



# PowerTIG 255EXT

GTAW-P/ SMAW

## Specifications

<b>Process:</b>	GTAW-P/ SMAW	<b>Input:</b>	120/240V 1Ph	<b>TIG Range:</b>	DC TIG: 3-150A/5-255A AC TIG: 5-125A/5-255A	<b>I1Max (Inrush):</b>	38/38A	<b>I1Eff (Rated)</b>	30/30A
<b>TIG Duty Cycle:</b>	120V: 60% @ 150A/16V 240V: 60% @ 250A/20V	<b>OCV:</b>	90V VRD<24V	<b>Stick Amp Range:</b>	DC Stick: 20-120A/20-200A	<b>TIG Pulse Frequency DC:</b>	.1-500 Hz	<b>TIG Torch Type:</b>	9 and 20 Series Rigid 12.5Ft. (Air and Water-cooled)
<b>Stick Duty Cycle:</b>	120V: 35% @ 120A/24.8V 240V: 35% @ 160A/29V	<b>Weight:</b>	62 lbs.	<b>Dimensions:</b>	26" L x 17.5"H x 9.75"W	<b>TIG Pulse Frequency AC:</b>	.1-250 Hz	<b>AC TIG Frequency:</b>	20-250Hz
							<b>AC TIG Balance:</b>	5-90% + (positive)	

### More Power, More Features.

#### Sturdy New Case Design

The new case design is more robust, with additional carrying options with the combination of front and rear handles and a center handle. The size is compact enough and light enough to be easily carried right to where it is needed.

#### 9 Program Memory

Set and save up to 9 programs that you commonly use so that they can be recalled at a moment's notice. Great for fast setup.

#### 60% Duty Cycle

Notice the extra venting? The multiple fan design and generous venting of the machine of this machine helps to set the standard for commercial class machines. 60% Duty Cycle at 250A is the best you'll find in its class.

#### Weld Cycle Graph

The weld cycle graph gives you a visual indicator of how each function interplays with the other, and where you are along the weld process. Select and set Pre-Flow, Start Amps, Up Slope, Welding Amperage, Pulse Parameters, AC Balance, AC Frequency Control, Down Slope, End Amps and Post flow using this visual guide.

#### Easy Change of Polarity

This unit makes changing from TIG to Stick and back again and easy task via the use of 35mm<sup>2</sup> DINSE Type Connectors.



#### Water-Cooler Ready

Take a peek around back and you'll see that the unit is designed to operate in with the 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. Combined with the cart, this makes a complete package.

#### AC Wave Form Control

This unit is designed with three different useful wave forms for AC welding of Aluminum. Select from Advanced Square for quick wet-in, Soft Square for a softer, more gentle feel, Triangular Wave form for better control on thin materials and Sine wave for a traditional soft feel and broad puddle.

#### AC/DC Pulse with Additional Advanced AC Pulse

If heat control is needed, the unit offers a pulse feature, up to 500 Hz DC, and 250 Hz AC. For those needing extra power, or an ability to weld well over the rating of the unit on Aluminum, the Advanced AC Pulse combines the best features of AC and DC operation to provide balanced cleaning with an extra punch of penetration.

#### E6010 Setting

Stick weld with all rods even E6010, which is more difficult to run.

#### 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 wrenches and about five minutes of change over time, you can now remove or change your torch in mere seconds instead of the usual time it takes.



#### 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: Industrial Production Welding, Commercial Fabrication, HVAC, Marine, Pipe

*The Best Welder You'll Try*

### What more could you want?

As far as welders go, the PowerTIG 255EXT is a complete package, offering features that you don't find in other welders in this price range. In fact you may not even find many of the features even in much higher priced competition! You'll also find the 5 year parts and labor warranty a standout as well.

One of the features that stares you in the face is the sheer power and duty cycle of this machine. It hits the sweet spot in the Amperage range, with 255 Amps of TIG welding power and 200 Amps of stick welding power. It does so at the gold standard of 60% duty cycle, meaning you can weld continuously for 6 minutes out of every 10 at 250A, making it a true industrial powerhouse.

It also provides excellent low Amp control with a DC range down to 3 Amps and an AC range down to 5 Amps. Anyone who has welded much TIG, knows that's pretty low, just barely keeping the arc alive to be able to weld material that isn't much thicker than foil. Anytime you need to weld something that is paper thin, the PowerTIG 255EXT is your go-to unit. This is a feature that keeps customers coming back to Everlast for challenging jobs.

The wave form control in AC further extends the practical use of the machine while welding aluminum even further. With four AC wave-forms the unit can be set-up to suit your needs and expectations for arc quality and performance. Use the Advanced Square wave for the bulk of your jobs when you need fast wet-in and travel speeds. Use the Soft Square wave when you need a little more gentleness to the arc. Use the Triangle wave if you want to control burn through on the thinnest metals and improve the bead profile. Or use the old-fashioned sine wave when you want that butter arc.

Standard type Pulse on AC or DC is another feature in this machine's arsenal that can help you control heat and improve weld appearance. It'll help warping on the thinnest metals, or help stack those dimes, depending on what you are wanting. But the AC Advanced pulse is a game changer when you need more power for Aluminum. Suddenly a 1/2 rated machine wakes up and becomes a monster 1"+ machine by alternating AC and DC cycles.

The stick welding features shouldn't be neglected either as this machine can weld any electrode out there with a butter smooth arc, or a crisp penetrating arc, depending on how you set it up.

## Up Close

### Memory

Select, and save up to 9 different programs.

### Weld Sequence Graph Features

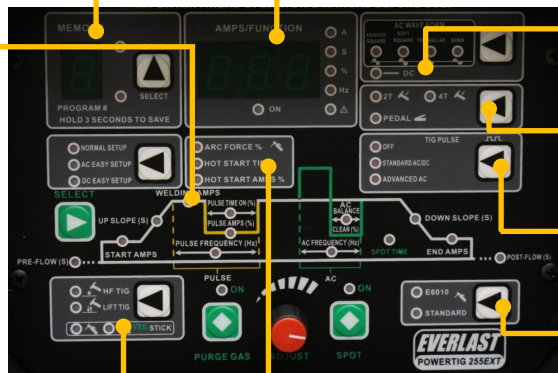
This graph represents the weld cycle and the adjustable features from the beginning of the weld to the end of the weld. Features included are:

Pre-Flow: 0-25 Seconds  
 Start Amps: 3 (5) - 210A  
 Up Slope: 0-25 Seconds  
 Welding Amps: DC: 3-255A, AC: 5-255A  
 Pulse Time ON: 5-100%  
 Pulse Amps: 5-99%  
 Pulse Frequency: DC: .1-500Hz, AC .1-250Hz,  
 Advanced AC: .1-9.9 Hz

AC Frequency: 20-250Hz  
 AC Balance: 5-95% of EP  
 Down Slope: 0-25 Seconds  
 End Amps: 3(5)-255A  
 Spot Timer: 0-10 Seconds

### Start Type/Process Selector

The unit can use HF to start the TIG arc or a lift start can be selected for use with the pedal or torch switch. The stick function allows standard start or VRD start (<24V).



### Digital Display

Accurately select and know the Amperage and other functions indicated on the panel.

### Wave Form Control

Select different wave forms for AC output for welding Aluminum, or select DC output for stainless, steel and other metals

### 2T/4T Control or Pedal Control

Select whether you want to use the included torch switch to control the weld sequence, or the foot pedal to manually control the slope and other functions.

### Pulse

Control arc cone spread, heat input and directability of the arc with the standard pulse. With the Advanced AC pulse you can extend the capability while welding aluminum.

### Stick Hot Start and Arc Force Control

Change the arc start for better starts and weld characteristics while stick welding to provide a softer or more penetrating arc feel.

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## 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: .004", AC: .005"

**Stick Weld Maximum Electrode Diameter:** 1/8 - 3/16"(Depending upon mfg. and type/class)

## Standard Equipment and Options

### Standard Equipment:

- 12 ft (4m) 9 Series Air-Cooled Rigid Neck (Straight Head) TIG Torch
- 12 ft (4m) 20 Series Water-Cooled Rigid Neck (Straight Head) TIG Torch
- 350A Work Clamp and 10 ft (3m) Cable
- 250A Stick Electrode Holder 10 ft (3m) Cable
- Brass Billet Floating Ball Type Argon Regulator
- 6.5 ft. Power Cord (No plug)
- Starter Consumable Kit (No Tungsten)
- 240V to 120V Adapter



### Customer Favorite Options:

- PowerCool 375 Water Cooler: **SKU# PCW-375-240**
- NOVA Wireless Pedal: **SKU# NVA-WL-FP200-EV07**
- PowerCard 330: **SKU# PC330-H**
- NOVA Rotaflex Water-Cooled 20 Torch, 12.5 ft. : **SKU# NOVA-RF-20-35QD**

## Will this unit operate on a generator?

Yes it can. And many customers do with no issues. Keep in mind, however, the unit should never be run on an undersized generator, even at less than maximum amperages just to "get by". 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 these additional requirements.

- 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 cause damage and void the welder warranty.

**Notice:** This unit comes standard with a NEMA 6-50 240V 1 phase power plug (North American Market). This is considered the standard welder plug used in all single phase 240V welders in the USA and Canada. If you are wiring your facilities for service, contact and use a local, licensed electrician. Welders have a special code section in the NEC, under article 630 which deals specifically with welding machines. Have the electrician use and follow this code. Do not attempt to rewire the machine. The machine meets the wiring requirements for both conductor and plug size.

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