

# Miller<sup>®</sup> 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

200(208)/230 V, single-phase, 60 Hz  
230/460/575 V, single-phase, 60 Hz

**Amperage Range** 30–300 A

**Rated Output** 200 A at 28 VDC, 60% duty cycle  
250 A at 28 VDC, 40% duty cycle

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

**Max. Open-Circuit Voltage** 38 V

**Net Weight** 207 lb. (94 kg)

**Highest output in its class (250 A at 28 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 200/230 V model)
- Flow gauge regulator and gas hose for argon or AR/CO<sub>2</sub> 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.

### IMPROVED!

Now with **NEW!**  
MDX Series MIG gun.

**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 warranted for three years, parts and labor.  
Original main power rectifier parts are warranted for five years.  
Gun warranted for 90 days, parts and labor.



**Miller Electric Mfg. LLC**  
An ITW Welding Company  
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**MillerWelds.com**  




# Specifications (Subject to change without notice.)



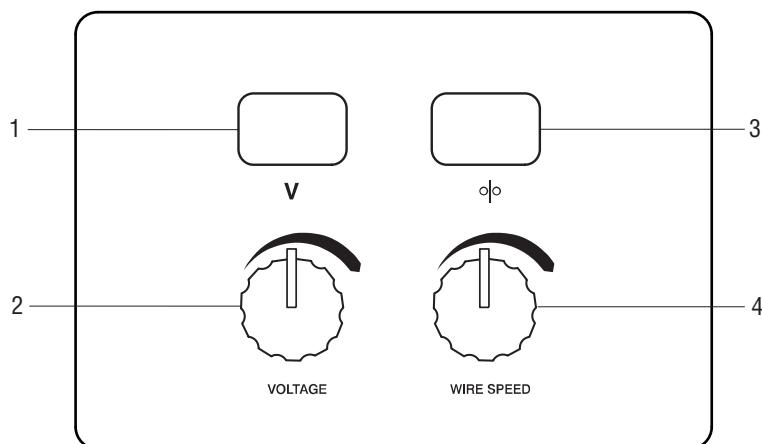
Amperage Range	Rated Output	Amps Input at Rated Output, 60 Hz						Wire Feed Speed	Wire Type and Diameter	Max. Spool Size	Max. Open-Circuit Voltage	Dimensions	Net Weight
		200(208) V	230 V	460 V	575 V	KVA	KW						
30–300 A	200 A at 28 VDC, 60% duty cycle 250 A at 28 VDC, 40% duty cycle	48 2.3*	42 2*	21 1*	17 0.8*	9.8 0.46*	7.5 0.13*	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)	207 lb. (94 kg)

\*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.

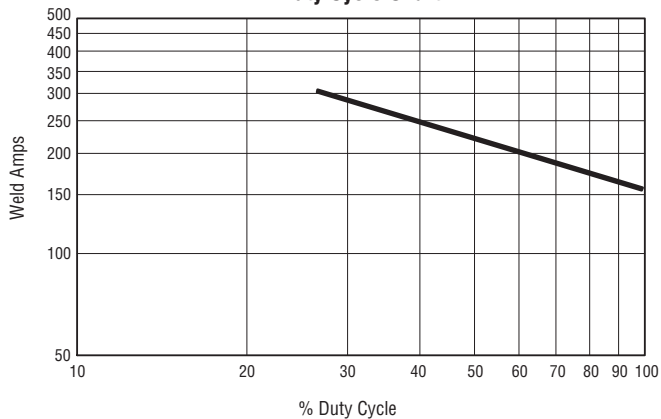
## Control Panel



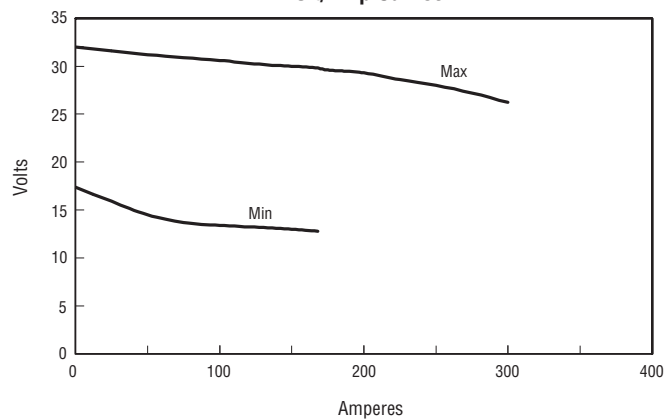
1. Voltmeter
2. Voltage Control
3. Wire Speed Meter
4. Wire Speed Control

## Performance Data

Duty Cycle Chart



Volt/Amp Curves



## Standard Fully Loaded Features

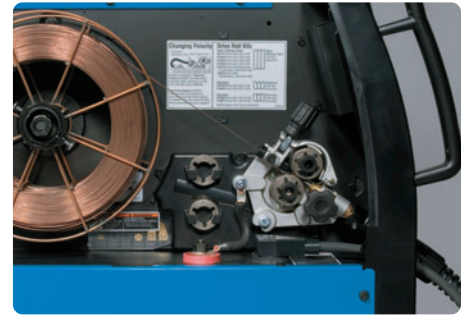
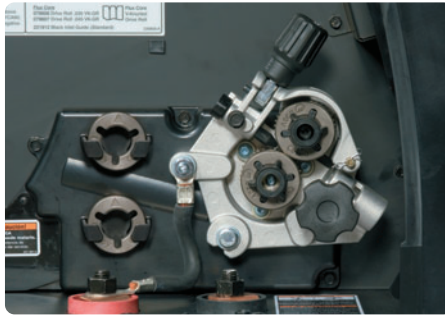
### EZ-Change™ low cylinder rack

- 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 and Gas Hose 195050**



Female Receptacle



**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 Spoolmatic 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 300000** 15 ft. (4.6 m)  
**300001** 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)

<b>T-M023</b>	.023 in. (0.6 mm)
<b>T-M030</b>	.030 in. (0.8 mm)
<b>T-M035</b>	.035 in. (0.9 mm)
<b>T-M045</b>	.045 in. (1.2 mm)

#### Nozzles

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

#### Diffuser D-M250

### Monocoil Replacement Liners

#### 10 ft. Liner

<b>LM1A-10</b>	.023/.025 in. (0.6 mm)
<b>LM2A-10</b>	.030/.035 in. (0.8/0.9 mm)
<b>LM3A-10</b>	.035/.045 in. (0.9/1.2 mm)

#### 12 ft. Liner

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

#### 15 ft. Liner

<b>LM1A-15</b>	.023/.025 in. (0.6 mm)
<b>LM2A-15</b>	.030/.035 in. (0.8/0.9 mm)
<b>LM3A-15</b>	.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)

<b>T-A023CH</b>	.023 in. (0.6 mm)
<b>T-A030CH</b>	.030 in. (0.8 mm)
<b>T-A035CH</b>	.035 in. (0.9 mm)
<b>T-A039CH</b>	.039 in. (1.0 mm)
<b>T-A045CH</b>	.045 in. (1.2 mm)

#### Nozzles

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

#### Diffuser D-MA250

**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)

<b>206186</b>	Heavy-duty, .030 in. (0.8 mm)
<b>206187</b>	Heavy-duty, .035 in. (0.9 mm)
<b>206188</b>	Heavy-duty, .040 in. (1.0 mm)
<b>206189</b>	Heavy-duty, 3/64 in. (1.2 mm)
<b>206191</b>	Heavy-duty, 1/16 in. (1.6 mm)
<b>209026</b>	Tapered, .030 in. (0.8 mm)
<b>209027</b>	Tapered, .035 in. (0.9 mm)
<b>209029</b>	Tapered, 3/64 in. (1.2 mm)
<b>206030</b>	Tapered, 1/16 in. (1.6 mm)

#### Screw-On Nozzles

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

#### Bernard® Centerfire™ “T” Series Contact Tips

<b>T-035AL</b>	.035 in. (0.9 mm)
<b>T-047AL</b>	.047 in. (1.2 mm)
<b>T-062AL</b>	1/16 in. (1.6 mm)

#### Bernard® Centerfire™ Small Nozzles

<b>NST-3818B</b>	Brass, 3/8 in. ID, 1/8 in. tip recess
<b>NS-1218B</b>	Brass, 1/2 in. ID, 1/8 in. tip recess
<b>NS-1200B</b>	Brass, 1/2 in. ID, flush tip
<b>NS-5818B</b>	Brass, 5/8 in. ID, 1/8 in. tip recess
<b>NS-1218C</b>	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)

<b>199387</b>	.030 in. (0.8 mm)
<b>199388</b>	.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)

<b>199730</b>	.024 in. (0.6 mm) (requires V-knurled drive roll <b>136135</b> )
<b>186419</b>	.030 in. (0.8 mm)
<b>186406</b>	.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)

<b>204579</b>	.030 and .035 in. (0.8 and 0.9 mm) combination (reversible)
<b>087131</b>	.024 in. (0.6 mm)
<b>079594</b>	.030 in. (0.8 mm)
<b>079595</b>	.035 in. (0.9 mm)
<b>079596</b>	.045 in. (1.2 mm)

### V-Knurled Drive Roll Kits

(flux-cored or difficult-to-feed wire)

<b>079606</b>	.035 in. (0.9 mm)
<b>079607</b>	.045 in. (1.2 mm)

### U-Grooved Drive Roll Kits (aluminum wire)

<b>044749</b>	.035 in. (0.9 mm)
<b>079599</b>	.047 in. (1.2 mm)

# Ordering Information

## Steel Configuration

Steel Configuration	Stock No.	Description	Qty.	Price
Millermatic® 252	907321	200(208)/230 V, 60 Hz		
	907322	230/460/575 V, 60 Hz		
Millermatic 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)		
Millermatic 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 Millermatic 252 drive rolls, see steel configuration chart above.*

Millermatic® 252 Spool Gun Packages (includes standard MDX™-250 MIG gun)	951066	200(208)/230 V, 60 Hz with Spoolmatic® 30A, dual cylinder rack, elevated gun and cable rack, regulator and hose		
	951065	230/460/575 V, 60 Hz with Spoolmatic® 30A, dual cylinder rack, elevated gun and cable rack, regulator and hose		
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 Millermatic 252 drive rolls, see steel configuration chart above.*

Millermatic® 252 (includes standard MDX™-250 MIG gun)	907321	200(208)/230 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)	300000	15 ft. (4.6 m)		
	300001	25 ft. (7.6 m)		
Millermatic 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 Millermatic 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	<b>300337</b>			
Elevated Gun and Cable Rack	<b>300335</b>	For use with single cylinder rack <i>(included with dual EZ-Change low cylinder rack)</i>		
Protective Cover	<b>195142</b>	Features side pocket		
Argon/Mixed Gas Regulator and Gas Hose	<b>195050</b>			
Full KVA Adapter Cord	<b>300517</b>			
<b>Guns</b>				
MDX™-250 MIG Gun with AccuLock™ MDX Consumables	<b>1770035</b> <b>1770036</b> <b>1770037</b>	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		
MDX™-250 MIG Gun with Industrial AccuLock™ S Consumables	<b>1770041</b> <b>1770042</b> <b>1770043</b>	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		
Spoolmatic® 15A	<b>195156</b>	15 ft. (4.6 m), 200 A, .023–1/16 in. (0.6–1.6 mm) for aluminum wire		
Spoolmatic® 30A	<b>130831</b>	30 ft. (9 m), 200 A, .023–1/16 in. (0.6–1.6 mm) for aluminum wire		
Spoolmate™ 200	<b>300497</b>	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	<b>300591</b> <b>300592</b> <b>243385</b>	45-degree head tube 9 in. extension head tube 5 in. head tube		
XR-Aluma-Pro™ Lite Gun (air-cooled)	<b>300948</b>	25 ft. (7.6 m), 175 A, .030–.047 in. (0.8–1.2 mm) for aluminum wire		
XR-Aluma-Pro™ Gun (air-cooled)	<b>300000</b> <b>300001</b>	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		

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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