# Millermatic® 141

**MIG Power Source, Wire Feeder and Gun Package**

<table>
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<tr>
<th>Quick Specs</th>
<th>Light Industrial Applications</th>
<th>Processes</th>
<th>Weld Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Light fabrication</strong></td>
<td><strong>MIG (GMAW)</strong></td>
<td><strong>24 ga.–3/16 in. steel and 18–14 ga. aluminum</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Maintenance and repair</strong></td>
<td><strong>Flux-cored (FCAW)</strong></td>
<td><strong>Input Power</strong></td>
<td><strong>90 A at 18.5 VDC, 20% duty cycle</strong></td>
</tr>
<tr>
<td><strong>Auto body</strong></td>
<td><strong>90 A at 18.5 VDC, 20% duty cycle</strong></td>
<td><strong>Rated Output</strong></td>
<td><strong>40 A at 16 VDC, 100% duty cycle, CSA</strong></td>
</tr>
<tr>
<td><strong>Farm/home</strong></td>
<td></td>
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</tr>
</tbody>
</table>

## Quick and easy setup

**Auto-Set™** automatically provides the right settings to weld mild steel while **infinite voltage control** allows the flexibility to manually set your own parameters.

- Set the wire diameter, a blue light shows Auto-Set is activated
- Dial in the thickness of what you’re welding
- Start welding with the exact parameters you need!

**Angled cast-aluminum drive system** with calibrated tension knob creates consistent feeding and easy setup for up to 15-foot MIG guns.

**Quick Select™ drive roll** makes setup quicker by offering three grooves — two for different size solid wire and a third for flux-cored wire.

**Auto Spool Gun Detect™** automatically detects when a MIG gun or spool gun is connected eliminating the need for a switch.

**Smooth-Start™** provides a smooth, spatter-free start. It’s the best-starting machine in the small MIG machine category.

**Thermal overload protection** shuts down unit and activates the over temperature light if airflow is blocked or duty cycle is exceeded. Automatically resets when unit cools.

**Uses 4- or 8-inch (102 or 203 mm) spools** and can be set up to weld with .024–.030 inch (0.6–0.8 mm) solid wire and .030–.035 inch (0.8–0.9 mm) flux-cored wire.

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**Welder is warranted for three years, parts and labor.**

Original main power rectifier parts are warranted for five years.

Gun warranted for 90 days, parts only.
Operation Modes

Auto-Set™ Mode

Auto-Set eliminates guesswork and saves you time on setup. Turn wire speed control fully clockwise to select Auto-Set mode, and set the wire diameter to either .024 or .030 in. The Auto-Set light indicates mode is activated. Then select material thickness using the Auto-Set control.

Use Auto-Set when you want the speed, convenience and confidence of pre-set controls. Auto-Set automatically sets your welder to the proper parameters. It’s available for welding 24-gauge through 3/16-inch mild steel, and only works with .024 and .030 solid wires and C25 shielding gas (75% argon, 25% CO2).

Manual Mode

When welding outside of Auto-Set’s capabilities, or if you prefer custom parameters, use manual mode. The parameter chart on the inside of the access door is an easy-to-use guide for determining your voltage and wire feed speed settings. Reference the white areas on the controls when welding in manual mode.

Specifications (Subject to change without notice.)

<table>
<thead>
<tr>
<th>Amperage Range</th>
<th>Rated Output</th>
<th>Amps Input at Rated Output, 60 Hz</th>
<th>Wire Feed Speed</th>
<th>Wire Type and Diameter</th>
<th>Max. Open-Circuit Voltage</th>
<th>Dimensions</th>
<th>Net Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>30–140 A</td>
<td>90 A at 18.5 VDC, 20% duty cycle</td>
<td>20</td>
<td>3.0</td>
<td>2.45</td>
<td>15–360 ipm (0.4–9.1 m/min.)</td>
<td>Solid: .024–.030 in. (0.6–0.8 mm)</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>40 A at 16 VDC, 100% duty cycle, CSA</td>
<td>15</td>
<td>1.7</td>
<td>1.0</td>
<td>Stainless: .024–.030 in. (0.6–0.8 mm)</td>
<td>Flux-cored: .030–.035 in. (0.8–0.9 mm)</td>
<td></td>
</tr>
</tbody>
</table>

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

Control Panel

1. Over Temperature Light
2. Auto-Set Light
3. Wire Speed/Wire Diameter Control
4. Voltage/Material Thickness Control
5. Plastic Hub with Retaining Ring for 8-inch Spools (shaft also accepts 4-inch spools)
6. Calibrated Tension Knob
7. T-Knob (secures torch)
8. Drive Roll
9. Trigger Control Connector
10. Polarity Changeover Terminals

Note: Power switch and gas solenoid are on machine back panel.

Performance Data

Duty Cycle Chart

Volt/Amp Curves

<table>
<thead>
<tr>
<th>Voltage</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
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<td>20</td>
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<td>45</td>
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<td>50</td>
<td>55</td>
<td>60</td>
<td>65</td>
<td>70</td>
<td>75</td>
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<tr>
<td>60</td>
<td>65</td>
<td>70</td>
<td>75</td>
<td>80</td>
<td>85</td>
<td>90</td>
<td>95</td>
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<tr>
<td>80</td>
<td>85</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>105</td>
<td>110</td>
<td>115</td>
</tr>
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</table>

Amps: 0 20 40 60 80 100 120 140

Volts: 0 5 10 15 20 25 30
**Genuine Miller® Accessories**

Replacement/Optional MIG Gun

M-100 (Standard)
248282 10 ft. (3 m)

M-150 (Optional)
249040 12 ft. (3.7 m)
249041 15 ft. (4.5 m)

All ship with liner 194011.

**Contact Tips**

087299 .024 in. (0.6 mm)
000067 .030 in. (0.8 mm)
000068 .035 in. (0.9 mm)
000069 .045 in. (1.2 mm)

**Contact Tip Adapter** 169716

(0.6–0.9 mm) steel/stainless steel wires. Rated at 135 amps, 30-percent duty cycle. Includes 12-foot (3.7 m) cable assembly and custom carrying case.

**Spoolmate™ 100 Spool Gun** 300371

Direct-connect spool gun handles .030–.035 inch (0.8–0.9 mm) aluminum (4043 only) and .023–.035 inch (0.6–0.9 mm) steel/stainless steel wires. Rated at 135 amps, 30-percent duty cycle. Includes 12-foot (3.7 m) cable assembly and custom carrying case.

**Gasless Flux-Cored Nozzle** 226190

For M-100 gun only.

For use with self-shielding flux-cored wires. Improves visibility, eases access in tight corners, protects tip adapter/gas diffuser from spatter and from shorting to the workpiece.

**Replacement Liners**

194010 .024 in.
194011 .030–.035 in. (standard)
194012 .035–.045 in.

15-foot length — trim to size needed.

**Drive Rolls**

**Quick Select™ 261157**

For .024-inch (0.6 mm) or .030/.035-inch (0.8/0.9 mm) solid wire, and .030/.035-inch (0.8/0.9 mm) flux-cored wire.

**Dual Groove, V-Knurled 202926**

For .030/.035-inch (0.8/0.9 mm) or .045-inch (1.2 mm) flux-cored wire.

**Dual Cylinder Rack Conversion Kit and Tool Holder** 301454

Converts running gear/cylinder rack (301239) from a single cylinder cart to a dual cylinder cart. Top bracket holds a variety of tools including a welper, adjustable wrench, screwdrivers, chipping hammer, wire brush and filler rod.

**Consumables (Order from Miller Service Parts.)**

For M-100/M-150 Gun

**Contact Tips**

087299 .024 in. (0.6 mm)
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000068 .035 in. (0.9 mm)
000069 .045 in. (1.2 mm)

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**Replacement Liners**

194010 .024 in.
194011 .030–.035 in. (standard)
194012 .035–.045 in.

15-foot length — trim to size needed.

**Nozzle** 169715

1/2-inch (13 mm) diameter orifice. Nozzle flush with contact tip (standard).

**Nozzle** 169715

For Spoolmate™ 100 Spool Gun

**Contact Tips** (5 per package)
199730 .024 in. (0.6 mm)
186419 .030 in. (0.8 mm)
186406 .035 in. (0.9 mm)

**Nozzle** 186405

**Drive Roll (1)** 186413
For .030/.035-inch (0.8/0.9 mm) wire.

**Push Roll (1)** 186414
For .030/.035-inch (0.8/0.9 mm) wire.

**M-Series Gun Consumable Kits**

234607 .024 in. (0.6 mm)
234608 .030 in. (0.8 mm)
234609 .035 in. (0.9 mm)

Each kit contains ten contact tips, one nozzle, and one contact tip adapter.

**Running Gear/Cylinder Rack** 301239

Heavy-duty construction with 8-inch rubber rear wheels. Convenient front handles, cable holders and plastic consumable box. For gas cylinders no greater than 7 inches (178 mm) in diameter or 65 pounds (29.5 kg) in weight.

**Millermatic Protective Cover** 301262

**Spoolmate™ 100 Spool Gun** 300371

Direct-connect spool gun handles .030–.035 inch (0.8–0.9 mm) aluminum (4043 only) and .023–.035 inch (0.6–0.9 mm) steel/stainless steel wires. Rated at 135 amps, 30-percent duty cycle. Includes 12-foot (3.7 m) cable assembly and custom carrying case.

**Purchase the Millermatic 141 package (951601) and receive the Millermatic 141 and running gear/cylinder rack (301239) packaged together!**

**For Spoolmate™ 100 Spool Gun**

**Nozzle** 186405

**Drive Roll (1)** 186413
For .030/.035-inch (0.8/0.9 mm) wire.

**Push Roll (1)** 186414
For .030/.035-inch (0.8/0.9 mm) wire.

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000067 .030 in. (0.8 mm)
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**Replacement Liners**

194010 .024 in.
194011 .030–.035 in. (standard)
194012 .035–.045 in.

15-foot length — trim to size needed.

**Drive Rolls**

**Quick Select™ 261157**

For .024-inch (0.6 mm) or .030/.035-inch (0.8/0.9 mm) solid wire, and .030/.035-inch (0.8/0.9 mm) flux-cored wire.

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000067 .030 in. (0.8 mm)
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000069 .045 in. (1.2 mm)

**Contact Tip Adapter** 169716

**Replacement Liners**

194010 .024 in.
194011 .030–.035 in. (standard)
194012 .035–.045 in.

15-foot length — trim to size needed.

**Nozzle** 169715

1/2-inch (13 mm) diameter orifice. Nozzle flush with contact tip (standard).

**Nozzle** 169715

For Spoolmate™ 100 Spool Gun

**Contact Tips** (5 per package)
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186419 .030 in. (0.8 mm)
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234608 .030 in. (0.8 mm)
234609 .035 in. (0.9 mm)

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**Purchase the Millermatic 141 package (951601) and receive the Millermatic 141 and running gear/cylinder rack (301239) packaged together!**
## Power Source and Options

<table>
<thead>
<tr>
<th>Description</th>
<th>Stock No.</th>
<th>Qty.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millermatic® 141</td>
<td>907612</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millermatic® 141 with Running Gear/Cyl Rack</td>
<td>951601</td>
<td></td>
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<tr>
<td>120 V, 60 Hz</td>
<td></td>
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<td></td>
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<tr>
<td>Power source packaged with 301239 running gear/cylinder rack</td>
<td></td>
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</table>

## Guns

<table>
<thead>
<tr>
<th>Description</th>
<th>Stock No.</th>
<th>Qty.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-100 Gun (Standard)</td>
<td>248282</td>
<td>10</td>
<td>(3 m), .030–.035 in. (0.8–0.9 mm)</td>
</tr>
<tr>
<td>M-150 Gun (Optional)</td>
<td>249040</td>
<td>12</td>
<td>(3.7 m), .030–.035 in. (0.8–0.9 mm)</td>
</tr>
<tr>
<td></td>
<td>249041</td>
<td>15</td>
<td>(4.5 m), .030–.035 in. (0.8–0.9 mm)</td>
</tr>
<tr>
<td>Spoolmate™ 100 Spool Gun</td>
<td>300371</td>
<td>12</td>
<td>(3.7 m). Includes custom carrying case</td>
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## Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Stock No.</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>Protective Cover</td>
<td>301262</td>
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<tr>
<td>Running Gear/Cylinder Rack</td>
<td>301239</td>
<td></td>
<td></td>
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<tr>
<td>Dual Cylinder Rack Conversion Kit and Tool Holder</td>
<td>301454</td>
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<tr>
<td>Material Thickness Gauge</td>
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<tr>
<td>Flux-cored Wire</td>
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<td>Solid Wire</td>
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<tr>
<td>Shielding Gas Cylinder</td>
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<tr>
<td>Helmet/Gloves/Scratch Brush</td>
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## Available Through Miller Service Parts

<table>
<thead>
<tr>
<th>Description</th>
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<th>Qty.</th>
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<tr>
<td>Argon and AR/CO₂ Mix Flow Gauge Regulator</td>
<td>268546</td>
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<td>Replacement standard regulator</td>
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<tr>
<td>CO₂ Flow Gauge Regulator</td>
<td>212492</td>
<td></td>
<td>Required if using 100-percent CO₂ gas</td>
</tr>
<tr>
<td>Contact Tips</td>
<td></td>
<td>See page 3</td>
<td></td>
</tr>
<tr>
<td>Contact Tip Adapter</td>
<td></td>
<td>See page 3</td>
<td></td>
</tr>
<tr>
<td>Replacement Liners</td>
<td></td>
<td>See page 3</td>
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<tr>
<td>Nozzles</td>
<td></td>
<td>See page 3</td>
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</tr>
<tr>
<td>Gasless Flux-cored Nozzle</td>
<td>226190</td>
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<td>Drive Rolls</td>
<td></td>
<td>See page 3</td>
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<tr>
<td>M-Series Gun Consumable Kits</td>
<td>234607</td>
<td>.024 in. (0.6 mm)</td>
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<td></td>
<td>234608</td>
<td>.030 in. (0.8 mm)</td>
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<tr>
<td></td>
<td>234609</td>
<td>.035 in. (0.9 mm)</td>
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## Ordering Information

Date: 

Total Quoted Price: