Dynasty 200 Series



Quick Specs

⊕ (€

Industrial Applications

Precision Fabrication Petro/Chemical Aerospace Food/Beverage Industry Dairy Shipboard

Processes

TIG (GTAW)
Pulsed TIG (GTAW-P)
Stick (SMAW)
Air Carbon Arc (CAC-A) 5/32 in max.

Input Power 115-460 V, 3- or 1-Phase Power

Amperage Range 1-200 A

Rated Output 200 A at 28 V, 20% Duty Cycle

Weight 45 lb (20.5 kg)

The Power of Blue®



Allows for any input voltage hookup (115–460 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

Fan-On-Demand™ power source cooling system operates only when needed, reducing noise, energy use and the amount of contaminants pulled through the machine.



Lift-Arc™ starting provides x-ray clean welds in AC or DC arc starting without the use of high frequency.

Blue Lightning™ high-frequency arc starter for non-contact arc initiation. Provides more consistent arc starts and greater reliability compared to traditional HF arc starters. Easy to set and increases productivity.





Power source is warranted for 3 years, parts and labor. Original main power rectifier parts are warranted for 5 years. Water cooler is warranted for 1 year, parts and labor.

AC TIG Features

Extended AC balance (30–99%) controls the amount of oxide cleaning (amperage time in EN) which is essential for high quality welds on aluminum.

AC frequency (20–250 hz) controls the width of the arc cone and the force of the arc.

AC Waveforms

Advance Squarewave, fast freezing puddle, deep penetration and fast travel speeds.

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

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

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

DC TIG Features

Exceptionally smooth and precise arc for welding exotic materials.

Stick Features (AC/DC)

Tailored arc control (DIG) allows the arc characteristic to be changed for specific applications and electrodes. Smooth running 7018 or stiffer, more penetrating 6010.

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

AC frequency control adds additional stability when Stick welding in AC for smoother welds.

MADE IN LICA



Miller Electric Mfg. Co.

An Illinois Tool Works Company 1635 West Spencer Street Appleton, WI 54914 USA

Equipment Sales US and Canada

Phone: 866-931-9730 FAX: 800-637-2315

International Phone: 920-735-4554 International FAX: 920-735-4125

Web Site

www.MillerWelds.com



Specifications (Subject to change without notice.)









Welding Mode	Welding Amperage Range	Max. Open- Circuit Voltage	Input Power	Rated Output	Amps 115 V		Rated I 400 V)/60 Hz KW	Dimensions	Net Weight
TIG (GTAW)	AC 5-150 A DC 1-150 A (115 VAC) AC 5-200 A DC 1-200 A (200-460 VAC)	80 VDC 5-10 VDC**	3-Phase	200 A at 18 V, 20% Duty Cycle 150 A at 16 V,		13.7 0.16* 9.4	8.7 0.24* 6.0	6.9 0.25* 4.7	5.5 0.06* 3.8	5.2 0.03* 3.6	H: 13-1/2 in (343 mm) W: 7-1/2 in (191 mm) D: 21-1/2 in (546 mm) with TIGRunner® H: 46-1/4 in (1,175 mm) W: 23-1/2 in (597 mm) D: 22-1/4 in (565 mm)	45 lb (20.5 kg) with Contractor Kit 77 lb (34.9 kg) with TIGRunner® 137 lb (62.1 kg)
			1-Phase	60% Duty Cycle 150 A at 16 V.	<u> </u>	0.16*	0.24*	0.25* 7.9	0.06* 3.6	0.03* 3.6		
			I-Filase	60% Duty Cycle	_	0.23*	_	0.25*	0.05* 3.6	0.02* 3.5		
				140 A at 15.6 V, 40% Duty Cycle	31.0 0.42*				0.05*	0.03*		
				100 A at 14 V, 100% Duty Cycle	20.7 0.42*	_		_	2.3 0.05*	2.3 0.03*		
Stick (SMAW)	AC 5-105 A DC 1-105 A (115 VAC) AC 5-200 A DC 1-200 A (200-460 VAC)	5-10 VDC**	3-Phase	200 A at 28 V, 20% Duty Cycle		20.8 0.16*	13.0 0.24*	10.2 0.25*	8.1 0.06*	7.8 0.03*		
				130 A at 25.2 V, 60% Duty Cycle	_ _	12.3 0.16*	7.6 0.24*	6.0 0.25*	4.8 0.06*	4.6 0.03*		
			1-Phase	130 A at 25.2 V, 60% Duty Cycle	_	20.0 0.23*	_	10.0 0.25*	4.7 0.05*	4.7 0.03*		
				100 A at 24 V, 60% Duty Cycle	31.3 0.42*	_	_	_	3.6 0.05*	3.6 0.03*		
				90 A at 23.6 V, 100% Duty Cycle	27.6 0.42*	=	=	=	3.2 0.05*	3.2 0.03*		

^{*} While idling. ** Sense voltage for Stick and Lift-Arc™ TIG. Note: Duty cycle limitations on units with 115 V input power are due to the input power cord supplied with the unit.

Certified by Canadian Standards Association to both the Canadian and U.S. Standards. CE models conform to the applicable parts of the IEC 60974 series of standards.

Performance Data

DUTY CYCLE

110-120 V INPUT VOLTAGE

%	TIG	STICK		
30%	150 A	100 A		
40%	140 A	100 A		
60%	120 A	100 A		
100%	100 A	90 A		

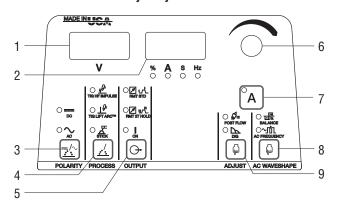
200-460 V INPUT VOLTAGE

%	TIG	STICK
20%	200 A	200 A
30%	180 A	170 A
40%	166 A	150 A
60%	150 A	130 A
100%	120 A	110 A

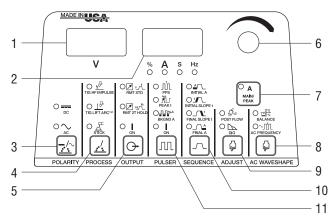


Control Panel

Dynasty 200 SD



Dynasty 200 DX



Control Panel Parameter Values

1. Voltmeter Display

2. Ammeter Display

3. Polarity AC/DC

4. Process/ TIG: HF Impulse, Lift Arc Arc Starting STICK: Adaptive Hot Start

5. Output Control Standard Remote,

2T Trigger Hold, Output ON

6. Encoder Control

7. Amperage Control

8. AC Waveshape

 $\begin{array}{ll} \text{Balance} & 30-99\% \\ \text{AC Frequency} & 20-250 \text{ Hz} \end{array}$

9. Gas/DIG Preflow 0.0-25.0 Seconds

Postflow 0-50 Seconds **DIG** 0-100%

Advanced features on the Dynasty DX only:

10. Sequencer Control

Initial Amps AC: 5-200 ADC: 1-200 AInitial Slope 0.0-25.0 SecondsFinal Slope 0.0-25.0 SecondsFinal Amps AC: 5-200 A

DC: 1-200 A

11. Pulser Control

Pulses per Second DC: 0.1-500 PPS

AC: 0.1-500 PPS

Peak Time 5–95% Background Amps 5–95% Additional Setup Parameter Values

Preprogrammed Starts

.020-1/8 in Tungsten

Programmable Starts

Amperage AC: 5 – 200 A DC: 1 – 200 A

Time 1-200 Milliseconds

Ramp Time 1-250 Milliseconds Minimum Amperage 1-20 A

Polarity EP, EN

Additional Triggers 3T, 4T, Mini Logic,

4T Momentary

Waveshapes Advance Squarewave,

Soft Squarewave, Sine

Wave, Triangular wave

Spot/Timer 0.1-25.0 Seconds

OCV Low OCV, Normal OCV

Stick Stuck Check On/Off

Lockouts Four levels

Arc Timer 0.0 – 9999 Hours

and 0-59 Min

Cycle Counter 0-999,999 Cycles

TIG Upgrade Chart

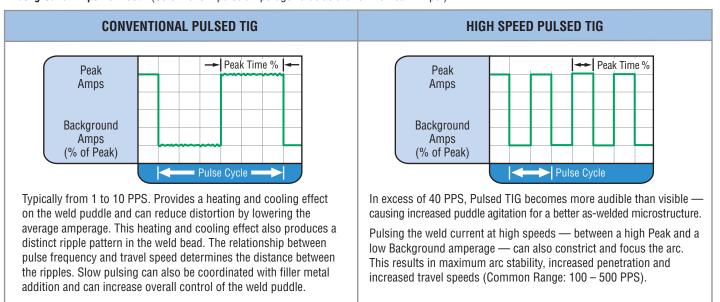
Which Machine is Right for You?

Why Upgrade?	Syncrowave 200	Dynasty 200	Dynasty 200 Benefits
Maximum Thickness Capacity	1/4 in Aluminum	1/4 in Aluminum	Same material thickness capacity.
High Frequency Arc Starting	Continuous HF UPGRADE	Start Only	Start Only limits HF interference issues.
Frequency Control AC Output Control	Fixed at 60 Hz UPGRADE	Variable 20–250 Hz	Higher frequencies provide better arc control and faster travel speeds.
AC Waveforms	Soft Squarewave UPGRADE	Advanced Squarewave Soft Squarewave Sine Wave Triangular Wave	Advanced Squarewave = Travel faster Soft Squarewave = Maximum puddle control Sine Wave = Traditional characteristics Triangular Wave = Reduced heat input
Weld Aluminum with Pointed Tungsten	UPGRADE		Waveshaping controls maintain the point. The benefits are: reduced heat input into your part, smaller weld beads, better starting and more control of the arc.
Portability	238 lb UPGRADE Manual Link 208–230 or 460–575 V Single-Phase	45 lb Auto-Line™ 115-460 V Single-Phase or Three-Phase	Easier to move because of size and weight. Auto-Line™ allows the unit to operate on any voltage. Single- or three-phase. Even generators!
Power Draw at 150 Amps	54 A at 230 V Single-Phase	15.8 A at 230 V Single-Phase	Power requirement to operate is much less. Smaller electrical service needed, smaller breaker/fuses and power cord.

Pulse TIG Controls

High Speed DC TIG-Pulse Controls

- PPS Pulses per second (Hz): DC = 0.1 500 PPS / AC = 0.1 500 PPS
- % ON % Peak Time: 5 95% (Controls the amount of time during each pulse cycle at the PEAK amperage.)
- Background Amps: 5 99% (Sets the low-pulse amperage value as a % of the Peak Amps.)



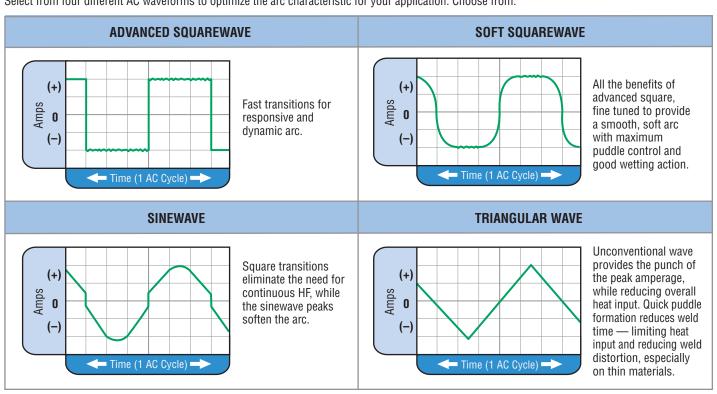


AC Waveshape Controls

Feature Waveform **Effect on Bead Effect on Appearance** Narrow bead, with no **AC Balance Control** 51 - 99% EN Reduces balling action and helps visible cleaning Controls are cleaning action. Adjusting the maintain point Amperage **o** % **EP** % EN of the AC wave controls the width of Bead the etching zone surrounding the weld. % EN Note: Set the AC Balance control for adequate arc Deep, narrow cleaning action at the sides and in front of the weld penetration No Visible Cleaning puddle. AC Balance should be fine tuned according to how heavy or thick the oxides are. Wider bead and 30 - 50% EN Increases balling cleaning action action of the electrode Amperage 0 % EP Bead % EN Shallow penetration Cleaning 60 Cycles per Second Wider bead and Wider bead, **AC Frequency Control** good penetration cleaning action Controls the width of the arc cone. Increasing Amperage **0** ideal for buildup work % **EP** the AC Frequency provides a more focused arc with increased directional control. Bead % EN Note: Decreasing the AC Frequency softens the arc and broadens the weld puddle for a wider weld bead. Cleaning 120 Cycles per Second Narrower bead for Narrower bead and cleaning action fillet welds and Amperage 0 automated applications Bead Cleaning

AC Waveform Selection

Select from four different AC waveforms to optimize the arc characteristic for your application. Choose from:





Packages



Dynasty® 200 Power Sources

Dynasty® 200 SD #907 099 (CSA) Dynasty® 200 DX #907 099-01-1 (CSA) Dynasty® 200 DX #907 356 (CE) Includes adjustable shoulder strap, 8 ft (2.4 m) primary power cord, (2) Dinse 50 connectors, (1) air-cooled TIG torch adapter (#195 378) and DVD Setup Video (#251 116).

Note: See page 7 for recommended Contractor Torch Kit.



Dynasty® 200 DX Contractor Kit Packages (Air Cooled)

Dynasty 200 DX with Contractor Kit #951 174 (CSA) w/Foot Control #951 175 (CSA) w/Fingertip Control

Packages include:

- Dynasty® 200 DX (#903 099-01-1)
- RFCS-14 HD foot pedal (#194 744) or RCCS-14 fingertip control (#043 688)
- Protective carrying case for accessories
- Weldcraft® 25 ft (7.6 m) WP17 TIG torch with adapter
- Smith® flow gauge regulator with gas hose
- AK2C accessory kit
- .040", 1/16" and 3/32" cerium tungsten
- Collets and cups
- 200 amp, 15 ft (4.6 m) Stick electrode holder
- Work clamp with 15 ft (4.6 m) #4 cable
- (1) air-cooled TIG torch adapter (#195 378)



TIGRunner® Package (Water Cooled)

Dynasty 200 DX TIGRunner® #907 099-02-1 (CSA)

Completely assembled.

Package includes:

- Dynasty® 200 DX (#907 099-01-1)
- Coolmate[™] 1, 120 VAC (#300 360)
- 1 gallon of pre-mixed, low-conductivity coolant (#043 810)

2-Wheel Trolley Cart (#300 480) with the following features: easy-to-maneuver single-cylinder cart with cable and torch holders. Easy to release and remove welder from cart for even more portability. Convenient tray for consumable storage and filler rod holders.

Notes: TIG Torch Adapter must be ordered separately. See page 7 for recommended 250 A Water-Cooled Torch Kit (#300 185).

The Coolmate 1 requires a separate source for electricity. The Dynasty 200 does not contain auxiliary power.



Complete Packages (Water Cooled)

Dynasty 200 DX Complete #951 397 (CSA) w/Wireless Foot Control #951 139 (CSA) w/Foot Control #951 140 (CSA) w/Fingertip Control

Completely assembled.

Package includes:

- Dynasty® 200 DX (#907 099-01-1)
- Coolmate[™] 1, 120 VAC (#300 360)
- 1 gallon of pre-mixed, low-conductivity coolant (#043 810)
- Wireless Remote Foot Control (#300 429) or RFCS-14 HD foot control (#194 744) or RCCS-14 fingertip control (#043 688)
- 2-Wheel Trolley Cart (#300 480) with the following features: easy-to-maneuver single-cylinder cart with cable and torch holders. Easy to release and remove welder from cart for even more portability. Convenient tray for consumable storage and filler rod holders.
- 250 A Water-Cooled Torch Kit and Accessories (#300 185) See page 7 for more details.

Note: The Coolmate 1 requires a separate source for electricity. The Dynasty 200 does not contain auxiliary power.



Genuine Miller Accessories



2-Wheel Trolley Cart #300 480

Easy-to-maneuver two-wheel cart features single-cylinder rack, chain for cylinder, straps (quick and easy to detach and carry machine), cable holders, torch holder, storage area, and filler rod storage area. Works

with Dynasty® or Maxstar® 200 and Coolmate™ 1. Contact you local distributor for filler material holders.



Universal Carrying Cart and Cylinder Rack #042 934

Holds power source, and gas cylinder up to 56 in (142 cm) high and 6 to 9 in (15 to 23 cm) in diameter.



Coolmate" 1 #300 360 120 VAC 60 Hz CSA #300 360-00-1 120 VAC 60 Hz CE

#300 459 240 VAC 50/60 Hz **CSA #300 459-00-1** 240 VAC 50/60 Hz **CE**

1-gallon water cooler designed for 200 A portable welders. Features include: Fin-and-Tube heat exchanger, back-lit power switch, external filter, polyethylene tank and coolant level sight gauge.



TIG Coolant #043 810

Sold in multiples of 4. Pre-mixed low-conductivity Miller coolant contains ethylene glycol and

deionized water to protect from freezing and boiling -37° to 227°F (-38° to 108°C). 1-gallon plastic recyclable bottles.



250 A Water-Cooled Torch Kit #300 185

- 25 ft (7.6 m) Weldcraft® WP2025RM torch
- Torch cable cover
- AK4C torch accessory kit includes shielding cups, collets, collet bodies and 2% cerium tungsten electrodes (1/16, 3/32 and 1/8 in)
- Smith® regulator/flowmeter HM2051A-580
- Gas hose (regulator to machine)
- Water-cooled Dinse torch adapter
- 15 ft (4.6 m) 1/0 weld lead with clamp (work or ground lead) and Dinse connector



Water-Cooled Dinse #195 377

Used to adapt WP20, WP18, and CS310 to

dinse-style connector. Order from Miller Parts.



Contractor Kits

#195 054 Foot Pedal Kit **#195 055** Fingertip Kit

RFCS-14HD foot or RCCS-14 fingertip control, protective carrying case, 150 amp WP17 25 ft (7.6 m) TIG torch with adapter, Smith® flow gauge regulator and gas hose, AK2C accessory kit (.040, 1/16, and 3/32 in cerium tungsten, collets and cups), Stick electrode holder, 200 amp, 15 ft (4.6 m) #4 cable, and work clamp with 15 ft (4.6 m) #4 AWG cable.



200 Amp Air-Cooled Torch #WP2612RM (12 ft) #WP2625RM (25 ft)

Torch body gas valve models are available.

Note: Adapter #195 379 required for WP26. Order from Miller Parts.



Air-Cooled Torch Adapters #195 378 WP17, WP9, WP50, WP23

#195 379 WP26 Order from Miller Parts.

Gas Tungsten Arc (TIG) Welding Book #170 555

To order, distributors can call the Miller Literature Distribution Center at 1-920-735-4356, or FAX 1-920-735-4011.

Ron Covell TIG Welding Basics DVD

To order go to MillerWelds.com

DVD Setup Video #251 116

Video topics include Tungsten Selection, Setup Menus, DC Pulse, Sequencer, Balance and Frequency Settings. (Included with machine.)

Tungsten

Tungsten is 7 in length and available in pkgs of 10. Order from Miller Parts.

2% Ceriated (orange) for AC/DC applications

#WC040X7 .040 in, 10-80 A **#WC116X7** 1/16 in, 70-150 A

#WC332X7 3/32 in, 140-250 A **#WC018X7** 1/8 in, 225-400 A

#WC532X7 5/32 in, 300-500 A

1.5% Lanthanum (gold) for AC/DC applications

#WL040X7 .040 in, 10-80 A **#WL116X7** 1/16 in, 70-150 A

#WL332X7 3/32 in, 140–250 A

#WL018X7 1/8 in, 225-400 A **#WL532X7** 5/32 in, 300-500 A

Remote Controls and Switches



Wireless Remote Foot Control #300 429

For remote current and contactor control. Receiver plugs directly into the 14-pin

receptacle of Miller machine. 90 ft (27.4 m) operating range.



Wireless Remote Hand Control #300 430

For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 300 ft (91.4 m) operating range.



RCCS-14 Remote Contactor and Current Control #043 688 14-pin plug

North/south rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 26.5 ft (8 m) control cord.



RFCS-14 HD Foot Control #194 744

Maximum flexibility is accomplished with a reconfigurable cord that can

exit the front, back or either side of the pedal. Foot pedal provides remote current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.



RHC-14 Hand Control #242 211 020

Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3-1/4 in (102 x 102 x 83 mm). Includes 20 ft (6 m) cord and 14-pin plug.



RMLS-14 Switch #129 337

Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and backward for momentary contact. Includes 26.5 ft (8 m) cord and 14-pin plug.



RMS-14 On/Off Control #187 208

Momentary-contact switch for contactor control. Rubber-covered pushbutton dome switch ideal for repetitive on-off applications. Includes 26.5 ft (8 m) cord and 14-pin plug.

Extension Cables for 14-Pin Remote Controls

#242 208 025 25 ft (7.6 m) **#242 208 050** 50 ft (15.2 m)

#242 208 080 80 ft (24.4 m)



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Dynasty® 200 SD	#907 099	Auto-Line™ 115-460 VAC, 50/60 Hz, CSA. 8 ft primary cord		
Dynasty® 200 DX	#907 099-01-1	Auto-Line™ 115-460 VAC, 50/60 Hz, CSA . 8 ft primary cord		
Dynasty® 200 DX International	#907 356	Auto-Line™ 115 – 460 VAC, 50/60 Hz, CE . 8 ft primary cord		
Air-Cooled Packages				
Dynasty® 200 DX Contractor Kit w/Foot Control	#951 174	Auto-Line™ 115-460 VAC, 50/60 Hz, CSA. 8 ft primary cord		
Dynasty® 200 DX Contractor Kit w/Fingertip Control	#951 175	Auto-Line™ 115-460 VAC, 50/60 Hz, CSA. 8 ft primary cord		
Water-Cooled Packages				
Dynasty® 200 DX TIGRunner®	#907 099-02-1	Auto-Line™ 115 – 460 VAC, 50/60 Hz, CSA . 8 ft primary cord (Torch kit and accessories sold separately.)		
Dynasty® 200 DX Complete with Wireless Remote Foot Control	#951 397	Auto-Line™ 115 – 460 VAC, 50/60 Hz, CSA. 8 ft primary cord		
Dynasty® 200 DX Complete w/Foot Control	#951 139	Auto-Line™ 115-460 VAC, 50/60 Hz, CSA . 8 ft primary cord		
Dynasty® 200 DX Complete w/Fingertip Control	#951 140	Auto-Line™ 115-460 VAC, 50/60 Hz, CSA. 8 ft primary cord		
TIG Torch Kits				
Weldcraft® 250 A Water-Cooled Torch Kit	#300 185	See page 7	İ	
Contractor Kit Foot Pedal (Air-Cooled)	#195 054	See page 7		
Contractor Kit Fingertip (Air-Cooled)	#195 055	See page 7		
Weldcraft® 200 A Air-Cooled Torch	#WP2625RM	Adapter #195 379 required. Order from Miller Parts		
Consumables and Tungsten		Distributor: See Miller Parts Catalog		
Remote Controls				
Wireless Remote Foot Control	#300 429	Foot control with wireless 90 ft (27.4 m) operating range		
Wireless Remote Hand Control	#300 430	Hand control with wireless 300 ft (91.4 m) operating range	1	
RCCS-14	#043 688	North/south fingertip control		
RFCS-14 HD	#194 744	Heavy-duty foot control		
RHC-14	#242 211 020	Hand control		
RMLS-14	#129 337	Momentary/maintained rocker switch		
RMS-14	#187 208	Momentary rubber dome switch		
Extension Cables	#242 208 025 #242 208 050 #242 208 080	25 ft (7.6 m) 50 ft (15.2 m) 80 ft (24.4 m)		
Accessories				
2-Wheel Trolley Cart	#300 480	See page 7		
Universal Carrying Cart and Cylinder Rack	#042 934	See page 7		
Coolmate™ 1	#300 360 #300 360-00-1 #300 459 #300 459-00-1	120 VAC, 60 Hz, CSA . Requires coolant 120 VAC, 60 Hz, CE . Requires coolant 240 VAC, 50/60 Hz, CSA . Requires coolant 240 VAC, 50/60 Hz, CE . Requires coolant		
TIG Coolant	#043 810	Sold in multiples of four in 1-gallon plastic bottles		
Gas Tungsten Arc (TIG) Welding Book	#170 555	Order at MillerWelds.com/resources/tools		
Ron Covell TIG Welding Basics DVD		Order at MillerWelds.com/resources/tools		
DVD Setup Video	#251 116	Included with machine		
Water-Cooled Dinse Order from Miller Parts	#195 377	Used to connect water-cooled torch to Dinse terminal machine. For WP20, WP18 and SC310 (adapter included in Complete Package)		
Air-Cooled Dinse Order from Miller Parts	#195 378 #195 379	Used to connect WP17, WP9 and WP23 torch to Dinse terminal machine Used to connect WP26 torch to Dinse terminal machine		
Dinse Connector 50 mm (1 male)	#042 418	Used to connect weld lead to Dinse terminal machine		
Dinse Connector 50 mm (1 male, 1 female)	#042 419	Used to extend weld cables		
Tweco® Terminal Adapter	#042 465	Male Dinse to female Tweco		
Cam-Lok Terminal Adapter	#042 466	Male Dinse to female Cam-Lok		
Miscellaneous				
Stick Electrodes				
Welding and Work Cables				
Welding Gloves and Helmet				

Date: Total Quoted Price:



Distributed by: