

# Big Blue® Turbo

Issued April 2008 • Index No. ED/10.3

Engine-Driven  
Welder/Generator 

## Quick Specs



### Heavy Industrial Applications

Heavy Construction  
Structural Steel  
Maintenance and Repair Rigs  
Mining Maintenance  
Process Piping  
Sheet Metal

### Processes

Stick (SMAW)  
MIG (GMAW)  
Flux Cored (FCAW)  
DC TIG (GTAW)  
Submerged Arc (SAW)  
Stud Welding 1/2 in (12.7 mm)  
Air Carbon Arc (CAC-A)  
1/2 in (12.7 mm) Carbons  
Air Plasma Cutting  
with Optional Spectrum Models

### Output Range

DC Stick 45–750 A MIG/FCAW 14–40 V  
DC TIG 20–450 A

### Weld Output Rated at 104°F (40°C)

Stick 600 A, 44 V, 26.4 kW, 100% Duty Cycle  
MIG/FCAW 600 A, 36 V, 21.6 kW, 100% Duty Cycle

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

5,500 Watts Peak — 4,000 Watts Continuous

**Weight** Net: 1755 lb (796 kg) Ship: 1780 lb (807 kg)

## The Power of Blue.®

**Welder/generator.** One machine that will do it all without compromising anything. Designed and built to be the most reliable high-output system in the world.

**Weatherproof Lexan® nameplate** resists cracking and fading, and is color-coded for ease of operation.

**Enclosed robust case design** protects internal components from impact and allows air flow to cool and prolong the life of the engine. Also reduces sound levels.

**GFCI receptacle** as required on most job sites to protect operators from electrical hazards.

**Quiet** at only 70 dB (95 Lwa) at idle, 79 dB (104 Lwa) at maximum output. Improves work site communications.


**Low cost of ownership.** Extended routine maintenance schedule with single-side access to engine and remote drains make unit quick and easy to maintain.

# BUILT TOUGH

**Improved!**

**Maintenance Displays!**



 **turbocharged four-cylinder diesel engine** provides ample power at high altitudes. Works at altitudes greater than 3 miles (5000 m) without loss of output.

### NEW! Meter maintenance display

- Hour meter function
- Oil Change interval
- Diesel: High coolant temperature and low oil pressure shutdowns
- Diesel: Low fuel shutdown — engine shuts down before system runs out of fuel making restarts easy

**Idles in CV** when not welding. Conserves fuel and reduces noise.

**Hot Start™** provides positive stick electrode starts to make it easy to start all types of electrodes.

**Arc-Drive** makes welding easy. Automatically enhances Stick welding, especially on pipe, by focusing the arc and preventing the electrode from going out.

## TRUE BLUE®

3YR. WARRANTY

Welder/generator is warranted by Miller for 3 years, parts and labor.  
Engine is warranted by Deutz for 3 years.

MADE IN **USA**  
APPLETON, WI



**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.)



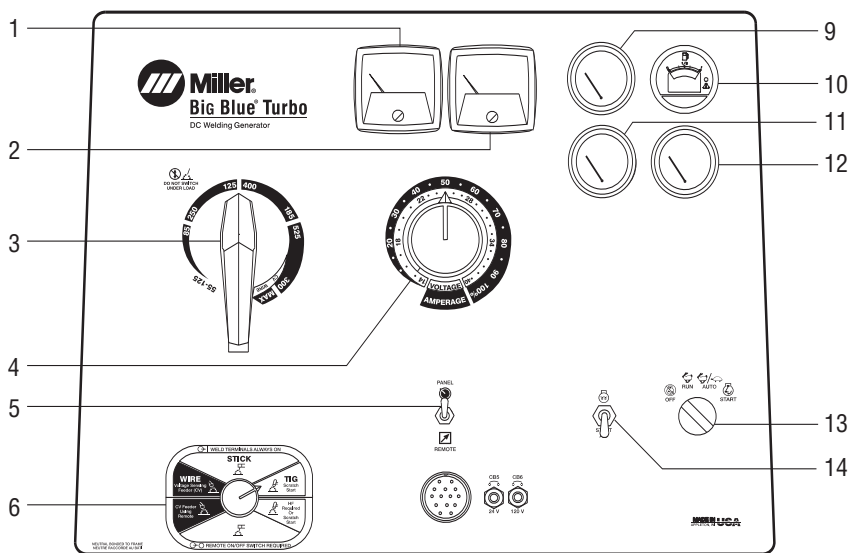
Welding Mode	Weld Output Range	Weld Output Rated at 104° F (40° C) NEMA Amperage and Voltage	Max. Open-Circuit Voltage	Generator Output Rated at 104° F (40° C)	Dimensions*	Weight Without Fuel**
CC/DC	20–750 A	600 A, 44 V, 26.4 kW, 100% Duty Cycle	95	<b>Peak:</b> 5500 watts <b>Continuous:</b> 4000 watts, 120/240 VAC, 34/17 A, 60 Hz while welding	H: 43 in (1092 mm) W: 28-1/2 in (724 mm) D: 67-1/2 in (1715 mm)	<b>Net:</b> 1755 lb (796 kg) <b>Ship:</b> 1780 lb (807 kg)
CV/DC	14–40 V	600 A, 36 V, 21.6 kW, 100% Duty Cycle	56			

Meets NEMA and IEC output ratings. \*Additional 7 in (178 mm) to top of exhaust. \*\*Additional 190 lb (86 kg) when fuel tank is full.

## Engine (Subject to change without notice.)

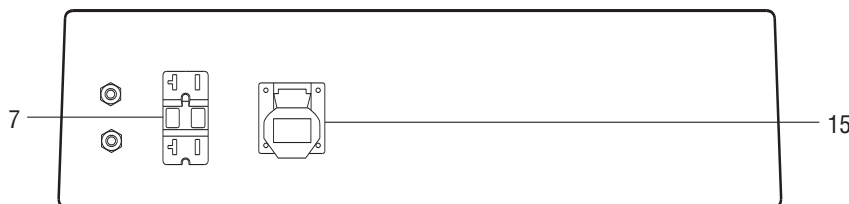
Engine Brand	Features	HP	Type	Engine Speeds	Fuel Capacity	Oil Capacity	Automatic Engine Shutdowns
 Deutz, BF4M 2011 Diesel	EPA certified, turbocharged direct-injected, liquid-cooled (oil) engine. Right side service access with 500 hr intervals for oil and filters. MSHA approved with purchase of certificate from Deutz dealer.	63.4	Four-cylinder, industrial, liquid-cooled engine	1850 Run 1235 Idle	25 gal (95 L)	11 qt (10.4 L)	Oil pressure Oil temperature

## Control Panel



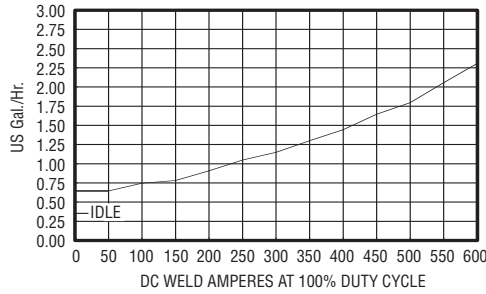
1. Voltmeter
2. Ammeter
3. Amperage Range Switch
4. Amperage/Voltage Adjust Control
5. Amperage/Voltage Adjust Switch and Remote Amperage/Voltage Adjust 14-Pin Receptacle
6. Process/Contactor Selector Switch
7. 120 VAC, 20 A GFCI Duplex Receptacle
8. 240 VAC, 30 A TwistLock Receptacle (NEMA L6-30)
9. Engine Oil Pressure Gauge
10. Fuel Gauge—displays engine hours and oil change intervals
11. Engine Coolant Temperature Gauge
12. Battery Voltmeter
13. Engine Control Switch
14. Starting Aid Switch
15. International Model 240 VAC, 16 A Pin and Sleeve Receptacle

### International Model

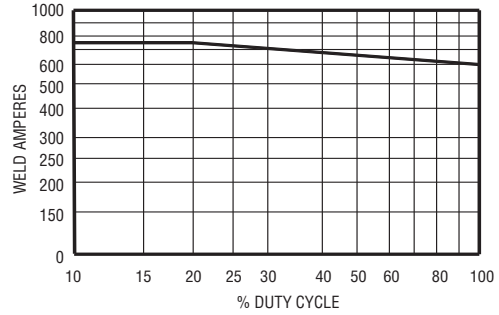


# Performance Data

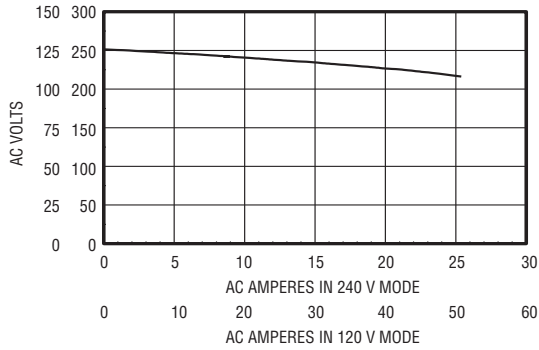
**FUEL CONSUMPTION CURVE**



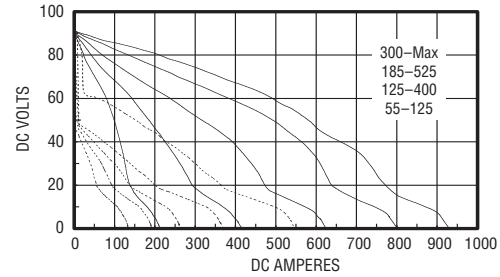
**DUTY CYCLE CURVE**



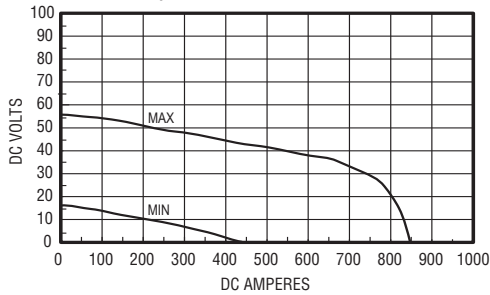
**5.5 kW RATING CHART**



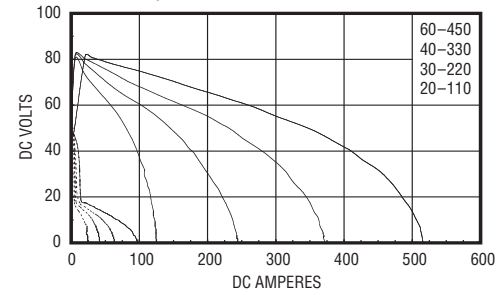
**VOLT/AMP CURVE – STICK MODE**



**VOLT/AMP CURVE – MIG MODE**



**VOLT/AMP CURVE – DC TIG MODE**



## The Vault

### Superior Circuit Board Design

Miller's critical circuit boards are engineered to carry *low power* and *low heat* to reduce thermal stress and minimize expansion and contraction. In contrast, our competitor's boards carry *high power* and *high heat*, making them more vulnerable to failure.



### “The Vault” Makes Upgrading to Miller CC/CV Units Worry-Free

Concerns with circuit board reliability have resulted in some operators steering clear of CC/CV welder/generators — even though they offer a superior arc and multiple welding processes. Miller's circuit board reliability isn't a concern since all PRO 300 and Big Blue multiprocess industrial engine drives feature the Vault.

Created out of two aluminum halves sealed with silicone, as well as watertight harness connections, the Vault provides a clean circuit board environment, protecting the electronics — and controlling output — in heavy industrial applications. No other competitor protects their electronics with a sealed vault, leaving critical circuit boards exposed to harsh elements that can disrupt the machine's electronics, and therefore, its operation.

## Toolless Generator Brushes



100% copper-wound generator features quick and easy brush and slip ring inspection. Brushes can be removed and/or replaced in a matter of seconds.

# Genuine Miller Accessories

## Field Kit Accessories

### AC/DC/Battery Charge/Jump-Start Switch

#195 148 Field

AC TIG welding and 12/24 V battery charge/jump-starting system.



### FA-1D Lockable Flame Arrestor Fuel Cap #043 947

Fuel cap can be padlocked to prevent vandalism. A built-in flame arrestor prevents flames or sparks from entering the fuel tank.

### Cold Weather Starting Aids\*

#043 959 Field 12 V intake manifold heater.

#195 086 Field 120 V oil pan heater element.

\*Note: for extreme cold weather both starting aids can be used in conjunction.

### Weld Ammeter and Voltmeter

#195 131 Field

Panel-mounted AC/DC analog meters to monitor weld output.



### Vandalism Lockout Kit

#195 118 Field Lockable hinged steel panels cover and protect name plate gauges and ignition switch (padlock included). Also includes engine compartment door lock and key.



### Cable Holder #043 946

Saddle-bag-style cable holder. Convenient wrap-around storage of coiled cable for transportation. Stores 100 ft of 2/0 cable on each side.

Note: For best results do not weld when cable is coiled! Canvas cover cannot be used with cable holder.



### Battery Lockout/Tagout Disconnect Switch

#195 120 Field

Lockable battery disconnect switch for safe routine maintenance.

## Stick (SMAW) Welding

### Weld Leads

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

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

## Plasma Cutting



Spectrum® 375 X-TREME™ #907 303

Spectrum® 375 X-TREME™ with X-CASE™

#907 339 (not shown)

See Lit. Index No. PC/9.2.

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



### Millermatic® Passport® Plus #907 401

Portable, all-in-one MIG package features ultimate arc performance, self-contained gas bottle, and flexibility to plug into 115 or 230 V power with Miller exclusive Multi-Voltage Plug. See Lit. Index No. DC/12.53.



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.

## Genuine Miller Accessories (continued)

### MIG/Flux Cored Welding (continued)



#### 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 5/64 in diameter. Comes standard with remote voltage control. See Lit. Index No. M/6.5.



#### S-32SL Wire Feeder #109 294

Simple to use, but with all the features needed for heavy-duty applications up to 7/64 in wire diameter. See Lit. Index No. M/6.21.



#### Spoolmatic® 30A Spool Gun

#### #130 831

Air-cooled, 200-amp, 1-lb spool gun for aluminum MIG. See Lit. Index No. M/1.73.

#### WC-24 Control #137 549

Use 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, M/1.71, and M/1.73.

### TIG (GTAW) Welding



#### Dynasty® 200 Series

For premium portable AC/DC TIG arc quality. See Lit. Index No. AD/4.8.



#### HF-251 Series #042 388

#### HF-251D-1, 115 VAC

High-frequency arc starter and stabilizer. See Accessory Lit. Index No. AY/5.0.

### Remote Controls



#### 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.



#### RFCS-14 HD Foot Control

#### #194 744

Heavy-duty foot current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.



#### RMLS-14 #129 337 14-pin plug

Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and back for momentary contact. Includes 20 ft (6 m) cord.



#### 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)

## Trailers and Hitches (Note: Trailers are shipped unassembled.)



**HWY-224 Trailer #043 805** For highway use.  
**OFR-224 Trailer #043 802** For off-road use. A 2650 lb (1202 kg) capacity trailer. Welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. Includes jack stand, 2 in (50 mm) ball hitch. *HWY-224 also includes fenders and lights.*

*Note: Trailer is shipped unassembled.*

**Cable Tree #043 826**

Provides an area to conveniently wrap weld cables and extension cords.

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

**HWY-430 Tandem Axle Trailer #043 806**  
 Smooth riding with 3750 lb (1701 kg) capacity. Includes hand-operated parking brake, hydraulic brake system, and a break-away device to lock brakes if the trailer comes loose. Includes jack stand, fenders and lights. (Hitch must be ordered separately.)

*Note: Some assembly required.*

**Cable Tree #043 826**

Provides an area to conveniently wrap weld cables and extension cords.

**Ball Hitch 2 in (50 mm) #043 864**

**Lunette Eye 3 in (76 mm) #043 863**

**4 West Four-Wheel Steerable Off-Road Trailer #042 801**

A heavy-duty 2570 lb (1166 kg) capacity trailer designed for use in mines, quarries, and other rough terrain. Has narrow 22 ft (6.7 m) turning radius. Includes 3 in lunette eye, universal hitch and safety chains.

*Note: Trailer is shipped unassembled.*

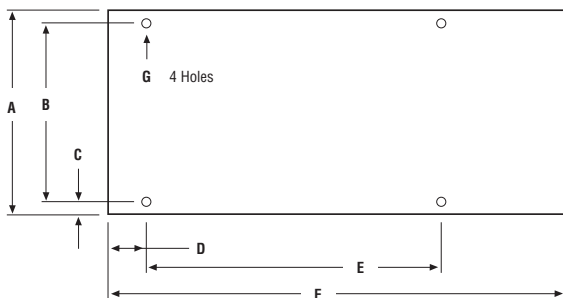
### Trailer Specifications (Subject to change without notice.)

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
4 West	2000 lb/axle (907 kg/axle)	3000 lb (1361 kg)	2570 lb (1166 kg)	21-1/4 in (540 mm)	8 in (203 mm)	55-1/4 in (1403 mm)	B78-13	Length: 91 in (2311 mm)** Width: 61-1/4 in (1556 mm)	430 lb (195 kg)
HWY-224 OFR-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)	B78-13B	Length: 122-1/2 in (3112 mm) Width: HWY-61 in (1549 mm)* OFR-58-1/2 in (1486 mm)	355 lb (161 kg)
HWY-430	2200 lb/axle (998 kg/axle)	4280 lb (1941 kg)	3750 lb (1701 kg)	19-1/4 in (489 mm)	8-1/2 in (216 mm)	52 in (1321 mm)	B78-13B	Length: 156-1/2 in (3975 mm) Width: 61 in (1549 mm)*	530 lb (240 kg)

\*Width at outside of fenders.

\*\*Does not include tongue.

## Mounting Specifications



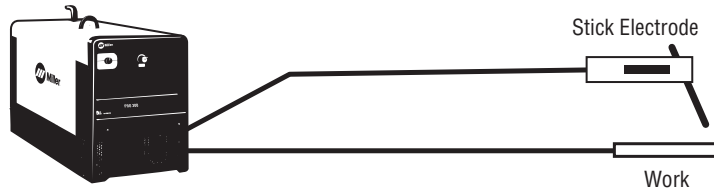
- A. 20 in (508 mm)
- B. 16-1/2 in (419 mm)
- C. 1-3/4 in (44 mm)
- D. 6-1/16 in (154 mm)
- E. 32-3/4 in (832 mm)
- F. 45-3/8 in (1153 mm) (Gas)  
52 in (1321 mm) (Diesel)
- G. 13/32 in (10 mm) diameter

- Height:** (to top of exhaust)  
33 in (838 mm) (Gas)  
34-1/4 in (870 mm) (Diesel)
- Width:** 20 in (508 mm)
- Depth:** 45-7/8 in (1164 mm) (Gas)  
52-1/2 in (1334 mm) (Diesel)

# Typical Installations

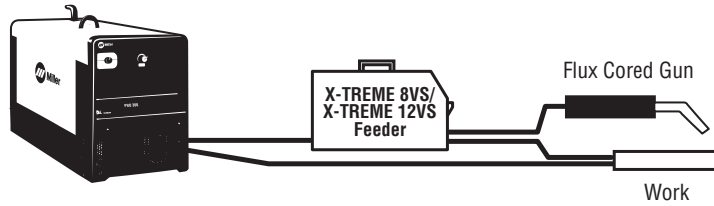


## Stick (SMAW) Basic Equipment



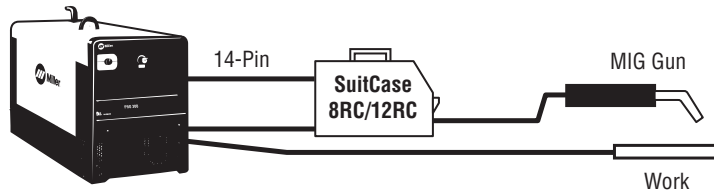
## Flux-Cored (FCAW) Basic Equipment

SuitCase™ X-TREME™ 8VS #300 093  
 SuitCase™ X-TREME™ 12VS #195 500



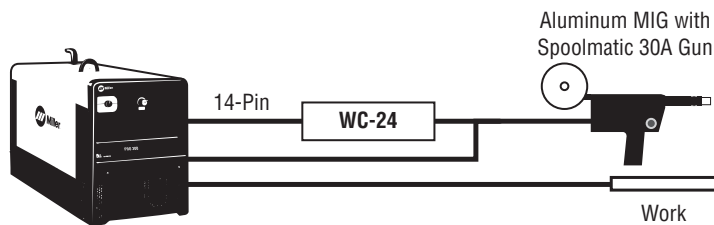
## MIG (GMAW) Basic Equipment

SuitCase™ 8RC #194 938  
 SuitCase™ 12RC #194 940



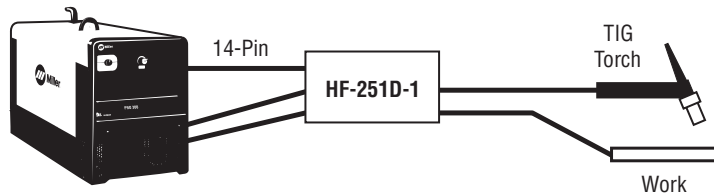
## Aluminum MIG (GMAW) Basic Equipment

Spoolmatic® 30A #130 831  
 WC-24 #137 549



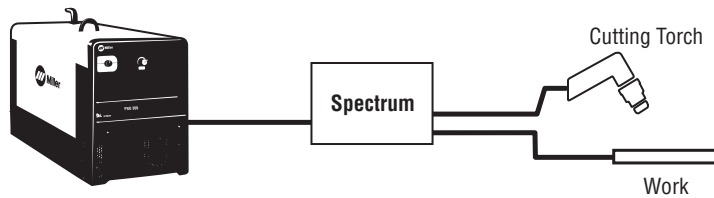
## TIG (GTAW) Basic Equipment

Dynasty® 200 Series  
 HF-251D-1 #042 388\*  
 \*TIG power cable adapter required



## Plasma Basic Equipment

Spectrum® 375 X-TREME™ #907 303  
 Spectrum® 375 X-TREME™ with X-CASE™ #907 339  
 Spectrum® 625 #907 058  
 Spectrum® 2050 #903 777-01-2



# Ordering Information

Equipment and Factory Options	Stock No.	Description	Qty.	Price
<b>Big Blue® Turbo</b>				
Base Model	#907 157	Welding Meters, Automatic Idle, Engine Gauges, 5.5 kW Generator		
International Model	#907 157-01-1	50/60 Hz, Dry Battery, Pin and Sleeve Receptacle, Welding Meters, Automatic Idle, Engine Gauges, 5.5 kW Generator		
<b>Field Kit Accessories</b>				
Weld Ammeter and Voltmeter Kit	#195 131	AC/DC analog weld output meters		
Lockable Fuel Cap Flame Arrestor	#043 947	Padlock not included		
Cold Weather Starting Aids	#043 959	12 volt intake manifold heater		
	#195 086	120 volt oil pan heater		
Vandalism Lockout Kit	#195 118	Lockable front control panel and engine compartment		
Battery Lockout/Tagout Disconnect Switch	#195 120	Allows machine battery to be disconnected and locked		
AC/DC/Battery Charge/Jump-Start Switch	#195 148	Field		
Cable Holder	#043 946	Stores up to 200 ft of 2/0 weld cable		
Protective Cover	#195 159	<b>Will not fit over machine with cable holder attached</b>		
<b>Stick Accessories</b>				
Welding Leads	#173 851	2/0, 350 A, 100% Duty Cycle, 50 ft stinger, 50 ft work clamp		
	#043 952	2/0, 300 A, 100% Duty Cycle, 100 ft stinger, 50 ft work clamp		
<b>Plasma Cutters</b>				
Spectrum® Plasma Cutter		See page 4		
<b>Wire Feeders</b>				
Millermatic® Passport® Plus	#907 401	See Lit. Index No. DC/12.53		
SuitCase™ X-TREME™ 8VS	#300 093	Includes contactor and gas valve. See Lit. Index No. M/6.41		
SuitCase™ X-TREME™ 12VS	#195 500	Includes contactor and gas valve. See Lit Index No. M/6.41		
SuitCase™ 8RC	#194 938	See Lit Index No. M/6.5		
SuitCase™ 12RC	#194 940	See Lit Index No. M/6.5		
S-32SL Wire Feeder	#109 294	See Lit. Index No. M/6.21		
Spoolmatic® 30A Spool Gun	#130 831	Requires WC-24 Control. See Lit. Index No. M/1.73		
Guns and Consumables		See Lit. Index No. M/10.0 and M/13.4		
<b>TIG Accessories</b>				
HF-251D-1	#042 388	High frequency unit for AC TIG welding		
Water Coolant System		See Lit. Index No. AY/7.2		
TIG Torch, Consumables				
<b>Remote Controls</b>				
RHC-14	#129 340	Hand control		
RFCS-14 HD	#194 744	Foot control		
RMLS-14	#129 337	Momentary and maintained contact switch		
RCC-14	#151 086	Fingertip control		
Extension Cords	#122 973	25 ft (7.6 m)		
	#122 974	50 ft (15.2 m)		
	#122 975	75 ft (22.9 m)		
<b>Trailers and Hitches</b>				
HWY-224 Trailer	#043 805	Highway trailer with 2650 lb (1202 kg) capacity		
OFR-224 Trailer	#043 802	Off-road trailer with 2650 lb (1202 kg) capacity		
HWY-430 Tandem Axle Trailer	#043 806	Highway trailer with 3750 lb (1701 kg) capacity		
4-West Trailer	#042 801	Off-road steerable trailer with 2570 (1166 kg) capacity		
Lunette Eye	#043 824	2-1/2 in (64 mm). For 224 trailers only		
	#043 863	3 in (76 mm). For 430 trailer only		
Ball Hitch	#043 864	2 in (51 mm). For 430 trailer only		
Clevis	#043 823	For 430 trailer only		
Cable Tree	#043 826	Works on 224 and 430 trailers		

Date: \_\_\_\_\_ Total Quoted Price: \_\_\_\_\_

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