

# Millermatic® 180 Auto-Set™

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



## Quick Specs

### Light Industrial Applications

Light Fabrication  
Maintenance and Repair  
Auto Body  
Farm/Home

### Processes

MIG (GMAW)  
Flux Cored (FCAW)

**Input Power** 230 V, 21.7 A, 60 Hz, Single-Phase  
**Rated Output** 135 A at 22.5 VDC, 30% Duty Cycle  
**Amperage Range** 30–180 A  
**Max. Open-Circuit Voltage** 31

## The Power of Blue.®

### Auto-Set™: The right settings automatically —

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

**Infinite voltage control** gives you the flexibility to manually set the machine when welding aluminum, stainless steel, or anytime you want to set your own parameters on mild steel.

### Welds thickest material in its class!

The Millermatic® 180 Auto-Set™ has the highest output in its class. It can weld from 24 ga–5/16 in (0.8–7.9 mm) mild steel in a single pass.

### Spool gun compatible!

Finally a reliable and economic way to weld aluminum. Hooked up to a Millermatic® 180 Auto-Set™, the Spoolmate 100 Series spool gun allows you to weld from 18 ga–1/4 in aluminum.

**Smooth-Start™** patented technology provides a smooth, spatter-free start. It's the best-starting machine in the small MIG machine category. No pop gun starts and no spatter to clean up.

**Durable cast aluminum drive system** incorporates dual-groove quick-change drive roll and spring-loaded tension arm with calibrated tension knob, all designed to make set up easier and faster.

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



### Comes Complete With:

- Power source
- 6 ft (1.8 m) power cord and plug
- 10 ft (3 m) M-10 MIG gun and cable assembly
- 10 ft (3 m) work cable and clamp
- Smith® Argon and AR/CO<sub>2</sub> mix regulator/flow gauge with hose
- Spool of Hobart® .030 in (0.8 mm) solid wire
- Two contact tips for .024 in (0.6 mm) wire and two contact tips for .030 in (0.8 mm) wire
- Dual groove quick-change drive roll for .024 in (0.6 mm) or .030/.035 in (0.8/0.9 mm) wire
- Factory-installed gas solenoid valve
- Set-up and operation CD
- Information/settings chart
- Material thickness gauge ▶ #229 895

*Note: Shielding gas and safety equipment not included.*



Easy access to output studs provides **convenient polarity changeover** when changing from solid or flux cored wires.

**Miller's exclusive "Tip Saver"** short circuit protection shuts down output when tip is shorted to the work. Extends contact tip life and protects internal components from damage. **Trigger reset** permits quick reset at torch rather than unit.

**Standard built-in solid-state contactor circuit** makes wire electrically "cold" until trigger is pulled, making the unit safer. It's also easier to position torch to work before starting weld.

**Uses 4 or 8 in (102 or 203 mm) spools** and can be set up to weld with wire sizes .024–.035 in (0.6–0.9 mm) mild/stainless steel and .030–.045 in (0.8–1.2 mm) flux cored.

**TRUE BLUE**  
3 YR. WARRANTY

Welder is warranted for 3 years, parts and labor. Original main power rectified parts are warranted for 5 years. Gun warranted for 90 days, parts and labor.

MADE IN **USA**



**Miller Electric Mfg. Co.**  
An Illinois Tool Works Company  
1635 West Spencer Street  
Appleton, WI 54914 USA

**International Headquarters**  
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USA FAX: 920-735-4134  
Canadian FAX: 920-735-4169  
International FAX: 920-735-4125

**Web Site**  
www.MillerWelds.com



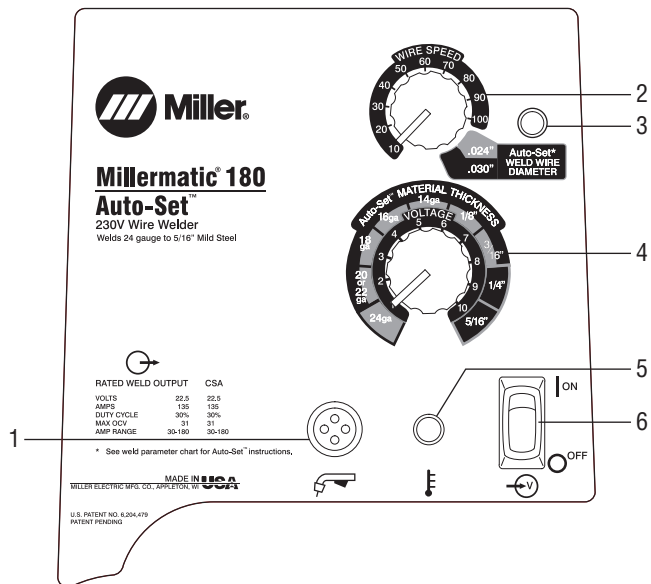
# Specifications (Subject to change without notice.)



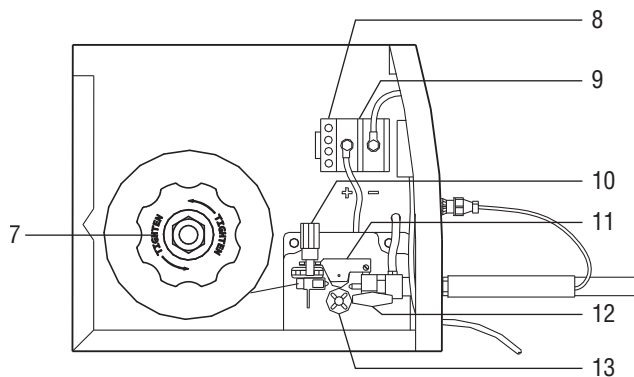
Rated Output	Amperage Range	Max. Open-Circuit Voltage	Amps Input at Rated Output, 60 Hz			Wire Feed Speed	Dimensions	Net Weight	Ship Weight
			230 V	KVA	KW				
135 A, 22.5 VDC at 30% Duty Cycle	30-180 A	31	21.7	5.0	4.1	40-460 IPM (1.0-11.7 m/min)	H: 17-1/2 in (444 mm) W: 10-5/8 in (273 mm) D: 15-3/4 in (400 mm)	72 lb (32.7 kg)	81 lb (36.4 kg)

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

## Control Panel



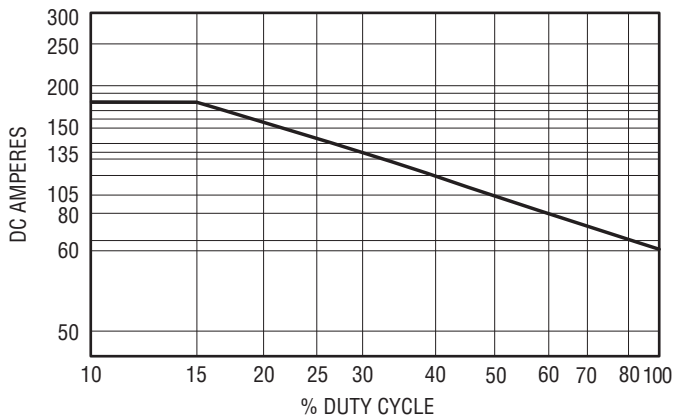
1. Trigger Lead Switch Connection
2. Wire Feed/Wire Diameter Speed Control
3. Auto-Set Light
4. Voltage/Material Thickness Control
5. Over Temperature Light
6. Power Switch



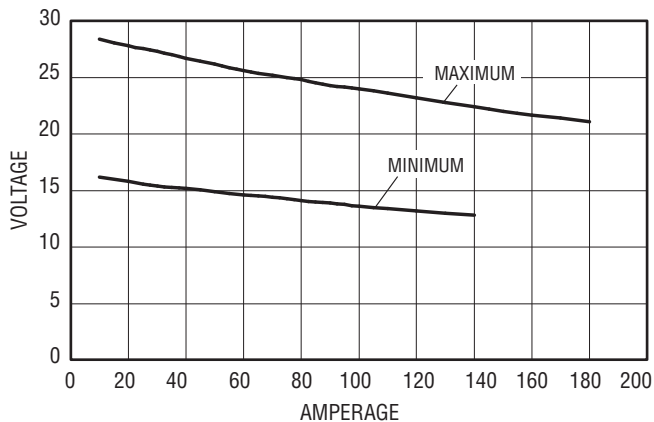
7. Plastic Hub with Retaining Ring for 8 in Spools (shaft also accepts 4 in spools)
8. Storage Holes for Spare Tips
9. Polarity Changeover Terminals
10. Calibrated Tension Knob
11. Springloaded Tension Arm
12. T-Knob (secures torch)
13. Dual Groove Quick-Change Drive Roll

## Performance Data

DUTY CYCLE CHART



VOLT/AMP CURVES



## Genuine Miller Accessories



### Spoolmate™ 100 Series Spool Gun #300 371

Direct connection spool gun for Millermatic 140 and 180 models. Handles .030–.035 in (0.8–0.9 mm) aluminum and .023–.035 in (0.6–0.9 mm) steel/stainless steel wires. Rated at 135 amps, 30% duty cycle. Includes 12 ft (3.7 m) cable assembly and custom carrying case.

### M-10 Replacement Gun #195 605

10 ft (3 m). Shipped with liner #194 011.



### Millermatic Protective Cover #195 149



### Running Gear/ Cylinder Rack #770 187

Heavy-duty construction. Convenient handle on front with cable holders. For gas cylinders no larger than 7 in (178 mm) diameter, maximum weight 100 lb (45 kg).



### Small Running Gear/Cylinder Rack #300 425

Durable construction. For gas cylinders no larger than 7 in (178 mm) diameter, maximum weight 75 lb (34 kg).

**Purchase the Millermatic 180 Auto-Set package (#907 381-01-1) and receive the Millermatic 180 Auto-Set and Small Running Gear/Cylinder Rack (#300 425) packaged together!**

## Consumables (Order from Miller Service Parts.)

### For M-10 Gun



#### Contact Tips

- #087 299 .024 in (0.6 mm)
- #000 067 .030 in (0.8 mm)
- #000 068 .035 in (0.9 mm)
- #000 069 .045 in (1.2 mm)



#### Contact Tip Adapter #169 716



#### Replacement Liners

- #194 010 .024 in
- #194 011 .030–.035 in (standard)
- #194 012 .035–.045 in



#### Nozzle #169 715

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

#### Spot Nozzles

- #176 237 Flat
- #176 239 Inside corner
- #176 241 Outside corner



#### Gasless Flux Cored Nozzle #226 190

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 work piece. For use with M10 and M15 torches.



#### Drive Rolls — Quick Change

##### Dual Groove, V-Smooth #220 179

For .024, .030 and .035 in (0.6, 0.8 and 0.9 mm) wire.

##### Dual Groove, V-Knurl #202 926

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

#### Gun Convenience Kits

- #234 607 .024 in (0.6 mm)
- #234 608 .030 in (0.8 mm)
- #234 609 .035 in (0.9 mm)

Each kit contains 10 contact tips, 1 nozzle and 1 contact tip adapter.

### For Spoolmate™ 100 Series



#### Contact Tips (5 per package)

- #199 730 For .024 in (0.6 mm) wire.
- #186 419 For .030 in (0.8 mm) wire.
- #186 406 For .035 in (0.9 mm) wire.



#### Nozzle #186 405



#### Drive Roll (1)

##### #186 413

For .030/.035 in (0.8/0.9 mm) wire.



#### Push Roll (1)

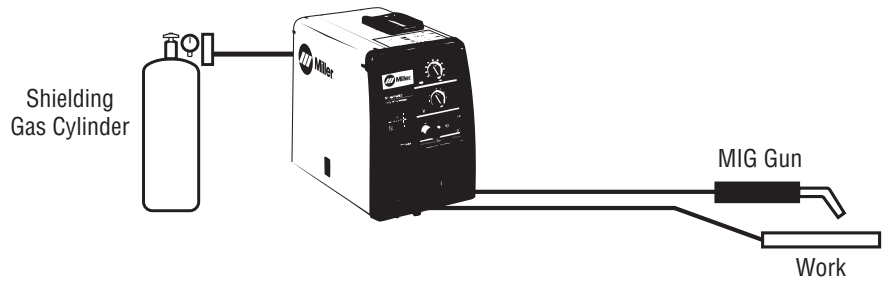
##### #186 414

For .030/.035 in (0.8/0.9 mm) wire.

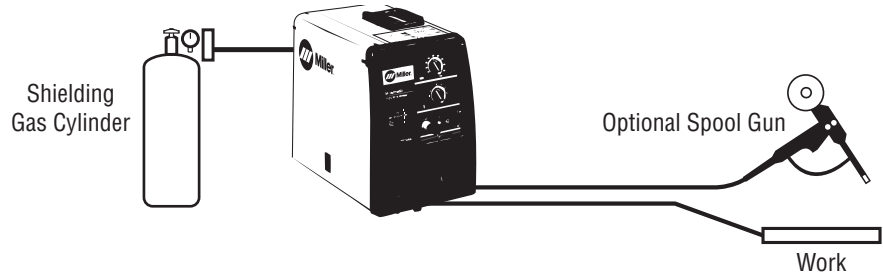
# Typical Installations



**MIG (GMAW) or Flux Cored (FCAW)  
Basic Equipment**



**Aluminum MIG (GMAW)  
Basic Equipment**



# Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
<b>Millermatic® 180 Auto-Set™</b>	<b>#907 312</b>	230 V, 60 Hz		
<b>Millermatic® 180 Auto-Set™ with Small Running Gear</b>	<b>#907 312-01-1</b>	Power source packaged with #300 425 Sm Running Gear/Cyl Rack		
<b>Guns</b>				
Spoolmate™ 100 Series Spool Gun	<b>#300 371</b>	Includes 12 ft (3.7 m) cable and custom carrying case		
M-10 Gun	<b>#195 605</b>	10 ft (3 m), .030–.035 in (0.8–0.9 mm)		
<b>Consumables (Order from Miller Service Parts.)</b>				
Contact Tips		See page 3		
Contact Tip Adapter		See page 3		
Replacement Liners		See page 3		
Nozzles		See page 3		
Spot Nozzles		See page 3		
Gasless Flux Cored Nozzle	<b>#226 190</b>			
Gun Convenience Kit	<b>#193 973</b>			
Drive Rolls		See page 3		
<b>Accessories</b>				
Running Gear/Cylinder Rack	<b>#770 187</b>			
Small Running Gear/Cylinder Rack	<b>#300 425</b>			
Protective Cover	<b>#195 149</b>			
CO <sub>2</sub> Regulator/Flow Gauge	<b>#212 492</b>	Required if using 100% CO <sub>2</sub> Gas. <i>Order from Miller Service Parts</i>		
Material Thickness Gauge	<b>#229 895</b>			
Flux Cored Wire				
Solid Wire				
Shielding Gas Cylinder				
Helmet/Gloves/Scratch Brush				

Date:

Total Quoted Price:

Distributed by:

