



TIG/STICK WELDING POWER SOURCE



DYNASTY[®] 300

P/N: MR907818003

Delivers superior arc performance and high precision welds every time.

- State-of-the-art LCD interface.
- Advanced capabilities.
- Premium results.



3 YEAR
WARRANTY

For details, refer to
Miller's True Blue
Warranty Statement.



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INDUSTRIAL APPLICATIONS

- Aerospace
- Heavy Fabrication
- Precision Fabrication
- Aluminum Ship Repair
- Pipe and Tube Fabrication
- Anodized Aluminum Fabrication

PROCESSES

- AC/DC TIG (GTAW)
- Pulsed TIG (GTAW-P)
- Stick (SMAW)
- Air Carbon Arc (CAC-A)

PRODUCT SPECIFICATIONS

Welding Mode	Input Power	Welding Amperage Range	Rated Output at 60% Duty Cycle	Amps 208V	Input 230V	Rated 400V	Load 460V	Output 600V	50/60 Hz KVA	KW	Max. Open Circuit Voltage
TIG (GTAW)	3 - phase	2-300A (AC) 1-300A (DC)	250A at 20V	19	17	10	8	7	7.5	6.6	60 VDC**
	1 - phase	2-300A (AC) 1-300A (DC)	250A at 20V	33	30	17	15	11	6.7	6.7	
Stick (SMAW)	3 - phase	5-300A	250A at 30V	*	*	14	12	9	9.8	9.1	
	1 - pahse	5-300 A	200A at 27.2V	35	32	*	*	*	9.3	9.2	

Dimensions Net Weight

H: 352mm
W: 216mm
D: 555mm

**Refer to owner's manual for complete ratings. **Sense voltage for low OCV stick and Lift-Arc™ TIG. IP23 rating – This equipment is designed for outdoor use. It may be stored, but is not intended to be used outside during precipitation unless sheltered. Operating temperature range is -10 to 40°C. Storage temperature range is -30 to 65°C. Portions of the preceding text are contained in EN 60974-1: "Welding power sources for arc welding equipment."*

PERFORMANCE DATA

Input Power	TIG (GTAW) Duty Cycle	Stick (SMAW) Duty Cycle	AC TIG Material Thickness	DC TIG Material Thickness	Stick Electrode Max. Diameter	Carbon Arc Gouging (CAC-A) Max.	Generator Requirement
380-600V	300A, 35% 250A, 60% 200A, 100%	300A, 25% 250A, 60% 200A, 100%	0.3–9.5 mm	0.1–9.5 mm	6.4 mm 5.6 mm 4.8 mm	4.8 mm	12.5 kW
208-240V	300A, 35% 250A, 60% 200A, 100%	300A, 15% 200A, 60% 150A, 100%					



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EASY-TO-UNDERSTAND INTERFACE WITH 114MM LCD DISPLAY

- Ensures proper machine setup and parameter selection.
- Informative on-screen explanations and dynamic images enhance the parameter selection process.

PROGRAM MEMORY

Allows easy naming, saving and recalling of favorite weld settings.

- Deliver more productivity by eliminating the need to manually set the parameters.
- Deliver consistent quality by welders of all skills.

PRO-SET™

Eliminates the guesswork when setting weld parameters.

LOCKS AND LIMITS

Provides control of weld parameter ranges minimising deviation from the welding procedure specification (WPS).

QUIETPULSE™

Activate QuietPulse by selecting sine or triangular waveshape to reduce audible noise.

AUTO-LINE™ TECHNOLOGY

Allows for any input voltage hookup (208-600 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

BLUE LIGHTNING™

Provides more consistent high-frequency (HF) arc starts and greater reliability compared to traditional arc starters.

LIFT-ARC™

Provides AC or DC arc initiation without the use of high frequency.

USB

Front panel port provides the ability to easily update software, back-up settings and transfer saved weld programs from one unit to the next.

COOLER POWER SUPPLY (CPS)

An integrated 120-volt dedicated-use receptacle for the Coolmate™ 1.3.

COOLER-ON-DEMAND™

Operates the auxiliary cooling system only when needed, reducing noise, energy use, and airborne contaminants pulled through the cooler.


WELD PROCESS FEATURES


AC TIG


Balance control provides adjustable oxide removal which is essential for creating the highest quality aluminum welds.


Frequency controls the width of the arc cone and can improve directional control of the arc.

AC Waveforms

 **Advanced square** provides a fast freezing puddle, deep penetration and fast travel speeds.

 **Soft square** for a soft buttery arc with maximum puddle control and good wetting action.

 **Sine** for customers that like a traditional arc. Quiet with good wetting.

 **Triangular** reduces the heat input and is good on thin aluminum. Fast travel speeds.


Independent amplitude/amperage control allows EP and EN amperages to be set independently to precisely control heat input to the work and electrode.


DC TIG


Exceptionally smooth and precise arc for welding exotic materials.

Pulse. Pulsing can increase puddle agitation, arc stability and travel speeds while reducing heat input and distortion.

Pulse Waveforms

 **Square** provides a fast freezing puddle for ultimate arc control.

 **Sine** produces a reduced audible sound and provides a more fluid puddle that is good for overlaying applications.

 **Triangular** provides a quick-forming puddle while further reducing heat for thin materials.

QuietPulse™. Activate QuietPulse by selecting sine or triangular waveshape to reduce audible noise.

AC/DC STICK

DIG control allows the arc characteristics to be changed for specific applications and electrodes. Lower the DIG setting for smooth running electrodes like E7018 and increase the DIG setting for stiffer, more penetrating electrodes like E6010.

Hot Start™ adaptive control provides positive arc starts without sticking.

AC frequency control adds stability for smoother welds when AC stick welding.

Stick-Stuck detects if the electrode is stuck to the part and turns the welding output off to safely and easily remove the electrode. Menu selectable.



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ORDERING INFORMATION - AVAILABLE BASE PACKAGES

AIR-COOLED SET UP

Part No.

Power Source

Dynasty® 300, CE

MR907818003

Required Accessories

Air-Cooled TIG Kit

KIT0006

Torch Accessory Kit

WGAK3

Stick Welding Addition

MMAW Lead Kit

AA73-1/5

WATER-COOLED SET UP

Power Source

Dynasty® 300, CE

MR907818003

Required Accessories

Coolmate 1.3

MR301616

Coolant

MR043810

Water-cooled TIG kit

KIT0008

Torch accessory kit

WGAK3

Stick Welding Addition

MMAW Lead Kit

AA73-1/5



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ORDERING INFORMATION - AVAILABLE BASE PACKAGES

Optional Accessories

TIG Torch Water-Cooled (Note: Not required if ordering KIT0008)	TIG005
TIG Torch Air-Cooled (Note: Not required if ordering KIT0006)	TIG006
Argon regulator & flow gauge (Note: Not required if ordering KIT0006 or KIT0008)	HA801AR
RMS-14 momentary push button 8m (Note: Not required if ordering KIT0006)	MR187208
RCC-14 TIG remote fingertip current control (Note: Not required if ordering KIT0006)	MR151086
Water-cooled torch dinse adaptor (Note: Not required if ordering KIT0008)	MR195377
RHC-14 Remote Hand Current control 6m	MR242211020
Wireless hand control & 14 pin receiver	MR301582
Wireless foot control & 14 pin receiver	MR301580
Small Runner™ cart to suit Dynasty/Maxstar 210 & 300	MR301615
