ANALOG STYLE DIGITAL INVERTER TIG/STICK

EVERLAST
IGBT INVERTER TECHNOLOGY

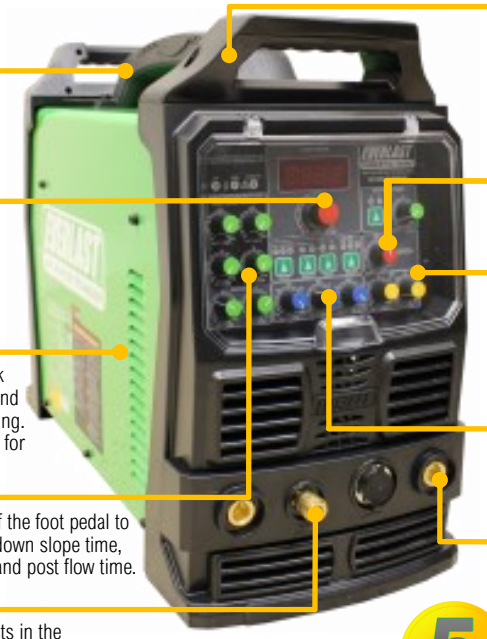
PowerTIG 250EX

GTAW-P/SMAW

Specifications

Process:	GTAW-P/ SMAW	**Input:**	240V 1Ph 240V 3Ph	**TIG Range:**	DC TIG: 5-250A, AC TIG: 5-250A	**I1Max (Inrush) 240V (1) 3 Ph:**	(40A) 21A	**I1Eff (Rated) 240V (1) 3 Ph:**	(32A) 16A
TIG Duty Cycle:	60% @ 250A (AC or DC)	**OCV:**	80V	**Stick Amp Range: (120V) 240V:**	DC Stick: 5-200A	**TIG Pulse Frequency DC:** **TIG Pulse Frequency AC:**	.5-500 Hz .5-500 Hz	**TIG Torch Type:**	18 Series Rigid 12.5 Ft (Water-Cooled)
Stick Duty Cycle:	35% @ 200A/28V	**Weight:**	65 lbs.	**Dimensions:**	22" L x 9"H x 17"W	**AC TIG Frequency:**	20-250Hz	**AC TIG Balance:**	10-90% + (positive)

Productive Performer.



New Cover and Case Design
The new case design is a rugged improvement over the old type of case with improved design extra handles for carrying and a protective clear cover that is easy to lift with a gloved hand..

Analog Knobs/Digital Control
While the unit enjoys the improved reliability and serviceability of internal digitally controlled components, the interface is still analog style to preserve that traditional feel, and at-a-glance knowledge of all your settings.

60% Duty Cycle
The cooling capacity of this machine sets the mark for industrial class machines. Generous venting and powerful constant delivery fan provides extra cooling. 60% Duty Cycle at 250Amps is the Gold Standard for serious users looking for a production machine.

2T/4T Torch Trigger Control
The torch trigger (included) can be used in lieu of the foot pedal to control the weld. Features such as arc up slope/down slope time, arc start/end amps are adjustable, as well as pre and post flow time.

Quick Gas Connection
Everlast has pioneered the use of gas quick connects in the industry. Now others are following. Rather than needing a couple of wrenchs and about five minutes of change over time, you can now remove or change your torch in mere seconds.

Water-Cooler Ready
Look on the back and you'll see that he unit is designed to operate in conjunction with our new, stackable PowerCool 375 water cooler. The plug is built right into the back of the unit so the cooler can be turned on and off with the main power switch of the welder. The design is almost seamless when stacked.

Stick Arc Force Control
Improves stick welding experience by using an adjustable arc force control to control spatter and rod wet-in.

Adjustable AC Frequency and Balance
This is something you won't find on any other welders in this class, especially the range of adjustment that this unit offers. When welding in AC on Aluminum, AC frequency helps to focus the arc and control heat. An extended AC balance control range offers excellent control over etching (clean width and tungsten life.

Fully Adjustable Pulse Function
This unit offers excellent pulse characteristics with full adjustability of all pulse functions including Pulse Amperage, Pulse Time-On, and a Pulse Frequency from .2 to 500Hz .

Easy Change of Polarity
This unit makes changing from TIG to Stick and back again and easy task via the use of 25mm² DINSE Type Connectors.

5 YEAR WARRANTY

5 Year Parts and Labor Warranty
Simply the best warranty in the business. Who else offers this without paying extra, or giving you a long list of exclusions?

Uses: Production Welding, Fabrication, HVAC, Marine, Motorsports, Farm/Ranch

A Class Leader in the Industry

Built For Heavy Use.

Back in 2009, when the first PowerTIG 250EX was sold, the industry was in need of something fresh. It needed an economical unit that offered industrial performance, with a generous list of standard features, all in a package that could be picked up and carried to where it was needed. Since then, new models have been introduced by the competitors, to target this need, but few really have succeeded like the PowerTIG 250EX has, with many competitors missing the mark completely. The 250EX has been such a revolutionary model that, in many professional circles, it is considered the OG of portable industrial welders, with its perfect blend of old school controls, and a serious list of features that any modern professional in the industry will appreciate.

Even though the user interface still pays homage to the old school controls, the insides and the outsides have gotten a serious refresh over the years. The internal controls now are digitally controlled and managed, making the unit lighter and more reliable than ever. The old style analog circuits have been replace, reducing the need for discreet circuits and control boards to run different aspects of the machine. Now most of the analog style controls are digitally managed through the microprocessor of the machine. How does that benefit the professional user? Well, if you desire more accuracy and repeatability it matters a lot. It also matters a lot because there are less things to go wrong on the inside since less components are needed to do the same job. It also reduces down time if a unit does have an issue, most things can be repaired without having to take it to a repair shop, taking mere minutes to fix something that used to take hours to fix at a repair shop. This plug-and-play type of system makes the unit something that can be user serviceable if required.

Over the years, many PowerTIG 250EX's have made their way in industrial complexes, where the machines are required to pound out part after part, shift after shift. This is not by accident. The 250EX's 60% duty cycle at maximum output amperage reset the industrial duty cycle standard for welding machines that had been gradually eroding for decades. With many "professional" competitor's machines offering a duty cycle as low as 15 to 25% at maximum output, it clearly set the bar higher. The single and three phase capability also caught the eye of the professionals. The good new is that in the latest generation, the 250EX remains true to the original design features. It still retains the dual phase capability and the 60% duty cycle at maximum output. And it still offers the same features that made it popular.

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A bit closer up....

Layout of the Panel Explained

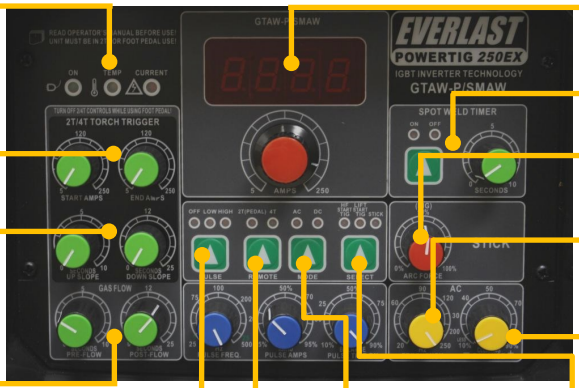
LED Warning Center
After confirming the unit is on and ready for use, the unit is designed to sense and report any major problems. Whatever the issue, the LED will light and unit will indicate a code in the display and output will be interrupted until the issue is corrected.

Start/End Amps
The beginning and ending Amperage can be adjusted for improved starting and arc tail-off.

Up/Down Slope Function
0-10/0-25 Seconds. These features are designed for exclusive use with the 2T and 4T functions with the torch switch. This controls the amount of time it takes to ramp up or taper off the welding Amps after start and before termination.

Pre/Post Flow Function
0-10, 0-25 Seconds. This helps the user to protect the weld from oxidation immediately before and after the weld by providing an adjustable amount of gas flow time before or after the weld actually takes place.

AC and DC Pulse Operation
0-150Hz. The advanced pulse controls put you completely in charge of all pulse features such as **pulse frequency, pulse amperage, and pulse balance**. The pulse allows you to reduce heat related warping and burn through or improve bead appearance.



Digital Display
Accurately select and know the Amperage. While welding the display displays actual welding Amperage.

Spot Weld Timer
Use to create even tack welds and seams with switch.

Arc Force Control
0-100%. Change the arc characteristics while stick welding to provide a softer or more penetrating arc feel.

AC Frequency Control
20 to 250Hz. The adjustable frequency allows the user to improve arc focus and control heat spread while welding Aluminum.

AC Balance (Cleaning) Control
10 to 90%. Control etching and amount of AC positive input while welding aluminum. Less AC positive input means the weld will have less side etching and more penetration.

AC/DC Selection
Select AC to weld Aluminum and Magnesium in TIG mode. Select DC for all other weldable metals.

2T/4T or Pedal Operation
When swapping processes, the unit will briefly remind you to change the torch and polarity so you won't forget.

TIG Start Type or Stick Welding Selector
Select TIG with HF start (controlled by the torch switch or foot pedal), TIG with lift start (also controlled by the torch switch or foot pedal) or Stick welding output.

Welding Thickness Limits*:

*Welding thickness limits are typically described in single pass and multi-pass terms. Multiple pass welds on thicknesses 1/4" and over are typically prescribed as "best practice" welds, whereas a single pass weld, may not yield the best or strongest weld but is used to give a comparative idea of the machines capability. For maximum welding limits, you have to take into consideration the ultimate size of the weldment. Larger weldments will require more welding amperage to make the same weld as a smaller weldment because of heat dissipation capability.

Maximum Single Pass DC TIG Weld: 1/2"
Maximum Multi-Pass DC TIG Weld: 1"
Maximum Single Pass AC TIG Weld: 1/2"
Maximum Multi-Pass AC TIG Weld: 1"
Minimum Weld Thickness All Voltages: DC: .07", AC: .08"
Stick Weld Maximum Electrode Diameter: 5/32-3/16" (Depending upon mfgr. and type/class)
NOTE: This Unit is not rated for use with E6010 Stick Electrodes.

Standard Equipment and Options

Standard Equipment:

- 12 ft (4m) 18 Series Water-Cooled Rigid neck (Straight Head) TIG Torch
- 250A Work Clamp and 10 ft (3m) Cable
- 250A Stick Electrode Holder 10 ft (3m) Cable
- Brass Billet Floating Ball Type Argon Regulator
- Plasma Cutter Air Regulator/Water Trap
- 6.5 ft. Power Cord (No plug)
- Starter Consumable Kit (No Tungsten)




Customer Favorite Options:

- PowerCool 375 Water Cooler: **SKU# PCW-375-240**
- NOVA Wireless Pedal: **SKU# NVA-WL-FP200-EV07**
- PowerCart 375: **SKU# PC330-H**
- NOVA Rotaflex Water-Cooled 20 Torch, 12.5 ft. : SKU# **NOVA-RF-20-25QD**

Can this unit operate on a generator?

The modest size and portability of the PowerTIG 250EX makes it a good candidate for use with a generator. We want you to get the best life and performance out of the unit while operating on a generator, so please follow these guidelines when choosing this welder and using your generator to match.

- The generator must be rated as "Clean Power Output", This means that it provides 5% or less Total Harmonic Distortion. The generator manufacturer determines this rating. Consult with the manufacturer of the generator before your purchase.
- The generator must provide at least 10,500 Surge Watts.
- **Notice:** Switch the welder off before powering down the generator. Do not run the generator out of fuel while the welder is switched on.
- Failure to follow these recommendations may void the welder warranty.

NOTICE: This unit does not come equipped with a power plug. This unit is able to operate on 1 or 3 phase input. The wiring is different for 1 phase and 3 phase applications so a suitable plug for the application must be installed by a qualified electrician. Have electrician follow wiring directions in the operator's manual. Use only a NEMA 6-50 plug for single phase 240V operation. The red wire will not be used in this configuration. This is the standard 1 phase 3 prong 240V welder plug in North America. The plug is available at most local hardware and electrical supply stores. User is responsible for having it installed correctly by a qualified electrician. If questions remain, contact Everlast technical support.