Multimatic[®] 255

MIG/Multiprocess Power Source, Wire Feeder and Gun Package



Quick Specs

Industrial Applications Contract welding services Plant maintenance shops General fabricators

Processes

MIG (GMAW) Pulsed MIG (GMAW-P) Flux-cored (FCAW) DC stick (SMAW) DC Lift-Arc[™] TIG (GTAW) Pulsed TIG (GTAW-P) Input Power Auto-Line[™] 208-575 V, single-phase

Rated Output MIG: 230 A at 25.5 V, 60% duty cycle Stick: 200 A at 28 V, 60% duty cycle TIG: 275 A at 21 V, 60% duty cycle

Amperage Range 5–350 A

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

Easy to Use. Versatility. Portability.



Built for professionals in the MRO and light manufacturing/fabrication

segments who want a smaller, versatile welder with intuitive setup to increase efficiencies and productivity. This 250-amp inverter multiprocess welder is *easy to use*, will deliver *versatility* for faster uptime and performance, while allowing for *portability*.







Quick and easy setup

Versatility



Multiple processes with only one machine

Portability



Easier to get to the work



Welder is warrantied for three years, parts and labor. Gun warrantied for 90 days, parts only.

Miller Electric Mfg. LLC

Appleton, WI 54912-1079 USA

An ITW Welding Company

1635 West Spencer Street

P.O. Box 1079



Equipment Sales US and Canada

Phone: 866-931-9730 FAX: 800-637-2315 International Phone: 920-735-4554 International FAX: 920-735-4125





Machine with running gear



Heavy-duty aluminum two-drive-roll system

Multimatic[®] 255 Features and Benefits

Easy to Use



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.



AccuL@ck

 Available for MIG, pulsed MIG, stick and

DC TIG processes with the ability to fine-tune your settings.

· Set weld parameters by selecting:

MIG (shown) — wire and gas type, wire diameter and material thickness Stick — electrode type, electrode diameter and material thickness DC Lift-Arc[™] TIG — remote on/off, tungsten diameter and material thickness



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 process and weld mode backlit buttons across the top 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.

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

- Save up to four programs for each process.
- Deliver more productivity by eliminating need to manually set parameters.
- Deliver consistent quality by welders of all skill levels with prequalified settings.
- Minimize supervisor intervention.



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.





- 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.



Multimatic[®] 255 Features and Benefits

Versatility



Multiprocess capabilities include MIG, flux cored, DC stick (6010) and DC Lift-Arc™ TIG welding. The Multimatic 255 also has pulsing capability that allows it to do pulsed MIG and TIG 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 from changing wire spools.

Auto-Gun Detect[™] automatically adjusts voltage, wire speed and timers for faster switching between MIG, push-pull and spool guns.

For portability and reliability Auto-Line[™] allows for any single-phase input voltage hookup (208–575 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	В	A
Low Heat Input	D	В	A
Out-of-Position Welds		А	В
Low Spatter	A	A	C
Thick Metals	A	A	D
Thin Metals		В	A
Increased Travel Speed	A	A	В
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.

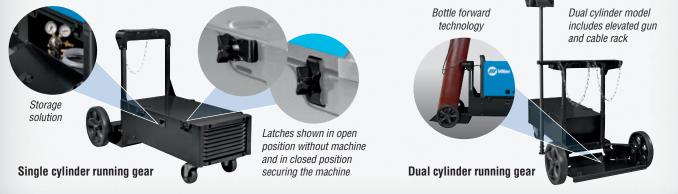
Portability



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.





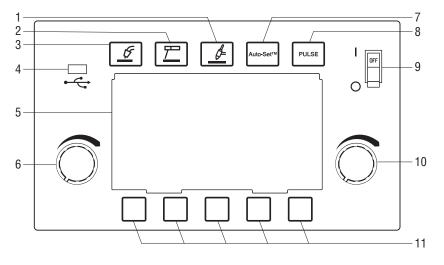
Specifications (Subject to change without notice.)



Welding Process	Welding Amperage Range	Rated Output	Amps 208 V	Input at 240 V			-	lz KW	Wire Feed Speed	Max. Open- Circuit Voltage	Dimensions	Net Weight
CV: MIG/ flux-cored	20-350 A	230 A at 25.5 V, 60% duty cycle	34.7	29.7	17.1	14.3	8.2	8.2	50–800 ipm (1.3–20 m/min.)	81 VDC	Machine only H: 19.24 in. (489 mm) W: 13.75 in. (349 mm)	Machine only 84 lb. (38 kg) Machine with
CC: Stick	30–275 A	200 A at 28 V, 60% duty cycle	33.5	29	16.4	13.6	7.8	7.8	_		D: 24.25 in. (616 mm) ru	running gear 148 lb. (67 kg)
CC: DC TIG	5–275 A	275 A at 21 V, 60% duty cycle	34.1	29.9	17	14.1	8.1	8.1	_			

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

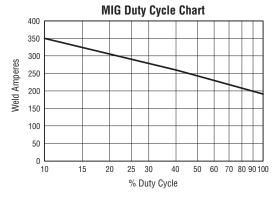
Control Panel



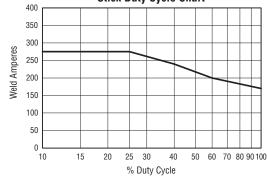
- 1. TIG Process Button
- 2. Stick Process Button
- 3. MIG Process Button
- 4. USB Port
- 5. Color LCD Display
- **6.** Left Adjustment Knob
- (Adjusts voltage, arc length, pulse frequency or parameter values depending on mode.)
- 7. Auto-Set Button
- 8. Pulse Button
- 9. Power Switch
- **10.** Right Adjustment Knob (Adjusts wire feed speed, amperage or parameter values depending on mode.)

11. Soft Keys

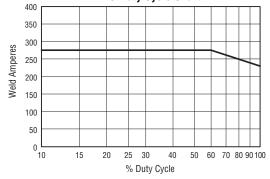
Performance Data



Stick Duty Cycle Chart



TIG Duty Cycle Chart





⁽Multiple functions depending on screen displayed.)

Multimatic[®] 255 Packages



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) cable with electrode holder and 50 mm Dinse-style connector
- 10 ft. (3 m) work cable with clamp and 50 mm Dinse-style connector
- Flow gauge regulator and gas hose for argon or AR/CO₂ mix
- .035/.045 in. (0.9/1.2 mm) reversible drive rolls
- Extra contact tips
- Material thickness gauge

Comes complete with:

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- Flow gauge regulator and gas hose for argon or AR/CO₂ 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

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) cable with electrode holder and 50 mm Dinse-style connector
- 10 ft. (3 m) work cable with clamp and 50 mm Dinse-style connector
- Flow gauge regulator and gas hose for argon or AR/CO₂ mix
- .035/.045 in. (0.9/1.2 mm) reversible drive rolls
- Extra contact tips
- Material thickness gauge
- EZ-Latch[™] dual cylinder running gear with elevated gun and cable rack
- Multimatic 255 TIG kit
- Two chains to secure gas cylinders



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.)*

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.

30059145-degree head tube3005929-inch extension head tube2433855-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 Multimatic U-grooved drive rolls, nylon wire guides and contact tips.



Protective Cover 301521 Features side pocket.

Argon/Mixed Gas Regulator and Gas Hose 195050



Genuine Miller® Accessories



Multimatic[®] 255 TIG Kit 301518 Kits comes complete with everything needed to TIG weld with the Multimatic 255. Includes 25-foot (7.6 m) Weldcraft[™] A-150 TIG torch, RFCS-14 HD foot control, 10-pin to 14-pin adapter cord, flow gauge regulator with 5-foot (1.5 m) gas hose, and AK1C torch accessory kit.

Remote Controls



Wireless Remote Foot Control 300429 For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller

machine. 90-foot (27.4 m) operating range.

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.

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Contact Ti	Contact Tips <i>(10 per package)</i>				
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)



Wireless Remote Hand Control 300430 For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller

machine. 300-foot (91.4 m) operating range.



194744 Maximum flexibility is accomplished with a

RFCS-14 HD Foot Control

reconfigurable cord that can exit the front, back or either side of the pedal. Foot pedal provides

remote current and contactor control. Includes 20-foot (6 m) cord with 14-pin plug.



RHC-14 Hand Control 242211020

Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3.25

inches (102 x 102 x 82 mm). Includes 20-foot (6 m) cord with 14-pin plug.

RCC-14 Remote Contactor and Current Control 151086

East/west rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord with 14-pin plug.



RCCS-14 Remote Contactor and Current Control 043688

North/south rotary-motion fingertip control attaches to TIG torch using two hook-and-loop fasteners. Includes 26.5-foot (8 m) cord with 14-pin plug.



10-Pin to 14-Pin Adapter Cord 301545 Allows standard

14-pin TIG remote controls to be used with the Multimatic 255.

Optional Miller® AccuLock™ MDX Consumables Smaller consumables and components to

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

301CW-0	
199610	Brass, 1/2 in. orifice, tapered
199613	Brass, 5/8 in. orifice, tapered
199614	Brass, 5/8 in. orifice, tapered HD
199611	Brass, 3/4 in. orifice, straight
199612	Brass, 3/4 in. orifice, straight 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

NS-5818B	Brass, 5/8 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
NST-3818B	Brass, 3/8 in. ID, 1/8 in. tip recess
NS-1218C	Copper, 1/2 in. ID, 1/8 in. tip recess



Consumables

For Multimatic[®] 255 Note: Machine drive roll kits include two drive rolls and an inlet guide.

V-Grooved	Drive	Roll Kits	(solid wire)
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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 Description Price Stock No. Qty. Multimatic® 255 907728 Auto-Line[™] 208-575 V, 50/60 Hz Multimatic® 255 with Running Gear 951767 Auto-Line[™] 208-575 V, 50/60 Hz with single cylinder running gear Multimatic® 255 with Dual Cylinder/TIG Kit 951768 Auto-Line[™] 208-575 V, 50/60 Hz with dual cylinder running gear and TIG kit Accessories EZ-Latch[™] Single Cylinder Running Gear 301449 Running gear with single cylinder rack 951769 EZ-Latch[™] Dual Cylinder Running Gear Running gear with dual cylinder rack and elevated gun and cable rack EZ-Latch[™] Dual Cylinder Rack 301481 Upgrade single cylinder rack to dual with Elevated Gun and Cable Rack (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 1770041 10 ft. (3 m), 250 A, .035/.045 in. (0.9/1.2 mm) wire with AccuLock[™] S Consumables 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 1770046 15 ft. (4.6 m), 250 A, .035/.045 in. (0.9/1.2 mm) wire with AccuLock[™] S Consumables MDX[™]-250 MIG Gun 1770035 10 ft. (3 m), 250 A, .030/.035 in. (0.8/0.9 mm) wire with AccuLock[™] MDX Consumables 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[™] Guns (air-cooled) See page 6 **TIG Accessories** Multimatic 255 TIG Kit 301518 See page 7 for contents Foot control with wireless 90 ft. (27.4 m) operating range 300429 Wireless Remote Foot Control Hand control with wireless 300 ft. (91.4 m) operating range Wireless Remote Hand Control 300430 RFCS-14 HD 194744 Heavy-duty foot control (included with TIG kit and TIG package) RHC-14 242211020 Hand control with 20 ft. (6 m) cord RCC-14 151086 **Fingertip control** RCCS-14 043688 Fingertip control 10-Pin to 14-Pin Adapter Cord 301545 Allows standard 14-pin TIG remote controls to be used with the Multimatic 255 **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 above for machine drive rolls

Date:

Distributed by:

Total Quoted Price:

