

Millermatic® 251

Issued Aug. 2004 • Index No. DC/12.49

**MIG Arc Welding
Power Source** 

Quick Specs

Industrial Applications

Metal Fabrication
Maintenance and Repair
Farm
Light Industrial

Processes

MIG (GMAW)
Flux Cored (FCAW)

Rated Output 200 Amps at 28 VDC, 60% Duty Cycle
250 Amps at 28 VDC, 40% Duty Cycle

Max. Open-Circuit Voltage 38

Amperage Range 30–300 A

Wire Feed Speed 25–700 IPM (.064–17.8 m/min)

Weight 215 lb (98 kg)

The Power of Blue.®



Consumable compartment and access to wire drive system located under side door.

Welds materials from 22 gauge up to 1/2 in thick in a single pass.

NEW! Miller's patent-pending **Active Arc Stabilizer™** provides excellent starts proven superior to the competition!

Line voltage compensation for constant output with fluctuations in input power.

NEW! Adjustable run-in control can be individually set for both MIG and spool guns. Controlled on the front panel, this easily accessible feature allows the user to optimize starts to the application.



Add the optional **Spoolmatic® 15A or 30A spool gun** for aluminum welding. No extra module to buy or install. And with Miller's exclusive **Gun-On-Demand™**, simply pull the trigger for either gun and you're ready to weld. No wasted time installing modules and using toggle switches.



Comes Complete With:

- Power cord and plug (200/230 V model only)
- 12 ft (3.7 m), 250 amp M-25 MIG gun for .030/.035 in wire
- Work cable and clamp
- Argon mix regulator/flow gauge and hose
- Extra contact tips
- Factory-installed running gear/cylinder rack
- .030/.035 in reversible drive rolls
- Set-up and operation video

Exclusive internal timers:

- Tip Saver — Weld output shuts off if tip is shorted to work surface.
- Safety shut-off — Weld output will shut off if no arc is detected within 3 seconds after gun trigger is depressed.
- Jog mode — When loading a new roll of wire or if the gun trigger is accidentally pressed, gas will shut off after 1 minute and wire will shut off after 2 minutes saving wire and gas.

Industrial, dual-gear-driven, cast aluminum drive system features no-tool, quick-change reversible drive rolls and an easy-to-set, scaled tension knob.

Fan-On-Demand™ only operates when needed reducing power consumption and the amount of airborne contaminants pulled through the machine.

Self-calibrating digital meters allow presetting of voltage and wire speed, and display actual settings for 5 seconds after you stop welding. With spool gun, wire speed meter displays actual WFS setting—a feature not available on competitive units. Meters also display help messages for troubleshooting purposes.

TRUE BLUE
3YR. WARRANTY

Welder/generator 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
APPLETON, WI 



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Appleton, WI 54914 USA

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Specifications (Subject to change without notice.)

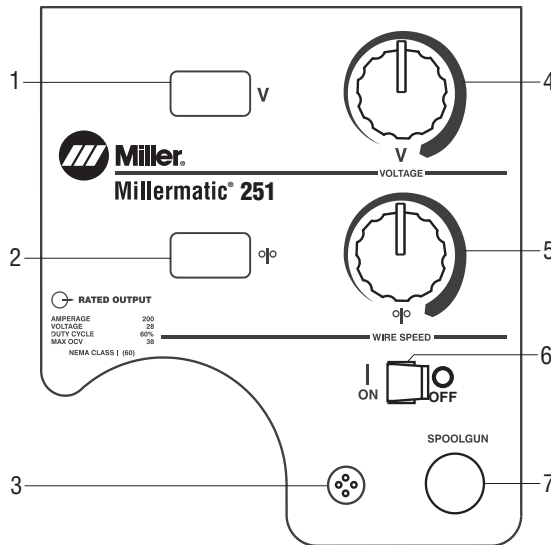


Rated Output	Max. Open-Circuit Voltage	Amps Input at Rated Output, 60 Hz							Wire Type and Diameter	Wire Feed Speed	Dimensions	Net Weight
		200 V	230 V	400 V	460 V	575 V	KVA	KW				
200 A at 28 VDC, 60% Duty Cycle 250 A at 28 VDC, 40% Duty Cycle	38	48	42	23	21	17	10	7.7	Solid Steel: .023-.045 in (0.6-1.2 mm) Stainless Steel: .023-.035 in (0.6-0.9 mm) Flux Cored: .030-.045 in (0.8-1.2 mm)	25-700 IPM (0.64-17.8 m/min)	H: 32 in (813 mm) W: 19 in (483 mm) D: 39 in (991 mm)	215 lb (98 kg)

Certified to both the Canadian and U.S. Standards for welding equipment.

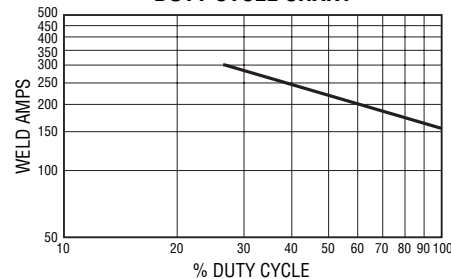
Control Panel

1. Voltmeter
2. Wire Speed Meter
3. MIG Gun Connection
4. Voltage Control
5. Wire Speed Control
6. Power Switch
7. Spool Gun Connection

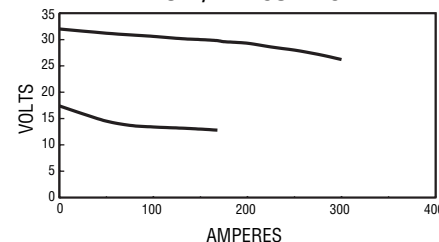


Performance Data

DUTY CYCLE CHART



VOLT/AMP CURVES



Options (Order Push-Pull Module, Gun, and Drive Roll and Accessory Kit separately.)

Millermatic 251 Push-Pull Module



Able to utilize 12 in rolls of aluminum wire inside the Millermatic 251 for extended aluminum welding time.

Wire feed speed is adjustable at the gun and actual speed can be seen on the digital display on the Millermatic 251.

Adjustable run-in control to fine tune arc starting.

Push-Pull Module #195 324

For use with Millermatic 251 units, effective with serial #LE152159. For Millermatic 251 units prior to #LE152159, contact the Miller Electric Service Dept.

XR-A Edge Gun

- #181 534 15 ft (4.6 m) Cable
- #181 535 30 ft (9 m) Cable

XR-A Pistol Gun

- #198 127 15 ft (4.6 m) Cable
- #198 128 30 ft (9 m) Cable

Add the optional Push-Pull Module for aluminum wire feed capability. XR™-Edge, XR-A Pistol or XR-A Python guns can be directly connected to the Millermatic 251 with this module.

True push-pull design where the Millermatic drive system provides constant torque to the wire and the gun provides constant wire feed speed.

NEW! XR-A Python Gun 25 ft #195 373
Performs well on thin aluminum.

U-Groove Aluminum Drive Roll and Accessory Kits

Note: XR-Edge/Pistol kits include U-groove machine drive rolls, nylon wire guides, gun drive rolls and contact tips. XR-A Python kits include U-groove machine drive rolls, nylon wire guides and contact tips.

For XR-A Edge

- #195 199 .035 in (0.9 mm)
- #195 274 .040 in (1 mm)
- #195 200 .047 in (1.2 mm)

For XR-A Pistol

- #195 201 .035 in (0.9 mm)
- #195 273 .040 in (1 mm)
- #195 202 .047 in (1.2 mm)

For XR-A Python

- #195 311 .035 in (0.9 mm)
- #195 312 .040 in (1 mm)
- #195 313 .047 in (1.2 mm)

Genuine Miller Accessories

M-25 Replacement Gun

#169 594 10 ft (3 m)

#169 596 12 ft (3.7 m) standard
Gun shipped to run .030–.035 in
(0.8–0.9 mm) wire.



Spoolmatic® 15A Spool Gun #195 156

Spoolmatic® 30A Spool Gun #130 831

Ideal for aluminum welding jobs. 200 amp, 100% duty cycle, air-cooled, 1 lb spool gun with your choice of 15 ft or (4.6 m) 30 ft (9.1 m) cable assembly. For detailed information, see Spoolmatic literature, Index No. M/1.2.



Dual Cylinder Rack #042 758

Converts single cylinder rack to a dual rack.

Millermatic® PSA Adapter #195 019

Adapts Miller 24 VAC wire feeders to the Millermatic 251. Call factory for specific applications.



Millermatic® Protective Cover with

Helmet Bag #195 142

CO₂ Regulator/Flow Gauge #212 492

Required if using 100% CO₂ gas.
Order from Miller Service Parts.

Consumables (Order from Miller Service Parts.)

For M-25 Gun



Contact Tips

#087 299 .023/.025 in (0.6 mm)

#000 067 .030 in (0.8 mm)

#000 068 .035 in (0.9 mm)

#000 069 .045 in (1.1 mm)

#187 117 .035 in (0.9 mm) heavy-duty tip

#187 118 .045 in (1.2 mm) heavy-duty tip

Tapered Contact Tips

#176 797 .030 in (0.8 mm)

#176 793 .035 in (0.9 mm)

#176 794 .045 in (1.2 mm)



Contact Tip Adapter #169 728



Replacement Liners

#194 010 .023/.025 in

#194 011 .030–.035 in (standard)

#194 012 .035–.045 in



Note: Flush or stickout nozzles should be used for the short-circuit process. Recessed nozzles should be used for the spray arc process.

Nozzles

#200 258 **Standard**

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

#169 726

5/8 in (16 mm) diameter orifice. Nozzle flush with contact tip.

#169 727

5/8 in (16 mm) diameter orifice. Contact tip sticks out of nozzle 1/8 in (3.2 mm).

#169 724

1/2 in (13 mm) diameter orifice. Contact tip recessed 1/8 in (3.2 mm) into nozzle.

#169 725

5/8 in (16 mm) diameter orifice. Contact tip recessed 1/8 in (3.2 mm) into nozzle.

Spot Nozzles

#176 238 Flat

#176 240 Inside corner

#176 242 Outside corner

Tapered Nozzles

Note: Tapered tips are recommended when using a tapered nozzle.

#176 243 3/8 in (9.5 mm) diameter orifice

#178 386 11/32 in (8.7 mm) diameter orifice



Gun Convenience Kit #195 975

Contains:

5 – .035 in (0.9 mm) contact tips (#000 068)

5 – .045 in (1.2 mm) contact tips (#000 069)

2 – Tip adapters (#169 728)

1 – Nozzle adapter (#169 729)

3 – O-rings (#170 468)

2 – Shock washers (#169 730)

1 – 5/8 in (16 mm) diameter orifice nozzle (#169 726)

Drive Rolls

Note: Drive roll kits include two drive rolls and an inlet guide.

V-Grooved Drive Roll Kits

#204 579 .030/.035 in (0.8/0.9 mm) reversible

#087 131 .023/.025 in (0.6 mm)

#079 594 .030 in (0.8 mm)

#079 595 .035 in (0.9 mm)

#079 596 .045 in (1.2 mm)

V-Knurl Drive Roll Kits

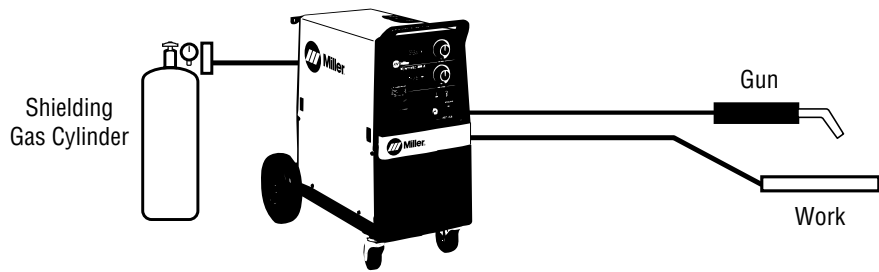
#079 606 .035 in (0.9 mm)

#079 607 .045 in (1.2 mm)

Typical Installations



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



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Millermatic® 251	#903 868	200(208)/230 V, 60 Hz		
	#903 869	230/460/575 V, 60 Hz		
Millermatic® 251 Packages	#951 007	200(208)/230 V, 60 Hz w/ Spoolmatic 30A, dual cylinder rack, regulator and hose		
	#951 009	230/460/575 V, 60 Hz w/ Spoolmatic 30A, dual cylinder rack, regulator and hose		
Guns				
M-25 Gun	#169 594	10 ft (3 m), .030–.035 in (0.8–0.9 mm)		
	#169 596	12 ft (3.7 m), .030–.035 in (0.8–0.9 mm)		
Spoolmatic® 15A	#195 156	Spool gun for aluminum		
Spoolmatic® 30A	#130 831	Spool gun for aluminum		
Push-Pull Module Option				
Millermatic 251 Push-Pull Module	#195 324	For use with Millermatic 251, effective with serial #LE152159		
XR-A Edge Gun	#181 534	15 ft (4.6 m)		
	#181 535	30 ft (9 m)		
XR-A Pistol Gun	#198 127	15 ft (4.6 m)		
	#198 128	30 ft (9 m)		
NEW! XR-A Python Gun	#195 373	25 ft (7.6 m)		
U-Groove Aluminum Drive Roll and Accessory Kit	#195 199	For XR-A Edge Gun, .035 in (0.9 mm)		
	#195 274	For XR-A Edge Gun, .040 in (1 mm)		
	#195 200	For XR-A Edge Gun, .047 in (1.2 mm)		
	#195 201	For XR-A Pistol Gun, .035 in (0.9 mm)		
	#195 273	For XR-A Pistol Gun, .040 in (1 mm)		
	#195 202	For XR-A Pistol Gun, .047 in (1.2 mm)		
	#195 311	For XR-A Python Gun, .035 in (0.9 mm)		
	#195 312	For XR-A Python Gun, .040 in (1 mm)		
	#195 313	For XR-A Python Gun, .047 in (1.2 mm)		
Accessories				
Dual Cylinder Rack	#042 758	Field		
Millermatic PSA Adapter	#195 019	Adapts any 24 VAC wire feeder to the Millermatic 251		
Protective Cover with Helmet Bag	#195 142			
CO ₂ Regulator/Flow Gauge	#212 492	Required if using 100% CO ₂ gas. Order from Miller Service Parts		
Electrode Wire				
Shielding Gas Cylinder				
Helmet/Gloves/Scratch Brush				
Consumables (Order from Miller Service Parts.)				
Contact Tips/Tapered Contact Tips				
Contact Tip Adapter				
Replacement Liners				
Nozzles/Spot Nozzles/Tapered Nozzles				
Gun Convenience Kit	#193 975	Includes tips, nozzle, O-rings, washers, etc for M-25 gun		
Drive Rolls				

Date:

Total Quoted Price:

Distributed by:

