Syncrowave® 210

Welding Power Source

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)*
  *With Spoolmate 150.

Input Power
- 120–240 V, 1-phase power

Amperage Range
- 5–210 A

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

Net Weight
- TIG/stick only: 133.5 lb. (61 kg)
- TIG/MIG Complete: 139.5 lb. (63 kg)

Quick Specs

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/stick) 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.

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.

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 with the Spoolmate™ spool gun.

Multi-voltage plug (MVP™) allows for connection to 120 or 240-volt receptacles without tools. Choose 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 though the machine.

TIG/stick only package comes 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
- Electrode holder with Dinse-style connector
- Work clamp with 12 ft. (3.7 m) cable and Dinse-style connector
- RFCS-14 HD foot control with 20 ft. (6 m) cord (194744)
- Flow gauge regulator with hose
- Factory-installed running gear with EZ-Change™ low cylinder rack
- Quick-reference guide

TIG/MIG Complete package includes above plus:
- Spoolmate™ 150 spool gun
- 4-14 pin connector
- Flow-thru Dinse-style connector

Auto-Line®

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 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.
Specifications (Subject to change without notice.)

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<tbody>
<tr>
<td>115 V</td>
<td>DC TIG</td>
<td>5–125 A</td>
<td>95 A at 13.8 V, 60% duty cycle</td>
<td>17.4 (.58)*</td>
<td>47 VDC</td>
<td>H: 31.5 in. (800 mm) W: 18.5 in. (470 mm) D: 43 in. (1092 mm)</td>
<td>TIG/stick only: 133.5 lb. (61 kg) TIG/MIG Complete: 139.5 lb. (63 kg)</td>
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<tr>
<td></td>
<td>AC TIG</td>
<td>5–125 A</td>
<td>90 A at 13.6 V, 60% duty cycle</td>
<td>12.4 (.58)*</td>
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<td></td>
<td>DC stick</td>
<td>20–90 A</td>
<td>70 A at 22.8 V, 60% duty cycle</td>
<td>20.5 (.58)*</td>
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<td>230 V</td>
<td>DC TIG</td>
<td>5–210 A</td>
<td>125 A at 15 V, 60% duty cycle</td>
<td>11.9 (.35)*</td>
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<td>AC TIG</td>
<td>5–210 A</td>
<td>114 A at 14.6 V, 60% duty cycle</td>
<td>8.62 (.35)*</td>
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<td></td>
<td>DC stick</td>
<td>20–150 A</td>
<td>90 A at 23.6 V, 60% duty cycle</td>
<td>11.9 (.35)*</td>
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*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

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<tr>
<td></td>
<td>125 A, 60%</td>
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<td>90 A, 60%</td>
<td>6013: 1/8 in.</td>
<td>100 A, 60%</td>
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<td></td>
<td>95 A, 100%</td>
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<td>60 A, 100%</td>
<td>7018: 1/8 in.</td>
<td>75 A, 100%</td>
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<td>90 A, 80%</td>
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<td>6024: 3/32 in.</td>
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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.
**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.

**Integrated Storage Compartment and Parameter Chart**
- Convenient compartment allows for easy storage of cables, foot controls and power cord adapters in the machine.

**Genuine Miller® Accessories**

**Dual EZ-Change™ Low Cylinder Rack with Elevated Gun and Cable Rack**
- 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.

**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

**TIG Memory Cards**
- **Memory Card (Blank)** 301080
  - Used for transferring software updates and expandable features from your computer to the machine.

**EZ-Access™ Consumable Compartment**
- Convenient flip-down compartment contains storage for consumables (sold separately).

**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**
- **Performance MIG Gloves (Lined)**
  - 263332 Medium
  - 263333 Large
  - 263334 X-Large
  - 269618* 2X-Large
  - Dual-padded and fleece-insulated cow grain palm, goat grain fingers and foam-insulated pig split back.
  
  *Sold as single pair of gloves. All others are sold as six packs (six pairs).
Genuine Miller® Accessories (Continued)

Remote Controls

Wireless Remote Foot Control 301580
For remote current and contactor control. Receiver plugs directly into the 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.

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.
Gas Tungsten Arc (TIG) Welding Publication 250833

Ordering Information

<table>
<thead>
<tr>
<th>Equipment and Options</th>
<th>Stock No.</th>
<th>Description</th>
<th>Qty.</th>
<th>Price</th>
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<tbody>
<tr>
<td>Syncrowave® 210 Runner TIG/Stick Only Pkg.</td>
<td>907596</td>
<td>Auto-Line™ 120–240 V, 50/60 Hz. See page 1 for includes list</td>
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<tr>
<td>Syncrowave® 210 Runner TIG/MIG Complete Pkg.</td>
<td>951684</td>
<td>Auto-Line™ 120–240 V, 50/60 Hz. See page 1 for includes list</td>
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<td>Accessories</td>
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<tr>
<td>Dual EZ-Change Low Cylinder Rack</td>
<td>300337</td>
<td>Includes Elevated Gun and Cable Rack</td>
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<td>Elevated Gun and Cable Rack</td>
<td>300335</td>
<td>For use with single cylinder rack</td>
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<td>Protective Cover</td>
<td>195142</td>
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<td>Weldcraft® A-150 (WP-17) TIG Torch</td>
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<td>WP-17-12-MF</td>
<td>12.5 ft. (3.8 m) cable (included with both packages)</td>
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<td>WP-17-25-MF</td>
<td>25 ft. (7.6 m) cable</td>
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<td>Air-Cooled TIG Torch Connector</td>
<td>194722</td>
<td>Connects the A-125, A-150 and A-80 Weldcraft® torches to 50 mm gas thru Dinse-style connector</td>
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<td>TIG Torch Accessory Kit</td>
<td>AK-150MFC</td>
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<td>TIG Gloves</td>
<td>See page 3</td>
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<td>Tig Memory Cards</td>
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<td>Memory Card (Blank)</td>
<td>301080</td>
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<td>Spool Gun and Consumables</td>
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<td>Spoolmate® 100 Spool Gun</td>
<td>300371</td>
<td>Includes 12 ft. (3.7 m) cable and custom carrying case</td>
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<td>Spoolmate® 150 Spool Gun</td>
<td>301272</td>
<td>Includes 20 ft. (6 m) cable (included with TIG/MIG Complete package)</td>
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<td>Adapter Kit</td>
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<td>Includes adapters required to connect Spoolmate to Syncrowave 210 (included with TIG/MIG Complete package)</td>
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<tr>
<td>Wireless Remote Foot Control</td>
<td>301580</td>
<td>Foot control with wireless 90 ft. (27.4 m) operating range</td>
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<tr>
<td>RFCS-14 HD</td>
<td>194744</td>
<td>Heavy-duty foot control (included with both packages)</td>
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<td>RCC-14</td>
<td>151086</td>
<td>Side-to-side (east/west) fingertip control</td>
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<td>RCCS-14</td>
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<td>North/south fingertip control</td>
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Date: Total Quoted Price:

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