

Millermatic® 252

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



Quick Specs

Industrial Applications

Metal fabrication
Maintenance and repair
Farm/home
Light industrial

Processes

MIG (GMAW)
Flux-cored (FCAW)

Input Power

208/240 V, single-phase, 60 Hz
230/460/575 V, single-phase, 60 Hz

Amperage Range 30–300 A

Rated Output 200 A at 24 VDC, 60% duty cycle
250 A at 26.5 VDC, 40% duty cycle

Wire Feed Speed 50–700 ipm (1.3–17.8 m/min.)

Max. Open-Circuit Voltage 38 V

Net Weight 205 lb. (93 kg)

**Highest output in its class
(250 A at 26.5 VDC).** Weld longer
on high-end applications.

**Infinite voltage control with
self-calibrating digital meters**
that permit presetting of voltage
and wire feed speed. Ensures
precise parameters and accuracy.

Integrated digital timers come
complete with presettable preflow/
postflow, burnback, spot and delay
(stitch) timers. Independent timers
for MIG and spool gun.

Line voltage compensation
keeps power constant even
if power input varies by
±10 percent.

Active Arc Stabilizer™
minimizes weld cleanup, and
provides excellent starts proven
superior to the competition.

Auto-Gun Detect™ allows
operator to simply pull trigger
on MIG gun, spool gun or
push/pull gun. Automatically detects
and recalls the voltage, wire feed
speed and timer of the active gun.
See page 3 for more information.

Heavy-duty aluminum two-drive-roll system.

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

Comes complete with:

- 15 ft. (4.6 m), 250-amp MDX™-250 MIG gun
- 10 ft. (3 m) work cable with clamp
- 10 ft. (3 m) industrial power cord
(with plug on 208/240 V model)
- Flow gauge regulator and gas hose for argon
or AR/CO₂ mix
- Factory-installed lowered running gear/
cylinder rack
- .030/.035 in. reversible dual-groove drive rolls
- Extra contact tips



**EZ-Access™ consumable
compartment and parameter
chart.** Set weld parameters right
the first time with convenient
flip-down compartment that
provides fast access to parameter
chart and consumables. See
page 3 for more information.

**Superior aluminum MIG welding with
direct connection of optional spool
guns and push-pull guns.** Directly
connect your Spoolmate™ 200 and
Spoolmatic® spool guns or XR™ push-pull
guns. No extra module to buy or install.



Welder is warrantied for three years, parts and labor.
Original main power rectifier parts are warrantied for five years.
Gun warrantied for 90 days, parts only.



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f X y o i n



Specifications (Subject to change without notice.)



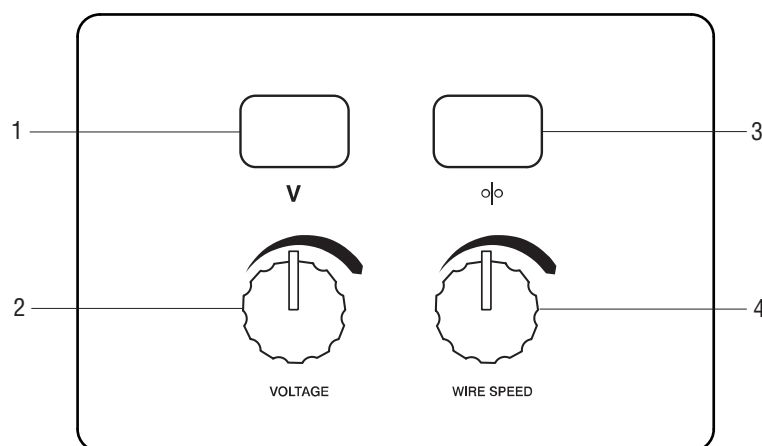
Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz							Wire Feed Speed	Wire Type and Diameter	Max. Spool Size	Max. Open-Circuit Voltage	Dimensions	Net Weight
		208 V	230 V	240 V	460 V	575 V	KVA	KW						
30–300 A	200 A at 24 VDC, 60% duty cycle	57.0	—	50.8	—	—	11.4	7.1	50–700 ipm (1.3–17.8 m/min.)	Solid/ stainless steel: .023–.045 in. (0.6–1.2 mm) Flux-cored: .030–.045 in. (0.8–1.2 mm)	12 in. (305 mm)	38	H: 30 in. (762 mm) W: 19 in. (483 mm) D: 40 in. (1,016 mm)	205 lb. (93 kg)
	250 A at 26.5 VDC, 40% duty cycle	64.2	—	56.4	—	—	12.6	9.4						
	200 A at 24 VDC, 60% duty cycle	—	46	—	23	18	9.8	7.5						
	250 A at 26.5 VDC, 40% duty cycle	—	2*	—	1*	0.8*	0.46*	0.13*						

*While idling.

Note: Operating temperature range: -4° to +104°F (-20° to +40°C). Storage temperature range: -22° to +122°F (-30° to +50°C).

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

Control Panel



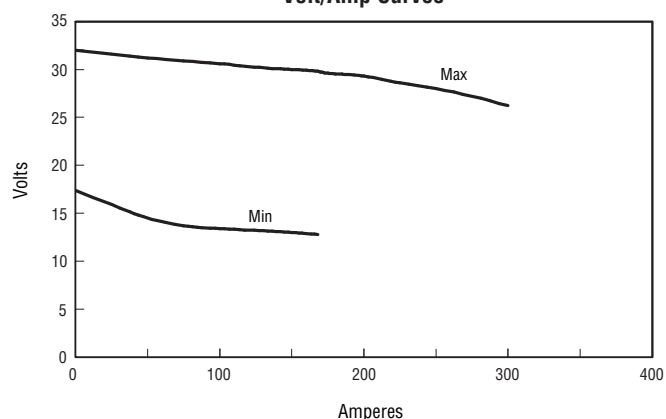
1. Voltmeter
2. Voltage Control
3. Wire Speed Meter
4. Wire Speed Control

Performance Data

Duty Cycle Chart



Volt/Amp Curves



Standard Fully Loaded Features

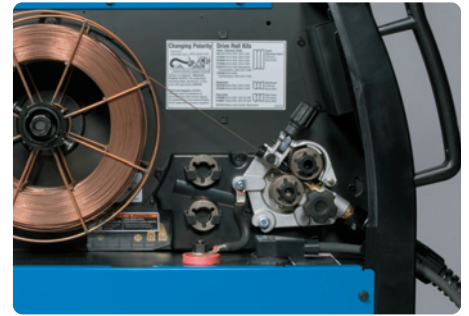
EZ-Change™ low cylinder rack

- Operators no longer need to lift cylinders. Cylinders now easily roll on and off our EZ-Change™ low cylinder rack.



Angled wire drive

- Angled industrial aluminum dual-gear drive system significantly improves wire feeding and runs large spools of wire.
- Allows quick change of drive rolls without tools.
- Drive roll storage — no more lost drive rolls, extra drive rolls are conveniently stored next to drive motor.
- Operators no longer bump into and bend MIG gun and gun liner.



Dual front handles

- Split handle with rubber grips designed to move machine easily and allow work lead and MIG gun to be stored independently.
- Handles provide protection for front panel and MIG gun during transportation.



EZ-Access™ consumable compartment and parameter chart

- Convenient flip-down compartment holds parameter chart and storage for consumables.



Auto-Gun Detect™

- Simply pull the trigger for either the MIG, spool gun or any Miller® push-pull gun. The Millermatic 252 automatically recalls voltage, wire feed speed and timer of the active gun.
- Reduces setup time!



Optional Fully Loaded Features

Elevated gun and cable rack

300335

- Tangle-free, independent way to store spool gun cables, keeping them off of the floor.
- No more running over spool gun cables or cables dragging on the floor.
- Elevated gun and cable rack can be used with either a single or dual cylinder rack. (Elevated gun and cable rack is included with the dual EZ-Change™ low cylinder rack.)



Dual EZ-Change™ low cylinder rack with elevated gun and cable rack

300337

- Dual cylinder rack allows for easy storage of two cylinders.
- EZ-Change™ low cylinder rack eliminates the need to lift cylinders on and off cylinder rack.
- No more running over spool gun cables or cables dragging on the floor.
- Tangle-free, independent way to store spool gun cables, keeping them off of the floor.



Genuine Miller® Accessories



Dual EZ-Change™ Low Cylinder Rack with Elevated Gun and Cable Rack 300337
Dual cylinder rack allows operators to easily roll cylinders on and off the rack with no lifting. Gun and cable rack keeps cables off the floor and tangle free.

Elevated Gun and Cable Rack 300335
For use with single cylinder rack. *(Included with dual EZ-Change low cylinder rack.)*



Protective Cover 195142
Features side pocket.
(Not for use with dual cylinder rack or elevated gun and cable rack.)

Argon/Mixed Gas Regulator 31-50-580



Full KVA Adapter Cord 300517 Field
NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240 V plug to common Millermatic® and Spectrum® 240 V plug.

MIG Guns



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), standard
Industrial 250-amp MIG gun with consumables for .030/.035 in. (0.8/0.9 mm) wire.

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



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



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 in. (0.8–1.2 mm) aluminum. Rated at 300 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 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)

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

Monocoil Replacement Liners

10 ft. Liner

LM1A-10	.023/.025 in. (0.6 mm)
LMD2A-10	.030/.035 in. (0.8/0.9 mm)
LMD3A-10	.035/.045 in. (0.9/1.2 mm)

12 ft. Liner

LM1A-12	.023/.025 in. (0.6 mm)
LMD2A-12	.030/.035 in. (0.8/0.9 mm)
LMD3A-12	.035/.045 in. (0.9/1.2 mm)

15 ft. Liner

LM1A-15	.023/.025 in. (0.6 mm)
LMD2A-15	.030/.035 in. (0.8/0.9 mm)
LMD3A-15	.035/.045 in. (0.9/1.2 mm)

Optional Bernard® AccuLock™ S Consumables

Consumables for increased durability and longer life when guns are used in industrial applications.

Contact Tips (10 per package)

T-A023CHM	.023 in. (0.6 mm)
T-A030CHM	.030 in. (0.8 mm)
T-A035CHM	.035 in. (0.9 mm)
T-A039CHM	.039 in. (1.0 mm)
T-A045CHM	.045 in. (1.2 mm)

Nozzles

N-A5800CM	Copper, 5/8 in. ID, flush, standard
N-A5818CM	Copper, 5/8 in. ID, 1/8 in. recess
N-A5814CM	Copper, 5/8 in. ID, 1/4 in. recess

Diffuser D-MA250M

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

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

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® 252

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)

U-Grooved Drive Roll Kits (aluminum wire)

044749 .035 in. (0.9 mm)

079599 .047 in. (1.2 mm)

Ordering Information

Steel Configuration

	Stock No.	Description	Qty.	Price
Miller[®] 252	907321	208/240 V, 60 Hz		
	907322	230/460/575 V, 60 Hz		
Miller [®] V-Grooved Drive Roll Kits (solid wire)	087131	.024 in. (0.6 mm)		
	079594	.030 in. (0.8 mm)		
	079595	.035 in. (0.9 mm)		
	079596	.045 in. (1.2 mm)		
Miller [®] V-Knurled Drive Roll Kits (flux-cored)	079606	.035 in. (0.9 mm)		
	079607	.045 in. (1.2 mm)		
Miller [®] AccuLock [™] MDX [™] 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)		
Miller [®] AccuLock [™] MDX [™] 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		

Aluminum Configuration (Spool Gun) *For MDX-250 gun consumables and non-aluminum Miller[®] 252 drive rolls, see steel configuration chart above.*

Miller[®] 252 Spool Gun Packages (includes standard MDX [™] -250 MIG gun)	951960	208/240 V, 60 Hz with Spoolmatic [®] 30A, dual cylinder rack, elevated gun and cable rack, and second regulator for spool gun		
	951961	230/460/575 V, 60 Hz with Spoolmatic [®] 30A, dual cylinder rack, elevated gun and cable rack, and second regulator for spool gun		
Spoolmatic [®] Contact Tips (10 per package)	206187	.035 in. (0.9 mm)		
	206188	.040 in. (1.0 mm)		
	206189	.047 in. (1.2 mm)		
Spoolmatic [®] Nozzles	198855	5/8 in. (16 mm) diameter		
	199618	5/8 in. (16 mm) diameter, HD		
	199616	3/4 in. (19 mm) diameter		
	199617	3/4 in. (19 mm) diameter, HD		

Aluminum Configuration (Push-Pull Gun) *For MDX-250 gun consumables and non-aluminum Miller[®] 252 drive rolls, see steel configuration chart above.*

Miller[®] 252 (includes standard MDX [™] -250 MIG gun)	907321	208/240 V, 60 Hz		
	907322	230/460/575 V, 60 Hz		
XR-Aluma-Pro[™] Lite Gun (air-cooled)	300948	25 ft. (7.6 m)		
XR-Aluma-Pro[™] Gun (air-cooled)	301568	15 ft. (4.6 m)		
	301569	25 ft. (7.6 m)		
Miller [®] U-Grooved Drive Roll Kits (aluminum)	044749	.035 in. (0.9 mm)		
	079599	.047 in. (1.2 mm)		
XR-Aluma-Pro U-Grooved Drive Roll Kits (required, includes Miller [®] U-Grooved Drive Roll Kit)	195311	.035 in. (0.9 mm)		
	195313	.047 in. (1.2 mm)		
XR-Aluma-Pro Lite Contact Tips (10 per package)	T-035AL	.035 in. (0.9 mm)		
	T-047AL	.047 in. (1.2 mm)		
XR-Aluma-Pro and XR-Pistol Contact Tips (10 per package)	206187	.035 in. (0.9 mm)		
	206188	.040 in. (1.0 mm)		
	206189	.047 in. (1.2 mm)		
Nozzles	198855	5/8 in. (16 mm) diameter		
	199618	5/8 in. (16 mm) diameter, HD		
	199616	3/4 in. (19 mm) diameter		
	199617	3/4 in. (19 mm) diameter, HD		

Date:

Total Quoted Price:

Ordering Information

Accessories

	Stock No.	Description	Qty.	Price
Dual EZ-Change™ Low Cylinder Rack with Elevated Gun and Cable Rack	300337			
Elevated Gun and Cable Rack	300335	For use with single cylinder rack (included with dual EZ-Change low cylinder rack)		
Protective Cover	195142	Features side pocket		
Argon/Mixed Gas Regulator	31-50-580			
Full KVA Adapter Cord	300517			
Guns				
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		
MDX™-250 MIG Gun with Industrial 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		
Spoolmatic® 15A	195156	15 ft. (4.6 m), 200 A, .023–1/16 in. (0.6–1.6 mm) for aluminum wire		
Spoolmatic® 30A	130831	30 ft. (9 m), 200 A, .023–1/16 in. (0.6–1.6 mm) for aluminum wire		
Spoolmate™ 200	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 wires		
Optional Spoolmate™ 200 Head Tubes	300591	45-degree head tube		
	300592	9 in. extension head tube		
	243385	5 in. head tube		
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-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		

Date:

Total Quoted Price:

Note: See page 7 for ordering information on the Millermatic 252 — available packages, steel and aluminum configurations, and drive roll kits/consumables.

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