Issued Feb. 2023 • Index No. DC/12.9

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.

THINK SIMPLY. WELD SMARTER.

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***.



Machine only

Machine with running gear

Heavy-duty aluminum two-drive-roll system

Easy to Use



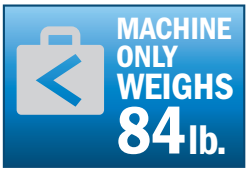
Quick and easy setup

Versatility



Multiple processes with only one machine

Portability



Easier to get to the work

TRUE BLUE® 3YR. WARRANTY

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

Miller Electric Mfg. LLC
An ITW Welding Company
1635 West Spencer Street
P.O. Box 1079
Appleton, WI 54912-1079 USA

Equipment Sales US and Canada
Phone: 866-931-9730
FAX: 800-637-2315
International Phone: 920-735-4554
International FAX: 920-735-4125

MillerWelds.com

ISO 9001 Quality

Multimatic® 255 Features and Benefits

Easy to Use





Pulsed MIG setup screen

Connection screen for MIG process using C10 gas

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.



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.

- 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



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.





MDX-250 MIG gun with AccuLock™ S consumable system features a dual-locked, front-loading liner that optimizes wire feedability.

- 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.

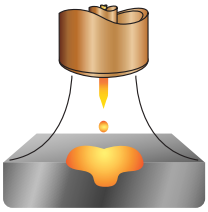
AUTO-LINE™ TECHNOLOGY

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.



Generator compatible. The Multimatic 255 will be able to operate and provide full output when powered by generators with 12,000-watt (12 kW) output or higher. Limited output will occur when used with smaller generators.

Pulsed MIG welding delivers higher quality welds for ALL welders.

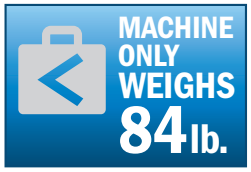


- Lower heat input for less distortion on thin materials and better puddle control on out-of-position welds.
- Less spatter minimizes post weld grinding and rework, allowing more welding time.
- Perform welding applications that couldn't be done in the past.
- Ideal for MIG welding aluminum and stainless steel.

Best For	Standard Spray	Pulsed MIG	Short Circuit
Gap Filling	D	B	A
Low Heat Input	D	B	A
Out-of-Position Welds		A	B
Low Spatter	A	A	C
Thick Metals	A	A	D
Thin Metals		B	A
Increased Travel Speed	A	A	B
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.



Single cylinder running gear



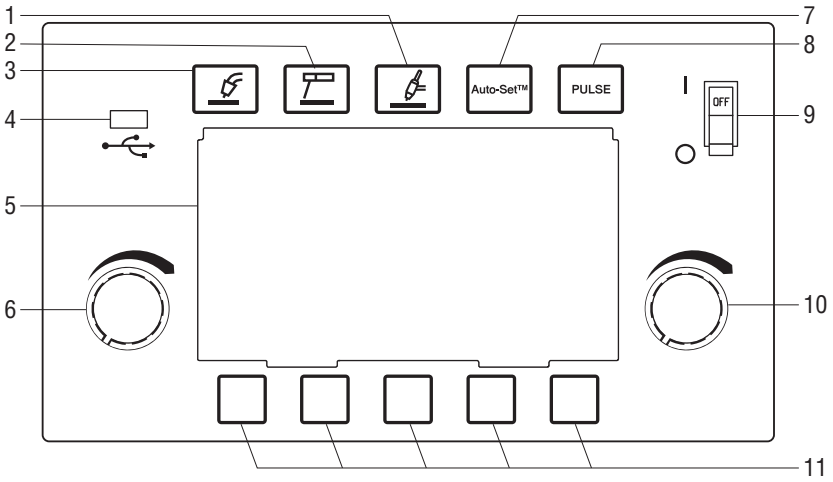
Dual cylinder running gear

Specifications (Subject to change without notice.)

Welding Process	Welding Amperage Range	Rated Output	Amps Input at Rated Output, 50/60 Hz 208 V	240 V	460 V	575 V	KVA	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: 19.25 in. (489 mm) W: 13.75 in. (349 mm) D: 24.25 in. (616 mm) **Machine with running gear** H: 32 in. (813 mm) W: 13.75 in. (349 mm) D: 45 in. (1,143 mm)	**Machine only** 84 lb. (38 kg) **Machine with running gear** 148 lb. (67 kg)
CC: Stick	30–275 A	200 A at 28 V, 60% duty cycle	33.5	29	16.4	13.6	7.8	7.8	—			
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.

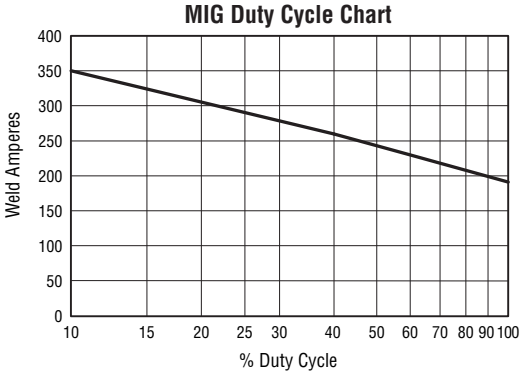
Control Panel



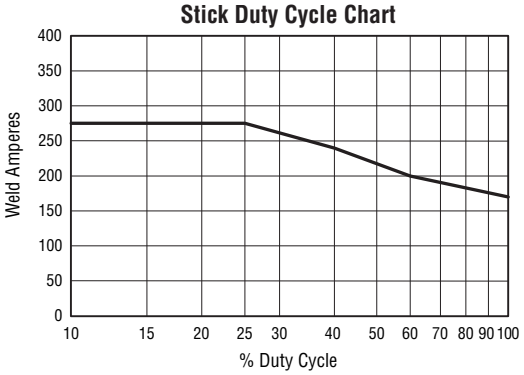
1. TIG Process Button
2. Stick Process Button
3. MIG Process Button
4. USB Port
5. Color LCD Display
6. Left Adjustment Knob
   (Adjusts voltage, arc length, pulse frequency or parameter values depending on mode.)
7. Auto-Set Button
8. Pulse Button
9. Power Switch
10. Right Adjustment Knob
    (Adjusts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

Performance Data

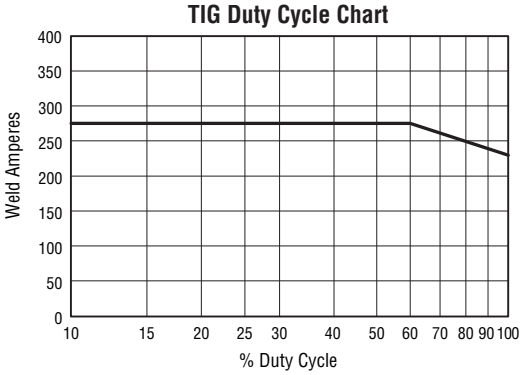
MIG Duty Cycle Chart



Stick Duty Cycle Chart



TIG Duty Cycle Chart



Multimatic® 255 Packages



907728
Machine only

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 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/CO_2 mix
- .035/.045 in. (0.9/1.2 mm) reversible drive rolls
- Extra contact tips
- Material thickness gauge



951767
Machine with running gear package

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 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/CO_2 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



951768
Machine with dual cylinder/ TIG kit package

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 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/CO_2 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 235/255 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.)*



Protective Cover 301521
Features side pocket.

Argon/Mixed Gas Regulator and Gas Hose
195050

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 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.

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™ Push-Pull Guns
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.



XR™-Pistol-Pro Push-Pull Guns
300782 15 ft. (4.6 m), air-cooled
300783 25 ft. (7.6 m), air-cooled
Air-cooled pistol-grip gun for .030–.047 inch (0.8–1.2 mm) aluminum. Rated at 200 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 Multimatic U-grooved drive rolls, nylon wire guides and contact tips.

Genuine Miller® Accessories



Multimatic® 235/255 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 AK3C torch accessory kit.

Remote Controls



Wireless Remote Foot Control 301580
For remote current and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller machine. 90-foot (27.4 m) operating range.

Note: Multimatic 255 is not compatible with wireless hand control.



RFCS-14 HD Foot Control 301589
Heavy-duty foot pedal current and contactor control provides increased stability and durability from larger base and heavier cord. Includes 20-foot (6 m) cord with 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.

Consumables

For MDX™-250 MIG Guns

Standard 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

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)

Optional 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
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)
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
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)
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	Stock No.	Description	Qty.	Price
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		
EZ-Latch™ Dual Cylinder Running Gear	**951769**	Running gear with dual cylinder rack and elevated gun and cable rack		
EZ-Latch™ Dual Cylinder Rack with Elevated Gun and Cable Rack	**301481**	Upgrade single cylinder rack to dual *(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 with AccuLock™ S Consumables	**1770041** **1770042** **1770043**	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		
MDX™-250 MIG Gun with AccuLock™ MDX Consumables	**1770035** **1770036** **1770037**	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		
Spoolmatic® Spool Guns		See page 6		
Spoolmate™ 200 Spool Gun		See page 6		
Optional Spoolmate™ 200 Head Tubes		See page 6		
XR-Aluma-Pro™ Guns (air-cooled)		See page 6		
XR™-Pistol-Pro Guns (air-cooled)		See page 6		
TIG Accessories				
Multimatic 235/255 TIG Kit	**301518**	See page 7 for contents		
Wireless Remote Foot Control	**301580**	Foot control with wireless 90 ft. (27.4 m) operating range		
RFCS-14 HD	**301589**	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: **Total Quoted Price:**

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