EVERLAST
WELDING AND CUTTING SYSTEMS

Lightning 275 MTS

MIG / AC-DC TIG / DC Stick Multi-Process Inverter Welder



Built For Work.

The Lightning 275 MTS delivers professional multi-process welding in a single, compact package. With AC/DC TIG pulse, MIG, and Stick capabilities up to 275 amps, this machine handles everything from thin aluminum to heavy steel. Featuring a 5-inch HD color LCD, PowerSet technology, and a cast aluminum 4-roller drive system, the Lightning 275 MTS is built for shops that demand precision and versatility.

275A Max Output	60% Duty Cycle	5" HD Color LCD	120/240V Dual Voltage

True Multi-Process Design

MIG / Flux Cored
30-275A
This unit can weld with solid wire, gas shielded flux-cored wire, or self- shielding flux-cored wire, as well as stainless and aluminum wires.

AC/DC TIG With Pulse
10-275A DC and 15-275A AC
Provides professional results on thick or thin gauges of metal. This is enough power to weld up to 3/8" Aluminum or 1/2" Steel.

DC Stick
10-275A
Arc force control, hot start and VRD round out the list of stick features. E6010/Cellulose capability for downhill has been added.

AC Advanced Pulse TIG Operation
Fully adjustable AC Advanced Pulse alternates between AC and DC while pulsing to provide more heat to the weld. This feature allows the unit to perform more like a 375A welder on Aluminum.

AC Wave Form Control
Advanced Square, Soft Square, Triangle, and Sine wave forms give full control over the AC TIG arc characteristics for precise aluminum welding results.

Programmable Memory
Save up to 30 programs which can be locked to prevent unwanted tampering or accidental erasure. Each program can be individually named.

Push-Pull and Spool-GunCapable
Add to the versatility of this unit by adding an optional push-pull gun. The unit works with our Parker SGP 360A or North MPG 300 guns. For smaller jobs, select the Parker DSP 360A spool gun.

5 Year Warranty
Full parts and labor coverage. The best in the Industry coverage also includes free North American tech support for the supported life of the unit.

5 YEAR WARRANTY

FEATURES

5.0" HD Color LCD Display and Simple Controls

Full color screen with real-time parameter display and intuitive menu navigation. The high contrast colors and the sharp display, allow for easy viewing, even in sunlight. The parameters are all displayed on one screen. There's no hidden menus or bottlenecks.

PowerSet Technology

Automatic voltage and wire speed calculationis based on material thickness, wire diameter and other user inputs. This reduces the amount of effort and skill needed to set all the parameters that the machine offers. However, full manual mode is available for the professionals that really need maximum adjustability.

Digital IGBT Inverter

The efficient power output of the Inverter design provides consistent arc performance across all processes and minimizes operation costs. It also reduces the foot print of the welder, while keeping weight concerns down to a minimum.

Tool-Free Euro Quick Connect for MIG

Fast torch changes without tools for minimal downtime. The universal connector design means that almost all torch makers make Euro-back end connectors for easy changeover to your favorite torch brand. However, we think our North brand torches are up there with the best.

Cast Aluminum 4-Roller Drive

Smooth, consistent wire feeding is delivered by the 4 roller drive system. The system is designed to work with push-pull guns or it can even be used with U groove drive rolls by themselves to push Aluminum wire without the use of a push-pull gun. All you need is one of our polymer gun liners to do the job.

AC/DC TIG and Stick Functions

Beyond MIG, the function of AC/DC TIG adds considerable verstality to the unit. The TIG function can be used to weld almost any metal, including stainless and aluminum with both DC and AC output. Stick functionality completes the package with a smooth, stable DC arc.

Easy Polarity Change

When changing processes, the DINSE Type connectors allow a quick swap of polarity. In TIG, there is no need to swap polarity between DC and AC changeover. Just leave the torch where it is. The machine will do the rest.

Push-Pull and Spool Gun Ready

Direct connection for aluminum MIG welding allows the user to have more options for welding aluminum. Choose between a conventional grip or pistol grip gun styles. Spool gun and Push-Pulled guns are often preferred for production welding due to their speef and convenience..

SPECIFICATIONS

Processes	GMAW/FCAW/GTAW-P/SMAW	**Wire Spool Size**	12" and 8"
TIG Type	AC-DC TIG with Pulse	**MIG Gun Type**	36 Series 3m (Set up for Spray Arc, .045" wire)
MIG Pulse	No MIG Pulse	**Digital Display**	5.0" HD TFT Color LCD
Voltage Input	120/240V, 1 Phase, 50/60Hz	**Weight**	92 lbs.
MIG Output (120)240V	30-(150A)275A; 15.5-(21.5V)27.8V	**Dimensions**	25"H x 12"W x 27.5"L
DC TIG Output (120)240V	10-(150A)275A; 10.4-(16V)21V	**Max Wire Speed (120) 240V**	(400)600 IPM
AC TIG Output (120)240V	15-(150A)225A; 10.6-(16V)21V	**PowerSet Mode**	Yes
Stick Output (120)240V	10-(120A)220A; 20.4-(24.8V)28.8V	**TIG Start**	HV, Lift Start, Live Lift Start
I1Max (Inrush Amps)	120/240V: 43A/48A	**AC Wave Forms**	Adv. Sq./Soft Sq./Trian./Sine
I1Eff (Rated Input Amps)	120/240V: 34A/38A	**TIG Pulse**	0-250 Hz
Duty Cycle	60% @ Max. Output Each Process on 240V	**E 6010/Cellulose**	Yes, downhill, or closed root
OCV	80V	**Stick VRD**	Yes
Drive Roll Size	.035-.045" (.023-.030" possible with gun liner change)	**Remote Control**	Foot Pedal, 2T, 4T

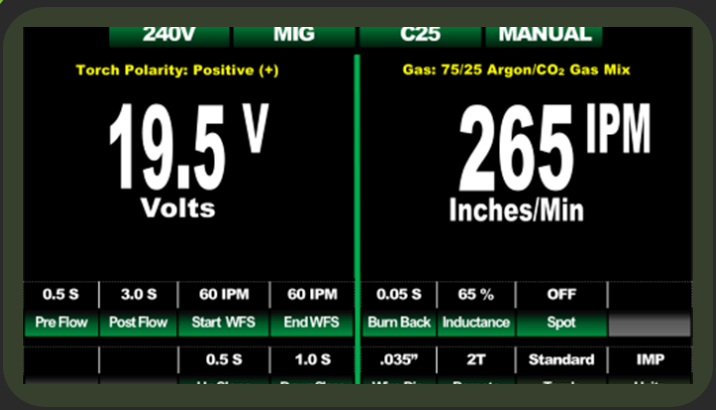
STANDARD EQUIPMENT

- 10 Ft. 320A 36 Series MIG Gun
- 18 Series Water-Cooled TIG Torch
- 10 Ft. Cable and 300A Work Clamp
- 10 Ft. Cable and 300A Electrode Holder
- NOVA Corded 25 Ft. Foot Pedal
- Consumable Starter Kits (No Wire or Tungsten Included)
- 8" Spool Adapter
- Power Adapter for 120V operation
- Argon Regulator, Floating Ball Type

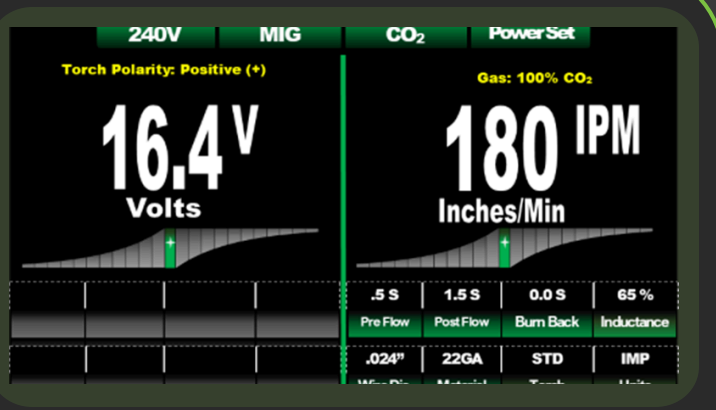
RECOMMENDED OPTIONAL EQUIPMENT

- 25 Ft. Parker DSP 360A Spool Gun
- 25 Ft. Parker SGP 360A or North MPG 300 Push-Pull Gun
- Drive Rolls and Liners (.023/.030, .035/.045 V, U groove or Flux
- NOVA Wireless Foot Pedal
- Power Cool W300 Water Cooler
- 10 or 15 Ft. 24 series MIG Gun (Best choice for under 230A use)
- 15 or 25 Ft. 20 series TIG Torch
- PowerCool 401 Water-Cooler
- PowerCart 301

MANUAL AND POWER SET FUNCTIONS



Manual Mode Screen



PowerSet Mode Screen

1. Information Bar.
2. Wire Speed Display. This doubles as Amp Meter When Welding.
3. Voltage Display. The Display Changes to Reflect Selected Parameter.
4. Spot/Stitch Timer.
5. Pre/Post Flow and Up and Down Slope Timers.
6. Burn Back Control Timer.
7. Inductance Adjustment.
8. Remote Operation Select.
9. Color Coded Display (Green/Yellow/Red).
10. Memory Save/Recall up to 30 programs.
11. Unit of Measure Selections.

1. Wire Size Selection Input.
2. Material Thickness Input.
3. Volt and Wire SpeedSettings are automatically calculated.
4. Other parameters that are not present are set at optimized settings.
5. Color-Coded Graphic "Slide" Indicators help you see the best settings.
6. Just the right amount of functions still leaves you in control.
7. Simplified Menu Navigation reduces new operator learning time.

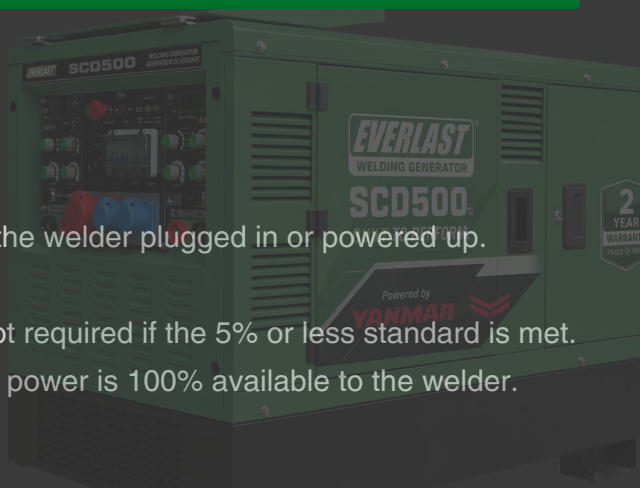
Other features are similar to manual mode.

GENERATOR OPERATION

Can this unit be operated on a generator? Sure.

Just keep this information in mind:

- Generator must provide clean power output (less than 5% THD).
- Minimum 13,000 surge watts required.
- Use proper shutdown procedures. Do not turn off the generator with the welder plugged in or powered up.
- Failure to follow guidelines may void warranty.
- Inverter-type generators are recommended for best results but are not required if the 5% or less standard is met.
- Only use the unit when the idle is at full throttle and, if applicable, the power is 100% available to the welder.



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