Millermatic® 142

MIG Power Source, Wire Feeder and Gun Package

Quick Specs

Light Industrial Applications
General fabrication
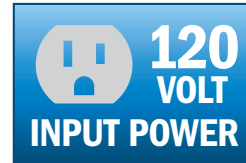Maintenance and repair
Auto body
Farm and ranch
Hobby

Processes
MIG (GMAW)
Flux-cored (FCAW)

Weld Thickness Steel: 24 ga.–3/16 in. single pass
Aluminum: 18–14 ga. single pass

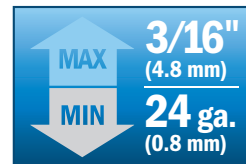**Input Power** 120 V, 20 A, single-phase, 50/60 Hz

Rated Output 100 A at 19 V, 60% duty cycle
80 A at 18 V, 100% duty cycle

GENERATOR COMPATIBLE

120 VOLT INPUT POWER
Uses common power

WEIGHS ONLY 33 lb.
Portable

MAX 3/16" (4.8 mm)
MIN 24 ga. (0.8 mm)
Weld capacity

AUTO-SET™
WIRE DIAMETER · MATERIAL THICKNESS
Quick and easy setup

Auto-Set™ automatically provides predefined weld settings for mild steel and aluminum while infinite voltage control allows the flexibility to manually set your own parameters with a digital readout.

Angled cast-aluminum drive system with calibrated tension knob creates consistent feeding and easy setup.

Quick Select™ drive roll makes setup quicker by offering three grooves — two for different size solid wire and a third for flux-cored wire.

Auto Spool Gun Detect™ automatically detects when a MIG gun or spool gun is connected, eliminating the need for a switch.

Smooth-Start™ provides a smooth, spatter-free start. It's the best-starting machine in the small MIG machine category.

Thermal overload protection shuts down unit if airflow is blocked or duty cycle is exceeded. Automatically resets when unit cools.

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

Uses 4- or 8-inch (102 or 203 mm) spools and can be set up to weld with .024–.030 inch (0.6–0.8 mm) solid wire and .030–.035 inch (0.8–0.9 mm) flux-cored wire.

Comes complete with:
- Power source
- 10 ft. (3 m) MDX™-100 MIG gun
- 10 ft. (3 m) work cable with clamp
- 6.5 ft. (2 m) power cord with plug
- Flow gauge regulator and gas hose for argon or AR/CO₂ mix
- Hobart® spool of .030 in. (0.8 mm) solid wire
- Two contact tips for .030 in. (0.8 mm) wire
- Quick Select™ drive rolls for .024 in. (0.6 mm) or .030/.035 in. (0.8/0.9 mm) solid wire, and .030/.035 in. (0.8/0.9 mm) flux-cored wire
- Material thickness gauge ➤ 229895
- Hook-and-loop cord wraps

Note: Shielding gas and safety equipment not included.

TRUE BLUE® 3 YR. WARRANTY

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.

Operation Modes

Auto-Set™ Mode

Auto-Set eliminates guesswork and saves you time on setup. Begin by pressing the Auto-Set button. The Auto-Set light indicates the mode is activated. Rotate the left knob to select wire diameter and the right knob to select material thickness.

Auto-Set parameters will hold when switching to manual mode.

Use Auto-Set when you want the speed, convenience and confidence of preset controls. Auto-Set automatically sets your welder to the proper parameters. Auto-Set predefined weld settings are configured for steel material with C25 gas mixture (75% argon, 25% CO_2) and aluminum material with argon gas when using a Spoolmate™ 100 or Spoolmate™ 150.

Manual Mode

When welding outside of Auto-Set's capabilities, or if you prefer custom parameters, use manual mode. The parameter chart on the inside of the access door is an easy-to-use guide for determining your voltage and wire feed speed settings.

To access manual mode, ensure that Auto-Set is off. Simply rotate the left knob to adjust voltage and the right knob to adjust wire feed speed.
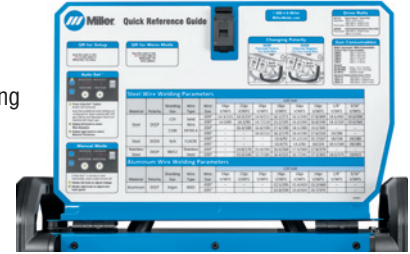
Specifications (Subject to change without notice.)

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
		120 V	KVA	KW					
30–140 A	100 A at 19 V, 60% duty cycle	19.3	2.32	2.32	60–600 ipm (1.52–15.2 m/min.)	Solid: .024–.030 in. (0.6–0.8 mm) Stainless: .024–.030 in. (0.6–0.8 mm) Flux-cored: .030–.035 in. (0.8–0.9 mm)	57	H: 14.625 in. (372 mm) W: 9.75 in. (248 mm) D: 20 in. (508 mm)	33 lb. (15.4 kg)
	80 A at 18 VDC, 100% duty cycle	14.8	1.78	1.78					

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

Control Panel
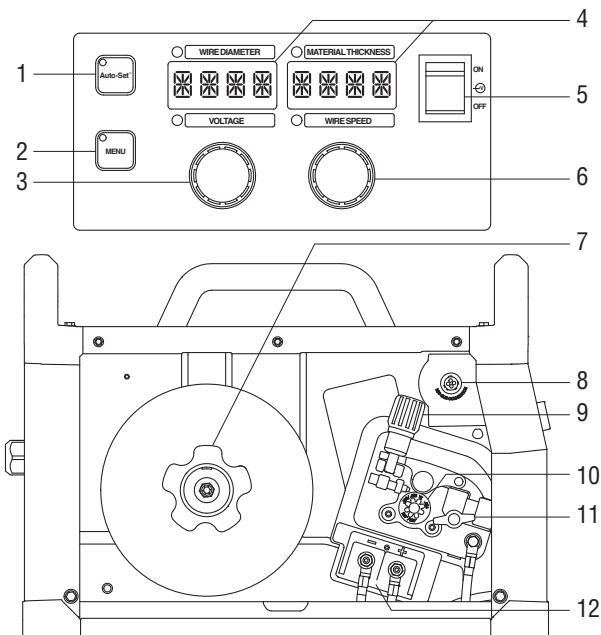
1. Auto-Set Button/Light
2. Menu Button/Light
3. Wire Diameter/ Voltage Control
4. Digital Meters
5. Power On/Off Switch
6. Material Thickness/ Wire Speed Control
7. Plastic Hub with Retaining Ring for 8-inch Spools (shaft also accepts 4-inch spools)
8. Trigger Control Connector
9. Calibrated Tension Knob
10. Drive Roll
11. T-Knob (secures torch)
12. Polarity Changeover Terminals

Note: Gas solenoid is on machine back panel.

Performance Data

Duty Cycle Chart
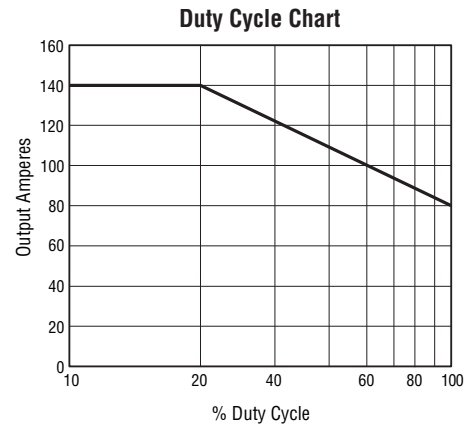
Genuine Miller® Accessories

MDX™-100 MIG Gun   1770028
100-amp MIG gun with Miller® AccuLock™ MDX consumables for .030–.035 in. (0.8–0.9 mm) wire. Includes 10 ft. (3 m) cable assembly.
• 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.

Spoolmate™ 100 Spool Gun   300371
Direct-connect spool gun handles .030–.035 inch (0.8–0.9 mm) aluminum (4043 only) and .023–.035 inch (0.6–0.9 mm) steel/stainless steel wires. Rated at 135 amps, 30 percent duty cycle. Includes 12-foot (3.7 m) cable assembly and custom carrying case.

Spoolmate™ 150 Spool Gun   301272
Direct-connect spool gun handles .030–.035 inch (0.8–0.9 mm) 4000/5000 series aluminum and .023–.035 inch (0.6–0.9 mm) steel/stainless steel wires. Rated at 150 amps, 60 percent duty cycle. Includes 20-foot (6.1 m) cable assembly.

Running Gear/Cylinder Rack   301239
Heavy-duty construction with 8-inch rubber rear wheels. Convenient front handles, cable holders and plastic consumable box. For gas cylinders no greater than 7 inches (178 mm) in diameter or 65 pounds (29.5 kg) in weight.

Dual Cylinder Rack Conversion Kit and Tool Holder   301454
Converts running gear/cylinder rack (301239) from a single cylinder cart to a dual cylinder cart. Top bracket holds a variety of tools including a welper, adjustable wrench, screwdrivers, chipping hammer, wire brush and filler rod.

Protective Cover 301737

Consumables

For MDX™-100 MIG Gun

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
NS-M1200B	Brass, 1/2 in. ID, flush
NS-M1200C	Copper, 1/2 in. ID, flush
NS-MFLX	Gasless nozzle

Diffuser   D-M100

Monocoil Replacement Liners *(10 ft.)*
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)

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

For Spoolmate™ 100 Spool Gun

Contact Tips *(5 per package)*
199730	.024 in. (0.6 mm)
186419	.030 in. (0.8 mm)
186406	035 in. (0.9 mm)

Nozzle   186405

Drive Roll (1)   186413
For .030/.035-inch (0.8/0.9 mm) wire.

Push Roll (1)   186414
For .030/.035-inch (0.8/0.9 mm) wire.

For Millermatic® 142

Quick Select™ Drive Roll   261157
For .024-inch (0.6 mm) or .030/.035-inch (0.8/0.9 mm) solid wire, and .030/.035-inch (0.8/0.9 mm) flux-cored wire.

V-Knurled Dual-Groove Drive Roll   202926
For .030/.035-inch (0.8/0.9 mm) or .045-inch (1.2 mm) flux-cored wire.

Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
Millermatic® 142 **Millermatic® 142** with Running Gear/Cyl Rack	**907838** **951000072**	120 V, 50/60 Hz Power source packaged with 301239 running gear/cylinder rack		
Guns				
MDX™-100 Gun	**1770028**	10 ft. (3 m), .030–.035 in (0.8–0.9 mm) wire		
Spoolmate™ 100 Spool Gun	**300371**	12 ft. (3.7 m). Includes custom carrying case		
Spoolmate™ 150 Spool Gun	**301272**	20 ft. (6.1 m)		
Accessories				
Running Gear/Cylinder Rack	**301239**			
Dual Cylinder Rack Conversion Kit and Tool Holder	**301454**			
Dual Cylinder Rack Cart	**951770**	Includes running gear/cylinder rack 301239 and dual cylinder rack conversion kit 301454. Must be assembled together		
Protective Cover	**301737**			
Material Thickness Gauge	**229895**			
Flow Gauge Regulator for Argon or AR/CO_2 Mix	**31-50-580-6**	Replacement standard regulator		
Flow Gauge Regulator for CO_2	**31-50-320**	Required if using 100 percent CO_2 gas		
Flux-cored Wire				
Solid Wire				
Shielding Gas Cylinder				
Helmet/Gloves/Scratch Brush				
Consumables				
Contact Tips		See page 3		
Nozzles		See page 3		
Diffuser		See page 3		
Monocoil Replacement Liners		See page 3		
Drive Rolls		See page 3		

Date: **Total Quoted Price:**

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