Millermatic® 255

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

Quick Specs

Industrial Applications
General fabricators
Contract welding services
Plant maintenance shops

Processes
MIG (GMAW)
Pulsed MIG (GMAW-P)
Flux-cored (FCAW)

Input Power Auto-Line™ 208–240 V, single-phase

Rated Output 230 A at 25.5 V, 60% duty cycle

Amperage Range 20–350 A

Net Weight **Machine only:** 84 lb. (38 kg)
Machine with running gear: 148 lb. (67 kg)

Easy to Use. Versatility. Portability.

THINK SIMPLY. WELD SMARTER.

Built for professionals in the light manufacturing or fabrication segment who want a smaller, versatile welder with intuitive setup to increase efficiencies and productivity. This 250-amp inverter welder is *easy to use* for faster uptime and performance. The *versatility* of this welder to be integrated on running gear, makes it very easy to move around a work cell or it can be quickly disconnected from the running gear enabling *portability*, making it easier to integrate into a work cell or work in confined spaces.
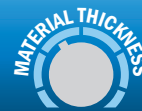
Machine only

Machine with running gear

Heavy-duty aluminum two-drive-roll system

Easy to Use

AUTO-SET™
MATERIAL THICKNESS

Quick and easy setup

Versatility

MULTIPLE MIG CAPABILITIES

MIG, pulsed MIG, push-pull and spool gun capabilities

Portability

MACHINE ONLY WEIGHS 84 lb.

Easily integrates into a work cell

TRUE BLUE 3 YR. WARRANTY

ГАРАНТИЯ НА ОБОРУДОВАНИЕ 3 ГОДА

Easy to Use

Pulsed MIG setup screen

Connection screen for MIG process using C10 gas

Easy-to-understand interface with 7-inch color LCD display ensures proper machine setup and parameter selection, reducing setup time and increasing weld time.

- Quick-access backlit Auto-Set and Pulse buttons above the LCD display illuminate when active.
- Soft-key buttons below the display change function depending on which screen is displayed. Makes setup or change quick, easy and intuitive.
- Large text for easier readability.
- Intuitive connection setup images.
- Full troubleshooting descriptions versus help errors and look up codes.

Auto-Set™ Elite offers predefined weld settings to increase ease of use and ensure that the job is done right for operators of all skill levels.

- Available for MIG and pulsed MIG processes with the ability to fine-tune your settings.
- Set weld parameters by selecting wire and gas type, wire diameter and material thickness.

Program mode allows easy save and recall of favorite weld settings.

- Deliver more productivity by eliminating the need to manually set the parameters.
- Deliver consistent quality by welders of all skill levels by using prequalified weld settings.
- Minimize supervisor need to intervene.

MDX™-250 MIG gun with AccuLock™ S consumable system features a dual-locked, front-loading liner that optimizes wire feedability.

AccuLⓄck™

- 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.

Optional EZ-Select™ MIG gun

MDX™-250 EZ-Select MIG gun has four LEDs on the back of the gun handle to indicate which program is selected.

- Simply tap gun trigger to select the program. The number of lit LEDs on gun indicate the selected program.
- No more going back to machine to change weld settings.
- No more having to move to see settings when front panel of machine is obstructed.

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Millermatic® 255 Features and Benefits

Versatility

MULTIPLE MIG CAPABILITIES

Capabilities include MIG, pulsed MIG and flux-cored welding.

Compatible with push-pull MIG guns. Increases productivity by allowing the use of 12-inch wire spools versus a spool gun's 4-inch spools. Reduces downtime changing wire spools.
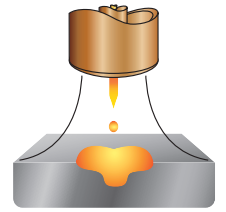
Auto-Gun Detect™ automatically adjusts voltage, wire speed and timers for faster switching between MIG, push-pull and spool guns.

AUTO-LINE™ TECHNOLOGY

For portability and reliability Auto-Line™ allows for any single-phase input voltage hookup (208–240 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

Pulsed MIG welding delivers higher quality welds for ALL welders.

- Lower heat input for less distortion on thin materials and better puddle control on out-of-position welds.
- Less spatter minimizes post weld grinding and rework allowing more welding time.
- Perform welding applications that couldn't be done in the past.
- Ideal for MIG welding aluminum and stainless steel.

Best For	Standard Spray	Pulsed MIG	Short Circuit
Gap Filling	D	B	A
Low Heat Input	D	B	A
Out-of-Position Welds		A	B
Low Spatter	A	A	C
Thick Metals	A	A	D
Thin Metals		B	A
Increased Travel Speed	A	A	B
Aluminum MIG Welding	C	A	C

HOT ➡ **COLD**

Ratings A, B, C, and D are relative values. An "A" rating indicates a best fit between your performance needs and process. A "blank" rating indicates that the process is not recommended for that application.
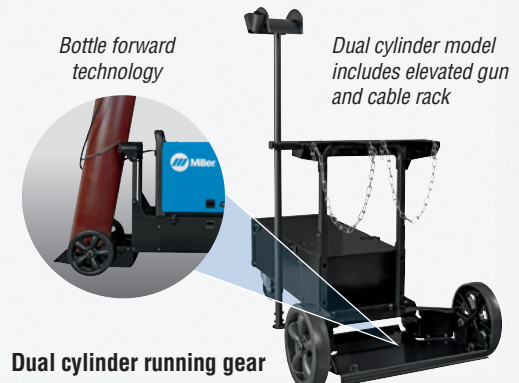
Portability

MACHINE ONLY WEIGHS 84 lb.

Weight is reduced by more than 50 percent compared to the Millermatic 252.

Optional EZ-Latch™ running gear

EZ-Latch running gears are available in single cylinder and dual cylinder models (included with package or can be ordered separately). Operators no longer need to lift machine AND running gear into the truck. Latches secure machine to running gear. Simply loosen the latch retaining knob and rotate latches to disengage machine from running gear for easy portability. Cylinder racks feature bottle forward technology for increased stability when moving along an incline and running gears have built-in storage for accessories. Dual cylinder model includes an elevated gun and cable rack to keep cables off the floor and tangle free.

Storage solution

Single cylinder running gear

Latches shown in open position without machine and in closed position securing the machine

Bottle forward technology

Dual cylinder model includes elevated gun and cable rack

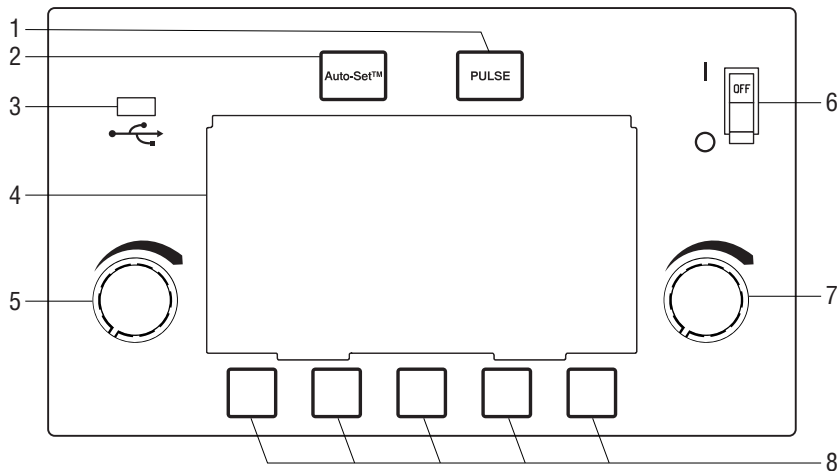Dual cylinder running gear

Miller®

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Specifications (Subject to change without notice.)

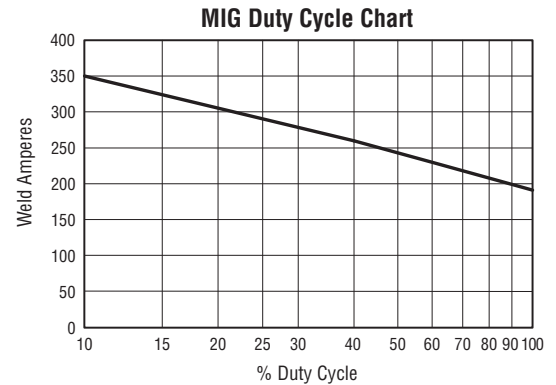| Welding Amperage Range	Rated Output	Amps Input at Rated Output, 50/60 Hz				Wire Feed Speed	Wire Type and Diameter	Max. Open-Circuit Voltage	Dimensions	Net Weight
		208 V	240 V	KVA	KW					
20–350 A	230 A at 25.5 V, 60% duty cycle	44.0	39.5	9.5	7.2	50–800 ipm (1.3–20.3 m/min.)	Solid/stainless steel: .023–.045 in. (0.6–1.2 mm) Flux-cored: .030–.045 in. (0.8–1.2 mm) Aluminum: .035–.047 in. (0.9–1.2 mm)	87 VDC	**Machine only** H: 19.24 in. (489 mm) W: 13.75 in. (349 mm) D: 24.25 in. (616 mm) **Machine with running gear** H: 32 in. (813 mm) W: 13.75 in. (349 mm) D: 45 in. (1,143 mm)	**Machine only** 84 lb. (38 kg) **Machine with running gear** 148 lb. (67 kg)

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

Control Panel

1. Pulse Button

2. Auto-Set Button

3. USB Port

4. Color LCD Display

5. Left Adjustment Knob
(Adjusts voltage, arc length or parameter values depending on mode.)

6. Power Switch

7. Right Adjustment Knob
(Adjusts wire feed speed or parameter values depending on mode.)

8. Soft Keys
(Multiple functions depending on screen displayed.)

Performance Data

MIG Duty Cycle Chart

Weld Amperes vs % Duty Cycle

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Millermatic® 255 Packages

907734
Machine only

Comes complete with:
- Power source with 10 ft. (3 m) industrial power cord
- 15 ft. (4.5 m) 250-amp MDX™-250 MIG gun with Bernard® AccuLock™ S consumables for .035/.045 in. (0.9/1.2 mm) wire
- 10 ft. (3 m) work cable with clamp and 50 mm Dinse-style connector
- Flow gauge regulator and gas hose for argon or AR/CO_2 mix
- .035/.045 in. (0.9/1.2 mm) reversible drive rolls
- Extra contact tips
- Material thickness gauge

951766
Machine with running gear package

Comes complete with:
- Power source with 10 ft. (3 m) industrial power cord
- 15 ft. (4.5 m) 250-amp MDX™-250 MIG gun with Bernard® AccuLock™ S consumables for .035/.045 in. (0.9/1.2 mm) wire
- 10 ft. (3 m) work cable with clamp and 50 mm Dinse-style connector
- Flow gauge regulator and gas hose for argon or AR/CO_2 mix
- .035/.045 in. (0.9/1.2 mm) reversible drive rolls
- Extra contact tips
- Material thickness gauge
- EZ-Latch™ single cylinder running gear
- Chain to secure gas cylinder

Genuine Miller® Accessories

EZ-Latch™ Single Cylinder Running Gear
301449
Running gear with a single cylinder rack and storage compartment. Latches secure machine to cart. Simply rotate latches to disengage machine from cart for easy portability.

EZ-Latch™ Dual Cylinder Running Gear
951769
Similar to above, but with a dual cylinder rack which allows operator to easily store two gas cylinders. Includes elevated gun and cable rack (shown below) to keep cables off the floor and tangle free.

EZ-Latch™ Dual Cylinder Rack with Elevated Gun and Cable Rack   301481
Converts an EZ-Latch single cylinder running gear into a dual cylinder rack to easily store two gas cylinders. Gun and cable rack keeps cables off the floor and tangle free. *(Included with EZ-Latch dual cylinder running gear.)*

Protective Cover   301521
Features side pocket.

Argon/Mixed Gas Regulator and Gas Hose
195050

MIG Gun

MDX™-250 MIG Gun
with AccuLock™ S Consumables
1770041 10 ft. (3 m)
1770042 12 ft. (3.7 m)
1770043 15 ft. (4.6 m), standard
Industrial 250-amp MIG gun with consumables for .035/.045 in. (0.9/1.2 mm) wire.

MDX™-250 EZ-Select™ MIG Gun
1770046 15 ft. (4.6 m)
Similar to above, but with four LEDs on gun handle to indicate which machine program is selected. Tap trigger to select program. Allows operator to know which program is being used without going back to machine.

MDX™-250 MIG Gun
with AccuLock™ MDX Consumables
1770035 10 ft. (3 m)
1770036 12 ft. (3.7 m)
1770037 15 ft. (4.6 m)
Industrial 250-amp MIG gun with consumables for .030/.035 in. (0.8/0.9 mm) wire.

Spool Guns

Spoolmatic® 15A Spool Gun   195156
Spoolmatic® 30A Spool Gun   130831
Ideal for aluminum welding jobs. Air-cooled, one-pound spool gun with 15-foot (4.6 m) or 30-foot (9.1 m) cable assembly. Rated at 200 amps at 100 percent duty cycle. For detailed information, see Spoolmatic literature M/1.73.

Spoolmate™ 200 Spool Gun   300497
Reliable and economical spool gun perfect for hobbyists and light fabricators who weld aluminum. Handles .030–.035 inch (0.8–0.9 mm) aluminum wires and .023–.035 inch (0.6–0.9 mm) steel/stainless steel wires. Rated at 160 amps, 60 percent duty cycle with 20-foot cable assembly. For detailed information, see Spoolmate literature M/1.47.

Optional Spoolmate™ 200 Head Tubes
300591 45-degree head tube
300592 9-inch extension head tube
243385 5-inch head tube

Push-Pull Guns

XR-Aluma-Pro™ Push-Pull Gun
301568 15 ft. (4.6 m)
301569 25 ft. (7.6 m)
Air-cooled gooseneck-style gun for .030–.047 inch (0.8–1.2 mm) aluminum. Rated at 300 amps at 100 percent duty cycle.

XR-Aluma-Pro™ Lite Push-Pull Gun
300948 25 ft. (7.6 m)
Air-cooled gooseneck-style gun for .030–.047 inch (0.8–1.2 mm) aluminum. Rated at 175 amps at 60 percent duty cycle.

U-Grooved Aluminum Drive Roll
and Accessory Kits for XR-Aluma-Pro
Push-Pull Guns
195311 .035 in. (0.9 mm)
195313 .047 in. (1.2 mm)
Kits include Millermatic U-grooved drive rolls, nylon wire guides and contact tips.

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Consumables

For MDX™-250 MIG Guns

Standard Bernard® AccuLock™ S Consumables
Consumables for increased durability and longer life when guns are used in industrial applications.

Contact Tips *(10 per package)*
T-A023CH	.023 in. (0.6 mm)
T-A030CH	.030 in. (0.8 mm)
T-A035CH	.035 in. (0.9 mm)
T-A039CH	.039 in. (1.0 mm)
T-A045CH	.045 in. (1.2 mm)

Nozzles
N-A5800C	Copper, 5/8 in. ID, flush, standard
N-A5818C	Copper, 5/8 in. ID, 1/8 in. recess
N-A5814C	Copper, 5/8 in. ID, 1/4 in. recess

Diffuser   D-MA250

Monocoil Replacement Liners

10 ft. Liner
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)

12 ft. Liner
LM1A-12	.023/.025 in. (0.6 mm)
LM2A-12	.030/.035 in. (0.8/0.9 mm)
LM3A-12	.035/.045 in. (0.9/1.2 mm)

15 ft. Liner
LM1A-15	.023/.025 in. (0.6 mm)
LM2A-15	.030/.035 in. (0.8/0.9 mm)
LM3A-15	.035/.045 in. (0.9/1.2 mm)

Optional 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
N-M1200C	Copper, 1/2 in. ID, flush, standard
N-M1218C	Copper, 1/2 in. ID, 1/8 in. recess
N-M5800C	Copper, 5/8 in. ID, flush
N-M5818C	Copper, 5/8 in. ID, 1/8 in. recess
N-M58XTC	Copper, 5/8 in. ID, 1/8 in. stickout

Diffuser   D-M250

Note: Miller® FasTip™, M-Series and Bernard Centerfire™ diffusers and consumables are NOT compatible with MDX Series guns.

For Spoolmatic® Spool Guns and XR™ Push-Pull Guns

For Aluminum Wire

FasTip™ Contact Tips *(25 per package)*
206186	Heavy-duty, .030 in. (0.8 mm)
206187	Heavy-duty, .035 in. (0.9 mm)
206188	Heavy-duty, .040 in. (1.0 mm)
206189	Heavy-duty, 3/64 in. (1.2 mm)
206191	Heavy-duty, 1/16 in. (1.6 mm)
209026	Tapered, .030 in. (0.8 mm)
209027	Tapered, .035 in. (0.9 mm)
209029	Tapered, 3/64 in. (1.2 mm)
206030	Tapered, 1/16 in. (1.6 mm)

Screw-On Nozzles
199610	Brass, 1/2 in. orifice, tapered
199611	Brass, 3/4 in. orifice, straight
199612	Brass, 3/4 in. orifice, straight HD
199613	Brass, 5/8 in. orifice, tapered
199614	Brass, 5/8 in. orifice, tapered HD
209035	Copper, 3/8 in. orifice, tapered
199615	Copper, 1/2 in. orifice, tapered
209036	Copper, 1/2 in. orifice, tapered HD
198855	Copper, 5/8 in. orifice, tapered
199618	Copper, 5/8 in. orifice, tapered HD
207313	Copper, 5/8 in. orifice, tapered 15/16 OD
199616	Copper, 3/4 in. orifice, straight
199617	Copper, 3/4 in. orifice, straight HD

Bernard® Centerfire™ "T" Series Contact Tips
T-035AL	.035 in. (0.9 mm)
T-047AL	.047 in. (1.2 mm)
T-062AL	1/16 in. (1.6 mm)

Bernard® Centerfire™ Small Nozzles
NST-3818B	Brass, 3/8 in. ID, 1/8 in. tip recess
NS-1218B	Brass, 1/2 in. ID, 1/8 in. tip recess
NS-1200B	Brass, 1/2 in. ID, flush tip
NS-5818B	Brass, 5/8 in. ID, 1/8 in. tip recess
NS-1218C	Copper, 1/2 in. ID, 1/8 in. tip recess

For Spoolmate™ 200 Spool Gun

Note: Spoolmate 200 spool gun ships with (2) .030 in. and (2) .035 in. contact tips and (1) nozzle.

For Standard Heavy-Duty Head Tube

Contact Tips *(5 per package)*
199387	.030 in. (0.8 mm)
199388	.035 in. (0.9 mm)

Nozzle   050622

For Optional Head Tubes
Note: The same consumables are used on 45-degree, 5-inch, and 9-inch extension head tubes.

Contact Tips *(5 per package)*
199730	.024 in. (0.6 mm) (requires V-knurled drive roll **136135**)
186419	.030 in. (0.8 mm)
186406	.035 in. (0.9 mm)

Nozzle   186405

For Millermatic® 255

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

V-Grooved Drive Roll Kits (solid wire)
204579	.030 and .035 in. (0.8 and 0.9 mm) combination (reversible)
087131	.024 in. (0.6 mm)
079594	.030 in. (0.8 mm)
079595	.035 in. (0.9 mm)
079596	.045 in. (1.2 mm)

V-Knurled Drive Roll Kits
(flux-cored or difficult-to-feed wire)
079606	.035 in. (0.9 mm)
079607	.045 in. (1.2 mm)
079608	.052 in. (1.3 mm)

U-Grooved Drive Roll Kits (aluminum wire)
044749	.035 in. (0.9 mm)
079599	.047 in. (1.2 mm)

Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
Millermatic® 255	907734	Auto-Line™ 208−240 V, 50/60 Hz		
Millermatic® 255 with Running Gear	951766	Auto-Line™ 208−240 V, 50/60 Hz with single cylinder running gear		
Accessories				
EZ-Latch™ Single Cylinder Running Gear	301449	Running gear with single cylinder rack		
EZ-Latch™ Dual Cylinder Running Gear	951769	Running gear with dual cylinder rack and elevated gun and cable rack		
EZ-Latch™ Dual Cylinder Rack with Elevated Gun and Cable Rack	301481	Upgrade single cylinder rack to dual *(included with EZ-Latch dual cylinder running gear)*		
Protective Cover	301521	Features side pocket		
Argon/Mixed Gas Regulator and Gas Hose	195050			
Guns				
MDX™-250 MIG Gun with AccuLock™ S Consumables	1770041	10 ft. (3 m), 250 A, .035/.045 in. (0.9/1.2 mm) wire		
	1770042	12 ft. (3.7 m), 250 A, .035/.045 in. (0.9/1.2 mm) wire		
	1770043	15 ft. (4.6 m), 250 A, .035/.045 in. (0.9/1.2 mm) wire		
MDX™-250 EZ-Select™ MIG Gun with AccuLock™ S Consumables	1770046	15 ft. (4.6 m), 250 A, .035/.045 in. (0.9/1.2 mm) wire		
MDX™-250 MIG Gun with AccuLock™ MDX Consumables	1770035	10 ft. (3 m), 250 A, .030/.035 in. (0.8/0.9 mm) wire		
	1770036	12 ft. (3.7 m), 250 A, .030/.035 in. (0.8/0.9 mm) wire		
	1770037	15 ft. (4.6 m), 250 A, .030/.035 in. (0.8/0.9 mm) wire		
Spoolmatic® 15A Spool Gun	195156	15 ft. (4.6 m), 200 A, .030−.047 in. (0.8−1.2 mm) for aluminum wire		
Spoolmatic® 30A Spool Gun	130831	30 ft. (9 m), 200 A, .030−.047 in. (0.8−1.2 mm) for aluminum wire		
Spoolmate™ 200 Spool Gun	300497	20 ft. (6 m), 160 A, .030−.035 in. (0.8−0.9 mm) for aluminum wire, .023−.035 in. (0.6−0.9 mm) for steel/stainless steel wire		
Optional Spoolmate™ 200 Head Tubes		See page 6		
XR-Aluma-Pro™ Gun (air-cooled)	301568	15 ft. (4.6 m), 300 A, .030−.047 in. (0.8−1.2 mm) for aluminum wire		
	301569	25 ft. (7.6 m), 300 A, .030−.047 in. (0.8−1.2 mm) for aluminum wire		
XR-Aluma-Pro™ Lite Gun (air-cooled)	300948	25 ft. (7.6 m), 175 A, .030−.047 in. (0.8−1.2 mm) for aluminum wire		
Consumables				
Contact Tips		See page 7		
Replacement Liners		See page 7		
Nozzles		See page 7		
Drive Rolls		See page 6 for gun drive rolls and page 7 for machine drive rolls		