

Trailblazer® Pro 350 D

Issued March 2006 • Index No. ED/4.65

**Diesel Engine-Driven
Welder/Generator** 

Quick Specs

Industrial Applications

Mechanical Contractors
Rig Owners
Structural Steel Work
Process Plant Piping
Fabrication

Processes

MIG (GMAW)
Flux Cored (FCAW)
Stick (SMAW)
TIG (GTAW)
Air Carbon Arc (CAC-A)
Cutting and Gouging
thru 1/4 in Carbons
Air Plasma Cutting
and Gouging with Optional
Spectrum Models

Output Range CC/DC: 20–350 A
CV/DC: 10–34 V
CC/AC: 35–250 A

Weld Output Rated at 104° F (40° C)

CC/DC and CV/DC: 300 A at 32 VDC, 100% Duty Cycle
350 A at 28 VDC, 60% Duty Cycle
CC/AC: 200 A at 25 VAC, 60% Duty Cycle

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

12,000 watts continuous

Weight Net: 998 lb (453 kg)

The Power of Blue.®

The professional welder's choice with higher outputs is designed to deliver the best arc performance with enough weld power to dominate larger diameter flux cored wires and air carbon arc gouging thru 1/4 in carbons.

Toolless top and side engine access allows easy and faster **maintenance** with little clearance space needed. Toolless remote oil drain is standard.

Standard 14-pin receptacle easily connects feeders or remote controls for enhanced process operation.

12,000 watts of generator power is regulated to provide constant, strong power and very good motor starting characteristics. Power is independent of weld control settings so that the correct voltage is available at all times.

Strong 120/240 V power while welding to run tools and inverter welders. See page 3 of literature.

Automatic Start at Idle™ idles engine immediately when started, extending engine life and reducing fuel consumption and noise.

Weld at Idle™—lock in idle and weld in DC up to 180 A.

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Weld meters now standard.

With a **compact and lightweight design** at only 998 lb, a smaller truck can be used, and related transportation costs will be reduced. Low height allows the driver to see over the machine when mounted on a truck bed and the machine fits sideways in a standard pickup.

Even better weld performance with an arc that dominates the competition. In Stick mode, you get a smooth E7018 and a great E6010 arc with Arc-Drive and Hot Start™ standard. Great MIG/FCAW arc and machine idles with feeders hooked up. More stable AC TIG and excellent starts in DC scratch start TIG.

26 HP, 3-cylinder Kubota diesel engine with its durable, proven liquid-cooled design is the world standard for small diesel engines. Engine shutdowns standard.

Cold weather starting aids such as standard glow plugs and block heater ensure good starts in cold weather.

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

Low noise operation allows for better work site communication and safety.
72 db @ 7 m (no load—idle),
78 db @ 7 m (full load—high speed).



Welder/generator is warranted for 3 years, parts and labor.
Engine is warranted 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	Output Range	Weld Output Rated at 104° F (40° C)	Max. Open-Circuit Voltage DC	Single-Phase Generator Power Output Rated at 104° F (40° C)	Dimensions	Weight*
CC/DC	20–350 A	300 A, 32 VDC, 100% Duty Cycle	80	12 kVA/KW, 120/240 VAC, 100/50 A, 60 Hz	H: 30 in (762 mm) W: 24 in (610 mm) D: 59-1/2 in (1511 mm)	Net: 998 lb (453 kg)
CV/DC	10–34 V	350 A, 28 VDC, 60% Duty Cycle	50			
CC/AC	35–250 A	200 A, 25 VAC, 60% Duty Cycle	70			

CSA approved.

*Net weight with 2 gal of fuel. Add 40 lb for shipping weight.

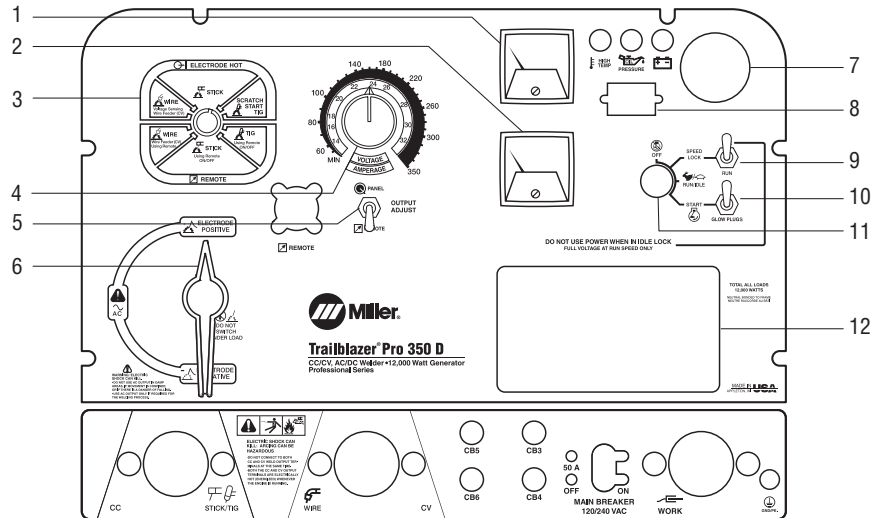
Engine Specifications (Subject to change without notice.)

Engine Brand	Horsepower (HP)	Type	Weld Speed	Idle Speed	Fuel Capacity	Oil Capacity	High Coolant Temp/ Low Oil Pressure Shutdown
Kubota DH905 2-year limited North American Manufacturer Warranty	26 at 3600 RPM	3-cylinder, industrial, liquid-cooled diesel	3600 RPM	2525 RPM	13 gal (49 L)	5.4 qt (5.1 L)	Standard

Control Panel

- Voltmeter
- Ammeter
- Process/Contactor Switch
- Voltage/Amperage Adjustment Control
- Voltage/Amperage Adjust Switch and Remote 14 Receptacle
- DC Polarity/AC Selector Switch
- Fuel Gauge
- Hour Meter
- Engine Speed Switch
- Glow Plug Switch
- Engine Control Switch
- 120/240 V Receptacles

Note: GFCIs are standard



Performance Data

FUEL CONSUMPTION DATA

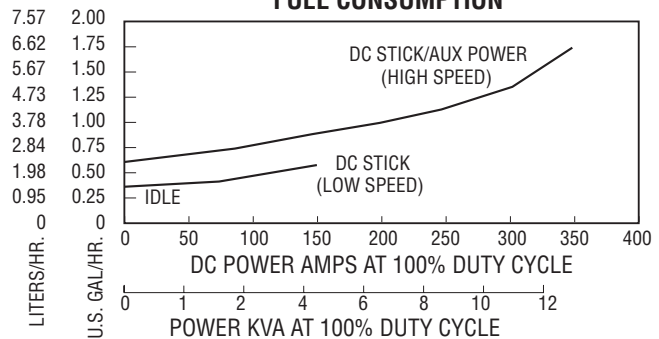
- 13-gallon fuel capacity.
- Welding at 150 A at 40% duty cycle, uses only .61 gallon per hour—over 20 hours of operation.

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FUEL CONSUMPTION



Performance Data (continued)

All Trailblazers have 2 generators — a 4-pole, 3-phase weld generator and a strong power generator.

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

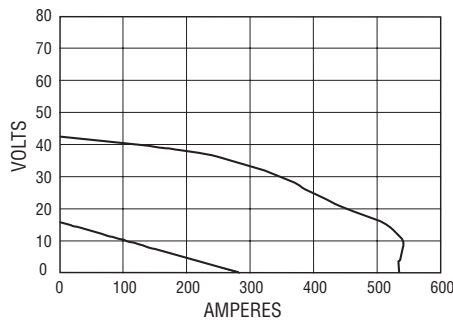


Rotor

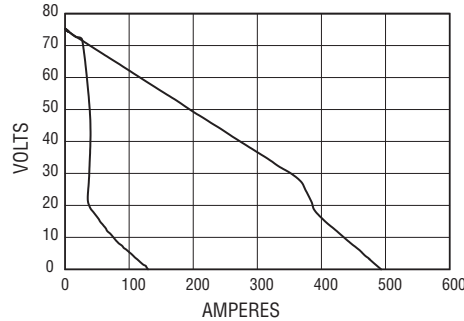


Stator

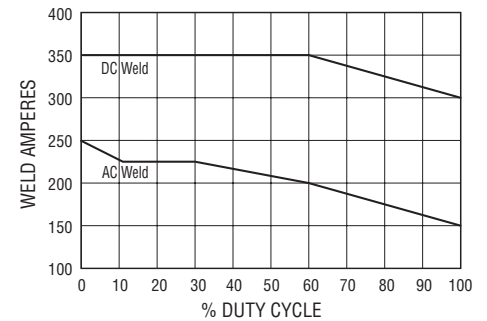
**VOLT/AMP CURVES
MINIMUM AND MAXIMUM - MIG MODE**



**VOLT/AMP CURVES
MINIMUM AND MAXIMUM - STICK MODE**



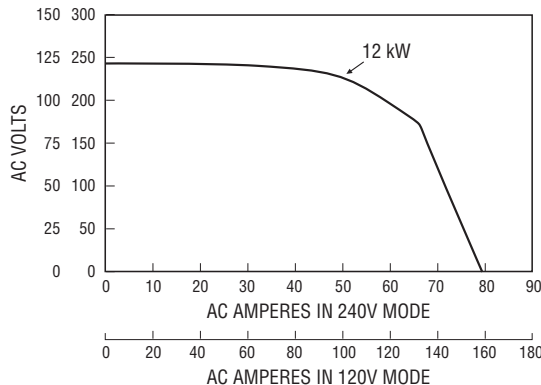
DUTY CYCLE CHART



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 voltage regulated to provide **strong power** while keeping the voltage 120/240 volts. This increases tool/motor performance and tool/motor life.

GENERATOR POWER CURVE



**SIMULTANEOUS WELDING
AND GENERATOR POWER**

Weld Current (Amps)	Watts	120V 1P Receptacle Amps	240V 1P Receptacle Amps
0	12,000	100	50
100	11,000	90	45
150	9,500	80	40
200	7,500	62	31
300	3,000	25	12
350	1,000	10	5

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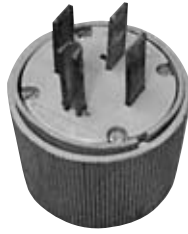
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Genuine Miller Options

Lockable Flame Arrestor Fuel Cap
#043 947 Field

Spark Arrestor Kit #194 871 Field



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

Genuine Miller Accessories



Protective Cover
#195 125 Blue, with Miller logo
Attractive, waterproof cover resists stains and mildew, and protects the finish of your welder.

Multioperator



CST™ 280 #907 244
The CST 280 CC/DC power source can be run off the machine's generator to provide two arcs with only one engine. At only 41 lb (18.6 kg), it is portable enough to take anywhere. See Lit. Index No. DC/29.55.

Plasma Cutters



Spectrum® 625 #907 058
Economical plasma cutting system rated to cut 7/8 in. See Lit. Index No. PC/9.5.



Spectrum 2050 #903 777-01-2
Portable, easy-to-carry unit is an excellent choice for cutting jobs up to 3/4 in. See Lit. Index No. PC/7.0.

MIG/Flux Cored Welding



SuitCase™ 8VS Wire Feeder #194 890
SuitCase™ X-TREME™ 12VS Wire Feeder
#195 500
Lightweight, portable, voltage-sensing wire feeders include secondary contactor and gas valve. Require drive roll kit. See Lit. Index No. M/6.4, M/6.41.



SuitCase™ 8RC Wire Feeder #194 938
SuitCase™ 12RC Wire Feeder #194 940
Lightweight, modular design and flexible enough to run a variety of wires up to .062 in diameter. Comes standard with remote voltage control. See Lit. Index No. M/6.5.

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MIG/Flux Cored Welding (Continued)



Spoolmatic® 30A #130 831

A 1-lb, air-cooled spool gun that extends the weld process range by adding a handy portable system for small wire MIG. Rated 200 A at 100% duty cycle. Includes 30 ft (9.1 m) cable assembly. WC Control required. See Lit. Index No. M/1.5.

WC-24 Control #137 549

To be used with Spoolmatic 30A.

XR Wire Feeders and Guns

Push-pull system designed to handle difficult-to-feed soft alloy wires such as aluminum. See Lit. Index No. M/1.7.

MIG (GMAW)/Flux Cored (FCAW) Guns

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

Stick (SMAW) Welding

Weld Leads

#173 851 2/0, 350 A, 100% duty cycle, 50 ft (15.2 m) stinger, 50 ft (15.2 m) work cable.

#043 952 2/0, 300 A, 100% duty cycle, 100 ft (30.5 m) stinger, 50 ft (15.2 m) work cable.

TIG (GTAW) Welding



HF-251 Series

#042 388 HF-251D-1, 115 VAC High-frequency arc starter and stabilizer. See Accessory Literature, Index No. AY/5.0.

Remote Controls and Switches



RFCS-14 HD Foot Control #194 744

For all Miller solid-state power sources after serial number JK674521. This new design increases stability with a larger base, and durability with a heavier cord. Maximum flexibility is accomplished 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 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

Rotary-motion fingertip control. Fastens to TIG torch using two Velcro strips. Allows complete current and contactor control at operator's fingertips. Includes 28 ft (8.5 m) cord and plug.

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 (22.9 m)



PRHC-14 Hand Control #195 511

For all solid-state power sources after serial number JK674521. Complete current or voltage control brings 120 volts GFCI power to work area in a single cord. Housed in a durable light aluminum case and includes 125 ft (38 m) cord with plugs.

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Trailers and Hitches (For both models.)



Lunette Eye 2-1/2 in (64 mm) #043 824
For use with 224 trailer.

Cable Tree #043 826
Provides an area to conveniently wrap weld cables and extension cords. For use with 224 trailer.

HWY-224 Trailer #043 805

A 2650 lb (1202 kg) capacity highway trailer. Welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. The HWY-224 comes with jack stand, 2 in (50 mm) ball hitch, fenders and lights.

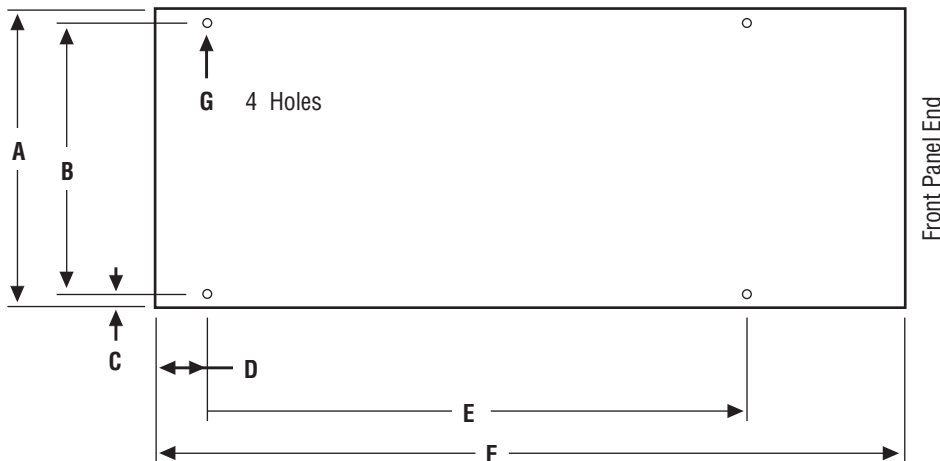
Note: Trailer is shipped unassembled.

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-224	3500 lb (1588 kg)	2960 lb (1343 kg)	2650 lb (1202 kg)	18-1/2 in (470 mm)	7-1/2 in (191 mm)	52 in (1321 mm)	B-78-13C	Length: 105-1/2 in (2680 mm) Width: 61 in (1549 mm)*	355 lb (161 kg)

*Width at outside of fenders.

Mounting Specifications



- A. 23-5/8 in (600 mm)
- B. 21-1/2 in (546 mm)
- C. 1 in (25 mm)
- D. 15-5/8 in (397 mm)
- E. 26-3/8 in (679 mm)
- F. 58-3/4 in (1492 mm)
- G. 13/32 in (10 mm) Dia.

Overall Dimensions

Height: 30 in (762 mm)
36 in (914 mm)
to top of exhaust
Width: 24 in (610 mm)
Depth: 59-1/2 in (1511 mm)

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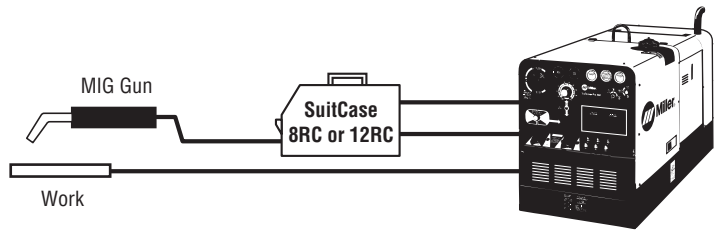
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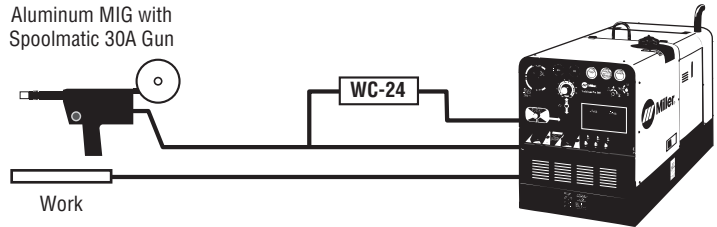
Applications



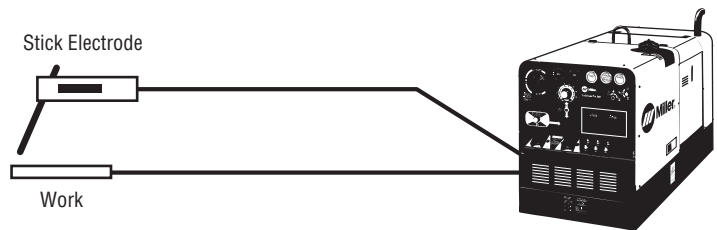
MIG (GMAW) Basic Equipment
 SuitCase 8RC #194 938
 SuitCase 12RC #194 940



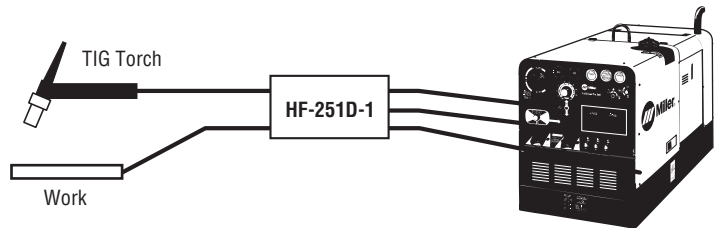
MIG (GMAW) Basic Equipment
 Spoolmatic 30A #130 831
 WC-24 #137 549



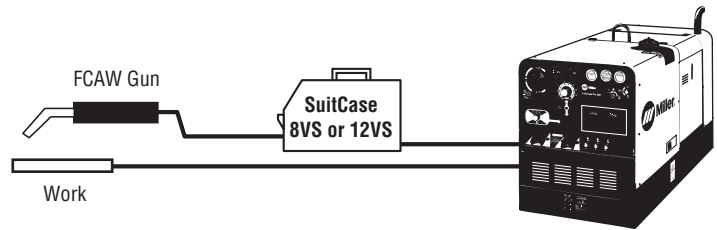
Stick (SMAW) Basic Equipment



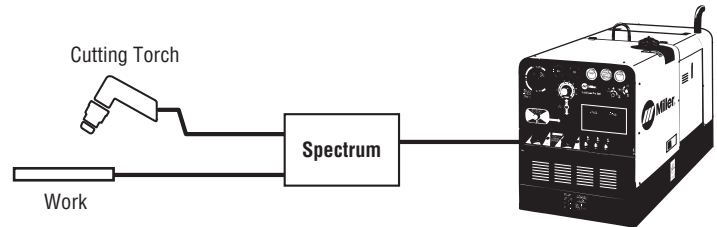
TIG (GTAW) Basic Equipment
 HF-251D-1 #042 388



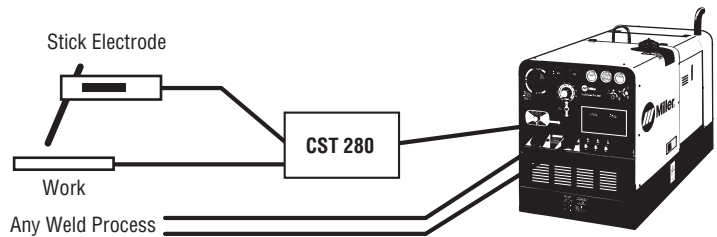
Flux-Cored (FCAW) Basic Equipment
 Suitcase 8VS #194 890
 SuitCase X-TREME 12VS #195 500



Plasma Basic Equipment



Multiple Operator Basic Equipment
 CST 280 #907 244



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Trailblazer® Pro 350 D	#907 068	Base machine, CC/CV, AC/DC, 12,000 Watts		
Options				
Spark Arrestor Kit	#194 871	Field		
Lockable Flame Arrestor Fuel Cap	#043 947	Field		
Full KVA Plug Kit	#119 172	Field		
Accessories				
Protective Cover	#195 125	Blue, with Miller logo		
Remote Controls				
RFCS-14 HD	#194 744	Foot control		
RHC-14	#129 340	Hand control		
RMLS-14	#129 337	Momentary- and maintained-contact switch		
RCC-14	#151 086	Fingertip control		
PRHC-14	#195 511	Current/voltage hand control and 120 VAC power		
Extension Cords	#122 973 #122 974 #122 975	25 ft (7.6 m) 50 ft (15.2 m) 75 ft (22.9 m)		
Stick Accessories				
Weld Leads	#173 851 #043 952	2/0, 350 A, 100% duty cycle, 50 ft (15.2 m) stinger, 50 ft (15.2 m) work cable 2/0, 300 A, 100% duty cycle, 100 ft (30.5 m) stinger, 50 ft (15.2 m) work cable		
Stick Electrodes				
Flux Cored/MIG Accessories				
SuitCase™ 8VS	#194 890	Includes contactor and gas valve. See Lit. Index No. M/6.4		
SuitCase™ X-TREME™ 12VS	#195 500	Includes contactor and gas valve. See Lit. Index No. M/6.41		
SuitCase™ 8RC	#194 938	Includes contactor and gas valve. See Lit. Index No. M/6.5		
SuitCase™ 12RC	#194 940	Includes contactor and gas valve. See Lit. Index No. M/6.5		
MIG (GMAW)/Flux Cored (FCAW) Guns		See Lit. Index No. AY/16.0 and AY/17.0		
Gun Consumables				
Aluminum MIG Accessories				
Spoolmatic® 30A/WC-24 Control	#130 831/#137 549	See Lit. Index No. M/1.5		
XR Wire Feeder and Guns		See Lit. Index No. M/1.7		
Gun Consumables				
TIG Accessories				
HF-251D-1	#042 388	See Lit. Index No. AY/5.0		
Water Coolant Systems		See Lit. Index No. AY/7.2		
TIG Torch				
Consumables				
Tungsten				
Multiple Operator Accessories				
CST™ 280	#907 244	See Lit. Index No. DC/29.55		
Plasma Cutting Accessories				
Spectrum® 625	#907 058	See Lit. Index No. PC/9.5		
Spectrum® 2050	#903 777-01-2	See Lit. Index No. PC/7.0		
Trailers and Hitches				
HWY-224 Trailer	#043 805			
Lunette Eye	#043 824	For use with 224 trailer		
Cable Tree	#043 826	For use with 224 trailer		

Date:

Total Quoted Price:



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