

PipePro™ 304

Issued March 2003 • Index No. ED/10.6

**Diesel Engine-Driven
Welder/Generator** 

Quick Specs

Industrial Applications

Fabrication
Structural Steel Work
Cross-Country Pipe Welding
Process Plant Piping
Repair
Power Generation

Processes

MIG (GMAW) and Pulsed MIG (GMAW-P)*
Flux Cored (FCAW)
Stick (SMAW)
DC TIG (GTAW)
Air Carbon Arc (CAC-A) Cutting and Gouging
(thru 1/4 in carbons)
Air Plasma Cutting and Gouging
with Optional Spectrum Models
**with Optima Control*

Output Power Range 10–34 V
5–400 A

Rated Output 300 Amps at 32 Volts,
60% Duty Cycle

Weight 910 lb (412 kg)

The Power of Blue.®

Excellent multiprocess arc performance. Stick welding (uphill and downhill) is unbelievable with excellent control on the bead (root), hot pass, fill and cap. The DIG control changes a soft arc to a stiff forceful arc that prevents electrode sticking. Lift-Arc™ TIG allows DC welding without the use of an HF unit for x-ray quality starts. The MIG arc will run short arc, globular, spray, and pulsed spray modes with excellent results using any wire or flux core in the field. Inductance control customizes the puddle for maximum performance.

Toolless top and side engine access allows easy and faster maintenance with little clearance space needed.

NEW! 25% increase in patented WELD AT IDLE and when more power is required the machine automatically goes to high speed without a change in the arc. Idles with up to 5 kW of weld power (225 A at 23 V, 170 A at 30 V).

12,000 watts of voltage-regulated single- and three-phase generator power allows electric welders and plasma cutters to be plugged into the unit allowing multiple arcs to be run at the same time.

26-HP, 3-cylinder Kubota diesel engine provides **automatic engine shutdown** to protect the engine from failure due to low oil pressure or high coolant temperature.

Lightweight design and compact size allows a driver to see over machine when mounted on a truck bed. Fits sideways in a standard pickup.



Dual **digital weld ammeter and voltmeter** are standard. Amps or volts can be set using the weld meters.

Cold weather starting aids such as standard glow plugs and block heater ensure easy starts.

NEW! Dual power option (Patented) uses 230 volt single- or three-phase electric input power, eliminating fuel cost, noise, engine wear and emissions.

Low noise operation is quieter than nearly all other US-built welding generators with 72 db at 7 m (no load—idle), 78 db at 7 m (full load—high speed).

TRUE BLUE
3 YR. WARRANTY

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

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



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An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

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International FAX: 920-735-4125

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www.MillerWelds.com



Specifications (Subject to change without notice.)



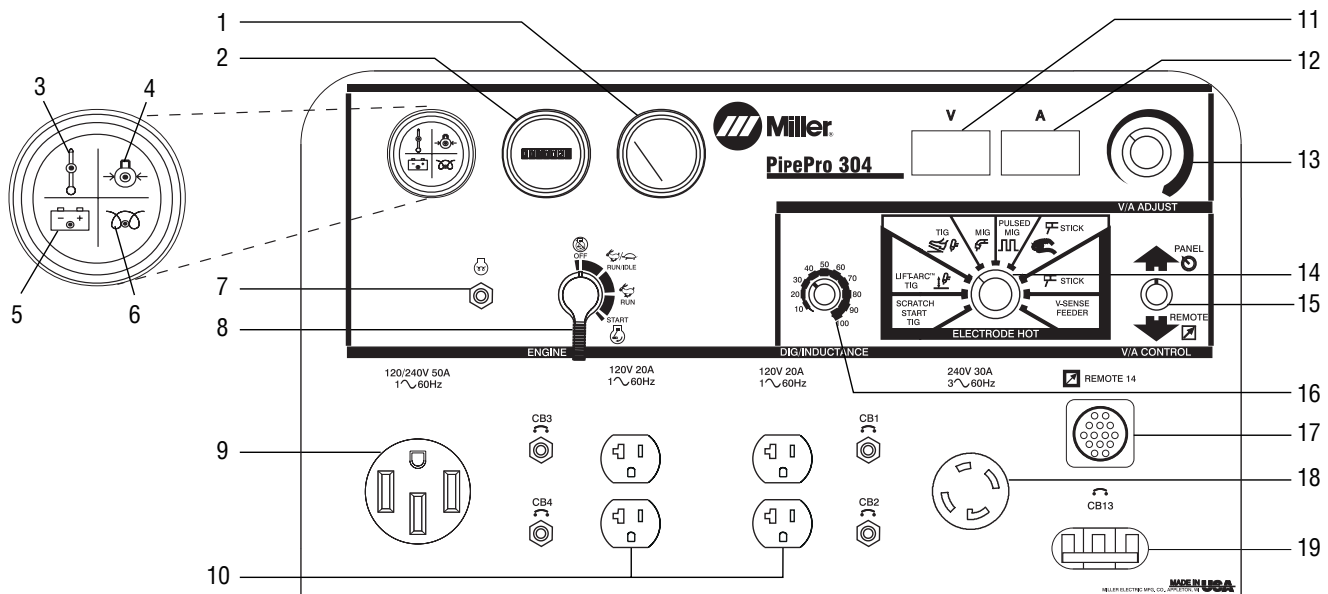
Welding Mode	Max. Open-Circuit Voltage	Rated Weld Output at 32 V at 60% Duty Cycle*	Output Range	Auxiliary Power	Dimensions	Net Weight
CC/DC	95	300 A	5–400 A	1-phase: 12 kVA/KW, 100/50 A, 120/240 VAC, 60 Hz 3-phase: 12 kVA/KW, 30 A, 240 VAC, 60 Hz	H: 30 in (762 mm) W: 24 in (610 mm) D: 59-1/2 in (1511 mm)	910 lb** (412 kg)
CV/DC	95	300 A	10–34 V	12 kVA/KW shared by all receptacles simultaneously		

*Rated output tested at 104° F (40° C). **Additional 99 lb (45 kg) when tank is full.

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 3750 RPM	3-cylinder, industrial, liquid-cooled diesel	3600 RPM	2525 RPM	13 gal (49 L)	1.35 gal (5.1 L)	Standard

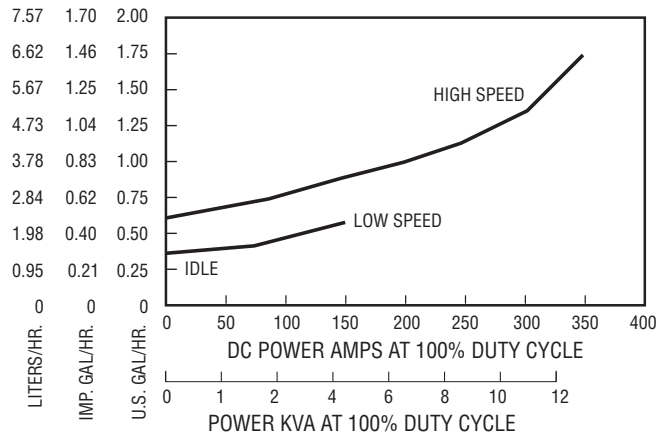
Control Panel



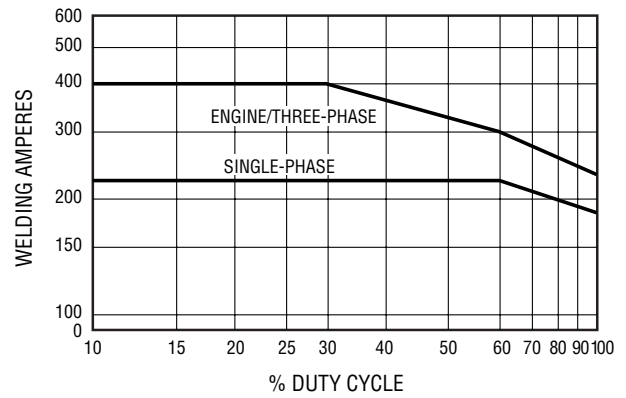
- | | |
|---|---|
| 1. Fuel Gauge | 11. Weld Voltmeter |
| 2. Engine Hour Meter | 12. Weld Ammeter |
| 3. Engine Temperature Light | 13. Voltage/Amperage Adjustment Control |
| 4. Engine Oil Pressure Light | 14. Mode Switch |
| 5. Battery Charging Light | 15. Voltage/Amperage Control Switch |
| 6. Glow Plug Light | 16. DIG/Inductance Control |
| 7. Glow Plug Switch | 17. Remote 14 Receptacle |
| 8. Engine Control Switch | 18. 240 VAC, 30 A, 3-Phase Receptacle |
| 9. 120/240 VAC, 50 A, Single-Phase, Full KVA Receptacle | 19. Circuit breaker for 240 VAC, 30 A, 3-Phase Receptacle |
| 10. 120 VAC, 20 A, Duplex Receptacles | |

Performance Data

FUEL CONSUMPTION



DUTY CYCLE CHART

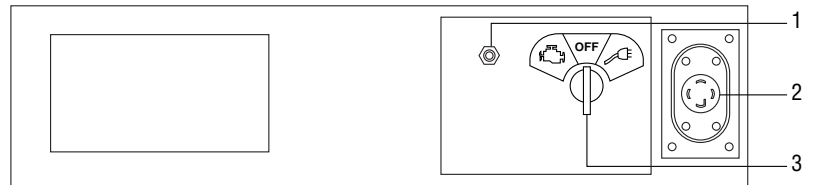


Genuine Miller Options

Dual Power Option (Patented)

Allows the PipePro 304 to operate independently of the engine using 230 volt single- or three-phase electric input power. Eliminates fuel cost, noise engine wear and emissions. Plug #197 355 for dual power included (cord not included).

Note: Available as factory option. Field option (#194 715) restricted to PipePro 304 units with serial #LA062611 and higher. See Ordering Information on back page.



1. 30 A Circuit Breaker
2. 3-Phase, 230 VAC Input Power Plug
3. Power Selector Switch

Specifications (Subject to change without notice.)

Heavy Industrial



Rated Weld Output at 60% Duty Cycle	Voltage Range in CV Mode	Amperage Range in CC Mode	Max. Open-Circuit Voltage	RMS Amps Input at Rated Load Output, 60 Hz 3-Phase at NEMA Load Voltages and Class I Rating		
				230 V	KVA	KW
300 A at 32 VDC, 3-Phase	10-34 V	5-400 A	95 VDC	30.5	12.2	11.6
225 A at 29 VDC, 1-Phase				47.4	11.3	7.6

Stainless Steel Kit

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

Note: Available as factory option. See Ordering Information on back page.



FA-1D Lockable Flame Arrestor

Fuel Cap (Metal Fuel Tank)

#042 726 Field only

Lockable Flame Arrestor

Fuel Cap (Plastic Fuel Tank)

#043 947

Spark Arrestor Kit

#194 871



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

Three-Phase Full KVA Plug Kit

#007 470 Field

240 VAC three-phase, 30 amp plug (NEMA L15-30P) to fit KVA receptacle.



Protective Cover

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

Plasma Cutters



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

MIG/Flux Cored 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.

Multiple Operator Welding

XMT® 304 #903 471

The XMT 304 CC/CV multiprocess power source can be run off the machine's generator to provide two arcs with only one engine. The XMT combines the advantages of inverter-based design with the built-in features of a high-end MIG machine. At only 76 lb (34.5 kg) it's portable enough to take anywhere. See Lit. Index No. DC/18.8.



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.



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.



CST™ 250 #907 116

The CST 250 CC/DC power source can be run off the machine's generator to provide two arcs with only one engine. At only 40 lb (18.2 kg), it is portable enough to take anywhere. See Lit. Index No. DC/29.55.



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.

MIG/Flux Cored Welding (continued)

WC-24 Control #137 549

To be used with the 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)/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.



Optima™ MIG (GMAW) Pulse Control #043 389

A multipurpose, microprocessor-based pulse control for synergic MIG (wire welding or GMAW), manual MIG pulsing or standard MIG welding. Use this control with the PipePro 304 and any Miller wire feeder, including automatic feeders and spool guns. Includes 25 ft (7.6 m) cord with 14-pin plug.

Stick (SMAW) Welding

Weld Leads

#173 851 2/0, 350 A, 100% duty cycle, 50 ft stinger, 50 ft ground

#043 952 2/0, 300 A, 100% duty cycle, 100 ft stinger, 50 ft ground

#043 956 2/0, 250 A, 100% duty cycle, 100 ft stinger, 100 ft ground

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)



LDR-14 #043 955

Complete current/voltage control brings 120 VAC GFCI power to the operator. Housed in a durable, weather-resistant case. Includes 125 ft (38 m) cord with plugs.

Genuine Miller Accessories (Continued)

Trailers and Hitches



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

Clevis (not for highway use) #043 825
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.

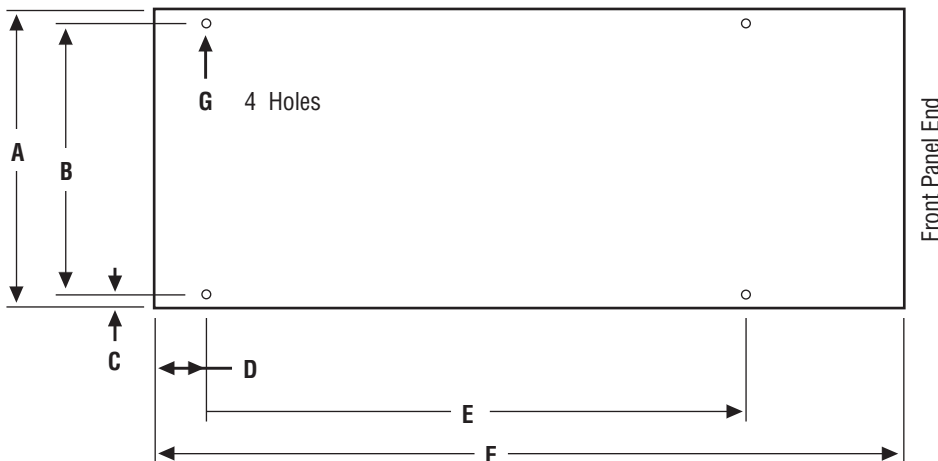
HWY-224 Trailer #043 805
A 2650 lb (1202 kg) capacity highway trailer. Welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. The HWY-224 comes with jack stand, 2 in (50 mm) ball hitch, fenders and lights.

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



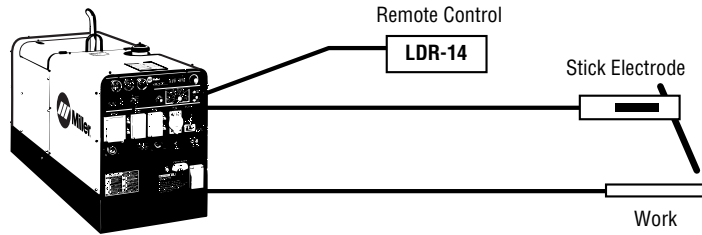
- A. 23-5/8 in (600 mm)
- B. 21-1/2 in (546 mm)
- C. 1 in (25 mm)
- D. 15-5/8 in (397 mm)
- E. 26-3/8 in (679 mm)
- F. 58-3/4 in (1492 mm)
- G. 13/32 in (10 mm) Dia.

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)

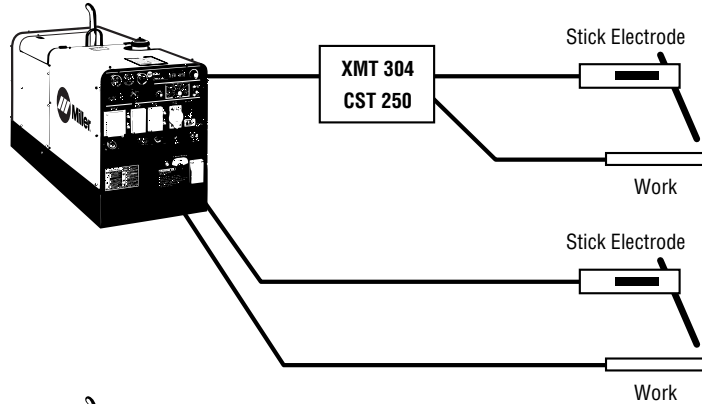
Typical Installations



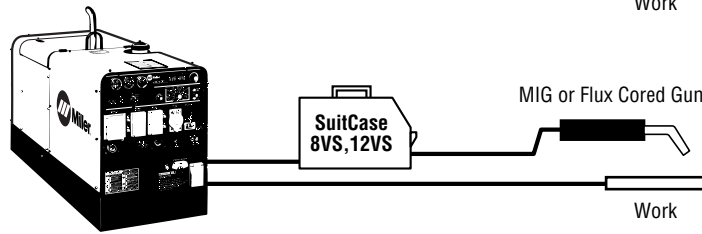
Stick (SMAW) Basic Equipment
LDR-14 #043 955



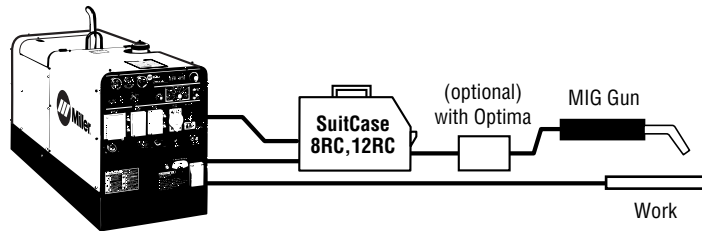
Multiple Operator
XMT 304 #903 471
CST 250 #907 116



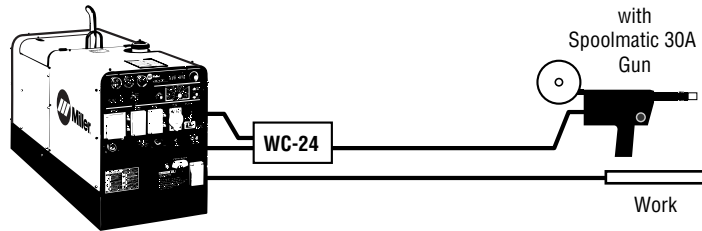
Flux Cored (FC) Basic Equipment
SuitCase 8VS #194 890
SuitCase 12VS #194 941



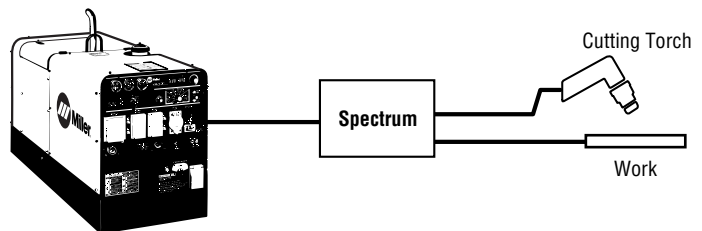
MIG (GMAW) Basic Equipment
SuitCase 8RC #194 938
SuitCase 12RC #194 940
Optima #043 389



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



Plasma Basic Equipment



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Power Source				
PipePro™ 304	#903 731	CC/CV		
	#903 731-01-1	CC/CV, Dry Battery (International)		
	#903 731-01-2	CC/CV, Stainless Steel Pkg		
	#903 731-01-3	CC/CV, Dual Power		
	#903 731-02-1	CC/CV, Dual Power, Stainless Steel		
Dual Power Option	#194 715	Field. For PipePro 304 units with serial #LA062611 and higher		
FA-1D Lockable Flame Arrestor Fuel Cap	#042 726	Field. For Metal Fuel Tank		
Lockable Flame Arrestor Fuel Cap	#043 947	For Plastic Fuel Tank		
Full KVA Plug Kit	#119 172	Field		
Three-Phase Full KVA Plug Kit	#007 470	Field		
Spark Arrestor Kit	#194 871	Field		
Accessories				
Protective Cover	#195 125	Field. Blue, with Miller logo		
Multiprocess Welding				
XMT® 304 CC/CV	#903 471	See Lit Index No. DC/18.8		
CST™ 250 CC/DC	#907 116	See Lit Index No. DC/29.55		
Plasma Cutters				
Spectrum® 625	#907 058	See Lit Index No. PC/9.5		
Spectrum® 2050	#903 777-01-2	See Lit Index No. PC/7.0		
MIG/Flux Cored Welding				
SuitCase™ 8VS	#194 890	See Lit. Index No. M/6.4		
SuitCase™ 12VS	#194 941	See Lit. Index No. M/6.4		
SuitCase™ 8RC	#194 938	See Lit. Index No. M/6.5		
SuitCase™ 12RC	#194 940	See Lit. Index No. M/6.5		
Spoolmatic® 30A	#130 831	Air-cooled. See Lit Index No. M/1.5		
WC-24 Control	#137 549	Required for use with Spoolmatic 30A. See Lit Index No. M/1.5		
XR™ Wire Feeders and Guns		See Lit Index No. M/1.7		
MIG (GMAW)/Flux Cored (FCAW) Guns		See Lit Index Nos. M/10.0 and M/13.4		
Optima™	#043 389	MIG (GMAW) Pulse Control. See Lit Index No. AY/16.0 and AY/17.0		
Stick				
Weld Leads	#173 851 #043 952 #043 956	2/0, 350 A, 100% duty cycle, 50 ft stinger, 50 ft work cable 2/0, 300 A, 100% duty cycle, 100 ft stinger, 50 ft work cable 2/0, 250 A, 100% duty cycle, 100 ft stinger, 100 ft work cable		
Stick Electrodes				
Remote Controls and Switches				
RFCS-14HD	#194 744	Foot control		
RHC-14	#129 340	Hand control		
RCC-14	#151 086	Fingertip control		
LDR-14	#043 955	Current/voltage 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)		
Trailers and Hitches				
HWY-224 Trailer	#043 805			
Lunette Eye 2-1/2 in (64 mm)	#043 824	For use with 224 trailer		
Clevis (not for highway use)	#043 825	For use with 224 trailer		
Cable Tree	#043 826	For use with 224 trailer		

Date:

Total Quoted Price:



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