

# Miller<sup>®</sup>matic 190

**MIG 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)

### Weld Thickness

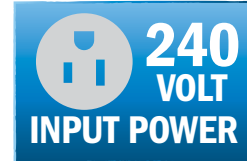
24 ga.–5/16 in. steel and 18 ga.–1/4 in. aluminum

**Input Power** 240 V, 21.7 A, 60 Hz, single-phase

**Rated Output** 140 A at 21 VDC, 40% Duty Cycle



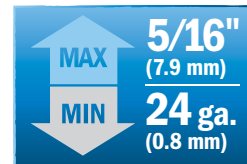
**New!**



Uses 240-volt power



Portable



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!

**Miller inverter technology** combines best-in-class arc characteristics with the portability of a 35-pound machine. The arc is extremely forgiving to variations in arc length and travel speeds.

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

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

**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–.035 inch (0.6–0.9 mm) solid wire and .030–.045 inch (0.8–1.2 mm) flux-cored wire.

### Comes complete with:

- Power source
- 6.5-ft. (2 m) power cord with plug
- 10-ft. (3 m), M-100 MIG gun and cable assembly
- 10-ft. (3 m) work cable with clamp
- Argon and AR/CO<sub>2</sub> mix flow gauge regulator with gas hose
- Hobart® spool of .030-in. (0.8 mm) solid wire
- Two contact tips for .030-in. (0.8 mm) wire
- Quick Select™ drive rolls for .024-in. (0.6 mm) or .030/.035-in. (0.8/0.9 mm) solid wire, and .030/.035-in. (0.8/0.9 mm) flux-cored wire
- Material thickness gauge ▶ #229 895
- Velcro cord wraps

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



Welder is warranted for 3 years, parts and labor.  
Gun warranted for 90 days, parts and labor.



**Miller Electric Mfg. Co.**  
An ITW Company  
1635 West Spencer Street  
P.O. Box 1079  
Appleton, WI 54912-1079 USA

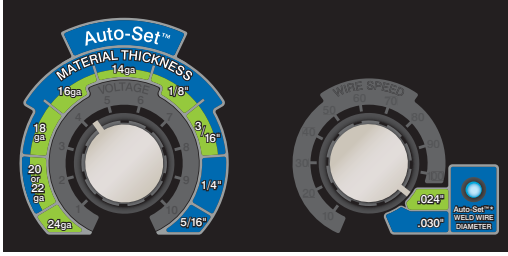
**Equipment Sales US and Canada**  
Phone: 866-931-9730  
FAX: 800-637-2315  
International Phone: 920-735-4554  
International FAX: 920-735-4125

**MillerWelds.com**  
f t You Tube



# Operation Modes

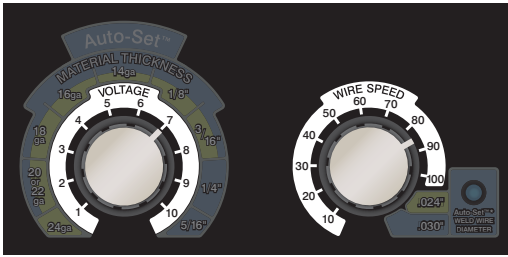
## Auto-Set™ Mode



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 5/16-inch mild steel, and only works with .024 and .030 solid wires and C25 shielding gas (75% Argon, 25% CO<sub>2</sub>).

## 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.



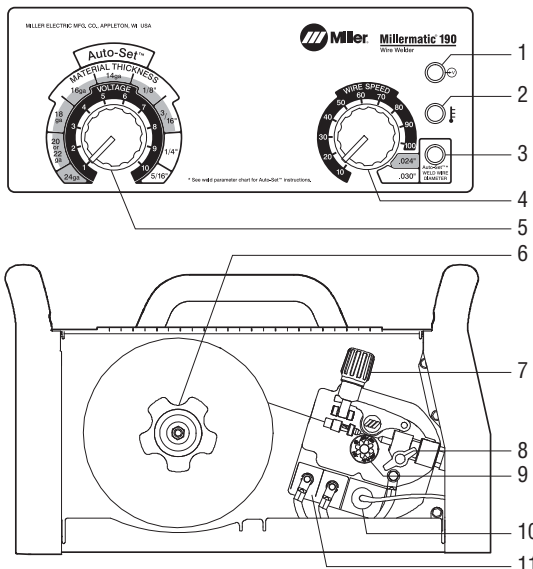
## Specifications (Subject to change without notice.)



Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz			Wire Feed Speed	Wire Type and Diameter	Max. Open-Circuit Voltage	Dimensions	Net Weight
		240 V	KVA	KW					
30–190 A	140 A at 21 VDC, 40% Duty Cycle	21	5.0	3.8	60–600 IPM (1.5–15.2 m/min.)	Solid: .024–.035 in. (0.6–0.9 mm) Stainless: .024–.035 in. (0.6–0.9 mm) Flux-Cored: .030–.035 in. (0.8–0.9 mm)	45	H: 12.5 in. (318 mm) W: 11.25 in. (286 mm) D: 20.5 in. (521 mm)	35 lb. (15.9 kg)

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

## Control Panel

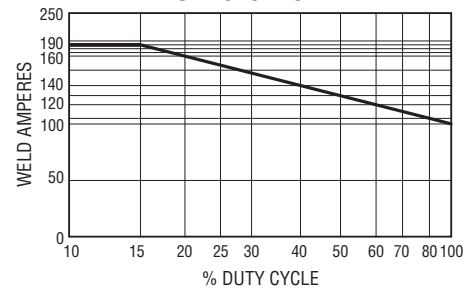


1. Power On Light
2. Over Temperature Light
3. Auto-Set Light
4. Wire Speed/Wire Diameter Control
5. Voltage/Material Thickness Control
6. Plastic Hub with Retaining Ring for 8-inch Spools (shaft also accepts 4-inch spools)
7. Calibrated Tension Knob
8. T-Knob (secures torch)
9. Drive Roll
10. Trigger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

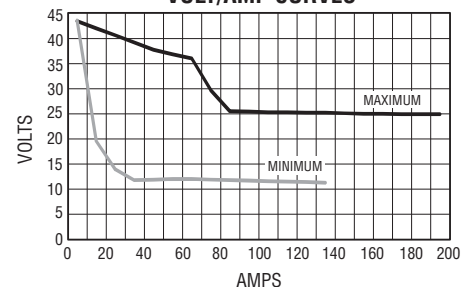
Note: Power switch and gas solenoid are on machine back panel.

## Performance Data

DUTY CYCLE CHART



VOLT/AMP CURVES



## Genuine Miller® Accessories



### Spoolmate™ 100 Spool Gun #300 371

Direct-connect spool gun for Multimatic 200 and all Millermatic 140, 141, 180, 190,

and 211 models. 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.

### Replacement/Optional MIG Gun

#### M-100 (Standard)

#248 282 10 ft. (3 m)

#### M-150 (Optional)

#249 040 12 ft. (3.7 m)

#249 041 15 ft. (4.5 m)

All ship with liner #194 011.



Millermatic Protective Cover #301 262



### Running Gear/ Cylinder Rack #301 239

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.

**Purchase the Millermatic 190 package (#951 602) and receive the Millermatic 190 and Running Gear/Cylinder Rack (#301 239) packaged together!**

## Consumables (Order from Miller Service Parts.)

### For M-100/M-150 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.

15-foot length—trim to size needed.



#### Nozzle #169 715

1/2-inch (13 mm) diameter orifice.

Nozzle flush with contact tip (standard).



#### 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 workpiece. For use with the M-100 gun.



#### Drive Rolls

##### Quick Select™ #261 157

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-Knurl #202 926

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



#### M-Series Gun Consumable 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 ten contact tips, one nozzle, and one contact tip adapter.

### For Spoolmate™ 100 Spool Gun



#### Contact Tips (5 per package)

#199 730 For .024-inch (0.6 mm) wire.

#186 419 For .030-inch (0.8 mm) wire.

#186 406 For .035-inch (0.9 mm) wire.



#### Nozzle #186 405



#### Drive Roll (1)

#186 413

For .030/.035-inch (0.8/0.9 mm) wire.



#### Push Roll (1)

#186 414

For .030/.035-inch (0.8/0.9 mm) wire.

## Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
<b>Millermatic® 190</b>	<b>#907 613</b>	240 V, 60 Hz		
<b>Millermatic® 190</b> with Running Gear/Cyl Rack	<b>#951 602</b>	Power source packaged with #301 239 Running Gear/Cylinder Rack		
<b>Guns</b>				
Spoolmate™ 100 Spool Gun	<b>#300 371</b>	12 ft. (3.7 m). Includes custom carrying case		
M-100 Gun (Standard)	<b>#248 282</b>	10 ft. (3 m), .030–.035 in. (0.8–0.9 mm)		
M-150 Gun (Optional)	<b>#249 040</b>	12 ft. (3.7 m), .030–.035 in. (0.8–0.9 mm)		
	<b>#249 041</b>	15 ft. (4.5 m), .030–.035 in. (0.8–0.9 mm)		
<b>Accessories</b>				
Protective Cover	<b>#301 262</b>			
Running Gear/Cylinder Rack	<b>#301 239</b>			
Material Thickness Gauge	<b>#229 895</b>			
Flux-Cored Wire				
Solid Wire				
Shielding Gas Cylinder				
Helmet/Gloves/Scratch Brush				
<b>Available Through Miller Service Parts</b>				
Argon and AR/CO <sub>2</sub> Mix Flow Gauge Regulator	<b>#268 546</b>	Replacement standard regulator		
CO <sub>2</sub> Flow Gauge Regulator	<b>#212 492</b>	Required if using 100 percent CO <sub>2</sub> gas		
Contact Tips		See page 3		
Contact Tip Adapter		See page 3		
Replacement Liners		See page 3		
Nozzles		See page 3		
Gasless Flux-Cored Nozzle	<b>#226 190</b>			
Drive Rolls		See page 3		
M-Series Gun Consumable Kits	<b>#234 607</b>	.024 in. (0.6 mm)		
	<b>#234 608</b>	.030 in. (0.8 mm)		
	<b>#234 609</b>	.035 in. (0.9 mm)		

Date:

Total Quoted Price:

Distributed by:

