

Big Blue® Turbo

Issued October 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

**Accu-Rated™—Not Inflated
Generator Power**

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 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 
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.)



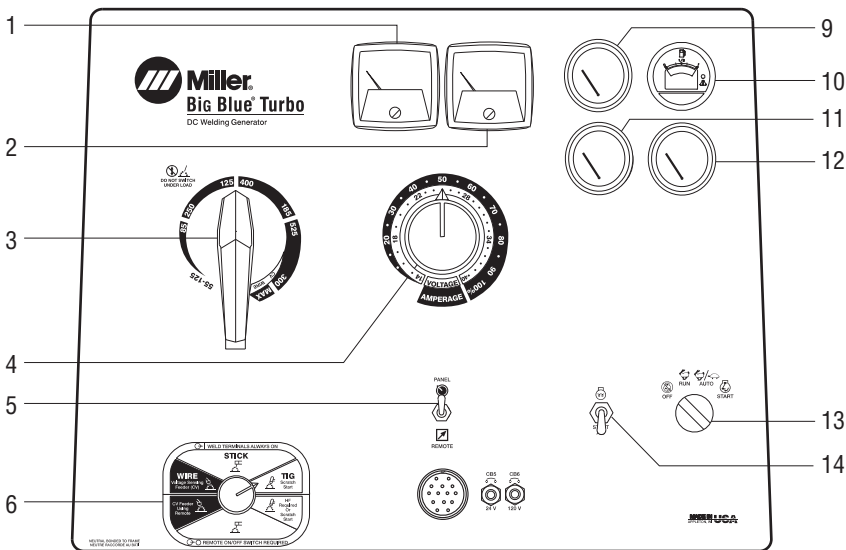
| Welding Mode | Weld Output Range | Weld Output Rated at 104° F (40° C) NEMA Amperage and Voltage | Max. Open-Circuit Voltage | Generator Output Rated at 104° F (40° C) | Dimensions* | Weight Without Fuel** |
|--------------|-------------------|---|---------------------------|---|---|---|
| CC/DC | 20–750 A | 600 A, 44 V, 26.4 kW, 100% Duty Cycle | 95 | Peak: 5500 watts Continuous: 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) | Net: 1755 lb (796 kg) Ship: 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.)

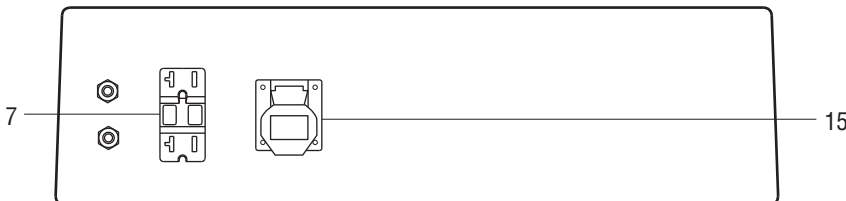
| Engine Brand | Features | HP | Type | Engine Speeds | Fuel Capacity | Oil Capacity | Automatic Engine Shutdowns |
|-----------------------------|---|------|---|-----------------------|---------------|----------------|---------------------------------|
| Deutz Diesel TD2011L04w | Tier IVi, EPA-certified, 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



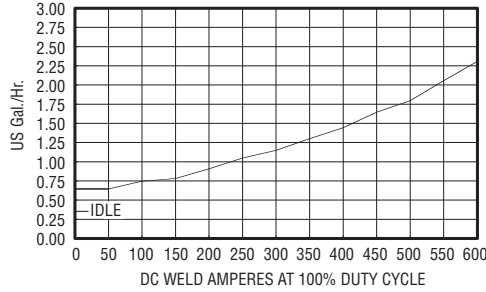
1. Voltmeter
2. Ammeter
3. Amperage Range Switch
4. Amperage/Voltage Adjust Control
5. Amperage/Voltage Adjust Switch and Remote Amperage/Voltage Adjust 14-Pin Receptacle
6. Process/Contactor Selector Switch
7. 120 VAC, 20 A GFCI Duplex Receptacle
8. 240 VAC, 30 A TwistLock Receptacle (NEMA L6-30)
9. 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

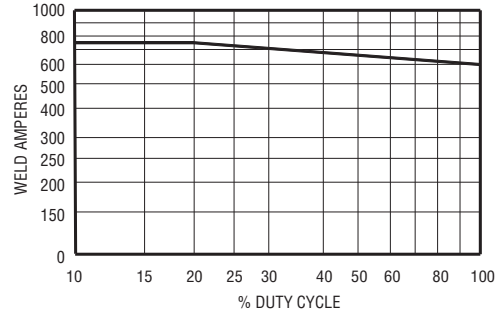


Performance Data

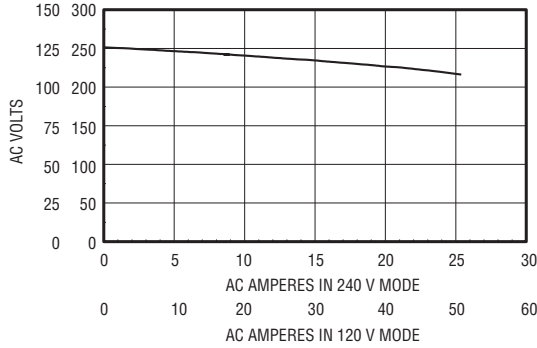
FUEL CONSUMPTION CURVE



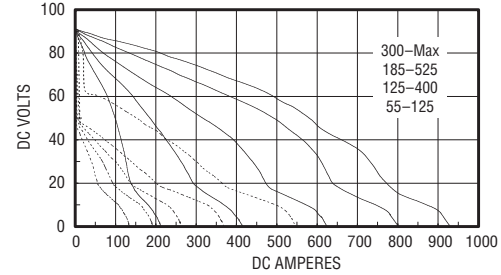
DUTY CYCLE CURVE



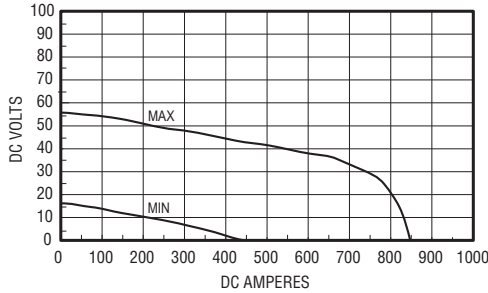
5.5 kW RATING CHART



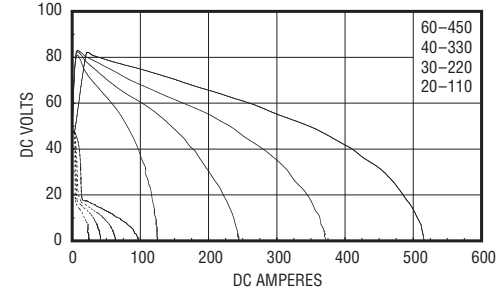
VOLT/AMP CURVE – STICK MODE



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.

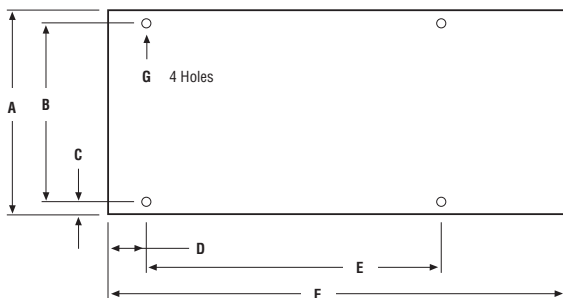
Trailer Specifications (Subject to change without notice.)

| 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



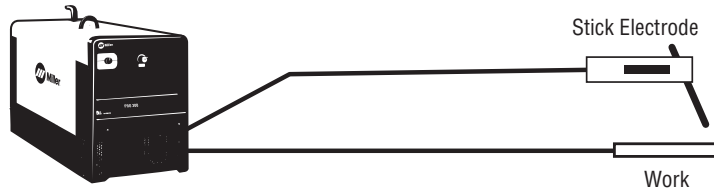
- A. 20 in (508 mm)
- B. 16-1/2 in (419 mm)
- C. 1-3/4 in (44 mm)
- D. 6-1/16 in (154 mm)
- E. 32-3/4 in (832 mm)
- F. 45-3/8 in (1153 mm) (Gas)
52 in (1321 mm) (Diesel)
- G. 13/32 in (10 mm) diameter

- 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

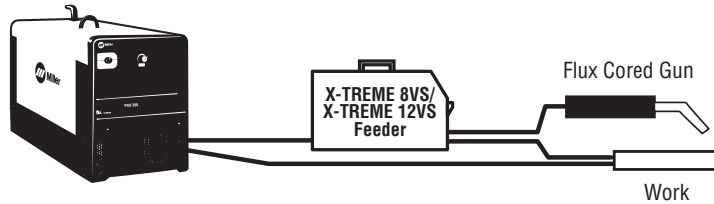


Stick (SMAW) Basic Equipment



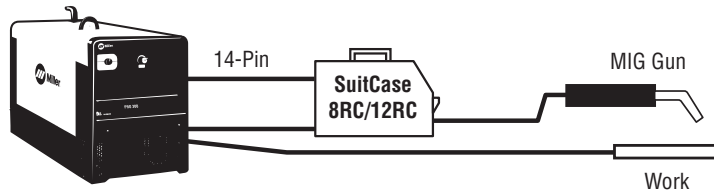
Flux-Cored (FCAW) Basic Equipment

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



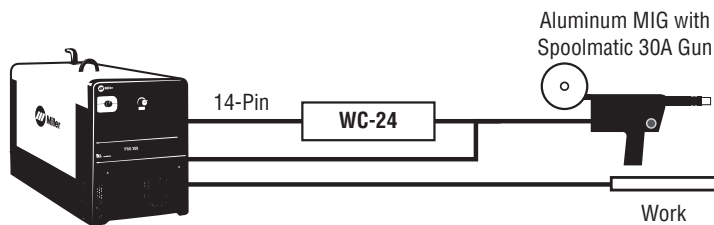
MIG (GMAW) Basic Equipment

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



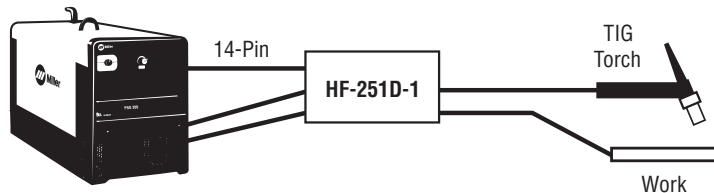
Aluminum MIG (GMAW) Basic Equipment

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



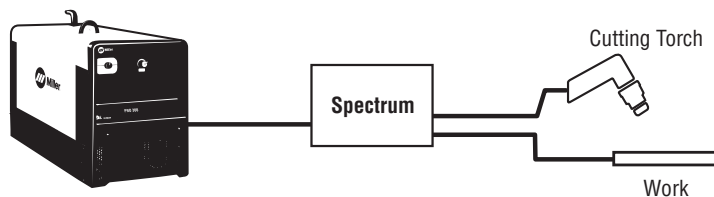
TIG (GTAW) Basic Equipment

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 |
|--|----------------------------------|---|------|-------|
| Big Blue® Turbo | | | | |
| 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 | | |
| Field Kit Accessories | | | | |
| 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 #195 086 | 12 volt intake manifold heater 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 | Will not fit over machine with cable holder attached | | |
| Stick Accessories | | | | |
| Welding Leads | #173 851 #043 952 | 2/0, 350 A, 100% Duty Cycle, 50 ft stinger, 50 ft work clamp 2/0, 300 A, 100% Duty Cycle, 100 ft stinger, 50 ft work clamp | | |
| Plasma Cutters | | | | |
| Spectrum® Plasma Cutter | | See page 4 | | |
| Wire Feeders | | | | |
| 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 | | |
| TIG Accessories | | | | |
| 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 | | | | |
| Remote Controls | | | | |
| 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 #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 | 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 #043 863 | 2-1/2 in (64 mm). For 224 trailers only 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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