installation of any operating system software purchased from Walter; (ii) configuration of the operating system software;(iii) setup of the operating system software; (iv) troubleshooting issues associated with the operating system software.

LIMITED GLOBAL WARRANTY - CONCLUSION.

4. Limitations and Exclusions

The following conditions are not covered under the terms of warranty:
Defects due connection to incorrect or faulty mains supply voltage, mechanical damages and transport or storage damage, fire or damage due to natural causes, lightning or flooding.

The warranty does NOT cover:
Expenses for troubleshooting, direct or indirect travelling costs exept described in chapters 1, 2 and 3 of this agreement.
Welding cables, torches and their consumable parts are not covered under the warranty.
Direct or indirect damage as well as any loss of earnings are not covered under the warranty.
The Manufacturer shall in no event be responsible for any third party expenses or any indirect or consequential expenses/costs.
Manufacturer is not responsible for incidental, consequential, punitive or liquidated damages.
The warranty is void if modifications are made to the product without the prior written approval of the Manufacturer.
To the fullest extent allowed by law, the Manufacturer will have no other obligation whatsoever with regard to the products except as stated in this limited warranty.

Warranty Length/Type 2 Year/Limited: Parts & Labor, Mail In or Carry In.
Hardware Technical Support - 2 Year / Software Support - 90 days from the date of purchase.
Service Website
http://www.wweld.com/support
Service Phone Number
00 381 11 2456064
00 381 64 6418143
WhatsApp Support
00 381 64 6418144
Service Adress:
Cara Nikolaja Drugog 22,
Belgrade, Serbia (Europe)
