

Big Blue® Air Pak™

Issued September 2010 • Index No. ED/10.5

Engine-Driven Welder/
AC Generator/Air Compressor 

Quick Specs



Heavy Industrial Applications

Railroad Maintenance
Mining Maintenance
Maintenance and Repair Rigs

Processes

DC Stick (SMAW)
AC Stick (SMAW)*
MIG (GMAW)
Flux Cored (FCAW)
DC TIG (GTAW)
AC 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
Battery Charging/Jump-Starting*
Air Compressor

Output Range

DC Stick 45–750 A AC Stick 35–575 A*
MIG/FCAW 14–40 V
DC TIG 20–450 A AC TIG 20–375 A*
Battery Charge 12/24 V, 50–750 A*

*Deluxe Model Only.

Weld Output Rated at 104°F (40°C)

Stick 600 A at 44 V (26.4 kW), 40% Duty Cycle
Stick 550 A at 42 V (23.1 kW), 60% Duty Cycle
MIG/FCAW 500 A at 40 V (20 kW), 100% Duty Cycle
AC TIG 400 A at 26 V (10.4 kW), 100% Duty Cycle*

Air Compressor 100 PSI, 60 CFM, 100% Duty Cycle

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

5,500 Watts Peak — 4,000 Watts Continuous
20,000 Watts 3-Phase/
12,000 Watts 1-Phase Continuous*

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

The Power of Blue.®

Welder/generator/air compressor.

One machine that will do it all. Designed and built to be the most reliable high-output system in the world.



Ultra-reliable industrial rotary screw air compressor. Belt-driven with automatic belt tensioner with a life expectancy of 30,000 hrs.

Independent compressor controls.

On/off switch for applications not requiring compressed air. At **idle speed** will produce 100 PSI at 40 CFM.

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.

Low maintenance with easy single-side access to engine and 500 hour oil changes for both engine and compressor.

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



BUILT TOUGH

Big Blue Air Pak Deluxe Model shown.

TRUE BLUE
3YR WARRANTY

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



Heavy-duty low-speed industrial turbocharged diesel engine provides ample power at high altitudes.

Meter maintenance displays

- Fuel gauge
- Hour meter function
- Oil change interval
- High coolant temperature and low oil pressure shutdowns
- Low fuel shutdown — engine shuts down before system runs out of fuel, making restarts easy.

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.

Optional AC/DC/battery charge/jump-start for AC TIG welding and 12 or 24 volt batteries. Simply select the battery voltage and connect cables to the separate battery output studs.

(High-frequency unit required for AC TIG.)

MADE IN **USA**
APPLETON, WI



Miller Electric Mfg. Co.

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

Equipment Sales US and Canada

Phone: 866-931-9730
FAX: 800-637-2315
International Phone: 920-735-4554
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 at 44 V (26.4 kW), 40% Duty Cycle 550 A at 42 V (23.1 kW), 60% Duty Cycle 500 A at 40 V (20 kW), 100% Duty Cycle	95	Peak: 5500 watts Continuous: 4000 watts, 34/17 A, 120/240 VAC, 60 Hz while welding Additional Generator Power for Deluxe Models (while NOT welding) 3-phase: 20 kW, 48 A, 240 VAC or 1-phase: 12 kW, 50 A, 120/240 VAC	H: 43 in (1092 mm) W: 28-1/2 in (724 mm) D: 69-1/2 in (1765 mm)	Net: 1931 lb (876 kg) Ship: 1982 lb (899 kg) Deluxe Model Net: 1956 lb (887 kg) Ship: 2007 lb (910 kg)
CV/DC	14–40 V	500 A at 40 V (20 kW), 100% Duty Cycle	56			
CC/AC*	20–575 A	400 A at 36 V (14.4 kW) 100% Duty Cycle	64			
Battery* Charge Jump-Start	12/24 V	750 A, 12 V, Jump-Start 750 A, 24 V, Jump-Start	14/28			

*Deluxe model only. **Additional 7 in (178 mm) to top of exhaust. ***Additional 190 lb (86 kg) when fuel tank is full.

Certified by Canadian Standards Association to both the Canadian and U.S. Standards. Meets NEMA and IEC output ratings.

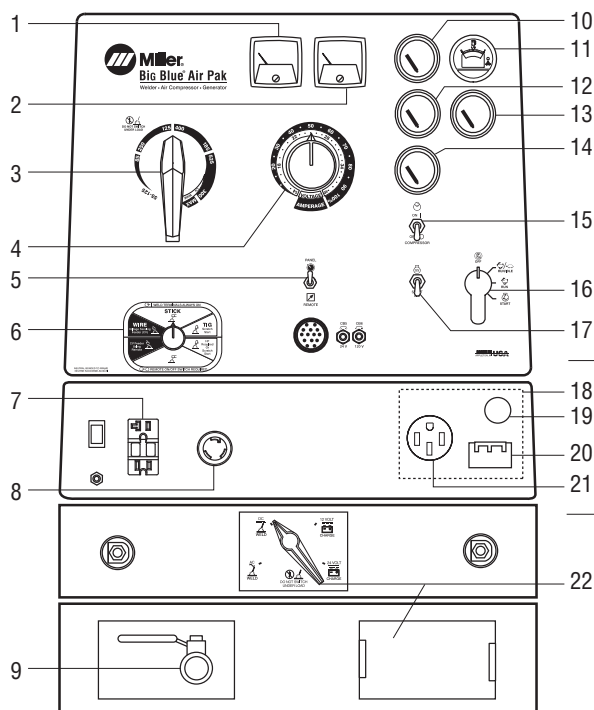
Engine

Engine Brand	Features	HP	Type	Engine Speeds	Fuel Capacity	Oil Capacity	Automatic Engine Shutdowns
 TD2011L04w	EPA Tier 4i compliant, turbocharged, direct-injected, liquid-cooled (oil) engine. Right-side service access with 500 hr intervals for oil and filters.	63.4	Four-cylinder, industrial, liquid-cooled engine	1850 Run 1250 Idle	25 gal (95 L)	11 qt (10.4 L)	Low Oil Pressure, High Coolant Temperature, Low Fuel Level

Air Compressor

Compressor Brand	Features	Free Air Delivery at 1850 RPM	Free Air Delivery at 1235 RPM	Working Pressure Constant	Duty Cycle	Oil Capacity	Automatic Compressor Shutdowns
 CE55 G1	Rotary screw with electric clutch for on/off. Oil change intervals 500 hrs (same as engine). Life expectancy 30,000 hrs.	60 cfm (1.70 m³/min)	40 cfm (1.13 m³/min) Idle	100 psig 7 bar	100%	5 qt (4.7 L)	Oil Temperature

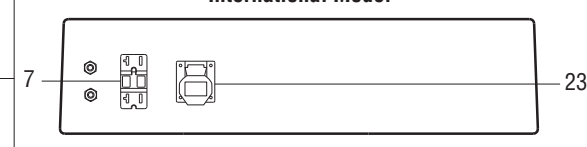
Control Panel



1. AC/DC Voltmeter*
2. AC/DC 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. Air Outlet Valve 3/4 in NPT
10. Engine Oil Pressure Gauge
11. Fuel Gauge—displays engine hours and oil change intervals
12. Engine Coolant Temperature Gauge
13. Battery Voltmeter
14. Air Compressor Pressure Gauge
15. Air Compressor On/Off Switch
16. Engine Control Switch
17. Starting Aid Switch*
18. 20 kW, 3-Phase Generator*
19. Strain Relief*
20. 50 A, 3-Phase Circuit Breaker*
21. 50 A, 1-Phase 120/240 V Receptacle (NEMA 14-50)*
22. AC/DC/Battery Charge/Jump-Start Switch*
23. International Model—240 VAC, 16 A Pin and Sleeve Receptacle

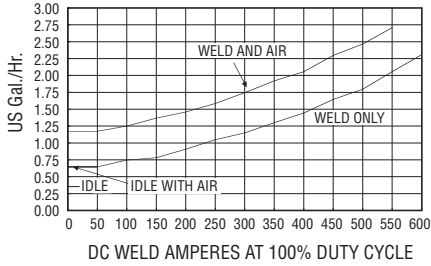
*On Select Models

International Model

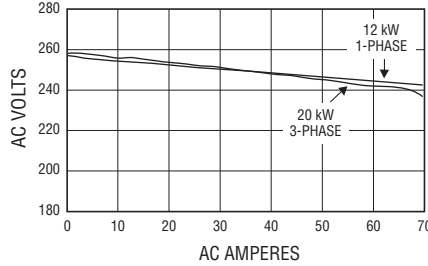


Performance Data

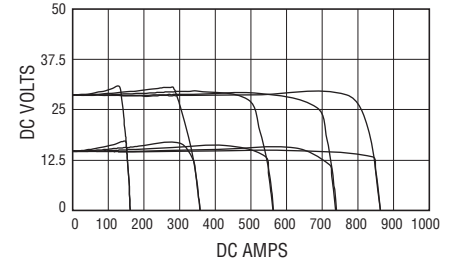
FUEL CONSUMPTION CURVE



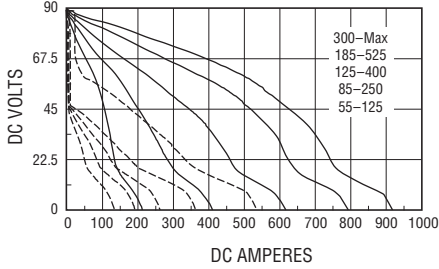
GENERATOR POWER CURVE OPTION



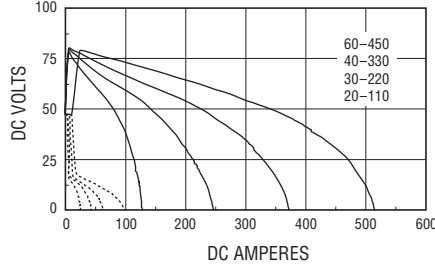
BATTERY CHARGE OUTPUT



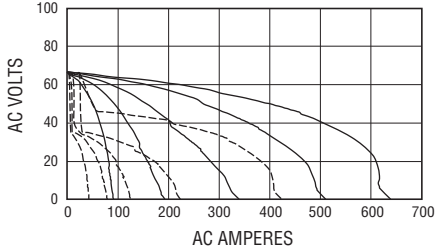
VOLT/AMP CURVE – DC STICK MODE



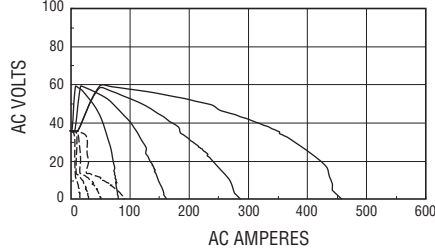
VOLT/AMP CURVE – DC TIG MODE



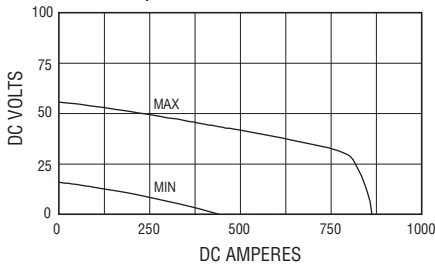
VOLT/AMP CURVE – AC STICK MODE



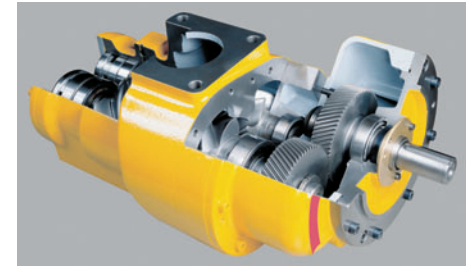
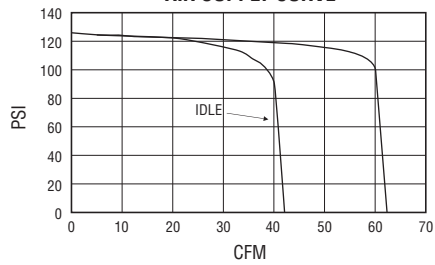
VOLT/AMP CURVE – AC TIG MODE



VOLT/AMP CURVE – MIG MODE



AIR SUPPLY CURVE



Ingersoll-Rand Rotary Screw Air Compressor

This industrial grade compressor, has a life expectancy of 30,000 hours, is belt driven and utilizes an electric clutch control to allow the compressor to be turned off if not needed. This design increases efficiency, reduces fuel consumption and saves you money at the pump. An automatic belt tensioner provides proper belt tension even after years of service. The compressor is protected by a high temperature shutdown switch.



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.

The Vault

Superior Circuit Board Design

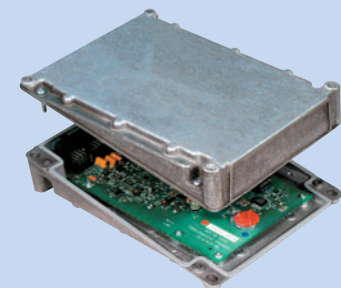
Miller's critical circuit boards are engineered to carry *low power* and *low heat* to reduce thermal stress and minimize expansion and contraction. In contrast, our competitor's boards carry *high power* and *high heat*, making them more vulnerable to failure.

"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 Big Blue multiprocess industrial engine drives feature the Vault.

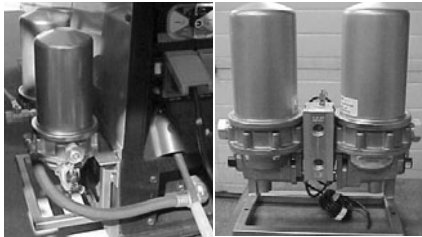
Created out of two aluminum halves sealed with silicone, as well as watertight harness connections, the Vault provides a clean circuit board environment, protecting the electronics — and controlling output — in heavy industrial applications. No other competitor protects their electronics with a sealed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



can disrupt the machine's electronics, and therefore, its operation.

Genuine Miller Accessories

Field Kit Accessories



Desiccant Air Dryer System #195 117
A regenerating inline air dryer system that eliminates moisture in the air stream to prevent air tool freeze-ups in cold climates. Internal thermostat and heating elements insure good air quality in all climates. The system can be mounted on the side of the machine or remotely for truck mount installations.

AC/DC/Battery Charge/Jump-Start Switch #195 148 Field
AC TIG welding and 12/24 V battery charge/jump-starting system.

Weld Ammeter and Voltmeter #195 131 Field
Panel-mounted AC/DC analog meters to monitor weld output.

Cold Weather Starting Aids* #043 959 Field
12 V intake manifold heater.
#195 086 Field
120 V oil pan heater element.
**For extreme cold weather both starting aids can be used in conjunction.*

Engine Filter Kit #246 988 Field
Includes all filters required for proper engine maintenance. Oil filter, primary and secondary fuel filter, and primary air filter.

Compressor Filter Kit #246 991 Field
Includes all filters required for proper compressor maintenance. Oil filter, air filter and coalescing filter.



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.



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! Protective cover cannot be used with cable holder.



Protective Cover #194 683 Field
Blue water-resistant canvas cover resists stains and mildew, and protects the finish of your welder.

Note: Protective 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 Stick Cable Set, 50 ft (15 m)
Consists of 50 ft (15 m) 2/0 electrode cable with holder, and 50 ft (15 m) work cable with clamp. 350 A, 100% duty cycle.

2/0 Stick Cable Set, 100/50 ft (30.5/15 m) #043 952
Consists of 100 ft (30.5 m) 2/0 electrode cable with holder, and 50 ft (15 m) work cable with clamp. 300 A, 100% duty cycle.

Plasma Cutting



Spectrum® 375 X-TREME™ #907 339
Comes complete with protective X-CASE™ (not shown). See Lit. Index No. PC/9.2.



Spectrum® 625 X-TREME™ #907 404
Comes complete with protective X-CASE™ (not shown). See Lit. Index No. PC/9.6.



Spectrum® 875 #907 390-01-1
See Lit. Index No. PC/9.8.

MIG/Flux Cored Welding



SuitCase® X-TREME™ 8VS Wire Feeder #951 182

SuitCase® X-TREME™ 12VS Wire Feeder #951 184

Lightweight, portable, voltage-sensing wire feeders include secondary contactor and gas valve and drive roll kit. See Lit. Index No. M/6.41.



SuitCase® 8RC Wire Feeder #951 186

SuitCase® 12RC Wire Feeder #951 188

Lightweight and flexible enough to run a variety of wires up to .062 in diameter. Includes remote voltage control and drive roll kit. See Lit. Index No. M/6.5.



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 #242 211 020

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 control for 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.

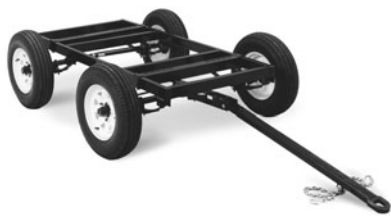
Extension Cords for 14-Pin Remote Controls or 24 VAC Wire Feeders

#242 208 025 25 ft (7.6 m)

#242 208 050 50 ft (15.2 m)

#242 208 080 80 ft (24.4 m)

Trailers and Hitches



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.



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

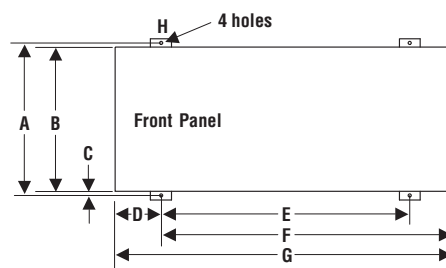
Provides an area to conveniently wrap weld cables and extension cords.



Dual Hitch #300 831

2 in (50 mm) ball hitch and 3 in (76 mm) lunette eye in one reversible assembly.

Mounting Specifications



A. 29-13/16 in (757 mm)

B. 27-1/2 in (699 mm)

C. 1 in (25 mm)

D. 11-5/8 in (295 mm)*

E. 46-3/8 in (1178 mm)*

F. 58 in (1473 mm)*

G. 69-1/2 in (1765 mm)

H. 9/16 in (14 mm) dia.

Height: 50 in (1270 mm) (to top of exhaust)

Width: 28-1/2 in (724 mm)

(mounting brackets turned in)

30-3/4 in (781 mm)

(mounting brackets turned out)

Depth: 69-1/2 in (1765 mm)

**With mounting brackets in center position.*

Dimensions vary with location of mounting brackets.

Trailer Specifications (Subject to change without notice.)

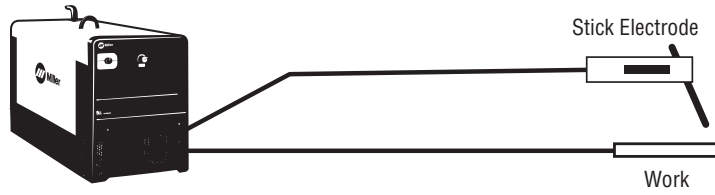
Model	Gross Axle Weight Rating	Gross Vehicle Weight Rating	Net Payload	Height of Bed	Road Clearance	Track (Center to center of tires)	Standard Tires (Standard rating or P-size rating)	Dimensions	Net Weight
4-West	2000 lb/axle (907 kg/axle)	3000 lb (1361 kg)	2570 lb (1166 kg)	21-1/4 in (540 mm)	8 in (203 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)	B78-13	Length: 105 in (2667 mm) Width: HWY-59-1/2 in (1511 mm)** OFR-58-7/16 in (1484 mm)	320 lb (145 kg)

**Does not include tongue. **Width at outside of fenders.*

Typical Installations

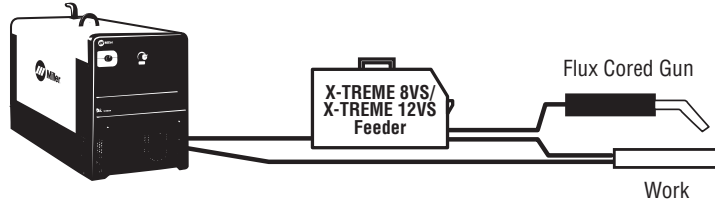


Stick (SMAW) Basic Equipment



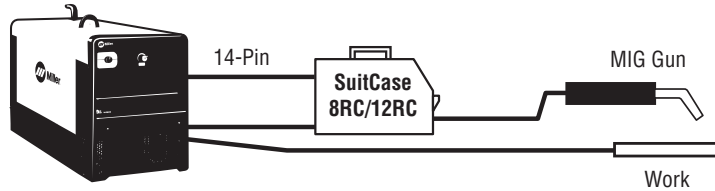
Flux-Cored (FCAW) Basic Equipment

SuitCase® X-TREME™ 8VS #951 182
 SuitCase® X-TREME™ 12VS #951 184



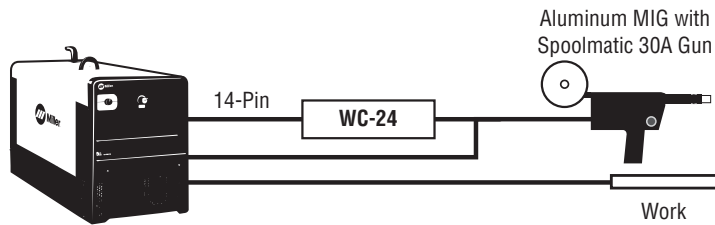
MIG (GMAW) Basic Equipment

SuitCase® 8RC #951 186
 SuitCase® 12RC #951 188



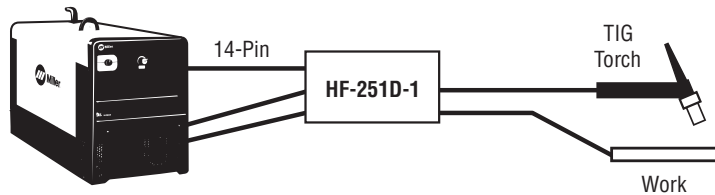
Aluminum MIG (GMAW) Basic Equipment

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



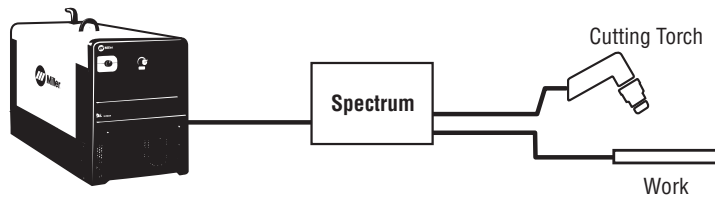
TIG (GTAW) Basic Equipment

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



Plasma Basic Equipment

Spectrum® 375 X-TREME™ #907 339
 Spectrum® 625 X-TREME™ #907 404
 Spectrum® 875 #907 390-01-1



Ordering Information

Equipment and Factory Options	Stock No.	Description	Qty.	Price
Big Blue® Air Pak™ CC/CV	#907 062	Base Model — Automatic Idle, Engine Gauges, 5.5 kW AC Generator, 12 V Intake Manifold Heater		
	#907 062-01-1	International Model — 50/60 Hz, Dry Battery, Automatic Idle, Engine Gauges, 5.5 kW AC Generator		
	#907 062-04-1	Cold Weather Model — Automatic Idle, Engine Gauges, 5.5 kW AC Generator, Weld Meters, Battery Lockout/Tagout Disconnect Switch, 12 V Intake Manifold Heater, 120 V Oil Pan Heater		
	#907 062-07-1	Deluxe Model — Automatic Idle, Engine Gauges, 5.5 kW AC Generator, Weld Meters, Battery Lockout/Tagout Disconnect Switch, 12 V Intake Manifold Heater, 120 V Oil Pan Heater, Vandalism Lockout Kit, AC/DC/Battery Charge/Jump-Start Switch, 20 kW Generator,		
Field Accessories				
Desiccant Air Dryer System	#195 117	Removes moisture from air supply		
AC/DC/Battery Charge/Jump-Start Switch	#195 148			
Weld Ammeter and Voltmeter Kit	#195 131	AC/DC analog weld output meters		
Cold Weather Starting Aids	#043 959	12 V intake manifold heater		
	#195 086	120 V oil pan heater		
Engine Filter Kit	#246 988	Includes air, oil and fuel filters		
Compressor Filter Kit	#246 991	Includes air, oil and coalescing filters		
Lockable Flame Arrestor Fuel Cap	#043 947	Padlock not included		
Vandalism Lockout Kit	#195 118	Lockable front control panel and engine compartment		
Cable Holder	#043 946	Stores up to 200 ft of 2/0 weld cable		
Battery Lockout/Tagout Disconnect Switch	#195 120	Allows machine battery to be disconnected and locked		
Protective Cover	#195 159	Will not fit over machine with cable holder attached		
Stick Welding Leads		See page 4		
Plasma Cutting				
Spectrum® 375 X-TREME™	#907 339	Includes X-CASE™. See Lit Index No. PC/9.2		
Spectrum® 625 X-TREME™	#907 404	Includes X-CASE™. See Lit Index No. PC/9.6		
Spectrum® 875	#907 390-01-1	See Lit Index No. PC/9.8		
MIG/Flux Cored Welding				
SuitCase® X-TREME™ 8VS and 12VS	#951 182/#951 184	See Lit Index No. M/6.41		
SuitCase® 8RC and 12RC	#951 186/#951 188	See Lit Index No. M/6.5		
Spoolmatic® 30A Spool Gun	#130 831	Requires WC-24 Control. See Lit. Index No. M/1.73		
WC-24 Control	#137 549	See Lit. Index No. M/1.5		
XR™ Wire Feeder Control and Guns		See Lit. Index No. M/1.7, M/1.71, and M/1.73		
MIG (GMAW)/Flux Cored (FCAW) Guns		See Lit Index Nos. AY/15.0, AY/16.0 and AY/17.0		
TIG Welding				
Dynasty® 200 Series		See Lit. Index No. AD/4.8		
HF-251D-1	#042 388	High frequency unit for AC TIG welding. See Lit. Index No. AY/5.0		
Coolant System		See Lit. Index No. AY/7.2		
Remote Controls and Switches		See page 5		
Trailers and Hitches				
4-West Trailer	#042 801	Off-road steerable trailer with 2570 (1166 kg) capacity		
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		
Cable Tree	#043 826	Trailer mounted cable holder for HWY-224 or OFR-224		
Dual Hitch	#300 831	Combination 2 in (50 mm) ball hitch and 3 in (76 mm) lunette eye in one reversible assembly. For HWY-224 or OFR-224		

Date:

Total Quoted Price:

Distributed by:

