

# PipePro® 304

Issued April 2008 • Index No. ED/10.6

**Diesel Engine-Driven  
Welder/Generator** 

## Quick Specs

### Industrial Applications

Process Piping  
Cross-Country Pipe Welding  
Fabrication  
Structural Steel Work

### Processes

MIG (GMAW) and Pulsed MIG (GMAW-P)\*  
Flux Cored (FCAW)  
Stick (SMAW)  
DC Lift-Arc™ 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 Range

CC/DC 5–400 A  
CV/DC 10–34 V

### Weld Output Rated at 104° F (40° C)

CC/DC and CV/DC: 300 A at 32 Volts,  
60% Duty Cycle

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

12,000 Watts, 1- or 3-phase

**Weight** 910 lb (412 kg) *Not including fuel.*

## The Power of Blue.®

**The pipe welder's choice.** Unbeatable arc in all DC welding processes. A compact, yet extremely powerful multiprocess diesel engine drive designed for the cross country pipeliner and the mechanical contractor.

**NEW! Optional Stainless Steel Appearance Package** provides additional exterior protection to withstand corrosive environments.

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

**PATENTED! Weld at Idle™** — fuel efficiency provides big savings and a fast payback. In fact, Miller's PipePro 304 when welding at idle, is the most fuel efficient diesel engine-drive welding power source available. While welding at 150 amps at 40% duty cycle using a 5/32 inch 7018 electrode, the PipePro averages 0.4 gallons (1.5 L) per hour. When more power is required the machine automatically goes to high speed without a change in the arc.

**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.

# BUILT TOUGH

**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.

### The most compact engine drive in its class.

Fits sideways in a standard pickup and allows the driver to see over the top of the machine. Weighs only 910 lb (412 kg). *Not including fuel.*



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

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

**PATENTED! Dual Power Option™** — uses 230 volt single- or three-phase primary power, **eliminates** fuel costs, engine wear, emissions, and noise.

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

# TRUE BLUE®

3YR. 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**



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

**International Headquarters**  
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International FAX: 920-735-4125

**Web Site**  
www.MillerWelds.com



# Specifications (Subject to change without notice.)



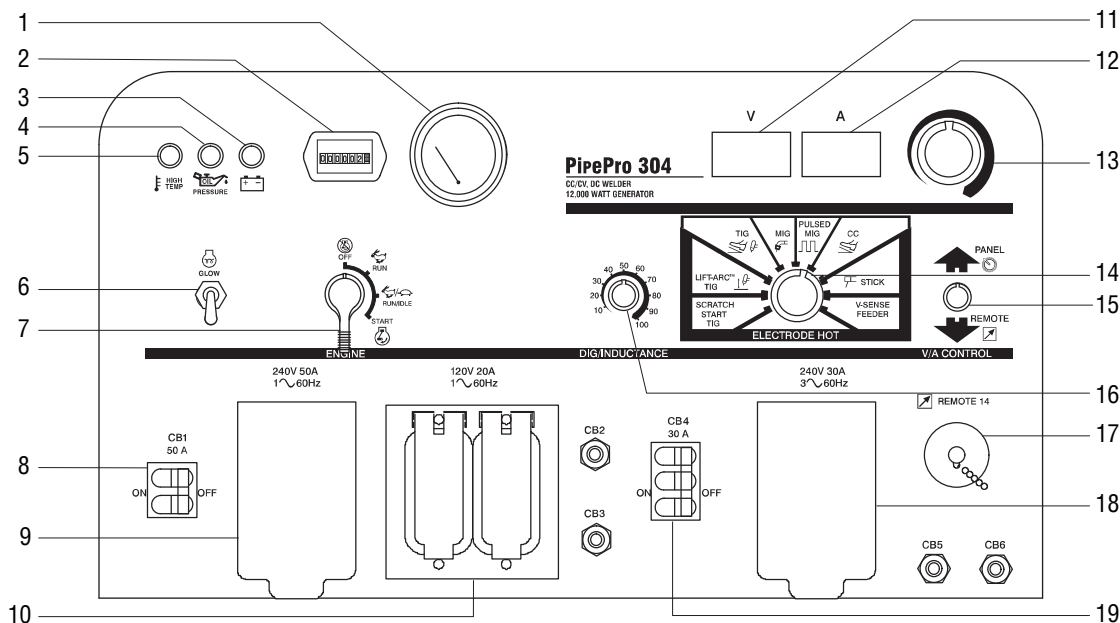
Welding Mode	Max. Open-Circuit Voltage	Rated Weld Output at 32 V at 60% Duty Cycle*	Output Range	Generator Power	Dimensions	Net Weight
CC/DC	95	300 A	5–400 A	1-phase: 12 kVA/KW, 100/50 A, 120/240 VAC, 60 Hz 3-phase: 12 kVA/KW, 30 A, 240 VAC, 60 Hz	H: 36 in (914 mm) W: 24 in (610 mm) D: 59-1/2 in (1511 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 D1005 2-year limited North American Manufacturer Warranty	24.8 at 3600 RPM	EPA Tier III, 3-cylinder, industrial, liquid-cooled diesel. Service intervals of <b>200 hours</b> for oil and filter.	3600 RPM	2525 RPM	13 gal (49 L)	5.4 qt (5.1 L)	Standard

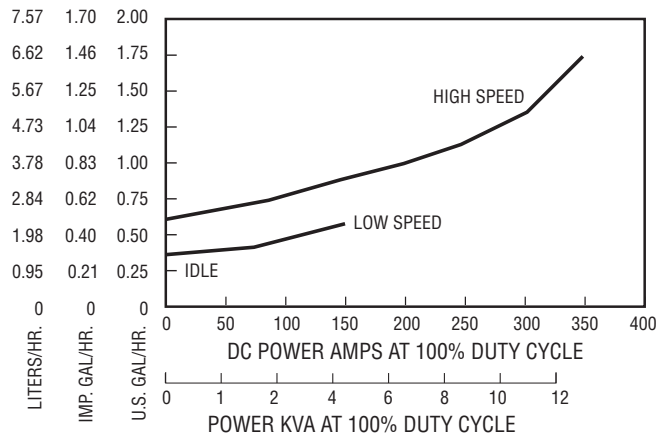
## Control Panel



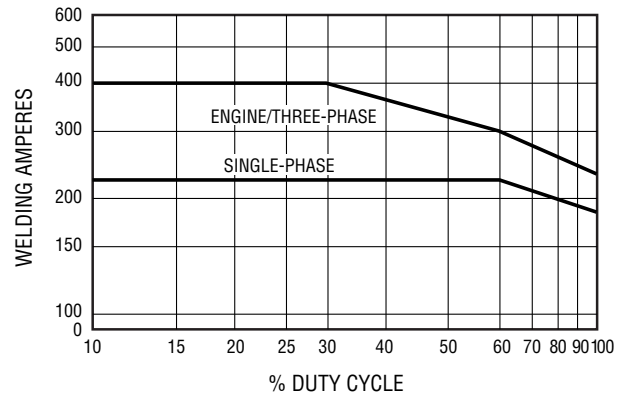
1. Fuel Gauge
2. Engine Hour Meter
3. Battery Charging Light
4. Engine Oil Pressure Light
5. Engine Temperature Light
6. Glow Plug Switch
7. Engine Control Switch
8. Circuit breaker for 240 VAC, 50 A, 1-Phase Receptacle
9. 240 VAC, 50 A, 1-Phase, Full KVA Receptacle
10. 120 VAC, 20 A, Duplex Receptacles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

# Performance Data

### FUEL CONSUMPTION



### DUTY CYCLE CHART

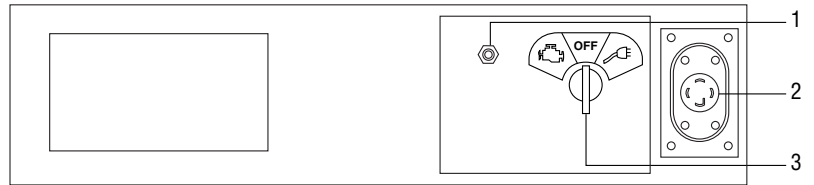


## Genuine Miller Options

### Patented! Dual Power Option

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. Dual power field option (#195 275) effective with serial #LC649059. Field option (#194 715) restricted to PipePro 304 units with serial #LA062611 through #LC649058.*



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



**FA-1D Lockable Flame Arrestor Fuel Cap #043 947** Field  
Fuel cap can be padlocked to prevent vandalism. A built-in flame arrestor prevents flames or sparks from entering the fuel tank.

**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.



**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, water-resistant cover resists stains and mildew, and protects the finish of your welder.



## Dynasty® 200 Series

**#907 099**  
**#907 099-01-1**  
AC/DC TIG/Stick Power Supply.  
See Lit. Index No. AY/4.8.

## MIG/Flux Cored Welding



## SuitCase™ X-TREME™ 8VS Wire Feeder

**#300 093**

## 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/6.41.

## Multiple Operator Welding

*The XMT 304, CST 280 and Dynasty 200 power sources can be run off the machine's generator to provide two arcs with only one engine. There is no arc interaction under 180 amps.*



## XMT® 304

**#903 471 and**  
**#903 471-01-1 only**  
See Lit. Index No. DC/18.8.

## Plasma Cutters



## Spectrum® 625 #907 058

Economical plasma cutting system rated to cut 5/8 in. See Lit. Index No. PC/9.5.



## 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™ 280

**#907 244**  
**#907 244-01-1**  
**#907 251**  
**#907 251-01-1**  
See Lit. Index No. DC/29.55.



## Spectrum 2050 #903 777-01-2

Portable, easy-to-carry unit is an excellent choice for cutting jobs up to 7/8 in. See Lit. Index No. PC/7.0.



## 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-24 Control required. See Lit. Index No. M/1.73.

## 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, M/1.71, and M/1.73.

### 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 (15.2 m) stinger, 50 ft (15.2 m) ground

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

**#043 956** 2/0, 250 A, 100% duty cycle, 100 ft (30.5 m) stinger, 100 ft (30.5 m) ground

## Remote Controls and Switches



### 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.



### 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 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 (23 m)



### RFCS-14 HD Foot Control #194 744

For all Miller solid-state power sources after serial number JK674521. This newer 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.

## Genuine Miller Accessories (Continued)

### Trailers and Hitches



**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.

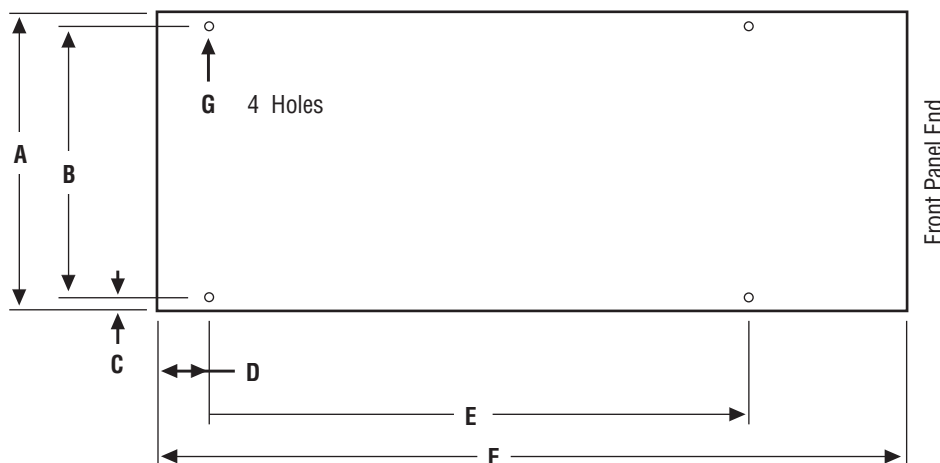
*Note: Trailer is shipped unassembled.*

### 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-78-13	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.

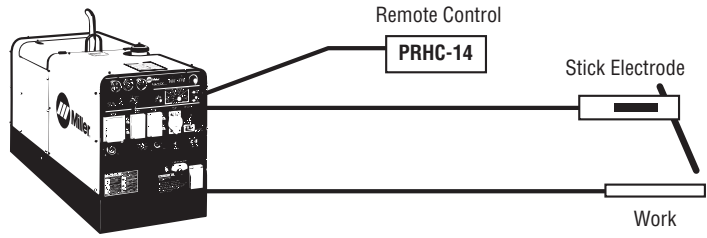
**Overall Dimensions**

Height: 36 in (914 mm)  
30 in (762 mm)  
not including exhaust  
Width: 24 in (610 mm)  
Depth: 59-1/2 in (1511 mm)

# Typical Installations



**Stick (SMAW) Basic Equipment**  
PRHC-14 #195 511



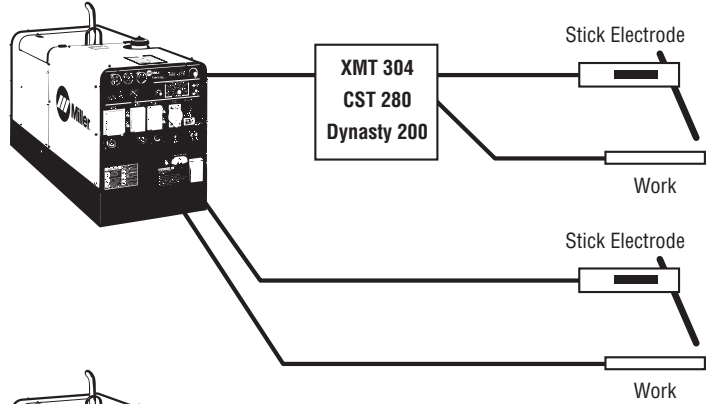
**Multiple Operator**  
XMT 304 #903 471  
#903 471-01-1  
(See pg. 4 or Lit. Index No.  
DC/18.8 for more information)

**CST 280 #907 244**  
#907 244-01-1  
#907 251  
#907 251-01-1

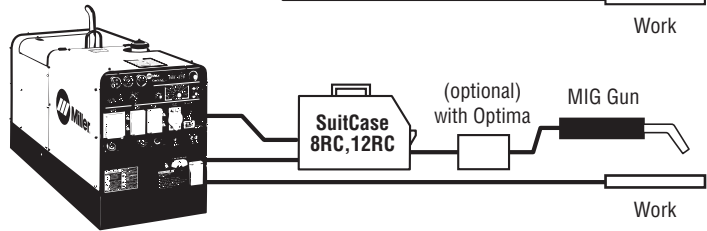
(See pg. 4 or Lit. Index No.  
DC/29.55 for more information)

**Dynasty 200 SD #907 099**

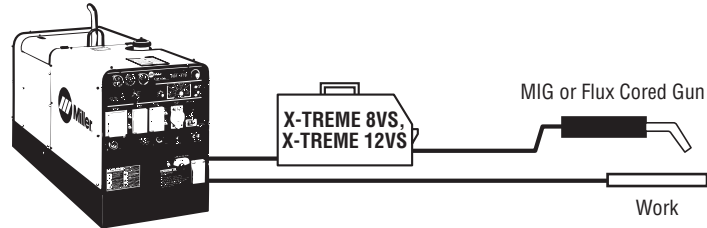
**Dynasty 200 DX #907 099-01-1**  
(See pg. 4 or Lit. Index No.  
AD/4.8 for more information)



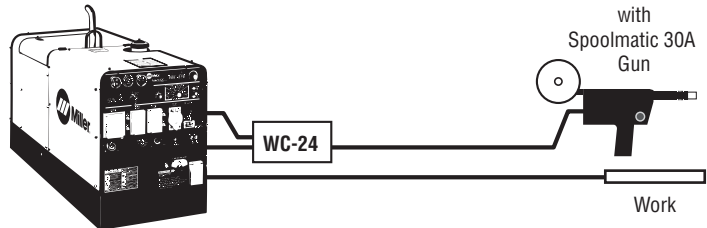
**MIG (GMAW) Basic Equipment**  
SuitCase 8RC #194 938  
SuitCase 12RC #194 940  
Optima #043 389



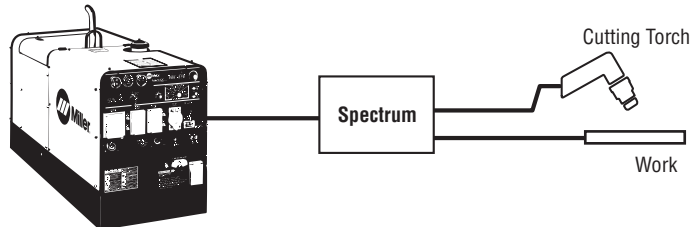
**Flux Cored (FCAW) Basic Equipment**  
SuitCase X-TREME 8VS #300 093  
SuitCase X-TREME 12VS #195 500



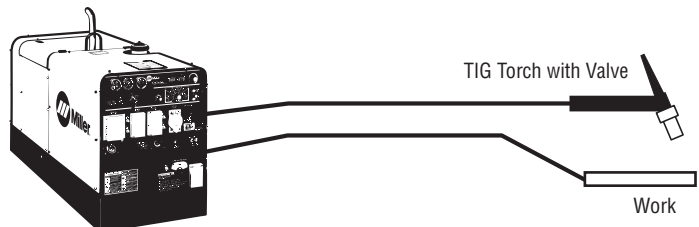
**MIG (GMAW) Basic Equipment**  
Spoolmatic 30A #130 831  
WC-24 #137 549



**Plasma Basic Equipment**



**DC Lift-Arc™ TIG (GTAW) Basic Equipment**



# Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
<b>PipePro® 304</b>	<b>#903 731</b>	CC/CV		
	<b>#903 731-01-2</b>	CC/CV with Stainless Steel		
	<b>#903 731-01-3</b>	CC/CV, Dual Power		
Dual Power Option	<b>#195 275</b>	Field (Cord not included)		
Lockable Flame Arrestor Fuel Cap	<b>#043 947</b>	Field		
Full KVA Plug Kit	<b>#119 172</b>	Field (Cord not included)		
Three-Phase Full KVA Plug Kit	<b>#007 470</b>	Field (Cord not included)		
Spark Arrestor Kit	<b>#194 871</b>	Field		
<b>Accessories</b>				
Protective Cover	<b>#195 125</b>	Field. Blue, with Miller logo		
<b>Multiple Operator Welding</b>				
XMT® 304 CC/CV	<b>#903 471</b> <b>#903 471-01-1</b>	See Lit Index No. DC/18.8		
CST™ 280 CC/DC	<b>#907 244</b> <b>#907 244-01-1</b> <b>#907 251</b> <b>#907 251-01-1</b>	220-230/460–575 VAC w/Dinse-style connectors. See Lit Index No. DC/29.55 220-230/460–575 VAC w/Tweco-style connectors. See Lit Index No. DC/29.55 208-230/400–460 VAC w/Dinse-style connectors. See Lit Index No. DC/29.55 208-230/400–460 VAC w/Tweco-style connectors. See Lit Index No. DC/29.55		
Dynasty® 200 SD	<b>#907 099</b>	See Lit Index No. AY/4.8		
Dynasty® 200 DX	<b>#907 099-01-1</b>	See Lit Index No. AY/4.8		
<b>Plasma Cutters</b>				
Spectrum® 625	<b>#907 058</b>	See Lit Index No. PC/9.5		
Spectrum® 2050	<b>#903 777-01-2</b>	See Lit Index No. PC/7.0		
<b>MIG/Flux Cored Welding</b>				
SuitCase™ X-TREME™ 8VS	<b>#300 093</b>	See Lit. Index No. M/6.4		
SuitCase™ X-TREME™ 12VS	<b>#195 500</b>	See Lit. Index No. M/6.41		
SuitCase™ 8RC	<b>#194 938</b>	See Lit. Index No. M/6.5		
SuitCase™ 12RC	<b>#194 940</b>	See Lit. Index No. M/6.5		
Spoolmatic® 30A	<b>#130 831</b>	Air-cooled. See Lit Index No. M/1.5		
WC-24 Control	<b>#137 549</b>	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™	<b>#043 389</b>	MIG (GMAW) Pulse Control. See Lit Index No. AY/16.0 and AY/17.0		
<b>Stick</b>				
Weld Leads	<b>#173 851</b> <b>#043 952</b> <b>#043 956</b>	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 2/0, 250 A, 100% duty cycle, 100 ft (30.5 m) stinger, 100 ft (30.5 m) work cable		
Stick Electrodes				
<b>DC Lift-Arc™ TIG</b>				
TIG Torch		With valve and appropriate power block adapter		
<b>Remote Controls and Switches</b>				
PRHC-14	<b>#195 511</b>	Hand control. 120 volts GFCI power		
RHC-14	<b>#129 340</b>	Hand control		
RCC-14	<b>#151 086</b>	Fingertip control		
RFCS-14HD	<b>#194 744</b>	Foot control		
Extension Cords	<b>#122 973</b> <b>#122 974</b> <b>#122 975</b>	25 ft (7.6 m) 50 ft (15.2 m) 75 ft (22.9 m)		
<b>Trailers and Hitches</b>				
HWY-224 Trailer	<b>#043 805</b>			
Lunette Eye 2-1/2 in (64 mm)	<b>#043 824</b>	For use with 224 trailer		
Cable Tree	<b>#043 826</b>	For use with 224 trailer		

Date:

Total Quoted Price:

Distributed by:

