



TIG/STICK WELDING POWER SOURCE



DYNASTY[®] 400

P/N: MR907858002

Reimagined for your pursuit of perfection.

Experience unfailing precision arc performance paired with a state-of-the-art, user-friendly interface that puts advanced capabilities at your fingertips. The Dynasty 400 helps minimise error and achieve high-precision welds everytime, making the best welders even better.



3 YEAR
WARRANTY

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



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180MM LCD DISPLAY

Easy to understand interface with 180mm LCD display.

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

QUIET PULSE™

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

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

AUTO-LINE™ TECHNOLOGY

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

PROGRAM MEMORY

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

- Delivers more productivity by eliminating the need to manually set the parameters.
- Delivers 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 Specifications (WPS).

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™ 3.5.

COOLER-ON-DEMAND™

Feature 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 – essential for creating the highest quality aluminum welds. These models provide extended ranges.

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 aluminium. 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. These models provide extended ranges.

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.

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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INDUSTRIAL APPLICATIONS

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

PROCESSES

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

PRODUCT SPECIFICATIONS

Input Power	Welding Amperage Range	Rated Output	Amps 208V	Input 230V	Rated 400V	Load 460V	Output 600V	50/60 KVA	Hz	Max. Open Circuit Voltage	Dimensions	Net Weight
3 - phase	3-400A	250A at 30V, 100% duty cycle	28	26	14	13	10	10.3	9.8	75 VDC (10-15 VDC*)	H: 613mm W: 352mm D: 618mm	57kg with TIGRunner® 112kg
		300A at 32V, 60% duty cycle	36	33	19	16	12	13.1	12.5			
1 - phase	3-400A	200A at 27.2V, 100% duty cycle	39	35	19	17	12	8.2	7.5			
		250A at 29V, 60% duty cycle	52	47	26	22	16	10.9	9.9			

* Sense voltage for low OCV stick and Lift-Arc™ TIG.

PERFORMANCE DATA

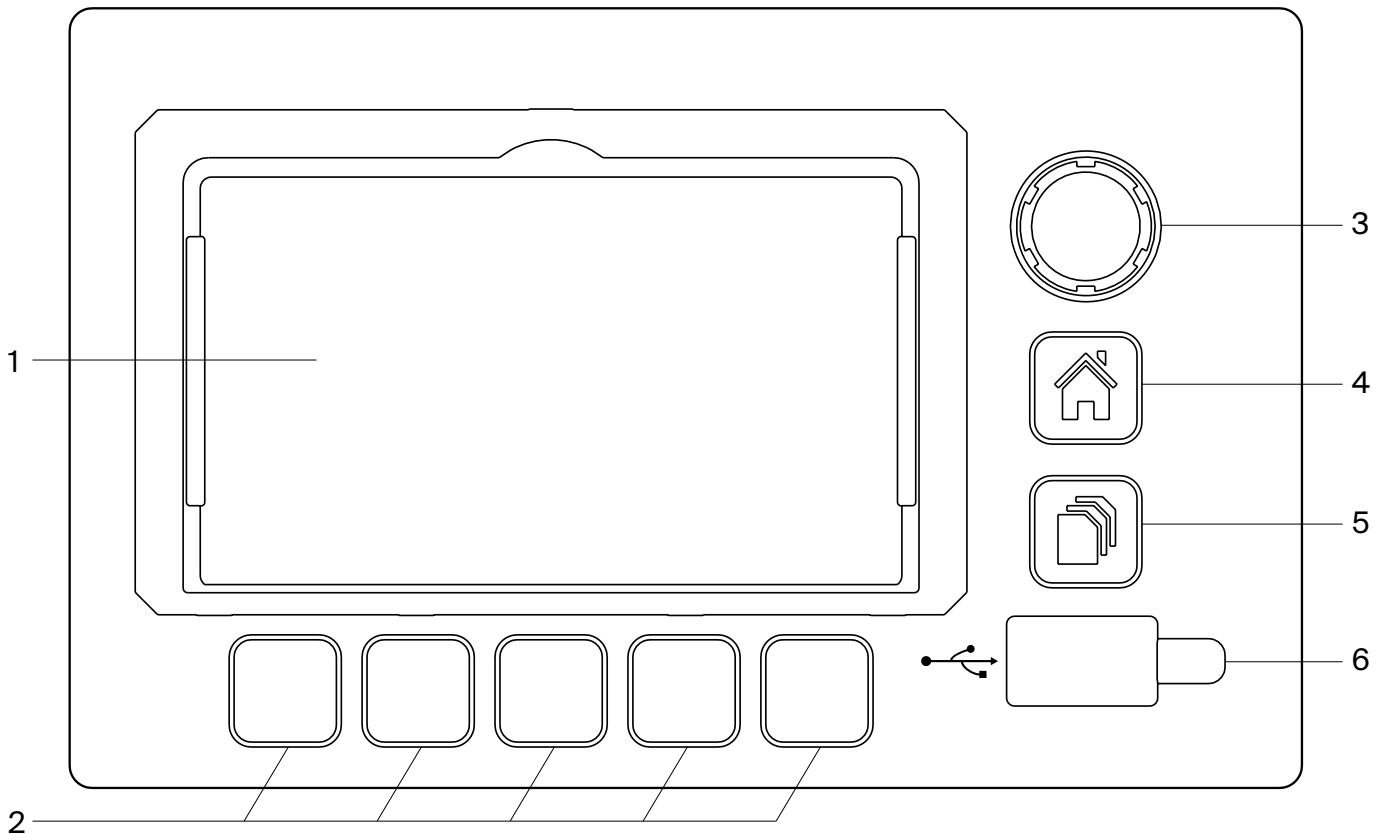
Input Power	TIG (GTAW) Duty Cycle	Stick (SMAW) Duty Cycle	AC TIG Material Thickness	DC TIG Material Thickness	Stick Electrode Max. Diameter	Carbon Arc Gouging (CAC-A) Max.	Generator Requirement
3-phase	400A, 20%	400A, 20%	0.38-15.9mm	0.3-15.9mm	6.4 mm	6.4mm	20 kVA
	300A, 60%	300A, 60%			6.4 mm		
	250A, 100%	250A, 100%			6.4 mm		
1-phase	300A, 20%	300A, 20%					
	250A, 60%	250A, 60%					
	200A, 100%	200A, 100%					



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DYNASTY[®] 400 CONTROL PANEL



- 1. Color LCD Display** provides weld processes and parameters, fuel level, maintenance and machine use information.
- 2. Soft Keys** (multiple functions depending on screen display).
- 3. Control Knob** (adjusts amperage or parameter values depending on mode).
- 4. Home Button**
- 5. Program Button**
- 6. USB Port**



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AMPERAGE	TIG AC 400: 3-400 A** TIG DC 400: 3-400 A** Stick 400: 3-400 A	Initial Amps AC 400: 3-400 A** Initial Amps DC 400: 3-400 A** Initial Time - 0.0-25.0 seconds Initial Slope - 0.0-50.0 seconds Weld Time - 0.0-999 seconds Final Slope - 0.0-50.0 seconds Final Amps AC 400: 3-400 A** Final Amps DC 400: 3-400 A** Final Time - 0.0-25.0 seconds
PROCESS	AC TIG HF, DC TIG HF, AC TIG Lift-Arc [™] , DC TIG Lift-Arc [™] , AC Stick, DC Stick, Carbon Arc Gouge, Hotwire	SEQUENCER CONTROL
TUNGSTEN	.05, 1.0, 1.6, 2.4, 3.2, 4.0, 4.8mm	PREFLOW 0.0-25.0 seconds
TRIGGER	Remote Standard: Foot, Finger, Pushbutton Sequencer: Pushbutton Hold (2T), 3T, 4T, 4TE	POSTFLOW Auto/Off-50 seconds
PULSE	Pulses Per Second* DC: 0.1-5,000 pps AC: 0.1-500 pps Peak Time* 5-95% Background Amps* 5-95% DC Pulse Waveshape Square, Sine, Triangular	DIG* Off-100%
AC WAVESHAPES	Balance* Ball: 30-99% EN Frequency* - 20-400 Hz Waveshape - Advanced Square, Soft Square, Sine, Triangular Independent EN Amperage: 400: 3-400 A** EP Amperage: 400: 3-400 A** EN Waveshape: Advanced Square, Soft Square, Sine, Triangular Commutation - Low, High	HOT START[™] On, Off STICK-STUCK On, Off OCV Normal, Low PROGRAMS 1-99 (user defined program names) LOCKS AND LIMITS Individual Parameters LANGUAGES English, Spanish, French, German, Italian, Dutch, Swedish, Polish

*Pro-Set parameter selectable.

**Amperage range is tungsten size dependent.



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Comes with:

- 2.5m power cord (no plug).
- Two 50mm Dinse-style connectors.

GENUINE MILLER ACCESSORIES

RUNNER CART MR300244



Designed to accommodate Dynasty 400 or Maxstar 400 power sources and a Coolmate™ 3.5 Cooler. Cart features single cylinder rack, foot pedal holder, three cable/torch holders, and two TIG electrode filler holders.

COOLMATE™ 3.5



MR301788 120V, 50/60 Hz, **CE**
Designed to integrate with the Dynasty 400 and Maxstar 400 power sources.

LOW-CONDUCTIVITY TIG COOLANT MR043810



Must be ordered in quantities of four. 3.8L recyclable plastic bottle. Miller coolants contains a base of ethylene glycol and deionized water to protect against freezing to -38°C or boiling to 108°C.

WIRELESS REMOTE FOOT CONTROL MR301580



For remote current and contractor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 27.4m operating range.

RFCS-14 HD FOOT CONTROL MR301589



Heavy-duty foot pedal current and contractor control provides increased stability and durability from larger base and heavier cord. Includes 6m cord with plug.

RCC-14 REMOTE CONTRACTOR AND CURRENT CONTROL MR151086



East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Great for production or contractors that need quick ramp-up. Includes 8m cord and 14-pin plug.

RCCS-14 REMOTE CONTROL AND CURRENT CONTROL MR043688



North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Great for applications that require a finer amperage control. Includes 8m cord and 14-pin plug.

RMS-14 ON/OFF CONTROL MR187208



Momentary-contact switch for contractor control. Rubber-covered pushbutton dome switch ideal for repetitive on-off applications. Includes 8m cord and 14-pin plug.

RHC-14 HAND CONTROL MR24221020



Miniature hand control for remote current and contractor control. Dimensions: 102 x 102 x 83 mm. Includes 6m cord and 14-pin plug.

WIRELESS REMOTE HAND CONTROL MR301582



For remote current and contractor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 91.4m operating range.

EXTENSION CABLES FOR 14-PIN REMOTE CONTROLS

MR242208025 - 7.6m
MR242208050 - 15.2m
MR242208080 - 24.4m



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ORDERING INFORMATION

EQUIPMENT AND OPTIONS	Part No.
Power Source	
Dynasty® 400	MR907858002
Accessories	
Runner Cart	MR300244
Coolmate 3.5 - 120 V, 50/60 Hz, CE. Requires coolant	MR301788
TIG Coolant (must be ordered in quantities of 4) - 3.8L plastic bottle. Protects against freezing to -38°C or boiling to 108°C	MR043810
Water-cooled TIG kit - includes 8m TIG torch, argon gas regulator, 5m work lead with earth clamp, 500A G type & dinse plug, 5m gas hose.	KIT0008
Remote Controls	
Wireless Remote Foot Control - Foot control with wireless 27.4m operating range	MR301580
RFCS-14 HD - Heavy-duty foot control	MR301589
RCC-14 - East/west fingertip control	MR151086
RCCS-14 - North/south fingertip control	MR043688
RMS-14 - Momentary rubber dome switch	MR187208
RHC-14 - Hand control	MR242211020
Wireless Remote Hand Control - Hand control with wireless 91.4m operating range	MR301582