

# 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

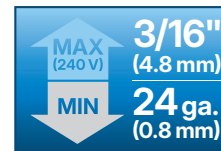
**Rated Output** 100 A at 19 V, 60% duty cycle  
80 A at 18 V, 100% duty cycle



Uses common power



Portable



Weld capacity



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 contaminants pulled through the machine.

**Uses 4- or 8-inch (102 or 203 mm) spools** and can be set up to weld with .024–.035 inch (0.6–0.9 mm) solid wire and .030–.045 inch (0.8–1.2 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/CO<sub>2</sub> mix
- Quick Select™ drive roll 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
- Two contact tips for .030 in. (0.8 mm) wire
- Hook-and-loop cord wraps
- Material thickness gauge ▶ 229895

Note: Shielding gas and safety equipment not included.



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



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# 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 back-lit light indicates the mode is activated. Rotate the left knob to select wire diameter and the right knob to select material thickness.

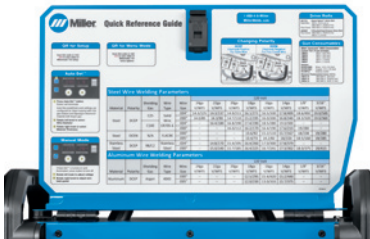
Auto-Set parameters will hold when switching to manual mode.

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<sub>2</sub>) and aluminum material with argon gas when using a Spoolmate™ 100 or Spoolmate™ 150.

## Manual mode



When welding outside of Auto-Set capabilities, or if you prefer custom parameters, use manual mode. 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. 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.



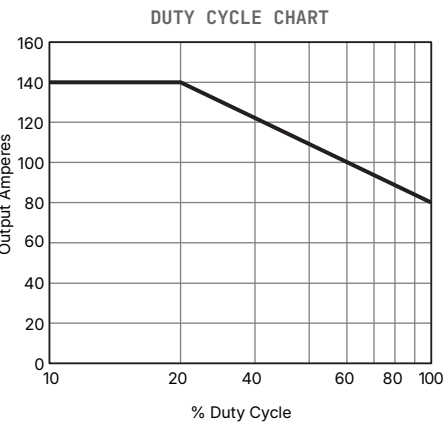
# Specifications (Subject to change without notice.)



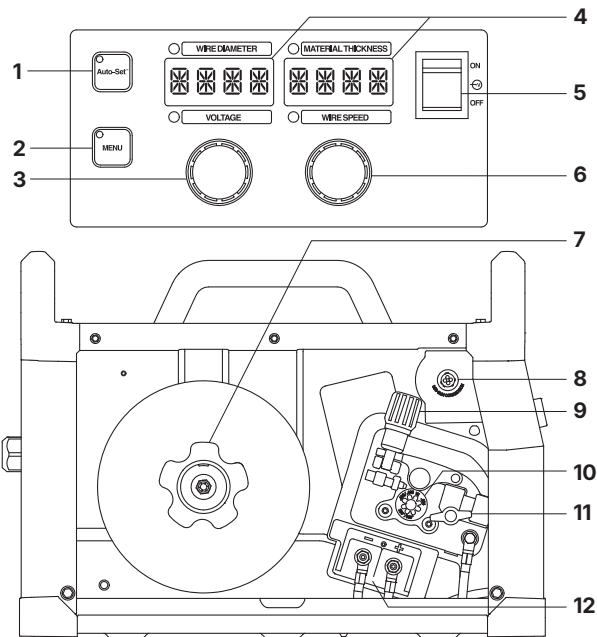
| AMPERAGE RANGE | RATED OUTPUT                    | AMPS INPUT AT RATED OUTPUT, 50/60 HZ |      |      | WIRE FEED SPEED              | WIRE TYPE AND DIAMETER                                                                | MAX. OPEN-CIRCUIT VOLTAGE | DIMENSIONS                                                           | NET WEIGHT       |
|----------------|---------------------------------|--------------------------------------|------|------|------------------------------|---------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------|------------------|
| 30–140 A       | 100 A at 19 V, 60% duty cycle   | 19.3                                 | 2.32 | 2.32 | 60–600 ipm (1.5–15.2 m/min.) | Solid/stainless: .024–.030 in. (0.6–0.8 mm)<br>Flux-cored: .030–.035 in. (0.8–0.9 mm) | 57                        | H: 14.625 in. (372 mm)<br>W: 9.75 in. (248 mm)<br>D: 20 in. (508 mm) | 33 lb. (15.4 kg) |
|                | 80 A at 18 VDC, 100% duty cycle | 14.8                                 | 1.78 | 1.78 |                              |                                                                                       |                           |                                                                      |                  |

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

## Performance Data



## 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.

# Genuine Miller® Accessories



## MDX™-100 MIG Gun 1770028

10 ft. (3 m), 100-amp MIG gun with Miller® MDX MIG consumables for .030–.035 in. (0.8–0.9 mm) wire.

- Install contact tips with a single turn.
- Front load 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 welder, adjustable wrench, screwdrivers, chipping hammer, wire brush and filler rod.



## Protective Cover 301737

## Consumables

### For MDX™-100 MIG Gun (10 ft.)

#### Miller® MDX MIG Gun 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)

#### 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

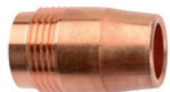
### For Spoolmate™ 150 Spool Gun



#### Contact Tips (5 per package)

**199387** .030 in. (0.8 mm)

**199388** .035 in. (0.9 mm)



#### Nozzle 050622

### For Both Spool Guns



#### 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

| EQUIPMENT AND OPTIONS                                                 | STOCK NO.   | DESCRIPTION                                                                                                             | QTY. | PRICE |
|-----------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------|------|-------|
| Miller <sup>®</sup> matic 142                                         | 907838      | 120 V, 50/60 Hz                                                                                                         |      |       |
| Miller <sup>®</sup> matic 142 with Welding Cart                       | 951000072   | Includes Miller <sup>®</sup> matic 142 (907838) and running gear/cylinder rack (301239)                                 |      |       |
| Guns                                                                  |             |                                                                                                                         |      |       |
| MDX™-100 MIG 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 and Gas Hose for Argon or AR/CO <sub>2</sub> Mix | 31-50-580-6 | Replacement standard regulator and gas hose                                                                             |      |       |
| Flow Gauge Regulator for CO <sub>2</sub>                              | 31-50-320   | Required if using 100 percent CO <sub>2</sub> 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 :

Distributed by:

