

# Syncrowave® 210 Series

**TIG/Stick/MIG**  
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)  
MIG (GMAW)  
Flux-cored (FCAW)

**Input Power** 120–240 V, 1-phase

**Amperage Range** 5–210 A

**Rated Output** 125 A at 15 V, 60% duty cycle

**Net Weight** 139.5 lb. (63 kg)



### Easy to use.

1. Turn power on.
2. Select process: AC TIG, DC TIG, DC stick or MIG (spool gun).
3. Set amperage or voltage based on material thickness.

**Then weld! It's easy as 1,2,3.**

**Pro-Set™ (TIG)** 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.

**AC balance (TIG)** control provides adjustable oxide removal which is essential for creating the highest quality aluminum welds.

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

**Auto-Set™ (MIG)** automatically sets your welder to the proper parameters. Simply set the wire size, material thickness, and shielding gas, and you're ready to weld.

**DIG (stick)** 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.



### Comes complete with:

- Power source with 10 ft. (3 m) power cord and MVP™ plugs for 120 V and 240 V
- Weldcraft™ A-150 (WP-17) 12.5 ft. (3.8 m) TIG torch with Dinse-style connector
- RFCS-14 HD foot control with 20 ft. (6 m) cord (194744)
- Electrode holder with Dinse-style connector
- Work clamp with 12 ft. (3.7 m) cable and Dinse-style connector
- Flow gauge regulator with hose
- Factory-installed running gear with EZ-Change™ low cylinder rack
- Spoolmate™ spool gun
- 4-14 pin connector
- Flow-thru Dinse-style connector

**Multi-voltage plug (MVP™)** allows for connection to 120 or 240-volt receptacles without tools by choosing the plug that fits the receptacle and connecting it to the power cord.



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



Allows for any input voltage hookup (120–240 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

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

**Low power draw.** Inverter-based power source provides full welding output from 240 volts while drawing less than 30 amps.



Power source is warranted for three years, parts and labor. Original main power rectifier parts are warranted for five years.



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# 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)	139.5 lb. (63 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.

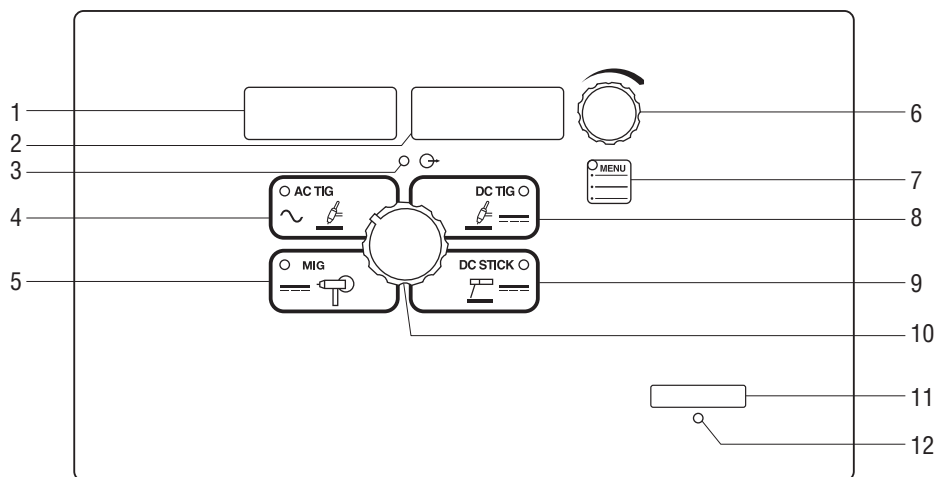
Operating temperature range is 14 to 104°F (-10 to 40°C). Storage temperature range is -22 to 149°F (-30 to 65°C). Portions of the preceding text are contained in EN 60974-10: "Electromagnetic Compatibility (EMC) product standard for arc welding equipment."

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

## Performance Data

Input Power	TIG (GTAW) Duty Cycle	AC/DC TIG Material Thickness Range	Stick (SMAW) Duty Cycle	Stick Electrode Maximum Diameter	Spool Gun (GMAW) Duty Cycle	Spool Gun Material Thickness Range
1-phase	210 A, 20% 125 A, 60% 95 A, 100%	.020–1/4 in.	150 A, 20% 90 A, 60% 60 A, 100%	6010: 5/32 in. 6013: 1/8 in. 7018: 1/8 in. 7024: 3/32 in.	170 A, 20% 100 A, 60% 75 A, 100%	24 ga.–3/8 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*	60–150 Hz
Pulse	Off–50 PPS
Postflow	Auto/Off–50 seconds

### 5. MIG Process Menu Parameters

Voltage	14.0–22.5 V
WFS	0–10
Wire Size**	.024/.030/.035 in.
Material Thickness**	24 ga.–3/8 in.
Process**	Flux/Trigas/C25/ C100/4043/5356
Spool Gun**	(Spoolmate™) 100/150

### 6. Encoder Control

### 7. Menu Ranges

### 8. DC TIG Process Menu Parameters

Amperage	5–210 A
Pulse*	Off–150 PPS
Postflow	Auto/Off–50 seconds

### 9. DC Stick Process Menu Parameters

Amperage	20–150 A
DIG*	Off–100%

### 10. Process Selector

### 11. Memory Card Port

### 12. Activity Indicator

\*Pro-Set parameter selectable.

\*\*Auto-Set input.

## 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 300337

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 300335**  
For use with single cylinder rack. (Included with Dual EZ-Change Low Cylinder Rack.)



### Protective Cover 195142

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



### TIG Torch Accessory Kit AK-150MFC

Allows welding operators to customize their standard Weldcraft™ A-150 (WP-17) TIG

torch for their specific application. Kit converts into 28 different torch styles while using the existing cable. Features nozzles, collets, collet bodies, torch heads, handle and more.



### Performance TIG Gloves

**263345** X-Sm (Women's)  
**263346** Small (Women's)  
**263347** Medium  
**263348** Large  
**263349** X-Large  
Completely unlined, goat grain leather with triple-padded palm.



### Performance MIG Gloves (Unlined)

**263335** Medium  
**263336** Large  
**263337** X-Large  
Unlined, dual-padded cow grain palm with goat grain fingers and double-layer insulated back.

### TIG Memory Cards

#### Memory Card (Blank) 301080

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

### Spoolmate™ 100 Consumables



**Contact Tips** (5 per package)

**199730** For .024-inch (0.6 mm) wire.

**186419** For .030-inch (0.8 mm) wire.

**186406** For .035-inch (0.9 mm) wire.



**Nozzle 186405**

### Spoolmate™ 150 Consumables



**Contact Tips** (5 per package)

**199387** For .030-inch (0.8 mm) wire.

**199388** For .035-inch (0.9 mm) wire.



**Nozzle 050622**

## Genuine Miller® Accessories (Continued)

### Remote Controls



#### Wireless Remote Foot Control 300429

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

14-pin receptacle of Miller machine. 90-foot (27.4 m) operating range.



#### RFCS-14 HD Foot Control 194744

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.



#### RCC-14 Remote Contactor and Current Control 151086

East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) control cord and 14-pin plug.



#### RCCS-14 Remote Contactor and Current Control 043688

North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) control cord and 14-pin plug.



#### RHC-14 Hand Control 242211020

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.

### 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 250833

## Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
<b>Syncrowave® 210 Runner TIG/MIG Complete</b>	<b>951684</b>	Auto-Line™ 120–240 V, 50/60 Hz, Spoolmate™ 150		
<b>Accessories</b>				
Dual EZ-Change Low Cylinder Rack	<b>300337</b>	Includes Elevated Gun and Cable Rack		
Elevated Gun and Cable Rack	<b>300335</b>	For use with single cylinder rack		
Protective Cover	<b>195142</b>			
Weldcraft™ A-150 (WP-17) TIG Torch	<b>WP-17-12-MF</b> <b>WP-17-25-MF</b>	12.5 ft. (3.8 m) cable (included with Runner package) 25 ft. (7.6 m) cable		
Air-Cooled TIG Torch Connector	<b>194722</b>	Connects the A-125, A-150 and A-80 Weldcraft™ torches to 50 mm gas thru Dinse-style connector		
TIG Torch Accessory Kit	<b>AK-150MFC</b>			
TIG Gloves		See page 3		
<b>TIG Memory Cards</b>				
Memory Card (Blank)	<b>301080</b>			
<b>Spool Gun and Consumables</b>				
Spoolmate™ 100 Spool Gun	<b>300371</b>	Includes 12 ft. (3.7 m) cable and custom carrying case		
Spoolmate™ 150 Spool Gun	<b>301272</b>	Includes 20 ft. (6 m) cable (included with Runner package)		
Adapter Kit	<b>301254</b>	Includes adapters required to connect Spoolmate to Syncrowave 210 (included with Runner package)		
Contact Tips		See page 3		
Nozzles		See page 3		
<b>Remote Controls</b>				
Wireless Remote Foot Control	<b>300429</b>	Foot control with wireless 90 ft. (27.4 m) operating range		
RFCS-14 HD	<b>194744</b>	Heavy-duty foot control (included with Runner package)		
RCC-14	<b>151086</b>	Side-to-side (east/west) fingertip control		
RCCS-14	<b>043688</b>	North/south fingertip control		
RHC-14	<b>242211020</b>	Hand control		
<b>Educational Resources</b>				
Gas Tungsten Arc Welding (TIG) Publication	<b>250833</b>			

Date:

Total Quoted Price:

Distributed by:

