

# Syncrowave® 210

**TIG/Stick Welding Power Source** 

## Quick Specs

### Light Industrial Applications

Light Metal Fabrication  
Maintenance/Repair Operations  
Light Manufacturing  
Automotive Repair  
Vocational Training  
Hobbyist

### Processes

AC/DC TIG (GTAW)  
DC Stick (SMAW)  
Pulsed TIG (GTAW-P)

**Input Power** 115–230 V, 1-Phase

**Amperage Range** 5–210 A

**Rated Output** 125 A at 15 V, 60% Duty Cycle

**Weight** Runner package: 133.5 lb. (61 kg)



### Easy to use.

1. Turn power on.
  2. Select Process: AC TIG, DC TIG or DC Stick.
  3. Set amperage based on material thickness.
- Then weld! It's easy as 1,2,3.**

### Pro-Set™ feature (professional settings)

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

**Squarewave output with AC balance control** features adjustable oxide cleaning which is essential for creating the highest quality aluminum welds.

**Pulse control** enhances weld bead and puddle control for improved appearance and quality. Use it to reduce burn through, coordinate the addition of filler material, and reduce the warping effects of distortion by reducing the average heat input.

**Fan-On-Demand™** improves power efficiency and reduces noise and maintenance by decreasing the amount of airborne contaminants pulled through the machine.

**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.



**New!**

Miller recommends  
**MAXAL**  
aluminum filler.

**Multi-voltage plug (MVP™)** allows connection to 115 or 230 V receptacles without tools.



### Comes complete with:

- Power source with 10-ft. (3 m) primary cord and MVP™ plugs for 115 V and 230 V
- 12-ft. (3.8 m), 150-amp TIG torch with Dinse connector (#WP1712MFDI50)
- 12-ft. (3.8 m) work cable with clamp and Dinse connector
- Electrode holder with Dinse connector
- RFCS-14 foot control with 20-ft. cord (#043 554)
- Regulator/flow gauge and hose
- Factory-installed running gear with EZ-Change™ Low Cylinder Rack

**AUTO-LINE**  
Power Management Technology

Allows 115–230 V input voltage hookups.

**Upgradeable and expandable.** Front panel memory card data port provides the ability to easily upgrade software and expand product features. Visit [MillerWelds.com/TIGSoftware](http://MillerWelds.com/TIGSoftware) for the latest software upgrades and expansions.

**Auto-Postflow** protects the weld end zone and electrode by optimizing postflow time based on welding amperage—for adequate shielding every time without waste and no need for adjustment.

**Low power draw.** Inverter-based power source provides full welding output from 230 V while drawing less than 30 amps.

**High frequency** for non-contact arc starting. Eliminates tungsten and material contamination.

Power source is warranted for 3 years, parts and labor.  
Original main power rectified parts are warranted for 5 years.

**TRUE BLUE**  
3YR. WARRANTY



**Miller Electric Mfg. Co.**  
An ITW Company  
1635 West Spencer Street  
P.O. Box 1079  
Appleton, WI 54912-1079 USA

**Equipment Sales US and Canada**  
Phone: 866-931-9730  
FAX: 800-637-2315  
International Phone: 920-735-4554  
International FAX: 920-735-4125

**MillerWelds.com**  
  



# Specifications (Subject to change without notice.)



Input Power	Welding Process	Welding Amperage Range	Rated Output (R.M.S.)	Amps Input at Rated Output	Max. Open-Circuit Voltage	Dimensions	Net Weight
115 V	DC TIG	5–125 A	95 A at 13.8 V, 60% Duty Cycle	17.4 (.58)*	47 VDC	H: 31.5 in. (800 mm) W: 18.5 in. (470 mm) D: 43 in. (1092 mm)	Runner package: 133.5 lb. (61 kg)
	AC TIG	5–125 A	90 A at 13.6 V, 60% Duty Cycle	12.4 (.58)*			
	DC Stick	20–90 A	70 A at 22.8 V, 60% Duty Cycle	20.5 (.58)*			
230 V	DC TIG	5–210 A	125 A at 15 V, 60% Duty Cycle	11.9 (.35)*			
	AC TIG	5–210 A	114 A at 14.6 V, 60% Duty Cycle	8.62 (.35)*			
	DC Stick	20–150 A	90 A at 23.6 V, 60% Duty Cycle	11.9 (.35)*			

\*While idling.

**IP23S rating** — This equipment is designed for outdoor use. It may be stored, but is not intended to be used outside during precipitation unless sheltered.

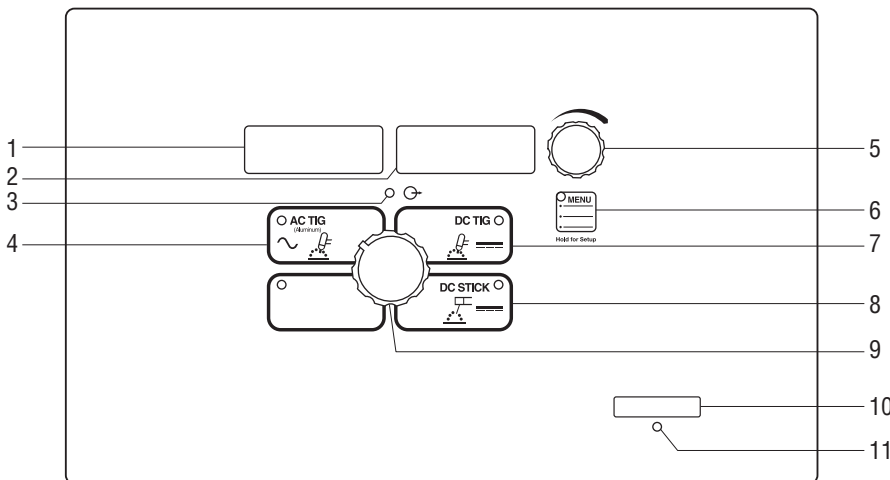
Operating temperature range is 14 to 104°F (-10 to 40°C). Storage temperature range is -22 to 149°F (-30 to 65°C). Portions of the preceding text are contained in EN 60974-10: "Electromagnetic Compatibility (EMC) product standard for arc welding equipment."

Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

## Performance Data

Input Power	TIG (GTAW) Duty Cycle	Stick (SMAW) Duty Cycle	AC TIG Material Thickness Range	DC TIG Material Thickness Range	Stick Electrode Maximum Diameter
1-Phase	210 A, 20% 125 A, 60% 95 A, 100%	150 A, 20% 90 A, 60% 60 A, 100%	.020–1/4 in.	.020–1/4 in.	6010: 5/32 in. 7018: 1/8 in. 6013: 1/8 in. 7024: 3/32 in.

## Control Panel



### 1. Voltmeter Display

### 2. Ammeter Display

### 3. Output Contactor "On" Indicator

### 4. AC TIG Process Menu Parameters

Amperage	5–210 A
Balance*	60–80%
Frequency	100 Hz (Expandable)
Pulse	Off–50 PPS
Postflow	Auto/Off–50 seconds

### 5. Encoder Control

### 6. Menu Ranges

### 7. DC TIG Process Menu Parameters

Amperage	5–210 A
Pulse	Off–50 PPS (Expandable)
Postflow	Auto/Off–50 seconds

### 8. DC Stick Process Menu Parameters

Amperage	20–150 A
DIG*	Off–100%

### 9. Process Selector

### 10. Memory Card Port

### 11. Activity Indicator

\*Pro-Set parameter selectable.

## Additional Features



### EZ-Change™ Low Cylinder Rack

- Operators no longer need to lift cylinders. Cylinders now easily roll on and off our EZ-Change™ Low Cylinder Rack.



### Dual Front Handles

- Split handle with rubber grips designed to move machine easily and provide quick accessibility to work lead and TIG torch.
- Handles provide protection for front panel.



### Integrated Storage Compartment and Parameter Chart

- Convenient compartment allows for easy storage of cables, foot controls and power cord adapters in the machine.



### EZ-Access™ Consumable Compartment

- Convenient flip-down compartment contains storage for consumables (sold separately).

## Genuine Miller® Accessories



### Dual EZ-Change™ Low Cylinder Rack with Elevated Gun and Cable Rack #300 337

Dual cylinder rack allows operators to easily roll cylinders on and off the rack with no lifting. Gun and cable rack keeps cables off the floor and tangle free.

### Elevated Gun and Cable Rack #300 335

For use with single cylinder rack. *(Included with Dual EZ-Change Low Cylinder Rack.)*



### Protective Cover #195 142

Features side pocket. *(Not for use with Dual Cylinder Rack or Elevated Gun and Cable Rack.)*



### TIG Gloves

#249 178 Medium

#249 179 Large

#249 180 X-Large

Durable goatskin back and palm for extended wear and ultimate dexterity. Flame-resistant cotton fleece back and padded palm provide excellent protection.

provide excellent protection.



### #AK-150MFC Accessory Kit

Allows welding operators to customize their standard Weldcraft WP-17 TIG torch for their specific application. Kit converts into 28 different torch styles while using the existing cable. Features collets, collet bodies, nozzles, torch heads, handle and more.

### TIG Memory Cards

#### Memory Card (Blank) #301 080

Used for transferring software updates and expandable features from your computer to the machine.

#### Memory Card Expansion

#301 128 DC Pulse Expansion

Expands the DC pulse frequency to 150 PPS max.

#301 127 AC Frequency Expansion

Provides the ability to adjust AC frequency from 60 to 150 Hz.

## Genuine Miller® Accessories (Continued)

### Remote Controls



#### Wireless Remote Foot Control #300 429

For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 90-foot (27.4 m) operating range.



#### RCC-14 Remote Contactor and Current Control #151 086

14-pin plug  
Side-to-side (east/west) rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 26.5-foot (8 m) control cord.



#### RHC-14 Hand Control #242 211 020

Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 83 mm). Includes 20-foot (6 m) cord and 14-pin plug.



#### 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-foot (6 m) cord and 14-pin plug.



#### 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-foot (8 m) control cord.

### Educational Materials

To order, please call Miller Literature at 866-931-9732 or visit [MillerWelds.com/resources/tools](http://MillerWelds.com/resources/tools).

#### Gas Tungsten Arc (TIG) Welding Publication #250 833

## Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Syncrowave® 210 Runner	#907 596	Auto-Line™ 115–230 VAC, 50/60 Hz		
<b>Accessories</b>				
Dual EZ-Change Low Cylinder Rack	#300 337	Includes Elevated Gun and Cable Rack		
Elevated Gun and Cable Rack	#300 335	For use with single cylinder rack		
Protective Cover	#195 142			
Air-Cooled TIG Torch	#WP1712MFDI50 #WP1725MFDI50	12-ft. (3.7 m) torch (included with Runner package) 25-ft. (7.6 m) torch		
TIG Gloves		See page 3		
Accessory Kit	#AK-150MFC			
<b>TIG Memory Cards</b>				
Memory Card (Blank)	#301 080			
Memory Card Expansion	#301 128 #301 127	DC pulse expansion AC frequency expansion		
<b>Remote Controls</b>				
Wireless Remote Foot Control	#300 429	Foot control with wireless 90-ft. (27.4 m) operating range		
RFCS-14 HD	#194 744	Heavy-duty foot control		
RFCS-14	#043 554	Foot control (included with Runner package)		
RCC-14	#151 086	Side-to-side (east/west) fingertip control		
RCCS-14	#043 688	North/south fingertip control		
RHC-14	#242 211 020	Hand control		
<b>Educational Resources</b>				
Gas Tungsten Arc Welding (TIG) Publication	#250 833	To order, call Miller Literature at 866-931-9732 or visit <a href="http://MillerWelds.com/resources/tools">MillerWelds.com/resources/tools</a>		

Date:

Total Quoted Price:

Distributed by:

