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.



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*.





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



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

Miller Electric Mfg. LLC

Appleton, WI 54912-1079 USA

An ITW Welding Company

1635 West Spencer Street

P.O. Box 1079



Equipment Sales US and Canada

Phone: 866-931-9730 FAX: 800-637-2315 International Phone: 920-735-4554 International FAX: 920-735-4125





Multimatic[®] 255 Features and Benefits

Easy to Use



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



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.

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.



Optional EZ-Select[™] MIG gun

MDX-250 EZ-Select MIG gun has four LEDs on the back of the gun handle to indicate which program is selected.

- Simply tap gun trigger to select the program. The number of lit LEDs on gun indicate the selected program.
- No more going back to machine to change weld settings.
- No more having to move to see settings when front panel of machine is obstructed.





- 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.

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.

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 | В | A |
| Low Heat Input | D | В | A |
| Out-of-Position Welds | | А | В |
| Low Spatter | A | A | C |
| Thick Metals | A | A | D |
| Thin Metals | | В | А |
| Increased Travel Speed | A | A | В |
| 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.

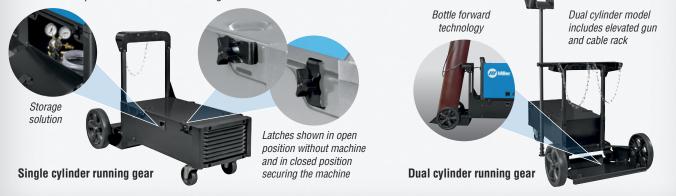
Portability



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.





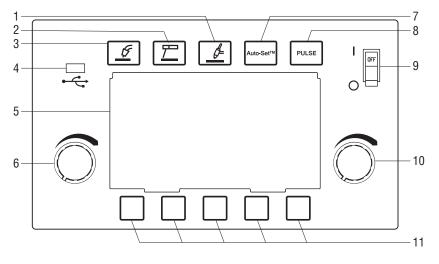
Specifications (Subject to change without notice.)



| Welding Process | Welding Amperage Range | Rated Output | Amps 208 V | • | Rated O 460 V | • • | | | 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: 19.24 in. (489 mm) W: 13.75 in. (349 mm) | Machine only 84 lb. (38 kg) Machine with |
| CC: Stick | 30–275 A | 200 A at 28 V, 60% duty cycle | 33.5 | 29 | 16.4 | 13.6 | 7.8 | 7.8 | _ | | D: 24.25 in. (616 mm) Machine with running gear H: 32 in. (813 mm) | running gear 148 lb. (67 kg) |
| 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 | _ | | W: 13.75 in. (349 mm) D: 45 in. (1,143 mm) | |

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

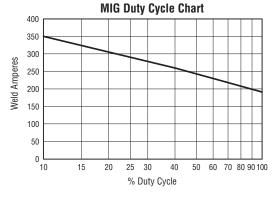
Control Panel



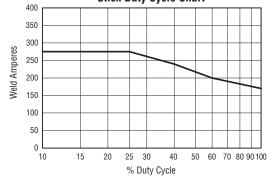
- 1. TIG Process Button
- 2. Stick Process Button
- 3. MIG Process Button
- 4. USB Port
- 5. Color LCD Display
- **6.** Left Adjustment Knob
- (Adjusts voltage, arc length, pulse frequency or parameter values depending on mode.)
- 7. Auto-Set Button
- 8. Pulse Button
- 9. Power Switch
- **10.** Right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

11. Soft Keys

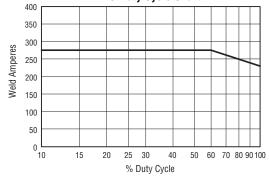
Performance Data







TIG Duty Cycle Chart





⁽Multiple functions depending on screen displayed.)

Multimatic[®] 255 Packages



Comes complete with:

- Power source with 10 ft. (3 m) industrial power cord
- Is 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/CO₂ mix
- .035/.045 in. (0.9/1.2 mm) reversible drive rolls
- Extra contact tips
- Material thickness gauge

Comes complete with:

- Power source with 10 ft. (3 m) industrial power cord
- Is 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/CO₂ 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

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/CO₂ 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.)



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 EZ-Select[™] MIG Gun 1770046 15 ft. (4.6 m)

Similar to above, but with four LEDs on gun handle to indicate which machine program is selected. Tap trigger to select program. Allows operator to know which program is being used without going back to machine.

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.

30059145-degree head tube3005929-inch extension head tube2433855-inch head tube

Push-Pull Guns



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 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.

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.



Protective Cover 301521 Features side pocket.

Argon/Mixed Gas Regulator and Gas Hose 195050



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 194744 Maximum flexibility is accom-

plished with a reconfigurable cord that can exit the front, back or either side of the pedal. Foot pedal

provides remote current and contactor control. Includes 20-foot (6 m) cord with 14-pin 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 20foot (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^T-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. 110

| Contact Tips | s (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) |
| 206030 | 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-dioved blive holi kits (solid wile) |
|---|
| 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. (0.9 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 EZ-Select™ MIG Gun with AccuLock™ S Consumables | 1770043 | 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 [®] 15A Spool Gun | 195156 | 15 ft. (4.6 m), 200 A, .030–.047 in. (0.8–1.2 mm) for aluminum wire | | |
| Spoolmatic [®] 30A Spool Gun | 130831 | 30 ft. (9 m), 200 A, .030–.047 in. (0.8–1.2 mm) for aluminum wire | | |
| Spoolmate™ 200 Spool Gun | 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 wire | | |
| Optional Spoolmate™ 200 Head Tubes | | See page 6 | | |
| KR-Aluma-Pro [™] Guns (air-cooled) | | See page 6 | | |
| TIG Accessories | | | | |
| Multimatic 235/255 TIG Kit | 301518 | See page 7 for contents | | |
| Nireless Remote Foot Control | 301580 | Foot control with wireless 90 ft. (27.4 m) operating range | | |
| RFCS-14 HD | 194744 | 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:

Distributed by:

Total Quoted Price:

