**Processes**
- MIG (GMAW)
- Flux-cored (FCAW)

**Weld Thickness**
- 24 ga.–3/16 in. steel and 18–14 ga. aluminum

**Input Power**
- 120 V, 20 A, single-phase, 60 Hz

**Rated Output**
- 90 A at 18.5 VDC, 20% duty cycle
- 40 A at 16 VDC, 100% duty cycle

**Uses common household power**

**Weld capacity**

**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.

**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.

---

**IMPROVED! AccuLock™**

Now with **NEW! MDX”-100 MIG gun with AccuLock™ MDX consumable system** featuring a dual-locked, front-loading liner that optimizes wire feedability.

**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.

---

**Miller Electric Mfg. LLC**
An ITW Welding 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**
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>15–360 ipm (0.4–9.1 m/min.)</td>
<td>Solid: .024—.030 in. (0.6–0.8 mm)</td>
<td>30</td>
<td>H: 12.5 in. (318 mm) W: 11.25 in. (286 mm) D: 20.5 in. (521 mm)</td>
<td>51 lb. (23.1 kg)</td>
</tr>
<tr>
<td></td>
<td>40 A at 16 VDC, 100% duty cycle</td>
<td>15</td>
<td>1.0</td>
<td>Stainless: .024—.030 in. (0.6–0.8 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flux-cored: .030—.035 in. (0.8–0.9 mm)</td>
<td></td>
<td></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
**Genuine Miller® Accessories**

**MDX™-100 MIG Gun** 1770028  
100-amp MIG gun with Miller® AccuLock™ MDX consumables for 0.030–0.035 in. (0.8–0.9 mm) wire. Includes 10 ft. (3 m) cable assembly.  
- Install AccuLock contact tips with a single turn.  
- AccuLock liner locks at front and back of gun to align with contact tip and power pin for a flawless wire feed path.  
- Durable, ergonomic handle with overmolding improves grip and comfort.  
- Ball-and-socket handle with rear swivel for increased gun maneuverability while reducing welder fatigue.

**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.

**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.

**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.

**Protective Cover** 301262

**Consumables**

**For MDX™-100 MIG Gun**

**Miller® AccuLock™ MDX Consumables**  
Smaller consumables and components to access hard-to-reach weldments.

**Contact Tips (10 per package)**  
- **T-M023** .023 in. (0.6 mm)  
- **T-M030** .030 in. (0.8 mm)  
- **T-M035** .035 in. (0.9 mm)  
- **T-M045** .045 in. (1.2 mm)  
- **T-M047** 3/64 in. (1.2 mm)

**Nozzles**  
- **NS-M1200B** Brass, 1/2 in. ID, flush  
- **NS-M1200C** Copper, 1/2 in. ID, flush  
- **NS-MFLX** Gasless nozzle

**Diffuser** D-M100

**Monocoil Replacement Liners (10 ft.)**  
- **LM1A-10** .023/.025 in. (0.6 mm)  
- **LM2A-10** .030/.035 in. (0.8/0.9 mm)  
- **LM3A-10** .035/.045 in. (0.9/1.2 mm)

**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.

**For Millermatic® 141**

**Quick Select™ Drive Roll** 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.

**V-Knurled Dual-Groove Drive Roll** 202926  
For .030/.035-inch (0.8/0.9 mm) or .045-inch (1.2 mm) flux-cored wire.

**Note:** Miller® FasTip™, M-Series and Bernard Centerfire™ diffusers and consumables are NOT compatible with MDX Series guns.
<table>
<thead>
<tr>
<th>Power Source and Options</th>
<th>Stock No.</th>
<th>Description</th>
<th>Qty.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millermatic® 141</td>
<td>907612</td>
<td>120 V, 60 Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millermatic® 141 with Running Gear/Cyl Rack</td>
<td>951601</td>
<td>Power source packaged with 301239 running gear/cylinder rack</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guns</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDX™-100 Gun</td>
<td>1770028</td>
<td>10 ft. (3 m), .030–.035 in (0.8–0.9 mm) wire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spoolmate™ 100 Spool Gun</td>
<td>300371</td>
<td>12 ft. (3.7 m). Includes custom carrying case</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessories</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Running Gear/Cylinder Rack</td>
<td>301239</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual Cylinder Rack Conversion Kit and Tool Holder</td>
<td>301454</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual Cylinder Rack Cart</td>
<td>951770</td>
<td>Includes running gear/cylinder rack 301239 and dual cylinder rack conversion kit 301454. Must be assembled together</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective Cover</td>
<td>301262</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material Thickness Gauge</td>
<td>229895</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow Gauge Regulator for Argon or AR/CO₂ Mix</td>
<td>31-50-580-6</td>
<td>Replacement standard regulator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow Gauge Regulator for CO₂</td>
<td>31-50-320</td>
<td>Required if using 100 percent CO₂ gas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flux-cored Wire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid Wire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shielding Gas Cylinder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helmet/Gloves/Scratch Brush</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Tips</td>
<td></td>
<td>See page 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nozzles</td>
<td></td>
<td>See page 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diffuser</td>
<td></td>
<td>See page 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monocoil Replacement Liners</td>
<td></td>
<td>See page 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drive Rolls</td>
<td></td>
<td>See page 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Date: Total Quoted Price: