

Maxstar® and Dynasty® 210/280 Series

DC (Maxstar) and AC/DC (Dynasty) TIG and Stick

See literature DC/32.1 (Maxstar 210), DC/35.0 (Maxstar 280), AD/4.81 (Dynasty 210) and AD/4.9 (Dynasty 280)



Maxstar and Dynasty
210 Series (Maxstar 210 shown).

Dynasty 280 DX



See page 125

210 Series TIG Welding Capability

Max. 1/4 in. (6.4 mm)	Max. 1/4 in. (6.4 mm)
Steel	Aluminum (Dynasty only)
Min. 0.002 in. (0.05 mm)	Min. 0.012 in. (0.3 mm)

280 Series TIG Welding Capability

Max. 3/8 in. (9.5 mm)	Max. 3/8 in. (9.5 mm)
Steel	Aluminum (Dynasty only)
Min. 0.004 in. (0.1 mm)	Min. 0.012 in. (0.3 mm)

Base and DX models available. Base model provides essential TIG and stick functions. DX model adds extended ranges to sequencer, full trigger options, and full preflow and pulser functions.

Note: See page 41 in the Multiprocess section for the Maxstar 280 Multiprocess and Dynasty 280 DX Multiprocess, and see page 50 in the Stick section for the Maxstar 210 STR.

AUTO-LINE TECHNOLOGY Allows for any input voltage hookup (210 models: 120–480 V, 280 models: 208–575 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

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

Lift-Arc™ provides AC or DC arc initiation without the use of high frequency.

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

Auto-postflow adjusts the length of postflow time based on the amperage setting, shielding your tungsten and eliminating the need to set the postflow time.

Pro-Set™ eliminates the guesswork when setting weld parameters. Use Pro-Set when you want the speed, convenience and confidence of preset controls. Simply select the feature and adjust until Pro-Set appears on the display.

Sleep timer conserves electricity. This programmable feature will power down the machine if it sits idle for a specified time.

Update and expand. Front panel memory card data port provides the ability to easily update software and expand product features.

Optional cooler power supply (CPS) is an integrated 120-volt dedicated-use receptacle for the Coolmate™ 1.3. *Not available on Maxstar 210 Series.*

Cooler-On-Demand™ feature operates the auxiliary cooling system only when needed. Reduces noise, energy use, and airborne contaminants pulled through the cooler. *Only available on CPS models.*

*Refer to owner's manual for complete ratings.

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

Model/ Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output at 60% Duty Cycle	Amps Input at Rated Load Output, 50/60 Hz								Max. Open- Circuit Voltage	Dimensions	Net Weight		
					120 V	208 V	230 V	240 V	400 V	460 V	480 V	575 V				KVA	KW
DC Maxstar Maxstar 210 (907683) Maxstar 210 DX (907684)	TIG	3-phase	1-210	210 A at 18.4 V	–	14	–	12	7	–	6	–	5.2	4.9	80 VDC (11 VDC**)	H: 13.6 in. (346 mm) W: 8.6 in. (219 mm) D: 19.5 in. (495 mm)	38 lb. (17.2 kg)
			1-210	210 A at 18.4 V	–	24	–	20	12	–	10	–	4.9	4.9			
		1-phase (120 V)	1-150	125 A at 15 V	22	–	–	–	–	–	–	–	2.6	2.6			
	Stick	3-phase	5-210	160 A at 26.4 V	–	15	–	13	8	–	6	–	5.5	5.2			
			1-phase	5-210	160 A at 26.4 V	–	26	–	22	13	–	11	–	5.3			
		1-phase (120 V)	5-100	90 A at 23.6 V	23	–	–	–	–	–	–	–	2.8	2.8			
Maxstar 280 (907552) (907538) with CPS Maxstar 280 DX (907553) (907539) with CPS	TIG	3-phase	1-280	250 A at 20 V	–	21	19	–	11	9	–	7	7.6	7.3	60 VDC (11 VDC**)	H: 13.6 in. (346 mm) W: 8.6 in. (219 mm) D: 22.5 in. (569 mm)	47 lb. (21.3 kg) 50 lb. (22.7 kg) with CPS
			1-phase	1-280	250 A at 20 V	–	35	32	–	18	16	–	13	7.3			
	Stick	3-phase	5-280	250 A at 30 V	–	*	*	–	14	13	–	10	9.9	9.6			
			1-phase	5-280	180 A at 27.2 V	–	32	29	–	*	*	–	6.7	6.5			
		1-phase (120 V)	5-280	180 A at 27.2 V	–	32	29	–	*	*	–	*	6.7	6.5			
			5-280	180 A at 27.2 V	–	32	29	–	*	*	–	*	6.7	6.5			



Industrial 
CC ^{AC} **3** **1** ^{DC} ^{Phase} ^{Phase} Maxstar is DC only

- Processes**
- TIG (GTAW) ▪ Stick (SMAW)
 - Pulsed TIG (GTAW-P)
 - Air carbon arc (CAC-A) w/280 models

- Comes with**
- 8 ft. (2.4 m) power cord (no plug)
 - Two 50 mm Dinse-style connectors
 - Quick-reference guide (Dynasty only)

- Complete packages come with**
- 8 ft. (2.4 m) power cord (no plug)
 - Quick-reference guide
 - Small Runner™ cart
 - Coolmate™ 1.3
 - Coolant (four 1-gallon bottles)
 - Remote control (foot or wireless foot)
 - Weldcraft™ water-cooled torch kit
 Dynasty 210: W-250
 Dynasty 280: W-280

- Most popular accessories**
- 2-Wheel Trolley Cart 300971 (pg 119)
 - Small Runner™ Cart 301318 (pg 119)
 - Coolmate™ 1.3 300972 (pg 119)
 - Coolant 043810 (pg 119)

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- Contractor Kits** (pg 124)
- 301309 A-150 w/RFCS-14 HD
 - 301311 A-150 w/RCCS-14
 - 301549 A-200 w/RFCS-14 HD
 - 301550 A-200 w/RCCS-14

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- Weldcraft™ Water-Cooled Torch Kits** (pg 124)
- 300185 W-250 (WP-20)
 - 300990 W-280 (WP-280)
 - 301268 W-375
- Remote Controls** (pg 124-125)
- 043688 RCCS-14 fingertip control
 - 194744 RFCS-14 HD foot control
 - 300429 Wireless foot control

Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Dynasty welders add AC TIG capabilities and the following AC features (limited on base model)

Waveforms for advanced squarewave, soft squarewave, sine wave and triangular wave.
Balance control provides adjustable oxide removal which is essential for creating the highest quality aluminum welds. DX models provide extended ranges.
Frequency controls the width of the arc cone and can improve directional control of the arc.



Dynasty 280 DX Complete package with wireless foot control and CPS shown.

Dynasty Water-Cooled Complete Packages

Additional packages are available — visit MillerWelds.com or your distributor.

Model	Packages with Foot Control and CPS	Packages with Wireless Foot Control and CPS
Dynasty 210	(951666)	(951667)
Dynasty 210 DX	(951668)	(951669)
Dynasty 280	(951466)	—
Dynasty 280 DX	(951468)	(951469)

*Refer to owner's manual for complete ratings.
 **Sense voltage for low OCV stick and Lift-Arc™ TIG.

Model/Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output at 60% Duty Cycle	Amps Input at Rated Load Output, 50/60 Hz										Max. Open-Circuit Voltage	Dimensions	Net Weight
					120 V	208 V	230 V	240 V	400 V	460 V	480 V	575 V	KVA	KW			
Dynasty 210 (907685) with CPS Dynasty 210 DX (907686) with CPS	TIG	3-phase	1-210	210 A at 18.4 V	—	14	—	12	7	—	6	—	5.2	4.9	80 VDC (11 VDC**)	H: 13.6 in. (346 mm) W: 8.6 in. (219 mm) D: 22.5 in. (569 mm)	47 lb. (21.3 kg) 50 lb. (22.7 kg) with CPS
		1-phase	1-210	210 A at 18.4 V	—	24	—	20	12	—	10	—	4.9	4.9			
		1-phase (120 V)	1-150	125 A at 15 V	22	—	—	—	—	—	—	—	2.6	2.6			
	Stick	3-phase	5-210	160 A at 26.4 V	—	15	—	13	8	—	6	—	5.5	5.2			
		1-phase	5-210	160 A at 26.4 V	—	26	—	22	13	—	11	—	5.3	5.3			
		1-phase (120 V)	5-100	90 A at 23.6 V	23	—	—	—	—	—	—	—	2.8	2.8			
Dynasty 280 (907550) with CPS Dynasty 280 DX (907551) with CPS	TIG	3-phase	2-280 (AC) 1-280 (DC)	250 A at 20 V	—	21	19	—	11	9	—	7	7.6	7.3	60 VDC (11 VDC**)	H: 13.6 in. (346 mm) W: 8.6 in. (219 mm) D: 22.5 in. (569 mm)	52 lb. (23.6 kg) 55 lb. (25 kg) with CPS
		1-phase	2-280 (AC) 1-280 (DC)	250 A at 20 V	—	35	32	—	18	16	—	13	7.3	7.1			
	Stick	3-phase	5-280	250 A at 30 V	—	*	*	—	14	13	—	10	9.9	9.6			
		1-phase	5-280	180 A at 27.2 V	—	32	29	—	*	*	—	*	6.7	6.5			

AC/DC Dynasty

Maxstar® and Dynasty® 400 and 800 DC (Maxstar) and AC/DC (Dynasty) TIG and Stick

See literature DC/24.5 (Maxstar) and AD/5.5 (Dynasty)



Dynasty 400

Dynasty 800



See page 125

TIG Welding Capability

800 Max. 1 in. (25.4 mm)	800 Max. 1 in. (25.4 mm)
400 Max. 5/8 in. (15.9 mm)	400 Max. 5/8 in. (15.9 mm)
Steel	Aluminum (Dynasty only)
400 Min. 0.012 in. (0.3 mm)	400 Min. 0.015 in. (0.4 mm)
800 Min. 0.020 in. (0.5 mm)	800 Min. 0.020 in. (0.5 mm)

Dynasty welders add AC TIG capabilities and the following AC features

Waveforms for advanced squarewave, soft squarewave, sine wave and triangular wave.

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

Dynasty 400 Complete package with wireless foot control shown.



Heavy Industrial
 Maxstar is DC only

Processes

- TIG (GTAW) ▪ Stick (SMAW)
- Pulsed TIG (GTAW-P)
- Air carbon arc (CAC-A)

400 models come with

- 8 ft. (2.4 m) power cord (no plug)
- Two 50 mm Dinse-style connectors
- Quick-reference guide (Dynasty only)

800 models come with

- Thread-lock torch connector
- Two thread-lock weld cable connectors
- Quick-reference guide (Dynasty only)

Note: Power cord is NOT included with 800 models.

Complete packages include above plus

- Runner™ cart
- Coolmate™ 3.5
- Coolant (four 1-gallon bottles)
- Remote control (foot or wireless foot)
- Weldcraft™ water-cooled torch kit
Maxstar/Dynasty 400: W-375
Dynasty 800: W-400

Most popular accessories

- Runner™ Cart 300244 (pg 119)
- Coolmate™ 3.5 300245 (pg 119)
- Coolant 043810 (pg 119)



Weldcraft™ Water-Cooled Torch Kits (pg 124)

- 300185 W-250 (WP-20)
- 300990 W-280 (WP-280)
- 301268 W-375
- 300186 W-400 (WP-18SC)
- Remote Controls (pg 124-125)
043688 RCCS-14 fingertip control
194744 RFCS-14 HD foot control
300429 Wireless foot control

Visit MillerWelds.com or your distributor for other Miller® options and accessories.

AUTO-LINE TECHNOLOGY Allows for any input voltage hookup (208-575 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

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

Lift-Arc™ provides AC or DC arc initiation without the use of high frequency.

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

Auto-postflow adjusts the length of postflow time based on the amperage setting, shielding your tungsten and eliminating the need to set the postflow time.

Cooler power supply (CPS) is an integrated 120-volt dedicated-use receptacle for the Coolmate™ 3.5.

Program memory features nine independent program memories that maintain/save your parameters.

High-speed DC TIG pulse controls capable of 5,000 pulses per second.

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

**See literature DC/24.5 and AD/5.5 for Complete package dimensions and weight.

	Model/Stock Number	Welding Process	Input Power	Welding Amp Range	Rated Output	Amps Input at Rated Load Output, 50/60 Hz						Max. Open-Circuit Voltage	Power Source Dimensions**	Power Source Net Weight**	
						208 V	230 V	400 V	460 V	575 V	KVA				KW
DC Maxstar	Maxstar 400 (907716) Power source only (951692) Complete w/foot (951693) Complete w/wireless foot	TIG/stick	3-phase	3-400	300 A at 32 V, 60% duty cycle	33	30	17	15	12	12.0	11.6	75 VDC (10-15 VDC*)	H: 24.75 in. (629 mm) W: 13.75 in. (349 mm) D: 22 in. (559 mm)	134 lb. (61 kg)
				3-400	250 A at 30 V, 60% duty cycle	48	43	24	20	16	10	9.2			
	Maxstar 800 (907718) Power source only	TIG/stick	3-phase	5-800	600 A at 44 V, 60% duty cycle	90	80	45	39	31	32	31	75 VDC (10-15 VDC*)	H: 34.5 in. (876 mm) W: 13.75 in. (349 mm) D: 22 in. (559 mm)	198 lb. (90 kg)
				5-800	500 A at 40 V, 60% duty cycle	126	112	61	53	41	26	24			
AC/DC Dynasty	Dynasty 400 (907717) Power source only (951694) Complete w/foot (951695) Complete w/wireless foot	TIG/stick	3-phase	3-400	300 A at 32 V, 60% duty cycle	36	33	19	16	13	13.1	12.5	75 VDC (10-15 VDC*)	H: 24.75 in. (629 mm) W: 13.75 in. (349 mm) D: 22 in. (559 mm)	134 lb. (61 kg)
				3-400	250 A at 29 V, 60% duty cycle	52	47	26	22	17	10.9	9.9			
	Dynasty 800 (907719) Power source only (951696) Complete w/foot (951697) Complete w/wireless foot	TIG/stick	3-phase	5-800	600 A at 44 V, 60% duty cycle	96	86	48	42	33	35	33	75 VDC (10-15 VDC*)	H: 34.5 in. (876 mm) W: 13.75 in. (349 mm) D: 22 in. (559 mm)	198 lb. (90 kg)
				5-800	500 A at 40 V, 60% duty cycle	136	122	66	56	44	28	26			