

Miller Legend® 301 G

Issued December 2002 • Index No. ED/4.2

Gas Engine-Driven
Welder/Generator 

Quick Specs

Industrial Applications

Fabrication
Structural Steel Work
Process Plant Piping
Maintenance

Processes (X-Ray Quality)

Stick (SMAW)
MIG (GMAW)
with voltage-sensing feeder
Flux Cored (FCAW)
with voltage-sensing feeder
DC TIG (GTAW)
Air Carbon Arc (CAC-A) Cutting
and Gouging (3/16 in carbons)

Output Range For DC Stick 40–300 A
For DC TIG 20–280 A
For MIG/FCAW 10–33 V, up to 325 A

Weld Output Rated at 104° F (40° C)

For DC Stick/TIG 280 A at 25 V, 100% Duty Cycle
For MIG/FCAW 300 A at 25 V, 100% Duty Cycle

Generator Power Output Rated at 104° F (40° C)

5500 Watts Peak—5000 Watts Continuous

Weight 560 lb (254 kg)

The Power of Blue.®

Low noise and excellent arc performance make this machine the perfect choice for maintenance/service trucks, in-plant use, and construction (especially in residential areas).

NEW! Remote toolless oil drain extends past the base to reduce service time and chance of oil spillage.

Excellent air flow ensures consistent performance and prolongs engine and component life.

EXCLUSIVE! Multi-speed welding to reduce noise. Up to 220 amps at a quiet 3000 RPMs and powerful 300 amps at 3600 RPMs.

NEW! Even better arc performance: Excellent starts in scratch start TIG. 300 amps of CV output. Smooth E7018 and increased dig for E6010. Clearly the best arc in its class!



NEW! Stainless steel exhaust pipe is the professional's choice.

NEW! 300 amps of true CV output. Excellent FCAW/MIG arc performance with voltage-sensing wire feeder.

NEW! Automatic idle in all processes, including MIG/FCAW, to save fuel and reduce noise.

Standard 14-pin receptacle allows for simple connection for remote controls.

EXCLUSIVE! Low-speed generator produces 5500 watts peak, 5000 watts continuous at 1800 RPMs, 2400 watts (60–120 Hz) at all speeds.

Separate weld and power generators ensure no interaction between job site tools and the welding arc. Generator power is also independent of weld control settings.

TRUE BLUE®
3YR. WARRANTY

Welder/generator is warranted for 3 years, parts and labor.
Engine is warranted for 3 years separately by the engine manufacturer.

MADE IN **USA**
APPLETON, WI **USA**



Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com



Specifications (Subject to change without notice.)



| Welding Mode | Max. Open-Circuit Voltage | Amperage/Voltage Ranges | Weld Output Rated at 25 V (at 104°F/40°C)* | Single-Phase Generator Power Output Rated at 104°F/40°C | Dimensions | Weight** |
|--------------|---------------------------|-------------------------|--|--|--|-----------------|
| CC-DC | 80 | 20–300 A | 280 A at 100% Duty Cycle | Peak: 5500 watts (w/contactor off) Continuous: 5000 watts, 120/240 VAC, 42/21 A, 60 Hz at 1800 RPM; 2400 watts, 120 VAC, 60–120 Hz at all speeds | H: 33 in (838 mm) W: 18-3/4 in (476 mm) D: 45-1/2 in (1156 mm) | 560 lb (254 kg) |
| CV-DC | 50 | 10–33 V up to 325 A | 300 A at 100% Duty Cycle | | | |

*Rated at sea level. Derate 5% when using LP gas. **Net weight without fuel. Add 30 lb for shipping weight.

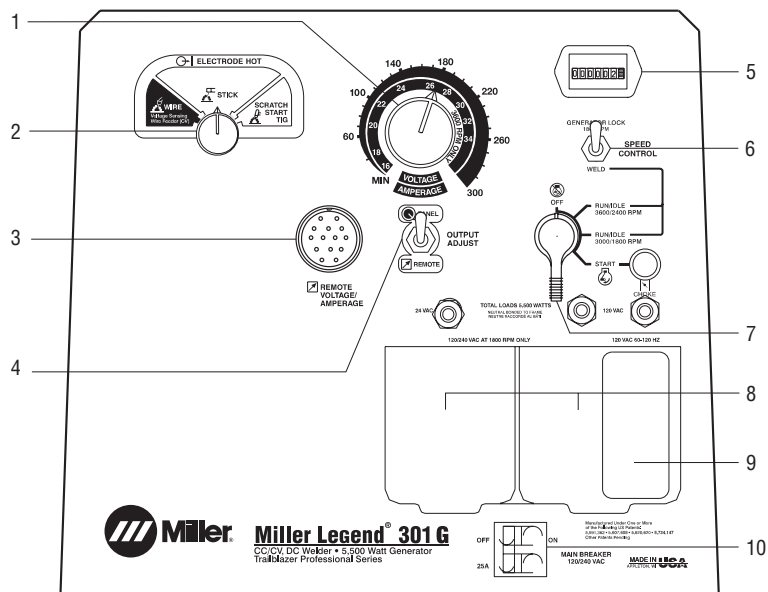
Engine Specifications

| Engine Brand | Horsepower (HP) | Type | Weld Speed | Idle Speed | Fuel Capacity | Oil Capacity | Low Oil Pressure Shutdown |
|------------------------------|-------------------|--|----------------------|----------------------|---------------|--|---------------------------|
| Kohler: 3 year mfg. warranty | 20 HP at 3600 RPM | Twin-cylinder, 4-cycle overhead valve, industrial air-cooled, gasoline or LP | 3600 RPM 3000 RPM | 2400 RPM 1800 RPM | 10 gal (38 L) | 1.75 qt (1.7 L), 2 qt (1.9 L) with filter | Standard |

Control Panel

1. Amperage/Voltage Control
2. Process Select
3. Remote Amperage/Voltage Receptacle
4. Remote Amperage/Voltage Switch
5. Engine Hour Meter
6. Speed Control Switch
7. Engine Control Switch
8. 120/240 VAC Generator Power Receptacles* (optional 120 VAC GFCI receptacles available)
9. 120 VAC Generator Power Receptacle, 60–120 Hz at all speeds
10. Generator Power Circuit Breaker

*For 240 V matching plug, order #119 172

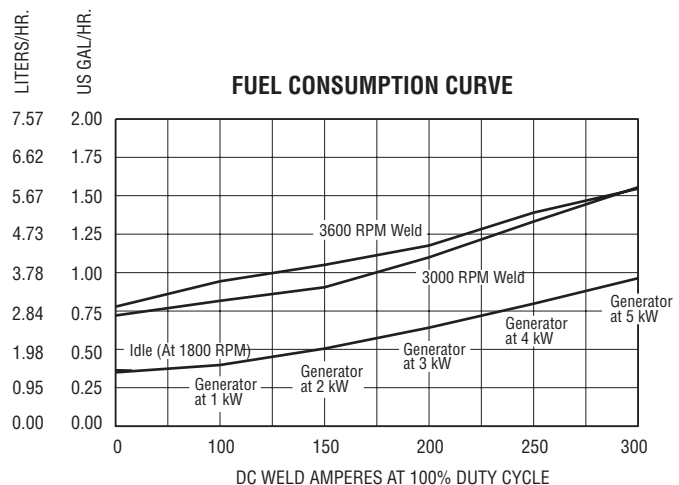


Weatherproof Lexan® nameplate is super durable and resists cracking and fading. Color-coding is for ease of operation.

Performance Data

Fuel Consumption Data

- 10-gallon fuel capacity.
- On a typical job using 1/8-in 7018 electrodes (125 amps, 20% duty cycle) you can expect over 16 hours of operation.
- Welding at 150 amps at 40% duty cycle, uses approximately 3/4 gallon per hour — over 13 hours of operation.
- A 2 kW generator load at 50% duty cycle uses less than 1/2 gallon per hour — over 20 hours of operation.



Performance Data (continued)

The Legend has 2 generators— a 4-pole, 3-phase weld generator and a strong power generator.

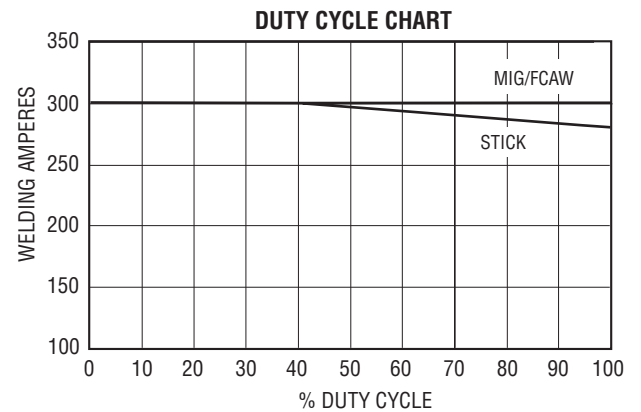
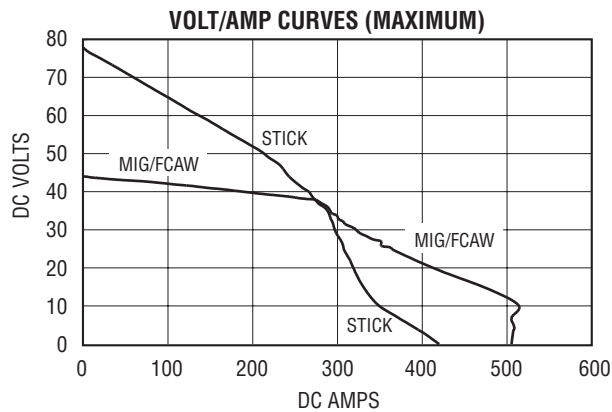
LEGEND ADVANTAGE: No interaction between grinders, power tools, etc. and the welding arc. Generator power is also independent of weld control settings.



Rotor

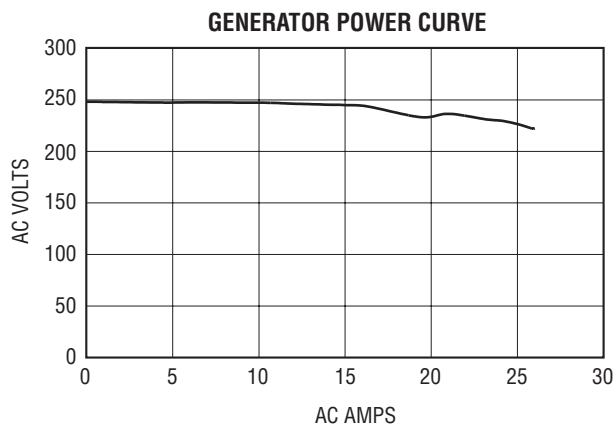


Stator



Power is in the Numbers

- Tested and rated at higher temperatures, 104° F (40° C), to ensure consistent operation in all climates.
- Patented generator control technology matches the generator's output to engine horsepower providing **maximum efficiency and more weld output**.
- The generator is designed to provide **strong power** while keeping the voltage above 108/216 volts. This increases tool/motor performance and tool/motor life.



MAXIMUM PERFORMANCE FROM ALL TOOLS



Milwaukee
Heavy-Duty
Grinder
Shown

Genuine Miller Options *Available as factory option. See ordering information on back page.

Stainless Steel Case*

Stainless steel cover and side panels for added protection and appearance.

LP Gas*

Liquid withdrawal with vaporizer and regulator. Does not include tanks, brackets, or hose from tank to regulator.

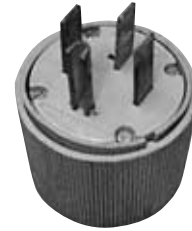
GFCI Protection*

Ground Fault Circuit Interruptors are required on some construction sites. Kit contains two GFCI 120 VAC duplex receptacles. (240 VAC GFCI receptacle not required).



FA-7.5 Flame Arrestor Fuel Cap (Gasoline Red)
#042 632 Field
Lockable for added protection.

Order the following from Miller Service Parts.



Full KVA Plug Kit #119 172 Field
120/240 VAC, 50 amp plug (NEMA 14-50P) to fit full KVA receptacle.

Engine Tune-Up Kits

#180 096 Field. Kohler CH20 OHV
Tune-up kits include engine filters and spark plugs.

Genuine Miller Accessories



Protective Cover

#195 136 Blue, with logo
Attractive, waterproof cover resists stains and mildew, and protects the finish of your welder.



Shown with optional LP Tank Mounting Bracket

No. 27 Hand Running Gear #043 014

Rugged, lightweight design provides maximum maneuverability. Comes with standard handle, two large 480/400 x 8 pneumatic tires, two 5 in rubber swivel casters, adjustable axle and easy-to-read instructions.



Shown with optional Cylinder Rack

No. 4B Running Gear #041 930

Two rear wheels with 480/400 x 8 pneumatic tires. Two 8 in (203 mm) solid rubber-tired front wheels and 30 in (762 mm) towing handle.

No. 27CR Cylinder Rack #043 040

Designed for use with No. 4B or No. 27RG. Consists of base tray with bottle bracket, and vertical support rack with safety chain.

Note: Cannot be used with LP Tank Mounting Bracket.

LP Tank Mounting Bracket #043 647

Includes brackets and clamps to mount tank (horizontally) and hose with fittings to converter. For 33 or 43 lb tanks only.

Remote Controls



RFCS-14HD Foot Control #194 744
Heavy-duty foot current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.



RHC-14 Hand Control #129 340
Miniature hand control for remote current and contactor control. Dimensions: 4 x 4 x 3-1/4 in (102 x 102 x 82 mm). Includes 20 ft (6 m) cord and 14-pin plug.



RCC-14 Remote Contactor and Current Control #151 086 14-pin plug
Rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Includes 28 ft (8.5 m) control cord.

Extension Cords for 14-Pin Remote Controls

- #122 973 25 ft (7.6 m)
- #122 974 50 ft (15.2 m)
- #122 975 75 ft (23 m)

MIG (GMAW) or Flux Cored (FCAW) Welding



SuitCase™ 8VS Wire Feeder #194 890
SuitCase™ 12VS Wire Feeder #194 941
Lightweight, portable, voltage-sensing wire feeders include secondary contactor and gas valve. Require drive roll kit. See Lit. Index No. M/6.4.

Flux Cored (FCAW)/MIG (GMAW) Guns

Miller produces a complete line of dependable MIG guns. Check MIGmatic literature for complete details. See Lit. Index Nos. AY/16.0 and AY/17.0.



Spoolmatic® 30A Spool Gun #130 831
Air-cooled 200 amp, 1 lb spool gun for aluminum MIG. See Lit. Index No. M/1.5.

WC-115A Control #137 546-01-1
With contactor. Use with Spoolmatic 30A.

Stick (SMAW) Welding

Weld Leads

- #173 851 2/0, 350 A, 100% duty cycle, 50 ft stinger, 50 ft work
- #043 952 2/0, 300 A, 100% duty cycle, 100 ft stinger, 50 ft work

Plasma Cutting



Spectrum® Thunder #903 741
See Lit. Index No. PC/13.0

Spectrum® 375 CutMate™ #903 891
See Lit. Index No. PC/9.1

Genuine Miller Accessories (continued)

Trailers and Hitches



HWY-1000 Trailer #195 013

A 1000 lb (454 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. The HWY-1000 comes with jack stand, 2 in (50 mm) ball hitch, fenders and lights.

Cable Tree #195 023

Provides an area to conveniently wrap weld cables and extension cords on the HWY-1000 trailer.

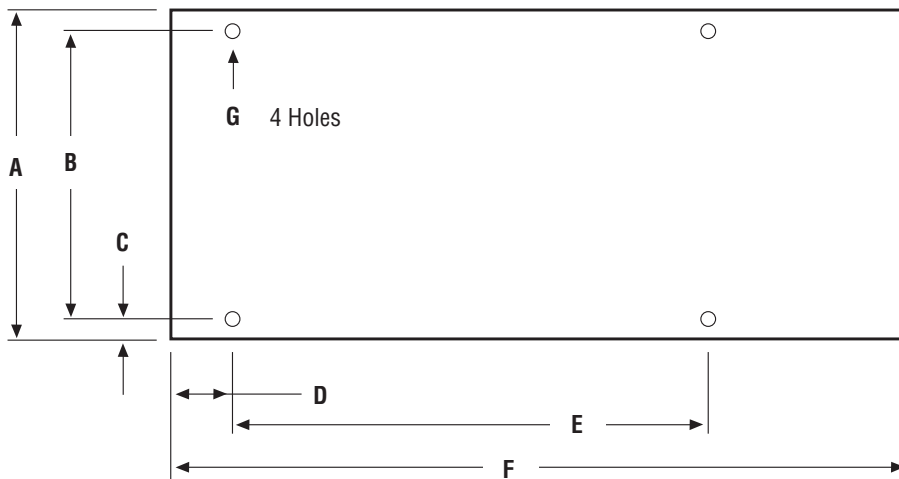
Lunette Eye 2-1/2 in (64 mm) #043 824

Trailer Specifications (Subject to change without notice.)

| Model | Gross Axle Weight Rating | Gross Vehicle Weight Rating | Net Payload | Height of Bed | Road Clearance | Track (Center to center of tires) | Standard Tires (Standard rating or P-size rating) | Dimensions | Net Weight |
|----------|--------------------------|-----------------------------|------------------|--------------------|-------------------|-----------------------------------|---|--|-----------------|
| HWY-1000 | 1500 lb (680 kg) | 1610 lb (730 kg) | 1000 lb (454 kg) | 18-1/2 in (470 mm) | 6-1/2 in (165 mm) | 50 in (1.27 m) | 4.8-12 | Length: 98 in (2.49 m) Width: 57-1/2 in (1.46 m)* | 265 lb (120 kg) |

*Width at outside of fenders.

Mounting Specifications



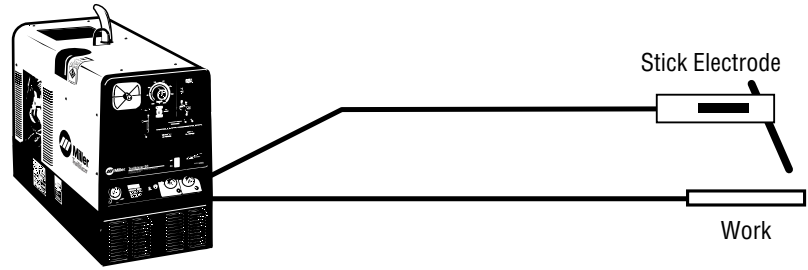
- A. 18 in (457 mm)
- B. 16-1/2 in (419 mm)
- C. 3/4 in (19 mm)
- D. 3-1/8 in (79 mm)
- E. 32-3/4 in (832 mm)
- F. 45-1/2 in (1156 mm)
- G. 13/32 in (10 mm) diameter

Height: 33-1/2 in (851 mm)
Width: 18-3/4 in (476 mm)
Depth: 46 in (1164 mm)

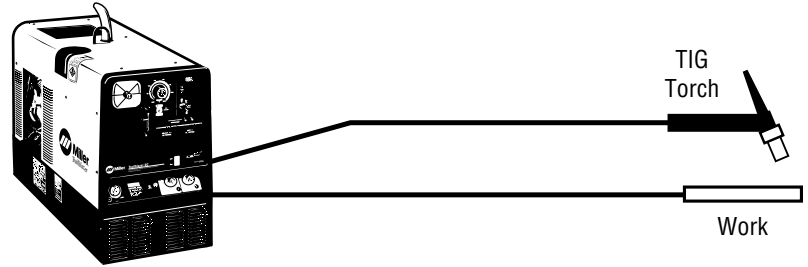
Typical Installations



Stick (SMAW) Basic Equipment

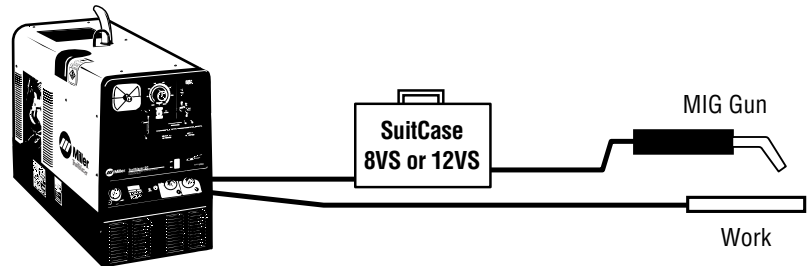


TIG (GTAW) Basic Equipment



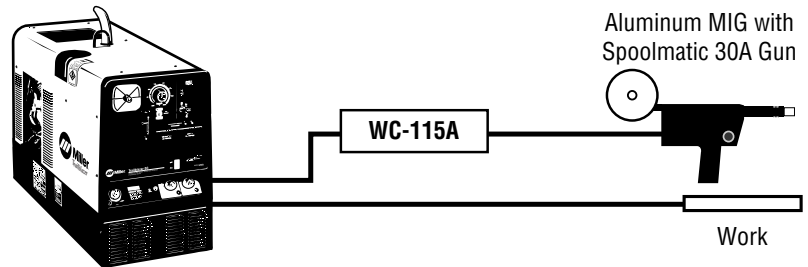
MIG (GMAW) Basic Equipment

SuitCase™ 8VS #194 890
SuitCase™ 12VS #194 941



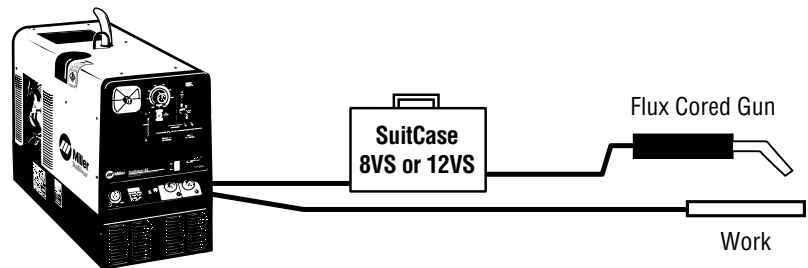
Aluminum MIG (GMAW) Basic Equipment

Spoolmatic® 30A #130 831
WC-115A #137 546-01-1

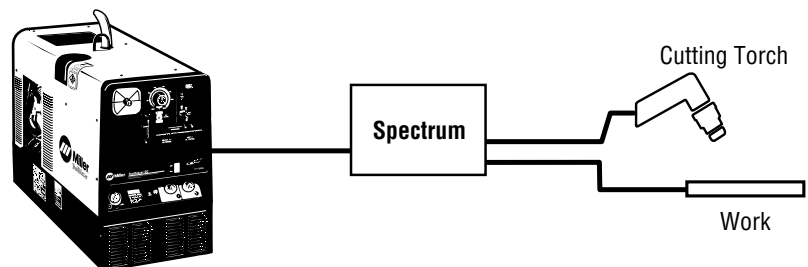


Flux-Cored (FCAW) Basic Equipment

SuitCase™ 8VS #194 890
SuitCase™ 12VS #194 941



Plasma Basic Equipment



Ordering Information

| Equipment and Options | Stock No. | Description | Qty. | Price |
|--|--|--|------|-------|
| Power Source | | | | |
| Miller Legend® 301 G (Kohler) | #907 072 #907 072-01-2 #907 072-02-1 #907 072-02-2 #907 072-02-3 | Base machine, CC/CV, DC, 5500 watts With GFCI Receptacles With LP Gas Conversion and GFCIs With Stainless Steel Case and GFCIs With Electric Fuel Pump for High Altitude and GFCIs | | |
| Flame Arrestor Fuel Cap | #042 632 | Field | | |
| Full KVA Plug (Order from Miller Service Parts) | #119 172 | Field | | |
| Engine Tune-Up Kits (Order from Miller Service Parts) | #180 096 | Field. For Kohler CH20 OHV | | |
| Accessories | | | | |
| Protective Cover | #195 136 | Blue with logo | | |
| No. 27 Running Gear | #043 014 | | | |
| No. 4B Running Gear | #041 930 | | | |
| No. 27CR Cylinder Rack | #043 040 | For use with No. 27 or 4B Running Gear | | |
| LP Tank Mounting Bracket (Horiz.) | #043 647 | Field. Cannot be used with Cylinder Rack | | |
| Remote Controls | | | | |
| RFCS-14HD | #194 744 | Foot control | | |
| RHC-14 | #129 340 | Hand control | | |
| RCC-14 | #151 086 | Fingertip control | | |
| Extension Cords | | See page 5 | | |
| MIG/Flux Cored Accessories | | | | |
| Suitcase 8VS™ | #194 890 | Includes contactor and gas valve. See Lit. Index No. M/6.4 | | |
| Suitcase 12VS™ | #194 941 | Includes contactor and gas valve. See Lit. Index No. M/6.4 | | |
| Flux Cored/MIG Guns | | See Lit. Index Nos. AY/16.0 and AY/17.0 | | |
| Aluminum MIG Accessories | | | | |
| Spoolmatic® 30A | #130 831 | See Lit. Index No. M/1.5 | | |
| WC-115A Control | #137 546-01-1 | With contactor. Use with Spoolmatic 30A | | |
| Stick Accessories | | | | |
| Weld Leads | #173 851 #043 952 | 2/0, 350 A, 100% duty cycle, 50 ft stinger, 50 ft work 2/0, 300 A, 100% duty cycle, 100 ft stinger, 50 ft work | | |
| Plasma Accessories | | | | |
| Spectrum® Thunder | #903 741 | 115 V, 20 ft torch. See Lit. Index No. PC/13.0 | | |
| Spectrum® 375 Cutmate™ | #903 891 | 115/230 V, 20 ft torch. See Lit. Index No. PC/9.1 | | |
| Trailers and Hitches | | | | |
| HWY-1000 Trailer | #195 013 | | | |
| Cable Tree | #195 023 | | | |
| Lunette Eye 2-1/2 in (64 mm) | #043 824 | | | |

Date:

Total Quoted Price:



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