Issued June 2023 • Index No. DC/12.8

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 84lb.

Easily integrates into a work cell

TRUE BLUE® 3YR. WARRANTY

Welder is warrantied for three years, parts and labor.
Gun warrantied 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

Certified System ISO 9001 Quality

Millermatic® 255 Features and Benefits

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.

- 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.

Millermatic® 255 Features and Benefits

Versatility



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.

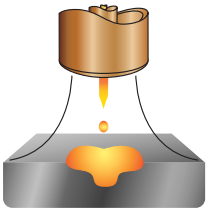
AUTO-LINE™ TECHNOLOGY

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.



Generator compatible. The Millermatic 255 will be able to operate and provide full output when powered by generators with 12,000-watt (12 kW) output or higher. Limited output will occur when used with smaller generators.

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



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.



Single cylinder running gear



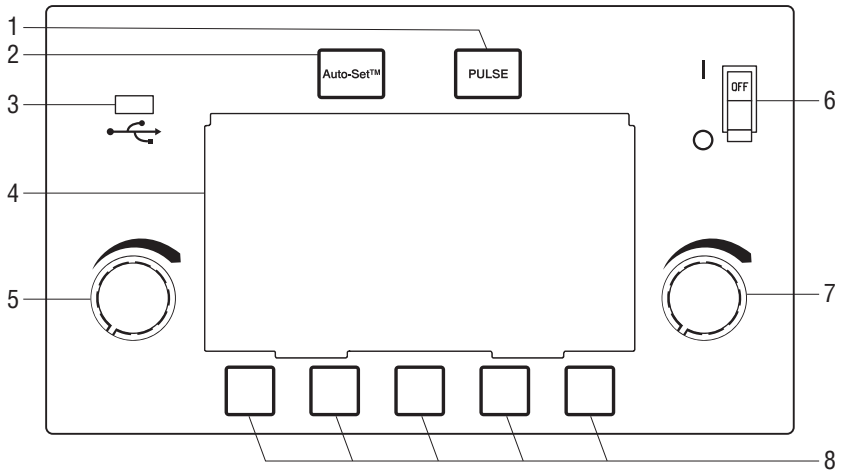
Dual cylinder running gear

Specifications (Subject to change without notice.)

Welding Amperage Range	Rated Output	Amps Input at Rated Output, 50/60 Hz 208 V	240 V	KVA	KW	Wire Feed Speed	Wire Type and Diameter	Max. Open-Circuit Voltage	Dimensions	Net Weight
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)

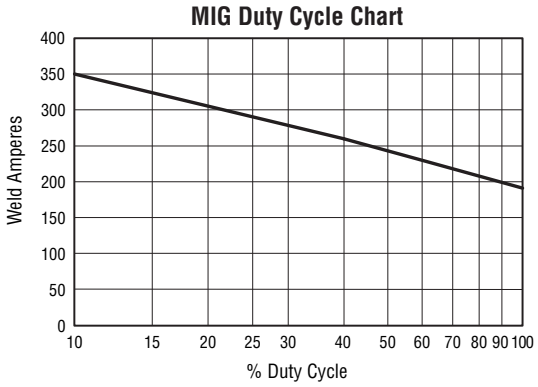
Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

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



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 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 Guns
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.



XR™-Pistol-Pro Push-Pull Guns
300782 15 ft. (4.6 m), air-cooled
300783 25 ft. (7.6 m), air-cooled
Air-cooled pistol-grip gun for .030–.047 inch (0.8–1.2 mm) aluminum. Rated at 200 amps at 100 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.

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)
209030 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** **1770042** **1770043**	10 ft. (3 m), 250 A, .035/.045 in. (0.9/1.2 mm) wire 12 ft. (3.7 m), 250 A, .035/.045 in. (0.9/1.2 mm) wire 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** **1770036** **1770037**	10 ft. (3 m), 250 A, .030/.035 in. (0.8/0.9 mm) wire 12 ft. (3.7 m), 250 A, .030/.035 in. (0.8/0.9 mm) wire 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™ Guns (air-cooled)	**301568** **301569**	15 ft. (4.6 m), 300 A, .030–.047 in. (0.8–1.2 mm) for aluminum wire 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		
XR™-Pistol-Pro Guns (air-cooled)	**300782** **300783**	15 ft. (4.6 m), 200 A, .030–.047 in. (0.8–1.2 mm) for aluminum wire 25 ft. (7.6 m), 200 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		

Date: **Total Quoted Price:**

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